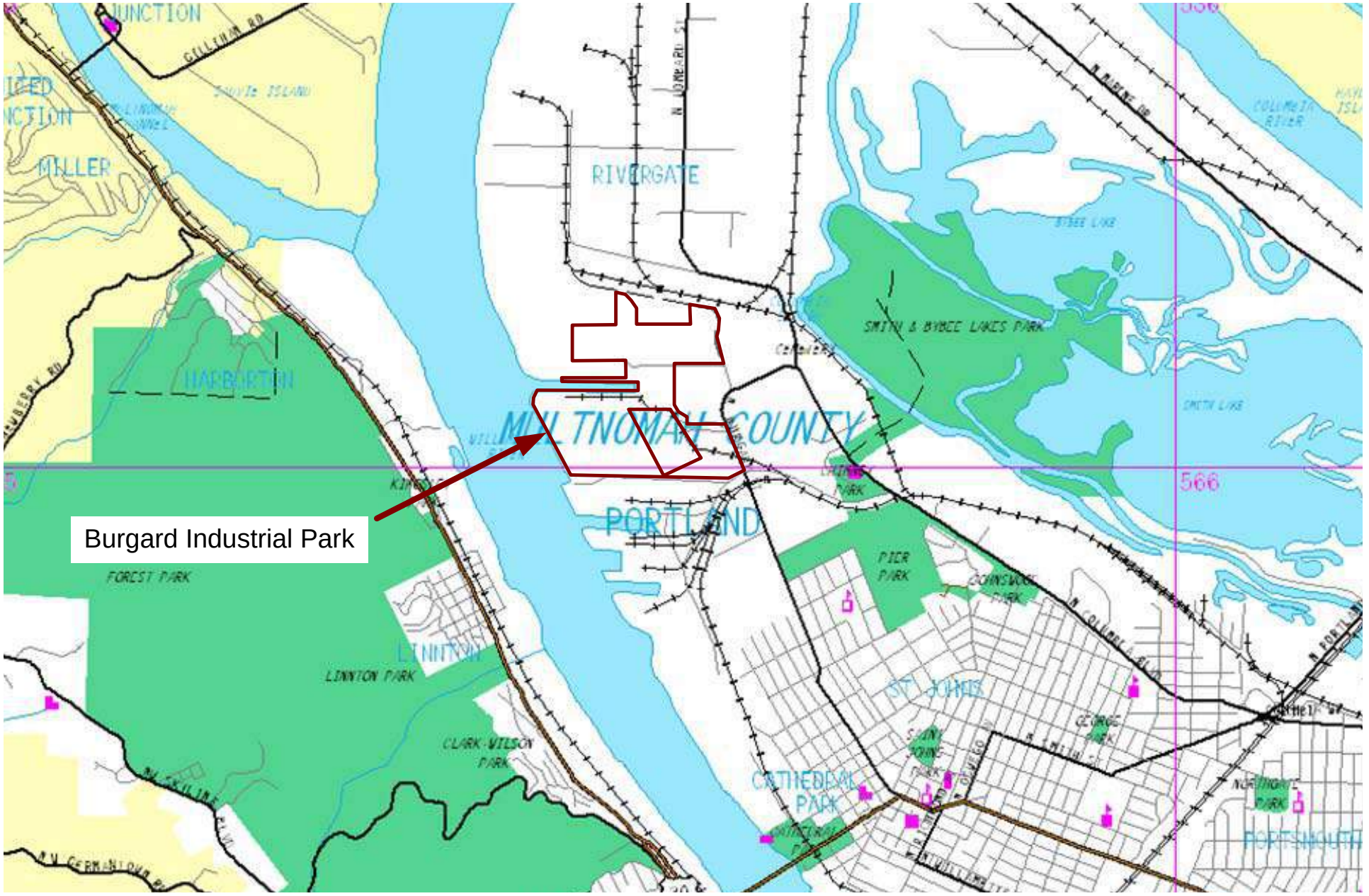
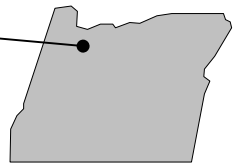


Portland, Oregon



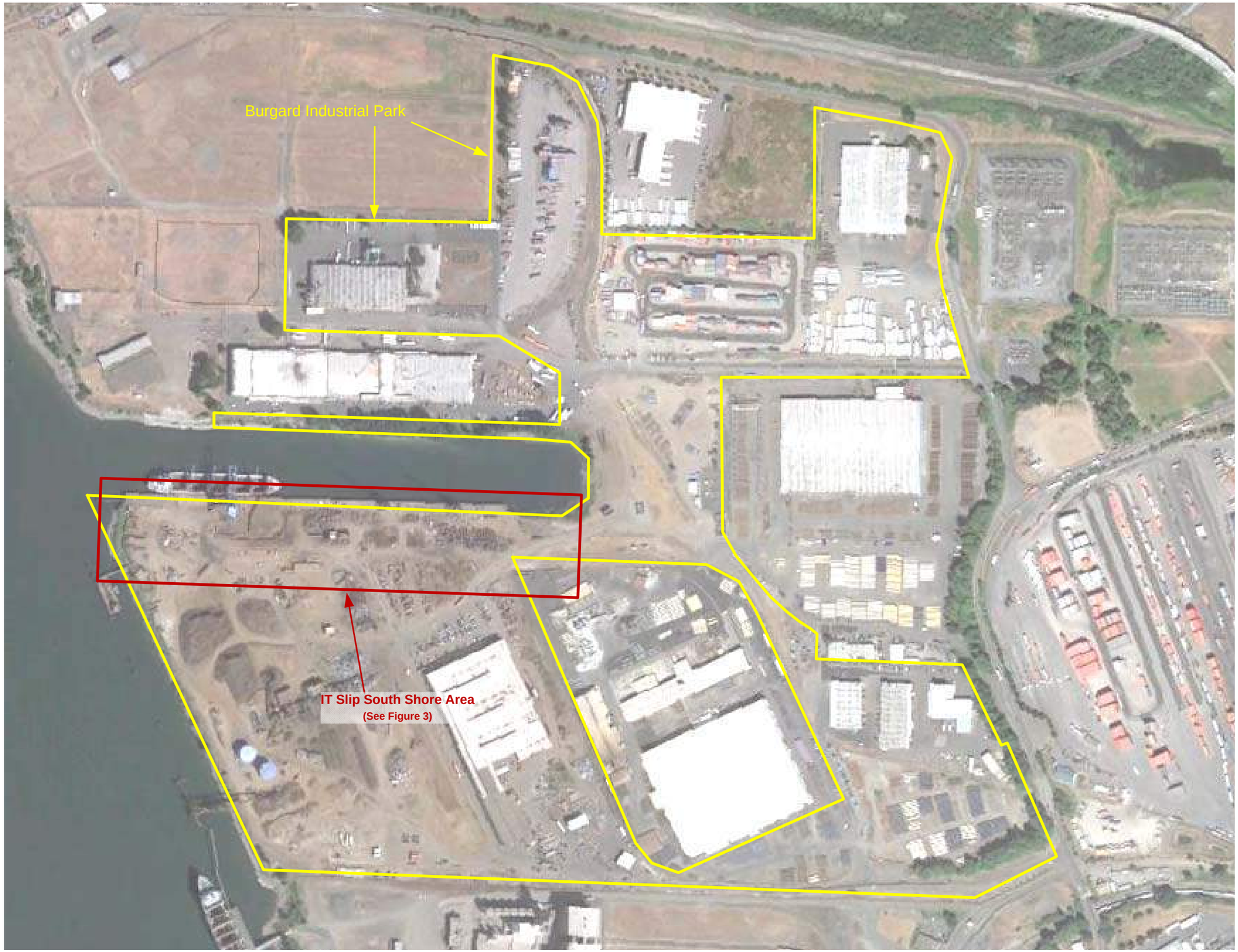
N

Approximate Scale

2700 feet

Figure 1
Site Location Map
Burgard Industrial Park

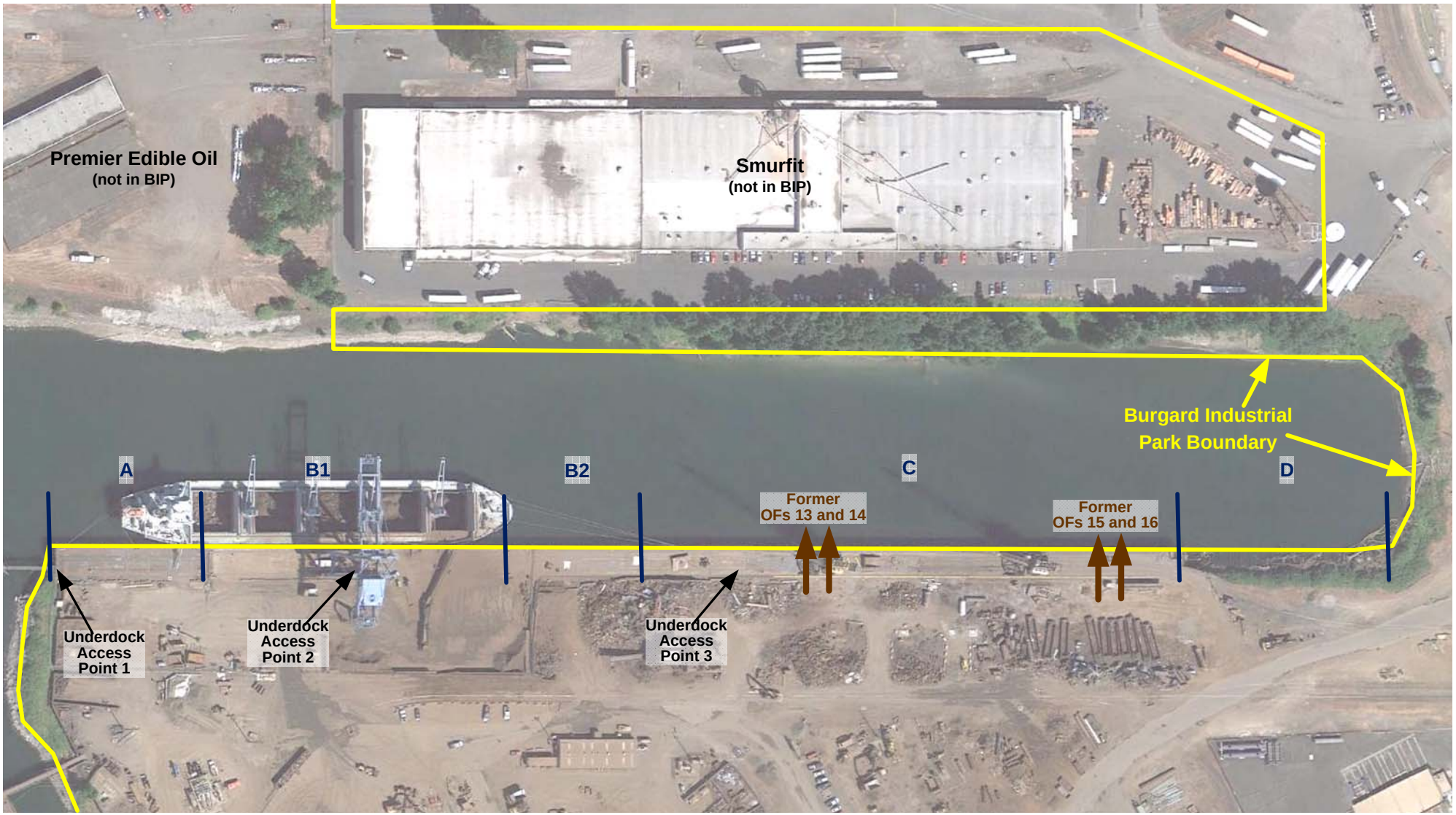
BRIDGEWATER GROUP, INC.



Base Photograph August 2012

Figure 2
Site Plan
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



Former OFs 13, 14, 15, and 16 no longer discharging as of September 2012

N

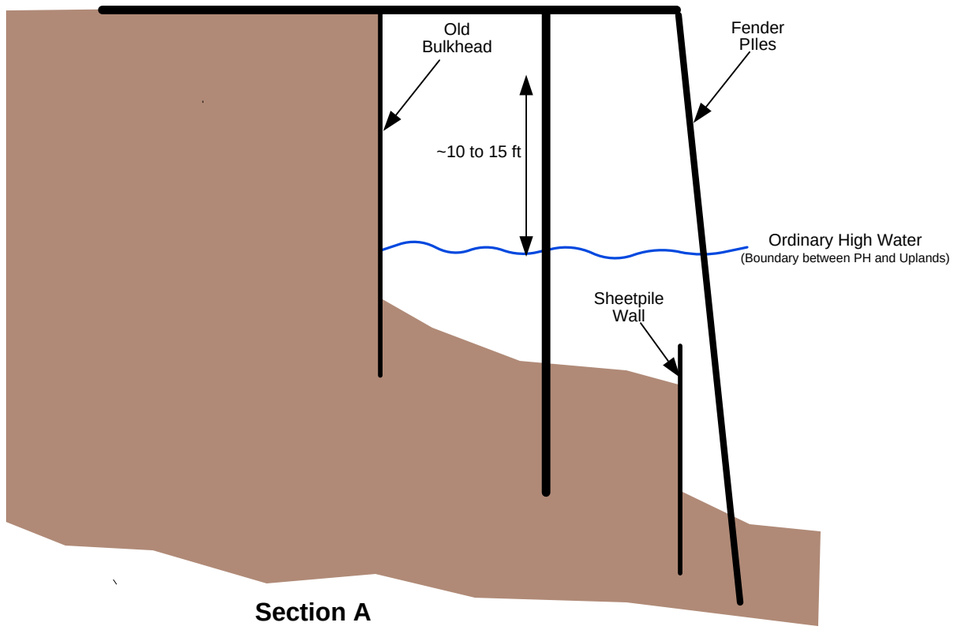
Approximate Scale

200 feet

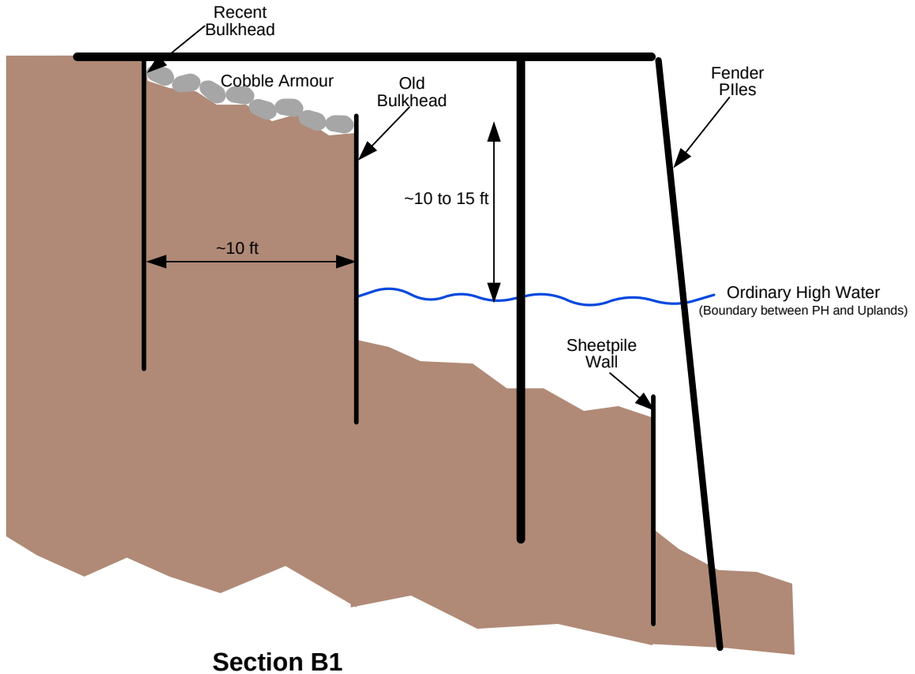
Base photograph August 2012

Figure 3
Slip South Shore Site Plan and Sections
IT Slip South Shore
Burgard Industrial Park

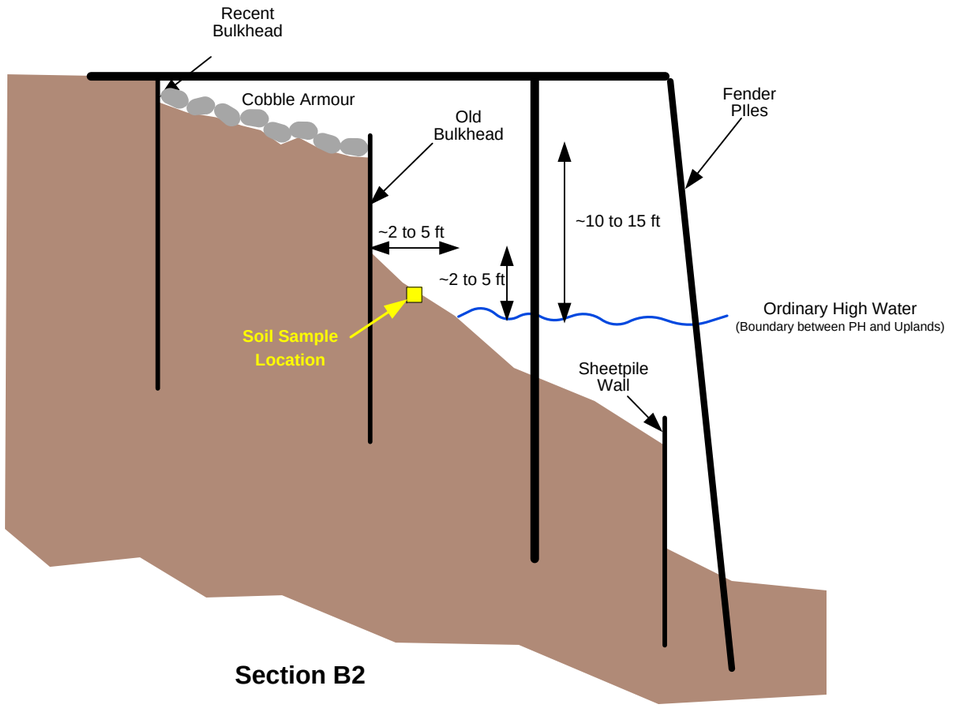
BRIDGEWATER GROUP, INC.



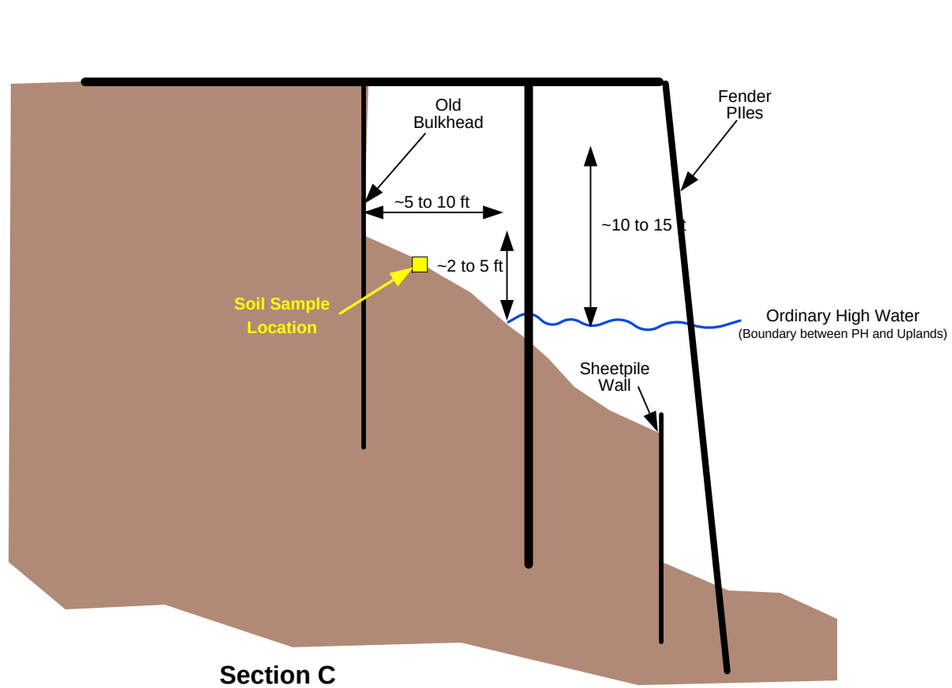
Section A



Section B1



Section B2

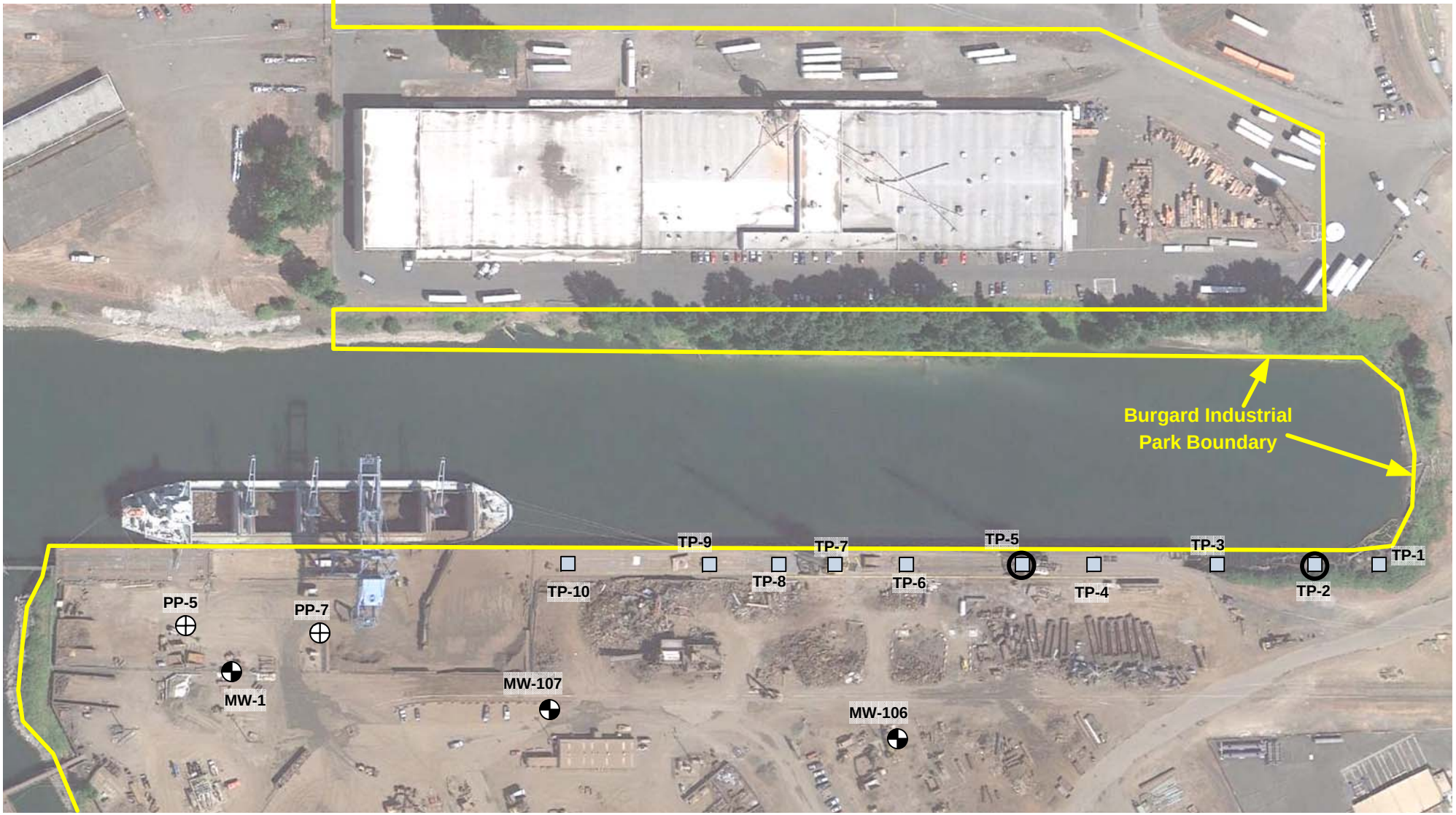


Section C

See Figure 3 for dock section locations

Figure 4
Slip South Shore Representative Dock Sections
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



Groundwater Push Probe

Shallow (0 to 6 inches bgs) Soil Sample Location

Deep (18 inches bgs) Soil Sample Location

Groundwater Monitoring Well

Soil samples TP-4 through TP-10 collected from shoreline beneath dock

N

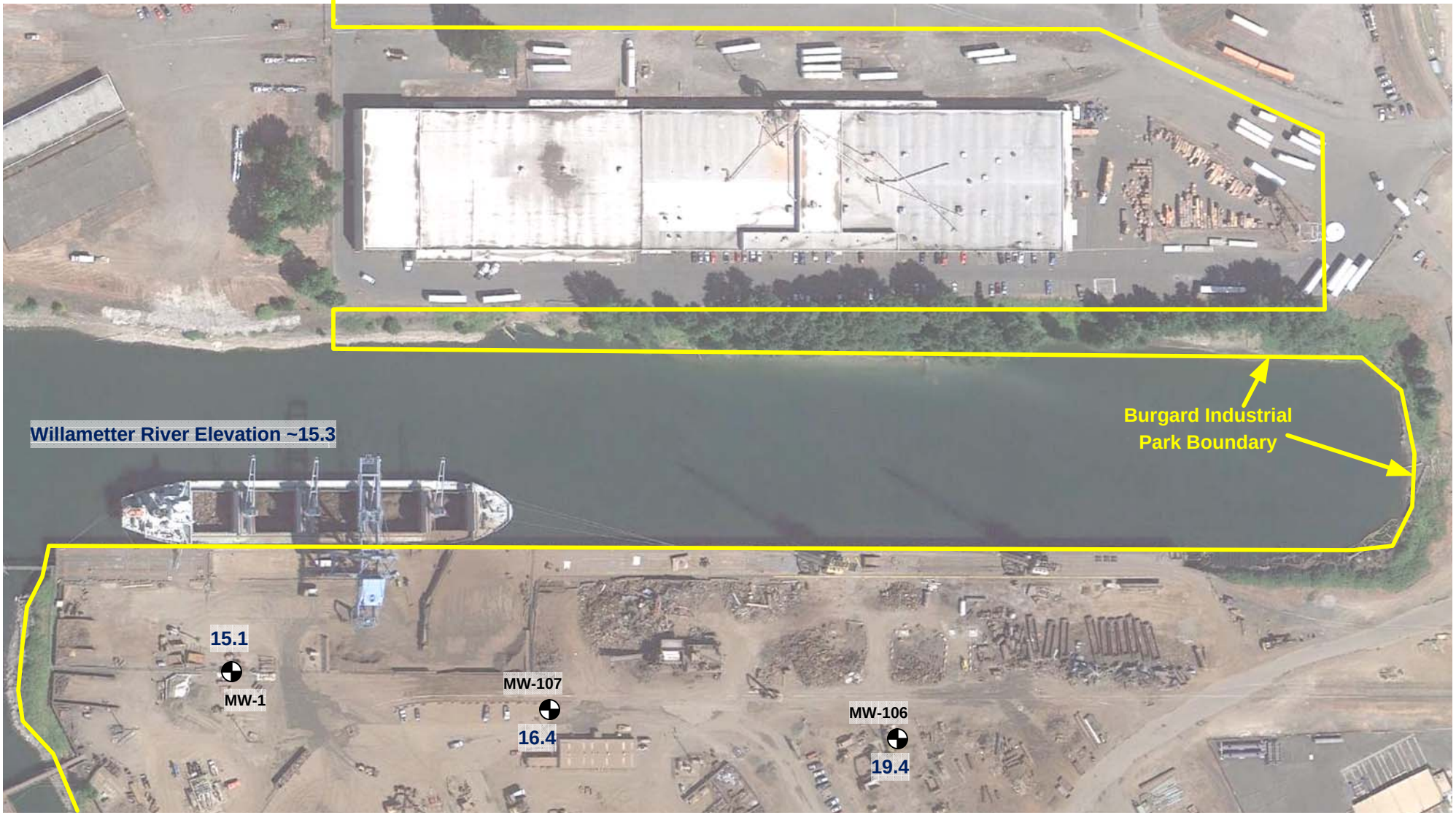
Approximate Scale

200 feet

Base photograph August 2012

Figure 5
Soil Sample and Groundwater Sample Locations
IT Slip South Shore
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



N

Approximate Scale

200 feet

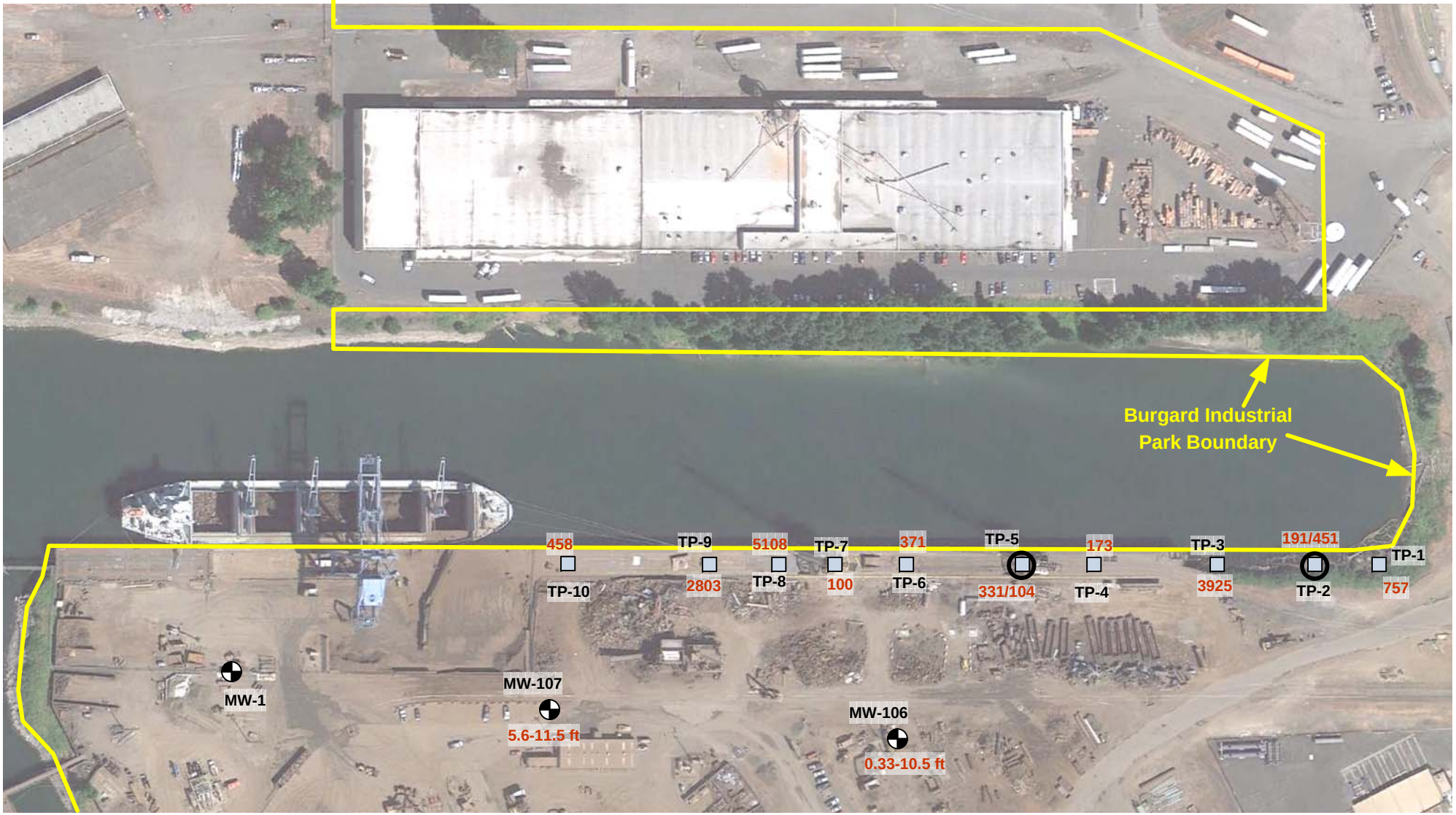
Base photograph August 2012

Groundwater Monitoring Well

15.1 Groundwater Elevation, June 12, 2012, ft, NAVD88

Figure 6
Groundwater Elevations in Slip
South Shore Monitoring Wells
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



Soil samples TP-4 through TP-10 collected from shoreline beneath dock

N

Approximate Scale

200 feet

Base photograph August 2012

Shallow (0 to 6 inches bgs) Soil Sample Location

Deep (18 inches bgs) Soil Sample Location

Groundwater Monitoring Well

191/451 PCB Concentration in Soil Sample, Shallow/Deep, ug/kg

Figure 7
PCB Concentrations in Soil Samples
IT Slip South Shore
Burgard Industrial Park

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Appendix A – Analytical Laboratory and Data Validation Reports

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-PP01-3	P1L0598-01	Soil	12/18/01 12:00	12/19/01 14:38
S-PP01-6	P1L0598-02	Soil	12/18/01 12:00	12/19/01 14:38
S-PP01-9	P1L0598-03	Soil	12/18/01 12:00	12/19/01 14:38
S-PP01-13	P1L0598-04	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-1.5	P1L0598-06	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-5	P1L0598-07	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-9	P1L0598-08	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-13	P1L0598-09	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-17	P1L0598-10	Soil	12/18/01 12:00	12/19/01 14:38
S-PP03-1	P1L0598-11	Soil	12/18/01 12:00	12/19/01 14:38
S-PP03-5.5	P1L0598-12	Soil	12/18/01 12:00	12/19/01 14:38
S-PP04-13	P1L0598-16	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-6	P1L0598-20	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-9	P1L0598-21	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-13	P1L0598-22	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-17	P1L0598-23	Soil	12/18/01 12:00	12/19/01 14:38
GW-PP02-011218	P1L0598-25	Water	12/18/01 12:00	12/19/01 14:38
GW-PP03-011218	P1L0598-26	Water	12/18/01 12:00	12/19/01 14:38
GW-PP04-011218	P1L0598-27	Water	12/18/01 12:00	12/19/01 14:38
GW-PP05-011218	P1L0598-28	Water	12/18/01 12:00	12/19/01 14:38

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/21/01	1120706	
Diesel Range Hydrocarbons	**DET**	50.0	"	"	"	"	"	"	D-17
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	D-15
Surr: 1-Chlorooctadecane	*99.6 %*	*50-150*							
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/21/01	1120706	
Diesel Range Hydrocarbons	**DET**	50.0	"	"	"	"	"	"	D-17
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	D-15
Surr: 1-Chlorooctadecane	*124 %*	*50-150*							
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/26/01	12/27/01	1120815	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*91.9 %*	*50-150*							
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/26/01	12/26/01	1120815	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.8 %*	*50-150*							
S-PP02-1.5 (P1L0598-06) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*103 %*	*50-150*							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.9 %*	*50-150*							
S-PP03-1 (P1L0598-11) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*85.4 %*	*50-150*							
S-PP03-5.5 (P1L0598-12) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*80.0 %*	*50-150*							
S-PP04-13 (P1L0598-16) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*85.8 %*	*50-150*							
S-PP05-6 (P1L0598-20) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*82.0 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP05-9 (P1L0598-21) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.8 %*	*50-150*							
S-PP05-13 (P1L0598-22) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*86.7 %*	*50-150*							
S-PP05-17 (P1L0598-23) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*87.7 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Diesel Range Organics	ND	25.0	mg/kg dry	1	NWTPH-Dx	12/28/01	12/31/01	1120919	
Heavy Oil Range Hydrocarbons	**112**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.8 %*	*50-150*							

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541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Diesel Range Organics	**89.9**	25.0	mg/kg dry	1	NWTPH-Dx	12/31/01	01/02/02	1120974	D-16
Heavy Oil Range Hydrocarbons	**146**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*94.8 %*	*50-150*							
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Diesel Range Organics	**169**	25.0	mg/kg dry	1	NWTPH-Dx	12/31/01	01/02/02	1120974	D-16
Heavy Oil Range Hydrocarbons	**230**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*109 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Antimony	**3.60**	0.500	mg/kg dry	1	EPA 6020	12/28/01	01/02/02	1120935	
Arsenic	**7.59**	0.500	"	"	"	"	"	"	
Barium	**155**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**27.2**	0.500	"	"	"	"	"	"	
Copper	**112**	1.00	"	"	"	"	"	"	
Lead	**131**	0.500	"	"	"	"	"	"	
Mercury	**0.232**	0.100	"	"	EPA 7471A	12/27/01	12/27/01	1120866	
Nickel	**33.9**	1.00	"	"	EPA 6020	12/28/01	01/02/02	1120935	
Zinc	**995**	25.0	"	10	"	"	01/03/02	"	
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	12/28/01	01/02/02	1120935	
Arsenic	**4.01**	0.500	"	"	"	"	"	"	
Barium	**114**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**13.9**	0.500	"	"	"	"	"	"	
Copper	**19.0**	1.00	"	"	"	"	"	"	
Lead	**18.1**	0.500	"	"	"	"	"	"	
Mercury	**0.130**	0.100	"	"	EPA 7471A	12/27/01	12/27/01	1120866	
Nickel	**16.0**	1.00	"	"	EPA 6020	12/28/01	01/02/02	1120935	
Zinc	**73.0**	2.50	"	"	"	"	01/03/02	"	
S-PP04-13 (P1L0598-16) Soil					Sampled: 12/18/01 Received: 12/19/01				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	12/28/01	01/02/02	1120935	
Arsenic	**2.48**	0.500	"	"	"	"	"	"	
Barium	**80.0**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**7.33**	0.500	"	"	"	"	"	"	
Copper	**13.0**	1.00	"	"	"	"	"	"	
Lead	**5.77**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	12/27/01	12/27/01	1120866	
Nickel	**11.1**	1.00	"	"	EPA 6020	12/28/01	01/02/02	1120935	
Zinc	**48.5**	2.50	"	"	"	"	01/03/02	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/21/01	12/28/01	1120747	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*65.1 %*	*36-140*							
Surr: Decachlorobiphenyl	*96.1 %*	*16-149*							
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/21/01	12/28/01	1120747	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*71.5 %*	*36-140*							
Surr: Decachlorobiphenyl	*77.9 %*	*16-149*							
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/28/01	01/03/02	1120913	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*100 %*	*36-140*							
Surr: Decachlorobiphenyl	*79.3 %*	*16-149*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP03-5.5 (P1L0598-12) Soil						Sampled: 12/18/01	Received: 12/19/01		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/28/01	01/03/02	1120913	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*92.9 %*	*36-140*							
Surr: Decachlorobiphenyl	*83.2 %*	*16-149*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*95.7 %*	*70-130*							
Surr: 1,2-DCA-d4	*122 %*	*70-130*							
Surr: Dibromofluoromethane	*104 %*	*70-130*							
Surr: Toluene-d8	*108 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*84.7 %*	*70-130*							
Surr: 1,2-DCA-d4	*109 %*	*70-130*							
Surr: Dibromofluoromethane	*95.3 %*	*70-130*							
Surr: Toluene-d8	*95.8 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP02-011218 (P1L0598-25) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/27/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP02-011218 (P1L0598-25) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/27/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*94.5 %*	*84-118*							
Surr: 1,2-DCA-d4	*122 %*	*79-123*							
Surr: Dibromofluoromethane	*108 %*	*81-121*							
Surr: Toluene-d8	*96.0 %*	*87-111*							

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP03-011218 (P1L0598-26) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP03-011218 (P1L0598-26) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*96.0 %*	*84-118*							
Surr: 1,2-DCA-d4	*124 %*	*79-123*							*S-08*
Surr: Dibromofluoromethane	*110 %*	*81-121*							
Surr: Toluene-d8	*98.5 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP04-011218 (P1L0598-27) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP04-011218 (P1L0598-27) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	**1.23**	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*93.0 %*	*84-118*							
Surr: 1,2-DCA-d4	*123 %*	*79-123*							
Surr: Dibromofluoromethane	*107 %*	*81-121*							
Surr: Toluene-d8	*94.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP05-011218 (P1L0598-28) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP05-011218 (P1L0598-28) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*94.0 %*	*84-118*							
Surr: 1,2-DCA-d4	*121 %*	*79-123*							
Surr: Dibromofluoromethane	*106 %*	*81-121*							
Surr: Toluene-d8	*98.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01	Received: 12/19/01			**R-05**
Acenaphthene	ND	1.65	mg/kg dry	5	EPA 8270C	12/26/01	12/27/01	1120852	
Acenaphthylene	ND	1.65	"	"	"	"	"	"	
Anthracene	ND	1.65	"	"	"	"	"	"	
Benzo (a) anthracene	ND	1.65	"	"	"	"	"	"	
Benzo (a) pyrene	ND	1.65	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	1.65	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	1.65	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	1.65	"	"	"	"	"	"	
Benzoic Acid	ND	5.00	"	"	"	"	"	"	
Benzyl alcohol	ND	1.65	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.65	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	1.65	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.65	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	1.65	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	1.65	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	1.65	"	"	"	"	"	"	
2-Chloronaphthalene	ND	1.65	"	"	"	"	"	"	
2-Chlorophenol	ND	1.65	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	1.65	"	"	"	"	"	"	
Chrysene	ND	1.65	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	1.65	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	1.65	"	"	"	"	"	"	
Dibenzofuran	ND	1.65	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.65	"	"	"	"	"	"	
Diethyl phthalate	ND	1.65	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	5.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.65	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	5.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	2.50	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	2.50	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	**2.25**	1.65	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				**R-05**
Fluorene	ND	1.65	mg/kg dry	5	EPA 8270C	12/26/01	12/27/01	1120852	
Hexachlorobenzene	ND	1.65	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.00	"	"	"	"	"	"	
Hexachloroethane	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	1.65	"	"	"	"	"	"	
Isophorone	ND	1.65	"	"	"	"	"	"	
2-Methylnaphthalene	ND	1.65	"	"	"	"	"	"	
2-Methylphenol	ND	1.65	"	"	"	"	"	"	
3-,4-Methylphenol	ND	1.65	"	"	"	"	"	"	
Naphthalene	ND	1.65	"	"	"	"	"	"	
2-Nitroaniline	ND	1.65	"	"	"	"	"	"	
3-Nitroaniline	ND	5.00	"	"	"	"	"	"	
4-Nitroaniline	ND	1.65	"	"	"	"	"	"	
Nitrobenzene	ND	1.65	"	"	"	"	"	"	
2-Nitrophenol	ND	1.65	"	"	"	"	"	"	
4-Nitrophenol	ND	5.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.65	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.65	"	"	"	"	"	"	
Pentachlorophenol	ND	5.00	"	"	"	"	"	"	
Phenanthrene	**2.74**	1.65	"	"	"	"	"	"	
Phenol	ND	1.65	"	"	"	"	"	"	
Pyrene	**2.68**	1.65	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.65	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*65.5 %*	*44-146*							
Surr: 2-Fluorophenol	*70.9 %*	*42-126*							
Surr: Nitrobenzene-d5	*67.6 %*	*42-126*							
Surr: Phenol-d6	*61.4 %*	*42-131*							
Surr: p-Terphenyl-d14	*72.8 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*75.0 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01	Received: 12/19/01			**R-05**
Acenaphthene	ND	0.660	mg/kg dry	2	EPA 8270C	12/26/01	12/27/01	1120852	
Acenaphthylene	ND	0.660	"	"	"	"	"	"	
Anthracene	ND	0.660	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.660	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.660	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.660	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.660	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.660	"	"	"	"	"	"	
Benzoic Acid	ND	2.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.660	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.660	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.660	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.660	"	"	"	"	"	"	
4-Chloroaniline	ND	4.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.660	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.660	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.660	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.660	"	"	"	"	"	"	
2-Chlorophenol	ND	0.660	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.660	"	"	"	"	"	"	
Chrysene	ND	0.660	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	2.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.660	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.660	"	"	"	"	"	"	
Dibenzofuran	ND	0.660	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	2.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	2.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	2.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	2.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.660	"	"	"	"	"	"	
Diethyl phthalate	ND	0.660	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.660	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	4.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	1.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.00	"	"	"	"	"	"	
Fluoranthene	**0.766**	0.660	"	"	"	"	"	"	

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01	Received: 12/19/01			**R-05**
Fluorene	ND	0.660	mg/kg dry	2	EPA 8270C	12/26/01	12/27/01	1120852	
Hexachlorobenzene	ND	0.660	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	2.00	"	"	"	"	"	"	
Hexachloroethane	ND	2.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.660	"	"	"	"	"	"	
Isophorone	ND	0.660	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.660	"	"	"	"	"	"	
2-Methylphenol	ND	0.660	"	"	"	"	"	"	
3-,4-Methylphenol	**1.65**	0.660	"	"	"	"	"	"	
Naphthalene	ND	0.660	"	"	"	"	"	"	
2-Nitroaniline	ND	0.660	"	"	"	"	"	"	
3-Nitroaniline	ND	2.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.660	"	"	"	"	"	"	
Nitrobenzene	ND	0.660	"	"	"	"	"	"	
2-Nitrophenol	ND	0.660	"	"	"	"	"	"	
4-Nitrophenol	ND	2.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.660	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.660	"	"	"	"	"	"	
Pentachlorophenol	ND	2.00	"	"	"	"	"	"	
Phenanthrene	ND	0.660	"	"	"	"	"	"	
Phenol	ND	0.660	"	"	"	"	"	"	
Pyrene	**0.996**	0.660	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.660	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.660	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.660	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*69.2 %*	*44-146*							
Surr: 2-Fluorophenol	*71.0 %*	*42-126*							
Surr: Nitrobenzene-d5	*62.4 %*	*42-126*							
Surr: Phenol-d6	*65.9 %*	*42-131*							
Surr: p-Terphenyl-d14	*88.5 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*82.9 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/04/02	1120967	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/04/02	1120967	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*99.7 %*	*44-146*							
Surr: 2-Fluorophenol	*70.8 %*	*42-126*							
Surr: Nitrobenzene-d5	*87.8 %*	*42-126*							
Surr: Phenol-d6	*69.3 %*	*42-131*							
Surr: p-Terphenyl-d14	*115 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*87.7 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/03/02	1120967	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/03/02	1120967	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*72.7 %*	*44-146*							
Surr: 2-Fluorophenol	*130 %*	*42-126*							*S-08*
Surr: Nitrobenzene-d5	*70.1 %*	*42-126*							
Surr: Phenol-d6	*130 %*	*42-131*							
Surr: p-Terphenyl-d14	*78.1 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*153 %*	*48-119*							*S-08*

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	12/31/01	01/02/02	1120966	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	**104**	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	**161**	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	**116**	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	**199**	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	**105**	13.4	"	"	"	"	"	"	
Chrysene	**131**	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	**26.4**	13.4	"	"	"	"	"	"	
Fluoranthene	**180**	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**135**	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	**32.3**	13.4	"	"	"	"	"	"	
Pyrene	**276**	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*80.2 %*	*40-150*							
Surr: Pyrene-d10	*139 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*82.0 %*	*40-150*							
S-PP02-9 (P1L0598-08) Soil					Sampled: 12/18/01 Received: 12/19/01				**O-07**
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*83.9 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-9 (P1L0598-08) Soil					Sampled: 12/18/01	Received: 12/19/01			**O-07**
Surr: Pyrene-d10	*93.2 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*83.9 %*	*40-150*							
S-PP02-13 (P1L0598-09) Soil					Sampled: 12/18/01	Received: 12/19/01			**O-07**
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	**15.4**	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	**22.0**	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	**13.4**	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	**23.2**	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	**15.7**	13.4	"	"	"	"	"	"	
Chrysene	**19.4**	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	**43.0**	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**15.8**	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	**30.7**	13.4	"	"	"	"	"	"	
Pyrene	**57.2**	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*105 %*	*40-150*							
Surr: Pyrene-d10	*120 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*117 %*	*40-150*							
S-PP02-17 (P1L0598-10) Soil					Sampled: 12/18/01	Received: 12/19/01			**O-07**
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-17 (P1L0598-10) Soil					Sampled: 12/18/01 Received: 12/19/01				**O-07**
Naphthalene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*89.3 %*	*40-150*							
Surr: Pyrene-d10	*95.2 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*102 %*	*40-150*							
S-PP03-5.5 (P1L0598-12) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	12/31/01	01/02/02	1120966	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*91.5 %*	*40-150*							
Surr: Pyrene-d10	*150 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*90.6 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**86.1**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**84.7**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**86.9**	1.00	% by Weight	1	NCA SOP	12/26/01	12/27/01	1120821	
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**90.0**	1.00	% by Weight	1	NCA SOP	12/26/01	12/27/01	1120821	
S-PP02-1.5 (P1L0598-06) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**88.8**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**85.2**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP02-9 (P1L0598-08) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**81.8**	1.00	% by Weight	1	NCA SOP	01/11/02	01/14/02	2010331	
S-PP02-13 (P1L0598-09) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**79.0**	1.00	% by Weight	1	NCA SOP	01/11/02	01/14/02	2010331	
S-PP02-17 (P1L0598-10) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**79.6**	1.00	% by Weight	1	NCA SOP	01/11/02	01/14/02	2010331	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP03-1 (P1L0598-11) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**73.9**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP03-5.5 (P1L0598-12) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**76.9**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP04-13 (P1L0598-16) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**86.6**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-6 (P1L0598-20) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**91.4**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-9 (P1L0598-21) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**91.2**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-13 (P1L0598-22) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**91.0**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-17 (P1L0598-23) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**92.0**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120706 - TPH-HCID Extraction										
Blank (1120706-BLK1)				Prepared & Analyzed: 12/20/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*79.0*	*50-150*			
Duplicate (1120706-DUP1)	**Source: P1L0495-01**			Prepared & Analyzed: 12/20/01						
Gasoline Range Hydrocarbons	DET	20.0	mg/kg dry		DET			16.8	50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	ND	100	"		ND				50	
Surr: 1-Chlorooctadecane	*DET*		"	*5.14*		*86.8*	*50-150*			
Duplicate (1120706-DUP2)	**Source: P1L0598-01**			Prepared & Analyzed: 12/20/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	DET	50.0	"		DET			8.38	50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			26.1	50	
Surr: 1-Chlorooctadecane	*DET*		"	*4.60*		*99.1*	*50-150*			
Batch 1120815 - TPH-HCID Extraction										
Blank (1120815-BLK1)				Prepared & Analyzed: 12/26/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*84.1*	*50-150*			
Duplicate (1120815-DUP1)	**Source: P1L0598-03**			Prepared & Analyzed: 12/26/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			62.5	50	Q-14
Surr: 1-Chlorooctadecane	*DET*		"	*4.56*		*89.3*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120919 - EPA 3550 Fuels										
Blank (1120919-BLK1)				Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*4.55*		"	*4.80*		*94.8*	*50-150*			
LCS (1120919-BS1)				Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	106	25.0	mg/kg	129		82.2	50-150			
Heavy Oil Range Hydrocarbons	67.0	50.0	"	79.0		84.8	50-150			
Surr: 1-Chlorooctadecane	*6.01*		"	*4.80*		*125*	*50-150*			
Duplicate (1120919-DUP1)	**Source: P1L0598-03**			Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	ND	25.0	mg/kg dry		ND			16.6	50	
Heavy Oil Range Hydrocarbons	168	50.0	"		112			40.0	50	
Surr: 1-Chlorooctadecane	*4.56*		"	*5.53*		*82.5*	*50-150*			
Duplicate (1120919-DUP2)	**Source: P1L0710-01**			Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	ND	50.0	"		ND				50	
Surr: 1-Chlorooctadecane	*4.78*		"	*5.65*		*84.6*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120974 - EPA 3550 Fuels										
Blank (1120974-BLK1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*3.90*		"	*4.80*		*81.2*	*50-150*			
LCS (1120974-BS1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Diesel Range Organics	118	25.0	mg/kg	129		91.5	50-150			
Heavy Oil Range Hydrocarbons	79.7	50.0	"	79.0		101	50-150			
Surr: 1-Chlorooctadecane	*4.48*		"	*4.80*		*93.3*	*50-150*			
Duplicate (1120974-DUP1)	**Source: P1L0751-01**			Prepared: 12/31/01 Analyzed: 01/01/02						
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	ND	50.0	"		ND				50	
Surr: 1-Chlorooctadecane	*5.86*		"	*5.72*		*102*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120866 - EPA 7471										
Blank (1120866-BLK1)				Prepared & Analyzed: 12/27/01						
Mercury	ND	0.100	mg/kg							
LCS (1120866-BS1)				Prepared & Analyzed: 12/27/01						
Mercury	1.02	0.100	mg/kg	1.00		102	80-120			
Duplicate (1120866-DUP1)		**Source: P1L0598-16**		Prepared & Analyzed: 12/27/01						
Mercury	ND	0.100	mg/kg dry		ND				40	
Matrix Spike (1120866-MS1)		**Source: P1L0598-16**		Prepared & Analyzed: 12/27/01						
Mercury	1.16	0.100	mg/kg dry	1.15	ND	101	75-125			
Matrix Spike (1120866-MS2)		**Source: P1L0726-01**		Prepared & Analyzed: 12/27/01						
Mercury	1.24	0.100	mg/kg dry	1.25	ND	99.2	75-125			
Batch 1120935 - EPA 3050										
Blank (1120935-BLK1)				Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	ND	0.500	mg/kg							
Arsenic	ND	0.500	"							
Barium	ND	1.00	"							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Copper	ND	1.00	"							
Lead	ND	0.500	"							
Nickel	ND	1.00	"							
Zinc	ND	2.50	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120935 - EPA 3050										
LCS (1120935-BS1)				Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	5.38	0.500	mg/kg	5.00		108	80-120			
Arsenic	10.5	0.500	"	10.0		105	80-120			
Barium	10.5	1.00	"	10.0		105	80-120			
Cadmium	10.8	0.500	"	10.0		108	80-120			
Chromium	9.08	0.500	"	10.0		90.8	80-120			
Copper	10.1	1.00	"	10.0		101	80-120			
Lead	11.3	0.500	"	10.0		113	80-120			
Nickel	9.88	1.00	"	10.0		98.8	80-120			
Zinc	11.3	2.50	"	10.0		113	80-120			
LCS Dup (1120935-BSD1)				Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	5.32	0.500	mg/kg	5.00		106	80-120	1.12	200	
Arsenic	10.1	0.500	"	10.0		101	80-120	3.88	200	
Barium	10.4	1.00	"	10.0		104	80-120	0.957	20	
Cadmium	10.9	0.500	"	10.0		109	80-120	0.922	200	
Chromium	9.48	0.500	"	10.0		94.8	80-120	4.31	40	
Copper	9.79	1.00	"	10.0		97.9	80-120	3.12	200	
Lead	11.3	0.500	"	10.0		113	80-120	0.00	200	
Nickel	9.64	1.00	"	10.0		96.4	80-120	2.46	200	
Zinc	11.1	2.50	"	10.0		111	80-120	1.79	200	
Duplicate (1120935-DUP1)		**Source: P1L0399-02**		Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	2.24	0.500	mg/kg dry		1.28			54.5	40	Q-14
Arsenic	24.1	0.500	"		23.0			4.67	40	
Barium	209	1.00	"		182			13.8	40	
Cadmium	0.711	0.500	"		ND			45.4	40	Q-14
Chromium	47.4	0.500	"		33.7			33.8	40	
Copper	96.5	1.00	"		112			14.9	40	
Lead	319	0.500	"		314			1.58	40	
Nickel	41.0	1.00	"		34.1			18.4	40	
Zinc	509	2.50	"		442			14.1	40	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120935 - EPA 3050										
Matrix Spike (1120935-MS1)	**Source: P1L0399-02**			Prepared: 12/28/01		Analyzed: 01/02/02				
Antimony	4.25	0.500	mg/kg dry	6.13	1.28	48.5	75-125			Q-14
Arsenic	34.2	0.500	"	12.3	23.0	91.1	75-125			
Barium	175	1.00	"	12.3	182	NR	75-125			Q-03
Cadmium	14.1	0.500	"	12.3	ND	111	75-125			
Chromium	46.8	0.500	"	12.3	33.7	107	75-125			
Copper	91.0	1.00	"	12.3	112	NR	75-125			Q-03
Lead	310	0.500	"	12.3	314	NR	75-125			Q-03
Nickel	45.1	1.00	"	12.3	34.1	89.4	75-125			
Zinc	418	2.50	"	12.3	442	NR	75-125			Q-14
Matrix Spike Dup (1120935-MSD1)	**Source: P1L0399-02**			Prepared: 12/28/01		Analyzed: 01/02/02				
Antimony	4.24	0.500	mg/kg dry	6.13	1.28	48.3	75-125	0.236	200	Q-14
Arsenic	34.5	0.500	"	12.3	23.0	93.5	75-125	0.873	40	
Barium	173	1.00	"	12.3	182	NR	75-125	1.15	40	Q-03
Cadmium	14.0	0.500	"	12.3	ND	110	75-125	0.712	40	
Chromium	46.2	0.500	"	12.3	33.7	102	75-125	1.29	40	
Copper	90.0	1.00	"	12.3	112	NR	75-125	1.10	40	Q-03
Lead	311	0.500	"	12.3	314	NR	75-125	0.322	40	Q-03
Nickel	44.5	1.00	"	12.3	34.1	84.6	75-125	1.34	40	
Zinc	409	2.50	"	12.3	442	NR	75-125	2.18	40	Q-14

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120747 - EPA 3550										
Blank (1120747-BLK1)				Prepared & Analyzed: 12/21/01						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*33.4*		"	*33.3*		*100*	*36-140*			
Surr: Decachlorobiphenyl	*33.1*		"	*33.3*		*99.4*	*16-149*			
LCS (1120747-BS1)				Prepared & Analyzed: 12/21/01						
Aroclor 1016	337	67.0	ug/kg	333		101	57-135			
Aroclor 1260	380	67.0	"	333		114	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*33.1*		"	*33.3*		*99.4*	*36-140*			
Surr: Decachlorobiphenyl	*34.6*		"	*33.3*		*104*	*16-149*			
Matrix Spike (1120747-MS1)	**Source: P1L0625-10**			Prepared & Analyzed: 12/21/01						
Aroclor 1016	306	67.0	ug/kg dry	460	ND	66.5	37-145			
Aroclor 1260	393	67.0	"	460	ND	85.4	25-144			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*32.6*		"	*46.0*		*70.9*	*36-140*			
Surr: Decachlorobiphenyl	*36.0*		"	*46.0*		*78.3*	*16-149*			
Matrix Spike Dup (1120747-MSD1)	**Source: P1L0625-10**			Prepared & Analyzed: 12/21/01						
Aroclor 1016	307	67.0	ug/kg dry	460	ND	66.7	37-145	0.326	26	
Aroclor 1260	386	67.0	"	460	ND	83.9	25-144	1.80	30	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*30.9*		"	*46.0*		*67.2*	*36-140*			
Surr: Decachlorobiphenyl	*33.9*		"	*46.0*		*73.7*	*16-149*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120913 - EPA 3550										
Blank (1120913-BLK1)				Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*37.7*		"	*33.3*		*113*	*36-140*			
Surr: Decachlorobiphenyl	*32.0*		"	*33.3*		*96.1*	*16-149*			
LCS (1120913-BS1)				Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	350	67.0	ug/kg	333		105	57-135			
Aroclor 1260	303	67.0	"	333		91.0	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*38.9*		"	*33.3*		*117*	*36-140*			
Surr: Decachlorobiphenyl	*32.0*		"	*33.3*		*96.1*	*16-149*			
Matrix Spike (1120913-MS1)	**Source: P1L0598-07**			Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	379	67.0	ug/kg dry	391	ND	96.9	37-145			
Aroclor 1260	295	67.0	"	391	ND	75.4	25-144			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*40.4*		"	*39.1*		*103*	*36-140*			
Surr: Decachlorobiphenyl	*27.3*		"	*39.1*		*69.8*	*16-149*			
Matrix Spike Dup (1120913-MSD1)	**Source: P1L0598-07**			Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	381	67.0	ug/kg dry	391	ND	97.4	37-145	0.526	26	
Aroclor 1260	311	67.0	"	391	ND	79.5	25-144	5.28	30	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*39.3*		"	*39.1*		*101*	*36-140*			
Surr: Decachlorobiphenyl	*28.6*		"	*39.1*		*73.1*	*16-149*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120874 - EPA 5035										
Blank (1120874-BLK1)				Prepared: 12/27/01 Analyzed: 12/28/01						
Acetone	ND	2500	ug/kg							
Benzene	ND	100	"							
Bromobenzene	ND	100	"							
Bromochloromethane	ND	100	"							
Bromodichloromethane	ND	100	"							
Bromoform	ND	100	"							
Bromomethane	ND	500	"							
2-Butanone	ND	1000	"							
n-Butylbenzene	ND	500	"							
sec-Butylbenzene	ND	100	"							
tert-Butylbenzene	ND	100	"							
Carbon disulfide	ND	1000	"							
Carbon tetrachloride	ND	100	"							
Chlorobenzene	ND	100	"							
Chloroethane	ND	100	"							
Chloroform	ND	100	"							
Chloromethane	ND	500	"							
2-Chlorotoluene	ND	100	"							
4-Chlorotoluene	ND	100	"							
1,2-Dibromo-3-chloropropane	ND	500	"							
Dibromochloromethane	ND	100	"							
1,2-Dibromoethane	ND	100	"							
Dibromomethane	ND	100	"							
1,2-Dichlorobenzene	ND	100	"							
1,3-Dichlorobenzene	ND	100	"							
1,4-Dichlorobenzene	ND	100	"							
Dichlorodifluoromethane	ND	500	"							
1,1-Dichloroethane	ND	100	"							
1,2-Dichloroethane	ND	100	"							
1,1-Dichloroethene	ND	100	"							
cis-1,2-Dichloroethene	ND	100	"							
trans-1,2-Dichloroethene	ND	100	"							
1,2-Dichloropropane	ND	100	"							
1,3-Dichloropropane	ND	100	"							
2,2-Dichloropropane	ND	100	"							
1,1-Dichloropropene	ND	100	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120874 - EPA 5035										
Blank (1120874-BLK1)				Prepared: 12/27/01 Analyzed: 12/28/01						
cis-1,3-Dichloropropene	ND	100	ug/kg							
trans-1,3-Dichloropropene	ND	100	"							
Ethylbenzene	ND	100	"							
Hexachlorobutadiene	ND	200	"							
2-Hexanone	ND	1000	"							
Isopropylbenzene	ND	200	"							
p-Isopropyltoluene	ND	200	"							
4-Methyl-2-pentanone	ND	500	"							
Methyl tert-butyl ether	ND	100	"							
Methylene chloride	ND	500	"							
Naphthalene	ND	200	"							
n-Propylbenzene	ND	100	"							
Styrene	ND	100	"							
1,1,1,2-Tetrachloroethane	ND	100	"							
1,1,2,2-Tetrachloroethane	ND	100	"							
Tetrachloroethene	ND	100	"							
Toluene	ND	100	"							
1,2,3-Trichlorobenzene	ND	100	"							
1,2,4-Trichlorobenzene	ND	100	"							
1,1,1-Trichloroethane	ND	100	"							
1,1,2-Trichloroethane	ND	100	"							
Trichloroethene	ND	100	"							
Trichlorofluoromethane	ND	100	"							
1,2,3-Trichloropropane	ND	100	"							
1,2,4-Trimethylbenzene	ND	100	"							
1,3,5-Trimethylbenzene	ND	100	"							
Vinyl chloride	ND	100	"							
o-Xylene	ND	100	"							
m,p-Xylene	ND	200	"							
Surr: 4-BFB	*2120*		"	*2000*		*106*	*70-130*			
Surr: 1,2-DCA-d4	*2220*		"	*2000*		*111*	*70-130*			
Surr: Dibromofluoromethane	*2150*		"	*2000*		*108*	*70-130*			
Surr: Toluene-d8	*2320*		"	*2000*		*116*	*70-130*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120874 - EPA 5035										
LCS (1120874-BS1)				Prepared: 12/27/01 Analyzed: 12/28/01						
Benzene	2530	100	ug/kg	2500		101	80-135			
Chlorobenzene	2500	100	"	2500		100	80-135			
1,1-Dichloroethene	2290	100	"	2500		91.6	60-150			
Toluene	2560	100	"	2500		102	80-130			
Trichloroethene	2360	100	"	2500		94.4	70-135			
Surr: 4-BFB	*2080*		"	*2000*		*104*	*70-130*			
Surr: 1,2-DCA-d4	*2230*		"	*2000*		*112*	*70-130*			
Surr: Dibromofluoromethane	*2100*		"	*2000*		*105*	*70-130*			
Surr: Toluene-d8	*2220*		"	*2000*		*111*	*70-130*			
Matrix Spike (1120874-MS1)	**Source: P1L0598-01**			Prepared: 12/27/01 Analyzed: 12/28/01						
Benzene	2780	100	ug/kg dry	2900	ND	95.9	60-135			
Chlorobenzene	2810	100	"	2900	ND	96.9	65-125			
1,1-Dichloroethene	2490	100	"	2900	ND	85.9	60-135			
Toluene	2890	100	"	2900	ND	99.2	60-125			
Trichloroethene	2800	100	"	2900	ND	96.6	60-125			
Surr: 4-BFB	*2190*		"	*2320*		*94.4*	*70-130*			
Surr: 1,2-DCA-d4	*2700*		"	*2320*		*116*	*70-130*			
Surr: Dibromofluoromethane	*2390*		"	*2320*		*103*	*70-130*			
Surr: Toluene-d8	*2400*		"	*2320*		*103*	*70-130*			
Matrix Spike Dup (1120874-MSD1)	**Source: P1L0598-01**			Prepared: 12/27/01 Analyzed: 12/28/01						
Benzene	2820	100	ug/kg dry	2900	ND	97.2	60-135	1.43	25	
Chlorobenzene	2860	100	"	2900	ND	98.6	65-125	1.76	25	
1,1-Dichloroethene	2480	100	"	2900	ND	85.5	60-135	0.402	25	
Toluene	2900	100	"	2900	ND	99.5	60-125	0.345	25	
Trichloroethene	2720	100	"	2900	ND	93.8	60-125	2.90	25	
Surr: 4-BFB	*2190*		"	*2320*		*94.4*	*70-130*			
Surr: 1,2-DCA-d4	*2740*		"	*2320*		*118*	*70-130*			
Surr: Dibromofluoromethane	*2350*		"	*2320*		*101*	*70-130*			
Surr: Toluene-d8	*2430*		"	*2320*		*105*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120876 - EPA 5030B										
Blank (1120876-BLK1)				Prepared & Analyzed: 12/27/01						
Acetone	ND	25.0	ug/l							
Benzene	ND	1.00	"							
Bromobenzene	ND	1.00	"							
Bromochloromethane	ND	1.00	"							
Bromodichloromethane	ND	1.00	"							
Bromoform	ND	1.00	"							
Bromomethane	ND	5.00	"							
2-Butanone	ND	10.0	"							
n-Butylbenzene	ND	5.00	"							
sec-Butylbenzene	ND	1.00	"							
tert-Butylbenzene	ND	1.00	"							
Carbon disulfide	ND	10.0	"							
Carbon tetrachloride	ND	1.00	"							
Chlorobenzene	ND	1.00	"							
Chloroethane	ND	1.00	"							
Chloroform	ND	1.00	"							
Chloromethane	ND	5.00	"							
2-Chlorotoluene	ND	1.00	"							
4-Chlorotoluene	ND	1.00	"							
1,2-Dibromo-3-chloropropane	ND	5.00	"							
Dibromochloromethane	ND	1.00	"							
1,2-Dibromoethane	ND	1.00	"							
Dibromomethane	ND	1.00	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorodifluoromethane	ND	5.00	"							
1,1-Dichloroethane	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
1,1-Dichloroethene	ND	1.00	"							
cis-1,2-Dichloroethene	ND	1.00	"							
trans-1,2-Dichloroethene	ND	1.00	"							
1,2-Dichloropropane	ND	1.00	"							
1,3-Dichloropropane	ND	1.00	"							
2,2-Dichloropropane	ND	1.00	"							
1,1-Dichloropropene	ND	1.00	"							

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120876 - EPA 5030B										
Blank (1120876-BLK1)				Prepared & Analyzed: 12/27/01						
cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	*19.0*		"	*20.0*		*95.0*	*84-118*			
Surr: 1,2-DCA-d4	*22.4*		"	*20.0*		*112*	*79-123*			
Surr: Dibromofluoromethane	*20.2*		"	*20.0*		*101*	*81-121*			
Surr: Toluene-d8	*19.7*		"	*20.0*		*98.5*	*87-111*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120876 - EPA 5030B										
LCS (1120876-BS1)				Prepared & Analyzed: 12/27/01						
Benzene	20.2	1.00	ug/l	20.0		101	80-125			
Chlorobenzene	21.3	1.00	"	20.0		106	80-125			
1,1-Dichloroethene	18.8	1.00	"	20.0		94.0	70-135			
Toluene	21.1	1.00	"	20.0		106	80-125			
Trichloroethene	20.8	1.00	"	20.0		104	70-130			
Surr: 4-BFB	*20.4*		"	*20.0*		*102*	*84-118*			
Surr: 1,2-DCA-d4	*22.6*		"	*20.0*		*113*	*79-123*			
Surr: Dibromofluoromethane	*21.3*		"	*20.0*		*106*	*81-121*			
Surr: Toluene-d8	*20.3*		"	*20.0*		*102*	*87-111*			
Matrix Spike (1120876-MS1)	**Source: P1L0576-01**			Prepared & Analyzed: 12/27/01						
Benzene	21.3	1.00	ug/l	20.0	ND	106	80-125			
Chlorobenzene	21.6	1.00	"	20.0	ND	108	80-125			
1,1-Dichloroethene	20.8	1.00	"	20.0	ND	104	70-135			
Toluene	21.0	1.00	"	20.0	ND	105	80-125			
Trichloroethene	21.4	1.00	"	20.0	ND	107	70-130			
Surr: 4-BFB	*20.0*		"	*20.0*		*100*	*84-118*			
Surr: 1,2-DCA-d4	*22.4*		"	*20.0*		*112*	*79-123*			
Surr: Dibromofluoromethane	*20.9*		"	*20.0*		*104*	*81-121*			
Surr: Toluene-d8	*19.6*		"	*20.0*		*98.0*	*87-111*			
Matrix Spike Dup (1120876-MSD1)	**Source: P1L0576-01**			Prepared & Analyzed: 12/27/01						
Benzene	21.6	1.00	ug/l	20.0	ND	108	80-125	1.40	25	
Chlorobenzene	21.7	1.00	"	20.0	ND	108	80-125	0.462	25	
1,1-Dichloroethene	21.7	1.00	"	20.0	ND	108	70-135	4.24	25	
Toluene	21.1	1.00	"	20.0	ND	106	80-125	0.475	25	
Trichloroethene	21.5	1.00	"	20.0	ND	108	70-130	0.466	25	
Surr: 4-BFB	*20.5*		"	*20.0*		*102*	*84-118*			
Surr: 1,2-DCA-d4	*22.0*		"	*20.0*		*110*	*79-123*			
Surr: Dibromofluoromethane	*21.2*		"	*20.0*		*106*	*81-121*			
Surr: Toluene-d8	*19.5*		"	*20.0*		*97.5*	*87-111*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
Blank (1120852-BLK1)				Prepared: 12/26/01 Analyzed: 12/27/01						
Acenaphthene	ND	0.330	mg/kg							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
Bis(2-chloroethoxy)methane	ND	0.330	"							
Bis(2-chloroethyl)ether	ND	0.330	"							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
3,3'-Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
Blank (1120852-BLK1)				Prepared: 12/26/01 Analyzed: 12/27/01						
2,6-Dinitrotoluene	ND	0.500	mg/kg							
Bis(2-ethylhexyl)phthalate	ND	2.00	"							
Fluoranthene	ND	0.330	"							
Fluorene	ND	0.330	"							
Hexachlorobenzene	ND	0.330	"							
Hexachlorobutadiene	ND	1.00	"							
Hexachlorocyclopentadiene	ND	1.00	"							
Hexachloroethane	ND	1.00	"							
Indeno (1,2,3-cd) pyrene	ND	0.330	"							
Isophorone	ND	0.330	"							
2-Methylnaphthalene	ND	0.330	"							
2-Methylphenol	ND	0.330	"							
3-,4-Methylphenol	ND	0.330	"							
Naphthalene	ND	0.330	"							
2-Nitroaniline	ND	0.330	"							
3-Nitroaniline	ND	1.00	"							
4-Nitroaniline	ND	0.330	"							
Nitrobenzene	ND	0.330	"							
2-Nitrophenol	ND	0.330	"							
4-Nitrophenol	ND	1.00	"							
N-Nitrosodi-n-propylamine	ND	0.330	"							
N-Nitrosodiphenylamine	ND	0.330	"							
Pentachlorophenol	ND	1.00	"							
Phenanthrene	ND	0.330	"							
Phenol	ND	0.330	"							
Pyrene	ND	0.330	"							
1,2,4-Trichlorobenzene	ND	0.330	"							
2,4,5-Trichlorophenol	ND	0.330	"							
2,4,6-Trichlorophenol	ND	0.330	"							
Surr: 2-Fluorobiphenyl	*1.90*		"	*2.50*		*76.0*	*44-146*			
Surr: 2-Fluorophenol	*4.83*		"	*5.00*		*96.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.50*		"	*2.50*		*60.0*	*42-126*			
Surr: Phenol-d6	*4.00*		"	*5.00*		*80.0*	*42-131*			
Surr: p-Terphenyl-d14	*2.67*		"	*2.50*		*107*	*49-150*			
Surr: 2,4,6-Tribromophenol	*3.67*		"	*5.00*		*73.4*	*48-119*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
LCS (1120852-BS1)				Prepared: 12/26/01 Analyzed: 12/27/01						
Acenaphthene	2.07	0.330	mg/kg	2.50		82.8	30-115			
4-Chloro-3-methylphenol	4.70	0.330	"	5.00		94.0	40-110			
2-Chlorophenol	4.83	0.330	"	5.00		96.6	40-100			
1,4-Dichlorobenzene	1.40	1.00	"	2.50		56.0	10-100			
2,4-Dinitrotoluene	2.33	0.500	"	2.50		93.2	30-110			
4-Nitrophenol	3.90	1.00	"	5.00		78.0	30-130			
N-Nitrosodi-n-propylamine	1.93	0.330	"	2.50		77.2	30-110			
Pentachlorophenol	4.17	1.00	"	5.00		83.4	14-120			
Phenol	4.90	0.330	"	5.00		98.0	35-100			
Pyrene	2.40	0.330	"	2.50		96.0	30-115			
1,2,4-Trichlorobenzene	1.90	0.330	"	2.50		76.0	18-100			
Surr: 2-Fluorobiphenyl	*2.13*		*"*	*2.50*		*85.2*	*44-146*			
Surr: 2-Fluorophenol	*4.93*		*"*	*5.00*		*98.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.93*		*"*	*2.50*		*77.2*	*42-126*			
Surr: Phenol-d6	*5.60*		*"*	*5.00*		*112*	*42-131*			
Surr: p-Terphenyl-d14	*2.40*		*"*	*2.50*		*96.0*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.90*		*"*	*5.00*		*98.0*	*48-119*			
Matrix Spike (1120852-MS1)	**Source: P1L0598-02**			Prepared: 12/26/01 Analyzed: 12/27/01						
Acenaphthene	2.91		mg/kg dry	2.95	ND	98.6	40-110			
4-Chloro-3-methylphenol	5.19		"	5.90	ND	88.0	40-110			
2-Chlorophenol	4.80		"	5.90	ND	81.4	40-100			
1,4-Dichlorobenzene	1.10		"	2.95	ND	37.3	10-100			
2,4-Dinitrotoluene	2.36		"	2.95	ND	80.0	40-110			
4-Nitrophenol	5.51		"	5.90	ND	93.4	40-125			
N-Nitrosodi-n-propylamine	2.20		"	2.95	ND	74.6	30-110			
Pentachlorophenol	4.01		"	5.90	ND	68.0	25-110			
Phenol	4.56		"	5.90	ND	77.3	35-100			
Pyrene	5.04		"	2.95	0.996	137	40-110			Q-14
1,2,4-Trichlorobenzene	1.65		"	2.95	ND	55.9	30-101			
Surr: 2-Fluorobiphenyl	*2.12*		*"*	*2.95*		*71.9*	*44-146*			
Surr: 2-Fluorophenol	*4.56*		*"*	*5.90*		*77.3*	*42-126*			
Surr: Nitrobenzene-d5	*1.97*		*"*	*2.95*		*66.8*	*42-126*			
Surr: Phenol-d6	*5.19*		*"*	*5.90*		*88.0*	*42-131*			
Surr: p-Terphenyl-d14	*2.44*		*"*	*2.95*		*82.7*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.35*		*"*	*5.90*		*90.7*	*48-119*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
Matrix Spike Dup (1120852-MSD1)	**Source: P1L0598-02**			Prepared: 12/26/01		Analyzed: 12/27/01				
Acenaphthene	2.68		mg/kg dry	2.95	ND	90.8	40-110	8.23	40	
4-Chloro-3-methylphenol	4.88		"	5.90	ND	82.7	40-110	6.16	40	
2-Chlorophenol	4.72		"	5.90	ND	80.0	40-100	1.68	40	
1,4-Dichlorobenzene	0.944		"	2.95	ND	32.0	10-100	15.3	60	
2,4-Dinitrotoluene	2.36		"	2.95	ND	80.0	40-110	0.00	40	
4-Nitrophenol	5.59		"	5.90	ND	94.7	40-125	1.44	40	
N-Nitrosodi-n-propylamine	2.20		"	2.95	ND	74.6	30-110	0.00	40	
Pentachlorophenol	4.01		"	5.90	ND	68.0	25-110	0.00	60	
Phenol	4.56		"	5.90	ND	77.3	35-100	0.00	40	
Pyrene	4.88		"	2.95	0.996	132	40-110	3.23	40	Q-14
1,2,4-Trichlorobenzene	1.50		"	2.95	ND	50.8	30-101	9.52	60	
Surr: 2-Fluorobiphenyl	*1.89*		"	*2.95*		*64.1*	*44-146*			
Surr: 2-Fluorophenol	*4.64*		"	*5.90*		*78.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.81*		"	*2.95*		*61.4*	*42-126*			
Surr: Phenol-d6	*5.27*		"	*5.90*		*89.3*	*42-131*			
Surr: p-Terphenyl-d14	*2.36*		"	*2.95*		*80.0*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.19*		"	*5.90*		*88.0*	*48-119*			
Batch 1120967 - EPA 3550										
Blank (1120967-BLK1)				Prepared: 12/31/01		Analyzed: 01/04/02				
Acenaphthene	ND	0.330	mg/kg							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
Bis(2-chloroethoxy)methane	ND	0.330	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
Blank (1120967-BLK1)				Prepared: 12/31/01 Analyzed: 01/04/02						
Bis(2-chloroethyl)ether	ND	0.330	mg/kg							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
3,3'-Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							
2,6-Dinitrotoluene	ND	0.500	"							
Bis(2-ethylhexyl)phthalate	ND	2.00	"							
Fluoranthene	ND	0.330	"							
Fluorene	ND	0.330	"							
Hexachlorobenzene	ND	0.330	"							
Hexachlorobutadiene	ND	1.00	"							
Hexachlorocyclopentadiene	ND	1.00	"							
Hexachloroethane	ND	1.00	"							
Indeno (1,2,3-cd) pyrene	ND	0.330	"							
Isophorone	ND	0.330	"							
2-Methylnaphthalene	ND	0.330	"							
2-Methylphenol	ND	0.330	"							
3-,4-Methylphenol	ND	0.330	"							
Naphthalene	ND	0.330	"							
2-Nitroaniline	ND	0.330	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
Blank (1120967-BLK1)				Prepared: 12/31/01 Analyzed: 01/04/02						
3-Nitroaniline	ND	1.00	mg/kg							
4-Nitroaniline	ND	0.330	"							
Nitrobenzene	ND	0.330	"							
2-Nitrophenol	ND	0.330	"							
4-Nitrophenol	ND	1.00	"							
N-Nitrosodi-n-propylamine	ND	0.330	"							
N-Nitrosodiphenylamine	ND	0.330	"							
Pentachlorophenol	ND	1.00	"							
Phenanthrene	ND	0.330	"							
Phenol	ND	0.330	"							
Pyrene	ND	0.330	"							
1,2,4-Trichlorobenzene	ND	0.330	"							
2,4,5-Trichlorophenol	ND	0.330	"							
2,4,6-Trichlorophenol	ND	0.330	"							
Surr: 2-Fluorobiphenyl	*1.43*		"	*2.50*		*57.2*	*44-146*			
Surr: 2-Fluorophenol	*2.89*		"	*5.00*		*57.8*	*42-126*			
Surr: Nitrobenzene-d5	*1.39*		"	*2.50*		*55.6*	*42-126*			
Surr: Phenol-d6	*2.93*		"	*5.00*		*58.6*	*42-131*			
Surr: p-Terphenyl-d14	*1.63*		"	*2.50*		*65.2*	*49-150*			
Surr: 2,4,6-Tribromophenol	*2.76*		"	*5.00*		*55.2*	*48-119*			
LCS (1120967-BS1)				Prepared: 12/31/01 Analyzed: 01/04/02						
Acenaphthene	1.71	0.330	mg/kg	2.50		68.4	30-115			
4-Chloro-3-methylphenol	2.74	0.330	"	5.00		54.8	40-110			
2-Chlorophenol	2.76	0.330	"	5.00		55.2	40-100			
1,4-Dichlorobenzene	1.57	1.00	"	2.50		62.8	10-100			
2,4-Dinitrotoluene	1.85	0.500	"	2.50		74.0	30-110			
4-Nitrophenol	2.89	1.00	"	5.00		57.8	30-130			
N-Nitrosodi-n-propylamine	1.61	0.330	"	2.50		64.4	30-110			
Pentachlorophenol	2.74	1.00	"	5.00		54.8	14-120			
Phenol	2.64	0.330	"	5.00		52.8	35-100			
Pyrene	1.88	0.330	"	2.50		75.2	30-115			
1,2,4-Trichlorobenzene	1.71	0.330	"	2.50		68.4	18-100			
Surr: 2-Fluorobiphenyl	*1.77*		"	*2.50*		*70.8*	*44-146*			
Surr: 2-Fluorophenol	*4.53*		"	*5.00*		*90.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.70*		"	*2.50*		*68.0*	*42-126*			

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
LCS (1120967-BS1)				Prepared: 12/31/01		Analyzed: 01/04/02				
Surr: Phenol-d6	*4.29*		*mg/kg*	*5.00*		*85.8*	*42-131*			
Surr: p-Terphenyl-d14	*2.03*		*"*	*2.50*		*81.2*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.96*		*"*	*5.00*		*99.2*	*48-119*			
Matrix Spike (1120967-MS1)		**Source: P1L0598-03**		Prepared: 12/31/01		Analyzed: 01/04/02				
Acenaphthene	2.31	0.330	mg/kg dry	2.88	ND	80.2	40-110			
4-Chloro-3-methylphenol	4.73	0.330	"	5.76	ND	82.1	40-110			
2-Chlorophenol	3.84	0.330	"	5.76	ND	66.7	40-100			
1,4-Dichlorobenzene	1.60	1.00	"	2.88	ND	55.6	10-100			
2,4-Dinitrotoluene	2.53	0.500	"	2.88	ND	87.8	40-110			
4-Nitrophenol	5.34	1.00	"	5.76	ND	92.7	40-125			
N-Nitrosodi-n-propylamine	1.93	0.330	"	2.88	ND	67.0	30-110			
Pentachlorophenol	5.10	1.00	"	5.76	ND	88.5	25-110			
Phenol	3.83	0.330	"	5.76	ND	66.5	35-100			
Pyrene	2.59	0.330	"	2.88	ND	89.9	40-110			
1,2,4-Trichlorobenzene	1.92	0.330	"	2.88	ND	66.7	30-101			
Surr: 2-Fluorobiphenyl	*2.77*		*"*	*2.88*		*96.2*	*44-146*			
Surr: 2-Fluorophenol	*3.85*		*"*	*5.76*		*66.8*	*42-126*			
Surr: Nitrobenzene-d5	*2.36*		*"*	*2.88*		*81.9*	*42-126*			
Surr: Phenol-d6	*4.03*		*"*	*5.76*		*70.0*	*42-131*			
Surr: p-Terphenyl-d14	*3.22*		*"*	*2.88*		*112*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.16*		*"*	*5.76*		*89.6*	*48-119*			
Matrix Spike Dup (1120967-MSD1)		**Source: P1L0598-03**		Prepared: 12/31/01		Analyzed: 01/04/02				
Acenaphthene	2.20	0.330	mg/kg dry	2.88	ND	76.4	40-110	4.88	40	
4-Chloro-3-methylphenol	4.31	0.330	"	5.76	ND	74.8	40-110	9.29	40	
2-Chlorophenol	3.75	0.330	"	5.76	ND	65.1	40-100	2.37	40	
1,4-Dichlorobenzene	1.54	1.00	"	2.88	ND	53.5	10-100	3.82	60	
2,4-Dinitrotoluene	2.36	0.500	"	2.88	ND	81.9	40-110	6.95	40	
4-Nitrophenol	4.45	1.00	"	5.76	ND	77.3	40-125	18.2	40	
N-Nitrosodi-n-propylamine	1.87	0.330	"	2.88	ND	64.9	30-110	3.16	40	
Pentachlorophenol	4.31	1.00	"	5.76	ND	74.8	25-110	16.8	60	
Phenol	3.86	0.330	"	5.76	ND	67.0	35-100	0.780	40	
Pyrene	2.23	0.330	"	2.88	ND	77.4	40-110	14.9	40	
1,2,4-Trichlorobenzene	1.85	0.330	"	2.88	ND	64.2	30-101	3.71	60	
Surr: 2-Fluorobiphenyl	*2.31*		*"*	*2.88*		*80.2*	*44-146*			

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
Matrix Spike Dup (1120967-MSD1)	**Source: P1L0598-03**			Prepared: 12/31/01 Analyzed: 01/04/02						
Surr: 2-Fluorophenol	*6.02*		*mg/kg dry*	*5.76*		*105*	*42-126*			
Surr: Nitrobenzene-d5	*1.93*		*"*	*2.88*		*67.0*	*42-126*			
Surr: Phenol-d6	*6.32*		*"*	*5.76*		*110*	*42-131*			
Surr: p-Terphenyl-d14	*2.59*		*"*	*2.88*		*89.9*	*49-150*			
Surr: 2,4,6-Tribromophenol	*7.43*		*"*	*5.76*		*129*	*48-119*			*Q-01*

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120966 - EPA 3550										
Blank (1120966-BLK1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*72.3*		"	*83.3*		*86.8*	*40-150*			
Surr: Pyrene-d10	*122*		"	*83.3*		*146*	*40-150*			
Surr: Benzo (a) pyrene-d12	*72.0*		"	*83.3*		*86.4*	*40-150*			
LCS (1120966-BS1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Acenaphthene	164	13.4	ug/kg	167		98.2	33-139			
Benzo (a) pyrene	161	13.4	"	167		96.4	45-149			
Pyrene	184	13.4	"	167		110	39-138			
Surr: Fluorene-d10	*74.1*		"	*83.3*		*89.0*	*40-150*			
Surr: Pyrene-d10	*122*		"	*83.3*		*146*	*40-150*			
Surr: Benzo (a) pyrene-d12	*71.6*		"	*83.3*		*86.0*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120966 - EPA 3550										
Matrix Spike (1120966-MS1)	**Source: P1L0598-12**			Prepared: 12/31/01		Analyzed: 01/02/02				
Acenaphthene	193	13.4	ug/kg dry	217	ND	88.9	33-139			
Benzo (a) pyrene	210	13.4	"	217	ND	96.8	45-149			
Pyrene	225	13.4	"	217	ND	104	39-138			
Surr: Fluorene-d10	*88.9*		"	*108*		*82.3*	*40-150*			
Surr: Pyrene-d10	*148*		"	*108*		*137*	*40-150*			
Surr: Benzo (a) pyrene-d12	*91.1*		"	*108*		*84.4*	*40-150*			
Matrix Spike Dup (1120966-MSD1)	**Source: P1L0598-12**			Prepared: 12/31/01		Analyzed: 01/02/02				
Acenaphthene	198	13.4	ug/kg dry	217	ND	91.2	33-139	2.56	60	
Benzo (a) pyrene	224	13.4	"	217	ND	103	45-149	6.45	60	
Pyrene	242	13.4	"	217	ND	112	39-138	7.28	60	
Surr: Fluorene-d10	*91.6*		"	*108*		*84.8*	*40-150*			
Surr: Pyrene-d10	*154*		"	*108*		*143*	*40-150*			
Surr: Benzo (a) pyrene-d12	*92.7*		"	*108*		*85.8*	*40-150*			
Batch 2010323 - EPA 3550										
Blank (2010323-BLK1)				Prepared: 01/11/02		Analyzed: 01/15/02				
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*71.9*		"	*83.3*		*86.3*	*40-150*			
Surr: Pyrene-d10	*81.3*		"	*83.3*		*97.6*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010323 - EPA 3550										
Blank (2010323-BLK1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Surr: Benzo (a) pyrene-d12	*80.1*		*ug/kg*	*83.3*		*96.2*	*40-150*			
LCS (2010323-BS1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	123	13.4	ug/kg	167		73.7	33-139			
Benzo (a) pyrene	127	13.4	"	167		76.0	45-149			
Pyrene	130	13.4	"	167		77.8	39-138			
Surr: Fluorene-d10	*75.1*		*"*	*83.3*		*90.2*	*40-150*			
Surr: Pyrene-d10	*84.8*		*"*	*83.3*		*102*	*40-150*			
Surr: Benzo (a) pyrene-d12	*80.8*		*"*	*83.3*		*97.0*	*40-150*			
Matrix Spike (2010323-MS1)	**Source: P2A0115-01**			Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	130	26.8	ug/kg dry	181	ND	71.8	33-139			
Benzo (a) pyrene	195	26.8	"	181	95.5	55.0	45-149			
Pyrene	191	26.8	"	181	66.3	68.9	39-138			
Surr: Fluorene-d10	*80.6*		*"*	*90.7*		*88.9*	*40-150*			
Surr: Pyrene-d10	*85.8*		*"*	*90.7*		*94.6*	*40-150*			
Surr: Benzo (a) pyrene-d12	*90.5*		*"*	*90.7*		*99.8*	*40-150*			
Matrix Spike Dup (2010323-MSD1)	**Source: P2A0115-01**			Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	128	26.8	ug/kg dry	181	ND	70.7	33-139	1.55	60	
Benzo (a) pyrene	192	26.8	"	181	95.5	53.3	45-149	1.55	60	
Pyrene	169	26.8	"	181	66.3	56.7	39-138	12.2	60	
Surr: Fluorene-d10	*77.6*		*"*	*90.7*		*85.6*	*40-150*			
Surr: Pyrene-d10	*82.8*		*"*	*90.7*		*91.3*	*40-150*			
Surr: Benzo (a) pyrene-d12	*89.4*		*"*	*90.7*		*98.6*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120720 - Dry Weight										
Duplicate (1120720-DUP1)		**Source: P1L0596-01**		Prepared: 12/20/01	Analyzed: 12/21/01					
% Solids	91.3	1.00	% by Weight		81.7			11.1	20	
Batch 1120821 - Dry Weight										
Duplicate (1120821-DUP1)		**Source: P1L0598-03**		Prepared: 12/26/01	Analyzed: 12/27/01					
% Solids	87.5	1.00	% by Weight		86.9			0.688	20	
Duplicate (1120821-DUP3)		**Source: P1L0665-05**		Prepared: 12/26/01	Analyzed: 12/27/01					
% Solids	84.0	1.00	% by Weight		83.3			0.837	20	
Duplicate (1120821-DUP4)		**Source: P1L0692-01**		Prepared: 12/26/01	Analyzed: 12/27/01					
% Solids	73.3	1.00	% by Weight		72.8			0.684	20	
Batch 2010331 - Dry Weight										
Duplicate (2010331-DUP1)		**Source: P1L0598-08**		Prepared: 01/11/02	Analyzed: 01/14/02					
% Solids	81.7	1.00	% by Weight		81.8			0.122	20	
Duplicate (2010331-DUP2)		**Source: P2A0240-01**		Prepared: 01/11/02	Analyzed: 01/14/02					
% Solids	93.9	1.00	% by Weight		93.8			0.107	20	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Notes and Definitions

D-15	Detected hydrocarbons have non-petroleum peaks or elution pattern that suggests the presence of biogenic interference.
D-16	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.
D-17	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.
O-07	This sample was extracted outside the EPA recommended holding time.
Q-01	The spike recovery, and/or RPD, for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
Q-03	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
Q-14	The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
R-05	Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
S-08	Surrogate recovery is above control limits. Since no analytes were detected in the sample, the quality of the data has not been affected.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	Sample results reported on a wet weight basis (as received)
RPD	Relative Percent Difference

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

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CHAIN OF CUSTODY REPORT Work Order #:

CLIENT: Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: FAX:

INVOICE TO: Bridgewater Group
P.O. NUMBER: SS1-001-21

PROJECT NAME: Burgard
PROJECT NUMBER: SS1-001-21
SAMPLED BY: Virgin / Rieke

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses (STD.): 5 | 4 | 3 | 2 | 1 | <1
OTHER — Please Specify
*Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES: Hold until Notice	MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. S-PP01-3	12/18/01	X	S	1		
2. S-PP01-6						
3. S-PP01-9						
4. S-PP01-13						
5. S-PP01-18						
6. S-PP02-1,5						
7. S-PP02-5						
8. S-PP02-9						
9. S-PP02-13						
10. S-PP02-17						
11. S-PP03-1						
12. S-PP03-5,5						
13. S-PP03-10						
14. S-PP03-13						
15. S-PP03-18						

RELINQUISHED BY: [signature] DATE: 12/19
PRINT NAME: Ross Rieke FIRM: Bridgewater Gp TIME: 1438

RECEIVED BY: [signature] DATE: 12/19/01
PRINT NAME: Kim Davis FIRM: NCA TIME: 1438

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 10.6°C

North Creek Analytical, Inc.
Environmental Laboratory Network
www.ncalabs.com

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 (425) 420-9200 FAX 420-9210
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 906-9200 FAX 906-9210
20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 (541) 383-9310 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: FAX:

INVOICE TO: Bridgewater Group
P.O. NUMBER: SS1-001-21

PROJECT NAME: Burgard
PROJECT NUMBER: SS1001-21
SAMPLED BY: Virgin/Rieke

TURNAROUND REQUEST in Business Days*

Organic & Inorganic Analyses: 10 (STD.) | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 (STD.) | 4 | 3 | 2 | 1 | <1

OTHER — Please Specify

*Turnaround Requests less than standard may incur Rush Charges.

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Hold Until Notice											8260 VOCs		MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. S-PP04-13	12/18/01	X													S	1		
2. S-PP04-17																		
3. S-PP04-26																		
4. S-PP05-1																		
5. S-PP05-6																		
6. S-PP05-9																		
7. S-PP05-13																		
8. S-PP05-17																		
9. S-PP05-21		X																
10. GW-PP02-~~18~~ 011218													X		W	2	container labeled "121801"	
11. GW-PP03-011218													X					
12. GW-PP04-011218													X					
13. GW-PP05-011218													X					
14.																		
15.																		

RELINQUISHED BY: [signature] DATE: 12/19
PRINT NAME: Ross Rieke FIRM: Bridgewater Gp TIME: 1438

RECEIVED BY: [signature] DATE: 12/19/01
PRINT NAME: Kim Davis FIRM: NCA TIME: 1438

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 10.6°C

COC REV 3/99

PAGE OF

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Tuesday, March 27, 2012

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

RE: Schnitzer-Burgard / HAI-8001

Enclosed are the results of analyses for work order A12B377, which was received by the laboratory on 2/27/2012 at 10:40:00AM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

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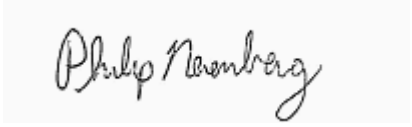

Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
8001-120224-ITSS-TP1-0.0-0.5	A12B377-01	Soil	02/24/12 15:05	02/27/12 10:40
8001-120224-ITSS-TP2-0.0-0.5	A12B377-02	Soil	02/24/12 14:35	02/27/12 10:40
8001-120224-ITSS-TP2-1.5	A12B377-03	Soil	02/24/12 14:50	02/27/12 10:40
8001-120224-ITSS-TP3-0.0-0.5	A12B377-04	Soil	02/24/12 14:35	02/27/12 10:40
8001-120224-ITSS-TP4-0.0-0.5	A12B377-05	Soil	02/24/12 09:30	02/27/12 10:40
8001-120224-ITSS-TP5-0.0-0.5	A12B377-06	Soil	02/24/12 09:40	02/27/12 10:40
8001-120224-ITSS-TP5-1.5	A12B377-07	Soil	02/24/12 09:53	02/27/12 10:40
8001-120224-ITSS-TP6-0.0-0.5	A12B377-08	Soil	02/24/12 10:40	02/27/12 10:40
8001-120224-ITSS-TP7-0.0-0.5	A12B377-09	Soil	02/24/12 10:55	02/27/12 10:40
8001-120224-ITSS-TP8-0.0-0.5	A12B377-10	Soil	02/24/12 11:20	02/27/12 10:40
8001-120224-ITSS-TP9-0.0-0.5	A12B377-11	Soil	02/24/12 11:50	02/27/12 10:40
8001-120224-ITSS-TP10-0.0-0.5	A12B377-12	Soil	02/24/12 12:20	02/27/12 10:40

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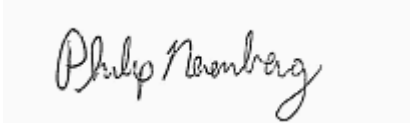

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503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**		**Batch: 1203040**			
Diesel Range Organics	ND	296	593	mg/kg dry	10	03/03/12 16:51	NWTPH-Dx	
Oil Range Organics	**4140**	593	1190	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	*S-05*
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02RE1)			**Matrix: Soil**		**Batch: 1203040**			
Diesel Range Organics	**28.4**	22.7	45.5	mg/kg dry	2	03/04/12 17:05	NWTPH-Dx	J
Oil Range Organics	**290**	45.5	91.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**		**Batch: 1203040**			
Diesel Range Organics	ND	52.8	106	mg/kg dry	5	03/03/12 23:34	NWTPH-Dx	
Oil Range Organics	**261**	106	211	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 87 %*	*Limits: 50-150 %*	"	"	"	*S-05*
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04RE1)			**Matrix: Soil**		**Batch: 1203040**			
Diesel Range Organics	**88.0**	59.0	118	mg/kg dry	5	03/04/12 19:28	NWTPH-Dx	J
Oil Range Organics	**879**	118	236	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*	"	"	"	*S-05*
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**		**Batch: 1203040**			
Diesel Range Organics	ND	169	338	mg/kg dry	10	03/04/12 01:09	NWTPH-Dx	
Oil Range Organics	**2700**	338	676	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	*S-05*
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	ND	357	714	mg/kg dry	20	03/03/12 04:56	NWTPH-Dx	
Oil Range Organics	**4570**	714	1430	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	"	"	"	*S-01*
8001-120224-ITSS-TP5-1.5 (A12B377-07)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	ND	327	654	mg/kg dry	20	03/03/12 05:43	NWTPH-Dx	
Oil Range Organics	**2720**	654	1310	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	"	"	"	*S-01*
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	ND	221	443	mg/kg dry	20	03/03/12 06:30	NWTPH-Dx	
Oil Range Organics	**1580**	443	885	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	"	"	"	*S-01*

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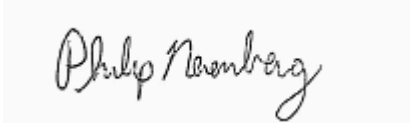

Philip Nerenberg, Lab Director

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Tigard, OR 97223
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503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	**24.7**	19.9	39.8	mg/kg dry	2	03/03/12 07:18	NWTPH-Dx	J
Oil Range Organics	**223**	39.8	79.6	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 91 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	**631**	516	1030	mg/kg dry	10	03/03/12 08:05	NWTPH-Dx	J
Oil Range Organics	**3790**	1030	2060	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	"	"	"	*S-01*
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	ND	227	455	mg/kg dry	20	03/03/12 08:52	NWTPH-Dx	
Oil Range Organics	**1310**	455	909	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	"	"	"	*S-01*
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1202567**			
Diesel Range Organics	ND	373	747	mg/kg dry	20	03/03/12 09:40	NWTPH-Dx	
Oil Range Organics	**1790**	747	1490	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	"	"	"	*S-01*

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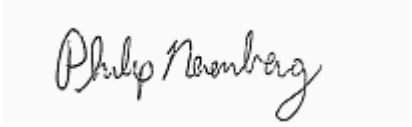

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	5.14	10.3	mg/kg dry	50	02/28/12 12:48	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 88 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*92 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.91	5.82	mg/kg dry	50	02/28/12 13:40	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 85 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*92 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.82	5.65	mg/kg dry	50	02/28/12 14:06	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 84 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*92 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	3.27	6.54	mg/kg dry	50	02/28/12 14:33	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 85 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*91 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.14	4.28	mg/kg dry	50	02/28/12 14:59	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 82 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*91 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.18	4.36	mg/kg dry	50	02/28/12 15:25	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 84 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*92 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP5-1.5 (A12B377-07)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.16	4.33	mg/kg dry	50	02/28/12 15:51	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 84 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*93 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.65	5.29	mg/kg dry	50	02/28/12 16:17	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 83 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*92 %*	*Limits: 50-150 %*	"	"	"	

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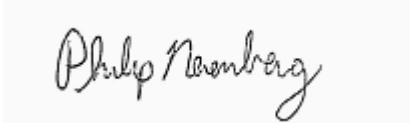

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	2.40	4.80	mg/kg dry	50	02/28/12 16:43	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 85 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*91 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10)			**Matrix: Soil**		**Batch: 1202523**			**V-07**
Gasoline Range Organics	ND	3.15	6.29	mg/kg dry	50	02/28/12 17:09	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 84 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*91 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**		**Batch: 1202504**			**V-07**
Gasoline Range Organics	ND	2.77	5.55	mg/kg dry	50	02/28/12 15:21	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 103 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*94 %*	*Limits: 50-150 %*	"	"	"	
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1202504**			**V-07**
Gasoline Range Organics	ND	2.25	4.50	mg/kg dry	50	02/28/12 14:30	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 108 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	

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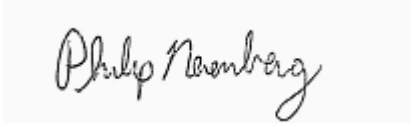

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	7.70	15.4	ug/kg dry	1	03/09/12 17:59	EPA 8082A	
Aroclor 1221	ND	7.70	15.4	"	"	"	"	
Aroclor 1232	ND	7.70	15.4	"	"	"	"	
Aroclor 1242	ND	7.70	15.4	"	"	"	"	
Aroclor 1248	ND	7.70	15.4	"	"	"	"	
Aroclor 1254	**287**	7.70	15.4	"	"	"	"	EST
Aroclor 1260	**169**	7.70	15.4	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 65 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*71 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	1.99	3.99	ug/kg dry	1	03/09/12 19:30	EPA 8082A	
Aroclor 1221	ND	1.99	3.99	"	"	"	"	
Aroclor 1232	ND	1.99	3.99	"	"	"	"	
Aroclor 1242	ND	1.99	3.99	"	"	"	"	
Aroclor 1248	ND	1.99	3.99	"	"	"	"	
Aroclor 1254	**135**	1.99	3.99	"	"	"	"	EST
Aroclor 1260	**46.9**	1.99	3.99	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 82 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*91 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	2.09	4.18	ug/kg dry	1	03/09/12 20:41	EPA 8082A	
Aroclor 1221	ND	2.09	4.18	"	"	"	"	
Aroclor 1232	ND	2.09	4.18	"	"	"	"	
Aroclor 1242	ND	2.09	4.18	"	"	"	"	
Aroclor 1248	ND	2.09	4.18	"	"	"	"	
Aroclor 1254	**191**	2.09	4.18	"	"	"	"	EST
Aroclor 1260	**66.8**	2.09	4.18	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 79 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*87 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	21.8	43.7	ug/kg dry	10	03/12/12 12:14	EPA 8082A	
Aroclor 1221	ND	21.8	43.7	"	"	"	"	
Aroclor 1232	ND	21.8	43.7	"	"	"	"	
Aroclor 1242	ND	21.8	43.7	"	"	"	"	

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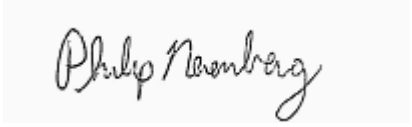

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1248	ND	21.8	43.7	ug/kg dry	10	"	EPA 8082A	
Aroclor 1254	**1060**	21.8	43.7	"	"	"	"	ESTa
Aroclor 1260	**1380**	21.8	43.7	"	"	"	"	ESTa
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 78 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*103 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	4.45	8.89	ug/kg dry	1	03/09/12 21:51	EPA 8082A	
Aroclor 1221	ND	4.45	8.89	"	"	"	"	
Aroclor 1232	ND	4.45	8.89	"	"	"	"	
Aroclor 1242	ND	4.45	8.89	"	"	"	"	
Aroclor 1248	ND	4.45	8.89	"	"	"	"	
Aroclor 1254	**135**	4.45	8.89	"	"	"	"	EST
Aroclor 1260	**73.0**	4.45	8.89	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 92 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*101 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	4.85	9.69	ug/kg dry	1	03/12/12 16:21	EPA 8082A	
Aroclor 1221	ND	4.85	9.69	"	"	"	"	
Aroclor 1232	ND	4.85	9.69	"	"	"	"	
Aroclor 1242	ND	4.85	9.69	"	"	"	"	
Aroclor 1248	ND	4.85	9.69	"	"	"	"	
Aroclor 1254	**386**	4.85	9.69	"	"	"	"	EST
Aroclor 1260	**82.1**	4.85	9.69	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 87 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*93 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP5-1.5 (A12B377-07RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	5.26	10.5	ug/kg dry	1	03/12/12 16:56	EPA 8082A	
Aroclor 1221	ND	5.26	10.5	"	"	"	"	
Aroclor 1232	ND	5.26	10.5	"	"	"	"	
Aroclor 1242	ND	5.26	10.5	"	"	"	"	
Aroclor 1248	ND	5.26	10.5	"	"	"	"	
Aroclor 1254	**75.3**	5.26	10.5	"	"	"	"	EST
Aroclor 1260	**39.8**	5.26	10.5	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 82 %*	*Limits: 50-125 %*	"	"	"	

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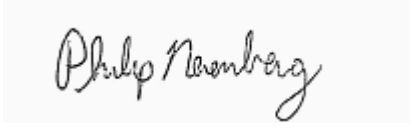

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP5-1.5 (A12B377-07RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 55-130 %*	1	"	EPA 8082A	
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	21.4	42.7	ug/kg dry	10	03/12/12 14:00	EPA 8082A	
Aroclor 1221	ND	21.4	42.7	"	"	"	"	
Aroclor 1232	ND	21.4	42.7	"	"	"	"	
Aroclor 1242	ND	21.4	42.7	"	"	"	"	
Aroclor 1248	ND	21.4	42.7	"	"	"	"	
Aroclor 1254	**555**	21.4	42.7	"	"	"	"	ESTa
Aroclor 1260	**88.5**	21.4	42.7	"	"	"	"	ESTa
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 96 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*95 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	2.10	4.20	ug/kg dry	1	03/12/12 17:32	EPA 8082A	
Aroclor 1221	ND	2.10	4.20	"	"	"	"	
Aroclor 1232	ND	2.10	4.20	"	"	"	"	
Aroclor 1242	ND	2.10	4.20	"	"	"	"	
Aroclor 1248	ND	2.10	4.20	"	"	"	"	
Aroclor 1254	**158**	2.10	4.20	"	"	"	"	EST
Aroclor 1260	**107**	2.10	4.20	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 79 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*108 %*	*Limits: 55-130 %*	"	"	"	
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	206	413	ug/kg dry	100	03/12/12 15:10	EPA 8082A	
Aroclor 1221	ND	206	413	"	"	"	"	
Aroclor 1232	ND	206	413	"	"	"	"	
Aroclor 1242	ND	206	413	"	"	"	"	
Aroclor 1248	ND	206	413	"	"	"	"	
Aroclor 1254	**7450**	206	413	"	"	"	"	EST
Aroclor 1260	**1540**	206	413	"	"	"	"	EST
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 51 %*	*Limits: 50-125 %*	"	"	"	*S-05*
Decachlorobiphenyl (Surr)			*166 %*	*Limits: 55-130 %*	"	"	"	*S-05*
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	108	215	ug/kg dry	50	03/12/12 15:46	EPA 8082A	
Aroclor 1221	ND	108	215	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11RE1)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1232	ND	108	215	ug/kg dry	50	"	EPA 8082A	
Aroclor 1242	ND	108	215	"	"	"	"	
Aroclor 1248	ND	108	215	"	"	"	"	
Aroclor 1254	ND	108	215	"	"	"	"	
Aroclor 1260	**3360**	108	215	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 85 %*	*Limits: 50-125 %*	"	"	"	*S-05*
Decachlorobiphenyl (Surr)			*112 %*	*Limits: 55-130 %*	"	"	"	*S-05*
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1203170**			**C-07**
Aroclor 1016	ND	4.52	9.05	ug/kg dry	1	03/12/12 11:38	EPA 8082A	
Aroclor 1221	ND	4.52	9.05	"	"	"	"	
Aroclor 1232	ND	4.52	9.05	"	"	"	"	
Aroclor 1242	ND	4.52	9.05	"	"	"	"	
Aroclor 1248	ND	4.52	9.05	"	"	"	"	
Aroclor 1254	**190**	4.52	9.05	"	"	"	"	ESTa
Aroclor 1260	**297**	4.52	9.05	"	"	"	"	ESTa
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 85 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*97 %*	*Limits: 55-130 %*	"	"	"	

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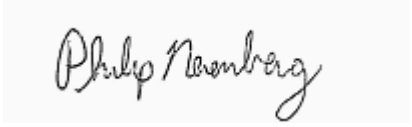

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	30.8	30.8	ug/kg dry	5	03/12/12 14:00	EPA 8081B	
alpha-BHC	ND	30.8	30.8	"	"	"	"	
beta-BHC	ND	30.8	30.8	"	"	"	"	
delta-BHC	ND	30.8	30.8	"	"	"	"	
gamma-BHC (Lindane)	ND	30.8	30.8	"	"	"	"	
cis-Chlordane	ND	30.8	30.8	"	"	"	"	
trans-Chlordane	ND	30.8	30.8	"	"	"	"	
4,4'-DDD	ND	30.8	30.8	"	"	"	"	
4,4'-DDE	ND	30.8	30.8	"	"	"	"	
4,4'-DDT	ND	86.3	86.3	"	"	"	"	R-02
Dieldrin	ND	30.8	30.8	"	"	"	"	
Endosulfan I	ND	30.8	30.8	"	"	"	"	
Endosulfan II	ND	30.8	30.8	"	"	"	"	
Endosulfan sulfate	ND	30.8	30.8	"	"	"	"	
Endrin	ND	30.8	30.8	"	"	"	"	
Endrin Aldehyde	ND	30.8	30.8	"	"	"	"	
Endrin ketone	ND	30.8	30.8	"	"	"	"	
Heptachlor	ND	30.8	30.8	"	"	"	"	
Heptachlor epoxide	ND	30.8	30.8	"	"	"	"	
Methoxychlor	ND	61.7	61.7	"	"	"	"	
Chlordane (Technical)	ND	370	370	"	"	"	"	
Toxaphene (Total)	ND	370	370	"	"	"	"	
cis-Nonachlor	ND	30.8	30.8	"	"	"	"	
2,4'-DDD	ND	30.8	30.8	"	"	"	"	
2,4'-DDE	ND	30.8	30.8	"	"	"	"	
2,4'-DDT	ND	61.7	61.7	"	"	"	"	
Hexachlorobenzene	ND	30.8	30.8	"	"	"	"	
Hexachlorobutadiene	ND	30.8	30.8	"	"	"	"	
Mirex	ND	30.8	30.8	"	"	"	"	
Oxychlordane	ND	30.8	30.8	"	"	"	"	
trans-Nonachlor	ND	30.8	30.8	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 93 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*120 %*	*Limits: 55-130 %*	"	"	"	

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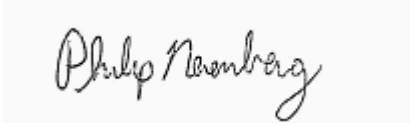

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	21.4	21.4	ug/kg dry	5	03/12/12 14:36	EPA 8081B	
alpha-BHC	ND	21.4	21.4	"	"	"	"	
beta-BHC	ND	21.4	21.4	"	"	"	"	
delta-BHC	ND	21.4	21.4	"	"	"	"	
gamma-BHC (Lindane)	ND	21.4	21.4	"	"	"	"	
cis-Chlordane	ND	21.4	21.4	"	"	"	"	
trans-Chlordane	ND	21.4	21.4	"	"	"	"	
4,4'-DDD	ND	21.4	21.4	"	"	"	"	
4,4'-DDE	ND	21.4	21.4	"	"	"	"	
4,4'-DDT	ND	42.9	42.9	"	"	"	"	R-02
Dieldrin	ND	21.4	21.4	"	"	"	"	
Endosulfan I	ND	21.4	21.4	"	"	"	"	
Endosulfan II	ND	21.4	21.4	"	"	"	"	
Endosulfan sulfate	ND	21.4	21.4	"	"	"	"	
Endrin	ND	21.4	21.4	"	"	"	"	
Endrin Aldehyde	ND	21.4	21.4	"	"	"	"	
Endrin ketone	ND	21.4	21.4	"	"	"	"	
Heptachlor	ND	21.4	21.4	"	"	"	"	
Heptachlor epoxide	ND	21.4	21.4	"	"	"	"	
Methoxychlor	ND	42.9	42.9	"	"	"	"	
Chlordane (Technical)	ND	257	257	"	"	"	"	
Toxaphene (Total)	ND	257	257	"	"	"	"	
cis-Nonachlor	ND	21.4	21.4	"	"	"	"	
2,4'-DDD	ND	21.4	21.4	"	"	"	"	
2,4'-DDE	ND	21.4	21.4	"	"	"	"	
2,4'-DDT	ND	42.9	42.9	"	"	"	"	
Hexachlorobenzene	ND	21.4	21.4	"	"	"	"	
Hexachlorobutadiene	ND	21.4	21.4	"	"	"	"	
Mirex	ND	21.4	21.4	"	"	"	"	
Oxychlordane	ND	21.4	21.4	"	"	"	"	
trans-Nonachlor	ND	21.4	21.4	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 85 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*105 %*	*Limits: 55-130 %*	"	"	"	

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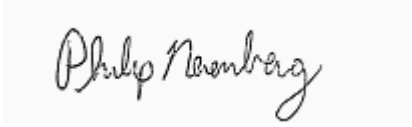

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP2-1.5 (A12B377-03RE1)			**Matrix: Soil**		**Batch: 1203162**			**C-05, A-01**
Aldrin	ND	21.6	21.6	ug/kg dry	5	03/12/12 16:25	EPA 8081B	
alpha-BHC	ND	21.6	21.6	"	"	"	"	
beta-BHC	ND	21.6	21.6	"	"	"	"	
delta-BHC	ND	21.6	21.6	"	"	"	"	
gamma-BHC (Lindane)	ND	21.6	21.6	"	"	"	"	
cis-Chlordane	ND	21.6	21.6	"	"	"	"	
trans-Chlordane	ND	21.6	21.6	"	"	"	"	
4,4'-DDD	ND	21.6	21.6	"	"	"	"	
4,4'-DDE	ND	21.6	21.6	"	"	"	"	
4,4'-DDT	ND	47.4	47.4	"	"	"	"	R-02
Dieldrin	ND	21.6	21.6	"	"	"	"	
Endosulfan I	ND	21.6	21.6	"	"	"	"	
Endosulfan II	ND	21.6	21.6	"	"	"	"	
Endosulfan sulfate	ND	21.6	21.6	"	"	"	"	
Endrin	ND	21.6	21.6	"	"	"	"	
Endrin Aldehyde	ND	21.6	21.6	"	"	"	"	
Endrin ketone	ND	21.6	21.6	"	"	"	"	
Heptachlor	ND	21.6	21.6	"	"	"	"	
Heptachlor epoxide	ND	21.6	21.6	"	"	"	"	
Methoxychlor	ND	43.1	43.1	"	"	"	"	
Chlordane (Technical)	ND	259	259	"	"	"	"	
Toxaphene (Total)	ND	259	259	"	"	"	"	
cis-Nonachlor	ND	21.6	21.6	"	"	"	"	
2,4'-DDD	ND	21.6	21.6	"	"	"	"	
2,4'-DDE	ND	21.6	21.6	"	"	"	"	
2,4'-DDT	ND	43.1	43.1	"	"	"	"	
Hexachlorobenzene	ND	21.6	21.6	"	"	"	"	
Hexachlorobutadiene	ND	21.6	21.6	"	"	"	"	
Mirex	ND	21.6	21.6	"	"	"	"	
Oxychlordane	ND	21.6	21.6	"	"	"	"	
trans-Nonachlor	ND	21.6	21.6	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 96 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*112 %*	*Limits: 55-130 %*	"	"	"	

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Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04RE1)			**Matrix: Soil**		**Batch: 1203162**			**C-05**
Aldrin	ND	42.6	42.6	ug/kg dry	10	03/12/12 17:01	EPA 8081B	
alpha-BHC	ND	42.6	42.6	"	"	"	"	
beta-BHC	ND	42.6	42.6	"	"	"	"	
delta-BHC	ND	42.6	42.6	"	"	"	"	
gamma-BHC (Lindane)	ND	42.6	42.6	"	"	"	"	
cis-Chlordane	ND	42.6	42.6	"	"	"	"	
trans-Chlordane	ND	42.6	42.6	"	"	"	"	
4,4'-DDD	ND	42.6	42.6	"	"	"	"	
4,4'-DDE	ND	42.6	42.6	"	"	"	"	
4,4'-DDT	ND	255	255	"	"	"	"	R-02
Dieldrin	ND	42.6	42.6	"	"	"	"	
Endosulfan I	ND	42.6	42.6	"	"	"	"	
Endosulfan II	ND	42.6	42.6	"	"	"	"	
Endosulfan sulfate	ND	42.6	42.6	"	"	"	"	
Endrin	ND	42.6	42.6	"	"	"	"	
Endrin Aldehyde	ND	51.1	51.1	"	"	"	"	R-02
Endrin ketone	ND	42.6	42.6	"	"	"	"	
Heptachlor	ND	42.6	42.6	"	"	"	"	
Heptachlor epoxide	ND	42.6	42.6	"	"	"	"	
Methoxychlor	ND	85.1	85.1	"	"	"	"	
Chlordane (Technical)	ND	511	511	"	"	"	"	
Toxaphene (Total)	ND	511	511	"	"	"	"	
cis-Nonachlor	ND	102	102	"	"	"	"	R-02
2,4'-DDD	ND	85.1	85.1	"	"	"	"	R-02
2,4'-DDE	ND	42.6	42.6	"	"	"	"	
2,4'-DDT	ND	85.1	85.1	"	"	"	"	
Hexachlorobenzene	ND	42.6	42.6	"	"	"	"	
Hexachlorobutadiene	ND	42.6	42.6	"	"	"	"	
Mirex	ND	42.6	42.6	"	"	"	"	
Oxychlordane	ND	42.6	42.6	"	"	"	"	
trans-Nonachlor	ND	42.6	42.6	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*108 %*	*Limits: 55-130 %*	"	"	"	

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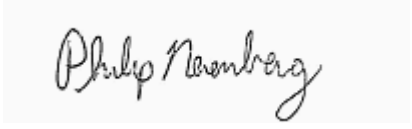

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	18.8	18.8	ug/kg dry	5	03/12/12 17:37	EPA 8081B	
alpha-BHC	ND	18.8	18.8	"	"	"	"	
beta-BHC	ND	18.8	18.8	"	"	"	"	
delta-BHC	ND	18.8	18.8	"	"	"	"	
gamma-BHC (Lindane)	ND	18.8	18.8	"	"	"	"	
cis-Chlordane	ND	18.8	18.8	"	"	"	"	
trans-Chlordane	ND	18.8	18.8	"	"	"	"	
4,4'-DDD	ND	18.8	18.8	"	"	"	"	
4,4'-DDE	ND	18.8	18.8	"	"	"	"	
4,4'-DDT	ND	33.9	33.9	"	"	"	"	R-02
Dieldrin	ND	18.8	18.8	"	"	"	"	
Endosulfan I	ND	18.8	18.8	"	"	"	"	
Endosulfan II	ND	18.8	18.8	"	"	"	"	
Endosulfan sulfate	ND	18.8	18.8	"	"	"	"	
Endrin	ND	18.8	18.8	"	"	"	"	
Endrin Aldehyde	ND	18.8	18.8	"	"	"	"	
Endrin ketone	ND	18.8	18.8	"	"	"	"	
Heptachlor	ND	18.8	18.8	"	"	"	"	
Heptachlor epoxide	ND	18.8	18.8	"	"	"	"	
Methoxychlor	ND	37.6	37.6	"	"	"	"	
Chlordane (Technical)	ND	226	226	"	"	"	"	
Toxaphene (Total)	ND	226	226	"	"	"	"	
cis-Nonachlor	ND	18.8	18.8	"	"	"	"	
2,4'-DDD	ND	18.8	18.8	"	"	"	"	
2,4'-DDE	ND	18.8	18.8	"	"	"	"	
2,4'-DDT	ND	37.6	37.6	"	"	"	"	
Hexachlorobenzene	ND	18.8	18.8	"	"	"	"	
Hexachlorobutadiene	ND	18.8	18.8	"	"	"	"	
Mirex	ND	18.8	18.8	"	"	"	"	
Oxychlordane	ND	18.8	18.8	"	"	"	"	
trans-Nonachlor	ND	18.8	18.8	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 96 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*105 %*	*Limits: 55-130 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	18.8	18.8	ug/kg dry	5	03/12/12 18:49	EPA 8081B	
alpha-BHC	ND	18.8	18.8	"	"	"	"	
beta-BHC	ND	18.8	18.8	"	"	"	"	
delta-BHC	ND	18.8	18.8	"	"	"	"	
gamma-BHC (Lindane)	ND	18.8	18.8	"	"	"	"	
cis-Chlordane	ND	18.8	18.8	"	"	"	"	
trans-Chlordane	ND	18.8	18.8	"	"	"	"	
4,4'-DDD	ND	18.8	18.8	"	"	"	"	
4,4'-DDE	ND	18.8	18.8	"	"	"	"	
4,4'-DDT	ND	33.8	33.8	"	"	"	"	R-02
Dieldrin	ND	18.8	18.8	"	"	"	"	
Endosulfan I	ND	18.8	18.8	"	"	"	"	
Endosulfan II	ND	18.8	18.8	"	"	"	"	
Endosulfan sulfate	ND	18.8	18.8	"	"	"	"	
Endrin	ND	18.8	18.8	"	"	"	"	
Endrin Aldehyde	ND	18.8	18.8	"	"	"	"	
Endrin ketone	ND	18.8	18.8	"	"	"	"	
Heptachlor	ND	18.8	18.8	"	"	"	"	
Heptachlor epoxide	ND	18.8	18.8	"	"	"	"	
Methoxychlor	ND	37.5	37.5	"	"	"	"	
Chlordane (Technical)	ND	225	225	"	"	"	"	
Toxaphene (Total)	ND	225	225	"	"	"	"	
cis-Nonachlor	ND	18.8	18.8	"	"	"	"	
2,4'-DDD	ND	18.8	18.8	"	"	"	"	
2,4'-DDE	ND	18.8	18.8	"	"	"	"	
2,4'-DDT	ND	37.5	37.5	"	"	"	"	
Hexachlorobenzene	ND	18.8	18.8	"	"	"	"	
Hexachlorobutadiene	ND	18.8	18.8	"	"	"	"	
Mirex	ND	18.8	18.8	"	"	"	"	
Oxychlordane	ND	18.8	18.8	"	"	"	"	
trans-Nonachlor	ND	18.8	18.8	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 107 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*116 %*	*Limits: 55-130 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP5-1.5 (A12B377-07RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	19.3	19.3	ug/kg dry	5	03/12/12 19:25	EPA 8081B	
alpha-BHC	ND	19.3	19.3	"	"	"	"	
beta-BHC	ND	19.3	19.3	"	"	"	"	
delta-BHC	ND	19.3	19.3	"	"	"	"	
gamma-BHC (Lindane)	ND	19.3	19.3	"	"	"	"	
cis-Chlordane	ND	19.3	19.3	"	"	"	"	
trans-Chlordane	ND	19.3	19.3	"	"	"	"	
4,4'-DDD	ND	19.3	19.3	"	"	"	"	
4,4'-DDE	ND	19.3	19.3	"	"	"	"	
4,4'-DDT	ND	38.5	38.5	"	"	"	"	R-02
Dieldrin	ND	19.3	19.3	"	"	"	"	
Endosulfan I	ND	19.3	19.3	"	"	"	"	
Endosulfan II	ND	19.3	19.3	"	"	"	"	
Endosulfan sulfate	ND	19.3	19.3	"	"	"	"	
Endrin	ND	19.3	19.3	"	"	"	"	
Endrin Aldehyde	ND	19.3	19.3	"	"	"	"	
Endrin ketone	ND	19.3	19.3	"	"	"	"	
Heptachlor	ND	19.3	19.3	"	"	"	"	
Heptachlor epoxide	ND	19.3	19.3	"	"	"	"	
Methoxychlor	ND	38.5	38.5	"	"	"	"	
Chlordane (Technical)	ND	231	231	"	"	"	"	
Toxaphene (Total)	ND	231	231	"	"	"	"	
cis-Nonachlor	ND	19.3	19.3	"	"	"	"	
2,4'-DDD	ND	19.3	19.3	"	"	"	"	
2,4'-DDE	ND	19.3	19.3	"	"	"	"	
2,4'-DDT	ND	38.5	38.5	"	"	"	"	
Hexachlorobenzene	ND	19.3	19.3	"	"	"	"	
Hexachlorobutadiene	ND	19.3	19.3	"	"	"	"	
Mirex	ND	19.3	19.3	"	"	"	"	
Oxychlordane	ND	19.3	19.3	"	"	"	"	
trans-Nonachlor	ND	19.3	19.3	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 97 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*109 %*	*Limits: 55-130 %*	"	"	"	

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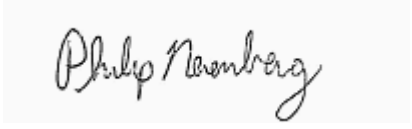

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	42.0	42.0	ug/kg dry	10	03/12/12 20:01	EPA 8081B	
alpha-BHC	ND	42.0	42.0	"	"	"	"	
beta-BHC	ND	42.0	42.0	"	"	"	"	
delta-BHC	ND	42.0	42.0	"	"	"	"	
gamma-BHC (Lindane)	ND	42.0	42.0	"	"	"	"	
cis-Chlordane	ND	42.0	42.0	"	"	"	"	
trans-Chlordane	ND	42.0	42.0	"	"	"	"	
4,4'-DDD	ND	42.0	42.0	"	"	"	"	
4,4'-DDE	ND	42.0	42.0	"	"	"	"	
4,4'-DDT	ND	58.8	58.8	"	"	"	"	R-02
Dieldrin	ND	42.0	42.0	"	"	"	"	
Endosulfan I	ND	42.0	42.0	"	"	"	"	
Endosulfan II	ND	42.0	42.0	"	"	"	"	
Endosulfan sulfate	ND	42.0	42.0	"	"	"	"	
Endrin	ND	42.0	42.0	"	"	"	"	
Endrin Aldehyde	ND	42.0	42.0	"	"	"	"	
Endrin ketone	ND	42.0	42.0	"	"	"	"	
Heptachlor	ND	42.0	42.0	"	"	"	"	
Heptachlor epoxide	ND	42.0	42.0	"	"	"	"	
Methoxychlor	ND	84.0	84.0	"	"	"	"	
Chlordane (Technical)	ND	504	504	"	"	"	"	
Toxaphene (Total)	ND	504	504	"	"	"	"	
cis-Nonachlor	ND	42.0	42.0	"	"	"	"	
2,4'-DDD	ND	42.0	42.0	"	"	"	"	
2,4'-DDE	ND	42.0	42.0	"	"	"	"	
2,4'-DDT	ND	84.0	84.0	"	"	"	"	
Hexachlorobenzene	ND	42.0	42.0	"	"	"	"	
Hexachlorobutadiene	ND	42.0	42.0	"	"	"	"	
Mirex	ND	42.0	42.0	"	"	"	"	
Oxychlordane	ND	42.0	42.0	"	"	"	"	
trans-Nonachlor	ND	42.0	42.0	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 89 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*116 %*	*Limits: 55-130 %*	"	"	"	

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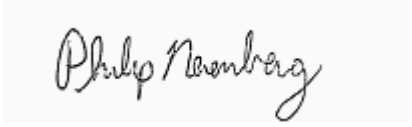

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09RE1)			**Matrix: Soil**		**Batch: 1203162**			**A-01, C-05**
Aldrin	ND	18.8	18.8	ug/kg dry	5	03/12/12 20:37	EPA 8081B	
alpha-BHC	ND	18.8	18.8	"	"	"	"	
beta-BHC	ND	18.8	18.8	"	"	"	"	
delta-BHC	ND	18.8	18.8	"	"	"	"	
gamma-BHC (Lindane)	ND	18.8	18.8	"	"	"	"	
cis-Chlordane	ND	18.8	18.8	"	"	"	"	
trans-Chlordane	ND	18.8	18.8	"	"	"	"	
4,4'-DDD	ND	18.8	18.8	"	"	"	"	
4,4'-DDE	ND	18.8	18.8	"	"	"	"	
4,4'-DDT	ND	22.6	22.6	"	"	"	"	R-02
Dieldrin	ND	18.8	18.8	"	"	"	"	
Endosulfan I	ND	18.8	18.8	"	"	"	"	
Endosulfan II	ND	18.8	18.8	"	"	"	"	
Endosulfan sulfate	ND	18.8	18.8	"	"	"	"	
Endrin	ND	18.8	18.8	"	"	"	"	
Endrin Aldehyde	ND	18.8	18.8	"	"	"	"	
Endrin ketone	ND	18.8	18.8	"	"	"	"	
Heptachlor	ND	18.8	18.8	"	"	"	"	
Heptachlor epoxide	ND	18.8	18.8	"	"	"	"	
Methoxychlor	ND	37.6	37.6	"	"	"	"	
Chlordane (Technical)	ND	226	226	"	"	"	"	
Toxaphene (Total)	ND	226	226	"	"	"	"	
cis-Nonachlor	ND	18.8	18.8	"	"	"	"	
2,4'-DDD	ND	18.8	18.8	"	"	"	"	
2,4'-DDE	ND	18.8	18.8	"	"	"	"	
2,4'-DDT	ND	37.6	37.6	"	"	"	"	
Hexachlorobenzene	ND	18.8	18.8	"	"	"	"	
Hexachlorobutadiene	ND	18.8	18.8	"	"	"	"	
Mirex	ND	18.8	18.8	"	"	"	"	
Oxychlordane	ND	18.8	18.8	"	"	"	"	
trans-Nonachlor	ND	18.8	18.8	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 86 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*110 %*	*Limits: 55-130 %*	"	"	"	

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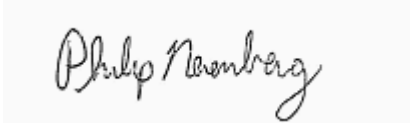

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10RE2)			**Matrix: Soil**		**Batch: 1203162**			**A-01a, C-05**
Aldrin	ND	426	426	ug/kg dry	100	03/22/12 19:18	EPA 8081B	
alpha-BHC	ND	426	426	"	"	"	"	
beta-BHC	ND	426	426	"	"	"	"	
delta-BHC	ND	426	426	"	"	"	"	
gamma-BHC (Lindane)	ND	426	426	"	"	"	"	
cis-Chlordane	ND	426	426	"	"	"	"	
trans-Chlordane	ND	426	426	"	"	"	"	
4,4'-DDD	ND	597	597	"	"	"	"	
4,4'-DDE	ND	426	426	"	"	"	"	
4,4'-DDT	ND	1110	1110	"	"	"	"	
Dieldrin	ND	426	426	"	"	"	"	
Endosulfan I	ND	426	426	"	"	"	"	
Endosulfan II	ND	426	426	"	"	"	"	
Endosulfan sulfate	ND	426	426	"	"	"	"	
Endrin	ND	426	426	"	"	"	"	
Endrin Aldehyde	ND	426	426	"	"	"	"	
Endrin ketone	ND	426	426	"	"	"	"	
Heptachlor	ND	426	426	"	"	"	"	
Heptachlor epoxide	ND	426	426	"	"	"	"	
Methoxychlor	ND	852	852	"	"	"	"	
Chlordane (Technical)	ND	5110	5110	"	"	"	"	
Toxaphene (Total)	ND	5110	5110	"	"	"	"	
cis-Nonachlor	ND	426	426	"	"	"	"	
2,4'-DDD	ND	426	426	"	"	"	"	
2,4'-DDE	ND	426	426	"	"	"	"	
2,4'-DDT	ND	852	852	"	"	"	"	
Hexachlorobenzene	ND	426	426	"	"	"	"	
Hexachlorobutadiene	ND	426	426	"	"	"	"	
Mirex	ND	426	426	"	"	"	"	
Oxychlordane	ND	426	426	"	"	"	"	
trans-Nonachlor	ND	426	426	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 94 %*	*Limits: 50-125 %*	"	"	"	*S-01*
Decachlorobiphenyl (Surr)			*177 %*	*Limits: 55-130 %*	"	"	"	*S-01*

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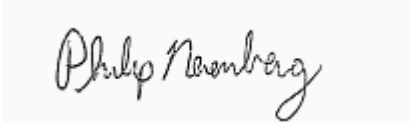

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11RE2)			**Matrix: Soil**		**Batch: 1203162**			**A-01a, C-05**
Aldrin	ND	210	210	ug/kg dry	50	03/22/12 19:54	EPA 8081B	
alpha-BHC	ND	210	210	"	"	"	"	
beta-BHC	ND	210	210	"	"	"	"	
delta-BHC	ND	210	210	"	"	"	"	
gamma-BHC (Lindane)	ND	210	210	"	"	"	"	
cis-Chlordane	ND	210	210	"	"	"	"	
trans-Chlordane	ND	210	210	"	"	"	"	
4,4'-DDD	ND	210	210	"	"	"	"	
4,4'-DDE	ND	210	210	"	"	"	"	
4,4'-DDT	ND	462	462	"	"	"	"	
Dieldrin	ND	210	210	"	"	"	"	
Endosulfan I	ND	210	210	"	"	"	"	
Endosulfan II	ND	210	210	"	"	"	"	
Endosulfan sulfate	ND	252	252	"	"	"	"	
Endrin	ND	210	210	"	"	"	"	
Endrin Aldehyde	ND	210	210	"	"	"	"	
Endrin ketone	ND	210	210	"	"	"	"	
Heptachlor	ND	210	210	"	"	"	"	
Heptachlor epoxide	ND	210	210	"	"	"	"	
Methoxychlor	ND	420	420	"	"	"	"	
Chlordane (Technical)	ND	2520	2520	"	"	"	"	
Toxaphene (Total)	ND	2520	2520	"	"	"	"	
cis-Nonachlor	ND	252	252	"	"	"	"	
2,4'-DDD	ND	252	252	"	"	"	"	
2,4'-DDE	ND	210	210	"	"	"	"	
2,4'-DDT	ND	420	420	"	"	"	"	
Hexachlorobenzene	ND	210	210	"	"	"	"	
Hexachlorobutadiene	ND	210	210	"	"	"	"	
Mirex	ND	210	210	"	"	"	"	
Oxychlordane	ND	210	210	"	"	"	"	
trans-Nonachlor	ND	210	210	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 92 %*	*Limits: 50-125 %*	"	"	"	*S-05*
Decachlorobiphenyl (Surr)			*138 %*	*Limits: 55-130 %*	"	"	"	*S-05*

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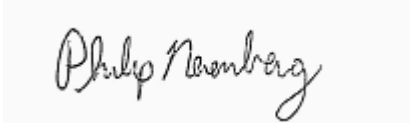

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12RE2)			**Matrix: Soil**		**Batch: 1203162**			**A-01a, C-05**
Aldrin	ND	19.4	19.4	ug/kg dry	5	03/22/12 20:30	EPA 8081B	
alpha-BHC	ND	19.4	19.4	"	"	"	"	
beta-BHC	ND	19.4	19.4	"	"	"	"	
delta-BHC	ND	19.4	19.4	"	"	"	"	
gamma-BHC (Lindane)	ND	19.4	19.4	"	"	"	"	
cis-Chlordane	ND	19.4	19.4	"	"	"	"	
trans-Chlordane	ND	19.4	19.4	"	"	"	"	
4,4'-DDD	ND	19.4	19.4	"	"	"	"	
4,4'-DDE	ND	19.4	19.4	"	"	"	"	
4,4'-DDT	**445**	19.4	19.4	"	"	"	"	
Dieldrin	ND	19.4	19.4	"	"	"	"	
Endosulfan I	ND	19.4	19.4	"	"	"	"	
Endosulfan II	ND	19.4	19.4	"	"	"	"	
Endosulfan sulfate	ND	19.4	19.4	"	"	"	"	
Endrin	ND	19.4	19.4	"	"	"	"	
Endrin Aldehyde	ND	19.4	19.4	"	"	"	"	
Endrin ketone	ND	19.4	19.4	"	"	"	"	
Heptachlor	ND	19.4	19.4	"	"	"	"	
Heptachlor epoxide	ND	19.4	19.4	"	"	"	"	
Methoxychlor	ND	38.9	38.9	"	"	"	"	
Chlordane (Technical)	ND	233	233	"	"	"	"	
Toxaphene (Total)	ND	350	350	"	"	"	"	
cis-Nonachlor	ND	19.4	19.4	"	"	"	"	
2,4'-DDD	ND	19.4	19.4	"	"	"	"	
2,4'-DDE	ND	19.4	19.4	"	"	"	"	
2,4'-DDT	ND	38.9	38.9	"	"	"	"	
Hexachlorobenzene	ND	19.4	19.4	"	"	"	"	
Hexachlorobutadiene	ND	19.4	19.4	"	"	"	"	
Mirex	ND	19.4	19.4	"	"	"	"	
Oxychlordane	ND	19.4	19.4	"	"	"	"	
trans-Nonachlor	ND	19.4	19.4	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 97 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*112 %*	*Limits: 55-130 %*	"	"	"	

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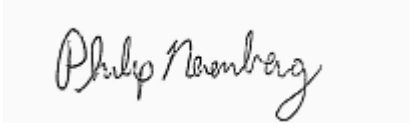

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	152	304	ug/kg dry	20	03/05/12 14:38	EPA 8270D (SIM)	
Acenaphthylene	ND	152	304	"	"	"	"	
Anthracene	ND	152	304	"	"	"	"	
Benz(a)anthracene	**432**	152	304	"	"	"	"	
Benzo(a)pyrene	**597**	152	304	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**1170**	304	607	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**720**	152	304	"	"	"	"	
Chrysene	**675**	152	304	"	"	"	"	
Dibenz(a,h)anthracene	ND	152	304	"	"	"	"	
Dibenzofuran	ND	152	304	"	"	"	"	
Fluoranthene	**693**	152	304	"	"	"	"	
Fluorene	ND	152	304	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**604**	152	304	"	"	"	"	
1-Methylnaphthalene	ND	304	607	"	"	"	"	
2-Methylnaphthalene	ND	304	607	"	"	"	"	
Naphthalene	ND	304	607	"	"	"	"	
Phenanthrene	**356**	152	304	"	"	"	"	
Pyrene	**737**	152	304	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 74 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*84 %*	*Limits: 30-120 %*	"	"	"	

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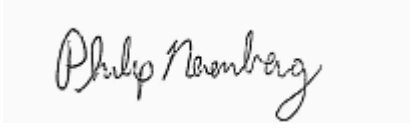

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	18.3	36.7	ug/kg dry	10	03/05/12 15:33	EPA 8270D (SIM)	
Acenaphthylene	**30.6**	18.3	36.7	"	"	"	"	J
Anthracene	**33.8**	18.3	36.7	"	"	"	"	J
Benz(a)anthracene	**105**	18.3	36.7	"	"	"	"	
Benzo(a)pyrene	**147**	18.3	36.7	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**250**	36.7	73.4	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**149**	18.3	36.7	"	"	"	"	
Chrysene	**145**	18.3	36.7	"	"	"	"	
Dibenz(a,h)anthracene	**27.2**	18.3	36.7	"	"	"	"	J
Dibenzofuran	ND	18.3	36.7	"	"	"	"	
Fluoranthene	**160**	18.3	36.7	"	"	"	"	
Fluorene	ND	18.3	36.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**133**	18.3	36.7	"	"	"	"	
1-Methylnaphthalene	ND	36.7	73.4	"	"	"	"	
2-Methylnaphthalene	ND	36.7	73.4	"	"	"	"	
Naphthalene	ND	36.7	73.4	"	"	"	"	
Phenanthrene	**70.3**	18.3	36.7	"	"	"	"	
Pyrene	**204**	18.3	36.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 78 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 30-120 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	19.4	38.8	ug/kg dry	10	03/05/12 16:02	EPA 8270D (SIM)	
Acenaphthylene	**30.2**	19.4	38.8	"	"	"	"	J
Anthracene	**29.9**	19.4	38.8	"	"	"	"	J
Benz(a)anthracene	**84.2**	19.4	38.8	"	"	"	"	
Benzo(a)pyrene	**116**	19.4	38.8	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**212**	38.8	77.6	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**161**	19.4	38.8	"	"	"	"	
Chrysene	**108**	19.4	38.8	"	"	"	"	
Dibenz(a,h)anthracene	**24.4**	19.4	38.8	"	"	"	"	J
Dibenzofuran	ND	19.4	38.8	"	"	"	"	
Fluoranthene	**125**	19.4	38.8	"	"	"	"	
Fluorene	ND	19.4	38.8	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**140**	19.4	38.8	"	"	"	"	
1-Methylnaphthalene	ND	38.8	77.6	"	"	"	"	
2-Methylnaphthalene	ND	38.8	77.6	"	"	"	"	
Naphthalene	ND	38.8	77.6	"	"	"	"	
Phenanthrene	**42.8**	19.4	38.8	"	"	"	"	
Pyrene	**155**	19.4	38.8	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*89 %*	*Limits: 30-120 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	**49.0**	47.8	95.7	ug/kg dry	10	03/06/12 00:51	EPA 8270D (SIM)	J
Acenaphthylene	**104**	47.8	95.7	"	"	"	"	
Anthracene	**154**	47.8	95.7	"	"	"	"	
Benz(a)anthracene	**639**	47.8	95.7	"	"	"	"	
Benzo(a)pyrene	**774**	47.8	95.7	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**1790**	95.7	191	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**700**	47.8	95.7	"	"	"	"	
Chrysene	**1100**	47.8	95.7	"	"	"	"	
Dibenz(a,h)anthracene	**155**	47.8	95.7	"	"	"	"	
Dibenzofuran	ND	47.8	95.7	"	"	"	"	
Fluoranthene	**1130**	47.8	95.7	"	"	"	"	
Fluorene	ND	47.8	95.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**706**	47.8	95.7	"	"	"	"	
1-Methylnaphthalene	ND	95.7	191	"	"	"	"	
2-Methylnaphthalene	ND	95.7	191	"	"	"	"	
Naphthalene	ND	95.7	191	"	"	"	"	
Phenanthrene	**492**	47.8	95.7	"	"	"	"	
Pyrene	**1150**	47.8	95.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 73 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 30-120 %*	"	"	"	

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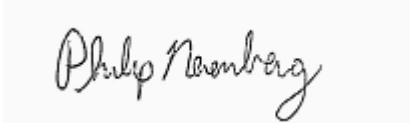

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	40.2	80.4	ug/kg dry	10	03/06/12 01:18	EPA 8270D (SIM)	
Acenaphthylene	**48.3**	40.2	80.4	"	"	"	"	J
Anthracene	ND	40.2	80.4	"	"	"	"	
Benz(a)anthracene	**163**	40.2	80.4	"	"	"	"	
Benzo(a)pyrene	**245**	40.2	80.4	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**376**	80.4	161	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**269**	40.2	80.4	"	"	"	"	
Chrysene	**220**	40.2	80.4	"	"	"	"	
Dibenz(a,h)anthracene	ND	40.2	80.4	"	"	"	"	
Dibenzofuran	ND	40.2	80.4	"	"	"	"	
Fluoranthene	**301**	40.2	80.4	"	"	"	"	
Fluorene	ND	40.2	80.4	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**205**	40.2	80.4	"	"	"	"	
1-Methylnaphthalene	ND	80.4	161	"	"	"	"	
2-Methylnaphthalene	ND	80.4	161	"	"	"	"	
Naphthalene	ND	80.4	161	"	"	"	"	
Phenanthrene	**91.5**	40.2	80.4	"	"	"	"	
Pyrene	**402**	40.2	80.4	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 30-120 %*	"	"	"	

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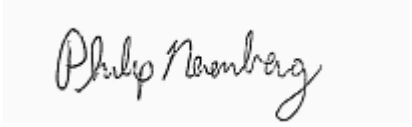

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	37.8	75.5	ug/kg dry	10	03/06/12 01:46	EPA 8270D (SIM)	
Acenaphthylene	**76.0**	37.8	75.5	"	"	"	"	
Anthracene	**84.2**	37.8	75.5	"	"	"	"	
Benz(a)anthracene	**250**	37.8	75.5	"	"	"	"	
Benzo(a)pyrene	**356**	37.8	75.5	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**525**	75.5	151	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**336**	37.8	75.5	"	"	"	"	
Chrysene	**346**	37.8	75.5	"	"	"	"	
Dibenz(a,h)anthracene	**51.3**	37.8	75.5	"	"	"	"	J
Dibenzofuran	ND	37.8	75.5	"	"	"	"	
Fluoranthene	**712**	37.8	75.5	"	"	"	"	
Fluorene	ND	37.8	75.5	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**277**	37.8	75.5	"	"	"	"	
1-Methylnaphthalene	ND	75.5	151	"	"	"	"	
2-Methylnaphthalene	ND	75.5	151	"	"	"	"	
Naphthalene	ND	75.5	151	"	"	"	"	
Phenanthrene	**397**	37.8	75.5	"	"	"	"	
Pyrene	**864**	37.8	75.5	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 89 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*97 %*	*Limits: 30-120 %*	"	"	"	

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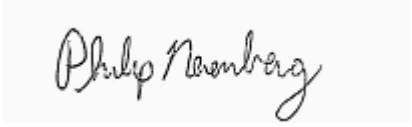

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP5-1.5 (A12B377-07)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	41.4	82.7	ug/kg dry	10	03/06/12 02:14	EPA 8270D (SIM)	
Acenaphthylene	**42.7**	41.4	82.7	"	"	"	"	J
Anthracene	ND	41.4	82.7	"	"	"	"	
Benz(a)anthracene	**132**	41.4	82.7	"	"	"	"	
Benzo(a)pyrene	**207**	41.4	82.7	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**322**	82.7	165	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**222**	41.4	82.7	"	"	"	"	
Chrysene	**210**	41.4	82.7	"	"	"	"	
Dibenz(a,h)anthracene	ND	41.4	82.7	"	"	"	"	
Dibenzofuran	ND	41.4	82.7	"	"	"	"	
Fluoranthene	**216**	41.4	82.7	"	"	"	"	
Fluorene	ND	41.4	82.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**164**	41.4	82.7	"	"	"	"	
1-Methylnaphthalene	ND	82.7	165	"	"	"	"	
2-Methylnaphthalene	ND	82.7	165	"	"	"	"	
Naphthalene	ND	82.7	165	"	"	"	"	
Phenanthrene	**63.8**	41.4	82.7	"	"	"	"	J
Pyrene	**309**	41.4	82.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*90 %*	*Limits: 30-120 %*	"	"	"	

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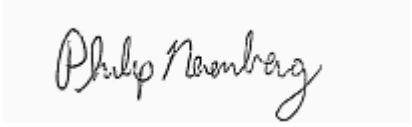

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	42.6	85.2	ug/kg dry	10	03/06/12 02:41	EPA 8270D (SIM)	
Acenaphthylene	**88.4**	42.6	85.2	"	"	"	"	
Anthracene	ND	42.6	85.2	"	"	"	"	
Benz(a)anthracene	**127**	42.6	85.2	"	"	"	"	
Benzo(a)pyrene	**217**	42.6	85.2	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**352**	85.2	170	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**206**	42.6	85.2	"	"	"	"	
Chrysene	**156**	42.6	85.2	"	"	"	"	
Dibenz(a,h)anthracene	ND	42.6	85.2	"	"	"	"	
Dibenzofuran	ND	42.6	85.2	"	"	"	"	
Fluoranthene	**150**	42.6	85.2	"	"	"	"	
Fluorene	ND	42.6	85.2	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**188**	42.6	85.2	"	"	"	"	
1-Methylnaphthalene	ND	85.2	170	"	"	"	"	
2-Methylnaphthalene	ND	85.2	170	"	"	"	"	
Naphthalene	ND	85.2	170	"	"	"	"	
Phenanthrene	**51.8**	42.6	85.2	"	"	"	"	J
Pyrene	**207**	42.6	85.2	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*96 %*	*Limits: 30-120 %*	"	"	"	

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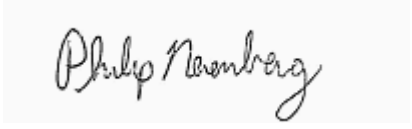

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	8.31	16.6	ug/kg dry	5	03/06/12 03:09	EPA 8270D (SIM)	
Acenaphthylene	ND	8.31	16.6	"	"	"	"	
Anthracene	**29.7**	8.31	16.6	"	"	"	"	
Benz(a)anthracene	**104**	8.31	16.6	"	"	"	"	
Benzo(a)pyrene	**105**	8.31	16.6	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**286**	16.6	33.2	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**88.6**	8.31	16.6	"	"	"	"	
Chrysene	**158**	8.31	16.6	"	"	"	"	
Dibenz(a,h)anthracene	**21.2**	8.31	16.6	"	"	"	"	
Dibenzofuran	ND	8.31	16.6	"	"	"	"	
Fluoranthene	**164**	8.31	16.6	"	"	"	"	
Fluorene	ND	8.31	16.6	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**98.8**	8.31	16.6	"	"	"	"	
1-Methylnaphthalene	ND	16.6	33.2	"	"	"	"	
2-Methylnaphthalene	ND	16.6	33.2	"	"	"	"	
Naphthalene	ND	16.6	33.2	"	"	"	"	
Phenanthrene	**49.2**	8.31	16.6	"	"	"	"	
Pyrene	**173**	8.31	16.6	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 60 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*98 %*	*Limits: 30-120 %*	"	"	"	

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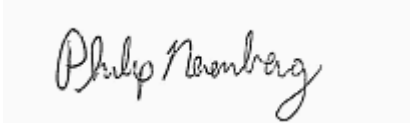

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	**809**	56.7	113	ug/kg dry	10	03/06/12 11:20	EPA 8270D (SIM)	
Acenaphthylene	**77.3**	56.7	113	"	"	"	"	J
Anthracene	**1620**	56.7	113	"	"	"	"	
Benz(a)anthracene	**4350**	56.7	113	"	"	"	"	
Benzo(a)pyrene	**5570**	56.7	113	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**11500**	113	227	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**4820**	56.7	113	"	"	"	"	
Chrysene	**6200**	56.7	113	"	"	"	"	
Dibenz(a,h)anthracene	**1070**	56.7	113	"	"	"	"	
Dibenzofuran	**427**	56.7	113	"	"	"	"	
Fluoranthene	**11200**	56.7	113	"	"	"	"	
Fluorene	**546**	56.7	113	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**4830**	56.7	113	"	"	"	"	
1-Methylnaphthalene	ND	113	227	"	"	"	"	
2-Methylnaphthalene	**168**	113	227	"	"	"	"	J
Naphthalene	**343**	113	227	"	"	"	"	
Phenanthrene	**7670**	56.7	113	"	"	"	"	
Pyrene	**9870**	56.7	113	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-120 %*	"	"	"	

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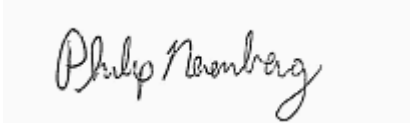

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	56.0	112	ug/kg dry	10	03/06/12 11:48	EPA 8270D (SIM)	
Acenaphthylene	**63.9**	56.0	112	"	"	"	"	J
Anthracene	**163**	56.0	112	"	"	"	"	
Benz(a)anthracene	**545**	56.0	112	"	"	"	"	
Benzo(a)pyrene	**636**	56.0	112	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**1450**	112	224	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**670**	56.0	112	"	"	"	"	
Chrysene	**681**	56.0	112	"	"	"	"	
Dibenz(a,h)anthracene	**124**	56.0	112	"	"	"	"	
Dibenzofuran	ND	56.0	112	"	"	"	"	
Fluoranthene	**957**	56.0	112	"	"	"	"	
Fluorene	ND	56.0	112	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**636**	56.0	112	"	"	"	"	
1-Methylnaphthalene	ND	112	224	"	"	"	"	
2-Methylnaphthalene	ND	112	224	"	"	"	"	
Naphthalene	ND	112	224	"	"	"	"	
Phenanthrene	**443**	56.0	112	"	"	"	"	
Pyrene	**978**	56.0	112	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 30-120 %*	"	"	"	

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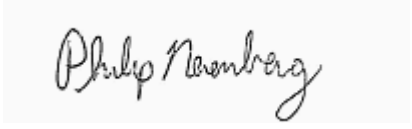

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1203027**			
Acenaphthene	ND	47.1	94.1	ug/kg dry	10	03/06/12 03:36	EPA 8270D (SIM)	
Acenaphthylene	ND	47.1	94.1	"	"	"	"	
Anthracene	**215**	47.1	94.1	"	"	"	"	
Benz(a)anthracene	**234**	47.1	94.1	"	"	"	"	
Benzo(a)pyrene	**273**	47.1	94.1	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**551**	94.1	188	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**231**	47.1	94.1	"	"	"	"	
Chrysene	**351**	47.1	94.1	"	"	"	"	
Dibenz(a,h)anthracene	**53.4**	47.1	94.1	"	"	"	"	J
Dibenzofuran	ND	47.1	94.1	"	"	"	"	
Fluoranthene	**527**	47.1	94.1	"	"	"	"	
Fluorene	ND	47.1	94.1	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**225**	47.1	94.1	"	"	"	"	
1-Methylnaphthalene	ND	94.1	188	"	"	"	"	
2-Methylnaphthalene	ND	94.1	188	"	"	"	"	
Naphthalene	ND	94.1	188	"	"	"	"	
Phenanthrene	**335**	47.1	94.1	"	"	"	"	
Pyrene	**561**	47.1	94.1	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 30-120 %*	"	"	"	

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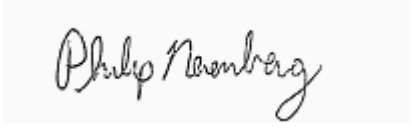

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	1520	3040	ug/kg dry	20	03/05/12 14:38	EPA 8270D (SIM)	
Dimethylphthalate	ND	1520	3040	"	"	"	"	
Di-n-butylphthalate	ND	1520	3040	"	"	"	"	
Di-n-octyl phthalate	ND	1520	3040	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	1520	3040	"	"	"	"	
Butyl benzyl phthalate	ND	1520	3040	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 74 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*84 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	183	367	ug/kg dry	10	03/05/12 15:33	EPA 8270D (SIM)	
Dimethylphthalate	ND	183	367	"	"	"	"	
Di-n-butylphthalate	ND	183	367	"	"	"	"	
Di-n-octyl phthalate	ND	183	367	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	183	367	"	"	"	"	
Butyl benzyl phthalate	ND	183	367	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 78 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	194	388	ug/kg dry	10	03/05/12 16:02	EPA 8270D (SIM)	
Dimethylphthalate	ND	194	388	"	"	"	"	
Di-n-butylphthalate	ND	194	388	"	"	"	"	
Di-n-octyl phthalate	ND	194	388	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	194	388	"	"	"	"	
Butyl benzyl phthalate	ND	194	388	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*89 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)			**Matrix: Soil**		**Batch: 1203027**			
Diethylphthalate	ND	478	957	ug/kg dry	10	03/06/12 00:51	EPA 8270D (SIM)	
Dimethylphthalate	ND	478	957	"	"	"	"	
Di-n-butylphthalate	ND	478	957	"	"	"	"	
Di-n-octyl phthalate	ND	478	957	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**2180**	478	957	"	"	"	"	B
Butyl benzyl phthalate	ND	478	957	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 73 %*	*Limits: 45-120 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)			**Matrix: Soil**		**Batch: 1203027**			
Surrogate: p-Terphenyl-d14 (Surr)			*Recovery: 92 %*	*Limits: 30-120 %*	10	"	EPA 8270D (SIM)	
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	402	804	ug/kg dry	10	03/06/12 01:18	EPA 8270D (SIM)	
Dimethylphthalate	ND	402	804	"	"	"	"	
Di-n-butylphthalate	ND	402	804	"	"	"	"	
Di-n-octyl phthalate	ND	402	804	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	402	804	"	"	"	"	
Butyl benzyl phthalate	ND	402	804	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	378	755	ug/kg dry	10	03/06/12 01:46	EPA 8270D (SIM)	
Dimethylphthalate	ND	378	755	"	"	"	"	
Di-n-butylphthalate	ND	378	755	"	"	"	"	
Di-n-octyl phthalate	ND	378	755	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	378	755	"	"	"	"	
Butyl benzyl phthalate	ND	378	755	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 89 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*97 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP5-1.5 (A12B377-07)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	414	827	ug/kg dry	10	03/06/12 02:14	EPA 8270D (SIM)	
Dimethylphthalate	ND	414	827	"	"	"	"	
Di-n-butylphthalate	ND	414	827	"	"	"	"	
Di-n-octyl phthalate	ND	414	827	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	414	827	"	"	"	"	
Butyl benzyl phthalate	ND	414	827	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*90 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	426	852	ug/kg dry	10	03/06/12 02:41	EPA 8270D (SIM)	
Dimethylphthalate	ND	426	852	"	"	"	"	
Di-n-butylphthalate	ND	426	852	"	"	"	"	
Di-n-octyl phthalate	ND	426	852	"	"	"	"	

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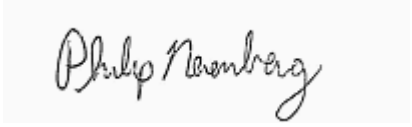

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Bis(2-ethylhexyl)phthalate	ND	426	852	ug/kg dry	10	"	EPA 8270D (SIM)	
Butyl benzyl phthalate	ND	426	852	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*96 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09)			**Matrix: Soil**		**Batch: 1203027**			
Diethylphthalate	ND	83.1	166	ug/kg dry	5	03/06/12 03:09	EPA 8270D (SIM)	
Dimethylphthalate	ND	83.1	166	"	"	"	"	
Di-n-butylphthalate	ND	83.1	166	"	"	"	"	
Di-n-octyl phthalate	ND	83.1	166	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**200**	83.1	166	"	"	"	"	B
Butyl benzyl phthalate	**129**	83.1	166	"	"	"	"	J, B
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 60 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*98 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10)			**Matrix: Soil**		**Batch: 1203027**			
Diethylphthalate	ND	567	1130	ug/kg dry	10	03/06/12 11:20	EPA 8270D (SIM)	
Dimethylphthalate	**1010**	567	1130	"	"	"	"	J
Di-n-butylphthalate	ND	567	1130	"	"	"	"	
Di-n-octyl phthalate	ND	567	1130	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**2790**	567	1130	"	"	"	"	B
Butyl benzyl phthalate	**706**	567	1130	"	"	"	"	J, B
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	560	1120	ug/kg dry	10	03/06/12 11:48	EPA 8270D (SIM)	
Dimethylphthalate	ND	560	1120	"	"	"	"	
Di-n-butylphthalate	ND	560	1120	"	"	"	"	
Di-n-octyl phthalate	ND	560	1120	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	560	1120	"	"	"	"	
Butyl benzyl phthalate	ND	560	1120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 30-120 %*	"	"	"	
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Diethylphthalate	ND	471	941	ug/kg dry	10	03/06/12 03:36	EPA 8270D (SIM)	

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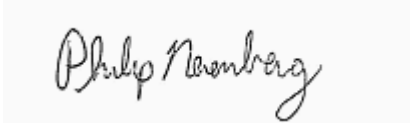

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1203027**			**R-04**
Dimethylphthalate	ND	471	941	ug/kg dry	10	"	EPA 8270D (SIM)	
Di-n-butylphthalate	ND	471	941	"	"	"	"	
Di-n-octyl phthalate	ND	471	941	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	471	941	"	"	"	"	
Butyl benzyl phthalate	ND	471	941	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 30-120 %*	"	"	"	

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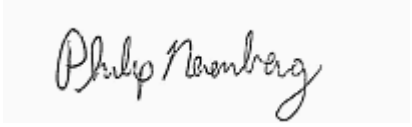

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**8420**	39.8	79.6	mg/kg dry	10	03/12/12 13:24	EPA 6020	
Antimony	**7.55**	0.796	1.59	"	"	"	"	
Arsenic	**5.86**	0.796	3.18	"	"	"	"	
Cadmium	**2.18**	0.796	1.59	"	"	"	"	
Chromium	**986**	1.59	3.18	"	"	"	"	
Copper	**85.4**	3.18	6.37	"	"	"	"	
Lead	**21100**	7.96	15.9	"	100	03/12/12 14:36	"	
Manganese	**1020**	0.796	1.59	"	10	03/12/12 13:24	"	
Mercury	**0.256**	0.0637	0.127	"	"	"	"	
Nickel	**27.2**	1.59	3.18	"	"	"	"	
Silver	ND	0.796	1.59	"	"	"	"	
Zinc	**2140**	3.18	6.37	"	"	"	"	
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**8770**	27.7	55.4	mg/kg dry	10	03/12/12 14:39	EPA 6020	
Antimony	**0.797**	0.554	1.11	"	"	"	"	J
Arsenic	**3.05**	0.554	2.22	"	"	"	"	
Cadmium	ND	0.554	1.11	"	"	"	"	
Chromium	**15.4**	1.11	2.22	"	"	"	"	
Copper	**41.8**	2.22	4.43	"	"	"	"	
Lead	**84.8**	0.554	1.11	"	"	"	"	
Manganese	**339**	0.554	1.11	"	"	"	"	
Mercury	ND	0.0443	0.0886	"	"	"	"	
Nickel	**17.5**	1.11	2.22	"	"	"	"	
Silver	ND	0.554	1.11	"	"	"	"	
Zinc	**136**	2.22	4.43	"	"	"	"	
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**8640**	29.3	58.6	mg/kg dry	10	03/12/12 13:30	EPA 6020	
Antimony	**0.914**	0.586	1.17	"	"	"	"	J
Arsenic	**3.63**	0.586	2.34	"	"	"	"	
Cadmium	ND	0.586	1.17	"	"	"	"	
Chromium	**16.4**	1.17	2.34	"	"	"	"	
Copper	**24.6**	2.34	4.69	"	"	"	"	
Lead	**67.4**	0.586	1.17	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**					
Manganese	**575**	0.586	1.17	mg/kg dry	10	"	EPA 6020	
Mercury	ND	0.0469	0.0937	"	"	"	"	
Nickel	**17.6**	1.17	2.34	"	"	"	"	
Silver	ND	0.586	1.17	"	"	"	"	
Zinc	**106**	2.34	4.69	"	"	"	"	
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**9220**	31.0	61.9	mg/kg dry	10	03/12/12 13:33	EPA 6020	
Antimony	**10.0**	0.619	1.24	"	"	"	"	
Arsenic	**7.26**	0.619	2.48	"	"	"	"	
Cadmium	**2.33**	0.619	1.24	"	"	"	"	
Chromium	**125**	1.24	2.48	"	"	"	"	
Copper	**156**	2.48	4.95	"	"	"	"	
Lead	**345**	0.619	1.24	"	"	"	"	
Manganese	**1910**	0.619	1.24	"	"	"	"	
Mercury	**0.460**	0.0495	0.0991	"	"	"	"	
Nickel	**46.3**	1.24	2.48	"	"	"	"	
Silver	ND	0.619	1.24	"	"	"	"	
Zinc	**708**	2.48	4.95	"	"	"	"	
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**6830**	26.6	53.2	mg/kg dry	10	03/12/12 13:54	EPA 6020	
Antimony	**0.724**	0.532	1.06	"	"	"	"	J
Arsenic	**2.29**	0.532	2.13	"	"	"	"	
Cadmium	ND	0.532	1.06	"	"	"	"	
Chromium	**14.0**	1.06	2.13	"	"	"	"	
Copper	**24.6**	2.13	4.26	"	"	"	"	
Lead	**60.4**	0.532	1.06	"	"	"	"	
Manganese	**322**	0.532	1.06	"	"	"	"	
Mercury	**0.0861**	0.0426	0.0851	"	"	"	"	
Nickel	**15.8**	1.06	2.13	"	"	"	"	
Silver	ND	0.532	1.06	"	"	"	"	
Zinc	**91.6**	2.13	4.26	"	"	"	"	
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**					
Batch: 1203193								

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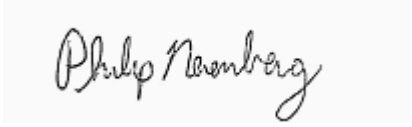

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**					
Aluminum	**6780**	26.7	53.5	mg/kg dry	10	03/12/12 13:57	EPA 6020	
Antimony	ND	0.535	1.07	"	"	"	"	
Arsenic	**2.42**	0.535	2.14	"	"	"	"	
Cadmium	ND	0.535	1.07	"	"	"	"	
Chromium	**10.4**	1.07	2.14	"	"	"	"	
Copper	**19.3**	2.14	4.28	"	"	"	"	
Lead	**59.7**	0.535	1.07	"	"	"	"	
Manganese	**300**	0.535	1.07	"	"	"	"	
Mercury	**0.0461**	0.0428	0.0856	"	"	"	"	J
Nickel	**14.4**	1.07	2.14	"	"	"	"	
Silver	ND	0.535	1.07	"	"	"	"	
Zinc	**54.5**	2.14	4.28	"	"	"	"	
8001-120224-ITSS-TP5-1.5 (A12B377-07)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**8280**	27.6	55.1	mg/kg dry	10	03/12/12 13:59	EPA 6020	
Antimony	**0.617**	0.551	1.10	"	"	"	"	J
Arsenic	**2.58**	0.551	2.20	"	"	"	"	
Cadmium	ND	0.551	1.10	"	"	"	"	
Chromium	**14.3**	1.10	2.20	"	"	"	"	
Copper	**23.8**	2.20	4.41	"	"	"	"	
Lead	**72.2**	0.551	1.10	"	"	"	"	
Manganese	**315**	0.551	1.10	"	"	"	"	
Mercury	**0.0643**	0.0441	0.0882	"	"	"	"	J
Nickel	**17.7**	1.10	2.20	"	"	"	"	
Silver	ND	0.551	1.10	"	"	"	"	
Zinc	**73.1**	2.20	4.41	"	"	"	"	
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**8010**	29.6	59.2	mg/kg dry	10	03/12/12 14:02	EPA 6020	
Antimony	ND	0.592	1.18	"	"	"	"	
Arsenic	**2.59**	0.592	2.37	"	"	"	"	
Cadmium	ND	0.592	1.18	"	"	"	"	
Chromium	**13.6**	1.18	2.37	"	"	"	"	
Copper	**80.2**	2.37	4.74	"	"	"	"	
Lead	**151**	0.592	1.18	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**					
Manganese	**297**	0.592	1.18	mg/kg dry	10	"	EPA 6020	
Mercury	**0.0592**	0.0474	0.0947	"	"	"	"	J
Nickel	**17.5**	1.18	2.37	"	"	"	"	
Silver	ND	0.592	1.18	"	"	"	"	
Zinc	**106**	2.37	4.74	"	"	"	"	
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**4800**	28.7	57.3	mg/kg dry	10	03/12/12 14:05	EPA 6020	
Antimony	**0.745**	0.573	1.15	"	"	"	"	J
Arsenic	**2.80**	0.573	2.29	"	"	"	"	
Cadmium	**0.631**	0.573	1.15	"	"	"	"	J
Chromium	**21.6**	1.15	2.29	"	"	"	"	
Copper	**49.8**	2.29	4.59	"	"	"	"	
Lead	**1060**	0.573	1.15	"	"	"	"	
Manganese	**1070**	0.573	1.15	"	"	"	"	
Mercury	**0.109**	0.0459	0.0917	"	"	"	"	
Nickel	**13.8**	1.15	2.29	"	"	"	"	
Silver	ND	0.573	1.15	"	"	"	"	
Zinc	**191**	2.29	4.59	"	"	"	"	
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**8480**	29.6	59.2	mg/kg dry	10	03/12/12 14:08	EPA 6020	
Antimony	**9.31**	0.592	1.18	"	"	"	"	
Arsenic	**10.3**	0.592	2.37	"	"	"	"	
Cadmium	**4.83**	0.592	1.18	"	"	"	"	
Chromium	**246**	1.18	2.37	"	"	"	"	
Copper	**322**	2.37	4.73	"	"	"	"	
Lead	**450**	0.592	1.18	"	"	"	"	
Manganese	**2500**	0.592	1.18	"	"	"	"	
Mercury	**0.544**	0.0473	0.0946	"	"	"	"	
Nickel	**77.7**	1.18	2.37	"	"	"	"	
Silver	**0.627**	0.592	1.18	"	"	"	"	J
Zinc	**1510**	2.37	4.73	"	"	"	"	
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**					
Batch: 1203193								

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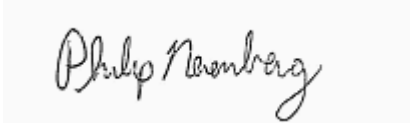

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**					
Aluminum	**8130**	28.8	57.6	mg/kg dry	10	03/12/12 14:12	EPA 6020	
Antimony	**4.95**	0.576	1.15	"	"	"	"	
Arsenic	**5.57**	0.576	2.30	"	"	"	"	
Cadmium	**2.11**	0.576	1.15	"	"	"	"	
Chromium	**49.0**	1.15	2.30	"	"	"	"	
Copper	**147**	2.30	4.61	"	"	"	"	
Lead	**189**	0.576	1.15	"	"	"	"	
Manganese	**695**	0.576	1.15	"	"	"	"	
Mercury	**0.766**	0.0461	0.0921	"	"	"	"	
Nickel	**33.3**	1.15	2.30	"	"	"	"	
Silver	ND	0.576	1.15	"	"	"	"	
Zinc	**585**	2.30	4.61	"	"	"	"	
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**					
Batch: 1203193								
Aluminum	**7990**	26.0	52.0	mg/kg dry	10	03/12/12 14:15	EPA 6020	
Antimony	**1.08**	0.520	1.04	"	"	"	"	
Arsenic	**2.40**	0.520	2.08	"	"	"	"	
Cadmium	**0.697**	0.520	1.04	"	"	"	"	J
Chromium	**21.0**	1.04	2.08	"	"	"	"	
Copper	**40.0**	2.08	4.16	"	"	"	"	
Lead	**66.8**	0.520	1.04	"	"	"	"	
Manganese	**367**	0.520	1.04	"	"	"	"	
Mercury	**0.0983**	0.0416	0.0833	"	"	"	"	
Nickel	**18.5**	1.04	2.08	"	"	"	"	
Silver	ND	0.520	1.04	"	"	"	"	
Zinc	**290**	2.08	4.16	"	"	"	"	

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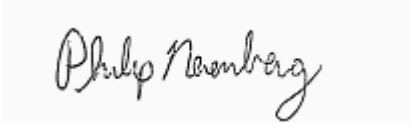

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**61.7**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**84.7**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP2-1.5 (A12B377-03)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**83.7**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**80.9**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**93.4**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP5-0.0-0.5 (A12B377-06)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**93.1**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP5-1.5 (A12B377-07)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**92.0**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP6-0.0-0.5 (A12B377-08)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**89.1**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP7-0.0-0.5 (A12B377-09)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**90.3**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP8-0.0-0.5 (A12B377-10)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**80.2**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP9-0.0-0.5 (A12B377-11)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**83.8**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	
8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)			**Matrix: Soil**		**Batch: 1202522**			
% Solids	**92.2**	---	1.00	% by Weight	1	02/29/12 10:37	Apex SOP	

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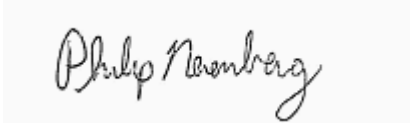

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1202567 - EPA 3546 (Fuels)							**Soil**					
Blank (1202567-BLK2)					Prepared: 02/29/12 17:23		Analyzed: 03/03/12 12:29					**Q-16**
NWTPH-Dx												
Diesel Range Organics	ND	6.67	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil Range Organics	ND	13.3	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (1202567-BS2)					Prepared: 02/29/12 17:23		Analyzed: 03/03/12 12:53					**Q-16**
NWTPH-Dx												
Diesel Range Organics	133	10.0	25.0	mg/kg wet	1	125	---	106	70-130%	---	---	
Oil Range Organics	128	20.0	50.0	"	"	"	---	103	"	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Batch 1203040 - EPA 3546 (Fuels)							**Soil**					
Blank (1203040-BLK1)					Prepared: 03/02/12 09:48		Analyzed: 03/03/12 15:40					
NWTPH-Dx												
Diesel Range Organics	ND	6.67	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil Range Organics	ND	13.3	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (1203040-BS1)					Prepared: 03/02/12 09:48		Analyzed: 03/03/12 16:04					
NWTPH-Dx												
Diesel Range Organics	136	10.0	25.0	mg/kg wet	1	125	---	109	70-130%	---	---	
Oil Range Organics	133	20.0	50.0	"	"	"	---	106	"	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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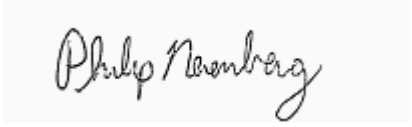

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1202504 - EPA 5035A							**Soil**					
Blank (1202504-BLK1)					Prepared: 02/28/12 08:00 Analyzed: 02/28/12 13:10							
NWTPH-Gx												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 107 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*95 %*	*50-150 %*			*"*					
LCS (1202504-BS2)					Prepared: 02/28/12 08:00 Analyzed: 02/28/12 12:45							
NWTPH-Gx												
Gasoline Range Organics	25.9	2.50	5.00	mg/kg wet	50	25.0	---	104	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 93 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*98 %*	*50-150 %*			*"*					
Duplicate (1202504-DUP1)					Prepared: 02/27/12 15:20 Analyzed: 02/28/12 14:56							
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)												
NWTPH-Gx												
Gasoline Range Organics	ND	2.57	5.14	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 110 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*95 %*	*50-150 %*			*"*					

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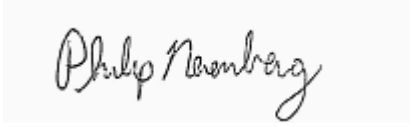

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1202523 - EPA 5035A							**Soil**					
Blank (1202523-BLK1)					Prepared: 02/28/12 09:05 Analyzed: 02/28/12 12:22							
NWTPH-Gx												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 82 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*91 %*	*50-150 %*			*"*					
LCS (1202523-BS2)					Prepared: 02/28/12 09:05 Analyzed: 02/28/12 11:56							
NWTPH-Gx												
Gasoline Range Organics	24.1	2.50	5.00	mg/kg wet	50	25.0	---	97	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 94 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*91 %*	*50-150 %*			*"*					
Duplicate (1202523-DUP1)					Prepared: 02/27/12 15:20 Analyzed: 02/28/12 13:14							
QC Source Sample: 8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)												
NWTPH-Gx												
Gasoline Range Organics	ND	5.25	10.5	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 86 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*93 %*	*50-150 %*			*"*					

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203170 - EPA 3546							**Soil**					
Blank (1203170-BLK1)					Prepared: 03/09/12 07:56 Analyzed: 03/09/12 17:24							**C-07**
EPA 8082A												
Aroclor 1016	ND	1.43	2.86	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 50-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*98 %*	*55-130 %*			*"*					
LCS (1203170-BS1)					Prepared: 03/09/12 07:56 Analyzed: 03/09/12 17:42							**C-07**
EPA 8082A												
Aroclor 1016	86.5	2.00	4.00	ug/kg wet	1	125	---	69	40-140%	---	---	
Aroclor 1260	94.4	2.00	4.00	"	"	"	---	75	60-130%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 72 %*	*Limits: 50-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*82 %*	*55-130 %*			*"*					
Duplicate (1203170-DUP1)					Prepared: 03/09/12 07:56 Analyzed: 03/09/12 20:06							**C-07**
QC Source Sample: 8001-120224-ITSS-TP2-0.0-0.5 (A12B377-02)												
EPA 8082A												
Aroclor 1016	ND	1.93	3.86	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	1.93	3.86	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	1.93	3.86	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	1.93	3.86	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	1.93	3.86	"	"	---	ND	---	---	---	30%	
Aroclor 1254	**146**	1.93	3.86	"	"	---	135	---	---	8	30%	EST
Aroclor 1260	**49.0**	1.93	3.86	"	"	---	46.9	---	---	4	30%	EST
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 50-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*92 %*	*55-130 %*			*"*					
Matrix Spike (1203170-MS1)					Prepared: 03/09/12 07:56 Analyzed: 03/12/12 12:49							**C-07**
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)												
EPA 8082A												
Aroclor 1016	94.0	4.91	9.82	ug/kg dry	1	123	ND	77	40-140%	---	---	

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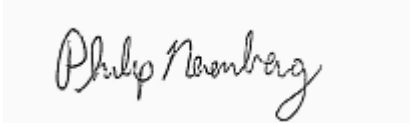

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Tigard, OR 97223
503-718-2323 Phone
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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203170 - EPA 3546							**Soil**					
Matrix Spike (1203170-MS1)					Prepared: 03/09/12 07:56 Analyzed: 03/12/12 12:49							**C-07**
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)												
Aroclor 1260	369	4.91	9.82	ug/kg dry	"	"	297	59	60-130%	---	---	Q-01
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 84 %*	*Limits: 50-125 %*		*Dilution: 1x*						
Decachlorobiphenyl (Surr)			*95 %*	*55-130 %*		*"*						

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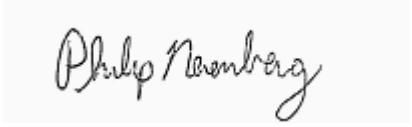

Philip Nerenberg, Lab Director

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203162 - EPA 3546/3640A (GPC)							**Soil**					
Blank (1203162-BLK1)					Prepared: 03/07/12 17:30 Analyzed: 03/12/12 13:01							**C-05**
EPA 8081B												
Aldrin	ND	1.67	3.33	ug/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	1.67	3.33	"	"	---	---	---	---	---	---	
beta-BHC	ND	1.67	3.33	"	"	---	---	---	---	---	---	
delta-BHC	ND	1.67	3.33	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	1.67	3.33	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	1.67	3.33	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	1.67	3.33	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	1.67	3.33	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	1.67	3.33	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Dieldrin	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Endosulfan I	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Endosulfan II	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Endrin	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Endrin ketone	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Heptachlor	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Methoxychlor	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	20.0	40.0	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	20.0	40.0	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	1.67	3.33	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	1.67	3.33	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	1.67	3.33	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Mirex	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Oxychlordane	ND	1.67	3.33	"	"	---	---	---	---	---	---	
trans-Nonachlor	ND	1.67	3.33	"	"	---	---	---	---	---	---	

Surr: 2,4,5,6-TCMX (Surr) *Recovery: 68 %* *Limits: 50-125 %* *Dilution: 1x*

Decachlorobiphenyl (Surr) *97 %* *55-130 %* *"*

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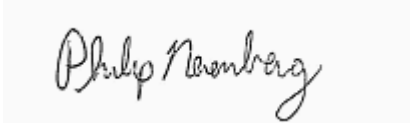

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203162 - EPA 3546/3640A (GPC)							**Soil**					
LCS (1203162-BS1)					Prepared: 03/07/12 17:30 Analyzed: 03/12/12 13:19							**C-05**
EPA 8081B												
Aldrin	129	2.50	5.00	ug/kg wet	1	200	---	64	45-140%	---	---	
alpha-BHC	132	2.50	5.00	"	"	"	---	66	60-125%	---	---	
beta-BHC	134	2.50	5.00	"	"	"	---	67	"	---	---	
delta-BHC	140	2.50	5.00	"	"	"	---	70	55-130%	---	---	
gamma-BHC (Lindane)	131	2.50	5.00	"	"	"	---	65	60-125%	---	---	
cis-Chlordane	141	2.50	5.00	"	"	"	---	71	60-120%	---	---	
trans-Chlordane	141	2.50	5.00	"	"	"	---	70	65-125%	---	---	
4,4'-DDD	184	2.50	5.00	"	"	"	---	92	30-135%	---	---	
4,4'-DDE	144	2.50	5.00	"	"	"	---	72	70-125%	---	---	
4,4'-DDT	201	2.50	5.00	"	"	"	---	100	45-140%	---	---	
Dieldrin	155	2.50	5.00	"	"	"	---	77	65-125%	---	---	
Endosulfan I	144	2.50	5.00	"	"	"	---	72	15-135%	---	---	
Endosulfan II	180	2.50	5.00	"	"	"	---	90	35-140%	---	---	
Endosulfan sulfate	192	2.50	5.00	"	"	"	---	96	60-135%	---	---	
Endrin	157	2.50	5.00	"	"	"	---	78	"	---	---	
Endrin Aldehyde	152	2.50	5.00	"	"	"	---	76	30-145%	---	---	
Endrin ketone	193	2.50	5.00	"	"	"	---	96	65-135%	---	---	
Heptachlor	131	2.50	5.00	"	"	"	---	66	50-140%	---	---	
Heptachlor epoxide	144	2.50	5.00	"	"	"	---	72	65-130%	---	---	
Methoxychlor	229	5.00	10.0	"	"	"	---	115	55-145%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 62 %*		*Limits: 50-125 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*100 %*		*55-130 %*			*"*				
LCS (1203162-BS2)					Prepared: 03/07/12 17:30 Analyzed: 03/12/12 13:37							**C-05, Q-18**
EPA 8081B												
cis-Nonachlor	25.1	2.50	5.00	ug/kg wet	1	25.0	---	100	50-150%	---	---	
2,4'-DDD	26.8	2.50	5.00	"	"	"	---	107	30-135%	---	---	
2,4'-DDE	24.2	2.50	5.00	"	"	"	---	97	50-140%	---	---	
2,4'-DDT	29.4	5.00	10.0	"	"	"	---	117	45-140%	---	---	
Hexachlorobenzene	16.8	2.50	5.00	"	"	"	---	67	50-150%	---	---	
Hexachlorobutadiene	13.6	2.50	5.00	"	"	"	---	55	"	---	---	
Mirex	23.6	2.50	5.00	"	"	"	---	94	"	---	---	
Oxychlordane	20.4	2.50	5.00	"	"	"	---	82	"	---	---	
trans-Nonachlor	22.9	2.50	5.00	"	"	"	---	92	"	---	---	

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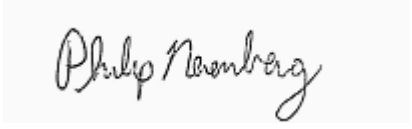

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203162 - EPA 3546/3640A (GPC)							**Soil**					
LCS (1203162-BS2)					Prepared: 03/07/12 17:30		Analyzed: 03/12/12 13:37					**C-05, Q-18**
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 65 %*		*Limits: 50-125 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*104 %*		*55-130 %*			*"*				
Duplicate (1203162-DUP1)					Prepared: 03/07/12 17:30		Analyzed: 03/12/12 18:13					**A-01, C-05**
QC Source Sample: 8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05RE1)												
EPA 8081B												
Aldrin	ND	19.0	19.0	ug/kg dry	5	---	ND	---	---	---	30%	
alpha-BHC	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
beta-BHC	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
delta-BHC	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
gamma-BHC (Lindane)	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
cis-Chlordane	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
trans-Chlordane	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
4,4'-DDD	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
4,4'-DDE	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
4,4'-DDT	ND	34.2	34.2	"	"	---	ND	---	---	---	30%	R-02
Dieldrin	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Endosulfan I	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Endosulfan II	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Endosulfan sulfate	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Endrin	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Endrin Aldehyde	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Endrin ketone	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Heptachlor	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Heptachlor epoxide	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Methoxychlor	ND	38.0	38.0	"	"	---	ND	---	---	---	30%	
Chlordane (Technical)	ND	228	228	"	"	---	ND	---	---	---	30%	
Toxaphene (Total)	ND	228	228	"	"	---	ND	---	---	---	30%	
cis-Nonachlor	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
2,4'-DDD	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
2,4'-DDE	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
2,4'-DDT	ND	38.0	38.0	"	"	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Mirex	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	

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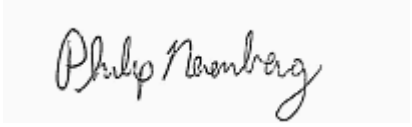

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203162 - EPA 3546/3640A (GPC)							**Soil**					
Duplicate (1203162-DUP1)					Prepared: 03/07/12 17:30		Analyzed: 03/12/12 18:13					**A-01, C-05**
QC Source Sample: 8001-120224-ITSS-TP4-0.0-0.5 (A12B377-05RE1)												
Oxychlordane	ND	19.0	19.0	ug/kg dry	"	---	ND	---	---	---	30%	
trans-Nonachlor	ND	19.0	19.0	"	"	---	ND	---	---	---	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 101 %*	*Limits: 50-125 %*			*Dilution: 5x*					
Decachlorobiphenyl (Surr)			*110 %*	*55-130 %*			*"*					
Matrix Spike (1203162-MS3)					Prepared: 03/07/12 17:30		Analyzed: 03/22/12 21:05					**A-01a, C-05**
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12RE2)												
EPA 8081B												
Aldrin	172	18.1	18.1	ug/kg dry	5	145	ND	119	45-140%	---	---	
alpha-BHC	173	18.1	18.1	"	"	"	ND	120	60-125%	---	---	
beta-BHC	178	18.1	18.1	"	"	"	ND	123	"	---	---	
delta-BHC	186	18.1	18.1	"	"	"	ND	128	55-130%	---	---	
gamma-BHC (Lindane)	174	18.1	18.1	"	"	"	ND	120	60-125%	---	---	
cis-Chlordane	175	18.1	18.1	"	"	"	ND	121	60-120%	---	---	Q-01
trans-Chlordane	179	18.1	18.1	"	"	"	ND	123	65-125%	---	---	
4,4'-DDD	216	18.1	18.1	"	"	"	ND	149	30-135%	---	---	Q-01
4,4'-DDE	186	18.1	18.1	"	"	"	ND	128	70-125%	---	---	Q-01
4,4'-DDT	304	18.1	18.1	"	"	"	445	-97	45-140%	---	---	Q-01, Q-04
Dieldrin	181	18.1	18.1	"	"	"	ND	125	65-125%	---	---	
Endosulfan I	175	18.1	18.1	"	"	"	ND	121	15-135%	---	---	
Endosulfan II	185	18.1	18.1	"	"	"	ND	128	35-140%	---	---	
Endosulfan sulfate	200	18.1	18.1	"	"	"	ND	138	60-135%	---	---	Q-01
Endrin	205	18.1	18.1	"	"	"	ND	141	"	---	---	Q-01
Endrin Aldehyde	140	18.1	18.1	"	"	"	21.3	82	35-145%	---	---	
Endrin ketone	181	18.1	18.1	"	"	"	ND	125	65-135%	---	---	
Heptachlor	188	18.1	18.1	"	"	"	ND	130	50-140%	---	---	
Heptachlor epoxide	190	18.1	18.1	"	"	"	ND	131	65-130%	---	---	Q-01
Methoxychlor	285	36.2	36.2	"	"	"	ND	197	55-145%	---	---	Q-01
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 108 %*	*Limits: 50-125 %*			*Dilution: 5x*					
Decachlorobiphenyl (Surr)			*125 %*	*55-130 %*			*"*					

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203027 - EPA 3546							Soil					
Blank (1203027-BLK1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 13:14							
EPA 8270D (SIM)												
Acenaphthene	ND	1.33	2.67	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Anthracene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	2.67	5.33	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Chrysene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Fluorene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	2.67	5.33	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	2.67	5.33	"	"	---	---	---	---	---	---	
Naphthalene	ND	2.67	5.33	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Pyrene	ND	1.33	2.67	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*				*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*101 %*	*30-120 %*				*"*				
LCS (1203027-BS1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 13:42							
EPA 8270D (SIM)												
Acenaphthene	712	2.00	4.00	ug/kg wet	1	800	---	89	45-125%	---	---	
Acenaphthylene	744	2.00	4.00	"	"	"	---	93	"	---	---	
Anthracene	801	2.00	4.00	"	"	"	---	100	55-125%	---	---	
Benz(a)anthracene	757	2.00	4.00	"	"	"	---	95	50-125%	---	---	
Benzo(a)pyrene	814	2.00	4.00	"	"	"	---	102	"	---	---	
Benzo(b)fluoranthene	803	2.00	4.00	"	"	"	---	100	45-125%	---	---	
Benzo(k)fluoranthene	803	2.00	4.00	"	"	"	---	100	"	---	---	
Benzo(b+k)fluoranthene(s)	1610	4.00	8.00	"	"	1600	---	100	"	---	---	
Benzo(g,h,i)perylene	729	2.00	4.00	"	"	800	---	91	40-125%	---	---	

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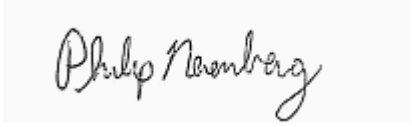

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203027 - EPA 3546							**Soil**					
LCS (1203027-BS1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 13:42							
Chrysene	771	2.00	4.00	ug/kg wet	"	"	---	96	55-125%	---	---	
Dibenz(a,h)anthracene	797	2.00	4.00	"	"	"	---	100	40-125%	---	---	
Dibenzofuran	734	2.00	4.00	"	"	"	---	92	50-125%	---	---	
Fluoranthene	793	2.00	4.00	"	"	"	---	99	55-125%	---	---	
Fluorene	756	2.00	4.00	"	"	"	---	95	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	731	2.00	4.00	"	"	"	---	91	40-125%	---	---	
1-Methylnaphthalene	705	4.00	8.00	"	"	"	---	88	45-125%	---	---	
2-Methylnaphthalene	706	4.00	8.00	"	"	"	---	88	"	---	---	
Naphthalene	710	4.00	8.00	"	"	"	---	89	40-125%	---	---	
Phenanthrene	767	2.00	4.00	"	"	"	---	96	50-125%	---	---	
Pyrene	790	2.00	4.00	"	"	"	---	99	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*91 %*	*30-120 %*			*"*					
Duplicate (1203027-DUP1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 15:06							
QC Source Sample: 8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)												
EPA 8270D (SIM)												
Acenaphthene	ND	150	299	ug/kg dry	20	---	ND	---	---	---	30%	
Acenaphthylene	ND	150	299	"	"	---	ND	---	---	---	30%	
Anthracene	ND	150	299	"	"	---	ND	---	---	---	30%	
Benz(a)anthracene	**375**	150	299	"	"	---	432	---	---	14	30%	
Benzo(a)pyrene	**512**	150	299	"	"	---	597	---	---	15	30%	
Benzo(b+k)fluoranthene(s)	**1010**	299	598	"	"	---	1170	---	---	15	30%	Q-26
Benzo(g,h,i)perylene	**608**	150	299	"	"	---	720	---	---	17	30%	
Chrysene	**590**	150	299	"	"	---	675	---	---	13	30%	
Dibenz(a,h)anthracene	ND	150	299	"	"	---	ND	---	---	---	30%	
Dibenzofuran	ND	150	299	"	"	---	ND	---	---	---	30%	
Fluoranthene	**596**	150	299	"	"	---	693	---	---	15	30%	
Fluorene	ND	150	299	"	"	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	**507**	150	299	"	"	---	604	---	---	17	30%	
1-Methylnaphthalene	ND	299	598	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	299	598	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	299	598	"	"	---	ND	---	---	---	30%	
Phenanthrene	**274**	150	299	"	"	---	356	---	---	26	30%	J
Pyrene	**654**	150	299	"	"	---	737	---	---	12	30%	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203027 - EPA 3546							**Soil**					
Duplicate (1203027-DUP1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 15:06							
QC Source Sample: 8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)												
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 45-120 %*			*Dilution: 20x*					
p-Terphenyl-d14 (Surr)			*85 %*	*30-120 %*			*"*					
Matrix Spike (1203027-MS1)					Prepared: 03/01/12 13:56 Analyzed: 03/06/12 04:05							
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)												
EPA 8270D (SIM)												
Acenaphthene	723	47.4	94.7	ug/kg dry	10	758	ND	95	45-125%	---	---	
Acenaphthylene	766	47.4	94.7	"	"	"	ND	101	"	---	---	
Anthracene	956	47.4	94.7	"	"	"	215	98	55-125%	---	---	
Benz(a)anthracene	988	47.4	94.7	"	"	"	234	99	50-125%	---	---	
Benzo(a)pyrene	997	47.4	94.7	"	"	"	273	96	"	---	---	
Benzo(b)fluoranthene	1200	47.4	94.7	"	"	"	415	104	45-125%	---	---	
Benzo(k)fluoranthene	1020	47.4	94.7	"	"	"	133	117	"	---	---	
Benzo(b+k)fluoranthene(s)	2330	94.7	189	"	"	1520	551	117	"	---	---	
Benzo(g,h,i)perylene	764	47.4	94.7	"	"	758	231	70	40-125%	---	---	
Chrysene	1090	47.4	94.7	"	"	"	351	97	55-125%	---	---	
Dibenz(a,h)anthracene	760	47.4	94.7	"	"	"	53.4	93	40-125%	---	---	
Dibenzofuran	710	47.4	94.7	"	"	"	ND	94	"	---	---	
Fluoranthene	1300	47.4	94.7	"	"	"	527	102	55-125%	---	---	
Fluorene	715	47.4	94.7	"	"	"	ND	94	20-125%	---	---	
Indeno(1,2,3-cd)pyrene	822	47.4	94.7	"	"	"	225	79	40-125%	---	---	
1-Methylnaphthalene	711	94.7	189	"	"	"	ND	94	45-125%	---	---	
2-Methylnaphthalene	702	94.7	189	"	"	"	ND	93	"	---	---	
Naphthalene	709	94.7	189	"	"	"	ND	94	40-125%	---	---	
Phenanthrene	926	47.4	94.7	"	"	"	335	78	50-125%	---	---	
Pyrene	1320	47.4	94.7	"	"	"	561	100	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 86 %*	*Limits: 45-120 %*			*Dilution: 10x*					
p-Terphenyl-d14 (Surr)			*94 %*	*30-120 %*			*"*					

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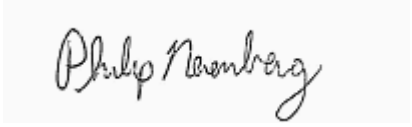

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203027 - EPA 3546							**Soil**					
Blank (1203027-BLK1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 13:14							
EPA 8270D (SIM)												
Diethylphthalate	ND	13.3	26.7	ug/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	13.3	26.7	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	13.3	26.7	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	13.3	26.7	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	**28.4**	13.3	26.7	"	"	---	---	---	---	---	---	B
Butyl benzyl phthalate	**57.9**	13.3	26.7	"	"	---	---	---	---	---	---	B
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*101 %*	*30-120 %*			*"*					
LCS (1203027-BS1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 13:42							
EPA 8270D (SIM)												
Diethylphthalate	768	20.0	40.0	ug/kg wet	1	800	---	96	40-125%	---	---	
Dimethylphthalate	741	20.0	40.0	"	"	"	---	93	25-125%	---	---	
Di-n-butylphthalate	818	20.0	40.0	"	"	"	---	102	55-125%	---	---	
Di-n-octyl phthalate	825	20.0	40.0	"	"	"	---	103	35-125%	---	---	
Bis(2-ethylhexyl)phthalate	801	20.0	40.0	"	"	"	---	100	40-125%	---	---	B
Butyl benzyl phthalate	818	20.0	40.0	"	"	"	---	102	45-125%	---	---	B
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*91 %*	*30-120 %*			*"*					
Duplicate (1203027-DUP1)					Prepared: 03/01/12 13:56 Analyzed: 03/05/12 15:06							**R-04**
QC Source Sample: 8001-120224-ITSS-TP1-0.0-0.5 (A12B377-01)												
EPA 8270D (SIM)												
Diethylphthalate	ND	1500	2990	ug/kg dry	20	---	ND	---	---	---	30%	
Dimethylphthalate	ND	1500	2990	"	"	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	1500	2990	"	"	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	1500	2990	"	"	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	1500	2990	"	"	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	1500	2990	"	"	---	ND	---	---	---	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 45-120 %*			*Dilution: 20x*					
p-Terphenyl-d14 (Surr)			*85 %*	*30-120 %*			*"*					
Matrix Spike (1203027-MS1)					Prepared: 03/01/12 13:56 Analyzed: 03/06/12 04:05							
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)												

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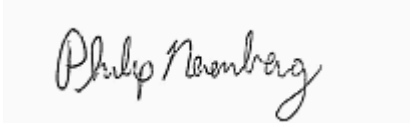

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203027 - EPA 3546							**Soil**					
Matrix Spike (1203027-MS1)					Prepared: 03/01/12 13:56 Analyzed: 03/06/12 04:05							
QC Source Sample: 8001-120224-ITSS-TP10-0.0-0.5 (A12B377-12)												
EPA 8270D (SIM)												
Diethylphthalate	740	474	947	ug/kg dry	10	758	ND	98	40-125%	---	---	J
Dimethylphthalate	699	474	947	"	"	"	ND	92	25-125%	---	---	J
Di-n-butylphthalate	860	474	947	"	"	"	ND	114	55-125%	---	---	J
Di-n-octyl phthalate	902	474	947	"	"	"	ND	119	35-125%	---	---	J
Bis(2-ethylhexyl)phthalate	905	474	947	"	"	"	ND	119	40-125%	---	---	B, J
Butyl benzyl phthalate	865	474	947	"	"	"	ND	114	45-125%	---	---	B, J
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 86 %*		*Limits: 45-120 %*				*Dilution: 10x*			
p-Terphenyl-d14 (Surr)			*94 %*		*30-120 %*				*"*			

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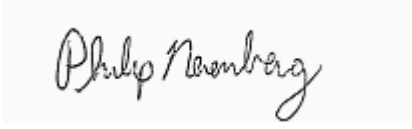

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203193 - EPA 3051A							**Soil**					
Blank (1203193-BLK1)					Prepared: 03/09/12 14:07 Analyzed: 03/12/12 13:18							
EPA 6020												
Aluminum	ND	25.0	50.0	mg/kg wet	10	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Copper	ND	2.00	4.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1203193-BS1)					Prepared: 03/09/12 14:07 Analyzed: 03/12/12 13:21							
EPA 6020												
Aluminum	5120	25.0	50.0	mg/kg wet	10	5000	---	102	80-120%	---	---	
Antimony	27.6	0.500	1.00	"	"	25.0	---	111	"	---	---	
Arsenic	50.5	0.500	2.00	"	"	50.0	---	101	"	---	---	
Cadmium	50.1	0.500	1.00	"	"	"	---	100	"	---	---	
Chromium	48.6	1.00	2.00	"	"	"	---	97	"	---	---	
Copper	50.0	2.00	4.00	"	"	"	---	100	"	---	---	
Lead	50.8	0.500	1.00	"	"	"	---	102	"	---	---	
Manganese	49.5	0.500	1.00	"	"	"	---	99	"	---	---	
Mercury	0.994	0.0400	0.0800	"	"	1.00	---	99	"	---	---	
Nickel	50.2	1.00	2.00	"	"	50.0	---	100	"	---	---	
Silver	25.5	0.500	1.00	"	"	25.0	---	102	"	---	---	
Zinc	52.0	2.00	4.00	"	"	50.0	---	104	"	---	---	
Duplicate (1203193-DUP1)					Prepared: 03/09/12 14:07 Analyzed: 03/12/12 13:36							
QC Source Sample: 8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)												
EPA 6020												
Aluminum	**9320**	30.3	60.6	mg/kg dry	10	---	9220	---	---	1	40%	
Antimony	**11.7**	0.606	1.21	"	"	---	10.0	---	---	16	40%	
Arsenic	**7.63**	0.606	2.42	"	"	---	7.26	---	---	5	40%	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1203193 - EPA 3051A							**Soil**					
Duplicate (1203193-DUP1)					Prepared: 03/09/12 14:07		Analyzed: 03/12/12 13:36					
QC Source Sample: 8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)												
Cadmium	**2.69**	0.606	1.21	mg/kg dry	"	---	2.33	---	---	14	40%	
Chromium	**153**	1.21	2.42	"	"	---	125	---	---	20	40%	
Copper	**170**	2.42	4.85	"	"	---	156	---	---	9	40%	
Lead	**392**	0.606	1.21	"	"	---	345	---	---	13	40%	
Manganese	**2080**	0.606	1.21	"	"	---	1910	---	---	8	40%	
Mercury	**0.500**	0.0485	0.0969	"	"	---	0.460	---	---	8	40%	
Nickel	**54.7**	1.21	2.42	"	"	---	46.3	---	---	17	40%	
Silver	ND	0.606	1.21	"	"	---	ND	---	---	---	40%	
Zinc	**732**	2.42	4.85	"	"	---	708	---	---	3	40%	
Matrix Spike (1203193-MS1)					Prepared: 03/09/12 14:07		Analyzed: 03/12/12 13:51					
QC Source Sample: 8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)												
EPA 6020												
Aluminum	15600	30.7	61.3	mg/kg dry	10	6130	9220	104	75-125%	---	---	
Antimony	40.9	0.613	1.23	"	"	30.7	10.0	101	"	---	---	
Arsenic	68.4	0.613	2.45	"	"	61.3	7.26	100	"	---	---	
Cadmium	63.9	0.613	1.23	"	"	"	2.33	100	"	---	---	
Chromium	198	1.23	2.45	"	"	"	125	119	"	---	---	
Copper	229	2.45	4.91	"	"	"	156	120	"	---	---	
Lead	1220	0.613	1.23	"	"	"	345	1430	"	---	---	Q-03
Manganese	1990	0.613	1.23	"	"	"	1910	125	"	---	---	
Mercury	1.61	0.0491	0.0981	"	"	1.23	0.460	94	"	---	---	
Nickel	113	1.23	2.45	"	"	61.3	46.3	108	"	---	---	
Silver	31.3	0.613	1.23	"	"	30.7	ND	102	"	---	---	
Zinc	831	2.45	4.91	"	"	61.3	708	200	"	---	---	Q-03
Post Spike (1203193-PS1)					Prepared: 03/13/12 15:23		Analyzed: 03/13/12 16:27					
QC Source Sample: 8001-120224-ITSS-TP3-0.0-0.5 (A12B377-04)												
EPA 6020												
Lead	3620			ug/L	25	1670	1850	106	80-120%		---	
Zinc	5280			"	"	"	3810	88	"		---	

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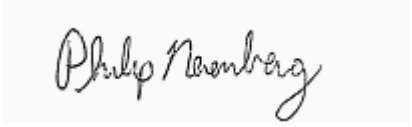

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1202522 - Total Solids (Dry Weight)									Soil			
Duplicate (1202522-DUP1)					Prepared: 02/28/12 09:41		Analyzed: 02/29/12 10:37					
QC Source Sample: 8001-120224-ITSS-TP2-1.5 (A12B377-03)												
Apex SOP												
% Solids	**85.8**	---	1.00	% by Weight	1	---	83.7	---	---	2	20%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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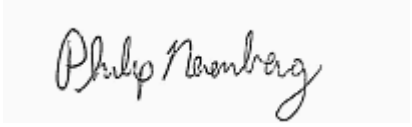

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

SAMPLE PREPARATION INFORMATION

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1202567							
A12B377-06	Soil	NWTPH-Dx	02/24/12 09:40	02/29/12 17:23	12.04g/10mL	10g/5mL	1.66
A12B377-07	Soil	NWTPH-Dx	02/24/12 09:53	02/29/12 17:23	13.3g/10mL	10g/5mL	1.50
A12B377-08	Soil	NWTPH-Dx	02/24/12 10:40	02/29/12 17:23	10.14g/5mL	10g/5mL	0.99
A12B377-09	Soil	NWTPH-Dx	02/24/12 10:55	02/29/12 17:23	11.13g/5mL	10g/5mL	0.90
A12B377-10	Soil	NWTPH-Dx	02/24/12 11:20	02/29/12 17:23	12.09g/25mL	10g/5mL	4.14
A12B377-11	Soil	NWTPH-Dx	02/24/12 11:50	02/29/12 17:23	10.5g/5mL	10g/5mL	0.95
A12B377-12	Soil	NWTPH-Dx	02/24/12 12:20	02/29/12 17:23	11.62g/10mL	10g/5mL	1.72
Batch: 1203040							
A12B377-01	Soil	NWTPH-Dx	02/24/12 15:05	03/02/12 09:48	10.94g/10mL	10g/5mL	1.83
A12B377-02RE1	Soil	NWTPH-Dx	02/24/12 14:35	03/02/12 09:48	10.38g/5mL	10g/5mL	0.96
A12B377-03	Soil	NWTPH-Dx	02/24/12 14:50	03/02/12 09:48	11.32g/5mL	10g/5mL	0.88
A12B377-04RE1	Soil	NWTPH-Dx	02/24/12 14:35	03/02/12 09:48	10.48g/5mL	10g/5mL	0.95
A12B377-05	Soil	NWTPH-Dx	02/24/12 09:30	03/02/12 09:48	12.67g/10mL	10g/5mL	1.58

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1202504							
A12B377-11	Soil	NWTPH-Gx	02/24/12 11:50	02/27/12 15:20	13.02g/10mL	10g/10mL	0.77
A12B377-12	Soil	NWTPH-Gx	02/24/12 12:20	02/27/12 15:20	13.305g/10mL	10g/10mL	0.75
Batch: 1202523							
A12B377-01	Soil	NWTPH-Gx	02/24/12 15:05	02/27/12 15:20	11.294g/10mL	10g/10mL	0.89
A12B377-02	Soil	NWTPH-Gx	02/24/12 14:35	02/27/12 15:20	12.009g/10mL	10g/10mL	0.83
A12B377-03	Soil	NWTPH-Gx	02/24/12 14:50	02/27/12 15:20	12.78g/10mL	10g/10mL	0.78
A12B377-04	Soil	NWTPH-Gx	02/24/12 14:35	02/27/12 15:20	11.536g/10mL	10g/10mL	0.87
A12B377-05	Soil	NWTPH-Gx	02/24/12 09:30	02/27/12 15:20	13.646g/10mL	10g/10mL	0.73
A12B377-06	Soil	NWTPH-Gx	02/24/12 09:40	02/27/12 15:20	13.453g/10mL	10g/10mL	0.74
A12B377-07	Soil	NWTPH-Gx	02/24/12 09:53	02/27/12 15:20	13.963g/10mL	10g/10mL	0.72
A12B377-08	Soil	NWTPH-Gx	02/24/12 10:40	02/27/12 15:20	11.983g/10mL	10g/10mL	0.84
A12B377-09	Soil	NWTPH-Gx	02/24/12 10:55	02/27/12 15:20	13.002g/10mL	10g/10mL	0.77
A12B377-10	Soil	NWTPH-Gx	02/24/12 11:20	02/27/12 15:20	12.32g/10mL	10g/10mL	0.81

Polychlorinated Biphenyls -- EPA 8082A

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

SAMPLE PREPARATION INFORMATION

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1203170							
A12B377-01	Soil	EPA 8082A	02/24/12 15:05	03/09/12 07:56	10.53g/5mL	10g/2mL	2.37
A12B377-02	Soil	EPA 8082A	02/24/12 14:35	03/09/12 07:56	11.85g/2mL	10g/2mL	0.84
A12B377-03	Soil	EPA 8082A	02/24/12 14:50	03/09/12 07:56	11.42g/2mL	10g/2mL	0.88
A12B377-04RE1	Soil	EPA 8082A	02/24/12 14:35	03/09/12 07:56	11.32g/2mL	10g/2mL	0.88
A12B377-05	Soil	EPA 8082A	02/24/12 09:30	03/09/12 07:56	12.04g/5mL	10g/2mL	2.08
A12B377-06RE1	Soil	EPA 8082A	02/24/12 09:40	03/09/12 07:56	11.08g/5mL	10g/2mL	2.26
A12B377-07RE1	Soil	EPA 8082A	02/24/12 09:53	03/09/12 07:56	10.34g/5mL	10g/2mL	2.42
A12B377-08RE1	Soil	EPA 8082A	02/24/12 10:40	03/09/12 07:56	10.51g/2mL	10g/2mL	0.95
A12B377-09RE1	Soil	EPA 8082A	02/24/12 10:55	03/09/12 07:56	10.55g/2mL	10g/2mL	0.95
A12B377-10RE1	Soil	EPA 8082A	02/24/12 11:20	03/09/12 07:56	12.09g/2mL	10g/2mL	0.83
A12B377-11RE1	Soil	EPA 8082A	02/24/12 11:50	03/09/12 07:56	11.1g/2mL	10g/2mL	0.90
A12B377-12	Soil	EPA 8082A	02/24/12 12:20	03/09/12 07:56	11.99g/5mL	10g/2mL	2.09

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1203162							
A12B377-01RE1	Soil	EPA 8081B	02/24/12 15:05	03/07/12 17:30	13.14g/10mL	10g/5mL	1.52
A12B377-02RE1	Soil	EPA 8081B	02/24/12 14:35	03/07/12 17:30	13.77g/10mL	10g/5mL	1.45
A12B377-03RE1	Soil	EPA 8081B	02/24/12 14:50	03/07/12 17:30	13.86g/10mL	10g/5mL	1.44
A12B377-04RE1	Soil	EPA 8081B	02/24/12 14:35	03/07/12 17:30	14.52g/10mL	10g/5mL	1.38
A12B377-05RE1	Soil	EPA 8081B	02/24/12 09:30	03/07/12 17:30	14.23g/10mL	10g/5mL	1.41
A12B377-06RE1	Soil	EPA 8081B	02/24/12 09:40	03/07/12 17:30	14.31g/10mL	10g/5mL	1.40
A12B377-07RE1	Soil	EPA 8081B	02/24/12 09:53	03/07/12 17:30	14.11g/10mL	10g/5mL	1.42
A12B377-08RE1	Soil	EPA 8081B	02/24/12 10:40	03/07/12 17:30	13.36g/10mL	10g/5mL	1.50
A12B377-09RE1	Soil	EPA 8081B	02/24/12 10:55	03/07/12 17:30	14.71g/10mL	10g/5mL	1.36
A12B377-10RE2	Soil	EPA 8081B	02/24/12 11:20	03/07/12 17:30	14.63g/10mL	10g/5mL	1.37
A12B377-11RE2	Soil	EPA 8081B	02/24/12 11:50	03/07/12 17:30	14.22g/10mL	10g/5mL	1.41
A12B377-12RE2	Soil	EPA 8081B	02/24/12 12:20	03/07/12 17:30	13.95g/10mL	10g/5mL	1.43

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1203027							
A12B377-01	Soil	EPA 8270D (SIM)	02/24/12 15:05	03/01/12 13:56	10.68g/5mL	10g/2mL	2.34
A12B377-02	Soil	EPA 8270D (SIM)	02/24/12 14:35	03/01/12 13:56	12.87g/2mL	10g/2mL	0.78
A12B377-03	Soil	EPA 8270D (SIM)	02/24/12 14:50	03/01/12 13:56	12.31g/2mL	10g/2mL	0.81
A12B377-04	Soil	EPA 8270D (SIM)	02/24/12 14:35	03/01/12 13:56	12.92g/5mL	10g/2mL	1.93
A12B377-05	Soil	EPA 8270D (SIM)	02/24/12 09:30	03/01/12 13:56	13.31g/5mL	10g/2mL	1.88
A12B377-06	Soil	EPA 8270D (SIM)	02/24/12 09:40	03/01/12 13:56	14.22g/5mL	10g/2mL	1.76
A12B377-07	Soil	EPA 8270D (SIM)	02/24/12 09:53	03/01/12 13:56	13.14g/5mL	10g/2mL	1.90
A12B377-08	Soil	EPA 8270D (SIM)	02/24/12 10:40	03/01/12 13:56	13.17g/5mL	10g/2mL	1.90
A12B377-09	Soil	EPA 8270D (SIM)	02/24/12 10:55	03/01/12 13:56	13.33g/2mL	10g/2mL	0.75
A12B377-10	Soil	EPA 8270D (SIM)	02/24/12 11:20	03/01/12 13:56	10.99g/5mL	10g/2mL	2.27
A12B377-11	Soil	EPA 8270D (SIM)	02/24/12 11:50	03/01/12 13:56	10.66g/5mL	10g/2mL	2.35
A12B377-12	Soil	EPA 8270D (SIM)	02/24/12 12:20	03/01/12 13:56	11.52g/5mL	10g/2mL	2.17

Phthalates by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1203027							
A12B377-01	Soil	EPA 8270D (SIM)	02/24/12 15:05	03/01/12 13:56	10.68g/5mL	10g/5mL	0.94
A12B377-02	Soil	EPA 8270D (SIM)	02/24/12 14:35	03/01/12 13:56	12.87g/2mL	10g/5mL	0.31
A12B377-03	Soil	EPA 8270D (SIM)	02/24/12 14:50	03/01/12 13:56	12.31g/2mL	10g/5mL	0.33
A12B377-04	Soil	EPA 8270D (SIM)	02/24/12 14:35	03/01/12 13:56	12.92g/5mL	10g/5mL	0.77
A12B377-05	Soil	EPA 8270D (SIM)	02/24/12 09:30	03/01/12 13:56	13.31g/5mL	10g/5mL	0.75
A12B377-06	Soil	EPA 8270D (SIM)	02/24/12 09:40	03/01/12 13:56	14.22g/5mL	10g/5mL	0.70
A12B377-07	Soil	EPA 8270D (SIM)	02/24/12 09:53	03/01/12 13:56	13.14g/5mL	10g/5mL	0.76
A12B377-08	Soil	EPA 8270D (SIM)	02/24/12 10:40	03/01/12 13:56	13.17g/5mL	10g/5mL	0.76
A12B377-09	Soil	EPA 8270D (SIM)	02/24/12 10:55	03/01/12 13:56	13.33g/2mL	10g/5mL	0.30
A12B377-10	Soil	EPA 8270D (SIM)	02/24/12 11:20	03/01/12 13:56	10.99g/5mL	10g/5mL	0.91
A12B377-11	Soil	EPA 8270D (SIM)	02/24/12 11:50	03/01/12 13:56	10.66g/5mL	10g/5mL	0.94
A12B377-12	Soil	EPA 8270D (SIM)	02/24/12 12:20	03/01/12 13:56	11.52g/5mL	10g/5mL	0.87

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1203193							
A12B377-01	Soil	EPA 6020	02/24/12 15:05	03/09/12 14:07	0.509g/50mL	0.5g/50mL	0.98
A12B377-02	Soil	EPA 6020	02/24/12 14:35	03/09/12 14:07	0.533g/50mL	0.5g/50mL	0.94
A12B377-03	Soil	EPA 6020	02/24/12 14:50	03/09/12 14:07	0.51g/50mL	0.5g/50mL	0.98
A12B377-04	Soil	EPA 6020	02/24/12 14:35	03/09/12 14:07	0.499g/50mL	0.5g/50mL	1.00
A12B377-05	Soil	EPA 6020	02/24/12 09:30	03/09/12 14:07	0.503g/50mL	0.5g/50mL	0.99
A12B377-06	Soil	EPA 6020	02/24/12 09:40	03/09/12 14:07	0.502g/50mL	0.5g/50mL	1.00
A12B377-07	Soil	EPA 6020	02/24/12 09:53	03/09/12 14:07	0.493g/50mL	0.5g/50mL	1.01
A12B377-08	Soil	EPA 6020	02/24/12 10:40	03/09/12 14:07	0.474g/50mL	0.5g/50mL	1.05
A12B377-09	Soil	EPA 6020	02/24/12 10:55	03/09/12 14:07	0.483g/50mL	0.5g/50mL	1.04
A12B377-10	Soil	EPA 6020	02/24/12 11:20	03/09/12 14:07	0.527g/50mL	0.5g/50mL	0.95
A12B377-11	Soil	EPA 6020	02/24/12 11:50	03/09/12 14:07	0.518g/50mL	0.5g/50mL	0.97
A12B377-12	Soil	EPA 6020	02/24/12 12:20	03/09/12 14:07	0.521g/50mL	0.5g/50mL	0.96

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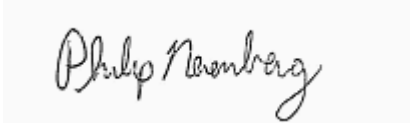

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

Notes and Definitions

Qualifiers:

A-01	Reporting limits elevated due to interference from PCB Aroclors
A-01a	Reporting limits raised due to interference from PCB aroclors.
B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Multiple aroclors present
ESTa	Result reported as an Estimated Value. Multiple aroclors present.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-01	Percent recovery and/or RPD is outside acceptance limits.
Q-03	Percent recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-04	Percent recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-16	Reanalysis of an original Batch QC sample.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-26	Peak separation for Benzo(b) and Benzo(k)fluoranthenes does not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to dilution necessary for analysis.
S-01	Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
V-07	Sample aliquot was subsampled from a soil jar with minimal headspace. The subsampled aliquot was not preserved within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit

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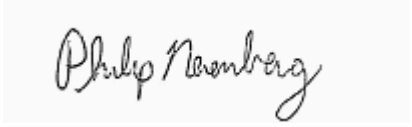

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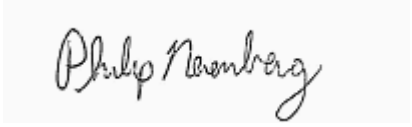
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/27/12 10:33

A12B377

HAHN AND ASSOCIATES, INC.
Environmental Management
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

Laboratory: Apex
Lab Project No.:

CHAIN OF CUSTODY
Chain of Custody No.

Project Manager	Ross Rieke (Bridgewater)
Project No.	HAI - 8001
Project Name	Schnitzer Steel - Burgard
Collected by	Corey Raspone/Ben Uhl

Liquid with Sediment Sample: Test Filtrate / Test Sediment / Test Both
Multi-Phase Sample: Test One (which) / Test Separately / Shake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N)
Provide Preliminary Fax Results

Sample Number Prefix: 8001-120224-ITSS

All results and invoicing to Ross Rieke at Bridgewater (rrieke@bridgeh2o.com)

Metals: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Matrix: Water	Matrix: Other	Number of Containers	PCBs - Aroclors, Cogeners, and Homologs (EPA 1668)	Phthalates (EPA 8270)	Dioxins (EPA 8290)	Butyltins (KRONE)	Total Metals (EPA 6020)	PAHs (EPA 8270)	Organochlorine Pesticides (EPA 8081)	NWTPH-Dx	NWTPH-Gx	Remarks
	TP1-0.0-0.5	2/24/12	15:05	Section D - East	X			5	X	X	X	X	X	X	X	X	X	
	TP2-0.0-0.5	2/24/12	14:35	Section D - Mid	X			5	X	X	X	X	X	X	X	X	X	
	TP2-1.5	2/24/12	14:50	Section D - Mid	X			5	X	X	X	X	X	X	X	X	X	
	TP3-0.0-0.5	2/24/12	14:35	Section D - West	X			5	X	X	X	X	X	X	X	X	X	
	TP4-0.0-0.5	2/24/12	9:30	Section C East - East	X			5	X	X	X	X	X	X	X	X	X	
	TP5-0.0-0.5	2/24/12	9:40	Section C East - West	X			5	X	X	X	X	X	X	X	X	X	
	TP5-1.5	2/24/12	9:53	Section C West - East	X			5	X	X	X	X	X	X	X	X	X	
	TP6-0.0-0.5	2/24/12	10:40	Section C West - East	X			5	X	X	X	X	X	X	X	X	X	
	TP7-0.0-0.5	2/24/12	10:55	Section C West - Mid	X			5	X	X	X	X	X	X	X	X	X	
	TP8-0.0-0.5	2/24/12	11:20	Section C West - Mid	X			5	X	X	X	X	X	X	X	X	X	
	TP9-0.0-0.5	2/24/12	11:50	Section C West - West	X			5	X	X	X	X	X	X	X	X	X	
	TP10-0.0-0.5	2/24/12	12:20	Section B	X			5	X	X	X	X	X	X	X	X	X	

Relinquished by	Company	Date	Time	Received by	Company
[signature]	HAHN & ASSOC	2/27/12	10:40	[signature]	Apex

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg, Lab Director

Analytical Resources, Incorporated
Analytical Chemists and Consultants

March 9, 2012

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A12B377
ARI ID: UK06

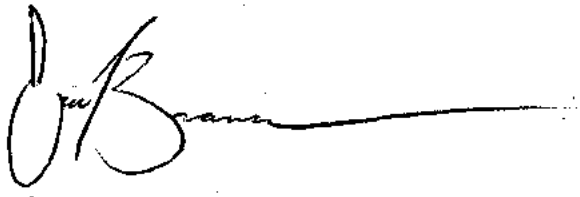
Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record, sample receipt documentation, and the final data for the sample from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this package will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Eric Branson
Project Manager
206 695 6213
eric@arilabs.com
www.arilabs.com

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

- Sample Receipt & Analytical Details -

Sample Receipt:

Analytical Resources, Inc. (ARI) accepted twelve soil samples intact on February 29, 2012. The samples were received with a temperature measured at 4.6°C. For further details regarding sample receipt please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for the parameter listed below, as requested on the Chain of Custody.

Butyl Tins by Krone - 1988 SIM (GC/MS):

Several samples had surrogate Tripropyl Tin Chloride out of control high. Please refer to the form II for details. In all instances the surrogates were less than 19 percentage points out of control high, with the highest recovery at 122%. All aspects of the continuing calibration were in control, and no further corrective action was taken.

The original analytical run of samples **8001-120224-ITSS-TP1-0.0-0.5** and **8001-120224-ITSS-TP5-0.0-0.5** on 3/7/12 at 11:47 and 12:50 had internal standard p-Terphenyl-d14 with an area limit percent difference outside of control limits high. The samples were reanalyzed on 3/7/12 at 14:20 and 14:33 at dilutions, with all internal standards in control. Both runs have been reported.

There were no other irregularities with this analysis.

"J" qualified detections below the listed reporting limit should be considered estimates only. Please refer to the enclosed Data Reporting Qualifiers sheet for further details regarding this qualifier.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UK06
Client: Apex Labs
Project Event: A12B377
Project Name: N/A

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	8001-120224-ITSS-TP1-0.0	UK06A	12-3497	Soil	02/24/12 15:05	02/29/12 10:00
2.	8001-120224-ITSS-TP2-0.0	UK06B	12-3498	Soil	02/24/12 14:35	02/29/12 10:00
3.	8001-120224-ITSS-TP2-1.5	UK06C	12-3499	Soil	02/24/12 14:50	02/29/12 10:00
4.	8001-120224-ITSS-TP3-0.0	UK06D	12-3500	Soil	02/24/12 14:35	02/29/12 10:00
5.	8001-120224-ITSS-TP4-0.0	UK06E	12-3501	Soil	02/24/12 09:30	02/29/12 10:00
6.	8001-120224-ITSS-TP5-0.0	UK06F	12-3502	Soil	02/24/12 09:40	02/29/12 10:00
7.	8001-120224-ITSS-TP5-1.5	UK06G	12-3503	Soil	02/24/12 09:53	02/29/12 10:00
8.	8001-120224-ITSS-TP6-0.0	UK06H	12-3504	Soil	02/24/12 10:40	02/29/12 10:00
9.	8001-120224-ITSS-TP7-0.0	UK06I	12-3505	Soil	02/24/12 10:55	02/29/12 10:00
10.	8001-120224-ITSS-TP8-0.0	UK06J	12-3506	Soil	02/24/12 11:20	02/29/12 10:00
11.	8001-120224-ITSS-TP9-0.0	UK06K	12-3507	Soil	02/24/12 11:50	02/29/12 10:00
12.	8001-120224-ITSS-TP10-0.	UK06L	12-3508	Soil	02/24/12 12:20	02/29/12 10:00

UK06 : 00003

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

UK05 : 00004

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

UKOS : 00005

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

UK06 : 00006

SUBCONTRACT ORDER

Apex Laboratories

A12B377

UKQ6

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: 8001-120224-ITSS-TP1-0.0-0.5 **Soil** **Sampled: 02/24/12 15:05** (A12B377-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 15:05	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP2-0.0-0.5 **Soil** **Sampled: 02/24/12 14:35** (A12B377-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 14:35	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

time on sample 15:50

Sample Name: 8001-120224-ITSS-TP2-1.5 **Soil** **Sampled: 02/24/12 14:50** (A12B377-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 14:50	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP3-0.0-0.5 **Soil** **Sampled: 02/24/12 14:35** (A12B377-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 14:35	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

STD TAT

Released By	Date	Received By	Date
	2/28/12	UPS (Shipper)	
UPS (Shipper)	2-29-12 1600		
Released By	Date	Received By	Date

UKQ6 : 00007

SUBCONTRACT ORDER

Apex Laboratories

A12B377

Sample Name: 8001-120224-ITSS-TP4-0.0-0.5 **Soil** **Sampled: 02/24/12 09:30** (A12B377-05)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 09:30	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP5-0.0-0.5 **Soil** **Sampled: 02/24/12 09:40** (A12B377-06)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 09:40	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP5-1.5 **Soil** **Sampled: 02/24/12 09:53** (A12B377-07)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 09:53	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP6-0.0-0.5 **Soil** **Sampled: 02/24/12 10:40** (A12B377-08)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 10:40	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP7-0.0-0.5 **Soil** **Sampled: 02/24/12 10:55** (A12B377-09)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 10:55	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP8-0.0-0.5 **Soil** **Sampled: 02/24/12 11:20** (A12B377-10)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 11:20	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Released By	Date	Received By	Date
	2/28/12	UPS (Shipper)	
UPS (Shipper)			
Released By	Date	Received By	Date
			2-29-12 1000

UK05 : 00008

SUBCONTRACT ORDER

Apex Laboratories

A12B377

Sample Name: 8001-120224-ITSS-TP9-0.0-0.5 **Soil** **Sampled: 02/24/12 11:50** (A12B377-11)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 11:50	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Sample Name: 8001-120224-ITSS-TP10-0.0-0.5 **Soil** **Sampled: 02/24/12 12:20** (A12B377-12)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/12/12 17:00	03/09/12 12:20	Krone--ARI
Containers Supplied:			
(C)4 oz Glass Jar			

Released By	Date	Received By	Date
	2/28/12	UPS (Shipper)	
UPS (Shipper)			
Released By	Date	Received By	Date
			2-29-12 1005

UK06 : 00003

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex Project Name: A12B377

COC No(s): _____ (NA) Delivered by: Fed-Ex (UPS) Courier Hand Delivered Other: _____

Assigned ARI Job No: UK06 Tracking No: 1ZX4720R 1399 4125 3 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 4.6

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90470179

Cooler Accepted by: TS Date: 2-29-12 Time: 1600

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	(Bubble Wrap) (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

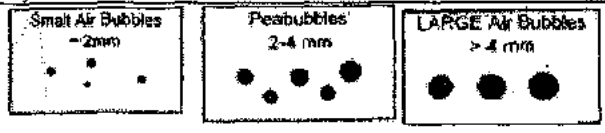
Samples Logged by: AV Date: 2/29/12 Time: 1300

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP1-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06A
LIMS ID: 12-3497
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 11:47
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.55 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 39.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.5**	**3.2**	**J**
14488-53-0	**Dibutyltin Ion**	**5.2**	**6.1**	
78763-54-9	**Butyltin Ion**	**3.7**	**5.8**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	91.2%
Tripentyl Tin Chloride	92.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: 8001-120224-ITSS-TP1-0.0-0.5
DILUTION

Lab Sample ID: UK06A
LIMS ID: 12-3497
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 14:20
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.55 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 2.00
Alumina Cleanup: Yes
Moisture: 39.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	7.0	4.2	J
14488-53-0	Dibutyltin Ion	10	7.4	J
78763-54-9	Butyltin Ion	7.3	5.5	J

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	91.2%
Tripentyl Tin Chloride	98.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: 8001-120224-ITSS-TP2-0.0-0.5
SAMPLE

Lab Sample ID: UK06B
LIMS ID: 12-3498
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 11:59
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.20 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 15.7%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.7	< 3.7	U
14488-53-0	**Dibutyltin Ion**	**5.6**	**6.2**	
78763-54-9	**Butyltin Ion**	**3.9**	**6.2**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	89.8%
Tripentyl Tin Chloride	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP2-1.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06C
LIMS ID: 12-3499
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 12:12
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.19 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 16.0%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.7	< 3.7	U
14488-53-0	Dibutyltin Ion	5.6	< 5.6	U
78763-54-9	**Butyltin Ion**	**3.9**	**2.0**	**J**

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	87.5%
Tripentyl Tin Chloride	101%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP3-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06D
LIMS ID: 12-3500
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 12:25
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.91 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 17.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.3**	**17**	
14488-53-0	**Dibutyltin Ion**	**4.9**	**8.0**	
78763-54-9	**Butyltin Ion**	**3.4**	**6.7**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	92.2%
Tripentyl Tin Chloride	94.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP4-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06E
LIMS ID: 12-3501
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 12:38
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.67 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 7.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.4	< 3.4	U
14488-53-0	Dibutyltin Ion	5.1	< 5.1	U
78763-54-9	**Butyltin Ion**	**3.6**	**2.2**	**J**

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	113%
Tripentyl Tin Chloride	116%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP5-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06F
LIMS ID: 12-3502
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 12:50
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.74 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 6.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.4	< 3.4	U
14488-53-0	Dibutyltin Ion	5.0	< 5.0	U
78763-54-9	Butyltin Ion	3.6	< 3.6	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	111%
Tripentyl Tin Chloride	111%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: 8001-120224-ITSS-TP5-0.0-0.5
DILUTION

Lab Sample ID: UK06F
LIMS ID: 12-3502
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 14:33
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.74 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 2.00
Alumina Cleanup: Yes
Moisture: 6.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	6.7	< 6.7	U
14488-53-0	Dibutyltin Ion	10	< 10	U
78763-54-9	Butyltin Ion	7.1	< 7.1	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	109%
Tripentyl Tin Chloride	106%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: 8001-120224-ITSS-TP5-1.5
SAMPLE

Lab Sample ID: UK06G
LIMS ID: 12-3503
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 13:03
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.61 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 8.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.4	< 3.4	U
14488-53-0	Dibutyltin Ion	5.2	< 5.2	U
78763-54-9	Butyltin Ion	3.6	< 3.6	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	104%
Tripentyl Tin Chloride	115%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP6-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06H
LIMS ID: 12-3504
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 13:16
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.51 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 10.4%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.5	< 3.5	U
14488-53-0	Dibutyltin Ion	5.2	< 5.2	U
78763-54-9	Butyltin Ion	3.7	< 3.7	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	122%
Tripentyl Tin Chloride	123%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP7-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06I
LIMS ID: 12-3505
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 13:29
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.60 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 8.5%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.4	< 3.4	U
14488-53-0	**Dibutyltin Ion**	**5.2**	**23**	
78763-54-9	**Butyltin Ion**	**3.6**	**18**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	79.5%
Tripentyl Tin Chloride	91.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP8-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06J
LIMS ID: 12-3506
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 13:42
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.39 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 23.6%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.6**	**68**	
14488-53-0	**Dibutyltin Ion**	**5.4**	**87**	
78763-54-9	**Butyltin Ion**	**3.8**	**74**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	97.2%
Tripentyl Tin Chloride	92.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP9-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06K
LIMS ID: 12-3507
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 13:54
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.29 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 13.0%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.7**	**3.0**	**J**
14488-53-0	**Dibutyltin Ion**	**5.5**	**12**	
78763-54-9	**Butyltin Ion**	**3.9**	**8.6**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	107%
Tripentyl Tin Chloride	112%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8001-120224-ITSS-TP10-0.0-0.5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UK06L
LIMS ID: 12-3508
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: 02/24/12
Date Received: 02/29/12

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 14:07
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.48 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 9.9%

CAS Number	Analyte	RL	Result	Q
36643-28-4	**Tributyltin Ion**	**3.5**	**2.8**	**J**
14488-53-0	**Dibutyltin Ion**	**5.3**	**12**	
78763-54-9	**Butyltin Ion**	**3.7**	**7.0**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	110%
Tripentyl Tin Chloride	108%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-030112**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-030112
LIMS ID: 12-3497
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/01/12
Date Analyzed: 03/07/12 10:56
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.00 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.9	< 3.9	U
14488-53-0	Dibutyltin Ion	5.8	< 5.8	U
78763-54-9	Butyltin Ion	4.1	< 4.1	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	94.9%
Tripentyl Tin Chloride	114%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: UK06-Apex Labs
Project: A12B377
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-030112	94.9%	114%	0
LCS-030112	72.3%	93.0%	0
LCSD-030112	69.9%	101%	0
8001-120224-ITSS-TP1-0.0-0.5	91.2%	92.3%	0
8001-120224-ITSS-TP1-0.0-0.5 DL	91.2%	98.0%	0
8001-120224-ITSS-TP2-0.0-0.5	89.8%	108%	0
8001-120224-ITSS-TP2-1.5	87.5%	101%	0
8001-120224-ITSS-TP3-0.0-0.5	92.2%	94.1%	0
8001-120224-ITSS-TP4-0.0-0.5	113%*	116%	1
8001-120224-ITSS-TP5-0.0-0.5	111%*	111%	1
8001-120224-ITSS-TP5-0.0-0.5 DL	109%*	106%	1
8001-120224-ITSS-TP5-1.5	104%	115%	0
8001-120224-ITSS-TP6-0.0-0.5	122%*	123%	1
8001-120224-ITSS-TP7-0.0-0.5	79.5%	91.6%	0
8001-120224-ITSS-TP8-0.0-0.5	97.2%	92.5%	0
8001-120224-ITSS-TP9-0.0-0.5	107%*	112%	1
8001-120224-ITSS-TP10-0.0-0.5	110%*	108%	1

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(28-106)	(32-104)
(TPNT) = Tripentyl Tin Chloride	(35-130)	(25-140)

Prep Method: SW3546
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 12-3497 to 12-3508

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-030112**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-030112 QC Report No: UK06-Apex Labs
LIMS ID: 12-3497 Project: A12B377
Matrix: Soil
Data Release Authorized:
Reported: 03/07/12 Date Received: NA

Date Extracted LCS: 03/01/12 Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Date Analyzed LCS: 03/07/12 11:08 Final Extract Volume LCS: 0.50 mL
LCSD: 03/07/12 11:21 LCSD: 0.50 mL
Instrument/Analyst LCS: NT12/YZ Dilution Factor LCS: 1.00
LCSD: NT12/YZ LCSD: 1.00
Silica Gel Cleanup: No Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	40.0	44.6	89.7%	40.3	44.6	90.4%	0.7%
Dibutyltin Ion	30.9	38.4	80.5%	32.1	38.4	83.6%	3.8%
Butyltin Ion	21.7	31.2	69.6%	22.6	31.2	72.4%	4.1%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	72.3%	69.9%
Tripentyl Tin Chloride	93.0%	101%

Your Project #: A12B377
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2012/03/30

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B229575
Received: 2012/03/01, 12:15

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Soil (8290) (1)	8	2012/03/07	2012/03/11	BRL SOP-00406	EPA 8290 mod.
Dioxins/Furans in Soil (8290) (1)	4	2012/03/07	2012/03/13	BRL SOP-00406	EPA 8290 mod.
2378TCDF Confirmation in Soil	8	N/A	2012/03/12	BRL SOP-00406	EPA 8290 mod.
Moisture	12	N/A	2012/03/02	CAM SOP-00445	R.Carter,1993
PCB Congeners in Soil (1668A) (2)	5	2012/03/13	2012/03/25	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Soil (1668A) (2)	4	2012/03/13	2012/03/26	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Soil (1668A) (2)	3	2012/03/13	2012/03/27	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.
(2) Soils are reported on a dry weight basis unless otherwise specified.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LINA BARRETO, Project Manager
Email: LBarreto@maxxam.ca
Phone# (905) 817-5700

==========

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../2

Your Project #: A12B377
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2012/03/30

CERTIFICATE OF ANALYSIS

-2-

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Total cover pages: 2

Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

RESULTS OF ANALYSES OF SOIL

Maxxam ID		MR4717	MR4718	MR4719		
Sampling Date		2012/02/24 15:05	2012/02/24 14:35	2012/02/24 14:50		
COC Number		na	na	na		
	Units	**8001-120224-ITSS-TP1-0.0-0.5**	**8001-120224-ITSS-TP2-0.0-0.5**	**8001-120224-ITSS-TP2-1.5**	**RDL**	**QC Batch**
Moisture	%	43	16	16	1.0	2778971

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		MR4720	MR4721	MR4721		
Sampling Date		2012/02/24 14:35	2012/02/24 09:30	2012/02/24 09:30		
COC Number		na	na	na		
	Units	**8001-120224-ITSS-TP3-0.0-0.5**	**8001-120224-ITSS-TP4-0.0-0.5**	**8001-120224-ITSS-TP4-0.0-0.5 Lab-Dup**	**RDL**	**QC Batch**
Moisture	%	19	7.7	7.6	1.0	2778971

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		MR4722	MR4723	MR4724		
Sampling Date		2012/02/24 09:40	2012/02/24 09:53	2012/02/24 10:40		
COC Number		na	na	na		
	Units	**8001-120224-ITSS-TP5-0.0-0.5**	**8001-120224-ITSS-TP5-1.5**	**8001-120224-ITSS-TP6-0.0-0.5**	**RDL**	**QC Batch**
Moisture	%	6.7	9.0	12	1.0	2778971

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam ID		MR4725	MR4726	MR4727		
Sampling Date		2012/02/24 10:55	2012/02/24 11:20	2012/02/24 11:50		
COC Number		na	na	na		
	Units	**8001-120224-ITSS-TP7-0.0-0.5**	**8001-120224-ITSS-TP8-0.0-0.5**	**8001-120224-ITSS-TP9-0.0-0.5**	**RDL**	**QC Batch**
Moisture	%	16	35	15	1.0	2778971

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

RESULTS OF ANALYSES OF SOIL

Maxxam ID		MR4728		
Sampling Date		2012/02/24 12:20		
COC Number		na		
	Units	**8001-120224-ITSS-TP10-0.0-0.5**	**RDL**	**QC Batch**
Moisture	%	13	1.0	2778971

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4717						
Sampling Date		2012/02/24 15:05						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.949 J	0.060	2.0	1.00	0.949		2785925
1,2,3,7,8-Penta CDD	pg/g	4.24 J	0.059	5.0	1.00	4.24		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	6.2	0.069	5.0	0.100	0.620		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	21.5	0.056	5.0	0.100	2.15		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	14.3 (1)	0.056	5.0	0.100	1.43		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	475	0.054	5.0	0.0100	4.75		2785925
Octa CDD	pg/g	3340	0.11	10	0.000300	1.00		2785925
Total Tetra CDD	pg/g	13.4	0.060	2.0				2785925
Total Penta CDD	pg/g	23.4	0.059	5.0				2785925
Total Hexa CDD	pg/g	157	0.060	5.0				2785925
Total Hepta CDD	pg/g	960	0.054	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	13.4	0.069	2.0	0.100	1.34		2785925
1,2,3,7,8-Penta CDF	pg/g	4.84 J	0.085	5.0	0.0300	0.145		2785925
2,3,4,7,8-Penta CDF	pg/g	6.8	0.090	5.0	0.300	2.04		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	15.4 (1)	0.056	5.0	0.100	1.54		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	6.1	0.050	5.0	0.100	0.610		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	5.4	0.060	5.0	0.100	0.540		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.438 J	0.081	5.0	0.100	0.0438		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	141	0.046	5.0	0.0100	1.41		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	6.3	0.076	5.0	0.0100	0.0630		2785925
Octa CDF	pg/g	219	0.10	10	0.000300	0.0657		2785925
Total Tetra CDF	pg/g	87.8	0.069	2.0				2785925
Total Penta CDF	pg/g	148	0.087	5.0				2785925
Total Hexa CDF	pg/g	184	0.060	5.0				2785925
Total Hepta CDF	pg/g	352	0.058	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	7.9	0.072	2.0	0.100	0.790		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					22.4		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4717						
Sampling Date		2012/02/24 15:05						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	82						2785925
C13-1234678 HeptaCDF **	%	83						2785925
C13-123478 HexaCDF	%	103						2785925
C13-123678 HexaCDD	%	94						2785925
C13-12378 PentaCDD	%	105						2785925
C13-12378 PentaCDF	%	92						2785925
C13-2378 TetraCDD	%	93						2785925
C13-2378 TetraCDF	%	90						2785925
C13-OCDD	%	92						2785925
Confirmation C13-2378 TetraCDF	%	97						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.232 J	0.058	2.0	1.00	0.232		2785925
1,2,3,7,8-Penta CDD	pg/g	0.531 J	0.051	5.0	1.00	0.531		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	0.677 J	0.054	5.0	0.100	0.0677		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	2.52 J	0.050	5.0	0.100	0.252		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	1.81 J (1)	0.049	5.0	0.100	0.181		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	51.5	0.055	5.0	0.0100	0.515		2785925
Octa CDD	pg/g	376	0.11	10	0.000300	0.113		2785925
Total Tetra CDD	pg/g	1.71 J	0.058	2.0				2785925
Total Penta CDD	pg/g	2.82 J	0.051	5.0				2785925
Total Hexa CDD	pg/g	16.6	0.051	5.0				2785925
Total Hepta CDD	pg/g	98.1	0.055	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	1.78 J	0.059	2.0	0.100	0.178		2785925
1,2,3,7,8-Penta CDF	pg/g	0.611 J	0.056	5.0	0.0300	0.0183		2785925
2,3,4,7,8-Penta CDF	pg/g	1.21 J	0.056	5.0	0.300	0.363		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	1.89 J (1)	0.050	5.0	0.100	0.189		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	0.833 J	0.049	5.0	0.100	0.0833		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	0.798 J	0.053	5.0	0.100	0.0798		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.086 J	0.059	5.0	0.100	0.00860		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	25.9	0.051	5.0	0.0100	0.259		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	1.07 J	0.063	5.0	0.0100	0.0107		2785925
Octa CDF	pg/g	39	0.11	10	0.000300	0.0117		2785925
Total Tetra CDF	pg/g	11.3	0.059	2.0				2785925
Total Penta CDF	pg/g	21.0	0.056	5.0				2785925
Total Hexa CDF	pg/g	25.5	0.052	5.0				2785925
Total Hepta CDF	pg/g	62.6	0.056	5.0				2785925
TOTAL TOXIC EQUIVALENCY	pg/g					3.09		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	84						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	87						2785925
C13-123478 HexaCDF	%	93						2785925
C13-123678 HexaCDD *	%	85						2785925
C13-12378 PentaCDD	%	89						2785925
C13-12378 PentaCDF	%	85						2785925
C13-2378 TetraCDD	%	86						2785925
C13-2378 TetraCDF	%	81						2785925
C13-OCDD	%	96						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.323 J	0.057	2.0	1.00	0.323		2785925
1,2,3,7,8-Penta CDD	pg/g	0.602 J	0.062	5.0	1.00	0.602		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	0.810 J	0.056	5.0	0.100	0.0810		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	3.15 J	0.052	5.0	0.100	0.315		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	2.20 J (1)	0.051	5.0	0.100	0.220		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	67.8	0.054	5.0	0.0100	0.678		2785925
Octa CDD	pg/g	475	0.11	10	0.000300	0.143		2785925
Total Tetra CDD	pg/g	1.81 J	0.057	2.0				2785925
Total Penta CDD	pg/g	2.57 J	0.062	5.0				2785925
Total Hexa CDD	pg/g	19.7	0.053	5.0				2785925
Total Hepta CDD	pg/g	124	0.054	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	1.87 J	0.057	2.0	0.100	0.187		2785925
1,2,3,7,8-Penta CDF	pg/g	0.733 J	0.066	5.0	0.0300	0.0220		2785925
2,3,4,7,8-Penta CDF	pg/g	1.31 J	0.066	5.0	0.300	0.393		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	2.33 J (1)	0.051	5.0	0.100	0.233		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	0.992 J	0.050	5.0	0.100	0.0992		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	0.916 J	0.054	5.0	0.100	0.0916		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.096 J	0.060	5.0	0.100	0.00960		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	47.5	0.050	5.0	0.0100	0.475		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	1.33 J	0.062	5.0	0.0100	0.0133		2785925
Octa CDF	pg/g	55	0.11	10	0.000300	0.0165		2785925
Total Tetra CDF	pg/g	12.0	0.057	2.0				2785925
Total Penta CDF	pg/g	25.1	0.066	5.0				2785925
Total Hexa CDF	pg/g	36.3	0.053	5.0				2785925
Total Hepta CDF	pg/g	104	0.055	5.0				2785925
TOTAL TOXIC EQUIVALENCY	pg/g					3.90		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	85						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	90						2785925
C13-123478 HexaCDF	%	95						2785925
C13-123678 HexaCDD *	%	87						2785925
C13-12378 PentaCDD	%	93						2785925
C13-12378 PentaCDF	%	89						2785925
C13-2378 TetraCDD	%	89						2785925
C13-2378 TetraCDF	%	85						2785925
C13-OCDD	%	97						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4720						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	3.34 J	0.26	10	1.00	3.34		2785925
1,2,3,7,8-Penta CDD	pg/g	18.3 J	0.28	25	1.00	18.3		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	26	0.35	25	0.100	2.60		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	107	0.32	25	0.100	10.7		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	74 (1)	0.32	25	0.100	7.40		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	2140	0.32	25	0.0100	21.4		2785925
Octa CDD	pg/g	17300 (2)	0.45	50	0.000300	5.19		2785925
Total Tetra CDD	pg/g	25	0.26	10				2785925
Total Penta CDD	pg/g	97	0.28	25				2785925
Total Hexa CDD	pg/g	718	0.33	25				2785925
Total Hepta CDD	pg/g	4350	0.32	25				2785925
2,3,7,8-Tetra CDF **	pg/g	25	0.26	10	0.100	2.50		2785925
1,2,3,7,8-Penta CDF	pg/g	11.1 J	0.30	25	0.0300	0.333		2785925
2,3,4,7,8-Penta CDF	pg/g	20.1 J	0.30	25	0.300	6.03		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	39	0.28	25	0.100	3.90		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	17.8 J	0.27	25	0.100	1.78		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	15.4 J	0.30	25	0.100	1.54		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	1.25 J	0.33	25	0.100	0.125		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	496	0.18	25	0.0100	4.96		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	25	0.23	25	0.0100	0.250		2785925
Octa CDF	pg/g	916	0.57	50	0.000300	0.275		2785925
Total Tetra CDF	pg/g	162	0.26	10				2785925
Total Penta CDF	pg/g	376	0.30	25				2785925
Total Hexa CDF	pg/g	584	0.29	25				2785925
Total Hepta CDF	pg/g	1400	0.20	25				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	14.0	0.21	2.0	0.100	1.40		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					89.5		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak
(2) EMCL - PCDD/DF analysis - Exceeds Maximum Calibration Limit

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4720						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	76						2785925
C13-1234678 HeptaCDF **	%	75						2785925
C13-123478 HexaCDF	%	80						2785925
C13-123678 HexaCDD	%	73						2785925
C13-12378 PentaCDD	%	75						2785925
C13-12378 PentaCDF	%	72						2785925
C13-2378 TetraCDD	%	72						2785925
C13-2378 TetraCDF	%	70						2785925
C13-OCDD	%	95						2785925
Confirmation C13-2378 TetraCDF	%	83						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.250 J	0.064	2.0	1.00	0.250		2785925
1,2,3,7,8-Penta CDD	pg/g	0.792 J	0.062	5.0	1.00	0.792		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	0.834 J	0.062	5.0	0.100	0.0834		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	3.47 J	0.058	5.0	0.100	0.347		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	2.49 J (1)	0.057	5.0	0.100	0.249		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	72.7	0.065	5.0	0.0100	0.727		2785925
Octa CDD	pg/g	597	0.12	10	0.000300	0.179		2785925
Total Tetra CDD	pg/g	1.06 J	0.064	2.0				2785925
Total Penta CDD	pg/g	2.93 J	0.062	5.0				2785925
Total Hexa CDD	pg/g	18.6	0.059	5.0				2785925
Total Hepta CDD	pg/g	145	0.065	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	2.0	0.065	2.0	0.100	0.200		2785925
1,2,3,7,8-Penta CDF	pg/g	0.906 J	0.071	5.0	0.0300	0.0272		2785925
2,3,4,7,8-Penta CDF	pg/g	3.57 J	0.072	5.0	0.300	1.07		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	2.84 J	0.055	5.0	0.100	0.284		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	3.31 J	0.054	5.0	0.100	0.331		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	3.67 J	0.058	5.0	0.100	0.367		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.077 J	0.065	5.0	0.100	0.00770		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	22.7	0.046	5.0	0.0100	0.227		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	1.23 J	0.057	5.0	0.0100	0.0123		2785925
Octa CDF	pg/g	32	0.12	10	0.000300	0.00960		2785925
Total Tetra CDF	pg/g	65.0	0.065	2.0				2785925
Total Penta CDF	pg/g	255	0.072	5.0				2785925
Total Hexa CDF	pg/g	99.5	0.058	5.0				2785925
Total Hepta CDF	pg/g	55.9	0.051	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	1.57 J	0.070	2.0	0.100	0.157		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					5.12		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	79						2785925
C13-1234678 HeptaCDF **	%	80						2785925
C13-123478 HexaCDF	%	86						2785925
C13-123678 HexaCDD	%	80						2785925
C13-12378 PentaCDD	%	82						2785925
C13-12378 PentaCDF	%	77						2785925
C13-2378 TetraCDD	%	85						2785925
C13-2378 TetraCDF	%	78						2785925
C13-OCDD	%	85						2785925
Confirmation C13-2378 TetraCDF	%	90						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.226 J	0.054	2.0	1.00	0.226		2785925
1,2,3,7,8-Penta CDD	pg/g	0.699 J	0.071	5.0	1.00	0.699		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	0.642 J	0.070	5.0	0.100	0.0642		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	2.22 J	0.056	5.0	0.100	0.222		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	1.65 J (1)	0.057	5.0	0.100	0.165		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	56.3	0.067	5.0	0.0100	0.563		2785925
Octa CDD	pg/g	435	0.11	10	0.000300	0.131		2785925
Total Tetra CDD	pg/g	0.345 J	0.054	2.0				2785925
Total Penta CDD	pg/g	2.80 J	0.071	5.0				2785925
Total Hexa CDD	pg/g	19.5	0.061	5.0				2785925
Total Hepta CDD	pg/g	113	0.067	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	1.72 J	0.060	2.0	0.100	0.172		2785925
1,2,3,7,8-Penta CDF	pg/g	0.639 J	0.085	5.0	0.0300	0.0192		2785925
2,3,4,7,8-Penta CDF	pg/g	3.19 J	0.090	5.0	0.300	0.957		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	2.65 J	0.062	5.0	0.100	0.265		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	2.77 J	0.056	5.0	0.100	0.277		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	3.25 J	0.067	5.0	0.100	0.325		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.896 J	0.090	5.0	0.100	0.0896		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	14.6	0.054	5.0	0.0100	0.146		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.946 J	0.089	5.0	0.0100	0.00946		2785925
Octa CDF	pg/g	20	0.14	10	0.000300	0.00600		2785925
Total Tetra CDF	pg/g	76.3	0.060	2.0				2785925
Total Penta CDF	pg/g	278	0.088	5.0				2785925
Total Hexa CDF	pg/g	101	0.067	5.0				2785925
Total Hepta CDF	pg/g	37.1	0.068	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	1.33 J	0.10	2.0	0.100	0.133		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					4.30		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	72						2785925
C13-1234678 HeptaCDF **	%	71						2785925
C13-123478 HexaCDF	%	93						2785925
C13-123678 HexaCDD	%	87						2785925
C13-12378 PentaCDD	%	103						2785925
C13-12378 PentaCDF	%	88						2785925
C13-2378 TetraCDD	%	89						2785925
C13-2378 TetraCDF	%	87						2785925
C13-OCDD	%	73						2785925
Confirmation C13-2378 TetraCDF	%	89						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP5-1.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
2,3,7,8-Tetra CDD *	pg/g	0.360 J	0.062	2.0	1.00	0.360		2785925
1,2,3,7,8-Penta CDD	pg/g	0.704 J	0.069	5.0	1.00	0.704		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	0.542 J	0.062	5.0	0.100	0.0542		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	2.77 J	0.058	5.0	0.100	0.277		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	2.10 J (1)	0.057	5.0	0.100	0.210		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	57.5	0.064	5.0	0.0100	0.575		2785925
Octa CDD	pg/g	361	0.11	10	0.000300	0.108		2785925
Total Tetra CDD	pg/g	1.34 J	0.062	2.0				2785925
Total Penta CDD	pg/g	3.92 J	0.069	5.0				2785925
Total Hexa CDD	pg/g	20.8	0.059	5.0				2785925
Total Hepta CDD	pg/g	106	0.064	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	1.39 J	0.068	2.0	0.100	0.139		2785925
1,2,3,7,8-Penta CDF	pg/g	0.633 J	0.059	5.0	0.0300	0.0190		2785925
2,3,4,7,8-Penta CDF	pg/g	2.75 J	0.059	5.0	0.300	0.825		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	2.08 J	0.049	5.0	0.100	0.208		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	2.52 J	0.048	5.0	0.100	0.252		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	2.72 J	0.052	5.0	0.100	0.272		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.058 U	0.058	5.0	0.100	0.00580		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	26.3	0.048	5.0	0.0100	0.263		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.787 J	0.060	5.0	0.0100	0.00787		2785925
Octa CDF	pg/g	22	0.12	10	0.000300	0.00660		2785925
Total Tetra CDF	pg/g	50.4	0.068	2.0				2785925
Total Penta CDF	pg/g	204	0.059	5.0				2785925
Total Hexa CDF	pg/g	79.0	0.052	5.0				2785925
Total Hepta CDF	pg/g	54.2	0.053	5.0				2785925
TOTAL TOXIC EQUIVALENCY	pg/g					4.29		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	83						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	84						2785925
C13-123478 HexaCDF	%	89						2785925
C13-123678 HexaCDD *	%	84						2785925
C13-12378 PentaCDD	%	89						2785925
C13-12378 PentaCDF	%	83						2785925
C13-2378 TetraCDD	%	85						2785925
C13-2378 TetraCDF	%	80						2785925
C13-OCDD	%	93						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4724						
Sampling Date		2012/02/24 10:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.162 J	0.056	2.0	1.00	0.162		2785925
1,2,3,7,8-Penta CDD	pg/g	0.556 J	0.058	5.0	1.00	0.556		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	0.489 J	0.058	5.0	0.100	0.0489		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	1.80 J	0.054	5.0	0.100	0.180		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	1.45 J (1)	0.053	5.0	0.100	0.145		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	26.3	0.065	5.0	0.0100	0.263		2785925
Octa CDD	pg/g	155	0.10	10	0.000300	0.0465		2785925
Total Tetra CDD	pg/g	1.43 J	0.056	2.0				2785925
Total Penta CDD	pg/g	2.79 J	0.058	5.0				2785925
Total Hexa CDD	pg/g	13.2	0.055	5.0				2785925
Total Hepta CDD	pg/g	48.8	0.065	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	1.56 J	0.068	2.0	0.100	0.156		2785925
1,2,3,7,8-Penta CDF	pg/g	0.626 J	0.053	5.0	0.0300	0.0188		2785925
2,3,4,7,8-Penta CDF	pg/g	1.47 J	0.053	5.0	0.300	0.441		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	2.77 J	0.052	5.0	0.100	0.277		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	1.05 J	0.051	5.0	0.100	0.105		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	0.860 J	0.056	5.0	0.100	0.0860		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.080 J	0.062	5.0	0.100	0.00800		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	16.2	0.048	5.0	0.0100	0.162		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.977 J	0.059	5.0	0.0100	0.00977		2785925
Octa CDF	pg/g	15	0.10	10	0.000300	0.00450		2785925
Total Tetra CDF	pg/g	10.3	0.068	2.0				2785925
Total Penta CDF	pg/g	29.5	0.053	5.0				2785925
Total Hexa CDF	pg/g	25.3	0.055	5.0				2785925
Total Hepta CDF	pg/g	33.2	0.053	5.0				2785925
TOTAL TOXIC EQUIVALENCY	pg/g					2.67		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	89						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4724						
Sampling Date		2012/02/24 10:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	91						2785925
C13-123478 HexaCDF	%	95						2785925
C13-123678 HexaCDD *	%	89						2785925
C13-12378 PentaCDD	%	97						2785925
C13-12378 PentaCDF	%	89						2785925
C13-2378 TetraCDD	%	85						2785925
C13-2378 TetraCDF	%	78						2785925
C13-OCDD	%	104						2785925

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4725						
Sampling Date		2012/02/24 10:55						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.246 J	0.057	2.0	1.00	0.246		2785925
1,2,3,7,8-Penta CDD	pg/g	1.30 J	0.060	5.0	1.00	1.30		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	1.93 J	0.054	5.0	0.100	0.193		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	9.7	0.050	5.0	0.100	0.970		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	6.4 (1)	0.049	5.0	0.100	0.640		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	256	0.051	5.0	0.0100	2.56		2785925
Octa CDD	pg/g	1480	0.11	10	0.000300	0.444		2785925
Total Tetra CDD	pg/g	2.1	0.057	2.0				2785925
Total Penta CDD	pg/g	6.7	0.060	5.0				2785925
Total Hexa CDD	pg/g	76.9	0.051	5.0				2785925
Total Hepta CDD	pg/g	541	0.051	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	2.7	0.075	2.0	0.100	0.270		2785925
1,2,3,7,8-Penta CDF	pg/g	1.34 J	0.066	5.0	0.0300	0.0402		2785925
2,3,4,7,8-Penta CDF	pg/g	2.26 J	0.066	5.0	0.300	0.678		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	3.95 J	0.051	5.0	0.100	0.395		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	1.58 J	0.050	5.0	0.100	0.158		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	1.38 J	0.055	5.0	0.100	0.138		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.164 J	0.061	5.0	0.100	0.0164		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	22.4	0.055	5.0	0.0100	0.224		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	1.96 J	0.069	5.0	0.0100	0.0196		2785925
Octa CDF	pg/g	45	0.11	10	0.000300	0.0135		2785925
Total Tetra CDF	pg/g	13.9	0.075	2.0				2785925
Total Penta CDF	pg/g	32.2	0.066	5.0				2785925
Total Hexa CDF	pg/g	42.4	0.054	5.0				2785925
Total Hepta CDF	pg/g	71.0	0.061	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	1.61 J	0.071	2.0	0.100	0.161		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					8.20		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4725						
Sampling Date		2012/02/24 10:55						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP7-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	81						2785925
C13-1234678 HeptaCDF **	%	82						2785925
C13-123478 HexaCDF	%	88						2785925
C13-123678 HexaCDD	%	82						2785925
C13-12378 PentaCDD	%	87						2785925
C13-12378 PentaCDF	%	81						2785925
C13-2378 TetraCDD	%	75						2785925
C13-2378 TetraCDF	%	69						2785925
C13-OCDD	%	96						2785925
Confirmation C13-2378 TetraCDF	%	77						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	1.78 J	0.054	2.0	1.00	1.78		2785925
1,2,3,7,8-Penta CDD	pg/g	6.8	0.055	5.0	1.00	6.80		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	14.5	0.096	5.0	0.100	1.45		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	83.5	0.077	5.0	0.100	8.35		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	55.1 (1)	0.078	5.0	0.100	5.51		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	3730 (2)	0.27	25	0.0100	37.3		2785925
Octa CDD	pg/g	19600 (2)	0.83	50	0.000300	5.88		2785925
Total Tetra CDD	pg/g	22.7	0.054	2.0				2785925
Total Penta CDD	pg/g	56.3	0.055	5.0				2785925
Total Hexa CDD	pg/g	1060	0.083	5.0				2785925
Total Hepta CDD	pg/g	8190 (2)	0.27	25				2785925
2,3,7,8-Tetra CDF **	pg/g	36.7	0.076	2.0	0.100	3.67		2785925
1,2,3,7,8-Penta CDF	pg/g	10.1	0.050	5.0	0.0300	0.303		2785925
2,3,4,7,8-Penta CDF	pg/g	18.9	0.053	5.0	0.300	5.67		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	33.4	0.057	5.0	0.100	3.34		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	10.3	0.051	5.0	0.100	1.03		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	9.5	0.061	5.0	0.100	0.950		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	1.11 J	0.083	5.0	0.100	0.111		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	175	0.068	5.0	0.0100	1.75		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	15.5	0.11	5.0	0.0100	0.155		2785925
Octa CDF	pg/g	336	0.11	10	0.000300	0.101		2785925
Total Tetra CDF	pg/g	196	0.076	2.0				2785925
Total Penta CDF	pg/g	256	0.052	5.0				2785925
Total Hexa CDF	pg/g	342	0.061	5.0				2785925
Total Hepta CDF	pg/g	581	0.085	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	19.6	0.11	2.0	0.100	1.96		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					82.4		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak
(2) 5X Dilution

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	74						2785925
C13-1234678 HeptaCDF **	%	79						2785925
C13-123478 HexaCDF	%	99						2785925
C13-123678 HexaCDD	%	92						2785925
C13-12378 PentaCDD	%	107						2785925
C13-12378 PentaCDF	%	93						2785925
C13-2378 TetraCDD	%	90						2785925
C13-2378 TetraCDF	%	91						2785925
C13-OCDD	%	90						2785925
Confirmation C13-2378 TetraCDF	%	93						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.616 J	0.054	2.0	1.00	0.616		2785925
1,2,3,7,8-Penta CDD	pg/g	3.22 J	0.053	5.0	1.00	3.22		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	4.26 J	0.059	5.0	0.100	0.426		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	25.0	0.055	5.0	0.100	2.50		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	14.5 (1)	0.054	5.0	0.100	1.45		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	358	0.057	5.0	0.0100	3.58		2785925
Octa CDD	pg/g	2580	0.12	10	0.000300	0.774		2785925
Total Tetra CDD	pg/g	9.0	0.054	2.0				2785925
Total Penta CDD	pg/g	21.3	0.053	5.0				2785925
Total Hexa CDD	pg/g	151	0.056	5.0				2785925
Total Hepta CDD	pg/g	765	0.057	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	6.6	0.055	2.0	0.100	0.660		2785925
1,2,3,7,8-Penta CDF	pg/g	3.24 J	0.054	5.0	0.0300	0.0972		2785925
2,3,4,7,8-Penta CDF	pg/g	5.4	0.054	5.0	0.300	1.62		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	11.8	0.055	5.0	0.100	1.18		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	4.05 J	0.054	5.0	0.100	0.405		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	3.20 J	0.059	5.0	0.100	0.320		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.417 J	0.065	5.0	0.100	0.0417		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	81.1	0.046	5.0	0.0100	0.811		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	6.1	0.058	5.0	0.0100	0.0610		2785925
Octa CDF	pg/g	145	0.11	10	0.000300	0.0435		2785925
Total Tetra CDF	pg/g	36.6	0.055	2.0				2785925
Total Penta CDF	pg/g	77.3	0.054	5.0				2785925
Total Hexa CDF	pg/g	135	0.058	5.0				2785925
Total Hepta CDF	pg/g	260	0.052	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	4.0	0.076	2.0	0.100	0.400		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					17.5		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	82						2785925
C13-1234678 HeptaCDF **	%	83						2785925
C13-123478 HexaCDF	%	88						2785925
C13-123678 HexaCDD	%	83						2785925
C13-12378 PentaCDD	%	93						2785925
C13-12378 PentaCDF	%	86						2785925
C13-2378 TetraCDD	%	88						2785925
C13-2378 TetraCDF	%	82						2785925
C13-OCDD	%	98						2785925
Confirmation C13-2378 TetraCDF	%	94						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.455 J	0.059	2.0	1.00	0.455		2785925
1,2,3,7,8-Penta CDD	pg/g	1.39 J	0.065	5.0	1.00	1.39		2785925
1,2,3,4,7,8-Hexa CDD	pg/g	1.65 J	0.065	5.0	0.100	0.165		2785925
1,2,3,6,7,8-Hexa CDD	pg/g	8.4	0.052	5.0	0.100	0.840		2785925
1,2,3,7,8,9-Hexa CDD	pg/g	4.87 J (1)	0.053	5.0	0.100	0.487		2785925
1,2,3,4,6,7,8-Hepta CDD	pg/g	212	0.068	5.0	0.0100	2.12		2785925
Octa CDD	pg/g	1760	0.14	10	0.000300	0.528		2785925
Total Tetra CDD	pg/g	4.5	0.059	2.0				2785925
Total Penta CDD	pg/g	8.0	0.065	5.0				2785925
Total Hexa CDD	pg/g	68.9	0.056	5.0				2785925
Total Hepta CDD	pg/g	462	0.068	5.0				2785925
2,3,7,8-Tetra CDF **	pg/g	4.2	0.072	2.0	0.100	0.420		2785925
1,2,3,7,8-Penta CDF	pg/g	2.05 J	0.086	5.0	0.0300	0.0615		2785925
2,3,4,7,8-Penta CDF	pg/g	3.51 J	0.091	5.0	0.300	1.05		2785925
1,2,3,4,7,8-Hexa CDF	pg/g	5.7	0.058	5.0	0.100	0.570		2785925
1,2,3,6,7,8-Hexa CDF	pg/g	3.61 J	0.053	5.0	0.100	0.361		2785925
2,3,4,6,7,8-Hexa CDF	pg/g	3.26 J	0.062	5.0	0.100	0.326		2785925
1,2,3,7,8,9-Hexa CDF	pg/g	0.376 J	0.085	5.0	0.100	0.0376		2785925
1,2,3,4,6,7,8-Hepta CDF	pg/g	34.1	0.051	5.0	0.0100	0.341		2785925
1,2,3,4,7,8,9-Hepta CDF	pg/g	3.85 J	0.084	5.0	0.0100	0.0385		2785925
Octa CDF	pg/g	69	0.13	10	0.000300	0.0207		2785925
Total Tetra CDF	pg/g	64.9	0.072	2.0				2785925
Total Penta CDF	pg/g	209	0.088	5.0				2785925
Total Hexa CDF	pg/g	103	0.062	5.0				2785925
Total Hepta CDF	pg/g	101	0.064	5.0				2785925
Confirmation 2,3,7,8-Tetra CDF	pg/g	2.8	0.087	2.0	0.100	0.280		2787457
TOTAL TOXIC EQUIVALENCY	pg/g					9.07		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / Merged Peak

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	76						2785925
C13-1234678 HeptaCDF **	%	76						2785925
C13-123478 HexaCDF	%	101						2785925
C13-123678 HexaCDD	%	93						2785925
C13-12378 PentaCDD	%	105						2785925
C13-12378 PentaCDF	%	93						2785925
C13-2378 TetraCDD	%	91						2785925
C13-2378 TetraCDF	%	90						2785925
C13-OCDD	%	79						2785925
Confirmation C13-2378 TetraCDF	%	94						2787457

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4717						
Sampling Date		2012/02/24 15:05						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.089	0.00016	0.010				2801609
3-MonoCB-(2)	ng/g	0.013	0.00015	0.010				2801609
4-MonoCB-(3)	ng/g	0.075	0.00017	0.010				2801609
22'-DiCB-(4)	ng/g	0.354	0.00064	0.010				2801609
2,3-DiCB-(5)	ng/g	0.016	0.00093	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.165	0.00071	0.010				2801609
2,4-DiCB-(7)	ng/g	0.033	0.00087	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.650	0.00068	0.010				2801609
2,5-DiCB-(9)	ng/g	0.042	0.00068	0.010				2801609
2,6-DiCB-(10)	ng/g	0.013	0.00044	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.120	0.00074	0.010				2801609
DiCB-(12)+(13)	ng/g	0.112	0.00090	0.020				2801609
3,5-DiCB-(14)	ng/g	0.00070 U	0.00070	0.010				2801609
4,4'-DiCB-(15)	ng/g	1.12	0.0010	0.010				2801609
22'3-TriCB-(16)	ng/g	0.476	0.0020	0.010				2801609
22'4-TriCB-(17)	ng/g	0.502	0.0019	0.010				2801609
TriCB-(18)+(30)	ng/g	0.940	0.0014	0.020				2801609
22'6-TriCB-(19)	ng/g	0.170	0.0018	0.010				2801609
TriCB-(20) + (28)	ng/g	2.04	0.00083	0.020				2801609
TriCB-(21)+(33)	ng/g	0.773	0.00066	0.020				2801609
234'-TriCB-(22)	ng/g	0.777	0.00091	0.010				2801609
235-TriCB-(23)	ng/g	0.0012 U	0.0012	0.010				2801609
236-TriCB-(24)	ng/g	0.013	0.0014	0.010				2801609
23'4-TriCB-(25)	ng/g	0.116	0.00059	0.010				2801609
TriCB-(26)+(29)	ng/g	0.293	0.00074	0.020				2801609
23'6-TriCB-(27)	ng/g	0.067	0.0011	0.010				2801609
24'5-TriCB-(31)	ng/g	1.44	0.00064	0.010				2801609
24'6-TriCB-(32)	ng/g	0.281	0.0011	0.010				2801609
23'5'-TriCB-(34)	ng/g	0.00381 J	0.00072	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4717						
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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/g	0.039	0.00069	0.010				2801609
33'5-TriCB-(36)	ng/g	0.064	0.00063	0.010				2801609
344'-TriCB-(37)	ng/g	1.33	0.0010	0.010				2801609
345-TriCB-(38)	ng/g	0.0012 U	0.0012	0.010				2801609
34'5-TriCB-(39)	ng/g	0.0076 U	0.0076	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	2.15	0.0012	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.860	0.0010	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.113	0.0015	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	7.61	0.00099	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.673	0.0011	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.308	0.0014	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.587	0.0012	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	3.75	0.00082	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.860	0.0011	0.020				2801609
22'55'-TetraCB-(52)	ng/g	17.5	0.00094	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.0089 U	0.0089	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.014	0.0044	0.010				2801609
233'4'-Tetra CB(56)	ng/g	1.92	0.0043	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.783	0.0034	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.0043 U	0.0043	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.240	0.00083	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.882	0.0043	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	13.6	0.0037	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.126	0.0033	0.010				2801609
234'6-TetraCB-(64)	ng/g	2.16	0.00069	0.010				2801609
23'44'-TetraCB-(66)	ng/g	3.67	0.0031	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.067	0.0037	0.010				2801609
23'45'-TetraCB-(68)	ng/g	0.0085 J	0.0038	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.014	0.0032	0.010				2801609

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	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.00091 U	0.00091	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.558	0.0046	0.010	0.000100	0.0000558		2801609
33'45-TetraCB-(78)	ng/g	0.0034 U	0.0034	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.125	0.0029	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.0037 U	0.0037	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.011	0.0049	0.010	0.000300	0.00000330		2801609
22'33'4-PentaCB-(82)	ng/g	4.05	0.0028	0.010				2801609
PentaCB-(83)+(99)	ng/g	19.9	0.0029	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	15.9	0.0035	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	5.83	0.0024	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	27.6	0.0023	0.060				2801609
PentaCB-(88)+(91)	ng/g	6.42	0.0027	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.319	0.0026	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	38.4	0.0023	0.030				2801609
22'355'-PentaCB-(92)	ng/g	6.89	0.0025	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	1.41	0.0028	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.183	0.0033	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	36.4	0.0023	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.197	0.0010	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.171	0.0022	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.0012 U	0.0012	0.010				2801609
233'44'-PentaCB-(105)	ng/g	14.1	0.0083	0.010	0.0000300	0.000423		2801609
233'45-PentaCB-(106)	ng/g	0.0058 U	0.0058	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	2.23	0.0070	0.010				2801609
PentaCB-(108)+(124)	ng/g	1.36	0.0066	0.020				2801609
PentaCB-(110)+(115)	ng/g	46.7	0.0020	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.0096 J	0.0022	0.010				2801609
233'56-PentaCB-(112)	ng/g	0.0023 U	0.0023	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.640	0.0078	0.010	0.0000300	0.0000192		2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	32.2	0.0083	0.010	0.0000300	0.000966		2801609
23'455'-PentaCB-(120)	ng/g	0.024	0.0018	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.0023 U	0.0023	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.307	0.0064	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.367	0.0086	0.010	0.0000300	0.0000110		2801609
33'44'5-PentaCB-(126)	ng/g	0.041	0.0082	0.010	0.100	0.00410		2801609
33'455'-PentaCB-(127)	ng/g	0.068	0.0059	0.010				2801609
HexaCB-(128)+(166)	ng/g	11.3	0.014	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	61.3	0.014	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	4.21	0.017	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.975	0.015	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	30.4	0.021	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.700	0.015	0.010				2801609
HexaCB-(134)+(143)	ng/g	4.00	0.016	0.020				2801609
HexaCB-(135)+(151)	ng/g	22.4	0.0019	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	8.54	0.0013	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	4.59	0.021	0.010				2801609
HexaCB-(139)+(140)	ng/g	1.55	0.018	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	12.0	0.018	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.017 U	0.017	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	2.75	0.0017	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.031	0.0016	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	8.69	0.016	0.010				2801609
HexaCB-(147)+(149)	ng/g	61.8	0.018	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.032	0.0016	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.075	0.0016	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.055	0.0011	0.010				2801609
HexaCB-(153)+(168)	ng/g	40.7	0.013	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.452	0.0018	0.010				2801609

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	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.0015 U	0.0015	0.010				2801609
HexaCB-(156)+(157)	ng/g	6.60	0.0065	0.020	0.0000300	0.000198		2801609
233'44'6-HexaCB-(158)	ng/g	6.95	0.013	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.239	0.0052	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.015 U	0.015	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.012 U	0.012	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.393	0.0064	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	4.77	0.013	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.015 U	0.015	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	2.53	0.0070	0.010	0.0000300	0.0000759		2801609
33'44'55'-HexaCB-(169)	ng/g	0.048 U (1)	0.048	0.010	0.0300	0.00144		2801609
22'33'44'5-HeptaCB-(170)	ng/g	13.0	0.0057	0.010				2801609
HeptaCB-(171)+(173)	ng/g	3.48	0.0055	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	1.62	0.0052	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	14.7	0.0060	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.388	0.0012	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	1.51	0.00097	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	6.37	0.0051	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	2.30	0.0013	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	4.96	0.00096	0.010				2801609
HeptaCB-(180)+(193)	ng/g	20.4	0.0041	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.146	0.0061	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.033	0.0015	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	6.82	0.0043	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.014	0.0011	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0068 U	0.0068	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.0056 J	0.0012	0.010				2801609
22'34'55'6-HeptaCB-(187)	ng/g	15.7	0.0015	0.010				2801609

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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22'34'566'-HeptaCB-(188)	ng/g	0.018	0.0015	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.454	0.0078	0.010	0.0000300	0.0000136		2801609
233'44'56-HeptaCB-(190)	ng/g	1.51	0.0038	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.298	0.0038	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0050 U	0.0050	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	3.18	0.0070	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	1.56	0.0073	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	2.27	0.0039	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.214	0.0039	0.010				2801609
OctaCB-(198)+(199)	ng/g	6.97	0.0045	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.818	0.0029	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.827	0.0029	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	1.67	0.0049	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	4.51	0.0046	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0075 U	0.0075	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.321	0.0074	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	3.98	0.0038	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.571	0.0024	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	1.45	0.0039	0.010				2801609
DecaCB-(209)	ng/g	4.28	0.010	0.010				2801609
Monochlorobiphenyl	ng/g	0.178	0.00017	N/A				2801609
Dichlorobiphenyl	ng/g	2.63	0.0010	N/A				2801609
Trichlorobiphenyl	ng/g	9.32	0.0020	N/A				2801609
Tetrachlorobiphenyl	ng/g	58.6	0.0049	N/A				2801609
Pentachlorobiphenyl	ng/g	262	0.0086	N/A				2801609
Hexachlorobiphenyl	ng/g	298	0.021	N/A				2801609
Heptachlorobiphenyl	ng/g	93.8	0.0078	N/A				2801609
Octachlorobiphenyl	ng/g	22.3	0.0074	N/A				2801609
Nonachlorobiphenyl	ng/g	6.00	0.0039	N/A				2801609

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Sampling Date		2012/02/24 15:05						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP1-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Decachlorobiphenyl	ng/g	4.28	0.010	N/A				2801609
Total PCB	ng/g	757	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00731		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	130						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	84						2801609
C13-22'33'44'5-HeptaCB-(170)	%	204 (1)						2801609
C13-22'33'455'66'-NonaCB-(208)	%	126						2801609
C13-22'33'55'66'-OctaCB-(202)	%	207 (1)						2801609
C13-22'33'55'6-HeptaCB-(178)	%	75						2801609
C13-22'344'55'-HeptaCB-(180)	%	216 (1)						2801609
C13-22'34'566'-HeptaCB-(188)	%	106						2801609
C13-22'44'66'-HexaCB-(155)	%	105						2801609
C13-22'466'-PentaCB-(104)	%	84						2801609
C13-22'66'-TetraCB-(54)	%	67						2801609
C13-22'6-TriCB-(19)	%	96						2801609
C13-22'-DiCB-(4)	%	93						2801609
C13-233'44'55'6-OctaCB-(205)	%	105						2801609
C13-233'44'55'-HeptaCB-(189)	%	149						2801609
C13-233'44'-PentaCB-(105)	%	109						2801609
C13-233'55'-PentaCB-(111)	%	80						2801609
C13-23'44'55'-HexaCB-(167)	%	97						2801609
C13-2344'5-PentaCB-(114)	%	109						2801609
C13-23'44'5-PentaCB-(118)	%	113						2801609
C13-2'344'5-PentaCB-(123)	%	109						2801609
C13-2-MonoCB-(1)	%	125						2801609
C13-33'44'55'-HexaCB-(169)	%	72						2801609
C13-33'44'5-PentaCB-(126)	%	88						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) Recovery outside method limits, possibly due to matrix effects.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4717						
Sampling Date		2012/02/24 15:05						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP1-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-33'44'-TetraCB-(77)	%	123						2801609
C13-344'5-TetraCB-(81)	%	114						2801609
C13-344'-TriCB-(37)	%	117						2801609
C13-44'-DiCB-(15)	%	107						2801609
C13-4-MonoCB-(3)	%	108						2801609
C13-DecaCB-(209)	%	58						2801609
C13-HexaCB-(156)+(157)	%	96						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.019	0.00095	0.010				2801609
3-MonoCB-(2)	ng/g	0.00379 J	0.00078	0.010				2801609
4-MonoCB-(3)	ng/g	0.010	0.00097	0.010				2801609
22'-DiCB-(4)	ng/g	0.091	0.0013	0.010				2801609
2,3-DiCB-(5)	ng/g	0.0030 U	0.0030	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.025	0.0022	0.010				2801609
2,4-DiCB-(7)	ng/g	0.0069 J	0.0028	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.120	0.0020	0.010				2801609
2,5-DiCB-(9)	ng/g	0.0083 J	0.0022	0.010				2801609
2,6-DiCB-(10)	ng/g	0.00290 J	0.00094	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.010	0.0023	0.010				2801609
DiCB-(12)+(13)	ng/g	0.0139 J	0.0028	0.020				2801609
3,5-DiCB-(14)	ng/g	0.0023 U	0.0023	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.145	0.0037	0.010				2801609
22'3-TriCB-(16)	ng/g	0.112	0.00036	0.010				2801609
22'4-TriCB-(17)	ng/g	0.102	0.00033	0.010				2801609
TriCB-(18)+(30)	ng/g	0.207	0.00025	0.020				2801609
22'6-TriCB-(19)	ng/g	0.034	0.00031	0.010				2801609
TriCB-(20) + (28)	ng/g	0.347	0.00024	0.020				2801609
TriCB-(21)+(33)	ng/g	0.149	0.00019	0.020				2801609
234'-TriCB-(22)	ng/g	0.136	0.00026	0.010				2801609
235-TriCB-(23)	ng/g	0.00029 U (1)	0.00029	0.010				2801609
236-TriCB-(24)	ng/g	0.00355 J	0.00026	0.010				2801609
23'4-TriCB-(25)	ng/g	0.018	0.00017	0.010				2801609
TriCB-(26)+(29)	ng/g	0.049	0.00022	0.020				2801609
23'6-TriCB-(27)	ng/g	0.013 U (1)	0.013	0.010				2801609
24'5-TriCB-(31)	ng/g	0.311	0.00018	0.010				2801609
24'6-TriCB-(32)	ng/g	0.057	0.00018	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00075 U (1)	0.00075	0.010				2801609
33'4-TriCB-(35)	ng/g	0.00586 J	0.00021	0.010				2801609
33'5-TriCB-(36)	ng/g	0.00018 U	0.00018	0.010				2801609
344'-TriCB-(37)	ng/g	0.202	0.00033	0.010				2801609
345-TriCB-(38)	ng/g	0.00021 U	0.00021	0.010				2801609
34'5-TriCB-(39)	ng/g	0.00251 J	0.00024	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.522	0.00012	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.194	0.00011	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.028	0.00015	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	2.38	0.00011	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.110	0.00012	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.043	0.00015	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.147	0.00013	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	1.11	0.000088	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.158	0.00011	0.020				2801609
22'55'-TetraCB-(52)	ng/g	5.85	0.00010	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.00097 J	0.00024	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.00375 J	0.00093	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.507	0.00086	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.00070 U	0.00070	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.00083 U	0.00083	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.053	0.000090	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.219	0.00087	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	4.56	0.00076	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.035	0.00066	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.602	0.000071	0.010				2801609
23'44'-TetraCB-(66)	ng/g	1.03	0.00066	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.015	0.00070	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.00077 U	0.00077	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.00215 J	0.00062	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.000097 U	0.000097	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.073	0.00089	0.010	0.000100	0.00000730		2801609
33'45-TetraCB-(78)	ng/g	0.00069 U	0.00069	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.077	0.00059	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.00074 U	0.00074	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.00094 U	0.00094	0.010	0.000300	0.000000282		2801609
22'33'4-PentaCB-(82)	ng/g	1.19	0.000091	0.010				2801609
PentaCB-(83)+(99)	ng/g	5.90	0.000094	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	3.81	0.00011	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	1.72	0.000078	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	7.76	0.000073	0.060				2801609
PentaCB-(88)+(91)	ng/g	1.68	0.000087	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.063	0.000085	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	11.3	0.000077	0.030				2801609
22'355'-PentaCB-(92)	ng/g	1.97	0.000081	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.271	0.000089	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.036	0.00011	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	9.20	0.000076	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.042	0.00015	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.037	0.000072	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.00016 U	0.00016	0.010				2801609
233'44'-PentaCB-(105)	ng/g	4.23	0.0023	0.010	0.0000300	0.000127		2801609
233'45-PentaCB-(106)	ng/g	0.0016 U	0.0016	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	0.619	0.0018	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.413	0.0018	0.020				2801609
PentaCB-(110)+(115)	ng/g	14.0	0.000064	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.0019 U (1)	0.0019	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.000072 U	0.000072	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.201	0.0022	0.010	0.0000300	0.00000603		2801609
23'44'5-PentaCB-(118)	ng/g	10.4	0.0023	0.010	0.0000300	0.000312		2801609
23'455'-PentaCB-(120)	ng/g	0.00524 J	0.000057	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.000073 U	0.000073	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.095	0.0017	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.130	0.0024	0.010	0.0000300	0.00000390		2801609
33'44'5-PentaCB-(126)	ng/g	0.017	0.0023	0.010	0.100	0.00170		2801609
33'455'-PentaCB-(127)	ng/g	0.027	0.0016	0.010				2801609
HexaCB-(128)+(166)	ng/g	3.26	0.0071	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	16.3	0.0070	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	1.11	0.0084	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.220	0.0077	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	7.15	0.010	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.171	0.0076	0.010				2801609
HexaCB-(134)+(143)	ng/g	0.874	0.0081	0.020				2801609
HexaCB-(135)+(151)	ng/g	4.36	0.00024	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	1.66	0.00016	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	1.31	0.011	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.360	0.0088	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	2.96	0.0093	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.0085 U	0.0085	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	0.633	0.00023	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.00704 J	0.00021	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	2.02	0.0079	0.010				2801609
HexaCB-(147)+(149)	ng/g	12.8	0.0088	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.00741 J	0.00022	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.015	0.00020	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.012	0.00015	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	10.2	0.0065	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.095	0.00022	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.00020 U	0.00020	0.010				2801609
HexaCB-(156)+(157)	ng/g	2.08	0.0013	0.020	0.0000300	0.0000624		2801609
233'44'6-HexaCB-(158)	ng/g	1.86	0.0065	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.071	0.0011	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.0080 U	0.0080	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0058 U	0.0058	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.062	0.0013	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	1.28	0.0065	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.0078 U	0.0078	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	0.806	0.0015	0.010	0.0000300	0.0000242		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0015 U	0.0015	0.010	0.0300	0.0000450		2801609
22'33'44'5-HeptaCB-(170)	ng/g	2.85	0.00089	0.010				2801609
HeptaCB-(171)+(173)	ng/g	0.727	0.00091	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.342	0.00083	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	2.55	0.00097	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.080	0.00010	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.221	0.000076	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	1.20	0.00084	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.389	0.00010	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	0.723	0.000074	0.010				2801609
HeptaCB-(180)+(193)	ng/g	4.42	0.00066	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.040	0.00098	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.012	0.00012	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	1.07	0.00068	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.0014 U (1)	0.0014	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0011 U	0.0011	0.010				2801609

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	0.00097 U (1)	0.00097	0.010				2801609
22'34'55'6-HeptaCB-(187)	ng/g	3.03	0.00012	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.00364 J	0.00012	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.106	0.0019	0.010	0.0000300	0.00000318		2801609
233'44'56-HeptaCB-(190)	ng/g	0.400	0.00063	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.071	0.00062	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.00084 U	0.00084	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	0.856	0.00086	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.344	0.00095	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	0.452	0.00054	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.029	0.00052	0.010				2801609
OctaCB-(198)+(199)	ng/g	1.34	0.00060	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.130	0.00039	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.112	0.00040	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.299	0.00061	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	0.942	0.00063	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.00039 U	0.00039	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.052	0.00091	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	0.780	0.00055	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.059	0.00035	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.208	0.00055	0.010				2801609
DecaCB-(209)	ng/g	0.290	0.00039	0.010				2801609
Monochlorobiphenyl	ng/g	0.0336	0.00097	N/A				2801609
Dichlorobiphenyl	ng/g	0.423	0.0037	N/A				2801609
Trichlorobiphenyl	ng/g	1.74	0.00036	N/A				2801609
Tetrachlorobiphenyl	ng/g	17.7	0.00094	N/A				2801609
Pentachlorobiphenyl	ng/g	75.1	0.0024	N/A				2801609
Hexachlorobiphenyl	ng/g	71.8	0.011	N/A				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP2-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Heptachlorobiphenyl	ng/g	18.2	0.0019	N/A				2801609
Octachlorobiphenyl	ng/g	4.55	0.00095	N/A				2801609
Nonachlorobiphenyl	ng/g	1.05	0.00055	N/A				2801609
Decachlorobiphenyl	ng/g	0.290	0.00039	N/A				2801609
Total PCB	ng/g	191	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00229		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	108						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	63						2801609
C13-22'33'44'5-HeptaCB-(170)	%	104						2801609
C13-22'33'455'66'-NonaCB-(208)	%	71						2801609
C13-22'33'55'66'-OctaCB-(202)	%	79						2801609
C13-22'33'55'6-HeptaCB-(178)	%	92						2801609
C13-22'344'55'-HeptaCB-(180)	%	96						2801609
C13-22'34'566'-HeptaCB-(188)	%	82						2801609
C13-22'44'66'-HexaCB-(155)	%	68						2801609
C13-22'466'-PentaCB-(104)	%	58						2801609
C13-22'66'-TetraCB-(54)	%	57						2801609
C13-22'6-TriCB-(19)	%	64						2801609
C13-22'-DiCB-(4)	%	48						2801609
C13-233'44'55'6-OctaCB-(205)	%	88						2801609
C13-233'44'55'-HeptaCB-(189)	%	103						2801609
C13-233'44'-PentaCB-(105)	%	97						2801609
C13-233'55'-PentaCB-(111)	%	97						2801609
C13-23'44'55'-HexaCB-(167)	%	95						2801609
C13-2344'5-PentaCB-(114)	%	99						2801609
C13-23'44'5-PentaCB-(118)	%	92						2801609
C13-2'344'5-PentaCB-(123)	%	90						2801609
C13-2-MonoCB-(1)	%	44						2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP2-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-33'44'55'-HexaCB-(169)	%	96						2801609
C13-33'44'5-PentaCB-(126)	%	92						2801609
C13-33'44'-TetraCB-(77)	%	102						2801609
C13-344'5-TetraCB-(81)	%	92						2801609
C13-344'-TriCB-(37)	%	84						2801609
C13-44'-DiCB-(15)	%	73						2801609
C13-4-MonoCB-(3)	%	55						2801609
C13-DecaCB-(209)	%	54						2801609
C13-HexaCB-(156)+(157)	%	102						2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.029	0.00022	0.010				2801609
3-MonoCB-(2)	ng/g	0.00540 J	0.00020	0.010				2801609
4-MonoCB-(3)	ng/g	0.028	0.00023	0.010				2801609
22'-DiCB-(4)	ng/g	0.172 (1)	0.00071	0.010				2801609
2,3-DiCB-(5)	ng/g	0.00584 J	0.00073	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.080	0.00056	0.010				2801609
2,4-DiCB-(7)	ng/g	0.016	0.00069	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.370 (1)	0.00054	0.010				2801609
2,5-DiCB-(9)	ng/g	0.019	0.00054	0.010				2801609
2,6-DiCB-(10)	ng/g	0.00677 J	0.00049	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.037	0.00059	0.010				2801609
DiCB-(12)+(13)	ng/g	0.047	0.00071	0.020				2801609
3,5-DiCB-(14)	ng/g	0.00055 U	0.00055	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.599 (1)	0.00082	0.010				2801609
22'3-TriCB-(16)	ng/g	0.299 (1)	0.00056	0.010				2801609
22'4-TriCB-(17)	ng/g	0.310 (1)	0.00053	0.010				2801609
TriCB-(18)+(30)	ng/g	0.593 (1)	0.00038	0.020				2801609
22'6-TriCB-(19)	ng/g	0.130	0.00048	0.010				2801609
TriCB-(20) + (28)	ng/g	1.24 (1)	0.00048	0.020				2801609
TriCB-(21)+(33)	ng/g	0.430 (1)	0.00039	0.020				2801609
234'-TriCB-(22)	ng/g	0.428 (1)	0.00053	0.010				2801609
235-TriCB-(23)	ng/g	0.00078 U (2)	0.00078	0.010				2801609
236-TriCB-(24)	ng/g	0.00040 U	0.00040	0.010				2801609
23'4-TriCB-(25)	ng/g	0.070	0.00035	0.010				2801609
TriCB-(26)+(29)	ng/g	0.164	0.00043	0.020				2801609
23'6-TriCB-(27)	ng/g	0.062	0.00030	0.010				2801609
24'5-TriCB-(31)	ng/g	0.768 (1)	0.00037	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
24'6-TriCB-(32)	ng/g	0.224 (1)	0.00029	0.010				2801609
23'5'-TriCB-(34)	ng/g	0.00217 J	0.00042	0.010				2801609
33'4-TriCB-(35)	ng/g	0.016	0.00040	0.010				2801609
33'5-TriCB-(36)	ng/g	0.020	0.00037	0.010				2801609
344'-TriCB-(37)	ng/g	0.571 (1)	0.00061	0.010				2801609
345-TriCB-(38)	ng/g	0.00141 J	0.00040	0.010				2801609
34'5-TriCB-(39)	ng/g	0.00463 J	0.00048	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	1.42 (1)	0.00054	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.511 (1)	0.00048	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.055	0.00069	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	2.76	0.00046	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.772 (1)	0.00052	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.375	0.00066	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.273 (1)	0.00058	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	1.20	0.00038	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.867 (1)	0.00050	0.020				2801609
22'55'-TetraCB-(52)	ng/g	4.76	0.00044	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.013	0.0021	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.0065 J	0.0021	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.626	0.0020	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.341	0.0016	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.0021 U	0.0021	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.264	0.00039	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.274	0.0021	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	2.97 (1)	0.0018	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.036	0.0016	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.731	0.00032	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'-TetraCB-(66)	ng/g	1.10	0.0015	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.032	0.0018	0.010				2801609
23'45'-TetraCB-(68)	ng/g	0.0062 J	0.0018	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.0066 J	0.0016	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.00042 U	0.00042	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.211 (1)	0.0022	0.010	0.000100	0.0000211		2801609
33'45-TetraCB-(78)	ng/g	0.0016 U	0.0016	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.051 (1)	0.0014	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.0018 U	0.0018	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.0023 U	0.0023	0.010	0.000300	0.000000690		2801609
22'33'4-PentaCB-(82)	ng/g	1.31	0.00022	0.010				2801609
PentaCB-(83)+(99)	ng/g	6.26	0.00023	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	7.30 (1)	0.00028	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	1.84	0.00019	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	8.02	0.00019	0.060				2801609
PentaCB-(88)+(91)	ng/g	2.85 (1)	0.00022	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.152 (1)	0.00021	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	11.0	0.00018	0.030				2801609
22'355'-PentaCB-(92)	ng/g	2.44	0.00020	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.686 (1)	0.00022	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.094	0.00026	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	16.6 (1)	0.00018	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.118	0.00025	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.073	0.00018	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.00028 U	0.00028	0.010				2801609
233'44'-PentaCB-(105)	ng/g	3.48	0.0042	0.010	0.0000300	0.000104		2801609
233'45-PentaCB-(106)	ng/g	0.0030 U	0.0030	0.010				2801609

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Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'4'5-PentaCB-(107)	ng/g	0.591	0.0036	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.297 (1)	0.0034	0.020				2801609
PentaCB-(110)+(115)	ng/g	20.3 (1)	0.00016	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.00018 U	0.00018	0.010				2801609
233'56-PentaCB-(112)	ng/g	0.00018 U	0.00018	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.143 (1)	0.0040	0.010	0.0000300	0.00000429		2801609
23'44'5-PentaCB-(118)	ng/g	8.20	0.0043	0.010	0.0000300	0.000246		2801609
23'455'-PentaCB-(120)	ng/g	0.00763 J	0.00014	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.00018 U	0.00018	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.083	0.0033	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.113	0.0044	0.010	0.0000300	0.00000339		2801609
33'44'5-PentaCB-(126)	ng/g	0.0042 U	0.0042	0.010	0.100	0.000420		2801609
33'455'-PentaCB-(127)	ng/g	0.015	0.0030	0.010				2801609
HexaCB-(128)+(166)	ng/g	4.82 (1)	0.0083	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	29.8 (1)	0.0082	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	1.83 (1)	0.0097	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.420 (1)	0.0087	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	16.2 (1)	0.012	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.372 (1)	0.0088	0.010				2801609
HexaCB-(134)+(143)	ng/g	1.93 (1)	0.0093	0.020				2801609
HexaCB-(135)+(151)	ng/g	17.0 (1)	0.00038	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	5.64 (1)	0.00026	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	1.37	0.012	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.653 (1)	0.010	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	6.49 (1)	0.010	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.0096 U	0.0096	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	2.18 (1)	0.00034	0.010				2801609

RDL = Reportable Detection Limit
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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3466'-HexaCB-(145)	ng/g	0.013	0.00033	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	5.12 (1)	0.0093	0.010				2801609
HexaCB-(147)+(149)	ng/g	41.8 (1)	0.010	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.018	0.00033	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.046	0.00032	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.022	0.00023	0.010				2801609
HexaCB-(153)+(168)	ng/g	20.2 (1)	0.0076	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.212 (1)	0.00036	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.00031 U	0.00031	0.010				2801609
HexaCB-(156)+(157)	ng/g	2.21	0.0049	0.020	0.0000300	0.0000663		2801609
233'44'6-HexaCB-(158)	ng/g	3.25 (1)	0.0075	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.312 (1)	0.0039	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.0089 U	0.0089	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0067 U	0.0067	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.334 (1)	0.0048	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	2.75 (1)	0.0075	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.0088 U	0.0088	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	1.01	0.0053	0.010	0.0000300	0.0000303		2801609
33'44'55'-HexaCB-(169)	ng/g	0.073 U (2)	0.073	0.010	0.0300	0.00219		2801609
22'33'44'5-HeptaCB-(170)	ng/g	13.4 (1)	0.0045	0.010				2801609
HeptaCB-(171)+(173)	ng/g	4.06 (1)	0.0043	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	2.04 (1)	0.0041	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	18.5 (1)	0.0048	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.676 (1)	0.00036	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	2.14 (1)	0.00028	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	7.76 (1)	0.0040	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	2.90 (1)	0.00038	0.010				2801609

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Report Date: 2012/03/30

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'33'566'-HeptaCB-(179)	ng/g	7.11 (1)	0.00028	0.010				2801609
HeptaCB-(180)+(193)	ng/g	26.7 (1)	0.0033	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.102	0.0048	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.00044 U	0.00044	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	10.4 (1)	0.0034	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.017	0.00034	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.659	0.0054	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.00036 U	0.00036	0.010				2801609
22'34'55'6-HeptaCB-(187)	ng/g	21.8 (1)	0.00043	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.027	0.00043	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.431 (1)	0.00097	0.010	0.0000300	0.0000129		2801609
233'44'56-HeptaCB-(190)	ng/g	1.81 (1)	0.0030	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.417 (1)	0.0030	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.018 U (2)	0.018	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	6.15 (1)	0.0051	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	2.85 (1)	0.0053	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	4.87 (1)	0.00065	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.461	0.00064	0.010				2801609
OctaCB-(198)+(199)	ng/g	12.0 (1)	0.00074	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	1.53 (1)	0.00047	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	1.70 (1)	0.00048	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	3.01 (1)	0.00081	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	8.49 (1)	0.00076	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.00050 U	0.00050	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.578 (1)	0.0054	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	7.69 (1)	0.0017	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.771 (1)	0.0010	0.010				2801609

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'33'455'66'-NonaCB-(208)	ng/g	2.18 (1)	0.0017	0.010				2801609
DecaCB-(209)	ng/g	1.05 (1)	0.0036	0.010				2801609
Monochlorobiphenyl	ng/g	0.0623 (1)	0.00023	N/A				2801609
Dichlorobiphenyl	ng/g	1.35 (1)	0.00082	N/A				2801609
Trichlorobiphenyl	ng/g	5.34 (1)	0.00061	N/A				2801609
Tetrachlorobiphenyl	ng/g	19.7	0.0023	N/A				2801609
Pentachlorobiphenyl	ng/g	92.0	0.0044	N/A				2801609
Hexachlorobiphenyl	ng/g	166 (1)	0.012	N/A				2801609
Heptachlorobiphenyl	ng/g	121 (1)	0.0054	N/A				2801609
Octachlorobiphenyl	ng/g	41.7 (1)	0.0054	N/A				2801609
Nonachlorobiphenyl	ng/g	10.6 (1)	0.0017	N/A				2801609
Decachlorobiphenyl	ng/g	1.05 (1)	0.0036	N/A				2801609
Total PCB	ng/g	459 (1)	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00310		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	115						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	72						2801609
C13-22'33'44'5-HeptaCB-(170)	%	168 (2)						2801609
C13-22'33'455'66'-NonaCB-(208)	%	105						2801609
C13-22'33'55'66'-OctaCB-(202)	%	145						2801609
C13-22'33'55'6-HeptaCB-(178)	%	74						2801609
C13-22'344'55'-HeptaCB-(180)	%	171 (2)						2801609
C13-22'34'566'-HeptaCB-(188)	%	83						2801609
C13-22'44'66'-HexaCB-(155)	%	92						2801609
C13-22'466'-PentaCB-(104)	%	77						2801609
C13-22'66'-TetraCB-(54)	%	62						2801609
C13-22'6-TriCB-(19)	%	78						2801609

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(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) Recovery outside method limits, possibly due to matrix effects.

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4718						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-0.0-0.5 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-22'-DiCB-(4)	%	68						2801609
C13-233'44'55'6-OctaCB-(205)	%	99						2801609
C13-233'44'55'-HeptaCB-(189)	%	139						2801609
C13-233'44'-PentaCB-(105)	%	104						2801609
C13-233'55'-PentaCB-(111)	%	81						2801609
C13-23'44'55'-HexaCB-(167)	%	100						2801609
C13-2344'5-PentaCB-(114)	%	104						2801609
C13-23'44'5-PentaCB-(118)	%	103						2801609
C13-2'344'5-PentaCB-(123)	%	107						2801609
C13-2-MonoCB-(1)	%	90						2801609
C13-33'44'55'-HexaCB-(169)	%	76						2801609
C13-33'44'5-PentaCB-(126)	%	85						2801609
C13-33'44'-TetraCB-(77)	%	104						2801609
C13-344'5-TetraCB-(81)	%	98						2801609
C13-344'-TriCB-(37)	%	99						2801609
C13-44'-DiCB-(15)	%	85						2801609
C13-4-MonoCB-(3)	%	96						2801609
C13-DecaCB-(209)	%	115						2801609
C13-HexaCB-(156)+(157)	%	103						2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.012	0.0013	0.010				2801609
3-MonoCB-(2)	ng/g	0.0011 U	0.0011	0.010				2801609
4-MonoCB-(3)	ng/g	0.0049 J	0.0013	0.010				2801609
22'-DiCB-(4)	ng/g	0.042	0.0012	0.010				2801609
2,3-DiCB-(5)	ng/g	0.0023 U	0.0023	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.0096 U (1)	0.0096	0.010				2801609
2,4-DiCB-(7)	ng/g	0.0027 U (1)	0.0027	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.012 U (1)	0.012	0.010				2801609
2,5-DiCB-(9)	ng/g	0.0040 J	0.0016	0.010				2801609
2,6-DiCB-(10)	ng/g	0.00152 J	0.00088	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.0041 U (1)	0.0041	0.010				2801609
DiCB-(12)+(13)	ng/g	0.0045 J	0.0021	0.020				2801609
3,5-DiCB-(14)	ng/g	0.0017 U	0.0017	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.035	0.0028	0.010				2801609
22'3-TriCB-(16)	ng/g	0.0024 U	0.0024	0.010				2801609
22'4-TriCB-(17)	ng/g	0.0076 U (1)	0.0076	0.010				2801609
TriCB-(18)+(30)	ng/g	0.079	0.0016	0.020				2801609
22'6-TriCB-(19)	ng/g	0.012	0.0021	0.010				2801609
TriCB-(20) + (28)	ng/g	0.087	0.0017	0.020				2801609
TriCB-(21)+(33)	ng/g	0.043	0.0013	0.020				2801609
234'-TriCB-(22)	ng/g	0.035	0.0019	0.010				2801609
235-TriCB-(23)	ng/g	0.0020 U	0.0020	0.010				2801609
236-TriCB-(24)	ng/g	0.026	0.0017	0.010				2801609
23'4-TriCB-(25)	ng/g	0.0012 U	0.0012	0.010				2801609
TriCB-(26)+(29)	ng/g	0.0095 J	0.0016	0.020				2801609
23'6-TriCB-(27)	ng/g	0.0013 U	0.0013	0.010				2801609
24'5-TriCB-(31)	ng/g	0.096	0.0013	0.010				2801609
24'6-TriCB-(32)	ng/g	0.0012 U	0.0012	0.010				2801609

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Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.0014 U	0.0014	0.010				2801609
33'4-TriCB-(35)	ng/g	0.0017 J	0.0015	0.010				2801609
33'5-TriCB-(36)	ng/g	0.011	0.0013	0.010				2801609
344'-TriCB-(37)	ng/g	0.041	0.0024	0.010				2801609
345-TriCB-(38)	ng/g	0.0015 U	0.0015	0.010				2801609
34'5-TriCB-(39)	ng/g	0.0017 U	0.0017	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.264	0.00049	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.085	0.00042	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.012	0.00061	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	1.40	0.00042	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.063	0.00047	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.037	0.00060	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.053	0.00052	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	0.608	0.00035	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.158	0.00045	0.020				2801609
22'55'-TetraCB-(52)	ng/g	3.92	0.00042	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.00080 U (1)	0.00080	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.00092 U	0.00092	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.236	0.00085	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.00069 U	0.00069	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.00082 U	0.00082	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.0215 J	0.00036	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.096	0.00086	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	2.71	0.00075	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.016	0.00066	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.325	0.00029	0.010				2801609
23'44'-TetraCB-(66)	ng/g	0.883	0.00065	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.00069 U	0.00069	0.010				2801609

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.00076 U	0.00076	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.00125 J	0.00061	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.00039 U	0.00039	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.034	0.00088	0.010	0.000100	0.00000340		2801609
33'45-TetraCB-(78)	ng/g	0.00068 U	0.00068	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.00058 U	0.00058	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.00073 U	0.00073	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.00093 U	0.00093	0.010	0.000300	0.000000279		2801609
22'33'4-PentaCB-(82)	ng/g	2.66	0.00044	0.010				2801609
PentaCB-(83)+(99)	ng/g	9.36	0.00045	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	13.4	0.00053	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	2.94	0.00037	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	12.1	0.00035	0.060				2801609
PentaCB-(88)+(91)	ng/g	6.42	0.00042	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.189	0.00041	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	16.8	0.00037	0.030				2801609
22'355'-PentaCB-(92)	ng/g	4.88	0.00039	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.949	0.00043	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.112	0.00051	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	33.0	0.00036	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.139	0.00026	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.145	0.00035	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.00028 U	0.00028	0.010				2801609
233'44'-PentaCB-(105)	ng/g	4.06	0.0047	0.010	0.0000300	0.000122		2801609
233'45-PentaCB-(106)	ng/g	0.0032 U	0.0032	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	0.723	0.0038	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.585	0.0037	0.020				2801609
PentaCB-(110)+(115)	ng/g	39.2	0.00031	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.00034 U	0.00034	0.010				2801609

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QC Batch = Quality Control Batch
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.00035 U	0.00035	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.166	0.0045	0.010	0.0000300	0.00000498		2801609
23'44'5-PentaCB-(118)	ng/g	9.79	0.0048	0.010	0.0000300	0.000294		2801609
23'455'-PentaCB-(120)	ng/g	0.013	0.00027	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.00035 U	0.00035	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.177	0.0036	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.296	0.0050	0.010	0.0000300	0.00000888		2801609
33'44'5-PentaCB-(126)	ng/g	0.0047 U	0.0047	0.010	0.100	0.000470		2801609
33'455'-PentaCB-(127)	ng/g	0.111	0.0033	0.010				2801609
HexaCB-(128)+(166)	ng/g	11.1	0.0092	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	50.5	0.0091	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	3.89	0.011	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.869	0.0099	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	24.9	0.013	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.578	0.0098	0.010				2801609
HexaCB-(134)+(143)	ng/g	3.19	0.010	0.020				2801609
HexaCB-(135)+(151)	ng/g	14.0	0.00038	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	5.88	0.00025	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	5.13	0.014	0.010				2801609
HexaCB-(139)+(140)	ng/g	1.42	0.011	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	8.68	0.012	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.011 U	0.011	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	2.20	0.00035	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.026	0.00032	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	6.67	0.010	0.010				2801609
HexaCB-(147)+(149)	ng/g	40.9	0.011	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.025	0.00034	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.050	0.00031	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.047	0.00023	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	26.0	0.0084	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.406	0.00035	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.00030 U	0.00030	0.010				2801609
HexaCB-(156)+(157)	ng/g	4.18	0.0034	0.020	0.0000300	0.000125		2801609
233'44'6-HexaCB-(158)	ng/g	5.40	0.0084	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.177	0.0027	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.010 U	0.010	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0075 U	0.0075	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.345	0.0034	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	3.97	0.0084	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.010 U	0.010	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	2.25	0.0037	0.010	0.0000300	0.0000675		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0038 U	0.0038	0.010	0.0300	0.000114		2801609
22'33'44'5-HeptaCB-(170)	ng/g	7.48	0.0018	0.010				2801609
HeptaCB-(171)+(173)	ng/g	1.98	0.0018	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.831	0.0017	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	6.06	0.0020	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.211	0.00018	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.621	0.00014	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	2.83	0.0017	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.872	0.00019	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	1.80	0.00013	0.010				2801609
HeptaCB-(180)+(193)	ng/g	10.2	0.0013	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.137	0.0020	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.034	0.00022	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	2.86	0.0014	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.00547 J	0.00016	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0023 U	0.0023	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.00360 J	0.00018	0.010				2801609

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Maxxam ID		MR4719						
Sampling Date		2012/02/24 14:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/g	6.75	0.00021	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.00722 J	0.00021	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.274	0.0021	0.010	0.0000300	0.00000822		2801609
233'44'56-HeptaCB-(190)	ng/g	0.884	0.0013	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.183	0.0013	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0017 U	0.0017	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	1.95	0.0030	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.700	0.0033	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	1.14	0.00068	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.077	0.00066	0.010				2801609
OctaCB-(198)+(199)	ng/g	3.16	0.00076	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.332	0.00049	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.335	0.00051	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.697	0.00078	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	2.27	0.00080	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.00050 U	0.00050	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.108	0.0032	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	2.13	0.00073	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.180	0.00046	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.530	0.00074	0.010				2801609
DecaCB-(209)	ng/g	0.476	0.00065	0.010				2801609
Monochlorobiphenyl	ng/g	0.0170	0.0013	N/A				2801609
Dichlorobiphenyl	ng/g	0.0871	0.0028	N/A				2801609
Trichlorobiphenyl	ng/g	0.441	0.0024	N/A				2801609
Tetrachlorobiphenyl	ng/g	10.9	0.00093	N/A				2801609
Pentachlorobiphenyl	ng/g	158	0.0050	N/A				2801609
Hexachlorobiphenyl	ng/g	223	0.014	N/A				2801609
Heptachlorobiphenyl	ng/g	44.0	0.0023	N/A				2801609
Octachlorobiphenyl	ng/g	10.8	0.0033	N/A				2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Nonachlorobiphenyl	ng/g	2.84	0.00074	N/A				2801609
Decachlorobiphenyl	ng/g	0.476	0.00065	N/A				2801609
Total PCB	ng/g	451	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00122		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	93						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	70						2801609
C13-22'33'44'5-HeptaCB-(170)	%	116						2801609
C13-22'33'455'66'-NonaCB-(208)	%	81						2801609
C13-22'33'55'66'-OctaCB-(202)	%	93						2801609
C13-22'33'55'6-HeptaCB-(178)	%	89						2801609
C13-22'344'55'-HeptaCB-(180)	%	114						2801609
C13-22'34'566'-HeptaCB-(188)	%	94						2801609
C13-22'44'66'-HexaCB-(155)	%	78						2801609
C13-22'466'-PentaCB-(104)	%	66						2801609
C13-22'66'-TetraCB-(54)	%	72						2801609
C13-22'6-TriCB-(19)	%	85						2801609
C13-22'-DiCB-(4)	%	75						2801609
C13-233'44'55'6-OctaCB-(205)	%	94						2801609
C13-233'44'55'-HeptaCB-(189)	%	114						2801609
C13-233'44'-PentaCB-(105)	%	106						2801609
C13-233'55'-PentaCB-(111)	%	94						2801609
C13-23'44'55'-HexaCB-(167)	%	106						2801609
C13-2344'5-PentaCB-(114)	%	112						2801609
C13-23'44'5-PentaCB-(118)	%	105						2801609
C13-2'344'5-PentaCB-(123)	%	103						2801609
C13-2-MonoCB-(1)	%	83						2801609
C13-33'44'55'-HexaCB-(169)	%	98						2801609
C13-33'44'5-PentaCB-(126)	%	107						2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP2-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'-TetraCB-(77)	%	114						2801609
C13-344'5-TetraCB-(81)	%	107						2801609
C13-344'-TriCB-(37)	%	103						2801609
C13-44'-DiCB-(15)	%	94						2801609
C13-4-MonoCB-(3)	%	89						2801609
C13-DecaCB-(209)	%	59						2801609
C13-HexaCB-(156)+(157)	%	113						2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4720						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	1.19	0.0015	0.10				2801609
3-MonoCB-(2)	ng/g	0.0757 J	0.0014	0.10				2801609
4-MonoCB-(3)	ng/g	0.38	0.0016	0.10				2801609
22'-DiCB-(4)	ng/g	1.79	0.0027	0.10				2801609
2,3-DiCB-(5)	ng/g	0.0772 J	0.0042	0.10				2801609
2,3'-DiCB-(6)	ng/g	0.56	0.0032	0.10				2801609
2,4-DiCB-(7)	ng/g	0.13	0.0039	0.10				2801609
2,4'-DiCB-(8)	ng/g	0.47	0.0031	0.10				2801609
2,5-DiCB-(9)	ng/g	0.18	0.0031	0.10				2801609
2,6-DiCB-(10)	ng/g	0.0853 J	0.0018	0.10				2801609
3,3'-DiCB-(11)	ng/g	0.0612 J	0.0034	0.10				2801609
DiCB-(12)+(13)	ng/g	0.33	0.0041	0.20				2801609
3,5-DiCB-(14)	ng/g	0.0031 U	0.0031	0.10				2801609
4,4'-DiCB-(15)	ng/g	3.18	0.0047	0.10				2801609
22'3-TriCB-(16)	ng/g	2.26	0.0095	0.10				2801609
22'4-TriCB-(17)	ng/g	2.12	0.0090	0.10				2801609
TriCB-(18)+(30)	ng/g	3.87	0.0064	0.20				2801609
22'6-TriCB-(19)	ng/g	0.57	0.0082	0.10				2801609
TriCB-(20) + (28)	ng/g	7.45	0.0048	0.20				2801609
TriCB-(21)+(33)	ng/g	2.51	0.0038	0.20				2801609
234'-TriCB-(22)	ng/g	2.94	0.0053	0.10				2801609
235-TriCB-(23)	ng/g	0.0058 J	0.0051	0.10				2801609
236-TriCB-(24)	ng/g	0.0583 J	0.0067	0.10				2801609
23'4-TriCB-(25)	ng/g	0.35	0.0034	0.10				2801609
TriCB-(26)+(29)	ng/g	1.01	0.0043	0.20				2801609
23'6-TriCB-(27)	ng/g	0.28	0.0050	0.10				2801609
24'5-TriCB-(31)	ng/g	4.66	0.0037	0.10				2801609
24'6-TriCB-(32)	ng/g	1.18	0.0050	0.10				2801609
23'5'-TriCB-(34)	ng/g	0.0156 J	0.0042	0.10				2801609

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4720						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/g	0.15	0.0040	0.10				2801609
33'5-TriCB-(36)	ng/g	0.12	0.0036	0.10				2801609
344'-TriCB-(37)	ng/g	4.84	0.0061	0.10				2801609
345-TriCB-(38)	ng/g	0.0040 U	0.0040	0.10				2801609
34'5-TriCB-(39)	ng/g	0.0322 J	0.0047	0.10				2801609
TetraCB-(40)+(41)+(71)	ng/g	7.34	0.011	0.30				2801609
22'34'-TetraCB-(42)	ng/g	2.70	0.0098	0.10				2801609
22'35-TetraCB-(43)	ng/g	0.34	0.014	0.10				2801609
TetraCB-(44)+(47)+(65)	ng/g	16.3	0.0095	0.30				2801609
TetraCB-(45)+(51)	ng/g	2.51	0.011	0.20				2801609
22'36'-TetraCB-(46)	ng/g	0.85	0.014	0.10				2801609
22'45-TetraCB-(48)	ng/g	1.76	0.012	0.10				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	7.29	0.0079	0.20				2801609
TetraCB-(50)+(53)	ng/g	2.52	0.010	0.20				2801609
22'55'-TetraCB-(52)	ng/g	32.3	0.0090	0.10				2801609
22'66'-TetraCB-(54)	ng/g	0.0363 J	0.0096	0.10				2801609
233'4-TetraCB-(55)	ng/g	0.10	0.014	0.10				2801609
233'4'-Tetra CB(56)	ng/g	6.08	0.014	0.10				2801609
233'5-TetraCB-(57)	ng/g	2.56	0.011	0.10				2801609
233'5'-TetraCB-(58)	ng/g	0.014 U	0.014	0.10				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.84	0.0080	0.30				2801609
2344'-TetraCB -(60)	ng/g	2.97	0.014	0.10				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	27.9	0.012	0.40				2801609
234'5-TetraCB-(63)	ng/g	0.31	0.011	0.10				2801609
234'6-TetraCB-(64)	ng/g	4.99	0.0066	0.10				2801609
23'44'-TetraCB-(66)	ng/g	8.98	0.010	0.10				2801609
23'45-TetraCB-(67)	ng/g	0.27	0.012	0.10				2801609
23'45'-TetraCB-(68)	ng/g	0.035 J	0.012	0.10				2801609
23'55'-TetraCB-(72)	ng/g	0.044 J	0.010	0.10				2801609

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Maxxam Job #: B229575
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Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4720						
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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.0087 U	0.0087	0.10				2801609
33'44'-TetraCB-(77)	ng/g	2.03	0.015	0.10	0.000100	0.000203		2801609
33'45-TetraCB-(78)	ng/g	0.011 U	0.011	0.10				2801609
33'45'-TetraCB(79)	ng/g	0.43	0.0092	0.10				2801609
33'55'-TetraCB-(80)	ng/g	0.012 U	0.012	0.10				2801609
344'5-TetraCB-(81)	ng/g	0.036 J	0.016	0.10	0.000300	0.0000108		2801609
22'33'4-PentaCB-(82)	ng/g	13.3	0.017	0.10				2801609
PentaCB-(83)+(99)	ng/g	59.4	0.017	0.20				2801609
22'33'6-PentaCB-(84)	ng/g	47.8	0.020	0.10				2801609
PentaCB-(85)+(116)+(117)	ng/g	18.8	0.014	0.30				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	75.2	0.014	0.60				2801609
PentaCB-(88)+(91)	ng/g	18.9	0.016	0.20				2801609
22'346'-PentaCB-(89)	ng/g	0.92	0.015	0.10				2801609
PentaCB-(90)+(101)+(113)	ng/g	122	0.013	0.30				2801609
22'355'-PentaCB-(92)	ng/g	22.4	0.015	0.10				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	4.26	0.016	0.40				2801609
22'356'-PentaCB-(94)	ng/g	0.58	0.019	0.10				2801609
22'35'6-PentaCB-(95)	ng/g	123	0.013	0.10				2801609
22'366'-PentaCB-(96)	ng/g	0.60	0.0068	0.10				2801609
22'45'6-PentaCB-(103)	ng/g	0.50	0.013	0.10				2801609
22'466'-PentaCB-(104)	ng/g	0.0076 U	0.0076	0.10				2801609
233'44'-PentaCB-(105)	ng/g	35.7	0.040	0.10	0.0000300	0.00107		2801609
233'45-PentaCB-(106)	ng/g	0.028 U	0.028	0.10				2801609
233'4'5-PentaCB-(107)	ng/g	5.83	0.034	0.10				2801609
PentaCB-(108)+(124)	ng/g	2.76	0.032	0.20				2801609
PentaCB-(110)+(115)	ng/g	169	0.012	0.20				2801609
233'55'-PentaCB-(111)	ng/g	0.038 J	0.013	0.10				2801609
233'56-PentaCB-(112)	ng/g	0.013 U	0.013	0.10				2801609
2344'5-PentaCB-(114)	ng/g	1.22	0.038	0.10	0.0000300	0.0000366		2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	83.3	0.040	0.10	0.0000300	0.00250		2801609
23'455'-PentaCB-(120)	ng/g	0.12	0.010	0.10				2801609
23'45'6-PentaCB-(121)	ng/g	0.013 U	0.013	0.10				2801609
233'4'5'-PentaCB-(122)	ng/g	1.07	0.031	0.10				2801609
23'44'5'-PentaCB-(123)	ng/g	0.87	0.042	0.10	0.0000300	0.0000261		2801609
33'44'5-PentaCB-(126)	ng/g	0.32	0.040	0.10	0.100	0.0320		2801609
33'455'-PentaCB-(127)	ng/g	0.17	0.028	0.10				2801609
HexaCB-(128)+(166)	ng/g	44.4	0.069	0.20				2801609
HexaCB-(129)+(138)+(163)	ng/g	294	0.069	0.30				2801609
22'33'45'-HexaCB-(130)	ng/g	15.9	0.081	0.10				2801609
22'33'46-HexaCB-(131)	ng/g	3.17	0.073	0.10				2801609
22'33'46'-HexaCB-(132)	ng/g	133	0.10	0.10				2801609
22'33'55'-HexaCB-(133)	ng/g	3.25	0.074	0.10				2801609
HexaCB-(134)+(143)	ng/g	15.6	0.078	0.20				2801609
HexaCB-(135)+(151)	ng/g	141	0.024	0.20				2801609
22'33'66'-HexaCB-(136)	ng/g	43.9	0.016	0.10				2801609
22'344'5-HexaCB-(137)	ng/g	11.3	0.10	0.10				2801609
HexaCB-(139)+(140)	ng/g	4.57	0.086	0.20				2801609
22'3455'-HexaCB-(141)	ng/g	81.5	0.086	0.10				2801609
22'3456-HexaCB-(142)	ng/g	0.080 U	0.080	0.10				2801609
22'345'6-HexaCB-(144)	ng/g	18.8	0.021	0.10				2801609
22'3466'-HexaCB-(145)	ng/g	0.10	0.020	0.10				2801609
22'34'55'-HexaCB-(146)	ng/g	46.6	0.077	0.10				2801609
HexaCB-(147)+(149)	ng/g	334	0.086	0.20				2801609
22'34'56'-HexaCB-(148)	ng/g	0.15	0.021	0.10				2801609
22'34'66'-HexaCB-(150)	ng/g	0.37	0.020	0.10				2801609
22'3566'-HexaCB-(152)	ng/g	0.14	0.014	0.10				2801609
HexaCB-(153)+(168)	ng/g	273	0.064	0.20				2801609
22'44'56'-HexaCB-(154)	ng/g	2.01	0.022	0.10				2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.020 U	0.020	0.10				2801609
HexaCB-(156)+(157)	ng/g	22.1	0.041	0.20	0.0000300	0.000663		2801609
233'44'6-HexaCB-(158)	ng/g	32.5	0.062	0.10				2801609
233'455'-HexaCB-(159)	ng/g	3.11	0.033	0.10				2801609
233'456-HexaCB-(160)	ng/g	0.075 U	0.075	0.10				2801609
233'45'6-HexaCB-(161)	ng/g	0.056 U	0.056	0.10				2801609
233'4'55'-HexaCB-(162)	ng/g	0.70	0.041	0.10				2801609
233'4'5'6-HexaCB-(164)	ng/g	25.4	0.063	0.10				2801609
233'55'6-HexaCB-(165)	ng/g	0.074 U	0.074	0.10				2801609
23'44'55'-HexaCB-(167)	ng/g	11.2	0.045	0.10	0.0000300	0.000336		2801609
33'44'55'-HexaCB-(169)	ng/g	0.45 U (1)	0.45	0.10	0.0300	0.0135		2801609
22'33'44'5-HeptaCB-(170)	ng/g	119	0.043	0.10				2801609
HeptaCB-(171)+(173)	ng/g	31.5	0.041	0.20				2801609
22'33'455'-HeptaCB-(172)	ng/g	17.9	0.040	0.10				2801609
22'33'456'-HeptaCB-(174)	ng/g	155	0.046	0.10				2801609
22'33'45'6-HeptaCB-(175)	ng/g	4.74	0.014	0.10				2801609
22'33'466'-HeptaCB-(176)	ng/g	15.9	0.011	0.10				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	64.6	0.038	0.10				2801609
22'33'55'6-HeptaCB-(178)	ng/g	25.0	0.015	0.10				2801609
22'33'566'-HeptaCB-(179)	ng/g	56.6	0.011	0.10				2801609
HeptaCB-(180)+(193)	ng/g	245	0.031	0.20				2801609
22'344'56-HeptaCB-(181)	ng/g	0.57	0.046	0.10				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.36	0.017	0.10				2801609
22'344'5'6-HeptaCB-(183)	ng/g	74.7	0.033	0.10				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.082 J	0.013	0.10				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.052 U	0.052	0.10				2801609
22'34566'-HeptaCB-(186)	ng/g	0.014 U	0.014	0.10				2801609
22'34'55'6-HeptaCB-(187)	ng/g	191	0.017	0.10				2801609

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4720						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	0.16	0.017	0.10				2801609
233'44'55'-HeptaCB-(189)	ng/g	3.77	0.042	0.10	0.0000300	0.000113		2801609
233'44'56-HeptaCB-(190)	ng/g	16.9	0.029	0.10				2801609
233'44'5'6-HeptaCB-(191)	ng/g	3.48	0.029	0.10				2801609
233'455'6-HeptaCB-(192)	ng/g	0.038 U	0.038	0.10				2801609
22'33'44'55'-OctaCB-(194)	ng/g	60.2	0.070	0.10				2801609
22'33'44'56-OctaCB-(195)	ng/g	23.0	0.073	0.10				2801609
22'33'44'56'-OctaCB-(196)	ng/g	33.7	0.028	0.10				2801609
22'33'44'66'OctaCB-(197)	ng/g	2.24	0.028	0.10				2801609
OctaCB-(198)+(199)	ng/g	85.5	0.032	0.20				2801609
22'33'4566'-OctaCB-(200)	ng/g	10.4	0.020	0.10				2801609
22'33'45'66'-OctaCB-(201)	ng/g	9.78	0.021	0.10				2801609
22'33'55'66'-OctaCB-(202)	ng/g	20.0	0.035	0.10				2801609
22'344'55'6-OctaCB-(203)	ng/g	58.5	0.033	0.10				2801609
22'344'566'-OctaCB-(204)	ng/g	0.021 U	0.021	0.10				2801609
233'44'55'6-OctaCB-(205)	ng/g	3.86	0.074	0.10				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	31.9	0.024	0.10				2801609
22'33'44'566'-NonaCB-(207)	ng/g	3.04	0.015	0.10				2801609
22'33'455'66'-NonaCB-(208)	ng/g	7.25	0.024	0.10				2801609
DecaCB-(209)	ng/g	4.10	0.029	0.10				2801609
Monochlorobiphenyl	ng/g	1.65	0.0016	N/A				2801609
Dichlorobiphenyl	ng/g	6.87	0.0047	N/A				2801609
Trichlorobiphenyl	ng/g	34.4	0.0095	N/A				2801609
Tetrachlorobiphenyl	ng/g	132	0.016	N/A				2801609
Pentachlorobiphenyl	ng/g	807	0.042	N/A				2801609
Hexachlorobiphenyl	ng/g	1560	0.10	N/A				2801609
Heptachlorobiphenyl	ng/g	1030	0.052	N/A				2801609
Octachlorobiphenyl	ng/g	307	0.074	N/A				2801609
Nonachlorobiphenyl	ng/g	42.2	0.024	N/A				2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP3-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Decachlorobiphenyl	ng/g	4.10	0.029	N/A				2801609
Total PCB	ng/g	3920	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.0505		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	93						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	77						2801609
C13-22'33'44'5-HeptaCB-(170)	%	127						2801609
C13-22'33'455'66'-NonaCB-(208)	%	81						2801609
C13-22'33'55'66'-OctaCB-(202)	%	104 (1)						2801609
C13-22'33'55'6-HeptaCB-(178)	%	86						2801609
C13-22'344'55'-HeptaCB-(180)	%	123						2801609
C13-22'34'566'-HeptaCB-(188)	%	87						2801609
C13-22'44'66'-HexaCB-(155)	%	85						2801609
C13-22'466'-PentaCB-(104)	%	75						2801609
C13-22'66'-TetraCB-(54)	%	58						2801609
C13-22'6-TriCB-(19)	%	76						2801609
C13-22'-DiCB-(4)	%	78						2801609
C13-233'44'55'6-OctaCB-(205)	%	91						2801609
C13-233'44'55'-HeptaCB-(189)	%	105						2801609
C13-233'44'-PentaCB-(105)	%	96						2801609
C13-233'55'-PentaCB-(111)	%	84						2801609
C13-23'44'55'-HexaCB-(167)	%	97						2801609
C13-2344'5-PentaCB-(114)	%	105						2801609
C13-23'44'5-PentaCB-(118)	%	94						2801609
C13-2'344'5-PentaCB-(123)	%	89						2801609
C13-2-MonoCB-(1)	%	78						2801609
C13-33'44'55'-HexaCB-(169)	%	91						2801609
C13-33'44'5-PentaCB-(126)	%	89						2801609

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(1) Failed ion ratio, possibly due to matrix effects.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4720						
Sampling Date		2012/02/24 14:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP3-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-33'44'-TetraCB-(77)	%	97						2801609
C13-344'5-TetraCB-(81)	%	88						2801609
C13-344'-TriCB-(37)	%	81						2801609
C13-44'-DiCB-(15)	%	80						2801609
C13-4-MonoCB-(3)	%	84						2801609
C13-DecaCB-(209)	%	61						2801609
C13-HexaCB-(156)+(157)	%	98						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.0081 J	0.0010	0.010				2801609
3-MonoCB-(2)	ng/g	0.0016 U (1)	0.0016	0.010				2801609
4-MonoCB-(3)	ng/g	0.0062 J	0.0010	0.010				2801609
22'-DiCB-(4)	ng/g	0.051	0.0012	0.010				2801609
2,3-DiCB-(5)	ng/g	0.0026 U	0.0026	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.014	0.0019	0.010				2801609
2,4-DiCB-(7)	ng/g	0.0034 U (1)	0.0034	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.062	0.0017	0.010				2801609
2,5-DiCB-(9)	ng/g	0.0046 J	0.0019	0.010				2801609
2,6-DiCB-(10)	ng/g	0.0021 U (1)	0.0021	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.0064 U (1)	0.0064	0.010				2801609
DiCB-(12)+(13)	ng/g	0.0108 J	0.0024	0.020				2801609
3,5-DiCB-(14)	ng/g	0.0020 U	0.0020	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.102	0.0032	0.010				2801609
22'3-TriCB-(16)	ng/g	0.064	0.0015	0.010				2801609
22'4-TriCB-(17)	ng/g	0.067	0.0014	0.010				2801609
TriCB-(18)+(30)	ng/g	0.143	0.0010	0.020				2801609
22'6-TriCB-(19)	ng/g	0.023	0.0013	0.010				2801609
TriCB-(20) + (28)	ng/g	0.190	0.0011	0.020				2801609
TriCB-(21)+(33)	ng/g	0.074	0.00088	0.020				2801609
234'-TriCB-(22)	ng/g	0.070	0.0012	0.010				2801609
235-TriCB-(23)	ng/g	0.0013 U	0.0013	0.010				2801609
236-TriCB-(24)	ng/g	0.0014 J	0.0011	0.010				2801609
23'4-TriCB-(25)	ng/g	0.011	0.00082	0.010				2801609
TriCB-(26)+(29)	ng/g	0.026	0.0010	0.020				2801609
23'6-TriCB-(27)	ng/g	0.010	0.00082	0.010				2801609
24'5-TriCB-(31)	ng/g	0.147	0.00087	0.010				2801609
24'6-TriCB-(32)	ng/g	0.040	0.00077	0.010				2801609

RDL = Reportable Detection Limit
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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00096 U	0.00096	0.010				2801609
33'4-TriCB-(35)	ng/g	0.00310 J	0.00097	0.010				2801609
33'5-TriCB-(36)	ng/g	0.010	0.00086	0.010				2801609
344'-TriCB-(37)	ng/g	0.104	0.0016	0.010				2801609
345-TriCB-(38)	ng/g	0.00099 U	0.00099	0.010				2801609
34'5-TriCB-(39)	ng/g	0.0011 U	0.0011	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.355	0.0010	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.126	0.00088	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.018	0.0013	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	1.60	0.00089	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.132	0.00099	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.059	0.0013	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.087	0.0011	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	0.678	0.00073	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.181	0.00094	0.020				2801609
22'55'-TetraCB-(52)	ng/g	4.05	0.00088	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.0023 U (1)	0.0023	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.0016 U	0.0016	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.260	0.0015	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.0012 U	0.0012	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.0015 U	0.0015	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.050	0.00075	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.111	0.0015	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	2.57	0.0013	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.020	0.0012	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.472	0.00060	0.010				2801609
23'44'-TetraCB-(66)	ng/g	0.617	0.0012	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.011	0.0012	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.0014 U	0.0014	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.0011 U	0.0011	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.00081 U	0.00081	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.044	0.0016	0.010	0.000100	0.00000440		2801609
33'45-TetraCB-(78)	ng/g	0.0012 U	0.0012	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.048	0.0010	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.0013 U	0.0013	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.0017 U	0.0017	0.010	0.000300	0.000000510		2801609
22'33'4-PentaCB-(82)	ng/g	0.817	0.0016	0.010				2801609
PentaCB-(83)+(99)	ng/g	4.16	0.0017	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	4.74	0.0020	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	1.08	0.0014	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	5.64	0.0013	0.060				2801609
PentaCB-(88)+(91)	ng/g	1.79	0.0016	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.076	0.0015	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	8.47	0.0014	0.030				2801609
22'355'-PentaCB-(92)	ng/g	1.47	0.0015	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.346	0.0016	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.046	0.0019	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	10.0	0.0014	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.071	0.0012	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.034	0.0013	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.0013 U	0.0013	0.010				2801609
233'44'-PentaCB-(105)	ng/g	2.82	0.0035	0.010	0.0000300	0.0000846		2801609
233'45-PentaCB-(106)	ng/g	0.0024 U	0.0024	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	0.409	0.0028	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.234	0.0028	0.020				2801609
PentaCB-(110)+(115)	ng/g	14.2	0.0011	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.0013 U	0.0013	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.0013 U	0.0013	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.138	0.0033	0.010	0.0000300	0.00000414		2801609
23'44'5-PentaCB-(118)	ng/g	7.15	0.0036	0.010	0.0000300	0.000215		2801609
23'455'-PentaCB-(120)	ng/g	0.0029 U	0.0029	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.0013 U	0.0013	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.047	0.0027	0.010				2801609
23'44'5-PentaCB-(123)	ng/g	0.051	0.0037	0.010	0.0000300	0.00000153		2801609
33'44'5-PentaCB-(126)	ng/g	0.0035 U	0.0035	0.010	0.100	0.000350		2801609
33'455'-PentaCB-(127)	ng/g	0.012	0.0024	0.010				2801609
HexaCB-(128)+(166)	ng/g	2.54	0.0066	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	11.9	0.0065	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	0.917	0.0078	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.217	0.0071	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	7.72	0.0096	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.158	0.0070	0.010				2801609
HexaCB-(134)+(143)	ng/g	0.830	0.0075	0.020				2801609
HexaCB-(135)+(151)	ng/g	6.60	0.0025	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	2.63	0.0017	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	0.725	0.010	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.324	0.0082	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	2.07	0.0086	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.0079 U	0.0079	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	0.603	0.0024	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.0098 J	0.0022	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	1.87	0.0074	0.010				2801609
HexaCB-(147)+(149)	ng/g	15.1	0.0082	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.0092 J	0.0022	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.019	0.0021	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.015	0.0016	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	6.21	0.0060	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.108	0.0023	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.0020 U	0.0020	0.010				2801609
HexaCB-(156)+(157)	ng/g	1.35	0.0060	0.020	0.0000300	0.0000405		2801609
233'44'6-HexaCB-(158)	ng/g	1.48	0.0060	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.102	0.0048	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.0075 U	0.0075	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0054 U	0.0054	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.035	0.0060	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	1.21	0.0061	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.0073 U	0.0073	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	0.432	0.0065	0.010	0.0000300	0.0000130		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0066 U	0.0066	0.010	0.0300	0.000198		2801609
22'33'44'5-HeptaCB-(170)	ng/g	3.45	0.0037	0.010				2801609
HeptaCB-(171)+(173)	ng/g	0.988	0.0038	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.440	0.0034	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	3.81	0.0040	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.130	0.0014	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.426	0.0011	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	1.71	0.0034	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.559	0.0015	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	1.31	0.0011	0.010				2801609
HeptaCB-(180)+(193)	ng/g	5.37	0.0027	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.034	0.0040	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.011	0.0017	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	1.82	0.0028	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.0027 J	0.0013	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.099	0.0046	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.0014 U	0.0014	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP4-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/g	4.27	0.0017	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.0041 J	0.0016	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.116	0.0062	0.010	0.0000300	0.00000348		2801609
233'44'56-HeptaCB-(190)	ng/g	0.367	0.0026	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.091	0.0026	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0035 U	0.0035	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	0.844	0.0092	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.382	0.010	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	0.598	0.0027	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.059	0.0026	0.010				2801609
OctaCB-(198)+(199)	ng/g	1.43	0.0030	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.142	0.0019	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.170	0.0020	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.288	0.0031	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	0.935	0.0031	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0019 U	0.0019	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.064	0.0097	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	0.636	0.0030	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.061	0.0019	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.165	0.0030	0.010				2801609
DecaCB-(209)	ng/g	0.221	0.0039	0.010				2801609
Monochlorobiphenyl	ng/g	0.0143	0.0010	N/A				2801609
Dichlorobiphenyl	ng/g	0.244	0.0032	N/A				2801609
Trichlorobiphenyl	ng/g	0.985	0.0016	N/A				2801609
Tetrachlorobiphenyl	ng/g	11.5	0.0017	N/A				2801609
Pentachlorobiphenyl	ng/g	63.8	0.0037	N/A				2801609
Hexachlorobiphenyl	ng/g	65.2	0.010	N/A				2801609
Heptachlorobiphenyl	ng/g	25.0	0.0062	N/A				2801609
Octachlorobiphenyl	ng/g	4.91	0.010	N/A				2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP4-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Nonachlorobiphenyl	ng/g	0.863	0.0030	N/A				2801609
Decachlorobiphenyl	ng/g	0.221	0.0039	N/A				2801609
Total PCB	ng/g	173	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.000915		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	95						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	72						2801609
C13-22'33'44'5-HeptaCB-(170)	%	147						2801609
C13-22'33'455'66'-NonaCB-(208)	%	91						2801609
C13-22'33'55'66'-OctaCB-(202)	%	137						2801609
C13-22'33'55'6-HeptaCB-(178)	%	88						2801609
C13-22'344'55'-HeptaCB-(180)	%	143 (1)						2801609
C13-22'34'566'-HeptaCB-(188)	%	100						2801609
C13-22'44'66'-HexaCB-(155)	%	103						2801609
C13-22'466'-PentaCB-(104)	%	81						2801609
C13-22'66'-TetraCB-(54)	%	75						2801609
C13-22'6-TriCB-(19)	%	96						2801609
C13-22'-DiCB-(4)	%	91						2801609
C13-233'44'55'6-OctaCB-(205)	%	95						2801609
C13-233'44'55'-HeptaCB-(189)	%	117						2801609
C13-233'44'-PentaCB-(105)	%	88						2801609
C13-233'55'-PentaCB-(111)	%	90						2801609
C13-23'44'55'-HexaCB-(167)	%	98						2801609
C13-2344'5-PentaCB-(114)	%	92						2801609
C13-23'44'5-PentaCB-(118)	%	88						2801609
C13-2'344'5-PentaCB-(123)	%	90						2801609
C13-2-MonoCB-(1)	%	88						2801609
C13-33'44'55'-HexaCB-(169)	%	79						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4721						
Sampling Date		2012/02/24 09:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP4-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-33'44'5-PentaCB-(126)	%	76						2801609
C13-33'44'-TetraCB-(77)	%	96						2801609
C13-344'5-TetraCB-(81)	%	91						2801609
C13-344'-TriCB-(37)	%	88						2801609
C13-44'-DiCB-(15)	%	87						2801609
C13-4-MonoCB-(3)	%	89						2801609
C13-DecaCB-(209)	%	59						2801609
C13-HexaCB-(156)+(157)	%	100						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.0060 J	0.0011	0.010				2801609
3-MonoCB-(2)	ng/g	0.00087 U	0.00087	0.010				2801609
4-MonoCB-(3)	ng/g	0.0027 U (1)	0.0027	0.010				2801609
22'-DiCB-(4)	ng/g	0.028	0.0019	0.010				2801609
2,3-DiCB-(5)	ng/g	0.0043 U	0.0043	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.0031 U	0.0031	0.010				2801609
2,4-DiCB-(7)	ng/g	0.0040 U	0.0040	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.015	0.0028	0.010				2801609
2,5-DiCB-(9)	ng/g	0.0031 U	0.0031	0.010				2801609
2,6-DiCB-(10)	ng/g	0.0014 U	0.0014	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.0033 U	0.0033	0.010				2801609
DiCB-(12)+(13)	ng/g	0.0039 U	0.0039	0.020				2801609
3,5-DiCB-(14)	ng/g	0.0032 U	0.0032	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.025	0.0052	0.010				2801609
22'3-TriCB-(16)	ng/g	0.033	0.0031	0.010				2801609
22'4-TriCB-(17)	ng/g	0.034	0.0029	0.010				2801609
TriCB-(18)+(30)	ng/g	0.087	0.0022	0.020				2801609
22'6-TriCB-(19)	ng/g	0.012	0.0027	0.010				2801609
TriCB-(20) + (28)	ng/g	0.071	0.00063	0.020				2801609
TriCB-(21)+(33)	ng/g	0.029	0.00050	0.020				2801609
234'-TriCB-(22)	ng/g	0.025	0.00070	0.010				2801609
235-TriCB-(23)	ng/g	0.00075 U	0.00075	0.010				2801609
236-TriCB-(24)	ng/g	0.0023 U	0.0023	0.010				2801609
23'4-TriCB-(25)	ng/g	0.00494 J	0.00046	0.010				2801609
TriCB-(26)+(29)	ng/g	0.00996 J	0.00059	0.020				2801609
23'6-TriCB-(27)	ng/g	0.0042 J	0.0017	0.010				2801609
24'5-TriCB-(31)	ng/g	0.083	0.00049	0.010				2801609
24'6-TriCB-(32)	ng/g	0.019	0.0016	0.010				2801609

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00054 U	0.00054	0.010				2801609
33'4-TriCB-(35)	ng/g	0.00055 U	0.00055	0.010				2801609
33'5-TriCB-(36)	ng/g	0.015	0.00049	0.010				2801609
344'-TriCB-(37)	ng/g	0.038	0.00089	0.010				2801609
345-TriCB-(38)	ng/g	0.00056 U	0.00056	0.010				2801609
34'5-TriCB-(39)	ng/g	0.00063 U	0.00063	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.427	0.0022	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.140	0.0019	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.021	0.0027	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	2.60	0.0019	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.079	0.0021	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.040	0.0027	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.097	0.0023	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	1.09	0.0016	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.170	0.0020	0.020				2801609
22'55'-TetraCB-(52)	ng/g	7.03	0.0019	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.0018 U	0.0018	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.0025 U	0.0025	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.448	0.0023	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.0019 U	0.0019	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.0022 U	0.0022	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.035	0.0016	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.169	0.0024	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	4.93	0.0020	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.032	0.0018	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.640	0.0013	0.010				2801609
23'44'-TetraCB-(66)	ng/g	1.04	0.0018	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.016	0.0019	0.010				2801609
23'45'-TetraCB-(68)	ng/g	0.0021 U	0.0021	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.0017 U	0.0017	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.0017 U	0.0017	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.073	0.0024	0.010	0.000100	0.00000730		2801609
33'45-TetraCB-(78)	ng/g	0.0019 U	0.0019	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.108	0.0016	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.0020 U	0.0020	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.0025 U	0.0025	0.010	0.000300	0.000000750		2801609
22'33'4-PentaCB-(82)	ng/g	2.03	0.0022	0.010				2801609
PentaCB-(83)+(99)	ng/g	9.65	0.0023	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	9.01	0.0027	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	2.59	0.0019	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	14.0	0.0018	0.060				2801609
PentaCB-(88)+(91)	ng/g	3.25	0.0022	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.142	0.0021	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	20.5	0.0019	0.030				2801609
22'355'-PentaCB-(92)	ng/g	3.48	0.0020	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.583	0.0022	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.080	0.0026	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	17.9	0.0019	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.123	0.0014	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.062	0.0018	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.0015 U	0.0015	0.010				2801609
233'44'-PentaCB-(105)	ng/g	7.74	0.0072	0.010	0.0000300	0.000232		2801609
233'45-PentaCB-(106)	ng/g	0.0049 U	0.0049	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	1.05	0.0057	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.626	0.0056	0.020				2801609
PentaCB-(110)+(115)	ng/g	28.5	0.0016	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.0017 U	0.0017	0.010				2801609
233'56-PentaCB-(112)	ng/g	0.0018 U	0.0018	0.010				2801609

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5-PentaCB-(114)	ng/g	0.354	0.0068	0.010	0.0000300	0.0000106		2801609
23'44'5-PentaCB-(118)	ng/g	17.8	0.0072	0.010	0.0000300	0.000534		2801609
23'455'-PentaCB-(120)	ng/g	0.0070 J	0.0014	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.0018 U	0.0018	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.130	0.0055	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.156	0.0075	0.010	0.0000300	0.00000468		2801609
33'44'5-PentaCB-(126)	ng/g	0.0071 U	0.0071	0.010	0.100	0.000710		2801609
33'455'-PentaCB-(127)	ng/g	0.029	0.0050	0.010				2801609
HexaCB-(128)+(166)	ng/g	5.36	0.010	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	25.7	0.010	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	1.87	0.012	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.419	0.011	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	14.4	0.015	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.295	0.011	0.010				2801609
HexaCB-(134)+(143)	ng/g	1.52	0.012	0.020				2801609
HexaCB-(135)+(151)	ng/g	10.2	0.0029	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	4.61	0.0019	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	1.87	0.016	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.633	0.013	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	4.68	0.013	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.012 U	0.012	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	1.13	0.0027	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.015 U (1)	0.015	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	3.56	0.012	0.010				2801609
HexaCB-(147)+(149)	ng/g	25.3	0.013	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.015	0.0026	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.033	0.0023	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.030	0.0018	0.010				2801609

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	15.1	0.0094	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.215	0.0027	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.0023 U	0.0023	0.010				2801609
HexaCB-(156)+(157)	ng/g	3.76	0.0090	0.020	0.0000300	0.000113		2801609
233'44'6-HexaCB-(158)	ng/g	3.11	0.0094	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.137	0.0072	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.012 U	0.012	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0084 U	0.0084	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.082	0.0090	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	2.22	0.0094	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.011 U	0.011	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	1.15	0.0098	0.010	0.0000300	0.0000345		2801609
33'44'55'-HexaCB-(169)	ng/g	0.010 U	0.010	0.010	0.0300	0.000300		2801609
22'33'44'5-HeptaCB-(170)	ng/g	5.70	0.0063	0.010				2801609
HeptaCB-(171)+(173)	ng/g	1.52	0.0065	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.632	0.0059	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	5.38	0.0069	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.185	0.0022	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.582	0.0017	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	2.36	0.0059	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.738	0.0023	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	1.69	0.0016	0.010				2801609
HeptaCB-(180)+(193)	ng/g	7.98	0.0047	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.069	0.0069	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.015	0.0027	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	2.50	0.0048	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.0036 J	0.0019	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0079 U	0.0079	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.0021 U	0.0021	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/g	5.75	0.0026	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.0050 J	0.0025	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.219	0.0093	0.010	0.0000300	0.00000657		2801609
233'44'56-HeptaCB-(190)	ng/g	0.629	0.0044	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.145	0.0044	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0060 U	0.0060	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	1.35	0.011	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.578	0.012	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	0.771	0.0082	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.057	0.0080	0.010				2801609
OctaCB-(198)+(199)	ng/g	1.72	0.0091	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.191	0.0059	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.195	0.0061	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.305	0.0094	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	1.22	0.0096	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0060 U	0.0060	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.100	0.012	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	0.682	0.017	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.060	0.011	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.175	0.017	0.010				2801609
DecaCB-(209)	ng/g	0.277	0.0096	0.010				2801609
Monochlorobiphenyl	ng/g	0.0060	0.0011	N/A				2801609
Dichlorobiphenyl	ng/g	0.0670	0.0052	N/A				2801609
Trichlorobiphenyl	ng/g	0.466	0.0031	N/A				2801609
Tetrachlorobiphenyl	ng/g	19.2	0.0027	N/A				2801609
Pentachlorobiphenyl	ng/g	140	0.0075	N/A				2801609
Hexachlorobiphenyl	ng/g	127	0.016	N/A				2801609
Heptachlorobiphenyl	ng/g	36.1	0.0093	N/A				2801609
Octachlorobiphenyl	ng/g	6.49	0.012	N/A				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Nonachlorobiphenyl	ng/g	0.916	0.017	N/A				2801609
Decachlorobiphenyl	ng/g	0.277	0.0096	N/A				2801609
Total PCB	ng/g	331	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00195		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	95						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	74 (1)						2801609
C13-22'33'44'5-HeptaCB-(170)	%	139						2801609
C13-22'33'455'66'-NonaCB-(208)	%	99						2801609
C13-22'33'55'66'-OctaCB-(202)	%	124						2801609
C13-22'33'55'6-HeptaCB-(178)	%	87						2801609
C13-22'344'55'-HeptaCB-(180)	%	135						2801609
C13-22'34'566'-HeptaCB-(188)	%	101						2801609
C13-22'44'66'-HexaCB-(155)	%	107						2801609
C13-22'466'-PentaCB-(104)	%	70						2801609
C13-22'66'-TetraCB-(54)	%	82						2801609
C13-22'6-TriCB-(19)	%	96						2801609
C13-22'-DiCB-(4)	%	93						2801609
C13-233'44'55'6-OctaCB-(205)	%	95						2801609
C13-233'44'55'-HeptaCB-(189)	%	111						2801609
C13-233'44'-PentaCB-(105)	%	81						2801609
C13-233'55'-PentaCB-(111)	%	85						2801609
C13-23'44'55'-HexaCB-(167)	%	99						2801609
C13-2344'5-PentaCB-(114)	%	88						2801609
C13-23'44'5-PentaCB-(118)	%	84						2801609
C13-2'344'5-PentaCB-(123)	%	79						2801609
C13-2-MonoCB-(1)	%	88						2801609
C13-33'44'55'-HexaCB-(169)	%	82						2801609

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(1) Failed ion ratio, possibly due to matrix effects.

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Maxxam ID		MR4722						
Sampling Date		2012/02/24 09:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP5-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-33'44'5-PentaCB-(126)	%	72						2801609
C13-33'44'-TetraCB-(77)	%	93						2801609
C13-344'5-TetraCB-(81)	%	87						2801609
C13-344'-TriCB-(37)	%	86						2801609
C13-44'-DiCB-(15)	%	89						2801609
C13-4-MonoCB-(3)	%	87						2801609
C13-DecaCB-(209)	%	59						2801609
C13-HexaCB-(156)+(157)	%	102						2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.0028 J	0.0022	0.010				2801609
3-MonoCB-(2)	ng/g	0.0018 U	0.0018	0.010				2801609
4-MonoCB-(3)	ng/g	0.0022 U	0.0022	0.010				2801609
22'-DiCB-(4)	ng/g	0.012	0.0064	0.010				2801609
2,3-DiCB-(5)	ng/g	0.010 U	0.010	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.0073 U	0.0073	0.010				2801609
2,4-DiCB-(7)	ng/g	0.0094 U	0.0094	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.0067 U	0.0067	0.010				2801609
2,5-DiCB-(9)	ng/g	0.0073 U	0.0073	0.010				2801609
2,6-DiCB-(10)	ng/g	0.0046 U	0.0046	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.0077 U	0.0077	0.010				2801609
DiCB-(12)+(13)	ng/g	0.0092 U	0.0092	0.020				2801609
3,5-DiCB-(14)	ng/g	0.0075 U	0.0075	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.012 U	0.012	0.010				2801609
22'3-TriCB-(16)	ng/g	0.018	0.0037	0.010				2801609
22'4-TriCB-(17)	ng/g	0.019 U (1)	0.019	0.010				2801609
TriCB-(18)+(30)	ng/g	0.052	0.0026	0.020				2801609
22'6-TriCB-(19)	ng/g	0.0061 J	0.0032	0.010				2801609
TriCB-(20) + (28)	ng/g	0.041	0.0022	0.020				2801609
TriCB-(21)+(33)	ng/g	0.0180 J	0.0018	0.020				2801609
234'-TriCB-(22)	ng/g	0.017	0.0025	0.010				2801609
235-TriCB-(23)	ng/g	0.0026 U	0.0026	0.010				2801609
236-TriCB-(24)	ng/g	0.0027 U	0.0027	0.010				2801609
23'4-TriCB-(25)	ng/g	0.0027 J	0.0016	0.010				2801609
TriCB-(26)+(29)	ng/g	0.0059 J	0.0021	0.020				2801609
23'6-TriCB-(27)	ng/g	0.0020 U	0.0020	0.010				2801609
24'5-TriCB-(31)	ng/g	0.043	0.0017	0.010				2801609
24'6-TriCB-(32)	ng/g	0.011	0.0019	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.0019 U	0.0019	0.010				2801609
33'4-TriCB-(35)	ng/g	0.0019 U	0.0019	0.010				2801609
33'5-TriCB-(36)	ng/g	0.0064 J	0.0017	0.010				2801609
344'-TriCB-(37)	ng/g	0.023	0.0031	0.010				2801609
345-TriCB-(38)	ng/g	0.0020 U	0.0020	0.010				2801609
34'5-TriCB-(39)	ng/g	0.0022 U	0.0022	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.151	0.0039	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.055	0.0034	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.0063 U (1)	0.0063	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	0.838	0.0034	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.043	0.0038	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.019	0.0049	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.043	0.0042	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	0.354	0.0029	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.069	0.0036	0.020				2801609
22'55'-TetraCB-(52)	ng/g	2.34	0.0034	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.0039 U	0.0039	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.0038 U	0.0038	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.139	0.0035	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.0029 U	0.0029	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.0034 U	0.0034	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.014 U (1)	0.014	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.063	0.0036	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	1.48	0.0031	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.0027 U	0.0027	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.214	0.0023	0.010				2801609
23'44'-TetraCB-(66)	ng/g	0.321	0.0027	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.0028 U	0.0028	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.0031 U	0.0031	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.0025 U	0.0025	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.0031 U	0.0031	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.022	0.0037	0.010	0.000100	0.00000220		2801609
33'45-TetraCB-(78)	ng/g	0.0028 U	0.0028	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.020 U (1)	0.020	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.0030 U	0.0030	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.0038 U	0.0038	0.010	0.000300	0.00000114		2801609
22'33'4-PentaCB-(82)	ng/g	0.473	0.0053	0.010				2801609
PentaCB-(83)+(99)	ng/g	2.44	0.0055	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	2.84	0.0065	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	0.630	0.0045	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	3.31	0.0043	0.060				2801609
PentaCB-(88)+(91)	ng/g	1.03	0.0051	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.039	0.0050	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	5.15	0.0045	0.030				2801609
22'355'-PentaCB-(92)	ng/g	0.828	0.0047	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.180	0.0052	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.028	0.0062	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	5.44	0.0044	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.036	0.0040	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.020	0.0042	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.0043 U	0.0043	0.010				2801609
233'44'-PentaCB-(105)	ng/g	1.59	0.0057	0.010	0.0000300	0.0000477		2801609
233'45-PentaCB-(106)	ng/g	0.0038 U	0.0038	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	0.214	0.0045	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.126	0.0045	0.020				2801609
PentaCB-(110)+(115)	ng/g	8.53	0.0037	0.020				2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/g	0.0041 U	0.0041	0.010				2801609
233'56-PentaCB-(112)	ng/g	0.0042 U	0.0042	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.080	0.0054	0.010	0.0000300	0.00000240		2801609
23'44'5-PentaCB-(118)	ng/g	4.16	0.0057	0.010	0.0000300	0.000125		2801609
23'455'-PentaCB-(120)	ng/g	0.0033 U	0.0033	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.0043 U	0.0043	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.031	0.0043	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.036	0.0060	0.010	0.0000300	0.00000108		2801609
33'44'5-PentaCB-(126)	ng/g	0.0056 U	0.0056	0.010	0.100	0.000560		2801609
33'455'-PentaCB-(127)	ng/g	0.0039 U	0.0039	0.010				2801609
HexaCB-(128)+(166)	ng/g	1.39	0.041	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	7.11	0.041	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	0.505	0.049	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.115	0.045	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	4.77	0.060	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.091	0.044	0.010				2801609
HexaCB-(134)+(143)	ng/g	0.519	0.047	0.020				2801609
HexaCB-(135)+(151)	ng/g	4.20	0.0073	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	1.81	0.0049	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	0.311	0.063	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.175	0.051	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	1.15	0.054	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.049 U	0.049	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	0.449	0.0068	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.0062 U	0.0062	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	1.06	0.046	0.010				2801609
HexaCB-(147)+(149)	ng/g	9.86	0.051	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.0065 U	0.0065	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.0059 U	0.0059	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	0.0045 U	0.0045	0.010				2801609
HexaCB-(153)+(168)	ng/g	3.77	0.038	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.061 U (1)	0.061	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.0059 U	0.0059	0.010				2801609
HexaCB-(156)+(157)	ng/g	0.754	0.011	0.020	0.0000300	0.0000226		2801609
233'44'6-HexaCB-(158)	ng/g	0.793	0.038	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.073	0.0088	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.047 U	0.047	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.034 U	0.034	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.021	0.011	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	0.790	0.038	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.045 U	0.045	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	0.251	0.012	0.010	0.0000300	0.00000753		2801609
33'44'55'-HexaCB-(169)	ng/g	0.012 U	0.012	0.010	0.0300	0.000360		2801609
22'33'44'5-HeptaCB-(170)	ng/g	2.27	0.0067	0.010				2801609
HeptaCB-(171)+(173)	ng/g	0.662	0.0069	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.285	0.0063	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	2.60	0.0073	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.095	0.0035	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.305	0.0027	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	1.15	0.0063	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.391	0.0036	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	0.906	0.0026	0.010				2801609
HeptaCB-(180)+(193)	ng/g	3.56	0.0050	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.022	0.0074	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.0042 U	0.0042	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	1.20	0.0051	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.0031 U	0.0031	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3455'6-HeptaCB-(185)	ng/g	0.0085 U	0.0085	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.0034 U	0.0034	0.010				2801609
22'34'55'6-HeptaCB-(187)	ng/g	2.93	0.0041	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.0040 U	0.0040	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.072	0.014	0.010	0.0000300	0.00000216		2801609
233'44'56-HeptaCB-(190)	ng/g	0.247	0.0047	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.066	0.0047	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0064 U	0.0064	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	0.562	0.026	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.253	0.028	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	0.396	0.020	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.026	0.019	0.010				2801609
OctaCB-(198)+(199)	ng/g	0.845	0.022	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.115	0.014	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.110	0.015	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.182	0.022	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	0.630	0.023	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.014 U	0.014	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.048	0.027	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	0.355	0.013	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.035	0.0083	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.112	0.013	0.010				2801609
DecaCB-(209)	ng/g	0.252	0.021	0.010				2801609
Monochlorobiphenyl	ng/g	0.0028	0.0022	N/A				2801609
Dichlorobiphenyl	ng/g	0.012	0.012	N/A				2801609
Trichlorobiphenyl	ng/g	0.245	0.0037	N/A				2801609
Tetrachlorobiphenyl	ng/g	6.15	0.0049	N/A				2801609
Pentachlorobiphenyl	ng/g	37.2	0.0065	N/A				2801609
Hexachlorobiphenyl	ng/g	40.0	0.063	N/A				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4723						
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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Heptachlorobiphenyl	ng/g	16.8	0.014	N/A				2801609
Octachlorobiphenyl	ng/g	3.17	0.028	N/A				2801609
Nonachlorobiphenyl	ng/g	0.502	0.013	N/A				2801609
Decachlorobiphenyl	ng/g	0.252	0.021	N/A				2801609
Total PCB	ng/g	104	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00113		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	89						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	87						2801609
C13-22'33'44'5-HeptaCB-(170)	%	130						2801609
C13-22'33'455'66'-NonaCB-(208)	%	98						2801609
C13-22'33'55'66'-OctaCB-(202)	%	121						2801609
C13-22'33'55'6-HeptaCB-(178)	%	88						2801609
C13-22'344'55'-HeptaCB-(180)	%	124						2801609
C13-22'34'566'-HeptaCB-(188)	%	106						2801609
C13-22'44'66'-HexaCB-(155)	%	107						2801609
C13-22'466'-PentaCB-(104)	%	84						2801609
C13-22'66'-TetraCB-(54)	%	81						2801609
C13-22'6-TriCB-(19)	%	87						2801609
C13-22'-DiCB-(4)	%	87						2801609
C13-233'44'55'6-OctaCB-(205)	%	105						2801609
C13-233'44'55'-HeptaCB-(189)	%	102						2801609
C13-233'44'-PentaCB-(105)	%	83						2801609
C13-233'55'-PentaCB-(111)	%	87						2801609
C13-23'44'55'-HexaCB-(167)	%	96						2801609
C13-2344'5-PentaCB-(114)	%	91						2801609
C13-23'44'5-PentaCB-(118)	%	84						2801609
C13-2'344'5-PentaCB-(123)	%	84						2801609
C13-2-MonoCB-(1)	%	84						2801609

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Maxxam ID		MR4723						
Sampling Date		2012/02/24 09:53						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP5-1.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'55'-HexaCB-(169)	%	85						2801609
C13-33'44'5-PentaCB-(126)	%	78						2801609
C13-33'44'-TetraCB-(77)	%	85						2801609
C13-344'5-TetraCB-(81)	%	81						2801609
C13-344'-TriCB-(37)	%	76						2801609
C13-44'-DiCB-(15)	%	72						2801609
C13-4-MonoCB-(3)	%	82						2801609
C13-DecaCB-(209)	%	72						2801609
C13-HexaCB-(156)+(157)	%	97						2801609

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Maxxam ID		MR4724						
Sampling Date		2012/02/24 10:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.020	0.00057	0.010				2801609
3-MonoCB-(2)	ng/g	0.0015 U (1)	0.0015	0.010				2801609
4-MonoCB-(3)	ng/g	0.00727 J	0.00058	0.010				2801609
22'-DiCB-(4)	ng/g	0.144	0.0012	0.010				2801609
2,3-DiCB-(5)	ng/g	0.0017 U	0.0017	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.031	0.0012	0.010				2801609
2,4-DiCB-(7)	ng/g	0.0085 J	0.0015	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.063	0.0011	0.010				2801609
2,5-DiCB-(9)	ng/g	0.012	0.0012	0.010				2801609
2,6-DiCB-(10)	ng/g	0.00540 J	0.00088	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.0028 U (1)	0.0028	0.010				2801609
DiCB-(12)+(13)	ng/g	0.0074 U (1)	0.0074	0.020				2801609
3,5-DiCB-(14)	ng/g	0.0012 U	0.0012	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.066	0.0020	0.010				2801609
22'3-TriCB-(16)	ng/g	0.00084 U	0.00084	0.010				2801609
22'4-TriCB-(17)	ng/g	0.142	0.00078	0.010				2801609
TriCB-(18)+(30)	ng/g	0.317	0.00058	0.020				2801609
22'6-TriCB-(19)	ng/g	0.041	0.00073	0.010				2801609
TriCB-(20) + (28)	ng/g	0.268	0.00034	0.020				2801609
TriCB-(21)+(33)	ng/g	0.135	0.00027	0.020				2801609
234'-TriCB-(22)	ng/g	0.100	0.00037	0.010				2801609
235-TriCB-(23)	ng/g	0.00040 U	0.00040	0.010				2801609
236-TriCB-(24)	ng/g	0.097	0.00062	0.010				2801609
23'4-TriCB-(25)	ng/g	0.017	0.00025	0.010				2801609
TriCB-(26)+(29)	ng/g	0.045	0.00031	0.020				2801609
23'6-TriCB-(27)	ng/g	0.017	0.00046	0.010				2801609
24'5-TriCB-(31)	ng/g	0.301	0.00026	0.010				2801609
24'6-TriCB-(32)	ng/g	0.072	0.00043	0.010				2801609

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Sampling Date		2012/02/24 10:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00029 U	0.00029	0.010				2801609
33'4-TriCB-(35)	ng/g	0.0024 U (1)	0.0024	0.010				2801609
33'5-TriCB-(36)	ng/g	0.035	0.00026	0.010				2801609
344'-TriCB-(37)	ng/g	0.090	0.00047	0.010				2801609
345-TriCB-(38)	ng/g	0.00082 U (1)	0.00082	0.010				2801609
34'5-TriCB-(39)	ng/g	0.0021 U (1)	0.0021	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.705	0.00075	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.259	0.00065	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.034	0.00093	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	4.75	0.00065	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.102	0.00073	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.047	0.00093	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.170	0.00081	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	2.09	0.00054	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.244	0.00069	0.020				2801609
22'55'-TetraCB-(52)	ng/g	13.5	0.00065	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.0012 U (1)	0.0012	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.0026 U	0.0026	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.861	0.0024	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.0020 U	0.0020	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.0023 U	0.0023	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.048	0.00056	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.328	0.0025	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	9.90	0.0021	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.063	0.0019	0.010				2801609
234'6-TetraCB-(64)	ng/g	1.10	0.00044	0.010				2801609
23'44'-TetraCB-(66)	ng/g	1.81	0.0019	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.019	0.0020	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4724						
Sampling Date		2012/02/24 10:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.0022 U	0.0022	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.0019 J	0.0017	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.00060 U	0.00060	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.049	0.0025	0.010	0.000100	0.00000490		2801609
33'45-TetraCB-(78)	ng/g	0.0020 U	0.0020	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.146	0.0017	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.0021 U	0.0021	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.0027 U	0.0027	0.010	0.000300	0.000000810		2801609
22'33'4-PentaCB-(82)	ng/g	2.57	0.00064	0.010				2801609
PentaCB-(83)+(99)	ng/g	13.2	0.00066	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	9.08	0.00078	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	3.82	0.00055	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	18.6	0.00051	0.060				2801609
PentaCB-(88)+(91)	ng/g	3.23	0.00061	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.129	0.00060	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	27.0	0.00054	0.030				2801609
22'355'-PentaCB-(92)	ng/g	4.34	0.00057	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.609	0.00063	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.082	0.00074	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	20.3	0.00053	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.107	0.00071	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.077	0.00051	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.00076 U	0.00076	0.010				2801609
233'44'-PentaCB-(105)	ng/g	9.44	0.0060	0.010	0.0000300	0.000283		2801609
233'45-PentaCB-(106)	ng/g	0.0040 U	0.0040	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	1.37	0.0048	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.828	0.0047	0.020				2801609
PentaCB-(110)+(115)	ng/g	31.9	0.00045	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.00050 U	0.00050	0.010				2801609

RDL = Reportable Detection Limit
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4724						
Sampling Date		2012/02/24 10:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.00050 U	0.00050	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.450	0.0056	0.010	0.0000300	0.0000135		2801609
23'44'5-PentaCB-(118)	ng/g	24.4	0.0060	0.010	0.0000300	0.000732		2801609
23'455'-PentaCB-(120)	ng/g	0.00646 J	0.00040	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.00051 U	0.00051	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.172	0.0045	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.197	0.0063	0.010	0.0000300	0.00000591		2801609
33'44'5-PentaCB-(126)	ng/g	0.0059 U	0.0059	0.010	0.100	0.000590		2801609
33'455'-PentaCB-(127)	ng/g	0.035	0.0041	0.010				2801609
HexaCB-(128)+(166)	ng/g	5.53	0.0056	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	28.4	0.0055	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	1.92	0.0066	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.433	0.0060	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	13.0	0.0081	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.287	0.0059	0.010				2801609
HexaCB-(134)+(143)	ng/g	1.67	0.0064	0.020				2801609
HexaCB-(135)+(151)	ng/g	8.87	0.00088	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	4.24	0.00059	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	2.28	0.0085	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.650	0.0069	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	4.84	0.0073	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.0067 U	0.0067	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	1.23	0.00082	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.017	0.00076	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	3.54	0.0062	0.010				2801609
HexaCB-(147)+(149)	ng/g	21.5	0.0069	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.014	0.00079	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.031	0.00072	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.029	0.00055	0.010				2801609

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Report Date: 2012/03/30

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	16.4	0.0051	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.211	0.00081	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.00071 U	0.00071	0.010				2801609
HexaCB-(156)+(157)	ng/g	4.06	0.0025	0.020	0.0000300	0.000122		2801609
233'44'6-HexaCB-(158)	ng/g	3.36	0.0051	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.114	0.0020	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.0063 U	0.0063	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0046 U	0.0046	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.103	0.0025	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	2.13	0.0051	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.0061 U	0.0061	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	1.31	0.0027	0.010	0.0000300	0.0000393		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0028 U	0.0028	0.010	0.0300	0.0000840		2801609
22'33'44'5-HeptaCB-(170)	ng/g	4.80	0.0016	0.010				2801609
HeptaCB-(171)+(173)	ng/g	1.35	0.0016	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.568	0.0015	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	4.33	0.0017	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.152	0.00041	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.461	0.00031	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	2.00	0.0015	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.598	0.00041	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	1.30	0.00030	0.010				2801609
HeptaCB-(180)+(193)	ng/g	6.47	0.0012	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.072	0.0017	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.018	0.00049	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	1.97	0.0012	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.00300 J	0.00035	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0020 U	0.0020	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.00201 J	0.00039	0.010				2801609

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	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/g	4.55	0.00047	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.00366 J	0.00046	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.170	0.0017	0.010	0.0000300	0.00000510		2801609
233'44'56-HeptaCB-(190)	ng/g	0.504	0.0011	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.126	0.0011	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0015 U	0.0015	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	0.823	0.0036	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.377	0.0040	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	0.535	0.0016	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.041	0.0016	0.010				2801609
OctaCB-(198)+(199)	ng/g	1.22	0.0018	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.144	0.0012	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.134	0.0012	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.248	0.0018	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	0.843	0.0019	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0012 U	0.0012	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.059	0.0038	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	0.521	0.0015	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.050	0.00097	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.153	0.0015	0.010				2801609
DecaCB-(209)	ng/g	0.256	0.0032	0.010				2801609
Monochlorobiphenyl	ng/g	0.0275	0.00058	N/A				2801609
Dichlorobiphenyl	ng/g	0.330	0.0020	N/A				2801609
Trichlorobiphenyl	ng/g	1.68	0.00084	N/A				2801609
Tetrachlorobiphenyl	ng/g	36.2	0.0027	N/A				2801609
Pentachlorobiphenyl	ng/g	172	0.0063	N/A				2801609
Hexachlorobiphenyl	ng/g	126	0.0085	N/A				2801609
Heptachlorobiphenyl	ng/g	29.4	0.0020	N/A				2801609
Octachlorobiphenyl	ng/g	4.43	0.0040	N/A				2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP6-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Nonachlorobiphenyl	ng/g	0.724	0.0015	N/A				2801609
Decachlorobiphenyl	ng/g	0.256	0.0032	N/A				2801609
Total PCB	ng/g	371	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00188		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	92						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	84						2801609
C13-22'33'44'5-HeptaCB-(170)	%	135						2801609
C13-22'33'455'66'-NonaCB-(208)	%	114						2801609
C13-22'33'55'66'-OctaCB-(202)	%	125						2801609
C13-22'33'55'6-HeptaCB-(178)	%	88						2801609
C13-22'344'55'-HeptaCB-(180)	%	133						2801609
C13-22'34'566'-HeptaCB-(188)	%	103						2801609
C13-22'44'66'-HexaCB-(155)	%	96						2801609
C13-22'466'-PentaCB-(104)	%	76						2801609
C13-22'66'-TetraCB-(54)	%	88						2801609
C13-22'6-TriCB-(19)	%	106						2801609
C13-22'-DiCB-(4)	%	89						2801609
C13-233'44'55'6-OctaCB-(205)	%	110						2801609
C13-233'44'55'-HeptaCB-(189)	%	112						2801609
C13-233'44'-PentaCB-(105)	%	106						2801609
C13-233'55'-PentaCB-(111)	%	93						2801609
C13-23'44'55'-HexaCB-(167)	%	114						2801609
C13-2344'5-PentaCB-(114)	%	114						2801609
C13-23'44'5-PentaCB-(118)	%	104						2801609
C13-2'344'5-PentaCB-(123)	%	103						2801609
C13-2-MonoCB-(1)	%	100						2801609
C13-33'44'55'-HexaCB-(169)	%	100						2801609
C13-33'44'5-PentaCB-(126)	%	100						2801609

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	Units	8001-120224-ITSS-TP6-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'-TetraCB-(77)	%	129						2801609
C13-344'5-TetraCB-(81)	%	121						2801609
C13-344'-TriCB-(37)	%	102						2801609
C13-44'-DiCB-(15)	%	98						2801609
C13-4-MonoCB-(3)	%	103						2801609
C13-DecaCB-(209)	%	79						2801609
C13-HexaCB-(156)+(157)	%	114						2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4725						
Sampling Date		2012/02/24 10:55						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.091	0.00014	0.010				2801609
3-MonoCB-(2)	ng/g	0.011	0.00012	0.010				2801609
4-MonoCB-(3)	ng/g	0.044	0.00014	0.010				2801609
22'-DiCB-(4)	ng/g	0.212	0.00018	0.010				2801609
2,3-DiCB-(5)	ng/g	0.00990 J	0.00030	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.106	0.00023	0.010				2801609
2,4-DiCB-(7)	ng/g	0.026	0.00028	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.426	0.00022	0.010				2801609
2,5-DiCB-(9)	ng/g	0.030	0.00022	0.010				2801609
2,6-DiCB-(10)	ng/g	0.010	0.00012	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.024	0.00024	0.010				2801609
DiCB-(12)+(13)	ng/g	0.075	0.00029	0.020				2801609
3,5-DiCB-(14)	ng/g	0.00023 U	0.00023	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.665	0.00034	0.010				2801609
22'3-TriCB-(16)	ng/g	0.251	0.00016	0.010				2801609
22'4-TriCB-(17)	ng/g	0.277	0.00015	0.010				2801609
TriCB-(18)+(30)	ng/g	0.517	0.00011	0.020				2801609
22'6-TriCB-(19)	ng/g	0.087	0.00014	0.010				2801609
TriCB-(20) + (28)	ng/g	1.16	0.00030	0.020				2801609
TriCB-(21)+(33)	ng/g	0.420	0.00024	0.020				2801609
234'-TriCB-(22)	ng/g	0.398	0.00033	0.010				2801609
235-TriCB-(23)	ng/g	0.00092 J	0.00032	0.010				2801609
236-TriCB-(24)	ng/g	0.00796 J	0.00011	0.010				2801609
23'4-TriCB-(25)	ng/g	0.061	0.00022	0.010				2801609
TriCB-(26)+(29)	ng/g	0.159	0.00027	0.020				2801609
23'6-TriCB-(27)	ng/g	0.041	0.000086	0.010				2801609
24'5-TriCB-(31)	ng/g	0.723	0.00023	0.010				2801609
24'6-TriCB-(32)	ng/g	0.166	0.000085	0.010				2801609
23'5'-TriCB-(34)	ng/g	0.00187 J	0.00026	0.010				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4725						
Sampling Date		2012/02/24 10:55						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/g	0.017	0.00025	0.010				2801609
33'5-TriCB-(36)	ng/g	0.00909 J	0.00023	0.010				2801609
344'-TriCB-(37)	ng/g	0.576	0.00038	0.010				2801609
345-TriCB-(38)	ng/g	0.00025 U	0.00025	0.010				2801609
34'5-TriCB-(39)	ng/g	0.00278 J	0.00030	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	0.616	0.00039	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.247	0.00035	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.029	0.00051	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	1.20	0.00034	0.030				2801609
TetraCB-(45)+(51)	ng/g	0.344	0.00038	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.143	0.00049	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.137	0.00042	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	0.515	0.00028	0.020				2801609
TetraCB-(50)+(53)	ng/g	0.310	0.00037	0.020				2801609
22'55'-TetraCB-(52)	ng/g	1.60	0.00032	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.00405 J	0.00034	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.00531 J	0.00081	0.010				2801609
233'4'-Tetra CB(56)	ng/g	0.323	0.00079	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.094	0.00063	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.00080 U	0.00080	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.099	0.00028	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.142	0.00079	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	1.35	0.00068	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.017	0.00062	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.340	0.00024	0.010				2801609
23'44'-TetraCB-(66)	ng/g	0.537	0.00058	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.021	0.00068	0.010				2801609
23'45'-TetraCB-(68)	ng/g	0.00281 J	0.00071	0.010				2801609
23'55'-TetraCB-(72)	ng/g	0.00409 J	0.00060	0.010				2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.00031 U	0.00031	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.115	0.00086	0.010	0.000100	0.0000115		2801609
33'45-TetraCB-(78)	ng/g	0.00062 U	0.00062	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.019	0.00053	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.00068 U	0.00068	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.00238 J	0.00090	0.010	0.000300	0.000000714		2801609
22'33'4-PentaCB-(82)	ng/g	0.404	0.00054	0.010				2801609
PentaCB-(83)+(99)	ng/g	1.92	0.00055	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	1.64	0.00067	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	0.647	0.00046	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	2.37	0.00045	0.060				2801609
PentaCB-(88)+(91)	ng/g	0.781	0.00052	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.045	0.00050	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	3.22	0.00044	0.030				2801609
22'355'-PentaCB-(92)	ng/g	0.684	0.00049	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.218	0.00054	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.032	0.00064	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	3.91	0.00044	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.037	0.00031	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.022	0.00042	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.00035 U	0.00035	0.010				2801609
233'44'-PentaCB-(105)	ng/g	1.18	0.0015	0.010	0.0000300	0.0000354		2801609
233'45-PentaCB-(106)	ng/g	0.0010 U	0.0010	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	0.165	0.0012	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.092	0.0012	0.020				2801609
PentaCB-(110)+(115)	ng/g	4.66	0.00038	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.00130 J	0.00043	0.010				2801609
233'56-PentaCB-(112)	ng/g	0.00043 U	0.00043	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.045	0.0014	0.010	0.0000300	0.00000135		2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	2.64	0.0015	0.010	0.0000300	0.0000792		2801609
23'455'-PentaCB-(120)	ng/g	0.00388 J	0.00034	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.00044 U	0.00044	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.034	0.0011	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.048	0.0015	0.010	0.0000300	0.00000144		2801609
33'44'5-PentaCB-(126)	ng/g	0.0084 J	0.0014	0.010	0.100	0.000840		2801609
33'455'-PentaCB-(127)	ng/g	0.0071 J	0.0010	0.010				2801609
HexaCB-(128)+(166)	ng/g	1.52	0.0028	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	7.16	0.0027	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	0.509	0.0032	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.088	0.0029	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	3.63	0.0040	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.083	0.0029	0.010				2801609
HexaCB-(134)+(143)	ng/g	0.434	0.0031	0.020				2801609
HexaCB-(135)+(151)	ng/g	2.84	0.00051	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	0.955	0.00034	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	0.580	0.0041	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.158	0.0034	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	1.44	0.0034	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.0032 U	0.0032	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	0.333	0.00046	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.00319 J	0.00044	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	1.11	0.0031	0.010				2801609
HexaCB-(147)+(149)	ng/g	7.26	0.0034	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.00475 J	0.00044	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.00720 J	0.00043	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.00550 J	0.00031	0.010				2801609
HexaCB-(153)+(168)	ng/g	5.01	0.0025	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.053	0.00048	0.010				2801609

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	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.00042 U	0.00042	0.010				2801609
HexaCB-(156)+(157)	ng/g	0.652	0.0015	0.020	0.0000300	0.0000196		2801609
233'44'6-HexaCB-(158)	ng/g	0.670	0.0025	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.050	0.0012	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.0030 U	0.0030	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0022 U	0.0022	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.022	0.0015	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	0.599	0.0025	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.0029 U	0.0029	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	0.324	0.0016	0.010	0.0000300	0.00000972		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0016 U	0.0016	0.010	0.0300	0.0000480		2801609
22'33'44'5-HeptaCB-(170)	ng/g	2.33	0.00091	0.010				2801609
HeptaCB-(171)+(173)	ng/g	0.566	0.00088	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	0.292	0.00084	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	2.48	0.00097	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.081	0.00034	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	0.239	0.00027	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	1.03	0.00081	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	0.381	0.00036	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	0.824	0.00026	0.010				2801609
HeptaCB-(180)+(193)	ng/g	4.26	0.00066	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.019	0.00098	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.00792 J	0.00042	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	1.19	0.00069	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.0014 U (1)	0.0014	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0011 U	0.0011	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.00034 U	0.00034	0.010				2801609
22'34'55'6-HeptaCB-(187)	ng/g	3.11	0.00040	0.010				2801609

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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	Units	8001-120224-ITSS-TP7-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	0.00261 J	0.00040	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.072	0.0019	0.010	0.0000300	0.00000216		2801609
233'44'56-HeptaCB-(190)	ng/g	0.227	0.00061	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.059	0.00061	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.00308 J	0.00080	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	1.19	0.0053	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	0.379	0.0055	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	0.605	0.0018	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.041	0.0018	0.010				2801609
OctaCB-(198)+(199)	ng/g	1.69	0.0020	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	0.167	0.0013	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	0.170	0.0013	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	0.412	0.0022	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	1.28	0.0021	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0014 U	0.0014	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.064	0.0056	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	1.30	0.0013	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.095	0.00080	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	0.297	0.0013	0.010				2801609
DecaCB-(209)	ng/g	0.226	0.00094	0.010				2801609
Monochlorobiphenyl	ng/g	0.145	0.00014	N/A				2801609
Dichlorobiphenyl	ng/g	1.58	0.00034	N/A				2801609
Trichlorobiphenyl	ng/g	4.87	0.00038	N/A				2801609
Tetrachlorobiphenyl	ng/g	8.22	0.00090	N/A				2801609
Pentachlorobiphenyl	ng/g	24.8	0.0015	N/A				2801609
Hexachlorobiphenyl	ng/g	35.5	0.0041	N/A				2801609
Heptachlorobiphenyl	ng/g	17.2	0.0019	N/A				2801609
Octachlorobiphenyl	ng/g	5.99	0.0056	N/A				2801609
Nonachlorobiphenyl	ng/g	1.69	0.0013	N/A				2801609

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	Units	**8001-120224-ITSS-TP7-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Decachlorobiphenyl	ng/g	0.226	0.00094	N/A				2801609
Total PCB	ng/g	100	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00105		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	101						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	88						2801609
C13-22'33'44'5-HeptaCB-(170)	%	151 (1)						2801609
C13-22'33'455'66'-NonaCB-(208)	%	103						2801609
C13-22'33'55'66'-OctaCB-(202)	%	117						2801609
C13-22'33'55'6-HeptaCB-(178)	%	91						2801609
C13-22'344'55'-HeptaCB-(180)	%	144 (2)						2801609
C13-22'34'566'-HeptaCB-(188)	%	119						2801609
C13-22'44'66'-HexaCB-(155)	%	111						2801609
C13-22'466'-PentaCB-(104)	%	95						2801609
C13-22'66'-TetraCB-(54)	%	82						2801609
C13-22'6-TriCB-(19)	%	105						2801609
C13-22'-DiCB-(4)	%	75						2801609
C13-233'44'55'6-OctaCB-(205)	%	112						2801609
C13-233'44'55'-HeptaCB-(189)	%	135						2801609
C13-233'44'-PentaCB-(105)	%	127						2801609
C13-233'55'-PentaCB-(111)	%	89						2801609
C13-23'44'55'-HexaCB-(167)	%	134						2801609
C13-2344'5-PentaCB-(114)	%	135						2801609
C13-23'44'5-PentaCB-(118)	%	130						2801609
C13-2'344'5-PentaCB-(123)	%	129						2801609
C13-2-MonoCB-(1)	%	81						2801609
C13-33'44'55'-HexaCB-(169)	%	117						2801609

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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) Recovery outside method limits, possibly due to matrix effects.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4725						
Sampling Date		2012/02/24 10:55						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP7-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-33'44'5-PentaCB-(126)	%	126						2801609
C13-33'44'-TetraCB-(77)	%	131						2801609
C13-344'5-TetraCB-(81)	%	122						2801609
C13-344'-TriCB-(37)	%	116						2801609
C13-44'-DiCB-(15)	%	111						2801609
C13-4-MonoCB-(3)	%	109						2801609
C13-DecaCB-(209)	%	73						2801609
C13-HexaCB-(156)+(157)	%	139						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.27	0.00042	0.10				2801609
3-MonoCB-(2)	ng/g	0.0378 J	0.00039	0.10				2801609
4-MonoCB-(3)	ng/g	0.19	0.00043	0.10				2801609
22'-DiCB-(4)	ng/g	3.00	0.0033	0.10				2801609
2,3-DiCB-(5)	ng/g	0.0743 J	0.0046	0.10				2801609
2,3'-DiCB-(6)	ng/g	1.10	0.0036	0.10				2801609
2,4-DiCB-(7)	ng/g	0.16	0.0043	0.10				2801609
2,4'-DiCB-(8)	ng/g	5.08	0.0033	0.10				2801609
2,5-DiCB-(9)	ng/g	0.24	0.0034	0.10				2801609
2,6-DiCB-(10)	ng/g	0.11	0.0024	0.10				2801609
3,3'-DiCB-(11)	ng/g	0.25	0.0036	0.10				2801609
DiCB-(12)+(13)	ng/g	0.62	0.0042	0.20				2801609
3,5-DiCB-(14)	ng/g	0.0035 U	0.0035	0.10				2801609
4,4'-DiCB-(15)	ng/g	13.4	0.0052	0.10				2801609
22'3-TriCB-(16)	ng/g	12.0	0.0020	0.10				2801609
22'4-TriCB-(17)	ng/g	9.41	0.0016	0.10				2801609
TriCB-(18)+(30)	ng/g	20.7	0.0012	0.20				2801609
22'6-TriCB-(19)	ng/g	6.59	0.0016	0.10				2801609
TriCB-(20) + (28)	ng/g	41.5	0.0058	0.20				2801609
TriCB-(21)+(33)	ng/g	9.86	0.0046	0.20				2801609
234'-TriCB-(22)	ng/g	11.9	0.0062	0.10				2801609
235-TriCB-(23)	ng/g	0.013 U (1)	0.013	0.10				2801609
236-TriCB-(24)	ng/g	0.24	0.0011	0.10				2801609
23'4-TriCB-(25)	ng/g	1.71	0.0042	0.10				2801609
TriCB-(26)+(29)	ng/g	4.50	0.0052	0.20				2801609
23'6-TriCB-(27)	ng/g	3.41	0.00096	0.10				2801609
24'5-TriCB-(31)	ng/g	19.7	0.0045	0.10				2801609
24'6-TriCB-(32)	ng/g	11.8	0.00091	0.10				2801609

RDL = Reportable Detection Limit
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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.0476 J	0.0050	0.10				2801609
33'4-TriCB-(35)	ng/g	0.45	0.0048	0.10				2801609
33'5-TriCB-(36)	ng/g	0.0043 U	0.0043	0.10				2801609
344'-TriCB-(37)	ng/g	18.6	0.0073	0.10				2801609
345-TriCB-(38)	ng/g	0.0443 J	0.0049	0.10				2801609
34'5-TriCB-(39)	ng/g	0.27	0.0056	0.10				2801609
TetraCB-(40)+(41)+(71)	ng/g	56.4	0.0022	0.30				2801609
22'34'-TetraCB-(42)	ng/g	22.9	0.0020	0.10				2801609
22'35-TetraCB-(43)	ng/g	3.33	0.0032	0.10				2801609
TetraCB-(44)+(47)+(65)	ng/g	122	0.0019	0.30				2801609
TetraCB-(45)+(51)	ng/g	20.8	0.0021	0.20				2801609
22'36'-TetraCB-(46)	ng/g	8.33	0.0027	0.10				2801609
22'45-TetraCB-(48)	ng/g	13.2	0.0024	0.10				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	55.8	0.0016	0.20				2801609
TetraCB-(50)+(53)	ng/g	16.6	0.0020	0.20				2801609
22'55'-TetraCB-(52)	ng/g	180	0.0017	0.10				2801609
22'66'-TetraCB-(54)	ng/g	0.24	0.0014	0.10				2801609
233'4-TetraCB-(55)	ng/g	0.41	0.0029	0.10				2801609
233'4'-Tetra CB(56)	ng/g	35.4	0.0026	0.10				2801609
233'5-TetraCB-(57)	ng/g	0.0021 U	0.0021	0.10				2801609
233'5'-TetraCB-(58)	ng/g	0.0026 U	0.0026	0.10				2801609
TetraCB-(59)+(62)+(75)	ng/g	8.42	0.0016	0.30				2801609
2344'-TetraCB -(60)	ng/g	13.0	0.0027	0.10				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	112	0.0023	0.40				2801609
234'5-TetraCB-(63)	ng/g	1.55	0.0020	0.10				2801609
234'6-TetraCB-(64)	ng/g	34.5	0.0013	0.10				2801609
23'44'-TetraCB-(66)	ng/g	51.8	0.0020	0.10				2801609
23'45-TetraCB-(67)	ng/g	1.42	0.0023	0.10				2801609
23'45'-TetraCB-(68)	ng/g	0.17 U (1)	0.17	0.10				2801609

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Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.24	0.0020	0.10				2801609
23'5'6-TetraCB-(73)	ng/g	0.0018 U	0.0018	0.10				2801609
33'44'-TetraCB-(77)	ng/g	8.67	0.0028	0.10	0.000100	0.000867		2801609
33'45-TetraCB-(78)	ng/g	0.0021 U	0.0021	0.10				2801609
33'45'-TetraCB(79)	ng/g	1.8 U (1)	1.8	0.10				2801609
33'55'-TetraCB-(80)	ng/g	0.0023 U	0.0023	0.10				2801609
344'5-TetraCB-(81)	ng/g	0.15	0.0030	0.10	0.000300	0.0000450		2801609
22'33'4-PentaCB-(82)	ng/g	30.2	0.0024	0.10				2801609
PentaCB-(83)+(99)	ng/g	136	0.0023	0.20				2801609
22'33'6-PentaCB-(84)	ng/g	97.1	0.0028	0.10				2801609
PentaCB-(85)+(116)+(117)	ng/g	38.9	0.0019	0.30				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	200	0.0019	0.60				2801609
PentaCB-(88)+(91)	ng/g	37.3	0.0023	0.20				2801609
22'346'-PentaCB-(89)	ng/g	2.27	0.0022	0.10				2801609
PentaCB-(90)+(101)+(113)	ng/g	282	0.0020	0.30				2801609
22'355'-PentaCB-(92)	ng/g	50.7	0.0021	0.10				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	8.61	0.0023	0.40				2801609
22'356'-PentaCB-(94)	ng/g	1.19	0.0028	0.10				2801609
22'35'6-PentaCB-(95)	ng/g	228	0.0020	0.10				2801609
22'366'-PentaCB-(96)	ng/g	1.43	0.00097	0.10				2801609
22'45'6-PentaCB-(103)	ng/g	1.36	0.0018	0.10				2801609
22'466'-PentaCB-(104)	ng/g	0.0012 U	0.0012	0.10				2801609
233'44'-PentaCB-(105)	ng/g	99.0	0.0063	0.10	0.0000300	0.00297		2801609
233'45-PentaCB-(106)	ng/g	0.0047 U	0.0047	0.10				2801609
233'4'5-PentaCB-(107)	ng/g	18.0	0.0058	0.10				2801609
PentaCB-(108)+(124)	ng/g	8.75	0.0052	0.20				2801609
PentaCB-(110)+(115)	ng/g	329	0.0018	0.20				2801609
233'55'-PentaCB-(111)	ng/g	0.0977 J	0.0019	0.10				2801609

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Maxxam Job #: B229575
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Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.0019 U	0.0019	0.10				2801609
2344'5-PentaCB-(114)	ng/g	4.28	0.0059	0.10	0.0000300	0.000128		2801609
23'44'5-PentaCB-(118)	ng/g	239	0.0063	0.10	0.0000300	0.00717		2801609
23'455'-PentaCB-(120)	ng/g	0.22	0.0015	0.10				2801609
23'45'6-PentaCB-(121)	ng/g	0.017 U (1)	0.017	0.10				2801609
233'4'5'-PentaCB-(122)	ng/g	2.50	0.0050	0.10				2801609
23'44'5'-PentaCB-(123)	ng/g	2.48	0.0066	0.10	0.0000300	0.0000744		2801609
33'44'5-PentaCB-(126)	ng/g	0.0680 J	0.0062	0.10	0.100	0.00680		2801609
33'455'-PentaCB-(127)	ng/g	0.34	0.0047	0.10				2801609
HexaCB-(128)+(166)	ng/g	57.9	0.010	0.20				2801609
HexaCB-(129)+(138)+(163)	ng/g	333	0.010	0.30				2801609
22'33'45'-HexaCB-(130)	ng/g	20.6	0.012	0.10				2801609
22'33'46-HexaCB-(131)	ng/g	4.64	0.011	0.10				2801609
22'33'46'-HexaCB-(132)	ng/g	146	0.014	0.10				2801609
22'33'55'-HexaCB-(133)	ng/g	4.09	0.011	0.10				2801609
HexaCB-(134)+(143)	ng/g	15.7	0.011	0.20				2801609
HexaCB-(135)+(151)	ng/g	102	0.0019	0.20				2801609
22'33'66'-HexaCB-(136)	ng/g	38.7	0.0013	0.10				2801609
22'344'5-HexaCB-(137)	ng/g	18.6	0.014	0.10				2801609
HexaCB-(139)+(140)	ng/g	6.89	0.012	0.20				2801609
22'3455'-HexaCB-(141)	ng/g	70.4	0.013	0.10				2801609
22'3456-HexaCB-(142)	ng/g	0.042 J	0.012	0.10				2801609
22'345'6-HexaCB-(144)	ng/g	13.2	0.0017	0.10				2801609
22'3466'-HexaCB-(145)	ng/g	0.12	0.0017	0.10				2801609
22'34'55'-HexaCB-(146)	ng/g	51.9	0.012	0.10				2801609
HexaCB-(147)+(149)	ng/g	282	0.012	0.20				2801609
22'34'56'-HexaCB-(148)	ng/g	0.30	0.0017	0.10				2801609
22'34'66'-HexaCB-(150)	ng/g	0.27	0.0016	0.10				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	0.19	0.0012	0.10				2801609
HexaCB-(153)+(168)	ng/g	245	0.0094	0.20				2801609
22'44'56'-HexaCB-(154)	ng/g	2.96	0.0018	0.10				2801609
22'44'66'-HexaCB-(155)	ng/g	0.0039 J	0.0018	0.10				2801609
HexaCB-(156)+(157)	ng/g	42.7	0.0052	0.20	0.0000300	0.00128		2801609
233'44'6-HexaCB-(158)	ng/g	38.1	0.0094	0.10				2801609
233'455'-HexaCB-(159)	ng/g	2.13	0.0042	0.10				2801609
233'456-HexaCB-(160)	ng/g	0.010 U	0.010	0.10				2801609
233'45'6-HexaCB-(161)	ng/g	0.0080 U	0.0080	0.10				2801609
233'4'55'-HexaCB-(162)	ng/g	0.80	0.0050	0.10				2801609
233'4'5'6-HexaCB-(164)	ng/g	27.6	0.0097	0.10				2801609
233'55'6-HexaCB-(165)	ng/g	0.056 J	0.011	0.10				2801609
23'44'55'-HexaCB-(167)	ng/g	16.0	0.0057	0.10	0.0000300	0.000480		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0058 U	0.0058	0.10	0.0300	0.000174		2801609
22'33'44'5-HeptaCB-(170)	ng/g	83.2	0.0088	0.10				2801609
HeptaCB-(171)+(173)	ng/g	21.8	0.0084	0.20				2801609
22'33'455'-HeptaCB-(172)	ng/g	10.5	0.0078	0.10				2801609
22'33'456'-HeptaCB-(174)	ng/g	83.9	0.0085	0.10				2801609
22'33'45'6-HeptaCB-(175)	ng/g	2.44	0.0014	0.10				2801609
22'33'466'-HeptaCB-(176)	ng/g	8.32	0.0011	0.10				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	39.0	0.0076	0.10				2801609
22'33'55'6-HeptaCB-(178)	ng/g	12.2	0.0015	0.10				2801609
22'33'566'-HeptaCB-(179)	ng/g	27.6	0.0011	0.10				2801609
HeptaCB-(180)+(193)	ng/g	149	0.0066	0.20				2801609
22'344'56-HeptaCB-(181)	ng/g	0.70	0.0089	0.10				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.21	0.0018	0.10				2801609
22'344'5'6-HeptaCB-(183)	ng/g	39.1	0.0065	0.10				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.0425 J	0.0013	0.10				2801609
22'3455'6-HeptaCB-(185)	ng/g	7.23	0.0096	0.10				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	0.015 U (1)	0.015	0.10				2801609
22'34'55'6-HeptaCB-(187)	ng/g	92.9	0.0017	0.10				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.0691 J	0.0019	0.10				2801609
233'44'55'-HeptaCB-(189)	ng/g	2.67	0.011	0.10	0.0000300	0.0000801		2801609
233'44'56-HeptaCB-(190)	ng/g	11.0	0.0061	0.10				2801609
233'44'5'6-HeptaCB-(191)	ng/g	2.19	0.0060	0.10				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0079 U	0.0079	0.10				2801609
22'33'44'55'-OctaCB-(194)	ng/g	33.3	0.0038	0.10				2801609
22'33'44'56-OctaCB-(195)	ng/g	12.7	0.0036	0.10				2801609
22'33'44'56'-OctaCB-(196)	ng/g	17.2	0.0042	0.10				2801609
22'33'44'66'OctaCB-(197)	ng/g	1.22	0.0041	0.10				2801609
OctaCB-(198)+(199)	ng/g	43.3	0.0047	0.20				2801609
22'33'4566'-OctaCB-(200)	ng/g	4.65	0.0028	0.10				2801609
22'33'45'66'-OctaCB-(201)	ng/g	4.65	0.0029	0.10				2801609
22'33'55'66'-OctaCB-(202)	ng/g	10.5	0.0053	0.10				2801609
22'344'55'6-OctaCB-(203)	ng/g	29.2	0.0049	0.10				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0079 J	0.0030	0.10				2801609
233'44'55'6-OctaCB-(205)	ng/g	1.84	0.0035	0.10				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	19.8	0.0091	0.10				2801609
22'33'44'566'-NonaCB-(207)	ng/g	1.81	0.0056	0.10				2801609
22'33'455'66'-NonaCB-(208)	ng/g	4.70	0.0093	0.10				2801609
DecaCB-(209)	ng/g	2.83	0.018	0.10				2801609
Monochlorobiphenyl	ng/g	0.500	0.00043	N/A				2801609
Dichlorobiphenyl	ng/g	24.1	0.0052	N/A				2801609
Trichlorobiphenyl	ng/g	173	0.0073	N/A				2801609
Tetrachlorobiphenyl	ng/g	768	0.0032	N/A				2801609
Pentachlorobiphenyl	ng/g	1820	0.0066	N/A				2801609
Hexachlorobiphenyl	ng/g	1540	0.014	N/A				2801609

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4726						
Sampling Date		2012/02/24 11:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Heptachlorobiphenyl	ng/g	594	0.011	N/A				2801609
Octachlorobiphenyl	ng/g	159	0.0053	N/A				2801609
Nonachlorobiphenyl	ng/g	26.3	0.0093	N/A				2801609
Decachlorobiphenyl	ng/g	2.83	0.018	N/A				2801609
Total PCB	ng/g	5110	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.0201		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	94						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	75						2801609
C13-22'33'44'5-HeptaCB-(170)	%	140						2801609
C13-22'33'455'66'-NonaCB-(208)	%	88						2801609
C13-22'33'55'66'-OctaCB-(202)	%	115						2801609
C13-22'33'55'6-HeptaCB-(178)	%	79						2801609
C13-22'344'55'-HeptaCB-(180)	%	141 (1)						2801609
C13-22'34'566'-HeptaCB-(188)	%	89						2801609
C13-22'44'66'-HexaCB-(155)	%	78						2801609
C13-22'466'-PentaCB-(104)	%	80 (2)						2801609
C13-22'66'-TetraCB-(54)	%	63						2801609
C13-22'6-TriCB-(19)	%	83						2801609
C13-22'-DiCB-(4)	%	83						2801609
C13-233'44'55'6-OctaCB-(205)	%	106						2801609
C13-233'44'55'-HeptaCB-(189)	%	130						2801609
C13-233'44'-PentaCB-(105)	%	122						2801609
C13-233'55'-PentaCB-(111)	%	86						2801609
C13-23'44'55'-HexaCB-(167)	%	105						2801609
C13-2344'5-PentaCB-(114)	%	123						2801609
C13-23'44'5-PentaCB-(118)	%	122						2801609

RDL = Reportable Detection Limit
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(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) Failed ion ratio, possibly due to matrix effects.

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP8-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	109						2801609
C13-2-MonoCB-(1)	%	86						2801609
C13-33'44'55'-HexaCB-(169)	%	98						2801609
C13-33'44'5-PentaCB-(126)	%	111						2801609
C13-33'44'-TetraCB-(77)	%	107						2801609
C13-344'5-TetraCB-(81)	%	106						2801609
C13-344'-TriCB-(37)	%	94						2801609
C13-44'-DiCB-(15)	%	92						2801609
C13-4-MonoCB-(3)	%	90						2801609
C13-DecaCB-(209)	%	53						2801609
C13-HexaCB-(156)+(157)	%	107						2801609

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.25	0.00041	0.10				2801609
3-MonoCB-(2)	ng/g	0.0212 J	0.00038	0.10				2801609
4-MonoCB-(3)	ng/g	0.13	0.00042	0.10				2801609
22'-DiCB-(4)	ng/g	0.47	0.0023	0.10				2801609
2,3-DiCB-(5)	ng/g	0.0223 J	0.0052	0.10				2801609
2,3'-DiCB-(6)	ng/g	0.19	0.0041	0.10				2801609
2,4-DiCB-(7)	ng/g	0.0508 J	0.0049	0.10				2801609
2,4'-DiCB-(8)	ng/g	0.83	0.0037	0.10				2801609
2,5-DiCB-(9)	ng/g	0.0537 J	0.0038	0.10				2801609
2,6-DiCB-(10)	ng/g	0.0278 J	0.0016	0.10				2801609
3,3'-DiCB-(11)	ng/g	0.0220 J	0.0041	0.10				2801609
DiCB-(12)+(13)	ng/g	0.120 J	0.0048	0.20				2801609
3,5-DiCB-(14)	ng/g	0.0040 U	0.0040	0.10				2801609
4,4'-DiCB-(15)	ng/g	2.42	0.0059	0.10				2801609
22'3-TriCB-(16)	ng/g	0.95	0.0027	0.10				2801609
22'4-TriCB-(17)	ng/g	0.82	0.0022	0.10				2801609
TriCB-(18)+(30)	ng/g	1.83	0.0016	0.20				2801609
22'6-TriCB-(19)	ng/g	0.97	0.0021	0.10				2801609
TriCB-(20) + (28)	ng/g	3.93	0.0014	0.20				2801609
TriCB-(21)+(33)	ng/g	1.08	0.0011	0.20				2801609
234'-TriCB-(22)	ng/g	1.01	0.0016	0.10				2801609
235-TriCB-(23)	ng/g	0.0022 U (1)	0.0022	0.10				2801609
236-TriCB-(24)	ng/g	0.0227 J	0.0016	0.10				2801609
23'4-TriCB-(25)	ng/g	0.20	0.0010	0.10				2801609
TriCB-(26)+(29)	ng/g	0.42	0.0013	0.20				2801609
23'6-TriCB-(27)	ng/g	0.51	0.0013	0.10				2801609
24'5-TriCB-(31)	ng/g	2.13	0.0011	0.10				2801609
24'6-TriCB-(32)	ng/g	1.23	0.0012	0.10				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.0039 U (1)	0.0039	0.10				2801609
33'4-TriCB-(35)	ng/g	0.0483 J	0.0012	0.10				2801609
33'5-TriCB-(36)	ng/g	0.0011 U	0.0011	0.10				2801609
344'-TriCB-(37)	ng/g	1.98	0.0018	0.10				2801609
345-TriCB-(38)	ng/g	0.0092 U (1)	0.0092	0.10				2801609
34'5-TriCB-(39)	ng/g	0.0206 J	0.0014	0.10				2801609
TetraCB-(40)+(41)+(71)	ng/g	9.41	0.0025	0.30				2801609
22'34'-TetraCB-(42)	ng/g	4.28	0.0022	0.10				2801609
22'35-TetraCB-(43)	ng/g	0.30	0.0036	0.10				2801609
TetraCB-(44)+(47)+(65)	ng/g	20.0	0.0021	0.30				2801609
TetraCB-(45)+(51)	ng/g	4.86	0.0024	0.20				2801609
22'36'-TetraCB-(46)	ng/g	1.89	0.0031	0.10				2801609
22'45-TetraCB-(48)	ng/g	1.01	0.0027	0.10				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	8.75	0.0018	0.20				2801609
TetraCB-(50)+(53)	ng/g	4.13	0.0023	0.20				2801609
22'55'-TetraCB-(52)	ng/g	24.9	0.0020	0.10				2801609
22'66'-TetraCB-(54)	ng/g	0.0711 J	0.0023	0.10				2801609
233'4-TetraCB-(55)	ng/g	0.0013 U	0.0013	0.10				2801609
233'4'-Tetra CB(56)	ng/g	2.81	0.0012	0.10				2801609
233'5-TetraCB-(57)	ng/g	0.00094 U	0.00094	0.10				2801609
233'5'-TetraCB-(58)	ng/g	0.0012 U	0.0012	0.10				2801609
TetraCB-(59)+(62)+(75)	ng/g	1.65	0.0018	0.30				2801609
2344'-TetraCB -(60)	ng/g	0.85	0.0012	0.10				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	10.9	0.0010	0.40				2801609
234'5-TetraCB-(63)	ng/g	0.10	0.00089	0.10				2801609
234'6-TetraCB-(64)	ng/g	4.14	0.0015	0.10				2801609
23'44'-TetraCB-(66)	ng/g	5.32	0.00089	0.10				2801609
23'45-TetraCB-(67)	ng/g	0.12	0.0010	0.10				2801609

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.0432 J	0.0010	0.10				2801609
23'55'-TetraCB-(72)	ng/g	0.0473 J	0.00089	0.10				2801609
23'5'6-TetraCB-(73)	ng/g	0.0020 U	0.0020	0.10				2801609
33'44'-TetraCB-(77)	ng/g	1.01	0.0013	0.10	0.000100	0.000101		2801609
33'45-TetraCB-(78)	ng/g	0.00094 U	0.00094	0.10				2801609
33'45'-TetraCB(79)	ng/g	0.29	0.00082	0.10				2801609
33'55'-TetraCB-(80)	ng/g	0.0010 U	0.0010	0.10				2801609
344'5-TetraCB-(81)	ng/g	0.0013 U	0.0013	0.10	0.000300	0.000000390		2801609
22'33'4-PentaCB-(82)	ng/g	5.03	0.0021	0.10				2801609
PentaCB-(83)+(99)	ng/g	22.7	0.0020	0.20				2801609
22'33'6-PentaCB-(84)	ng/g	17.4	0.0025	0.10				2801609
PentaCB-(85)+(116)+(117)	ng/g	6.16	0.0017	0.30				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	30.4	0.0017	0.60				2801609
PentaCB-(88)+(91)	ng/g	7.42	0.0020	0.20				2801609
22'346'-PentaCB-(89)	ng/g	0.43	0.0020	0.10				2801609
PentaCB-(90)+(101)+(113)	ng/g	65.2	0.0018	0.30				2801609
22'355'-PentaCB-(92)	ng/g	10.9	0.0018	0.10				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	1.87	0.0020	0.40				2801609
22'356'-PentaCB-(94)	ng/g	0.26	0.0024	0.10				2801609
22'35'6-PentaCB-(95)	ng/g	64.5	0.0017	0.10				2801609
22'366'-PentaCB-(96)	ng/g	0.33	0.0017	0.10				2801609
22'45'6-PentaCB-(103)	ng/g	0.18	0.0016	0.10				2801609
22'466'-PentaCB-(104)	ng/g	0.0024 U (1)	0.0024	0.10				2801609
233'44'-PentaCB-(105)	ng/g	11.4	0.0041	0.10	0.0000300	0.000342		2801609
233'45-PentaCB-(106)	ng/g	0.0030 U	0.0030	0.10				2801609
233'4'5-PentaCB-(107)	ng/g	1.94	0.0038	0.10				2801609
PentaCB-(108)+(124)	ng/g	1.21	0.0033	0.20				2801609
PentaCB-(110)+(115)	ng/g	74.0	0.0016	0.20				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/g	0.0017 U	0.0017	0.10				2801609
233'56-PentaCB-(112)	ng/g	0.0017 U	0.0017	0.10				2801609
2344'5-PentaCB-(114)	ng/g	0.44	0.0038	0.10	0.0000300	0.0000132		2801609
23'44'5-PentaCB-(118)	ng/g	33.4	0.0041	0.10	0.0000300	0.00100		2801609
23'455'-PentaCB-(120)	ng/g	0.023 U (1)	0.023	0.10				2801609
23'45'6-PentaCB-(121)	ng/g	0.0017 U	0.0017	0.10				2801609
233'4'5'-PentaCB-(122)	ng/g	0.42	0.0032	0.10				2801609
23'44'5'-PentaCB-(123)	ng/g	0.53	0.0043	0.10	0.0000300	0.0000159		2801609
33'44'5-PentaCB-(126)	ng/g	0.021 U (1)	0.021	0.10	0.100	0.00210		2801609
33'455'-PentaCB-(127)	ng/g	0.051 U (1)	0.051	0.10				2801609
HexaCB-(128)+(166)	ng/g	20.5	0.0073	0.20				2801609
HexaCB-(129)+(138)+(163)	ng/g	203	0.0073	0.30				2801609
22'33'45'-HexaCB-(130)	ng/g	6.54	0.0083	0.10				2801609
22'33'46-HexaCB-(131)	ng/g	1.20	0.0075	0.10				2801609
22'33'46'-HexaCB-(132)	ng/g	77.1	0.010	0.10				2801609
22'33'55'-HexaCB-(133)	ng/g	1.67	0.0077	0.10				2801609
HexaCB-(134)+(143)	ng/g	6.17	0.0077	0.20				2801609
HexaCB-(135)+(151)	ng/g	110	0.0024	0.20				2801609
22'33'66'-HexaCB-(136)	ng/g	34.3	0.0016	0.10				2801609
22'344'5-HexaCB-(137)	ng/g	4.40	0.0099	0.10				2801609
HexaCB-(139)+(140)	ng/g	1.24	0.0085	0.20				2801609
22'3455'-HexaCB-(141)	ng/g	68.3	0.0090	0.10				2801609
22'3456-HexaCB-(142)	ng/g	0.0080 U	0.0080	0.10				2801609
22'345'6-HexaCB-(144)	ng/g	12.8	0.0022	0.10				2801609
22'3466'-HexaCB-(145)	ng/g	0.0367 J	0.0021	0.10				2801609
22'34'55'-HexaCB-(146)	ng/g	30.9	0.0084	0.10				2801609
HexaCB-(147)+(149)	ng/g	245	0.0085	0.20				2801609
22'34'56'-HexaCB-(148)	ng/g	0.0247 J	0.0021	0.10				2801609

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Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/g	0.0463 J	0.0021	0.10				2801609
22'3566'-HexaCB-(152)	ng/g	0.0394 J	0.0015	0.10				2801609
HexaCB-(153)+(168)	ng/g	219	0.0065	0.20				2801609
22'44'56'-HexaCB-(154)	ng/g	0.0023 U	0.0023	0.10				2801609
22'44'66'-HexaCB-(155)	ng/g	0.0023 U	0.0023	0.10				2801609
HexaCB-(156)+(157)	ng/g	8.14	0.0054	0.20	0.0000300	0.000244		2801609
233'44'6-HexaCB-(158)	ng/g	18.3	0.0065	0.10				2801609
233'455'-HexaCB-(159)	ng/g	3.89	0.0043	0.10				2801609
233'456-HexaCB-(160)	ng/g	0.0072 U	0.0072	0.10				2801609
233'45'6-HexaCB-(161)	ng/g	0.0056 U	0.0056	0.10				2801609
233'4'55'-HexaCB-(162)	ng/g	0.0051 U	0.0051	0.10				2801609
233'4'5'6-HexaCB-(164)	ng/g	16.6	0.0068	0.10				2801609
233'55'6-HexaCB-(165)	ng/g	0.0076 U	0.0076	0.10				2801609
23'44'55'-HexaCB-(167)	ng/g	5.35	0.0058	0.10	0.0000300	0.000161		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0059 U	0.0059	0.10	0.0300	0.000177		2801609
22'33'44'5-HeptaCB-(170)	ng/g	107	0.0051	0.10				2801609
HeptaCB-(171)+(173)	ng/g	28.9	0.0049	0.20				2801609
22'33'455'-HeptaCB-(172)	ng/g	15.3	0.0045	0.10				2801609
22'33'456'-HeptaCB-(174)	ng/g	144	0.0049	0.10				2801609
22'33'45'6-HeptaCB-(175)	ng/g	3.93	0.0015	0.10				2801609
22'33'466'-HeptaCB-(176)	ng/g	14.1	0.0011	0.10				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	61.8	0.0044	0.10				2801609
22'33'55'6-HeptaCB-(178)	ng/g	21.3	0.0015	0.10				2801609
22'33'566'-HeptaCB-(179)	ng/g	44.8	0.0011	0.10				2801609
HeptaCB-(180)+(193)	ng/g	234	0.0038	0.20				2801609
22'344'56-HeptaCB-(181)	ng/g	0.25	0.0051	0.10				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.026 U (1)	0.026	0.10				2801609
22'344'5'6-HeptaCB-(183)	ng/g	66.5	0.0038	0.10				2801609

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP9-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/g	0.0111 J	0.0014	0.10				2801609
22'3455'6-HeptaCB-(185)	ng/g	8.31	0.0056	0.10				2801609
22'34566'-HeptaCB-(186)	ng/g	0.0014 U	0.0014	0.10				2801609
22'34'55'6-HeptaCB-(187)	ng/g	165	0.0018	0.10				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.0158 J	0.0020	0.10				2801609
233'44'55'-HeptaCB-(189)	ng/g	2.89	0.0062	0.10	0.0000300	0.0000867		2801609
233'44'56-HeptaCB-(190)	ng/g	17.1	0.0035	0.10				2801609
233'44'5'6-HeptaCB-(191)	ng/g	3.27	0.0035	0.10				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0046 U	0.0046	0.10				2801609
22'33'44'55'-OctaCB-(194)	ng/g	55.2	0.0047	0.10				2801609
22'33'44'56-OctaCB-(195)	ng/g	22.9	0.0044	0.10				2801609
22'33'44'56'-OctaCB-(196)	ng/g	29.1	0.0048	0.10				2801609
22'33'44'66'OctaCB-(197)	ng/g	2.35	0.0046	0.10				2801609
OctaCB-(198)+(199)	ng/g	70.3	0.0053	0.20				2801609
22'33'4566'-OctaCB-(200)	ng/g	8.21	0.0032	0.10				2801609
22'33'45'66'-OctaCB-(201)	ng/g	7.97	0.0033	0.10				2801609
22'33'55'66'-OctaCB-(202)	ng/g	15.7	0.0061	0.10				2801609
22'344'55'6-OctaCB-(203)	ng/g	46.6	0.0056	0.10				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0032 U	0.0032	0.10				2801609
233'44'55'6-OctaCB-(205)	ng/g	3.48	0.0043	0.10				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	20.6	0.0054	0.10				2801609
22'33'44'566'-NonaCB-(207)	ng/g	2.07	0.0033	0.10				2801609
22'33'455'66'-NonaCB-(208)	ng/g	4.38	0.0055	0.10				2801609
DecaCB-(209)	ng/g	1.36	0.0090	0.10				2801609
Monochlorobiphenyl	ng/g	0.400	0.00042	N/A				2801609
Dichlorobiphenyl	ng/g	4.20	0.0059	N/A				2801609
Trichlorobiphenyl	ng/g	17.1	0.0027	N/A				2801609
Tetrachlorobiphenyl	ng/g	107	0.0036	N/A				2801609
Pentachlorobiphenyl	ng/g	356	0.0043	N/A				2801609

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP9-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Hexachlorobiphenyl	ng/g	1090	0.010	N/A				2801609
Heptachlorobiphenyl	ng/g	938	0.0062	N/A				2801609
Octachlorobiphenyl	ng/g	262	0.0061	N/A				2801609
Nonachlorobiphenyl	ng/g	27.0	0.0055	N/A				2801609
Decachlorobiphenyl	ng/g	1.36	0.0090	N/A				2801609
Total PCB	ng/g	2810	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00424		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	93						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	93						2801609
C13-22'33'44'5-HeptaCB-(170)	%	156 (1)						2801609
C13-22'33'455'66'-NonaCB-(208)	%	100						2801609
C13-22'33'55'66'-OctaCB-(202)	%	135						2801609
C13-22'33'55'6-HeptaCB-(178)	%	88						2801609
C13-22'344'55'-HeptaCB-(180)	%	155 (1)						2801609
C13-22'34'566'-HeptaCB-(188)	%	95						2801609
C13-22'44'66'-HexaCB-(155)	%	87						2801609
C13-22'466'-PentaCB-(104)	%	85						2801609
C13-22'66'-TetraCB-(54)	%	70						2801609
C13-22'6-TriCB-(19)	%	94						2801609
C13-22'-DiCB-(4)	%	93						2801609
C13-233'44'55'6-OctaCB-(205)	%	112						2801609
C13-233'44'55'-HeptaCB-(189)	%	135						2801609
C13-233'44'-PentaCB-(105)	%	122						2801609
C13-233'55'-PentaCB-(111)	%	92						2801609
C13-23'44'55'-HexaCB-(167)	%	115						2801609
C13-2344'5-PentaCB-(114)	%	122						2801609
C13-23'44'5-PentaCB-(118)	%	114						2801609

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(1) Recovery outside method limits, possibly due to matrix effects.

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4727						
Sampling Date		2012/02/24 11:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**8001-120224-ITSS-TP9-0.0-0.5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-2'344'5-PentaCB-(123)	%	115						2801609
C13-2-MonoCB-(1)	%	99						2801609
C13-33'44'55'-HexaCB-(169)	%	103						2801609
C13-33'44'5-PentaCB-(126)	%	112						2801609
C13-33'44'-TetraCB-(77)	%	115						2801609
C13-344'5-TetraCB-(81)	%	112						2801609
C13-344'-TriCB-(37)	%	97						2801609
C13-44'-DiCB-(15)	%	102						2801609
C13-4-MonoCB-(3)	%	104						2801609
C13-DecaCB-(209)	%	75						2801609
C13-HexaCB-(156)+(157)	%	117						2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.020	0.00014	0.010				2801609
3-MonoCB-(2)	ng/g	0.00367 J	0.00013	0.010				2801609
4-MonoCB-(3)	ng/g	0.016	0.00014	0.010				2801609
22'-DiCB-(4)	ng/g	0.727	0.00023	0.010				2801609
2,3-DiCB-(5)	ng/g	0.014	0.00047	0.010				2801609
2,3'-DiCB-(6)	ng/g	0.160	0.00036	0.010				2801609
2,4-DiCB-(7)	ng/g	0.021	0.00044	0.010				2801609
2,4'-DiCB-(8)	ng/g	0.695	0.00033	0.010				2801609
2,5-DiCB-(9)	ng/g	0.030	0.00034	0.010				2801609
2,6-DiCB-(10)	ng/g	0.026	0.00016	0.010				2801609
3,3'-DiCB-(11)	ng/g	0.059	0.00036	0.010				2801609
DiCB-(12)+(13)	ng/g	0.057	0.00043	0.020				2801609
3,5-DiCB-(14)	ng/g	0.00036 U	0.00036	0.010				2801609
4,4'-DiCB-(15)	ng/g	0.979	0.00053	0.010				2801609
22'3-TriCB-(16)	ng/g	1.37	0.00025	0.010				2801609
22'4-TriCB-(17)	ng/g	1.12	0.00021	0.010				2801609
TriCB-(18)+(30)	ng/g	2.13	0.00015	0.020				2801609
22'6-TriCB-(19)	ng/g	0.491	0.00020	0.010				2801609
TriCB-(20) + (28)	ng/g	2.73	0.00053	0.020				2801609
TriCB-(21)+(33)	ng/g	0.851	0.00042	0.020				2801609
234'-TriCB-(22)	ng/g	1.03	0.00057	0.010				2801609
235-TriCB-(23)	ng/g	0.00269 J	0.00058	0.010				2801609
236-TriCB-(24)	ng/g	0.039	0.00015	0.010				2801609
23'4-TriCB-(25)	ng/g	0.169	0.00039	0.010				2801609
TriCB-(26)+(29)	ng/g	0.432	0.00048	0.020				2801609
23'6-TriCB-(27)	ng/g	0.246	0.00012	0.010				2801609
24'5-TriCB-(31)	ng/g	1.63	0.00042	0.010				2801609
24'6-TriCB-(32)	ng/g	0.753	0.00012	0.010				2801609
23'5'-TriCB-(34)	ng/g	0.00560 J	0.00046	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/g	0.034	0.00044	0.010				2801609
33'5-TriCB-(36)	ng/g	0.00039 U	0.00039	0.010				2801609
344'-TriCB-(37)	ng/g	0.970	0.00067	0.010				2801609
345-TriCB-(38)	ng/g	0.00227 J	0.00045	0.010				2801609
34'5-TriCB-(39)	ng/g	0.010	0.00051	0.010				2801609
TetraCB-(40)+(41)+(71)	ng/g	2.40	0.00024	0.030				2801609
22'34'-TetraCB-(42)	ng/g	0.879	0.00021	0.010				2801609
22'35-TetraCB-(43)	ng/g	0.128	0.00034	0.010				2801609
TetraCB-(44)+(47)+(65)	ng/g	3.87	0.00020	0.030				2801609
TetraCB-(45)+(51)	ng/g	1.31	0.00023	0.020				2801609
22'36'-TetraCB-(46)	ng/g	0.642	0.00029	0.010				2801609
22'45-TetraCB-(48)	ng/g	0.523	0.00025	0.010				2801609
TetraCB-(49)+TetraCB-(69)	ng/g	1.76	0.00017	0.020				2801609
TetraCB-(50)+(53)	ng/g	1.30	0.00022	0.020				2801609
22'55'-TetraCB-(52)	ng/g	4.92	0.00018	0.010				2801609
22'66'-TetraCB-(54)	ng/g	0.020	0.00016	0.010				2801609
233'4-TetraCB-(55)	ng/g	0.021 U (1)	0.021	0.010				2801609
233'4'-Tetra CB(56)	ng/g	1.09	0.00025	0.010				2801609
233'5-TetraCB-(57)	ng/g	0.492	0.00020	0.010				2801609
233'5'-TetraCB-(58)	ng/g	0.00025 U	0.00025	0.010				2801609
TetraCB-(59)+(62)+(75)	ng/g	0.471	0.00017	0.030				2801609
2344'-TetraCB -(60)	ng/g	0.490	0.00026	0.010				2801609
TetraCB-(61)+(70)+(74)+(76)	ng/g	3.73	0.00022	0.040				2801609
234'5-TetraCB-(63)	ng/g	0.046	0.00019	0.010				2801609
234'6-TetraCB-(64)	ng/g	0.780	0.00014	0.010				2801609
23'44'-TetraCB-(66)	ng/g	1.73	0.00019	0.010				2801609
23'45-TetraCB-(67)	ng/g	0.068	0.00022	0.010				2801609
23'45'-TetraCB-(68)	ng/g	0.0063 U (1)	0.0063	0.010				2801609

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.00989 J	0.00019	0.010				2801609
23'5'6-TetraCB-(73)	ng/g	0.00019 U	0.00019	0.010				2801609
33'44'-TetraCB-(77)	ng/g	0.357	0.00027	0.010	0.000100	0.0000357		2801609
33'45-TetraCB-(78)	ng/g	0.00020 U	0.00020	0.010				2801609
33'45'-TetraCB(79)	ng/g	0.072	0.00017	0.010				2801609
33'55'-TetraCB-(80)	ng/g	0.00022 U	0.00022	0.010				2801609
344'5-TetraCB-(81)	ng/g	0.0057 U (1)	0.0057	0.010	0.000300	0.00000171		2801609
22'33'4-PentaCB-(82)	ng/g	1.33	0.000090	0.010				2801609
PentaCB-(83)+(99)	ng/g	6.31	0.000088	0.020				2801609
22'33'6-PentaCB-(84)	ng/g	7.14	0.00011	0.010				2801609
PentaCB-(85)+(116)+(117)	ng/g	1.87	0.000072	0.030				2801609
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	8.16	0.000074	0.060				2801609
PentaCB-(88)+(91)	ng/g	2.98	0.000087	0.020				2801609
22'346'-PentaCB-(89)	ng/g	0.177	0.000084	0.010				2801609
PentaCB-(90)+(101)+(113)	ng/g	12.0	0.000076	0.030				2801609
22'355'-PentaCB-(92)	ng/g	2.36	0.000079	0.010				2801609
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.704	0.000088	0.040				2801609
22'356'-PentaCB-(94)	ng/g	0.101	0.00011	0.010				2801609
22'35'6-PentaCB-(95)	ng/g	18.0	0.000075	0.010				2801609
22'366'-PentaCB-(96)	ng/g	0.131	0.00024	0.010				2801609
22'45'6-PentaCB-(103)	ng/g	0.086	0.000070	0.010				2801609
22'466'-PentaCB-(104)	ng/g	0.00120 J	0.00028	0.010				2801609
233'44'-PentaCB-(105)	ng/g	3.35	0.00092	0.010	0.0000300	0.000101		2801609
233'45-PentaCB-(106)	ng/g	0.00069 U	0.00069	0.010				2801609
233'4'5-PentaCB-(107)	ng/g	0.603	0.00085	0.010				2801609
PentaCB-(108)+(124)	ng/g	0.276	0.00075	0.020				2801609
PentaCB-(110)+(115)	ng/g	21.5	0.000067	0.020				2801609
233'55'-PentaCB-(111)	ng/g	0.000073 U	0.000073	0.010				2801609

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Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.000074 U	0.000074	0.010				2801609
2344'5-PentaCB-(114)	ng/g	0.133	0.00087	0.010	0.0000300	0.00000399		2801609
23'44'5-PentaCB-(118)	ng/g	7.84	0.00092	0.010	0.0000300	0.000235		2801609
23'455'-PentaCB-(120)	ng/g	0.00957 J	0.000056	0.010				2801609
23'45'6-PentaCB-(121)	ng/g	0.000072 U	0.000072	0.010				2801609
233'4'5'-PentaCB-(122)	ng/g	0.084	0.00073	0.010				2801609
23'44'5'-PentaCB-(123)	ng/g	0.114	0.00096	0.010	0.0000300	0.00000342		2801609
33'44'5-PentaCB-(126)	ng/g	0.011	0.00091	0.010	0.100	0.00110		2801609
33'455'-PentaCB-(127)	ng/g	0.015	0.00068	0.010				2801609
HexaCB-(128)+(166)	ng/g	4.37	0.0024	0.020				2801609
HexaCB-(129)+(138)+(163)	ng/g	28.0	0.0024	0.030				2801609
22'33'45'-HexaCB-(130)	ng/g	1.62	0.0027	0.010				2801609
22'33'46-HexaCB-(131)	ng/g	0.394	0.0024	0.010				2801609
22'33'46'-HexaCB-(132)	ng/g	14.6	0.0032	0.010				2801609
22'33'55'-HexaCB-(133)	ng/g	0.355	0.0025	0.010				2801609
HexaCB-(134)+(143)	ng/g	1.70	0.0025	0.020				2801609
HexaCB-(135)+(151)	ng/g	15.4	0.00030	0.020				2801609
22'33'66'-HexaCB-(136)	ng/g	5.18	0.00021	0.010				2801609
22'344'5-HexaCB-(137)	ng/g	1.10	0.0032	0.010				2801609
HexaCB-(139)+(140)	ng/g	0.584	0.0028	0.020				2801609
22'3455'-HexaCB-(141)	ng/g	6.39	0.0029	0.010				2801609
22'3456-HexaCB-(142)	ng/g	0.0026 U	0.0026	0.010				2801609
22'345'6-HexaCB-(144)	ng/g	1.65	0.00028	0.010				2801609
22'3466'-HexaCB-(145)	ng/g	0.013	0.00027	0.010				2801609
22'34'55'-HexaCB-(146)	ng/g	5.05	0.0027	0.010				2801609
HexaCB-(147)+(149)	ng/g	39.6	0.0028	0.020				2801609
22'34'56'-HexaCB-(148)	ng/g	0.019	0.00027	0.010				2801609
22'34'66'-HexaCB-(150)	ng/g	0.051	0.00027	0.010				2801609
22'3566'-HexaCB-(152)	ng/g	0.020	0.00019	0.010				2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	20.5	0.0021	0.020				2801609
22'44'56'-HexaCB-(154)	ng/g	0.244	0.00029	0.010				2801609
22'44'66'-HexaCB-(155)	ng/g	0.00112 J	0.00029	0.010				2801609
HexaCB-(156)+(157)	ng/g	1.99	0.0011	0.020	0.0000300	0.0000597		2801609
233'44'6-HexaCB-(158)	ng/g	2.94	0.0021	0.010				2801609
233'455'-HexaCB-(159)	ng/g	0.376	0.00091	0.010				2801609
233'456-HexaCB-(160)	ng/g	0.0023 U	0.0023	0.010				2801609
233'45'6-HexaCB-(161)	ng/g	0.0018 U	0.0018	0.010				2801609
233'4'55'-HexaCB-(162)	ng/g	0.0011 U	0.0011	0.010				2801609
233'4'5'6-HexaCB-(164)	ng/g	2.63	0.0022	0.010				2801609
233'55'6-HexaCB-(165)	ng/g	0.0025 U	0.0025	0.010				2801609
23'44'55'-HexaCB-(167)	ng/g	0.952	0.0012	0.010	0.0000300	0.0000286		2801609
33'44'55'-HexaCB-(169)	ng/g	0.0013 U	0.0013	0.010	0.0300	0.0000390		2801609
22'33'44'5-HeptaCB-(170)	ng/g	11.9	0.0013	0.010				2801609
HeptaCB-(171)+(173)	ng/g	3.79	0.0012	0.020				2801609
22'33'455'-HeptaCB-(172)	ng/g	1.78	0.0012	0.010				2801609
22'33'456'-HeptaCB-(174)	ng/g	17.1	0.0012	0.010				2801609
22'33'45'6-HeptaCB-(175)	ng/g	0.594	0.00022	0.010				2801609
22'33'466'-HeptaCB-(176)	ng/g	2.07	0.00016	0.010				2801609
22'33'45'6'-HeptaCB-(177)	ng/g	7.00	0.0011	0.010				2801609
22'33'55'6-HeptaCB-(178)	ng/g	2.71	0.00023	0.010				2801609
22'33'566'-HeptaCB-(179)	ng/g	6.40	0.00016	0.010				2801609
HeptaCB-(180)+(193)	ng/g	26.6	0.00097	0.020				2801609
22'344'56-HeptaCB-(181)	ng/g	0.075	0.0013	0.010				2801609
22'344'56'-HeptaCB-(182)	ng/g	0.00027 U	0.00027	0.010				2801609
22'344'5'6-HeptaCB-(183)	ng/g	10.3	0.00096	0.010				2801609
22'344'66'-HeptaCB-(184)	ng/g	0.020	0.00020	0.010				2801609
22'3455'6-HeptaCB-(185)	ng/g	0.0014 U	0.0014	0.010				2801609
22'34566'-HeptaCB-(186)	ng/g	0.00021 U	0.00021	0.010				2801609

RDL = Reportable Detection Limit
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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/g	20.3	0.00026	0.010				2801609
22'34'566'-HeptaCB-(188)	ng/g	0.035	0.00029	0.010				2801609
233'44'55'-HeptaCB-(189)	ng/g	0.386	0.0014	0.010	0.0000300	0.0000116		2801609
233'44'56-HeptaCB-(190)	ng/g	1.66	0.00089	0.010				2801609
233'44'5'6-HeptaCB-(191)	ng/g	0.395	0.00089	0.010				2801609
233'455'6-HeptaCB-(192)	ng/g	0.0012 U	0.0012	0.010				2801609
22'33'44'55'-OctaCB-(194)	ng/g	5.83	0.0012	0.010				2801609
22'33'44'56-OctaCB-(195)	ng/g	2.52	0.0011	0.010				2801609
22'33'44'56'-OctaCB-(196)	ng/g	4.55	0.00088	0.010				2801609
22'33'44'66'OctaCB-(197)	ng/g	0.564	0.00085	0.010				2801609
OctaCB-(198)+(199)	ng/g	10.9	0.00098	0.020				2801609
22'33'4566'-OctaCB-(200)	ng/g	1.33	0.00058	0.010				2801609
22'33'45'66'-OctaCB-(201)	ng/g	1.68	0.00061	0.010				2801609
22'33'55'66'-OctaCB-(202)	ng/g	3.13	0.0011	0.010				2801609
22'344'55'6-OctaCB-(203)	ng/g	8.12	0.0010	0.010				2801609
22'344'566'-OctaCB-(204)	ng/g	0.0044 U (1)	0.0044	0.010				2801609
233'44'55'6-OctaCB-(205)	ng/g	0.517	0.0011	0.010				2801609
22'33'44'55'6-NonaCB-(206)	ng/g	7.22	0.0011	0.010				2801609
22'33'44'566'-NonaCB-(207)	ng/g	0.732	0.00068	0.010				2801609
22'33'455'66'-NonaCB-(208)	ng/g	1.79	0.0011	0.010				2801609
DecaCB-(209)	ng/g	0.809	0.0033	0.010				2801609
Monochlorobiphenyl	ng/g	0.0397	0.00014	N/A				2801609
Dichlorobiphenyl	ng/g	2.77	0.00053	N/A				2801609
Trichlorobiphenyl	ng/g	14.0	0.00067	N/A				2801609
Tetrachlorobiphenyl	ng/g	27.1	0.00034	N/A				2801609
Pentachlorobiphenyl	ng/g	95.3	0.00096	N/A				2801609
Hexachlorobiphenyl	ng/g	156	0.0032	N/A				2801609
Heptachlorobiphenyl	ng/g	113	0.0014	N/A				2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B229575
Report Date: 2012/03/30

Apex Laboratories
Client Project #: A12B377

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Octachlorobiphenyl	ng/g	39.1	0.0012	N/A				2801609
Nonachlorobiphenyl	ng/g	9.74	0.0011	N/A				2801609
Decachlorobiphenyl	ng/g	0.809	0.0033	N/A				2801609
Total PCB	ng/g	458	N/A	N/A				2801609
TOTAL TOXIC EQUIVALENCY	ng/g					0.00162		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	119						2801609
C13-22'33'44'55'6-NonaCB-(206)	%	72						2801609
C13-22'33'44'5-HeptaCB-(170)	%	195 (1)						2801609
C13-22'33'455'66'-NonaCB-(208)	%	124						2801609
C13-22'33'55'66'-OctaCB-(202)	%	188 (1)						2801609
C13-22'33'55'6-HeptaCB-(178)	%	77						2801609
C13-22'344'55'-HeptaCB-(180)	%	202 (1)						2801609
C13-22'34'566'-HeptaCB-(188)	%	100						2801609
C13-22'44'66'-HexaCB-(155)	%	105						2801609
C13-22'466'-PentaCB-(104)	%	87						2801609
C13-22'66'-TetraCB-(54)	%	79						2801609
C13-22'6-TriCB-(19)	%	96						2801609
C13-22'-DiCB-(4)	%	80						2801609
C13-233'44'55'6-OctaCB-(205)	%	100						2801609
C13-233'44'55'-HeptaCB-(189)	%	149						2801609
C13-233'44'-PentaCB-(105)	%	101						2801609
C13-233'55'-PentaCB-(111)	%	74						2801609
C13-23'44'55'-HexaCB-(167)	%	104						2801609
C13-2344'5-PentaCB-(114)	%	105						2801609
C13-23'44'5-PentaCB-(118)	%	105						2801609
C13-2'344'5-PentaCB-(123)	%	106						2801609
C13-2-MonoCB-(1)	%	102						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) Recovery outside method limits, possibly due to matrix effects.

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		MR4728						
Sampling Date		2012/02/24 12:20						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	8001-120224-ITSS-TP10-0.0-0.5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'55'-HexaCB-(169)	%	73						2801609
C13-33'44'5-PentaCB-(126)	%	78						2801609
C13-33'44'-TetraCB-(77)	%	107						2801609
C13-344'5-TetraCB-(81)	%	107						2801609
C13-344'-TriCB-(37)	%	88						2801609
C13-44'-DiCB-(15)	%	94						2801609
C13-4-MonoCB-(3)	%	107						2801609
C13-DecaCB-(209)	%	55						2801609
C13-HexaCB-(156)+(157)	%	103						2801609

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Test Summary

Maxxam ID MR4717 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP1-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/13	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/26	BRANKO VRZIC

Maxxam ID MR4718 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP2-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/25	BRANKO VRZIC

Maxxam ID MR4718 Dup **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP2-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/26	BRANKO VRZIC

Maxxam ID MR4719 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP2-1.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/25	BRANKO VRZIC

Maxxam ID MR4720 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP3-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/26	BRANKO VRZIC

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Test Summary

Maxxam ID MR4721 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP4-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/25	BRANKO VRZIC

Maxxam ID MR4721 Dup **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP4-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL

Maxxam ID MR4722 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP5-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/13	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/25	BRANKO VRZIC

Maxxam ID MR4723 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP5-1.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/25	BRANKO VRZIC

Maxxam ID MR4724 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP6-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/26	BRANKO VRZIC

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Test Summary

Maxxam ID MR4725 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP7-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/26	BRANKO VRZIC

Maxxam ID MR4726 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP8-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/13	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/27	BRANKO VRZIC

Maxxam ID MR4727 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP9-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/11	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/27	BRANKO VRZIC

Maxxam ID MR4728 **Collected** 2012/02/24
Sample ID 8001-120224-ITSS-TP10-0.0-0.5 **Shipped**
Matrix Soil **Received** 2012/03/01

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2785925	2012/03/07	2012/03/13	KAY SHAW
2378TCDF Confirmation in Soil	HRMS/MS	2787457	N/A	2012/03/12	ANGEL GUERRERO
Moisture	BAL	2778971	N/A	2012/03/02	JAYAMARY JESUDHANAPAL
PCB Congeners in Soil (1668A)	HRMS/MS	2801609	2012/03/13	2012/03/27	BRANKO VRZIC

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Report Date: 2012/03/30

Apex Laboratories
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Package 1	9.5°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample MR4718-01: Duplicate sample result outside method limits, possibly due to difficulty of matrix homogeneity.

Sample MR4720-01: 10X Dilution

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12B377
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2778971	LKA	RPD - Sample/Sample Dup	Moisture	2012/03/02	1.3		%	20
2785925	KKS	Matrix Spike	C13-1234678 HeptaCDD	2012/03/10		70	%	40 - 135
		Matrix Spike DUP	C13-1234678 HeptaCDD	2012/03/10		64	%	40 - 135
		Matrix Spike	C13-1234678 HeptaCDF	2012/03/10		74	%	40 - 135
		Matrix Spike DUP	C13-1234678 HeptaCDF	2012/03/10		66	%	40 - 135
		Matrix Spike	C13-123478 HexaCDF	2012/03/10		82	%	40 - 135
		Matrix Spike DUP	C13-123478 HexaCDF	2012/03/10		71	%	40 - 135
		Matrix Spike	C13-123678 HexaCDD	2012/03/10		76	%	40 - 135
		Matrix Spike DUP	C13-123678 HexaCDD	2012/03/10		66	%	40 - 135
		Matrix Spike	C13-12378 PentaCDD	2012/03/10		83	%	40 - 135
		Matrix Spike DUP	C13-12378 PentaCDD	2012/03/10		72	%	40 - 135
		Matrix Spike	C13-12378 PentaCDF	2012/03/10		77	%	40 - 135
		Matrix Spike DUP	C13-12378 PentaCDF	2012/03/10		66	%	40 - 135
		Matrix Spike	C13-2378 TetraCDD	2012/03/10		86	%	40 - 135
		Matrix Spike DUP	C13-2378 TetraCDD	2012/03/10		74	%	40 - 135
		Matrix Spike	C13-2378 TetraCDF	2012/03/10		79	%	40 - 135
		Matrix Spike DUP	C13-2378 TetraCDF	2012/03/10		69	%	40 - 135
		Matrix Spike	C13-OCDD	2012/03/10		70	%	40 - 135
		Matrix Spike DUP	C13-OCDD	2012/03/10		67	%	40 - 135
		Matrix Spike	2,3,7,8-Tetra CDD	2012/03/10		102	%	80 - 140
		Matrix Spike DUP	2,3,7,8-Tetra CDD	2012/03/10		103	%	80 - 140
		MS/MSD RPD	2,3,7,8-Tetra CDD	2012/03/10	1		%	25
		Matrix Spike	1,2,3,7,8-Penta CDD	2012/03/10		107	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8-Penta CDD	2012/03/10		107	%	80 - 140
		MS/MSD RPD	1,2,3,7,8-Penta CDD	2012/03/10	0		%	25
		Matrix Spike	1,2,3,4,7,8-Hexa CDD	2012/03/10		107	%	80 - 140
		Matrix Spike DUP	1,2,3,4,7,8-Hexa CDD	2012/03/10		107	%	80 - 140
		MS/MSD RPD	1,2,3,4,7,8-Hexa CDD	2012/03/10	0		%	25
		Matrix Spike	1,2,3,6,7,8-Hexa CDD	2012/03/10		96	%	80 - 140
		Matrix Spike DUP	1,2,3,6,7,8-Hexa CDD	2012/03/10		95	%	80 - 140
		MS/MSD RPD	1,2,3,6,7,8-Hexa CDD	2012/03/10	1.0		%	25
		Matrix Spike	1,2,3,7,8,9-Hexa CDD	2012/03/10		111	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8,9-Hexa CDD	2012/03/10		111	%	80 - 140
		MS/MSD RPD	1,2,3,7,8,9-Hexa CDD	2012/03/10	0		%	25
		Matrix Spike	1,2,3,4,6,7,8-Hepta CDD	2012/03/10		91	%	80 - 140
		Matrix Spike DUP	1,2,3,4,6,7,8-Hepta CDD	2012/03/10		91	%	80 - 140
		MS/MSD RPD	1,2,3,4,6,7,8-Hepta CDD	2012/03/10	0		%	25
		Matrix Spike	Octa CDD	2012/03/10		72 (1)	%	80 - 140
		Matrix Spike DUP	Octa CDD	2012/03/10		73 (1)	%	80 - 140
		MS/MSD RPD	Octa CDD	2012/03/10	1.4		%	25
		Matrix Spike	Total Tetra CDD	2012/03/10		127	%	N/A
		Matrix Spike DUP	Total Tetra CDD	2012/03/10		128	%	N/A
		MS/MSD RPD	Total Tetra CDD	2012/03/10	1.0		%	25
		Matrix Spike	Total Penta CDD	2012/03/10		138	%	N/A
		Matrix Spike DUP	Total Penta CDD	2012/03/10		138	%	N/A
		MS/MSD RPD	Total Penta CDD	2012/03/10	0.2		%	25
		Matrix Spike	Total Hexa CDD	2012/03/10		405	%	N/A
		Matrix Spike DUP	Total Hexa CDD	2012/03/10		402	%	N/A
		MS/MSD RPD	Total Hexa CDD	2012/03/10	0.8		%	25
		Matrix Spike	Total Hepta CDD	2012/03/10		130	%	N/A
		Matrix Spike DUP	Total Hepta CDD	2012/03/10		131	%	N/A
		MS/MSD RPD	Total Hepta CDD	2012/03/10	0.6		%	25
		Matrix Spike	2,3,7,8-Tetra CDF	2012/03/10		90	%	80 - 140

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Apex Laboratories
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Quality Assurance Report (Continued)

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2785925	KKS	Matrix Spike DUP	2,3,7,8-Tetra CDF	2012/03/10		90	%	80 - 140
		MS/MSD RPD	2,3,7,8-Tetra CDF	2012/03/10	0		%	25
		Matrix Spike	1,2,3,7,8-Penta CDF	2012/03/10		101	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8-Penta CDF	2012/03/10		104	%	80 - 140
		MS/MSD RPD	1,2,3,7,8-Penta CDF	2012/03/10	2.9		%	25
		Matrix Spike	2,3,4,7,8-Penta CDF	2012/03/10		104	%	80 - 140
		Matrix Spike DUP	2,3,4,7,8-Penta CDF	2012/03/10		109	%	80 - 140
		MS/MSD RPD	2,3,4,7,8-Penta CDF	2012/03/10	4.7		%	25
		Matrix Spike	1,2,3,4,7,8-Hexa CDF	2012/03/10		93	%	80 - 140
		Matrix Spike DUP	1,2,3,4,7,8-Hexa CDF	2012/03/10		93	%	80 - 140
		MS/MSD RPD	1,2,3,4,7,8-Hexa CDF	2012/03/10	0		%	25
		Matrix Spike	1,2,3,6,7,8-Hexa CDF	2012/03/10		89	%	80 - 140
		Matrix Spike DUP	1,2,3,6,7,8-Hexa CDF	2012/03/10		88	%	80 - 140
		MS/MSD RPD	1,2,3,6,7,8-Hexa CDF	2012/03/10	1.1		%	25
		Matrix Spike	2,3,4,6,7,8-Hexa CDF	2012/03/10		87	%	80 - 140
		Matrix Spike DUP	2,3,4,6,7,8-Hexa CDF	2012/03/10		87	%	80 - 140
		MS/MSD RPD	2,3,4,6,7,8-Hexa CDF	2012/03/10	0		%	25
		Matrix Spike	1,2,3,7,8,9-Hexa CDF	2012/03/10		94	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8,9-Hexa CDF	2012/03/10		95	%	80 - 140
		MS/MSD RPD	1,2,3,7,8,9-Hexa CDF	2012/03/10	1.1		%	25
		Matrix Spike	1,2,3,4,6,7,8-Hepta CDF	2012/03/10		95	%	80 - 140
		Matrix Spike DUP	1,2,3,4,6,7,8-Hepta CDF	2012/03/10		96	%	80 - 140
		MS/MSD RPD	1,2,3,4,6,7,8-Hepta CDF	2012/03/10	1.0		%	25
		Matrix Spike	1,2,3,4,7,8,9-Hepta CDF	2012/03/10		97	%	80 - 140
		Matrix Spike DUP	1,2,3,4,7,8,9-Hepta CDF	2012/03/10		99	%	80 - 140
		MS/MSD RPD	1,2,3,4,7,8,9-Hepta CDF	2012/03/10	2.0		%	25
		Matrix Spike	Octa CDF	2012/03/10		87	%	80 - 140
		Matrix Spike DUP	Octa CDF	2012/03/10		87	%	80 - 140
		MS/MSD RPD	Octa CDF	2012/03/10	0		%	25
		Matrix Spike	Total Tetra CDF	2012/03/10		117	%	N/A
		Matrix Spike DUP	Total Tetra CDF	2012/03/10		116	%	N/A
		MS/MSD RPD	Total Tetra CDF	2012/03/10	0.4		%	25
		Matrix Spike	Total Penta CDF	2012/03/10		262	%	N/A
		Matrix Spike DUP	Total Penta CDF	2012/03/10		273	%	N/A
		MS/MSD RPD	Total Penta CDF	2012/03/10	4.2		%	25
		Matrix Spike	Total Hexa CDF	2012/03/10		452	%	N/A
		Matrix Spike DUP	Total Hexa CDF	2012/03/10		453	%	N/A
		MS/MSD RPD	Total Hexa CDF	2012/03/10	0.3		%	25
		Matrix Spike	Total Hepta CDF	2012/03/10		240	%	N/A
		Matrix Spike DUP	Total Hepta CDF	2012/03/10		243	%	N/A
		MS/MSD RPD	Total Hepta CDF	2012/03/10	1.1		%	25
		Spiked Blank	C13-1234678 HeptaCDD	2012/03/10		74	%	40 - 135
			C13-1234678 HeptaCDF	2012/03/10		77	%	40 - 135
			C13-123478 HexaCDF	2012/03/10		85	%	40 - 135
			C13-123678 HexaCDD	2012/03/10		78	%	40 - 135
			C13-12378 PentaCDD	2012/03/10		78	%	40 - 135
			C13-12378 PentaCDF	2012/03/10		74	%	40 - 135
			C13-2378 TetraCDD	2012/03/10		85	%	40 - 135
			C13-2378 TetraCDF	2012/03/10		78	%	40 - 135
			C13-OCDD	2012/03/10		79	%	40 - 135
			2,3,7,8-Tetra CDD	2012/03/10		100	%	80 - 140
			1,2,3,7,8-Penta CDD	2012/03/10		107	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2012/03/10		106	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2012/03/10		98	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2012/03/10		107	%	80 - 140

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Apex Laboratories
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Quality Assurance Report (Continued)

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2785925	KKS	Spiked Blank	1,2,3,4,6,7,8-Hepta CDD	2012/03/10		100	%	80 - 140
			Octa CDD	2012/03/10		84	%	80 - 140
			2,3,7,8-Tetra CDF	2012/03/10		91	%	80 - 140
			1,2,3,7,8-Penta CDF	2012/03/10		102	%	80 - 140
			2,3,4,7,8-Penta CDF	2012/03/10		104	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2012/03/10		91	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2012/03/10		89	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2012/03/10		86	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2012/03/10		90	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2012/03/10		94	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2012/03/10		97	%	80 - 140
			Octa CDF	2012/03/10		87	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2012/03/10		69	%	40 - 135
			C13-1234678 HeptaCDF	2012/03/10		71	%	40 - 135
			C13-123478 HexaCDF	2012/03/10		78	%	40 - 135
			C13-123678 HexaCDD	2012/03/10		71	%	40 - 135
			C13-12378 PentaCDD	2012/03/10		69	%	40 - 135
			C13-12378 PentaCDF	2012/03/10		65	%	40 - 135
			C13-2378 TetraCDD	2012/03/10		63	%	40 - 135
			C13-2378 TetraCDF	2012/03/10		58	%	40 - 135
			C13-OCDD	2012/03/10		76	%	40 - 135
			2,3,7,8-Tetra CDD	2012/03/10	0.056 U, EDL=0.056		pg/g	
			1,2,3,7,8-Penta CDD	2012/03/10	0.060 U, EDL=0.060		pg/g	
			1,2,3,4,7,8-Hexa CDD	2012/03/10	0.063 U, EDL=0.063		pg/g	
			1,2,3,6,7,8-Hexa CDD	2012/03/10	0.058 U, EDL=0.058		pg/g	
			1,2,3,7,8,9-Hexa CDD	2012/03/10	0.058 U, EDL=0.058		pg/g	
			1,2,3,4,6,7,8-Hepta CDD	2012/03/10	0.165 J, EDL=0.053		pg/g	
			Octa CDD	2012/03/10	0.55 U, EDL=0.55 (2)		pg/g	
			Total Tetra CDD	2012/03/10	0.083 U, EDL=0.083 (2)		pg/g	
			Total Penta CDD	2012/03/10	0.080 U, EDL=0.080 (2)		pg/g	
			Total Hexa CDD	2012/03/10	0.57 U, EDL=0.57 (2)		pg/g	
			Total Hepta CDD	2012/03/10	0.165 J, EDL=0.053		pg/g	
			2,3,7,8-Tetra CDF	2012/03/10	0.053 U, EDL=0.053		pg/g	
			1,2,3,7,8-Penta CDF	2012/03/10	0.050 U, EDL=0.050		pg/g	
			2,3,4,7,8-Penta CDF	2012/03/10	0.050 U, EDL=0.050		pg/g	
			1,2,3,4,7,8-Hexa CDF	2012/03/10	0.051 U, EDL=0.051		pg/g	
			1,2,3,6,7,8-Hexa CDF	2012/03/10	0.050 U, EDL=0.050		pg/g	
			2,3,4,6,7,8-Hexa CDF	2012/03/10	0.055 U, EDL=0.055		pg/g	
			1,2,3,7,8,9-Hexa CDF	2012/03/10	0.061 U, EDL=0.061		pg/g	
			1,2,3,4,6,7,8-Hepta CDF	2012/03/10	0.064 U, EDL=0.064 (2)		pg/g	
			1,2,3,4,7,8,9-Hepta CDF	2012/03/10	0.058 U, EDL=0.058		pg/g	
			Octa CDF	2012/03/10	0.11 U, EDL=0.11		pg/g	
			Total Tetra CDF	2012/03/10	0.053 U, EDL=0.053		pg/g	
			Total Penta CDF	2012/03/10	0.050 U, EDL=0.050		pg/g	
			Total Hexa CDF	2012/03/10	0.10 U, EDL=0.10 (3)		pg/g	
			Total Hepta CDF	2012/03/10	0.071 U, EDL=0.071 (2)		pg/g	
2787457	AGU	Method Blank	Confirmation C13-2378 TetraCDF	2012/03/12		69	%	40 - 135
			Confirmation 2,3,7,8-Tetra CDF	2012/03/12	0.093 U, EDL=0.093		pg/g	
2801609	BY	Spiked Blank	C13-2,44'-TriCB-(28)	2012/03/25		104	%	30 - 135
			C13-22'33'44'55'6-NonaCB-(206)	2012/03/25		82	%	25 - 150
			C13-22'33'44'5-HeptaCB-(170)	2012/03/25		126	%	25 - 150
			C13-22'33'455'66'-NonaCB-(208)	2012/03/25		77	%	25 - 150
			C13-22'33'55'66'-OctaCB-(202)	2012/03/25		97	%	25 - 150
			C13-22'33'55'6-HeptaCB-(178)	2012/03/25		78	%	30 - 135
			C13-22'344'55'-HeptaCB-(180)	2012/03/25		121	%	30 - 135

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2801609	BY	Spiked Blank	C13-22'34'566'-HeptaCB-(188)	2012/03/25		104	%	25 - 150
			C13-22'44'66'-HexaCB-(155)	2012/03/25		83	%	25 - 150
			C13-22'466'-PentaCB-(104)	2012/03/25		86	%	25 - 150
			C13-22'66'-TetraCB-(54)	2012/03/25		75	%	25 - 150
			C13-22'6-TriCB-(19)	2012/03/25		91	%	25 - 150
			C13-22'-DiCB-(4)	2012/03/25		80	%	25 - 150
			C13-233'44'55'6-OctaCB-(205)	2012/03/25		112	%	25 - 150
			C13-233'44'55'-HeptaCB-(189)	2012/03/25		128	%	25 - 150
			C13-233'44'-PentaCB-(105)	2012/03/25		120	%	25 - 150
			C13-233'55'-PentaCB-(111)	2012/03/25		89	%	30 - 135
			C13-23'44'55'-HexaCB-(167)	2012/03/25		122	%	25 - 150
			C13-2344'5-PentaCB-(114)	2012/03/25		122	%	25 - 150
			C13-23'44'5-PentaCB-(118)	2012/03/25		116	%	25 - 150
			C13-2'344'5-PentaCB-(123)	2012/03/25		116	%	25 - 150
			C13-2-MonoCB-(1)	2012/03/25		98	%	15 - 150
			C13-33'44'55'-HexaCB-(169)	2012/03/25		117	%	25 - 150
			C13-33'44'5-PentaCB-(126)	2012/03/25		118	%	25 - 150
			C13-33'44'-TetraCB-(77)	2012/03/25		111	%	25 - 150
			C13-344'5-TetraCB-(81)	2012/03/25		105	%	25 - 150
			C13-344'-TriCB-(37)	2012/03/25		103	%	25 - 150
			C13-44'-DiCB-(15)	2012/03/25		96	%	25 - 150
			C13-4-MonoCB-(3)	2012/03/25		95	%	15 - 150
			C13-DecaCB-(209)	2012/03/25		78	%	25 - 150
			C13-HexaCB-(156)+(157)	2012/03/25		126	%	25 - 150
			2-MonoCB-(1)	2012/03/25		86	%	50 - 150
			4-MonoCB-(3)	2012/03/25		84	%	50 - 150
			22'-DiCB-(4)	2012/03/25		104	%	50 - 150
			4,4'-DiCB-(15)	2012/03/25		88	%	50 - 150
			22'6-TriCB-(19)	2012/03/25		90	%	50 - 150
			235-TriCB-(23)	2012/03/25		99	%	50 - 150
			23'5'-TriCB-(34)	2012/03/25		73	%	50 - 150
			344'-TriCB-(37)	2012/03/25		97	%	50 - 150
			22'66'-TetraCB-(54)	2012/03/25		96	%	50 - 150
			33'44'-TetraCB-(77)	2012/03/25		73	%	50 - 150
			344'5-TetraCB-(81)	2012/03/25		80	%	50 - 150
			22'466'-PentaCB-(104)	2012/03/25		90	%	50 - 150
			233'44'-PentaCB-(105)	2012/03/25		82	%	50 - 150
			2344'5-PentaCB-(114)	2012/03/25		78	%	50 - 150
			23'44'5-PentaCB-(118)	2012/03/25		89	%	50 - 150
			23'44'5'-PentaCB-(123)	2012/03/25		85	%	50 - 150
			33'44'5-PentaCB-(126)	2012/03/25		82	%	50 - 150
			22'44'66'-HexaCB-(155)	2012/03/25		99	%	50 - 150
			HexaCB-(156)+(157)	2012/03/25		80	%	50 - 150
			23'44'55'-HexaCB-(167)	2012/03/25		83	%	50 - 150
			33'44'55'-HexaCB-(169)	2012/03/25		83	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2012/03/25		78	%	50 - 150
			HeptaCB-(180)+(193)	2012/03/25		64	%	50 - 150
			22'344'56'-HeptaCB-(182)	2012/03/25		80	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2012/03/25		86	%	50 - 150
			22'34'566'-HeptaCB-(188)	2012/03/25		87	%	50 - 150
			233'44'55'-HeptaCB-(189)	2012/03/25		83	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2012/03/25		86	%	50 - 150
			233'44'55'6-OctaCB-(205)	2012/03/25		83	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2012/03/25		98	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2012/03/25		97	%	50 - 150

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2801609	BY	Spiked Blank	DecaCB-(209)	2012/03/25		87	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2012/03/25		102	%	30 - 135
			C13-22'33'44'55'6-NonaCB-(206)	2012/03/25		76	%	25 - 150
			C13-22'33'44'5-HeptaCB-(170)	2012/03/25		115	%	25 - 150
			C13-22'33'455'66'-NonaCB-(208)	2012/03/25		79	%	25 - 150
			C13-22'33'55'66'-OctaCB-(202)	2012/03/25		88	%	25 - 150
			C13-22'33'55'6-HeptaCB-(178)	2012/03/25		81	%	30 - 135
			C13-22'344'55'-HeptaCB-(180)	2012/03/25		111	%	30 - 135
			C13-22'34'566'-HeptaCB-(188)	2012/03/25		95	%	25 - 150
			C13-22'44'66'-HexaCB-(155)	2012/03/25		75	%	25 - 150
			C13-22'466'-PentaCB-(104)	2012/03/25		71	%	25 - 150
			C13-22'66'-TetraCB-(54)	2012/03/25		66	%	25 - 150
			C13-22'6-TriCB-(19)	2012/03/25		93	%	25 - 150
			C13-22'-DiCB-(4)	2012/03/25		78	%	25 - 150
			C13-233'44'55'6-OctaCB-(205)	2012/03/25		108	%	25 - 150
			C13-233'44'55'-HeptaCB-(189)	2012/03/25		121	%	25 - 150
			C13-233'44'-PentaCB-(105)	2012/03/25		112	%	25 - 150
			C13-233'55'-PentaCB-(111)	2012/03/25		86	%	30 - 135
			C13-23'44'55'-HexaCB-(167)	2012/03/25		116	%	25 - 150
			C13-2344'5-PentaCB-(114)	2012/03/25		120	%	25 - 150
			C13-23'44'5-PentaCB-(118)	2012/03/25		114	%	25 - 150
			C13-2'344'5-PentaCB-(123)	2012/03/25		110	%	25 - 150
			C13-2-MonoCB-(1)	2012/03/25		96	%	15 - 150
			C13-33'44'55'-HexaCB-(169)	2012/03/25		113	%	25 - 150
			C13-33'44'5-PentaCB-(126)	2012/03/25		117	%	25 - 150
			C13-33'44'-TetraCB-(77)	2012/03/25		112	%	25 - 150
			C13-344'5-TetraCB-(81)	2012/03/25		108	%	25 - 150
			C13-344'-TriCB-(37)	2012/03/25		97	%	25 - 150
			C13-44'-DiCB-(15)	2012/03/25		92	%	25 - 150
			C13-4-MonoCB-(3)	2012/03/25		94	%	15 - 150
			C13-DecaCB-(209)	2012/03/25		69	%	25 - 150
			C13-HexaCB-(156)+(157)	2012/03/25		124	%	25 - 150
			2-MonoCB-(1)	2012/03/25	0.000206 J, EDL=0.000044		ng/g	
			3-MonoCB-(2)	2012/03/25	0.000036 U, EDL=0.000036 (2)		ng/g	
			4-MonoCB-(3)	2012/03/25	0.000123 J, EDL=0.000044		ng/g	
			22'-DiCB-(4)	2012/03/25	0.00120 J, EDL=0.00012		ng/g	
			2,3-DiCB-(5)	2012/03/25	0.0016 U, EDL=0.0016		ng/g	
			2,3'-DiCB-(6)	2012/03/25	0.0012 U, EDL=0.0012		ng/g	
			2,4-DiCB-(7)	2012/03/25	0.0015 U, EDL=0.0015		ng/g	
			2,4'-DiCB-(8)	2012/03/25	0.0011 U, EDL=0.0011		ng/g	
			2,5-DiCB-(9)	2012/03/25	0.0012 U, EDL=0.0012		ng/g	
			2,6-DiCB-(10)	2012/03/25	0.000088 U, EDL=0.000088		ng/g	
			3,3'-DiCB-(11)	2012/03/25	0.0012 U, EDL=0.0012 (2)		ng/g	
			DiCB-(12)+(13)	2012/03/25	0.0015 U, EDL=0.0015		ng/g	
			3,5-DiCB-(14)	2012/03/25	0.0012 U, EDL=0.0012		ng/g	
			4,4'-DiCB-(15)	2012/03/25	0.0020 U, EDL=0.0020		ng/g	
			22'3-TriCB-(16)	2012/03/25	0.00044 U, EDL=0.00044 (2)		ng/g	
			22'4-TriCB-(17)	2012/03/25	0.00040 U, EDL=0.00040 (2)		ng/g	
			TriCB-(18)+(30)	2012/03/25	0.00209 J, EDL=0.00030		ng/g	
			22'6-TriCB-(19)	2012/03/25	0.00038 U, EDL=0.00038		ng/g	
			TriCB-(20) + (28)	2012/03/25	0.00011 U, EDL=0.00011 (2)		ng/g	
			TriCB-(21)+(33)	2012/03/25	0.000921 J, EDL=0.000090		ng/g	
			234'-TriCB-(22)	2012/03/25	0.00072 J, EDL=0.00013		ng/g	
			235-TriCB-(23)	2012/03/25	0.00013 U, EDL=0.00013		ng/g	
			236-TriCB-(24)	2012/03/25	0.00032 U, EDL=0.00032		ng/g	

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2801609	BY	Method Blank	23'4-TriCB-(25)	2012/03/25	0.000113 J,	EDL=0.000084	ng/g	
			TriCB-(26)+(29)	2012/03/25	0.00033 J,	EDL=0.00011	ng/g	
			23'6-TriCB-(27)	2012/03/25	0.00024 U,	EDL=0.00024	ng/g	
			24'5-TriCB-(31)	2012/03/25	0.00138 J,	EDL=0.000089	ng/g	
			24'6-TriCB-(32)	2012/03/25	0.00042 J,	EDL=0.00023	ng/g	
			23'5'-TriCB-(34)	2012/03/25	0.000099 U,	EDL=0.000099	ng/g	
			33'4-TriCB-(35)	2012/03/25	0.000099 U,	EDL=0.000099	ng/g	
			33'5-TriCB-(36)	2012/03/25	0.000088 U,	EDL=0.000088	ng/g	
			344'-TriCB-(37)	2012/03/25	0.00016 U,	EDL=0.00016 (2)	ng/g	
			345-TriCB-(38)	2012/03/25	0.00010 U,	EDL=0.00010	ng/g	
			34'5-TriCB-(39)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			TetraCB-(40)+(41)+(71)	2012/03/25	0.00056 J,	EDL=0.00029	ng/g	
			22'34'-TetraCB-(42)	2012/03/25	0.00025 U,	EDL=0.00025	ng/g	
			22'35-TetraCB-(43)	2012/03/25	0.00036 U,	EDL=0.00036	ng/g	
			TetraCB-(44)+(47)+(65)	2012/03/25	0.00120 J,	EDL=0.00025	ng/g	
			TetraCB-(45)+(51)	2012/03/25	0.00028 U,	EDL=0.00028 (2)	ng/g	
			22'36'-TetraCB-(46)	2012/03/25	0.00035 U,	EDL=0.00035	ng/g	
			22'45-TetraCB-(48)	2012/03/25	0.00031 U,	EDL=0.00031	ng/g	
			TetraCB-(49)+TetraCB-(69)	2012/03/25	0.00063 J,	EDL=0.00021	ng/g	
			TetraCB-(50)+(53)	2012/03/25	0.00026 U,	EDL=0.00026	ng/g	
			22'55'-TetraCB-(52)	2012/03/25	0.00328 J,	EDL=0.00025	ng/g	
			22'66'-TetraCB-(54)	2012/03/25	0.00020 U,	EDL=0.00020	ng/g	
			233'4-TetraCB-(55)	2012/03/25	0.00025 U,	EDL=0.00025	ng/g	
			233'4'-Tetra CB(56)	2012/03/25	0.00023 U,	EDL=0.00023 (2)	ng/g	
			233'5-TetraCB-(57)	2012/03/25	0.00019 U,	EDL=0.00019	ng/g	
			233'5'-TetraCB-(58)	2012/03/25	0.00040 J,	EDL=0.00022	ng/g	
			TetraCB-(59)+(62)+(75)	2012/03/25	0.00021 U,	EDL=0.00021	ng/g	
			2344'-TetraCB -(60)	2012/03/25	0.00023 U,	EDL=0.00023	ng/g	
			TetraCB-(61)+(70)+(74)+(76)	2012/03/25	0.00089 U,	EDL=0.00089 (2)	ng/g	
			234'5-TetraCB-(63)	2012/03/25	0.00018 U,	EDL=0.00018	ng/g	
			234'6-TetraCB-(64)	2012/03/25	0.00035 J,	EDL=0.00017	ng/g	
			23'44'-TetraCB-(66)	2012/03/25	0.00037 J,	EDL=0.00018	ng/g	
			23'45-TetraCB-(67)	2012/03/25	0.00019 U,	EDL=0.00019	ng/g	
			23'45'-TetraCB-(68)	2012/03/25	0.00021 U,	EDL=0.00021	ng/g	
			23'55'-TetraCB-(72)	2012/03/25	0.00017 U,	EDL=0.00017	ng/g	
			23'5'6-TetraCB-(73)	2012/03/25	0.00023 U,	EDL=0.00023	ng/g	
			33'44'-TetraCB-(77)	2012/03/25	0.00024 U,	EDL=0.00024	ng/g	
			33'45-TetraCB-(78)	2012/03/25	0.00019 U,	EDL=0.00019	ng/g	
			33'45'-TetraCB(79)	2012/03/25	0.00016 U,	EDL=0.00016	ng/g	
			33'55'-TetraCB-(80)	2012/03/25	0.00020 U,	EDL=0.00020	ng/g	
			344'5-TetraCB-(81)	2012/03/25	0.00025 U,	EDL=0.00025	ng/g	
			22'33'4-PentaCB-(82)	2012/03/25	0.00012 U,	EDL=0.00012	ng/g	
			PentaCB-(83)+(99)	2012/03/25	0.00062 J,	EDL=0.00012	ng/g	
			22'33'6-PentaCB-(84)	2012/03/25	0.00097 J,	EDL=0.00014	ng/g	
			PentaCB-(85)+(116)+(117)	2012/03/25	0.00012 U,	EDL=0.00012 (2)	ng/g	
			PentaCB-(86)(87)(97)(109)(119)(125)	2012/03/25	0.00271 J,	EDL=0.000093	ng/g	
			PentaCB-(88)+(91)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			22'346'-PentaCB-(89)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			PentaCB-(90)+(101)+(113)	2012/03/25	0.0117 J,	EDL=0.000097	ng/g	
			22'355'-PentaCB-(92)	2012/03/25	0.0013 U,	EDL=0.0013 (2)	ng/g	
			PentaCB-(93)+(98)+(100)+(102)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			22'356'-PentaCB-(94)	2012/03/25	0.00013 U,	EDL=0.00013	ng/g	
			22'35'6-PentaCB-(95)	2012/03/25	0.00779 J,	EDL=0.000096	ng/g	
			22'366'-PentaCB-(96)	2012/03/25	0.000091 U,	EDL=0.000091	ng/g	
			22'45'6-PentaCB-(103)	2012/03/25	0.000092 U,	EDL=0.000092	ng/g	

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2801609	BY	Method Blank	22'466'-PentaCB-(104)	2012/03/25	0.000097 U,	EDL=0.000097	ng/g	
			233'44'-PentaCB-(105)	2012/03/25	0.00064 J,	EDL=0.00013	ng/g	
			233'45-PentaCB-(106)	2012/03/25	0.000086 U,	EDL=0.000086	ng/g	
			233'4'5-PentaCB-(107)	2012/03/25	0.00010 U,	EDL=0.00010	ng/g	
			PentaCB-(108)+(124)	2012/03/25	0.00010 U,	EDL=0.00010	ng/g	
			PentaCB-(110)+(115)	2012/03/25	0.00660 J,	EDL=0.000081	ng/g	
			233'55'-PentaCB-(111)	2012/03/25	0.000090 U,	EDL=0.000090	ng/g	
			233'56-PentaCB-(112)	2012/03/25	0.000091 U,	EDL=0.000091	ng/g	
			2344'5-PentaCB-(114)	2012/03/25	0.00012 U,	EDL=0.00012	ng/g	
			23'44'5-PentaCB-(118)	2012/03/25	0.00461 J,	EDL=0.00013	ng/g	
			23'455'-PentaCB-(120)	2012/03/25	0.000072 U,	EDL=0.000072	ng/g	
			23'45'6-PentaCB-(121)	2012/03/25	0.000093 U,	EDL=0.000093	ng/g	
			233'4'5'-PentaCB-(122)	2012/03/25	0.000097 U,	EDL=0.000097	ng/g	
			23'44'5'-PentaCB-(123)	2012/03/25	0.00013 U,	EDL=0.00013	ng/g	
			33'44'5-PentaCB-(126)	2012/03/25	0.00013 U,	EDL=0.00013	ng/g	
			33'455'-PentaCB-(127)	2012/03/25	0.000088 U,	EDL=0.000088	ng/g	
			HexaCB-(128)+(166)	2012/03/25	0.00157 J,	EDL=0.000078	ng/g	
			HexaCB-(129)+(138)+(163)	2012/03/25	0.0162 J,	EDL=0.000077	ng/g	
			22'33'45'-HexaCB-(130)	2012/03/25	0.000737 J,	EDL=0.000093	ng/g	
			22'33'46-HexaCB-(131)	2012/03/25	0.000085 U,	EDL=0.000085	ng/g	
			22'33'46'-HexaCB-(132)	2012/03/25	0.00731 J,	EDL=0.00011	ng/g	
			22'33'55'-HexaCB-(133)	2012/03/25	0.000083 U,	EDL=0.000083	ng/g	
			HexaCB-(134)+(143)	2012/03/25	0.00030 U,	EDL=0.00030 (2)	ng/g	
			HexaCB-(135)+(151)	2012/03/25	0.00738 J,	EDL=0.00012	ng/g	
			22'33'66'-HexaCB-(136)	2012/03/25	0.00244 J,	EDL=0.000079	ng/g	
			22'344'5-HexaCB-(137)	2012/03/25	0.00012 U,	EDL=0.00012	ng/g	
			HexaCB-(139)+(140)	2012/03/25	0.000097 U,	EDL=0.000097	ng/g	
			22'3455'-HexaCB-(141)	2012/03/25	0.00508 J,	EDL=0.00010	ng/g	
			22'3456-HexaCB-(142)	2012/03/25	0.000093 U,	EDL=0.000093	ng/g	
			22'345'6-HexaCB-(144)	2012/03/25	0.00129 J,	EDL=0.00011	ng/g	
			22'3466'-HexaCB-(145)	2012/03/25	0.00010 U,	EDL=0.00010	ng/g	
			22'34'55'-HexaCB-(146)	2012/03/25	0.0023 U,	EDL=0.0023 (2)	ng/g	
			HexaCB-(147)+(149)	2012/03/25	0.0170 J,	EDL=0.000097	ng/g	
			22'34'56'-HexaCB-(148)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			22'34'66'-HexaCB-(150)	2012/03/25	0.000097 U,	EDL=0.000097	ng/g	
			22'3566'-HexaCB-(152)	2012/03/25	0.000074 U,	EDL=0.000074	ng/g	
			HexaCB-(153)+(168)	2012/03/25	0.0156 J,	EDL=0.000071	ng/g	
			22'44'56'-HexaCB-(154)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			22'44'66'-HexaCB-(155)	2012/03/25	0.000096 U,	EDL=0.000096	ng/g	
			HexaCB-(156)+(157)	2012/03/25	0.00164 J,	EDL=0.00010	ng/g	
			233'44'6-HexaCB-(158)	2012/03/25	0.00181 J,	EDL=0.000071	ng/g	
			233'455'-HexaCB-(159)	2012/03/25	0.000083 U,	EDL=0.000083	ng/g	
			233'456-HexaCB-(160)	2012/03/25	0.000089 U,	EDL=0.000089	ng/g	
			233'45'6-HexaCB-(161)	2012/03/25	0.000064 U,	EDL=0.000064	ng/g	
			233'4'55'-HexaCB-(162)	2012/03/25	0.00010 U,	EDL=0.00010	ng/g	
			233'4'5'6-HexaCB-(164)	2012/03/25	0.00172 J,	EDL=0.000072	ng/g	
			233'55'6-HexaCB-(165)	2012/03/25	0.000086 U,	EDL=0.000086	ng/g	
			23'44'55'-HexaCB-(167)	2012/03/25	0.00071 U,	EDL=0.00071 (2)	ng/g	
			33'44'55'-HexaCB-(169)	2012/03/25	0.00011 U,	EDL=0.00011	ng/g	
			22'33'44'5-HeptaCB-(170)	2012/03/25	0.00483 J,	EDL=0.00013	ng/g	
			HeptaCB-(171)+(173)	2012/03/25	0.00134 J,	EDL=0.00013	ng/g	
			22'33'455'-HeptaCB-(172)	2012/03/25	0.00054 U,	EDL=0.00054 (2)	ng/g	
			22'33'456'-HeptaCB-(174)	2012/03/25	0.00453 J,	EDL=0.00014	ng/g	
			22'33'45'6-HeptaCB-(175)	2012/03/25	0.00019 U,	EDL=0.00019 (2)	ng/g	
			22'33'466'-HeptaCB-(176)	2012/03/25	0.000584 J,	EDL=0.000056	ng/g	

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2801609	BY	Method Blank	22'33'45'6'-HeptaCB-(177)	2012/03/25	0.00210 J,	EDL=0.00012	ng/g	
			22'33'55'6-HeptaCB-(178)	2012/03/25	0.00053 U,	EDL=0.00053 (2)	ng/g	
			22'33'566'-HeptaCB-(179)	2012/03/25	0.0015 U,	EDL=0.0015 (2)	ng/g	
			HeptaCB-(180)+(193)	2012/03/25	0.00684 J,	EDL=0.000095	ng/g	
			22'344'56-HeptaCB-(181)	2012/03/25	0.00014 U,	EDL=0.00014	ng/g	
			22'344'56'-HeptaCB-(182)	2012/03/25	0.000089 U,	EDL=0.000089	ng/g	
			22'344'5'6-HeptaCB-(183)	2012/03/25	0.00197 J,	EDL=0.000098	ng/g	
			22'344'66'-HeptaCB-(184)	2012/03/25	0.000065 U,	EDL=0.000065	ng/g	
			22'3455'6-HeptaCB-(185)	2012/03/25	0.00035 U,	EDL=0.00035 (2)	ng/g	
			22'34566'-HeptaCB-(186)	2012/03/25	0.000072 U,	EDL=0.000072	ng/g	
			22'34'55'6-HeptaCB-(187)	2012/03/25	0.00464 J,	EDL=0.000087	ng/g	
			22'34'566'-HeptaCB-(188)	2012/03/25	0.000085 U,	EDL=0.000085	ng/g	
			233'44'55'-HeptaCB-(189)	2012/03/25	0.00027 J,	EDL=0.00017	ng/g	
			233'44'56-HeptaCB-(190)	2012/03/25	0.00070 U,	EDL=0.00070 (2)	ng/g	
			233'44'5'6-HeptaCB-(191)	2012/03/25	0.000208 J,	EDL=0.000090	ng/g	
			233'455'6-HeptaCB-(192)	2012/03/25	0.00012 U,	EDL=0.00012	ng/g	
			22'33'44'55'-OctaCB-(194)	2012/03/25	0.00077 U,	EDL=0.00077 (2)	ng/g	
			22'33'44'56-OctaCB-(195)	2012/03/25	0.00035 U,	EDL=0.00035 (2)	ng/g	
			22'33'44'56'-OctaCB-(196)	2012/03/25	0.00058 J,	EDL=0.00051	ng/g	
			22'33'44'66'OctaCB-(197)	2012/03/25	0.00050 U,	EDL=0.00050	ng/g	
			OctaCB-(198)+(199)	2012/03/25	0.00101 J,	EDL=0.00057	ng/g	
			22'33'4566'-OctaCB-(200)	2012/03/25	0.00037 U,	EDL=0.00037	ng/g	
			22'33'45'66'-OctaCB-(201)	2012/03/25	0.00038 U,	EDL=0.00038	ng/g	
			22'33'55'66'-OctaCB-(202)	2012/03/25	0.00058 U,	EDL=0.00058	ng/g	
			22'344'55'6-OctaCB-(203)	2012/03/25	0.00065 U,	EDL=0.00065 (2)	ng/g	
			22'344'566'-OctaCB-(204)	2012/03/25	0.00037 U,	EDL=0.00037	ng/g	
			233'44'55'6-OctaCB-(205)	2012/03/25	0.00016 U,	EDL=0.00016	ng/g	
			22'33'44'55'6-NonaCB-(206)	2012/03/25	0.00060 U,	EDL=0.00060	ng/g	
			22'33'44'566'-NonaCB-(207)	2012/03/25	0.00038 U,	EDL=0.00038	ng/g	
			22'33'455'66'-NonaCB-(208)	2012/03/25	0.00061 U,	EDL=0.00061	ng/g	
			DecaCB-(209)	2012/03/25	0.00024 J,	EDL=0.00015	ng/g	
			Monochlorobiphenyl	2012/03/25	0.000329,	EDL=0.000040	ng/g	
			Dichlorobiphenyl	2012/03/25	0.0020 U,	EDL=0.0020	ng/g	
			Trichlorobiphenyl	2012/03/25	0.00598,	EDL=0.00044	ng/g	
			Tetrachlorobiphenyl	2012/03/25	0.00679,	EDL=0.00036	ng/g	
			Pentachlorobiphenyl	2012/03/25	0.0356,	EDL=0.00014	ng/g	
			Hexachlorobiphenyl	2012/03/25	0.0798,	EDL=0.00012	ng/g	
			Heptachlorobiphenyl	2012/03/25	0.0273,	EDL=0.00017	ng/g	
			Octachlorobiphenyl	2012/03/25	0.00159,	EDL=0.00060	ng/g	
			Nonachlorobiphenyl	2012/03/25	0.00061 U,	EDL=0.00061	ng/g	
			Decachlorobiphenyl	2012/03/25	0.00024,	EDL=0.00015	ng/g	
			Total PCB	2012/03/25	0.159		ng/g	
		RPD - Sample/Sample Dup	2-MonoCB-(1)	2012/03/26	NC		%	30
			3-MonoCB-(2)	2012/03/26	NC		%	30
			4-MonoCB-(3)	2012/03/26	NC		%	30
			22'-DiCB-(4)	2012/03/26	61.3 (1)		%	30
			2,3-DiCB-(5)	2012/03/26	NC		%	30
			2,3'-DiCB-(6)	2012/03/26	NC		%	30
			2,4-DiCB-(7)	2012/03/26	NC		%	30
			2,4'-DiCB-(8)	2012/03/26	102 (1)		%	30
			2,5-DiCB-(9)	2012/03/26	NC		%	30
			2,6-DiCB-(10)	2012/03/26	NC		%	30
			3,3'-DiCB-(11)	2012/03/26	NC		%	30

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12B377
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2801609	BY	RPD - Sample/Sample Dup	DiCB-(12)+(13)	2012/03/26	NC		%	30
			3,5-DiCB-(14)	2012/03/26	NC		%	30
			4,4'-DiCB-(15)	2012/03/26	122	(1)	%	30
			22'3-TriCB-(16)	2012/03/26	90.6	(1)	%	30
			22'4-TriCB-(17)	2012/03/26	101	(1)	%	30
			TriCB-(18)+(30)	2012/03/26	96.6	(1)	%	30
			22'6-TriCB-(19)	2012/03/26	NC		%	30
			TriCB-(20) + (28)	2012/03/26	113	(1)	%	30
			TriCB-(21)+(33)	2012/03/26	97.2	(1)	%	30
			234'-TriCB-(22)	2012/03/26	103	(1)	%	30
			235-TriCB-(23)	2012/03/26	NC	(2)	%	30
			236-TriCB-(24)	2012/03/26	NC		%	30
			23'4-TriCB-(25)	2012/03/26	NC		%	30
			TriCB-(26)+(29)	2012/03/26	NC		%	30
			23'6-TriCB-(27)	2012/03/26	NC		%	30
			24'5-TriCB-(31)	2012/03/26	84.7	(1)	%	30
			24'6-TriCB-(32)	2012/03/26	119	(1)	%	30
			23'5'-TriCB-(34)	2012/03/26	NC		%	30
			33'4-TriCB-(35)	2012/03/26	NC		%	30
			33'5-TriCB-(36)	2012/03/26	NC		%	30
			344'-TriCB-(37)	2012/03/26	95.4	(1)	%	30
			345-TriCB-(38)	2012/03/26	NC		%	30
			34'5-TriCB-(39)	2012/03/26	NC		%	30
			TetraCB-(40)+(41)+(71)	2012/03/26	92.3	(1)	%	30
			22'34'-TetraCB-(42)	2012/03/26	90.1	(1)	%	30
			22'35-TetraCB-(43)	2012/03/26	NC		%	30
			TetraCB-(44)+(47)+(65)	2012/03/26	15.1		%	30
			TetraCB-(45)+(51)	2012/03/26	150	(1)	%	30
			22'36'-TetraCB-(46)	2012/03/26	NC		%	30
			22'45-TetraCB-(48)	2012/03/26	60.1	(1)	%	30
			TetraCB-(49)+TetraCB-(69)	2012/03/26	7.2		%	30
			TetraCB-(50)+(53)	2012/03/26	138	(1)	%	30
			22'55'-TetraCB-(52)	2012/03/26	20.5		%	30
			22'66'-TetraCB-(54)	2012/03/26	NC		%	30
			233'4-TetraCB-(55)	2012/03/26	NC		%	30
			233'4'-Tetra CB(56)	2012/03/26	20.9		%	30
			233'5-TetraCB-(57)	2012/03/26	NC		%	30
			233'5'-TetraCB-(58)	2012/03/26	NC		%	30
			TetraCB-(59)+(62)+(75)	2012/03/26	NC		%	30
			2344'-TetraCB -(60)	2012/03/26	22.4		%	30
			TetraCB-(61)+(70)+(74)+(76)	2012/03/26	42.4	(1)	%	30
			234'5-TetraCB-(63)	2012/03/26	NC		%	30
			234'6-TetraCB-(64)	2012/03/26	19.3		%	30
			23'44'-TetraCB-(66)	2012/03/26	6.6		%	30
			23'45-TetraCB-(67)	2012/03/26	NC		%	30
			23'45'-TetraCB-(68)	2012/03/26	NC		%	30
			23'55'-TetraCB-(72)	2012/03/26	NC		%	30
			23'5'6-TetraCB-(73)	2012/03/26	NC		%	30
			33'44'-TetraCB-(77)	2012/03/26	96.9	(1)	%	30
			33'45-TetraCB-(78)	2012/03/26	NC		%	30
			33'45'-TetraCB(79)	2012/03/26	40.3	(1)	%	30
			33'55'-TetraCB-(80)	2012/03/26	NC		%	30
			344'5-TetraCB-(81)	2012/03/26	NC		%	30

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Apex Laboratories
Attention: Philip Nerenberg
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Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2801609	BY	RPD - Sample/Sample Dup	22'33'4-PentaCB-(82)	2012/03/26	10.2		%	30
			PentaCB-(83)+(99)	2012/03/26	5.9		%	30
			22'33'6-PentaCB-(84)	2012/03/26	62.9 (1)		%	30
			PentaCB-(85)+(116)+(117)	2012/03/26	6.9		%	30
			PentaCB-(86)(87)(97)(109)(119)(125)	2012/03/26	3.3		%	30
			PentaCB-(88)+(91)	2012/03/26	51.7 (1)		%	30
			22'346'-PentaCB-(89)	2012/03/26	82.2 (1)		%	30
			PentaCB-(90)+(101)+(113)	2012/03/26	2.4		%	30
			22'355'-PentaCB-(92)	2012/03/26	21.3		%	30
			PentaCB-(93)+(98)+(100)+(102)	2012/03/26	86.8 (1)		%	30
			22'356'-PentaCB-(94)	2012/03/26	NC		%	30
			22'35'6-PentaCB-(95)	2012/03/26	57.4 (1)		%	30
			22'366'-PentaCB-(96)	2012/03/26	NC		%	30
			22'45'6-PentaCB-(103)	2012/03/26	NC		%	30
			22'466'-PentaCB-(104)	2012/03/26	NC		%	30
			233'44'-PentaCB-(105)	2012/03/26	19.6		%	30
			233'45-PentaCB-(106)	2012/03/26	NC		%	30
			233'4'5-PentaCB-(107)	2012/03/26	4.6		%	30
			PentaCB-(108)+(124)	2012/03/26	32.9 (1)		%	30
			PentaCB-(110)+(115)	2012/03/26	36.6 (1)		%	30
			233'55'-PentaCB-(111)	2012/03/26	NC		%	30
			233'56-PentaCB-(112)	2012/03/26	NC		%	30
			2344'5-PentaCB-(114)	2012/03/26	33.7 (1)		%	30
			23'44'5-PentaCB-(118)	2012/03/26	24.1		%	30
			23'455'-PentaCB-(120)	2012/03/26	NC		%	30
			23'45'6-PentaCB-(121)	2012/03/26	NC		%	30
			233'4'5'-PentaCB-(122)	2012/03/26	14.2		%	30
			23'44'5'-PentaCB-(123)	2012/03/26	13.6		%	30
			33'44'5-PentaCB-(126)	2012/03/26	NC		%	30
			33'455'-PentaCB-(127)	2012/03/26	NC		%	30
			HexaCB-(128)+(166)	2012/03/26	38.8 (1)		%	30
			HexaCB-(129)+(138)+(163)	2012/03/26	58.5 (1)		%	30
			22'33'45'-HexaCB-(130)	2012/03/26	48.7 (1)		%	30
			22'33'46-HexaCB-(131)	2012/03/26	62.5 (1)		%	30
			22'33'46'-HexaCB-(132)	2012/03/26	77.5 (1)		%	30
			22'33'55'-HexaCB-(133)	2012/03/26	74.1 (1)		%	30
			HexaCB-(134)+(143)	2012/03/26	75.3 (1)		%	30
			HexaCB-(135)+(151)	2012/03/26	118 (1)		%	30
			22'33'66'-HexaCB-(136)	2012/03/26	109 (1)		%	30
			22'344'5-HexaCB-(137)	2012/03/26	4.5		%	30
			HexaCB-(139)+(140)	2012/03/26	57.8 (1)		%	30
			22'3455'-HexaCB-(141)	2012/03/26	74.7 (1)		%	30
			22'3456-HexaCB-(142)	2012/03/26	NC		%	30
			22'345'6-HexaCB-(144)	2012/03/26	110 (1)		%	30
			22'3466'-HexaCB-(145)	2012/03/26	NC		%	30
			22'34'55'-HexaCB-(146)	2012/03/26	86.7 (1)		%	30
			HexaCB-(147)+(149)	2012/03/26	106 (1)		%	30
			22'34'56'-HexaCB-(148)	2012/03/26	NC		%	30
			22'34'66'-HexaCB-(150)	2012/03/26	NC		%	30
			22'3566'-HexaCB-(152)	2012/03/26	NC		%	30
			HexaCB-(153)+(168)	2012/03/26	65.9 (1)		%	30
			22'44'56'-HexaCB-(154)	2012/03/26	76.1 (1)		%	30
			22'44'66'-HexaCB-(155)	2012/03/26	NC		%	30

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Quality Assurance Report (Continued)

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2801609	BY	RPD - Sample/Sample Dup	HexaCB-(156)+(157)	2012/03/26	6.3		%	30
			233'44'6-HexaCB-(158)	2012/03/26	54.4	(1)	%	30
			233'455'-HexaCB-(159)	2012/03/26	126	(1)	%	30
			233'456-HexaCB-(160)	2012/03/26	NC		%	30
			233'45'6-HexaCB-(161)	2012/03/26	NC		%	30
			233'4'55'-HexaCB-(162)	2012/03/26	137	(1)	%	30
			233'4'5'6-HexaCB-(164)	2012/03/26	72.7	(1)	%	30
			233'55'6-HexaCB-(165)	2012/03/26	NC		%	30
			23'44'55'-HexaCB-(167)	2012/03/26	22.5		%	30
			33'44'55'-HexaCB-(169)	2012/03/26	NC	(2)	%	30
			22'33'44'5-HeptaCB-(170)	2012/03/26	130	(1)	%	30
			HeptaCB-(171)+(173)	2012/03/26	139	(1)	%	30
			22'33'455'-HeptaCB-(172)	2012/03/26	142	(1)	%	30
			22'33'456'-HeptaCB-(174)	2012/03/26	152	(1)	%	30
			22'33'45'6-HeptaCB-(175)	2012/03/26	158	(1)	%	30
			22'33'466'-HeptaCB-(176)	2012/03/26	163	(1)	%	30
			22'33'45'6'-HeptaCB-(177)	2012/03/26	146	(1)	%	30
			22'33'55'6-HeptaCB-(178)	2012/03/26	153	(1)	%	30
			22'33'566'-HeptaCB-(179)	2012/03/26	163	(1)	%	30
			HeptaCB-(180)+(193)	2012/03/26	143	(1)	%	30
			22'344'56-HeptaCB-(181)	2012/03/26	NC		%	30
			22'344'56'-HeptaCB-(182)	2012/03/26	NC		%	30
			22'344'5'6-HeptaCB-(183)	2012/03/26	163	(1)	%	30
			22'344'66'-HeptaCB-(184)	2012/03/26	NC		%	30
			22'3455'6-HeptaCB-(185)	2012/03/26	NC		%	30
			22'34566'-HeptaCB-(186)	2012/03/26	NC		%	30
			22'34'55'6-HeptaCB-(187)	2012/03/26	151	(1)	%	30
			22'34'566'-HeptaCB-(188)	2012/03/26	NC		%	30
			233'44'55'-HeptaCB-(189)	2012/03/26	121	(1)	%	30
			233'44'56-HeptaCB-(190)	2012/03/26	127	(1)	%	30
			233'44'5'6-HeptaCB-(191)	2012/03/26	142	(1)	%	30
			233'455'6-HeptaCB-(192)	2012/03/26	NC	(2)	%	30
			22'33'44'55'-OctaCB-(194)	2012/03/26	151	(1)	%	30
			22'33'44'56-OctaCB-(195)	2012/03/26	157	(1)	%	30
			22'33'44'56'-OctaCB-(196)	2012/03/26	166	(1)	%	30
			22'33'44'66'OctaCB-(197)	2012/03/26	NC		%	30
			OctaCB-(198)+(199)	2012/03/26	160	(1)	%	30
			22'33'4566'-OctaCB-(200)	2012/03/26	169	(1)	%	30
			22'33'45'66'-OctaCB-(201)	2012/03/26	175	(1)	%	30
			22'33'55'66'-OctaCB-(202)	2012/03/26	164	(1)	%	30
			22'344'55'6-OctaCB-(203)	2012/03/26	160	(1)	%	30
			22'344'566'-OctaCB-(204)	2012/03/26	NC		%	30
			233'44'55'6-OctaCB-(205)	2012/03/26	167	(1)	%	30
			22'33'44'55'6-NonaCB-(206)	2012/03/26	163	(1)	%	30
			22'33'44'566'-NonaCB-(207)	2012/03/26	172	(1)	%	30
			22'33'455'66'-NonaCB-(208)	2012/03/26	165	(1)	%	30
			DecaCB-(209)	2012/03/26	114	(1)	%	30
			Monochlorobiphenyl	2012/03/26	59.8		%	N/A
			Dichlorobiphenyl	2012/03/26	105		%	N/A
			Trichlorobiphenyl	2012/03/26	102		%	N/A
			Tetrachlorobiphenyl	2012/03/26	10.4		%	N/A
			Pentachlorobiphenyl	2012/03/26	20.1		%	N/A
			Hexachlorobiphenyl	2012/03/26	79.3		%	N/A

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Quality Assurance Report (Continued)

Maxxam Job Number: GB229575

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2801609	BY	RPD - Sample/Sample Dup	Heptachlorobiphenyl	2012/03/26	148		%	N/A
			Octachlorobiphenyl	2012/03/26	161		%	N/A
			Nonachlorobiphenyl	2012/03/26	164		%	N/A
			Decachlorobiphenyl	2012/03/26	114		%	N/A
			Total PCB	2012/03/26	82.4		%	N/A

N/A = Not Applicable
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(2) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(3) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
EMPC / DPE - Diphenylether interference present caused dibenzofuran detected to become a "non-detect" with an elevated detection limit.

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Validation Signature Page

Maxxam Job #: B229575

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

BRANKO VRZIC, A.SC.T., Senior Analyst, HRMS Services

OWEN COSBY, BSc.C.Chem, Supervisor, HRMS Services

CRISTINA CARRIERE, Scientific Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-MW1-7	P2A0115-01	Soil	01/03/02 12:00	01/04/02 15:15
S-MW1-7D	P2A0115-02	Soil	01/03/02 12:00	01/04/02 15:15
S-MW1-12	P2A0115-03	Soil	01/03/02 12:00	01/04/02 15:15
S-MW1-18	P2A0115-04	Soil	01/03/02 12:00	01/04/02 15:15
S-MW1-18D	P2A0115-05	Soil	01/03/02 12:00	01/04/02 15:15
S-MW2-7	P2A0115-06	Soil	01/04/02 12:00	01/04/02 15:15
S-MW2-12	P2A0115-07	Soil	01/04/02 12:00	01/04/02 15:15
S-MW2-18	P2A0115-08	Soil	01/04/02 12:00	01/04/02 15:15
S-MW7-2	P2A0115-09	Soil	01/03/02 12:00	01/04/02 15:15
S-MW7-7	P2A0115-10	Soil	01/03/02 12:00	01/04/02 15:15
TRIP	P2A0115-14	Water	01/02/02 12:00	01/04/02 15:15

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7 (P2A0115-01) Soil					Sampled: 01/03/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/08/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*100 %*	*50-150*							
S-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/08/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*92.5 %*	*50-150*							
S-MW1-12 (P2A0115-03) Soil					Sampled: 01/03/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/08/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*93.7 %*	*50-150*							
S-MW1-18 (P2A0115-04) Soil					Sampled: 01/03/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/08/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*91.6 %*	*50-150*							
S-MW1-18D (P2A0115-05) Soil					Sampled: 01/03/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/09/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*89.8 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/09/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*94.6 %*	*50-150*							
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/09/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*102 %*	*50-150*							
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/08/02	01/09/02	2010229	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*104 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7 (P2A0115-01) Soil					Sampled: 01/03/02 Received: 01/04/02				
Diesel Range Organics	ND	50.0	mg/kg dry	2	NWTPH-Dx	01/16/02	01/17/02	2010458	R-02
Heavy Oil Range Hydrocarbons	**274**	100	"	"	"	"	"	"	R-02
Surr: 1-Chlorooctadecane	*99.8 %*	*50-150*							
-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02 Received: 01/04/02				
Diesel Range Organics	ND	25.0	mg/kg dry	1	NWTPH-Dx	01/16/02	01/17/02	2010458	
eavy Oil Range Hydrocarbons	**210**	50.0	"	"	"	"	"	"	
urr: 1-Chlorooctadecane	*81.9 %*	*50-150*							
-MW1-12 (P2A0115-03) Soil					Sampled: 01/03/02 Received: 01/04/02				
iesel Range Organics	ND	25.0	mg/kg dry	1	NWTPH-Dx	01/16/02	01/17/02	2010458	
Heavy Oil Range Hydrocarbons	**208**	50.0	"	"	"	"	"	"	
urr: 1-Chlorooctadecane	*95.1 %*	*50-150*							
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
iesel Range Organics	**289**	50.0	mg/kg dry	2	NWTPH-Dx	01/16/02	01/17/02	2010458	A-01,R-02
leavy Oil Range Hydrocarbons	**415**	100	"	"	"	"	"	"	R-02
Surr: 1-Chlorooctadecane	*58.7 %*	*50-150*							
-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Diesel Range Organics	ND	50.0	mg/kg dry	2	NWTPH-Dx	01/16/02	01/17/02	2010458	R-02
Heavy Oil Range Hydrocarbons	**388**	100	"	"	"	"	"	"	R-02
urr: 1-Chlorooctadecane	*111 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Total Metals per EPA 6000/7000 Series Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	01/08/02	01/09/02	2010231	
Arsenic	**2.71**	0.500	"	"	"	"	01/09/02	"	
Barium	**89.6**	0.500	"	"	"	"	01/09/02	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**15.5**	0.500	"	"	"	"	"	"	
Copper	**20.1**	0.500	"	"	"	"	"	"	
Lead	**11.2**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	01/08/02	01/08/02	2010203	
Nickel	**20.0**	0.500	"	"	EPA 6020	01/08/02	01/09/02	2010231	
Zinc	**66.8**	0.500	"	"	"	"	"	"	
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
Antimony	**0.944**	0.500	mg/kg dry	1	EPA 6020	01/08/02	01/09/02	2010231	
Arsenic	**3.42**	0.500	"	"	"	"	01/09/02	"	
Barium	**142**	0.500	"	"	"	"	01/09/02	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**22.0**	0.500	"	"	"	"	"	"	
Copper	**133**	0.500	"	"	"	"	"	"	
Lead	**529**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	01/08/02	01/08/02	2010203	
Nickel	**26.0**	0.500	"	"	EPA 6020	01/08/02	01/09/02	2010231	
Zinc	**432**	0.500	"	"	"	"	"	"	
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Antimony	**1.43**	0.500	mg/kg dry	1	EPA 6020	01/08/02	01/09/02	2010231	
Arsenic	**6.83**	0.500	"	"	"	"	01/09/02	"	
Barium	**162**	0.500	"	"	"	"	01/09/02	"	
Cadmium	**0.808**	0.500	"	"	"	"	"	"	
Chromium	**38.5**	0.500	"	"	"	"	"	"	
Copper	**84.0**	0.500	"	"	"	"	"	"	
Lead	**300**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	01/08/02	01/08/02	2010203	
Nickel	**31.0**	0.500	"	"	EPA 6020	01/08/02	01/09/02	2010231	
Zinc	**543**	4.18	"	8.36	"	"	01/09/02	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-2 (P2A0115-09) Soil					Sampled: 01/03/02 Received: 01/04/02				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	01/08/02	01/09/02	2010231	
Arsenic	**3.93**	0.500	"	"	"	"	01/09/02	"	
Barium	**106**	0.500	"	"	"	"	01/09/02	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**15.7**	0.500	"	"	"	"	"	"	
Copper	**21.5**	0.500	"	"	"	"	"	"	
Lead	**366**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	01/08/02	01/08/02	2010203	
Nickel	**16.6**	0.500	"	"	EPA 6020	01/08/02	01/09/02	2010231	
Zinc	**69.2**	0.500	"	"	"	"	"	"	
S-MW7-7 (P2A0115-10) Soil					Sampled: 01/03/02 Received: 01/04/02				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	01/08/02	01/09/02	2010231	
Arsenic	**3.64**	0.500	"	"	"	"	01/09/02	"	
Barium	**105**	0.500	"	"	"	"	01/09/02	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**13.1**	0.500	"	"	"	"	"	"	
Copper	**16.4**	0.500	"	"	"	"	"	"	
Lead	**6.22**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	01/08/02	01/08/02	2010203	
Nickel	**14.7**	0.500	"	"	EPA 6020	01/08/02	01/09/02	2010231	
Zinc	**54.7**	0.500	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-12 (P2A0115-07) Soil						Sampled: 01/04/02	Received: 01/04/02		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	01/15/02	01/15/02	2010406	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	**532**	67.0	"	"	"	"	"	"	
Aroclor 1260	**390**	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*92.8 %*	*36-140*							
Surr: Decachlorobiphenyl	*62.4 %*	*16-149*							
S-MW2-18 (P2A0115-08) Soil						Sampled: 01/04/02	Received: 01/04/02		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	01/15/02	01/15/02	2010406	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	**321**	67.0	"	"	"	"	"	"	
Aroclor 1260	**145**	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*72.6 %*	*36-140*							
Surr: Decachlorobiphenyl	*57.0 %*	*16-149*							
S-MW7-2 (P2A0115-09) Soil						Sampled: 01/03/02	Received: 01/04/02		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	01/07/02	01/08/02	2010154	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*114 %*	*36-140*							
Surr: Decachlorobiphenyl	*93.5 %*	*16-149*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-7 (P2A0115-10) Soil					Sampled: 01/03/02 Received: 01/04/02				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	01/07/02	01/08/02	2010154	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*106 %*	*36-140*							
Surr: Decachlorobiphenyl	*90.3 %*	*16-149*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7 (P2A0115-01) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7 (P2A0115-01) Soil					Sampled: 01/03/02 Received: 01/04/02				
exachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
Isopropyltoluene	ND	200	"	"	"	"	"	"	
Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
aphthalene	ND	200	"	"	"	"	"	"	
-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
richloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
-Xylene	ND	100	"	"	"	"	"	"	
,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*95.9 %*	*70-130*							
Surr: 1,2-DCA-d4	*116 %*	*70-130*							
Surr: Dibromofluoromethane	*107 %*	*70-130*							
Surr: Toluene-d8	*112 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02 Received: 01/04/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*94.6 %*	*70-130*							
Surr: 1,2-DCA-d4	*123 %*	*70-130*							
Surr: Dibromofluoromethane	*110 %*	*70-130*							
Surr: Toluene-d8	*115 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-12 (P2A0115-03) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-12 (P2A0115-03) Soil					Sampled: 01/03/02 Received: 01/04/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*97.8 %*	*70-130*							
Surr: 1,2-DCA-d4	*115 %*	*70-130*							
Surr: Dibromofluoromethane	*102 %*	*70-130*							
Surr: Toluene-d8	*113 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-18 (P2A0115-04) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-18 (P2A0115-04) Soil					Sampled: 01/03/02 Received: 01/04/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
4-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*96.4 %*	*70-130*							
Surr: 1,2-DCA-d4	*114 %*	*70-130*							
Surr: Dibromofluoromethane	*100 %*	*70-130*							
Surr: Toluene-d8	*111 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-18D (P2A0115-05) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-18D (P2A0115-05) Soil					Sampled: 01/03/02 Received: 01/04/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*95.5 %*	*70-130*							
Surr: 1,2-DCA-d4	*117 %*	*70-130*							
Surr: Dibromofluoromethane	*104 %*	*70-130*							
Surr: Toluene-d8	*112 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
exachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
Isopropyltoluene	ND	200	"	"	"	"	"	"	
Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
aphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
richloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*97.7 %*	*70-130*							
Surr: 1,2-DCA-d4	*121 %*	*70-130*							
Surr: Dibromofluoromethane	*108 %*	*70-130*							
Surr: Toluene-d8	*117 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
4-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*94.7 %*	*70-130*							
Surr: 1,2-DCA-d4	*114 %*	*70-130*							
Surr: Dibromofluoromethane	*98.2 %*	*70-130*							
Surr: Toluene-d8	*109 %*	*70-130*							

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
4-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	**111**	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*92.5 %*	*70-130*							
Surr: 1,2-DCA-d4	*117 %*	*70-130*							
Surr: Dibromofluoromethane	*99.6 %*	*70-130*							
Surr: Toluene-d8	*110 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-2 (P2A0115-09) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-2 (P2A0115-09) Soil					Sampled: 01/03/02 Received: 01/04/02				
exachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
Isopropyltoluene	ND	200	"	"	"	"	"	"	
Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
aphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
richloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*97.2 %*	*70-130*							
Surr: 1,2-DCA-d4	*120 %*	*70-130*							
Surr: Dibromofluoromethane	*101 %*	*70-130*							
Surr: Toluene-d8	*112 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-7 (P2A0115-10) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-7 (P2A0115-10) Soil					Sampled: 01/03/02 Received: 01/04/02				
exachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/07/02	01/07/02	2010161	
-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
Isopropyltoluene	ND	200	"	"	"	"	"	"	
Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
aphthalene	ND	200	"	"	"	"	"	"	
-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
richloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*91.5 %*	*70-130*							
Surr: 1,2-DCA-d4	*113 %*	*70-130*							
Surr: Dibromofluoromethane	*96.4 %*	*70-130*							
Surr: Toluene-d8	*107 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
TRIP (P2A0115-14) Water					Sampled: 01/02/02 Received: 01/04/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/07/02	01/07/02	2010150	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
TRIP (P2A0115-14) Water					Sampled: 01/02/02 Received: 01/04/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/07/02	01/07/02	2010150	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*93.5 %*	*84-118*							
Surr: 1,2-DCA-d4	*106 %*	*79-123*							
Surr: Dibromofluoromethane	*107 %*	*81-121*							
Surr: Toluene-d8	*99.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	01/08/02	01/08/02	2010205	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	**1.66**	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	**1.18**	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	**0.979**	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	**0.644**	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	**1.03**	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	**1.81**	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	**2.60**	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
luorene	ND	0.330	mg/kg dry	1	EPA 8270C	01/08/02	01/08/02	2010205	
exachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
exachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
exachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**0.613**	0.330	"	"	"	"	"	"	
ophorone	ND	0.330	"	"	"	"	"	"	
-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
aphthalene	ND	0.330	"	"	"	"	"	"	
-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
-Nitroaniline	ND	0.330	"	"	"	"	"	"	
itrobenzene	ND	0.330	"	"	"	"	"	"	
-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
henanthrene	**0.383**	0.330	"	"	"	"	"	"	
henol	ND	0.330	"	"	"	"	"	"	
yrene	**2.70**	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*88.1 %*	*44-146*							
urr: 2-Fluorophenol	*79.8 %*	*42-126*							
urr: Nitrobenzene-d5	*82.2 %*	*42-126*							
Surr: Phenol-d6	*80.0 %*	*42-131*							
Surr: p-Terphenyl-d14	*107 %*	*49-150*							
urr: 2,4,6-Tribromophenol	*93.9 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	01/08/02	01/08/02	2010205	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	**0.504**	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	**0.334**	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	**0.414**	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	**0.444**	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	**0.671**	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
luorene	ND	0.330	mg/kg dry	1	EPA 8270C	01/08/02	01/08/02	2010205	
exachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
exachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
exachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**0.332**	0.330	"	"	"	"	"	"	
sophorone	ND	0.330	"	"	"	"	"	"	
-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
aphthalene	ND	0.330	"	"	"	"	"	"	
-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
itrobenzene	ND	0.330	"	"	"	"	"	"	
-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
henol	ND	0.330	"	"	"	"	"	"	
yrene	**0.857**	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*96.4 %*	*44-146*							
urr: 2-Fluorophenol	*76.5 %*	*42-126*							
urr: Nitrobenzene-d5	*83.6 %*	*42-126*							
Surr: Phenol-d6	*78.6 %*	*42-131*							
Surr: p-Terphenyl-d14	*102 %*	*49-150*							
urr: 2,4,6-Tribromophenol	*94.1 %*	*48-119*							

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541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	01/08/02	01/08/02	2010205	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	**0.575**	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	**2.14**	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	**2.46**	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	**2.20**	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	**1.73**	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	**1.47**	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	**2.73**	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	**0.353**	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	**4.88**	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	01/08/02	01/08/02	2010205	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**1.47**	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
1-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	**3.13**	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	**5.04**	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*84.5 %*	*44-146*							
Surr: 2-Fluorophenol	*78.4 %*	*42-126*							
Surr: Nitrobenzene-d5	*77.8 %*	*42-126*							
Surr: Phenol-d6	*77.7 %*	*42-131*							
Surr: p-Terphenyl-d14	*79.2 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*87.3 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7 (P2A0115-01) Soil					Sampled: 01/03/02	Received: 01/04/02			**R-05**
Acenaphthene	ND	26.8	ug/kg dry	2	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	26.8	"	"	"	"	"	"	
Anthracene	ND	26.8	"	"	"	"	"	"	
Benzo (a) anthracene	**36.0**	26.8	"	"	"	"	"	"	
Benzo (a) pyrene	**95.5**	26.8	"	"	"	"	"	"	
Benzo (b) fluoranthene	**71.5**	26.8	"	"	"	"	"	"	
Benzo (ghi) perylene	**139**	26.8	"	"	"	"	"	"	
Benzo (k) fluoranthene	**44.2**	26.8	"	"	"	"	"	"	
Chrysene	**52.8**	26.8	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	26.8	"	"	"	"	"	"	
Fluoranthene	**41.0**	26.8	"	"	"	"	"	"	
Fluorene	ND	26.8	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**89.3**	26.8	"	"	"	"	"	"	
Naphthalene	ND	26.8	"	"	"	"	"	"	
Phenanthrene	ND	26.8	"	"	"	"	"	"	
Pyrene	**66.3**	26.8	"	"	"	"	"	"	
Surr: Fluorene-d10	*101 %*	*40-150*							
Surr: Pyrene-d10	*107 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*111 %*	*40-150*							
S-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02	Received: 01/04/02			**R-05**
Acenaphthene	ND	26.8	ug/kg dry	2	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	26.8	"	"	"	"	"	"	
Anthracene	ND	26.8	"	"	"	"	"	"	
Benzo (a) anthracene	ND	26.8	"	"	"	"	"	"	
Benzo (a) pyrene	**40.4**	26.8	"	"	"	"	"	"	
Benzo (b) fluoranthene	**50.7**	26.8	"	"	"	"	"	"	R-08
Benzo (ghi) perylene	**48.5**	26.8	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	26.8	"	"	"	"	"	"	R-08
Chrysene	ND	26.8	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	26.8	"	"	"	"	"	"	
Fluoranthene	ND	26.8	"	"	"	"	"	"	
Fluorene	ND	26.8	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**30.3**	26.8	"	"	"	"	"	"	
Naphthalene	ND	26.8	"	"	"	"	"	"	
Phenanthrene	ND	26.8	"	"	"	"	"	"	
Pyrene	**32.3**	26.8	"	"	"	"	"	"	
Surr: Fluorene-d10	*97.4 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02	Received: 01/04/02			**R-05**
urr: Pyrene-d10	*88.1 %*	*40-150*							
urr: Benzo (a) pyrene-d12	*91.8 %*	*40-150*							
-MW1-12 (P2A0115-03) Soil					Sampled: 01/03/02	Received: 01/04/02			**R-05**
cenaphthene	ND	26.8	ug/kg dry	2	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	26.8	"	"	"	"	"	"	
nthracene	ND	26.8	"	"	"	"	"	"	
enzo (a) anthracene	**28.2**	26.8	"	"	"	"	"	"	
Benzo (a) pyrene	**54.6**	26.8	"	"	"	"	"	"	
Benzo (b) fluoranthene	**34.7**	26.8	"	"	"	"	"	"	
enzo (ghi) perylene	**59.6**	26.8	"	"	"	"	"	"	
enzo (k) fluoranthene	ND	26.8	"	"	"	"	"	"	
Chrysene	**32.5**	26.8	"	"	"	"	"	"	
ibenzo (a,h) anthracene	ND	26.8	"	"	"	"	"	"	
luoranthene	**33.9**	26.8	"	"	"	"	"	"	
luorene	ND	26.8	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**38.9**	26.8	"	"	"	"	"	"	
aphthalene	ND	26.8	"	"	"	"	"	"	
henanthrene	ND	26.8	"	"	"	"	"	"	
Pyrene	**59.3**	26.8	"	"	"	"	"	"	
urr: Fluorene-d10	*86.0 %*	*40-150*							
urr: Pyrene-d10	*92.0 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*94.8 %*	*40-150*							
-MW7-2 (P2A0115-09) Soil					Sampled: 01/03/02	Received: 01/04/02			**R-05**
Acenaphthene	ND	26.8	ug/kg dry	2	EPA 8270m	01/07/02	01/08/02	2010176	
Acenaphthylene	ND	26.8	"	"	"	"	"	"	
nthracene	ND	26.8	"	"	"	"	"	"	
enzo (a) anthracene	ND	26.8	"	"	"	"	"	"	
Benzo (a) pyrene	ND	26.8	"	"	"	"	"	"	
enzo (b) fluoranthene	ND	26.8	"	"	"	"	"	"	
enzo (ghi) perylene	ND	26.8	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	26.8	"	"	"	"	"	"	
Chrysene	ND	26.8	"	"	"	"	"	"	
ibenzo (a,h) anthracene	ND	26.8	"	"	"	"	"	"	
luoranthene	ND	26.8	"	"	"	"	"	"	
Fluorene	ND	26.8	"	"	"	"	"	"	
ndeno (1,2,3-cd) pyrene	ND	26.8	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-2 (P2A0115-09) Soil					Sampled: 01/03/02 Received: 01/04/02				**R-05**
Naphthalene	ND	26.8	ug/kg dry	2	EPA 8270m	01/07/02	01/08/02	2010176	
Phenanthrene	ND	26.8	"	"	"	"	"	"	
Pyrene	ND	26.8	"	"	"	"	"	"	
Surr: Fluorene-d10	*85.0 %*	*40-150*							
Surr: Pyrene-d10	*147 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*85.0 %*	*40-150*							
S-MW7-7 (P2A0115-10) Soil					Sampled: 01/03/02 Received: 01/04/02				
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/07/02	01/08/02	2010176	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*86.9 %*	*40-150*							
Surr: Pyrene-d10	*154 %*	*40-150*							*S-08*
Surr: Benzo (a) pyrene-d12	*90.0 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Percent Dry Weight (Solids) per Standard Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW1-7 (P2A0115-01) Soil					Sampled: 01/03/02 Received: 01/04/02				
% Solids	**91.9**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW1-7D (P2A0115-02) Soil					Sampled: 01/03/02 Received: 01/04/02				
% Solids	**90.4**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW1-12 (P2A0115-03) Soil					Sampled: 01/03/02 Received: 01/04/02				
% Solids	**89.7**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW1-18 (P2A0115-04) Soil					Sampled: 01/03/02 Received: 01/04/02				
% Solids	**89.4**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW1-18D (P2A0115-05) Soil					Sampled: 01/03/02 Received: 01/04/02				
% Solids	**89.8**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW2-7 (P2A0115-06) Soil					Sampled: 01/04/02 Received: 01/04/02				
% Solids	**92.7**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW2-12 (P2A0115-07) Soil					Sampled: 01/04/02 Received: 01/04/02				
% Solids	**89.0**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW2-18 (P2A0115-08) Soil					Sampled: 01/04/02 Received: 01/04/02				
% Solids	**87.9**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	
S-MW7-2 (P2A0115-09) Soil					Sampled: 01/03/02 Received: 01/04/02				
% Solids	**94.2**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Percent Dry Weight (Solids) per Standard Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-MW7-7 (P2A0115-10) Soil						Sampled: 01/03/02	Received: 01/04/02		
% Solids	**89.9**	1.00	% by Weight	1	NCA SOP	01/08/02	01/09/02	2010220	

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010229 - TPH-HCID Extraction										
Blank (2010229-BLK1)				Prepared & Analyzed: 01/08/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*89.1*	*50-150*			
Duplicate (2010229-DUP1)		**Source: P2A0129-01**		Prepared: 01/08/02 Analyzed: 01/09/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	ND	100	"		ND				50	
Surr: 1-Chlorooctadecane	*DET*		"	*4.37*		*88.1*	*50-150*			
Duplicate (2010229-DUP2)		**Source: P2A0115-01**		Prepared & Analyzed: 01/08/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			13.3	50	
Surr: 1-Chlorooctadecane	*DET*		"	*4.31*		*97.9*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010458 - EPA 3550 Fuels										
Blank (2010458-BLK1)				Prepared & Analyzed: 01/16/02						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*4.78*		"	*4.80*		*99.6*	*50-150*			
LCS (2010458-BS1)				Prepared & Analyzed: 01/16/02						
Diesel Range Organics	125	25.0	mg/kg	129		96.9	50-150			
Heavy Oil Range Hydrocarbons	75.2	50.0	"	79.0		95.2	50-150			
Surr: 1-Chlorooctadecane	*4.60*		"	*4.80*		*95.8*	*50-150*			
Duplicate (2010458-DUP1)	**Source: P2A0115-01**			Prepared: 01/16/02 Analyzed: 01/17/02						
Diesel Range Organics	ND	50.0	mg/kg dry		ND				50	R-02
Heavy Oil Range Hydrocarbons	292	100	"		274			6.36	50	R-02
Surr: 1-Chlorooctadecane	*4.93*		"	*5.22*		*94.4*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010203 - EPA 7471										
Blank (2010203-BLK1)				Prepared & Analyzed: 01/08/02						
Mercury	ND	0.100	mg/kg							
LCS (2010203-BS1)				Prepared & Analyzed: 01/08/02						
Mercury	0.960	0.100	mg/kg	1.00		96.0	80-120			
Duplicate (2010203-DUP1)		Source: P2A0115-10		Prepared & Analyzed: 01/08/02						
Mercury	ND	0.100	mg/kg dry		ND				40	
Matrix Spike (2010203-MS1)		Source: P2A0115-10		Prepared & Analyzed: 01/08/02						
Mercury	1.06	0.100	mg/kg dry	1.11	ND	95.5	75-125			
Matrix Spike (2010203-MS2)		Source: P2A0129-01		Prepared & Analyzed: 01/08/02						
Mercury	1.04	0.100	mg/kg dry	1.10	ND	94.5	75-125			
Batch 2010231 - EPA 3050										
Blank (2010231-BLK1)				Prepared: 01/08/02 Analyzed: 01/09/02						
Antimony	ND	0.500	mg/kg							
Arsenic	ND	0.500	"							
Barium	ND	0.500	"							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Copper	ND	0.500	"							
Lead	ND	0.500	"							
Nickel	ND	0.500	"							
Zinc	ND	0.500	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010231 - EPA 3050										
LCS (2010231-BS1)				Prepared: 01/08/02 Analyzed: 01/09/02						
Antimony	4.76	0.500	mg/kg	5.00		95.2	80-120			
Arsenic	9.22	0.500	"	10.0		92.2	80-120			
Barium	9.60	0.500	"	10.0		96.0	80-120			
Cadmium	9.71	0.500	"	10.0		97.1	80-120			
Chromium	10.1	0.500	"	10.0		101	80-120			
Copper	10.1	0.500	"	10.0		101	80-120			
Lead	9.74	0.500	"	10.0		97.4	80-120			
Nickel	10.2	0.500	"	10.0		102	80-120			
Zinc	9.87	0.500	"	10.0		98.7	80-120			
Duplicate (2010231-DUP1)		**Source: P2A0115-09**		Prepared: 01/08/02 Analyzed: 01/09/02						
Antimony	ND	0.500	mg/kg dry		ND			34.6	40	
Arsenic	4.11	0.500	"		3.93			4.48	40	
Barium	98.3	0.500	"		106			7.54	40	
Cadmium	ND	0.500	"		ND				40	
Chromium	13.7	0.500	"		15.7			13.6	40	
Copper	18.2	0.500	"		21.5			16.6	40	
Lead	17.4	0.500	"		366			182	40	Q-14
Nickel	13.5	0.500	"		16.6			20.6	40	
Zinc	58.8	0.500	"		69.2			16.2	40	
Matrix Spike (2010231-MS1)		**Source: P2A0115-09**		Prepared: 01/08/02 Analyzed: 01/09/02						
Antimony	2.35	0.500	mg/kg dry	5.31	ND	39.2	75-125			Q-02
Arsenic	14.6	0.500	"	10.6	3.93	101	75-125			
Barium	103	0.500	"	10.6	106	NR	75-125			Q-14
Cadmium	10.7	0.500	"	10.6	ND	101	75-125			
Chromium	22.9	0.500	"	10.6	15.7	67.9	75-125			Q-14
Copper	28.8	0.500	"	10.6	21.5	68.9	75-125			Q-14
Lead	35.0	0.500	"	10.6	366	NR	75-125			Q-14
Nickel	23.3	0.500	"	10.6	16.6	63.2	75-125			Q-14
Zinc	65.9	0.500	"	10.6	69.2	NR	75-125			Q-14

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010154 - EPA 3550										
Blank (2010154-BLK1)				Prepared & Analyzed: 01/07/02						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*34.9*		"	*33.3*		*105*	*36-140*			
Surr: Decachlorobiphenyl	*33.0*		"	*33.3*		*99.1*	*16-149*			
LCS (2010154-BS1)				Prepared: 01/07/02 Analyzed: 01/08/02						
Aroclor 1016	297	67.0	ug/kg	333		89.2	57-135			
Aroclor 1260	263	67.0	"	333		79.0	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*33.3*		"	*33.3*		*100*	*36-140*			
Surr: Decachlorobiphenyl	*28.7*		"	*33.3*		*86.2*	*16-149*			
Matrix Spike (2010154-MS1)	**Source: P2A0113-02**			Prepared: 01/07/02 Analyzed: 01/08/02						
Aroclor 1016	337	67.0	ug/kg dry	395	ND	85.3	37-145			
Aroclor 1260	814	67.0	"	395	ND	NR	25-144			Q-02
Surr: 2,4,5,6-Tetrachloro-m-xylene	*36.5*		"	*39.5*		*92.4*	*36-140*			
Surr: Decachlorobiphenyl	*31.5*		"	*39.5*		*79.7*	*16-149*			
Matrix Spike Dup (2010154-MSD1)	**Source: P2A0113-02**			Prepared: 01/07/02 Analyzed: 01/08/02						
Aroclor 1016	366	67.0	ug/kg dry	395	ND	92.7	37-145	8.25	26	
Aroclor 1260	1230	67.0	"	395	ND	NR	25-144	40.7	30	Q-02
Surr: 2,4,5,6-Tetrachloro-m-xylene	*41.0*		"	*39.5*		*104*	*36-140*			
Surr: Decachlorobiphenyl	*35.9*		"	*39.5*		*90.9*	*16-149*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010406 - EPA 3550										
Blank (2010406-BLK1)				Prepared & Analyzed: 01/15/02						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*34.5*		"	*33.3*		*104*	*36-140*			
Surr: Decachlorobiphenyl	*34.7*		"	*33.3*		*104*	*16-149*			
LCS (2010406-BS1)				Prepared & Analyzed: 01/15/02						
Aroclor 1016	321	67.0	ug/kg	333		96.4	57-135			
Aroclor 1260	310	67.0	"	333		93.1	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*34.7*		"	*33.3*		*104*	*36-140*			
Surr: Decachlorobiphenyl	*34.3*		"	*33.3*		*103*	*16-149*			
Matrix Spike (2010406-MS1)	**Source: P2A0115-07**			Prepared & Analyzed: 01/15/02						
Aroclor 1016	238	67.0	ug/kg dry	375	ND	63.5	37-145			
Aroclor 1260	562	67.0	"	375	390	45.9	25-144			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*26.6*		"	*37.5*		*70.9*	*36-140*			
Surr: Decachlorobiphenyl	*26.0*		"	*37.5*		*69.3*	*16-149*			
Matrix Spike Dup (2010406-MSD1)	**Source: P2A0115-07**			Prepared & Analyzed: 01/15/02						
Aroclor 1016	196	67.0	ug/kg dry	375	ND	52.3	37-145	19.4	26	
Aroclor 1260	536	67.0	"	375	390	38.9	25-144	4.74	30	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*21.0*		"	*37.5*		*56.0*	*36-140*			
Surr: Decachlorobiphenyl	*21.3*		"	*37.5*		*56.8*	*16-149*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010150 - EPA 5030B										
Blank (2010150-BLK1)			Prepared & Analyzed: 01/07/02							
Acetone	ND	25.0	ug/l							
Benzene	ND	1.00	"							
Bromobenzene	ND	1.00	"							
Bromochloromethane	ND	1.00	"							
Bromodichloromethane	ND	1.00	"							
Bromoform	ND	1.00	"							
Bromomethane	ND	5.00	"							
2-Butanone	ND	10.0	"							
n-Butylbenzene	ND	5.00	"							
sec-Butylbenzene	ND	1.00	"							
tert-Butylbenzene	ND	1.00	"							
Carbon disulfide	ND	10.0	"							
Carbon tetrachloride	ND	1.00	"							
Chlorobenzene	ND	1.00	"							
Chloroethane	ND	1.00	"							
Chloroform	ND	1.00	"							
Chloromethane	ND	5.00	"							
2-Chlorotoluene	ND	1.00	"							
4-Chlorotoluene	ND	1.00	"							
1,2-Dibromo-3-chloropropane	ND	5.00	"							
Dibromochloromethane	ND	1.00	"							
1,2-Dibromoethane	ND	1.00	"							
Dibromomethane	ND	1.00	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorodifluoromethane	ND	5.00	"							
1,1-Dichloroethane	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
1,1-Dichloroethene	ND	1.00	"							
cis-1,2-Dichloroethene	ND	1.00	"							
trans-1,2-Dichloroethene	ND	1.00	"							
1,2-Dichloropropane	ND	1.00	"							
1,3-Dichloropropane	ND	1.00	"							
2,2-Dichloropropane	ND	1.00	"							
1,1-Dichloropropene	ND	1.00	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010150 - EPA 5030B										
Blank (2010150-BLK1)				Prepared & Analyzed: 01/07/02						
cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	*19.8*		"	*20.0*		*99.0*	*84-118*			
Surr: 1,2-DCA-d4	*21.2*		"	*20.0*		*106*	*79-123*			
Surr: Dibromofluoromethane	*21.3*		"	*20.0*		*106*	*81-121*			
Surr: Toluene-d8	*19.1*		"	*20.0*		*95.5*	*87-111*			

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010150 - EPA 5030B										
LCS (2010150-BS1)				Prepared & Analyzed: 01/07/02						
Benzene	20.4	1.00	ug/l	20.0		102	80-125			
Chlorobenzene	20.6	1.00	"	20.0		103	80-125			
1,1-Dichloroethene	18.8	1.00	"	20.0		94.0	70-135			
Toluene	20.8	1.00	"	20.0		104	80-125			
Trichloroethene	20.5	1.00	"	20.0		102	70-130			
Surr: 4-BFB	*20.7*		"	*20.0*		*104*	*84-118*			
Surr: 1,2-DCA-d4	*19.2*		"	*20.0*		*96.0*	*79-123*			
Surr: Dibromofluoromethane	*18.1*		"	*20.0*		*90.5*	*81-121*			
Surr: Toluene-d8	*20.4*		"	*20.0*		*102*	*87-111*			
Matrix Spike (2010150-MS1)	**Source: P2A0139-01**			Prepared & Analyzed: 01/07/02						
Benzene	22.9	1.00	ug/l	20.0	ND	114	80-125			
Chlorobenzene	22.5	1.00	"	20.0	ND	112	80-125			
1,1-Dichloroethene	22.2	1.00	"	20.0	ND	111	70-135			
Toluene	23.1	1.00	"	20.0	ND	116	80-125			
Trichloroethene	21.7	1.00	"	20.0	ND	108	70-130			
Surr: 4-BFB	*20.4*		"	*20.0*		*102*	*84-118*			
Surr: 1,2-DCA-d4	*19.4*		"	*20.0*		*97.0*	*79-123*			
Surr: Dibromofluoromethane	*18.2*		"	*20.0*		*91.0*	*81-121*			
Surr: Toluene-d8	*20.5*		"	*20.0*		*102*	*87-111*			
Matrix Spike Dup (2010150-MSD1)	**Source: P2A0139-01**			Prepared & Analyzed: 01/07/02						
Benzene	23.0	1.00	ug/l	20.0	ND	115	80-125	0.436	25	
Chlorobenzene	22.0	1.00	"	20.0	ND	110	80-125	2.25	25	
1,1-Dichloroethene	22.3	1.00	"	20.0	ND	112	70-135	0.449	25	
Toluene	23.0	1.00	"	20.0	ND	115	80-125	0.434	25	
Trichloroethene	22.7	1.00	"	20.0	ND	114	70-130	4.50	25	
Surr: 4-BFB	*20.4*		"	*20.0*		*102*	*84-118*			
Surr: 1,2-DCA-d4	*19.1*		"	*20.0*		*95.5*	*79-123*			
Surr: Dibromofluoromethane	*18.0*		"	*20.0*		*90.0*	*81-121*			
Surr: Toluene-d8	*20.3*		"	*20.0*		*102*	*87-111*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010161 - EPA 5035										
Blank (2010161-BLK1)				Prepared & Analyzed: 01/07/02						
Acetone	ND	2500	ug/kg							
Benzene	ND	100	"							
Bromobenzene	ND	100	"							
Bromochloromethane	ND	100	"							
Bromodichloromethane	ND	100	"							
Bromoform	ND	100	"							
Bromomethane	ND	500	"							
2-Butanone	ND	1000	"							
n-Butylbenzene	ND	500	"							
sec-Butylbenzene	ND	100	"							
tert-Butylbenzene	ND	100	"							
Carbon disulfide	ND	1000	"							
Carbon tetrachloride	ND	100	"							
Chlorobenzene	ND	100	"							
Chloroethane	ND	100	"							
Chloroform	ND	100	"							
Chloromethane	ND	500	"							
2-Chlorotoluene	ND	100	"							
4-Chlorotoluene	ND	100	"							
1,2-Dibromo-3-chloropropane	ND	500	"							
Dibromochloromethane	ND	100	"							
1,2-Dibromoethane	ND	100	"							
Dibromomethane	ND	100	"							
1,2-Dichlorobenzene	ND	100	"							
1,3-Dichlorobenzene	ND	100	"							
1,4-Dichlorobenzene	ND	100	"							
Dichlorodifluoromethane	ND	500	"							
1,1-Dichloroethane	ND	100	"							
1,2-Dichloroethane	ND	100	"							
1,1-Dichloroethene	ND	100	"							
cis-1,2-Dichloroethene	ND	100	"							
trans-1,2-Dichloroethene	ND	100	"							
1,2-Dichloropropane	ND	100	"							
1,3-Dichloropropane	ND	100	"							
2,2-Dichloropropane	ND	100	"							
1,1-Dichloropropene	ND	100	"							

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010161 - EPA 5035										
Blank (2010161-BLK1)				Prepared & Analyzed: 01/07/02						
cis-1,3-Dichloropropene	ND	100	ug/kg							
trans-1,3-Dichloropropene	ND	100	"							
Ethylbenzene	ND	100	"							
Hexachlorobutadiene	ND	200	"							
2-Hexanone	ND	1000	"							
Isopropylbenzene	ND	200	"							
p-Isopropyltoluene	ND	200	"							
4-Methyl-2-pentanone	ND	500	"							
Methyl tert-butyl ether	ND	100	"							
Methylene chloride	ND	500	"							
Naphthalene	ND	200	"							
n-Propylbenzene	ND	100	"							
Styrene	ND	100	"							
1,1,1,2-Tetrachloroethane	ND	100	"							
1,1,2,2-Tetrachloroethane	ND	100	"							
Tetrachloroethene	ND	100	"							
Toluene	ND	100	"							
1,2,3-Trichlorobenzene	ND	100	"							
1,2,4-Trichlorobenzene	ND	100	"							
1,1,1-Trichloroethane	ND	100	"							
1,1,2-Trichloroethane	ND	100	"							
Trichloroethene	ND	100	"							
Trichlorofluoromethane	ND	100	"							
1,2,3-Trichloropropane	ND	100	"							
1,2,4-Trimethylbenzene	ND	100	"							
1,3,5-Trimethylbenzene	ND	100	"							
Vinyl chloride	ND	100	"							
o-Xylene	ND	100	"							
m,p-Xylene	ND	200	"							
Surr: 4-BFB	*2130*		"	*2000*		*106*	*70-130*			
Surr: 1,2-DCA-d4	*2460*		"	*2000*		*123*	*70-130*			
Surr: Dibromofluoromethane	*2300*		"	*2000*		*115*	*70-130*			
Surr: Toluene-d8	*2440*		"	*2000*		*122*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010161 - EPA 5035										
LCS (2010161-BS1)				Prepared & Analyzed: 01/07/02						
Benzene	2600	100	ug/kg	2500		104	80-135			
Chlorobenzene	2540	100	"	2500		102	80-135			
1,1-Dichloroethene	2260	100	"	2500		90.4	60-150			
Toluene	2610	100	"	2500		104	80-130			
Trichloroethene	2430	100	"	2500		97.2	70-135			
Surr: 4-BFB	*2070*		"	*2000*		*104*	*70-130*			
Surr: 1,2-DCA-d4	*2350*		"	*2000*		*118*	*70-130*			
Surr: Dibromofluoromethane	*2160*		"	*2000*		*108*	*70-130*			
Surr: Toluene-d8	*2340*		"	*2000*		*117*	*70-130*			
Matrix Spike (2010161-MS1)	**Source: P2A0115-01**			Prepared & Analyzed: 01/07/02						
Benzene	2620	100	ug/kg dry	2720	ND	96.3	60-135			
Chlorobenzene	2660	100	"	2720	ND	97.8	65-125			
1,1-Dichloroethene	2230	100	"	2720	ND	82.0	60-135			
Toluene	2700	100	"	2720	ND	98.5	60-125			
Trichloroethene	2490	100	"	2720	ND	91.5	60-125			
Surr: 4-BFB	*2080*		"	*2180*		*95.4*	*70-130*			
Surr: 1,2-DCA-d4	*2380*		"	*2180*		*109*	*70-130*			
Surr: Dibromofluoromethane	*2120*		"	*2180*		*97.2*	*70-130*			
Surr: Toluene-d8	*2330*		"	*2180*		*107*	*70-130*			
Matrix Spike Dup (2010161-MSD1)	**Source: P2A0115-01**			Prepared & Analyzed: 01/07/02						
Benzene	2820	100	ug/kg dry	2720	ND	104	60-135	7.35	25	
Chlorobenzene	2790	100	"	2720	ND	103	65-125	4.77	25	
1,1-Dichloroethene	2440	100	"	2720	ND	89.7	60-135	8.99	25	
Toluene	2850	100	"	2720	ND	104	60-125	5.41	25	
Trichloroethene	2690	100	"	2720	ND	98.9	60-125	7.72	25	
Surr: 4-BFB	*2170*		"	*2180*		*99.5*	*70-130*			
Surr: 1,2-DCA-d4	*2490*		"	*2180*		*114*	*70-130*			
Surr: Dibromofluoromethane	*2350*		"	*2180*		*108*	*70-130*			
Surr: Toluene-d8	*2500*		"	*2180*		*115*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010205 - EPA 3550										
Blank (2010205-BLK1)				Prepared & Analyzed: 01/08/02						
Acenaphthene	ND	0.330	mg/kg							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
Bis(2-chloroethoxy)methane	ND	0.330	"							
Bis(2-chloroethyl)ether	ND	0.330	"							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
3,3'-Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010205 - EPA 3550										
Blank (2010205-BLK1)				Prepared & Analyzed: 01/08/02						
2,6-Dinitrotoluene	ND	0.500	mg/kg							
Bis(2-ethylhexyl)phthalate	ND	2.00	"							
Fluoranthene	ND	0.330	"							
Fluorene	ND	0.330	"							
Hexachlorobenzene	ND	0.330	"							
Hexachlorobutadiene	ND	1.00	"							
Hexachlorocyclopentadiene	ND	1.00	"							
Hexachloroethane	ND	1.00	"							
Indeno (1,2,3-cd) pyrene	ND	0.330	"							
Isophorone	ND	0.330	"							
2-Methylnaphthalene	ND	0.330	"							
2-Methylphenol	ND	0.330	"							
3-,4-Methylphenol	ND	0.330	"							
Naphthalene	ND	0.330	"							
2-Nitroaniline	ND	0.330	"							
3-Nitroaniline	ND	1.00	"							
4-Nitroaniline	ND	0.330	"							
Nitrobenzene	ND	0.330	"							
2-Nitrophenol	ND	0.330	"							
4-Nitrophenol	ND	1.00	"							
N-Nitrosodi-n-propylamine	ND	0.330	"							
N-Nitrosodiphenylamine	ND	0.330	"							
Pentachlorophenol	ND	1.00	"							
Phenanthrene	ND	0.330	"							
Phenol	ND	0.330	"							
Pyrene	ND	0.330	"							
1,2,4-Trichlorobenzene	ND	0.330	"							
2,4,5-Trichlorophenol	ND	0.330	"							
2,4,6-Trichlorophenol	ND	0.330	"							
Surr: 2-Fluorobiphenyl	*1.43*		"	*2.50*		*57.2*	*44-146*			
Surr: 2-Fluorophenol	*3.87*		"	*5.00*		*77.4*	*42-126*			
Surr: Nitrobenzene-d5	*1.41*		"	*2.50*		*56.4*	*42-126*			
Surr: Phenol-d6	*3.86*		"	*5.00*		*77.2*	*42-131*			
Surr: p-Terphenyl-d14	*1.75*		"	*2.50*		*70.0*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.17*		"	*5.00*		*83.4*	*48-119*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010205 - EPA 3550										
LCS (2010205-BS1)				Prepared & Analyzed: 01/08/02						
Acenaphthene	1.80	0.330	mg/kg	2.50		72.0	30-115			
4-Chloro-3-methylphenol	4.15	0.330	"	5.00		83.0	40-110			
2-Chlorophenol	3.86	0.330	"	5.00		77.2	40-100			
1,4-Dichlorobenzene	1.53	1.00	"	2.50		61.2	10-100			
2,4-Dinitrotoluene	2.04	0.500	"	2.50		81.6	30-110			
4-Nitrophenol	4.32	1.00	"	5.00		86.4	30-130			
N-Nitrosodi-n-propylamine	1.80	0.330	"	2.50		72.0	30-110			
Pentachlorophenol	3.30	1.00	"	5.00		66.0	14-120			
Phenol	3.72	0.330	"	5.00		74.4	35-100			
Pyrene	1.82	0.330	"	2.50		72.8	30-115			
1,2,4-Trichlorobenzene	1.73	0.330	"	2.50		69.2	18-100			
Surr: 2-Fluorobiphenyl	*2.07*		"	*2.50*		*82.8*	*44-146*			
Surr: 2-Fluorophenol	*4.07*		"	*5.00*		*81.4*	*42-126*			
Surr: Nitrobenzene-d5	*2.04*		"	*2.50*		*81.6*	*42-126*			
Surr: Phenol-d6	*4.03*		"	*5.00*		*80.6*	*42-131*			
Surr: p-Terphenyl-d14	*2.24*		"	*2.50*		*89.6*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.61*		"	*5.00*		*92.2*	*48-119*			
Matrix Spike (2010205-MS1)		**Source: P2A0115-06**		Prepared: 01/08/02		Analyzed: 01/09/02				
Acenaphthene	2.12	0.330	mg/kg dry	2.70	ND	78.5	40-110			
4-Chloro-3-methylphenol	4.47	0.330	"	5.39	ND	82.9	40-110			
2-Chlorophenol	4.00	0.330	"	5.39	ND	74.2	40-100			
1,4-Dichlorobenzene	1.51	1.00	"	2.70	ND	55.9	10-100			
2,4-Dinitrotoluene	2.46	0.500	"	2.70	ND	91.1	40-110			
4-Nitrophenol	4.81	1.00	"	5.39	ND	89.2	40-125			
N-Nitrosodi-n-propylamine	2.00	0.330	"	2.70	ND	74.1	30-110			
Pentachlorophenol	4.09	1.00	"	5.39	ND	75.9	25-110			
Phenol	4.03	0.330	"	5.39	ND	74.8	35-100			
Pyrene	2.78	0.330	"	2.70	2.70	2.96	40-110			Q-14
1,2,4-Trichlorobenzene	1.87	0.330	"	2.70	ND	69.3	30-101			
Surr: 2-Fluorobiphenyl	*3.03*		"	*2.70*		*112*	*44-146*			
Surr: 2-Fluorophenol	*3.95*		"	*5.39*		*73.3*	*42-126*			
Surr: Nitrobenzene-d5	*2.87*		"	*2.70*		*106*	*42-126*			
Surr: Phenol-d6	*3.96*		"	*5.39*		*73.5*	*42-131*			
Surr: p-Terphenyl-d14	*3.30*		"	*2.70*		*122*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.91*		"	*5.39*		*91.1*	*48-119*			

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010205 - EPA 3550										
Matrix Spike Dup (2010205-MSD1)	**Source: P2A0115-06**			Prepared: 01/08/02		Analyzed: 01/09/02				
Acenaphthene	1.84	0.330	mg/kg dry	2.70	ND	68.1	40-110	14.1	40	
4-Chloro-3-methylphenol	3.97	0.330	"	5.39	ND	73.7	40-110	11.8	40	
2-Chlorophenol	3.49	0.330	"	5.39	ND	64.7	40-100	13.6	40	
1,4-Dichlorobenzene	1.32	1.00	"	2.70	ND	48.9	10-100	13.4	60	
2,4-Dinitrotoluene	2.17	0.500	"	2.70	ND	80.4	40-110	12.5	40	
4-Nitrophenol	4.34	1.00	"	5.39	ND	80.5	40-125	10.3	40	
N-Nitrosodi-n-propylamine	1.75	0.330	"	2.70	ND	64.8	30-110	13.3	40	
Pentachlorophenol	3.48	1.00	"	5.39	ND	64.6	25-110	16.1	60	
Phenol	3.52	0.330	"	5.39	ND	65.3	35-100	13.5	40	
Pyrene	2.27	0.330	"	2.70	2.70	NR	40-110	20.2	40	Q-14
1,2,4-Trichlorobenzene	1.61	0.330	"	2.70	ND	59.6	30-101	14.9	60	
Surr: 2-Fluorobiphenyl	*2.47*		"	*2.70*		*91.5*	*44-146*			
Surr: 2-Fluorophenol	*4.04*		"	*5.39*		*75.0*	*42-126*			
Surr: Nitrobenzene-d5	*2.37*		"	*2.70*		*87.8*	*42-126*			
Surr: Phenol-d6	*4.04*		"	*5.39*		*75.0*	*42-131*			
Surr: p-Terphenyl-d14	*2.75*		"	*2.70*		*102*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.06*		"	*5.39*		*93.9*	*48-119*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010176 - EPA 3550										
Blank (2010176-BLK1)				Prepared: 01/07/02 Analyzed: 01/09/02						
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*72.7*		"	*83.3*		*87.3*	*40-150*			
Surr: Pyrene-d10	*115*		"	*83.3*		*138*	*40-150*			
Surr: Benzo (a) pyrene-d12	*71.1*		"	*83.3*		*85.4*	*40-150*			
LCS (2010176-BS1)				Prepared: 01/07/02 Analyzed: 01/09/02						
Acenaphthene	161	13.4	ug/kg	167		96.4	33-139			
Benzo (a) pyrene	161	13.4	"	167		96.4	45-149			
Pyrene	175	13.4	"	167		105	39-138			
Surr: Fluorene-d10	*75.7*		"	*83.3*		*90.9*	*40-150*			
Surr: Pyrene-d10	*122*		"	*83.3*		*146*	*40-150*			
Surr: Benzo (a) pyrene-d12	*74.3*		"	*83.3*		*89.2*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010176 - EPA 3550										
Matrix Spike (2010176-MS1)		**Source: P2A0124-01**		Prepared: 01/07/02 Analyzed: 01/08/02						
Acenaphthene	187	53.6	ug/kg dry	189	ND	98.9	33-139			
Benzo (a) pyrene	185	53.6	"	189	ND	88.1	45-149			
Pyrene	250	53.6	"	189	ND	111	39-138			
Surr: Fluorene-d10	*86.0*		"	*94.3*		*91.2*	*40-150*			
Surr: Pyrene-d10	*146*		"	*94.3*		*155*	*40-150*			*Q-01*
Surr: Benzo (a) pyrene-d12	*82.7*		"	*94.3*		*87.7*	*40-150*			
Matrix Spike Dup (2010176-MSD1)		**Source: P2A0124-01**		Prepared: 01/07/02 Analyzed: 01/08/02						
Acenaphthene	187	53.6	ug/kg dry	189	ND	98.9	33-139	0.00	60	
Benzo (a) pyrene	184	53.6	"	189	ND	87.6	45-149	0.542	60	
Pyrene	228	53.6	"	189	ND	99.4	39-138	9.21	60	
Surr: Fluorene-d10	*80.0*		"	*94.3*		*84.8*	*40-150*			
Surr: Pyrene-d10	*134*		"	*94.3*		*142*	*40-150*			
Surr: Benzo (a) pyrene-d12	*78.8*		"	*94.3*		*83.6*	*40-150*			
Batch 2010323 - EPA 3550										
Blank (2010323-BLK1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*71.9*		"	*83.3*		*86.3*	*40-150*			
Surr: Pyrene-d10	*81.3*		"	*83.3*		*97.6*	*40-150*			

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
1500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010323 - EPA 3550										
Blank (2010323-BLK1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Surr: Benzo (a) pyrene-d12	*80.1*		*ug/kg*	*83.3*		*96.2*	*40-150*			
LCS (2010323-BS1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	123	13.4	ug/kg	167		73.7	33-139			
Benzo (a) pyrene	127	13.4	"	167		76.0	45-149			
Pyrene	130	13.4	"	167		77.8	39-138			
Surr: Fluorene-d10	*75.1*		"	*83.3*		*90.2*	*40-150*			
Surr: Pyrene-d10	*84.8*		"	*83.3*		*102.*	*40-150*			
Surr: Benzo (a) pyrene-d12	*80.8*		"	*83.3*		*97.0*	*40-150*			
Matrix Spike (2010323-MS1)	**Source: P2A0115-01**			Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	130	26.8	ug/kg dry	181	ND	71.8	33-139			
Benzo (a) pyrene	195	26.8	"	181	95.5	55.0	45-149			
Pyrene	191	26.8	"	181	66.3	68.9	39-138			
Surr: Fluorene-d10	*80.6*		"	*90.7*		*88.9*	*40-150*			
Surr: Pyrene-d10	*85.8*		"	*90.7*		*94.6*	*40-150*			
Surr: Benzo (a) pyrene-d12	*90.5*		"	*90.7*		*99.8*	*40-150*			
Matrix Spike Dup (2010323-MSD1)	**Source: P2A0115-01**			Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	128	26.8	ug/kg dry	181	ND	70.7	33-139	1.55	60	
Benzo (a) pyrene	192	26.8	"	181	95.5	53.3	45-149	1.55	60	
Pyrene	169	26.8	"	181	66.3	56.7	39-138	12.2	60	
Surr: Fluorene-d10	*77.6*		"	*90.7*		*85.6*	*40-150*			
Surr: Pyrene-d10	*82.8*		"	*90.7*		*91.3*	*40-150*			
Surr: Benzo (a) pyrene-d12	*89.4*		"	*90.7*		*98.6*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010220 - Dry Weight										
Duplicate (2010220-DUP1)		**Source: P2A0115-01**		Prepared: 01/08/02 Analyzed: 01/09/02						
% Solids	91.3	1.00	% by Weight		91.9			0.655	20	
Duplicate (2010220-DUP2)		**Source: P2A0133-01**		Prepared: 01/08/02 Analyzed: 01/09/02						
% Solids	85.5	1.00	% by Weight		85.1			0.469	20	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/18/02 13:48

Notes and Definitions

A-01	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to biogenic interferences or PAH's.
Q-01	The spike recovery, and/or RPD, for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
Q-02	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
Q-14	The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
R-02	The reporting limit for this analyte was raised due to the high analyte concentration present in the sample.
R-05	Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
R-08	Due to matrix unable to resolve Benzofluoranthene isomers. Value reported only in Benzo(b) category represents Total Benzo(b+k)fluoranthene.
S-08	Surrogate recovery is above control limits. Since no analytes were detected in the sample, the quality of the data has not been affected.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	Sample results reported on a wet weight basis (as received)
RPD	Relative Percent Difference

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CHAIN OF CUSTODY REPORT

Work Order #: P2A0115

CLIENT: Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: (503) 675-5252 FAX:
PROJECT NAME: Burgard
PROJECT NUMBER: SS1001-21
SAMPLED BY: Virgin / Rieke

INVOICE TO: Bridgewater Group
P.O. NUMBER: SS1001-21

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 7 5 4 3 2 1 <1 (STD.)
Petroleum Hydrocarbon Analyses: 5 4 3 2 1 <1 (STD.)
OTHER Please Specify
*Turnaround Requests less than standard may incur Rush Charges.

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	HCID QID	Metals	PAHs	VOCs	SVOCs	PCBs	MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. S-MW1-7	1/3/02	X			X			S	1		
2. S-MW-1-7D		X			X						
3. S-MW1-12		X			X						
4. S-MW1-18		X			X						
5. S-MW1-18D		X			X						
6. S-MW2-7	1/4/02	X	X		X	X					
7. S-MW2-12		X	X		X	X					
8. S-MW2-18		X	X		X	X					
9. S-MW7-2	1/3/02		X	X	X		X				
10. S-MW7-7			X	X	X		X			Analyze deeper smpls if detect	
11. S-MW7-12			No								
12. S-MW7-18			No								
13. S-MW7-24			No								
14.											
15.											

RELINQUISHED BY: [signature] DATE: 1/4/02
PRINT NAME: Ross Rieke FIRM: Bridgewater Grp TIME: 1515
RECEIVED BY: [signature] DATE: 1/4/02
PRINT NAME: Kim Davis FIRM: NCA TIME: 1515

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:
RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS: Metals - Sb, As, Ba, Cd, Cr, Cu, Pb, Hg, Ni, Zn; PAHs, PCBs if TPH-D or O detect, [illegible] client
TEMP: 1.5

COC REV 3/99

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, June 8, 2012

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

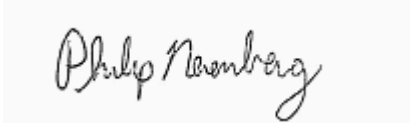
RE: Schnitzer-Burgard / HAI-8001

Enclosed are the results of analyses for work order A12E281, which was received by the laboratory on 5/17/2012 at 8:25:00AM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

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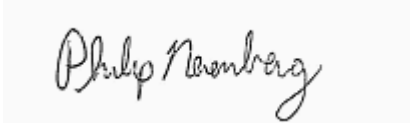
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW104-SS-4-5	A12E281-01	Soil	05/15/12 13:35	05/17/12 08:25
MW105-SS-9-10	A12E281-02	Soil	05/15/12 16:40	05/17/12 08:25
MW106-SS-10-11	A12E281-03	Soil	05/15/12 10:15	05/17/12 08:25
MW107-SS-11-12	A12E281-04	Soil	05/15/12 12:30	05/17/12 08:25

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01)			**Matrix: Soil**		**Batch: 1205373**			
Diesel Range Organics	ND	8.31	25.0	mg/kg dry	1	05/18/12 20:35	NWTPH-Dx	
Oil Range Organics	**47.8**	16.6	50.0	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**		**Batch: 1205373**			
Diesel Range Organics	ND	9.07	25.0	mg/kg dry	1	05/18/12 21:22	NWTPH-Dx	
Oil Range Organics	ND	18.1	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**		**Batch: 1205373**			
Diesel Range Organics	ND	9.52	25.0	mg/kg dry	1	05/18/12 21:45	NWTPH-Dx	
Oil Range Organics	ND	19.0	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
MW107-SS-11-12 (A12E281-04)			**Matrix: Soil**		**Batch: 1205373**			
Diesel Range Organics	ND	11.4	25.0	mg/kg dry	1	05/18/12 22:09	NWTPH-Dx	
Oil Range Organics	**46.2**	22.8	50.0	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	

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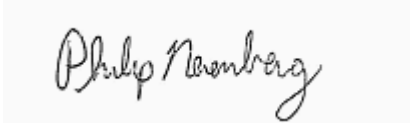

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01)			**Matrix: Soil**		**Batch: 1205351**			**V-06**
Gasoline Range Organics	ND	2.51	5.02	mg/kg dry	50	05/17/12 12:55	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 79 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*83 %*	*Limits: 50-150 %*	"	"	"	
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**		**Batch: 1205351**			**V-06**
Gasoline Range Organics	ND	2.98	5.96	mg/kg dry	50	05/17/12 13:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 79 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*82 %*	*Limits: 50-150 %*	"	"	"	
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**		**Batch: 1205351**			**V-06**
Gasoline Range Organics	ND	3.23	6.45	mg/kg dry	50	05/17/12 14:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 79 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*83 %*	*Limits: 50-150 %*	"	"	"	
MW107-SS-11-12 (A12E281-04)			**Matrix: Soil**		**Batch: 1205351**			**V-06**
Gasoline Range Organics	ND	4.02	8.04	mg/kg dry	50	05/17/12 14:40	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 80 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*82 %*	*Limits: 50-150 %*	"	"	"	

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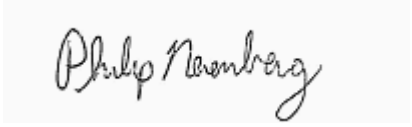

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01)			**Matrix: Soil**		**Batch: 1205556**			**C-07**
Aroclor 1016	ND	2.02	4.03	ug/kg dry	1	05/31/12 11:10	EPA 8082A	
Aroclor 1221	ND	2.02	4.03	"	"	"	"	
Aroclor 1232	ND	2.02	4.03	"	"	"	"	
Aroclor 1242	ND	2.02	4.03	"	"	"	"	
Aroclor 1248	ND	2.02	4.03	"	"	"	"	
Aroclor 1254	**13.7**	2.02	4.03	"	"	"	"	
Aroclor 1260	**24.0**	2.02	4.03	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 94 %*	*Limits: 55-130 %*	"	"	"	
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**		**Batch: 1205556**			**C-07**
Aroclor 1016	ND	2.12	4.24	ug/kg dry	1	05/31/12 11:39	EPA 8082A	
Aroclor 1221	ND	2.12	4.24	"	"	"	"	
Aroclor 1232	ND	2.12	4.24	"	"	"	"	
Aroclor 1242	ND	2.12	4.24	"	"	"	"	
Aroclor 1248	ND	2.12	4.24	"	"	"	"	
Aroclor 1254	ND	2.12	4.24	"	"	"	"	
Aroclor 1260	ND	2.12	4.24	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 67 %*	*Limits: 55-130 %*	"	"	"	
MW106-SS-10-11 (A12E281-03RE1)			**Matrix: Soil**		**Batch: 1205556**			**C-07**
Aroclor 1016	ND	2.30	4.60	ug/kg dry	1	05/31/12 16:12	EPA 8082A	
Aroclor 1221	ND	2.30	4.60	"	"	"	"	
Aroclor 1232	ND	2.30	4.60	"	"	"	"	
Aroclor 1242	ND	2.30	4.60	"	"	"	"	
Aroclor 1248	ND	2.30	4.60	"	"	"	"	
Aroclor 1254	ND	2.30	4.60	"	"	"	"	
Aroclor 1260	ND	2.30	4.60	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 91 %*	*Limits: 55-130 %*	"	"	"	
MW107-SS-11-12 (A12E281-04)			**Matrix: Soil**		**Batch: 1205556**			**C-07**
Aroclor 1016	ND	2.59	5.18	ug/kg dry	1	05/31/12 12:34	EPA 8082A	
Aroclor 1221	ND	2.59	5.18	"	"	"	"	
Aroclor 1232	ND	2.59	5.18	"	"	"	"	
Aroclor 1242	ND	2.59	5.18	"	"	"	"	
Aroclor 1248	ND	2.59	5.18	"	"	"	"	
Aroclor 1254	**5.66**	2.59	5.18	"	"	"	"	
Aroclor 1260	**4.32**	2.59	5.18	"	"	"	"	J

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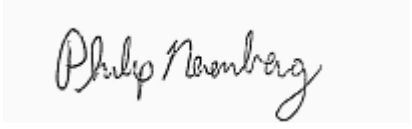

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-SS-11-12 (A12E281-04)			**Matrix: Soil**		**Batch: 1205556**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 66 %*	*Limits: 55-130 %*	1	"	EPA 8082A	

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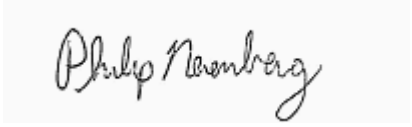

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01RE1)			**Matrix: Soil**		**Batch: 1205504**			**C-05**
Aldrin	ND	2.43	4.87	ug/kg dry	1	05/29/12 20:15	EPA 8081B	
alpha-BHC	ND	2.43	4.87	"	"	"	"	
beta-BHC	ND	2.43	4.87	"	"	"	"	
delta-BHC	ND	2.43	4.87	"	"	"	"	
gamma-BHC (Lindane)	ND	2.43	4.87	"	"	"	"	
cis-Chlordane	ND	2.43	4.87	"	"	"	"	
trans-Chlordane	ND	2.43	4.87	"	"	"	"	
4,4'-DDD	ND	4.87	4.87	"	"	"	"	
4,4'-DDE	ND	2.43	4.87	"	"	"	"	
4,4'-DDT	ND	5.84	5.84	"	"	"	"	Q-23, R-02
Dieldrin	ND	2.43	4.87	"	"	"	"	
Endosulfan I	ND	2.43	4.87	"	"	"	"	
Endosulfan II	ND	2.43	4.87	"	"	"	"	
Endosulfan sulfate	ND	2.43	4.87	"	"	"	"	
Endrin	ND	2.43	4.87	"	"	"	"	
Endrin Aldehyde	ND	2.43	4.87	"	"	"	"	
Endrin ketone	ND	2.43	4.87	"	"	"	"	
Heptachlor	ND	2.43	4.87	"	"	"	"	
Heptachlor epoxide	ND	2.43	4.87	"	"	"	"	
Methoxychlor	ND	4.87	9.74	"	"	"	"	
Chlordane (Technical)	ND	29.2	58.4	"	"	"	"	
Toxaphene (Total)	ND	29.2	58.4	"	"	"	"	
cis-Nonachlor	ND	2.43	4.87	"	"	"	"	
2,4'-DDD	ND	2.43	4.87	"	"	"	"	
2,4'-DDE	ND	2.43	4.87	"	"	"	"	
2,4'-DDT	ND	4.87	9.74	"	"	"	"	
Hexachlorobenzene	ND	2.43	4.87	"	"	"	"	
Hexachlorobutadiene	ND	2.43	4.87	"	"	"	"	Q-31
Mirex	ND	2.43	4.87	"	"	"	"	
Oxychlordane	ND	2.43	4.87	"	"	"	"	
trans-Nonachlor	ND	2.43	4.87	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 83 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*101 %*	*Limits: 55-130 %*	"	"	"	

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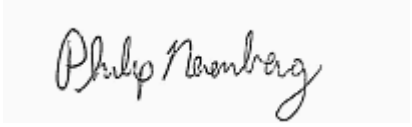

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-SS-9-10 (A12E281-02RE1)			**Matrix: Soil**		**Batch: 1205504**			**C-05**
Aldrin	ND	2.55	5.11	ug/kg dry	1	05/29/12 20:51	EPA 8081B	
alpha-BHC	ND	2.55	5.11	"	"	"	"	
beta-BHC	ND	2.55	5.11	"	"	"	"	
delta-BHC	ND	2.55	5.11	"	"	"	"	
gamma-BHC (Lindane)	ND	2.55	5.11	"	"	"	"	
cis-Chlordane	ND	2.55	5.11	"	"	"	"	
trans-Chlordane	ND	2.55	5.11	"	"	"	"	
4,4'-DDD	ND	2.55	5.11	"	"	"	"	
4,4'-DDE	ND	2.55	5.11	"	"	"	"	
4,4'-DDT	ND	2.55	5.11	"	"	"	"	Q-23
Dieldrin	ND	2.55	5.11	"	"	"	"	
Endosulfan I	ND	2.55	5.11	"	"	"	"	
Endosulfan II	ND	2.55	5.11	"	"	"	"	
Endosulfan sulfate	ND	2.55	5.11	"	"	"	"	
Endrin	ND	2.55	5.11	"	"	"	"	
Endrin Aldehyde	ND	2.55	5.11	"	"	"	"	
Endrin ketone	ND	2.55	5.11	"	"	"	"	
Heptachlor	ND	2.55	5.11	"	"	"	"	
Heptachlor epoxide	ND	2.55	5.11	"	"	"	"	
Methoxychlor	ND	5.11	10.2	"	"	"	"	Q-23
Chlordane (Technical)	ND	30.6	61.3	"	"	"	"	
Toxaphene (Total)	ND	30.6	61.3	"	"	"	"	
cis-Nonachlor	ND	2.55	5.11	"	"	"	"	
2,4'-DDD	ND	2.55	5.11	"	"	"	"	
2,4'-DDE	ND	2.55	5.11	"	"	"	"	
2,4'-DDT	ND	5.11	10.2	"	"	"	"	
Hexachlorobenzene	ND	2.55	5.11	"	"	"	"	
Hexachlorobutadiene	ND	2.55	5.11	"	"	"	"	Q-31
Mirex	ND	2.55	5.11	"	"	"	"	
Oxychlordane	ND	2.55	5.11	"	"	"	"	
trans-Nonachlor	ND	2.55	5.11	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 76 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*105 %*	*Limits: 55-130 %*	"	"	"	

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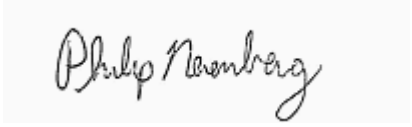

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-SS-10-11 (A12E281-03RE1)			**Matrix: Soil**		**Batch: 1205504**			**C-05**
Aldrin	ND	2.55	5.09	ug/kg dry	1	05/29/12 21:09	EPA 8081B	
alpha-BHC	ND	2.55	5.09	"	"	"	"	
beta-BHC	ND	2.55	5.09	"	"	"	"	
delta-BHC	ND	2.55	5.09	"	"	"	"	
gamma-BHC (Lindane)	ND	2.55	5.09	"	"	"	"	
cis-Chlordane	ND	2.55	5.09	"	"	"	"	
trans-Chlordane	ND	2.55	5.09	"	"	"	"	
4,4'-DDD	ND	2.55	5.09	"	"	"	"	
4,4'-DDE	ND	2.55	5.09	"	"	"	"	
4,4'-DDT	ND	2.55	5.09	"	"	"	"	Q-23
Dieldrin	ND	2.55	5.09	"	"	"	"	
Endosulfan I	ND	2.55	5.09	"	"	"	"	
Endosulfan II	ND	2.55	5.09	"	"	"	"	
Endosulfan sulfate	ND	2.55	5.09	"	"	"	"	
Endrin	ND	2.55	5.09	"	"	"	"	
Endrin Aldehyde	ND	2.55	5.09	"	"	"	"	
Endrin ketone	ND	2.55	5.09	"	"	"	"	
Heptachlor	ND	2.55	5.09	"	"	"	"	
Heptachlor epoxide	ND	2.55	5.09	"	"	"	"	
Methoxychlor	ND	5.09	10.2	"	"	"	"	Q-23
Chlordane (Technical)	ND	30.6	61.1	"	"	"	"	
Toxaphene (Total)	ND	30.6	61.1	"	"	"	"	
cis-Nonachlor	ND	2.55	5.09	"	"	"	"	
2,4'-DDD	ND	2.55	5.09	"	"	"	"	
2,4'-DDE	ND	2.55	5.09	"	"	"	"	
2,4'-DDT	ND	5.09	10.2	"	"	"	"	
Hexachlorobenzene	ND	2.55	5.09	"	"	"	"	
Hexachlorobutadiene	ND	2.55	5.09	"	"	"	"	Q-31
Mirex	ND	2.55	5.09	"	"	"	"	
Oxychlordane	ND	2.55	5.09	"	"	"	"	
trans-Nonachlor	ND	2.55	5.09	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 90 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*109 %*	*Limits: 55-130 %*	"	"	"	

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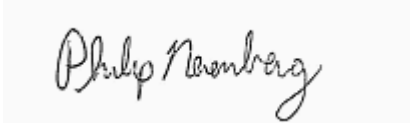

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-SS-11-12 (A12E281-04RE1)			**Matrix: Soil**		**Batch: 1205504**			**C-05**
Aldrin	ND	3.36	6.71	ug/kg dry	1	05/29/12 21:27	EPA 8081B	
alpha-BHC	ND	3.36	6.71	"	"	"	"	
beta-BHC	ND	3.36	6.71	"	"	"	"	
delta-BHC	ND	3.36	6.71	"	"	"	"	
gamma-BHC (Lindane)	ND	3.36	6.71	"	"	"	"	
cis-Chlordane	ND	3.36	6.71	"	"	"	"	
trans-Chlordane	ND	3.36	6.71	"	"	"	"	
4,4'-DDD	ND	3.36	6.71	"	"	"	"	
4,4'-DDE	ND	3.36	6.71	"	"	"	"	
4,4'-DDT	ND	3.36	6.71	"	"	"	"	Q-23
Dieldrin	ND	3.36	6.71	"	"	"	"	
Endosulfan I	ND	3.36	6.71	"	"	"	"	
Endosulfan II	ND	3.36	6.71	"	"	"	"	
Endosulfan sulfate	ND	3.36	6.71	"	"	"	"	
Endrin	ND	3.36	6.71	"	"	"	"	
Endrin Aldehyde	ND	3.36	6.71	"	"	"	"	
Endrin ketone	ND	3.36	6.71	"	"	"	"	
Heptachlor	ND	3.36	6.71	"	"	"	"	
Heptachlor epoxide	ND	3.36	6.71	"	"	"	"	
Methoxychlor	ND	6.71	13.4	"	"	"	"	Q-23
Chlordane (Technical)	ND	40.3	80.5	"	"	"	"	
Toxaphene (Total)	ND	40.3	80.5	"	"	"	"	
cis-Nonachlor	ND	3.36	6.71	"	"	"	"	
2,4'-DDD	ND	3.36	6.71	"	"	"	"	
2,4'-DDE	ND	3.36	6.71	"	"	"	"	
2,4'-DDT	ND	6.71	13.4	"	"	"	"	
Hexachlorobenzene	ND	3.36	6.71	"	"	"	"	
Hexachlorobutadiene	ND	3.36	6.71	"	"	"	"	Q-31
Mirex	ND	3.36	6.71	"	"	"	"	
Oxychlordane	ND	3.36	6.71	"	"	"	"	
trans-Nonachlor	ND	3.36	6.71	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 87 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*101 %*	*Limits: 55-130 %*	"	"	"	

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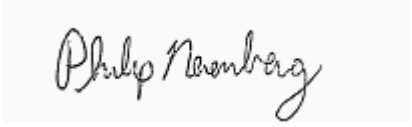

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01)			**Matrix: Soil**		**Batch: 1205425**			
Acenaphthene	**2.74**	1.92	3.84	ug/kg dry	1	05/22/12 14:32	EPA 8270D (SIM)	J
Acenaphthylene	**4.41**	1.92	3.84	"	"	"	"	
Anthracene	**8.88**	1.92	3.84	"	"	"	"	
Benz(a)anthracene	**35.8**	1.92	3.84	"	"	"	"	
Benzo(a)pyrene	**48.9**	1.92	3.84	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**87.3**	3.84	7.69	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**49.4**	1.92	3.84	"	"	"	"	
Chrysene	**48.1**	1.92	3.84	"	"	"	"	
Dibenz(a,h)anthracene	**10.1**	1.92	3.84	"	"	"	"	
Dibenzofuran	**1.97**	1.92	3.84	"	"	"	"	J
Fluoranthene	**54.3**	1.92	3.84	"	"	"	"	
Fluorene	ND	1.92	3.84	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**44.2**	1.92	3.84	"	"	"	"	
1-Methylnaphthalene	ND	3.84	7.69	"	"	"	"	
2-Methylnaphthalene	ND	3.84	7.69	"	"	"	"	
Naphthalene	**5.25**	3.84	7.69	"	"	"	"	J
Phenanthrene	**25.2**	1.92	3.84	"	"	"	"	
Pyrene	**59.7**	1.92	3.84	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 76 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*80 %*	*Limits: 30-120 %*	"	"	"	

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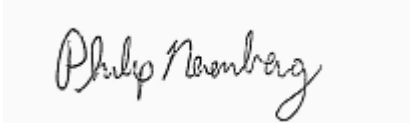

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**		**Batch: 1205425**			
Acenaphthene	ND	1.89	3.78	ug/kg dry	1	05/22/12 15:25	EPA 8270D (SIM)	
Acenaphthylene	ND	1.89	3.78	"	"	"	"	
Anthracene	ND	1.89	3.78	"	"	"	"	
Benz(a)anthracene	**5.33**	1.89	3.78	"	"	"	"	
Benzo(a)pyrene	**4.58**	1.89	3.78	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**7.09**	3.78	7.56	"	"	"	"	J, Q-26
Benzo(g,h,i)perylene	**3.57**	1.89	3.78	"	"	"	"	J
Chrysene	**5.06**	1.89	3.78	"	"	"	"	
Dibenz(a,h)anthracene	ND	1.89	3.78	"	"	"	"	
Dibenzofuran	ND	1.89	3.78	"	"	"	"	
Fluoranthene	**9.09**	1.89	3.78	"	"	"	"	
Fluorene	ND	1.89	3.78	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**3.47**	1.89	3.78	"	"	"	"	J
1-Methylnaphthalene	ND	3.78	7.56	"	"	"	"	
2-Methylnaphthalene	ND	3.78	7.56	"	"	"	"	
Naphthalene	ND	3.78	7.56	"	"	"	"	
Phenanthrene	**7.00**	1.89	3.78	"	"	"	"	
Pyrene	**10.2**	1.89	3.78	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 58 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*74 %*	*Limits: 30-120 %*	"	"	"	

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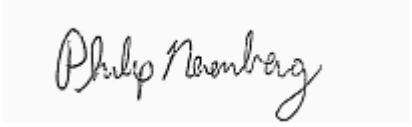

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**		**Batch: 1205425**			
Acenaphthene	ND	1.92	3.84	ug/kg dry	1	05/22/12 15:51	EPA 8270D (SIM)	
Acenaphthylene	ND	1.92	3.84	"	"	"	"	
Anthracene	**1.93**	1.92	3.84	"	"	"	"	J
Benz(a)anthracene	**6.41**	1.92	3.84	"	"	"	"	
Benzo(a)pyrene	**4.46**	1.92	3.84	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**6.01**	3.84	7.68	"	"	"	"	J, Q-26
Benzo(g,h,i)perylene	**2.07**	1.92	3.84	"	"	"	"	J
Chrysene	**7.15**	1.92	3.84	"	"	"	"	
Dibenz(a,h)anthracene	ND	1.92	3.84	"	"	"	"	
Dibenzofuran	ND	1.92	3.84	"	"	"	"	
Fluoranthene	**10.4**	1.92	3.84	"	"	"	"	
Fluorene	ND	1.92	3.84	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**2.47**	1.92	3.84	"	"	"	"	J
1-Methylnaphthalene	ND	3.84	7.68	"	"	"	"	
2-Methylnaphthalene	ND	3.84	7.68	"	"	"	"	
Naphthalene	ND	3.84	7.68	"	"	"	"	
Phenanthrene	**8.66**	1.92	3.84	"	"	"	"	
Pyrene	**13.3**	1.92	3.84	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 69 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*79 %*	*Limits: 30-120 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-SS-11-12 (A12E281-04RE1)			**Matrix: Soil**		**Batch: 1205468**			
Acenaphthene	**3.37**	2.98	5.95	ug/kg dry	1	05/23/12 20:57	EPA 8270D (SIM)	J
Acenaphthylene	**9.67**	2.98	5.95	"	"	"	"	
Anthracene	**21.4**	2.98	5.95	"	"	"	"	
Benz(a)anthracene	**67.2**	2.98	5.95	"	"	"	"	
Benzo(a)pyrene	**76.9**	2.98	5.95	"	"	"	"	
Benzo(b)fluoranthene	**81.4**	2.98	5.95	"	"	"	"	Q-28
Benzo(k)fluoranthene	**23.4**	2.98	5.95	"	"	"	"	Q-28
Benzo(g,h,i)perylene	**49.3**	2.98	5.95	"	"	"	"	
Chrysene	**79.6**	2.98	5.95	"	"	"	"	
Dibenz(a,h)anthracene	**9.47**	2.98	5.95	"	"	"	"	
Dibenzofuran	ND	2.98	5.95	"	"	"	"	
Fluoranthene	**117**	2.98	5.95	"	"	"	"	
Fluorene	**3.77**	2.98	5.95	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**48.8**	2.98	5.95	"	"	"	"	
1-Methylnaphthalene	ND	5.95	11.9	"	"	"	"	
2-Methylnaphthalene	ND	5.95	11.9	"	"	"	"	
Naphthalene	**8.57**	5.95	11.9	"	"	"	"	J
Phenanthrene	**57.4**	2.98	5.95	"	"	"	"	
Pyrene	**148**	2.98	5.95	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 58 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*75 %*	*Limits: 30-120 %*	"	"	"	

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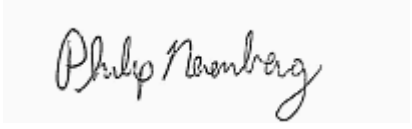

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01RE1)			**Matrix: Soil**		**Batch: 1205360**			
Diethylphthalate	ND	49.8	99.7	ug/kg dry	1	05/18/12 16:21	EPA 8270D (SIM)	
Dimethylphthalate	ND	49.8	99.7	"	"	"	"	
Di-n-butylphthalate	ND	49.8	99.7	"	"	"	"	
Di-n-octyl phthalate	ND	49.8	99.7	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	49.8	99.7	"	"	"	"	
Butyl benzyl phthalate	ND	49.8	99.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*79 %*	*Limits: 30-120 %*	"	"	"	
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**		**Batch: 1205360**			
Diethylphthalate	ND	46.8	93.6	ug/kg dry	1	05/18/12 15:29	EPA 8270D (SIM)	
Dimethylphthalate	ND	46.8	93.6	"	"	"	"	
Di-n-butylphthalate	ND	46.8	93.6	"	"	"	"	
Di-n-octyl phthalate	ND	46.8	93.6	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	46.8	93.6	"	"	"	"	
Butyl benzyl phthalate	ND	46.8	93.6	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 73 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*77 %*	*Limits: 30-120 %*	"	"	"	
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**		**Batch: 1205360**			
Diethylphthalate	ND	59.4	119	ug/kg dry	1	05/18/12 15:55	EPA 8270D (SIM)	
Dimethylphthalate	ND	59.4	119	"	"	"	"	
Di-n-butylphthalate	ND	59.4	119	"	"	"	"	
Di-n-octyl phthalate	ND	59.4	119	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	59.4	119	"	"	"	"	
Butyl benzyl phthalate	ND	59.4	119	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*82 %*	*Limits: 30-120 %*	"	"	"	
MW107-SS-11-12 (A12E281-04RE1)			**Matrix: Soil**		**Batch: 1205360**			
Diethylphthalate	ND	56.3	113	ug/kg dry	1	05/18/12 17:41	EPA 8270D (SIM)	
Dimethylphthalate	ND	56.3	113	"	"	"	"	
Di-n-butylphthalate	ND	56.3	113	"	"	"	"	
Di-n-octyl phthalate	ND	56.3	113	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	56.3	113	"	"	"	"	
Butyl benzyl phthalate	ND	56.3	113	"	"	"	"	

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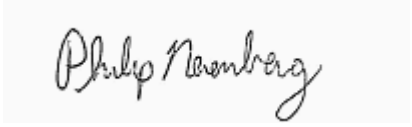

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-SS-11-12 (A12E281-04RE1)			**Matrix: Soil**		**Batch: 1205360**			
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 45-120 %*	1	"	EPA 8270D (SIM)	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-120 %*	"	"	"	

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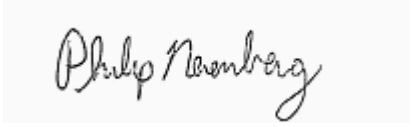

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01)			**Matrix: Soil**					
Batch: 1205528								
Aluminum	**9950**	27.0	54.1	mg/kg dry	10	05/29/12 12:40	EPA 6020	
Antimony	ND	0.541	1.08	"	"	"	"	
Arsenic	**3.06**	0.541	2.16	"	"	"	"	
Cadmium	ND	0.541	1.08	"	"	"	"	
Chromium	**14.5**	1.08	2.16	"	"	"	"	
Copper	**21.7**	1.08	2.16	"	"	"	"	
Lead	**19.2**	0.541	2.16	"	"	"	"	
Manganese	**318**	0.541	2.16	"	"	"	"	
Mercury	ND	0.0433	0.0866	"	"	"	"	
Nickel	**18.2**	1.08	2.16	"	"	"	"	
Silver	ND	0.541	1.08	"	"	"	"	
Zinc	**64.1**	2.16	4.33	"	"	"	"	
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**					
Batch: 1205528								
Aluminum	**9470**	29.6	59.2	mg/kg dry	10	05/29/12 12:43	EPA 6020	
Antimony	ND	0.592	1.18	"	"	"	"	
Arsenic	**2.11**	0.592	2.37	"	"	"	"	J
Cadmium	ND	0.592	1.18	"	"	"	"	
Chromium	**14.2**	1.18	2.37	"	"	"	"	
Copper	**14.1**	1.18	2.37	"	"	"	"	
Lead	**5.52**	0.592	2.37	"	"	"	"	
Manganese	**235**	0.592	2.37	"	"	"	"	
Mercury	ND	0.0474	0.0948	"	"	"	"	
Nickel	**16.5**	1.18	2.37	"	"	"	"	
Silver	ND	0.592	1.18	"	"	"	"	
Zinc	**40.2**	2.37	4.74	"	"	"	"	
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**					
Batch: 1205528								
Aluminum	**7130**	29.9	59.7	mg/kg dry	10	05/29/12 12:34	EPA 6020	
Antimony	ND	0.597	1.19	"	"	"	"	
Arsenic	**2.13**	0.597	2.39	"	"	"	"	J
Cadmium	ND	0.597	1.19	"	"	"	"	
Chromium	**8.58**	1.19	2.39	"	"	"	"	
Copper	**10.7**	1.19	2.39	"	"	"	"	

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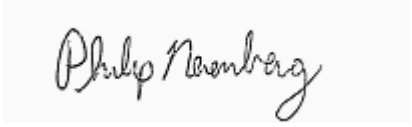

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**					
Lead	**2.14**	0.597	1.19	mg/kg dry	10	05/31/12 14:16	EPA 6020	
Manganese	**237**	0.597	2.39	"	"	05/29/12 12:34	"	
Mercury	ND	0.0478	0.0956	"	"	"	"	
Nickel	**14.8**	1.19	2.39	"	"	"	"	
Silver	ND	0.597	1.19	"	"	"	"	
Zinc	**30.1**	2.39	4.78	"	"	"	"	
MW107-SS-11-12 (A12E281-04)			**Matrix: Soil**					
Batch: 1205528								
Aluminum	**12500**	35.2	70.4	mg/kg dry	10	05/29/12 12:37	EPA 6020	
Antimony	ND	0.704	1.41	"	"	"	"	
Arsenic	**4.30**	0.704	2.82	"	"	"	"	
Cadmium	ND	0.704	1.41	"	"	"	"	
Chromium	**14.2**	1.41	2.82	"	"	"	"	
Copper	**16.7**	1.41	2.82	"	"	"	"	
Lead	**6.27**	0.704	2.82	"	"	"	"	
Manganese	**324**	0.704	2.82	"	"	"	"	
Mercury	ND	0.0564	0.113	"	"	"	"	
Nickel	**17.5**	1.41	2.82	"	"	"	"	
Silver	ND	0.704	1.41	"	"	"	"	
Zinc	**51.6**	2.82	5.64	"	"	"	"	

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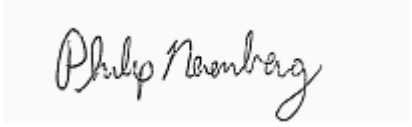

Philip Nerenberg, Lab Director

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503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-SS-4-5 (A12E281-01)			**Matrix: Soil**		**Batch: 1205379**			
% Solids	**88.7**	---	1.00	% by Weight	1	05/21/12 14:52	Apex SOP	
MW105-SS-9-10 (A12E281-02)			**Matrix: Soil**		**Batch: 1205379**			
% Solids	**84.4**	---	1.00	% by Weight	1	05/21/12 14:52	Apex SOP	
MW106-SS-10-11 (A12E281-03)			**Matrix: Soil**		**Batch: 1205379**			
% Solids	**81.9**	---	1.00	% by Weight	1	05/21/12 14:52	Apex SOP	
MW107-SS-11-12 (A12E281-04)			**Matrix: Soil**		**Batch: 1205379**			
% Solids	**71.7**	---	1.00	% by Weight	1	05/21/12 14:52	Apex SOP	

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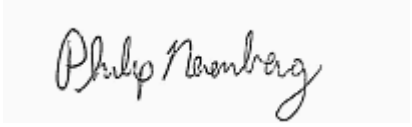

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205373 - EPA 3546 (Fuels)							**Soil**					
Blank (1205373-BLK1)					Prepared: 05/18/12 08:56 Analyzed: 05/18/12 19:48							
NWTPH-Dx												
Diesel Range Organics	ND	6.67	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil Range Organics	ND	13.3	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (1205373-BS1)					Prepared: 05/18/12 08:56 Analyzed: 05/18/12 20:12							
NWTPH-Dx												
Diesel Range Organics	132	10.0	25.0	mg/kg wet	1	125	---	105	70-130%	---	---	
Oil Range Organics	127	20.0	50.0	"	"	"	---	101	"	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 102 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (1205373-DUP1)					Prepared: 05/18/12 08:56 Analyzed: 05/18/12 20:59							
QC Source Sample: MW104-SS-4-5 (A12E281-01)												
NWTPH-Dx												
Diesel Range Organics	ND	8.56	25.0	mg/kg dry	1	---	ND	---	---	---	30%	
Oil Range Organics	**42.4**	17.1	50.0	"	"	---	47.8	---	---	12	30%	J
Surr: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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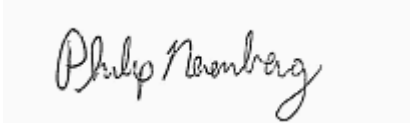

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205351 - EPA 5035A							Soil					
Blank (1205351-BLK1)					Prepared: 05/17/12 10:24 Analyzed: 05/17/12 12:29							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 77 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*82 %*	*50-150 %*			*"*					
LCS (1205351-BS2)					Prepared: 05/17/12 10:24 Analyzed: 05/17/12 12:03							
NWTPH-Gx (MS)												
Gasoline Range Organics	22.7	2.50	5.00	mg/kg wet	50	25.0	---	91	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 90 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*85 %*	*50-150 %*			*"*					
Duplicate (1205351-DUP1)					Prepared: 05/17/12 09:53 Analyzed: 05/17/12 13:21							
QC Source Sample: MW104-SS-4-5 (A12E281-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2.83	5.65	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 78 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*82 %*	*50-150 %*			*"*					

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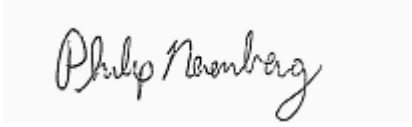

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205556 - EPA 3546							**Soil**					
Blank (1205556-BLK1)					Prepared: 05/29/12 16:12 Analyzed: 05/31/12 10:33							**C-07**
EPA 8082A												
Aroclor 1016	ND	1.67	3.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 86 %*	*Limits: 55-130 %*			*Dilution: 1x*					
LCS (1205556-BS1)					Prepared: 05/29/12 16:12 Analyzed: 05/31/12 10:51							**C-07**
EPA 8082A												
Aroclor 1016	97.9	2.00	4.00	ug/kg wet	1	125	---	78	40-140%	---	---	
Aroclor 1260	130	2.00	4.00	"	"	"	---	104	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 102 %*	*Limits: 55-130 %*			*Dilution: 1x*					
Duplicate (1205556-DUP1)					Prepared: 05/29/12 16:12 Analyzed: 05/31/12 11:57							**C-07**
QC Source Sample: MW105-SS-9-10 (A12E281-02)												
EPA 8082A												
Aroclor 1016	ND	2.19	4.38	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	2.19	4.38	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	2.19	4.38	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	2.19	4.38	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	2.19	4.38	"	"	---	ND	---	---	---	30%	
Aroclor 1254	ND	2.19	4.38	"	"	---	ND	---	---	---	30%	
Aroclor 1260	ND	2.19	4.38	"	"	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 95 %*	*Limits: 55-130 %*			*Dilution: 1x*					
Matrix Spike (1205556-MS1)					Prepared: 05/29/12 16:12 Analyzed: 05/31/12 12:52							**C-07**
QC Source Sample: MW107-SS-11-12 (A12E281-04)												
EPA 8082A												
Aroclor 1016	79.6	2.46	4.91	ug/kg dry	1	153	ND	52	40-140%	---	---	
Aroclor 1260	101	2.46	4.91	"	"	"	4.32	63	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 59 %*	*Limits: 55-130 %*			*Dilution: 1x*					

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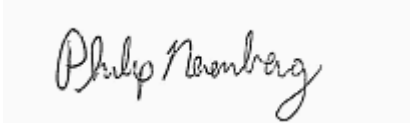

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205504 - EPA 3546/3640A (GPC)							**Soil**					
Blank (1205504-BLK1)					Prepared: 05/24/12 16:06 Analyzed: 05/29/12 16:57							**C-05**
EPA 8081B												
Aldrin	ND	1.79	3.57	ug/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	1.79	3.57	"	"	---	---	---	---	---	---	
beta-BHC	ND	1.79	3.57	"	"	---	---	---	---	---	---	
delta-BHC	ND	1.79	3.57	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	1.79	3.57	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	1.79	3.57	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	1.79	3.57	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	1.79	3.57	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	1.79	3.57	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Dieldrin	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Endosulfan I	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Endosulfan II	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Endrin	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Endrin ketone	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Heptachlor	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Methoxychlor	ND	3.57	7.14	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	21.4	42.9	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	21.4	42.9	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	1.79	3.57	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	1.79	3.57	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	1.79	3.57	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	3.57	7.14	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	1.79	3.57	"	"	---	---	---	---	---	---	Q-31
Mirex	ND	1.79	3.57	"	"	---	---	---	---	---	---	
Oxychlordane	ND	1.79	3.57	"	"	---	---	---	---	---	---	
trans-Nonachlor	ND	1.79	3.57	"	"	---	---	---	---	---	---	

Surr: 2,4,5,6-TCMX (Surr) *Recovery: 84 %* *Limits: 50-125 %* *Dilution: 1x*

Decachlorobiphenyl (Surr) *100 %* *55-130 %* *"*

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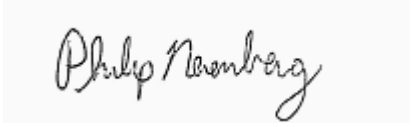

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205504 - EPA 3546/3640A (GPC)							**Soil**					
LCS (1205504-BS1)					Prepared: 05/24/12 16:06 Analyzed: 05/29/12 17:15							**C-05**
EPA 8081B												
Aldrin	165	2.50	5.00	ug/kg wet	1	200	---	82	45-140%	---	---	
alpha-BHC	186	2.50	5.00	"	"	"	---	93	60-125%	---	---	
beta-BHC	186	2.50	5.00	"	"	"	---	93	"	---	---	
delta-BHC	198	2.50	5.00	"	"	"	---	99	55-130%	---	---	
gamma-BHC (Lindane)	192	2.50	5.00	"	"	"	---	96	60-125%	---	---	
cis-Chlordane	181	2.50	5.00	"	"	"	---	90	60-120%	---	---	
trans-Chlordane	189	2.50	5.00	"	"	"	---	95	65-125%	---	---	
4,4'-DDD	203	2.50	5.00	"	"	"	---	102	30-135%	---	---	
4,4'-DDE	192	2.50	5.00	"	"	"	---	96	70-125%	---	---	
4,4'-DDT	236	2.50	5.00	"	"	"	---	118	45-140%	---	---	
Dieldrin	199	2.50	5.00	"	"	"	---	99	65-125%	---	---	
Endosulfan I	194	2.50	5.00	"	"	"	---	97	15-135%	---	---	
Endosulfan II	206	2.50	5.00	"	"	"	---	103	35-140%	---	---	
Endosulfan sulfate	219	2.50	5.00	"	"	"	---	110	60-135%	---	---	
Endrin	217	2.50	5.00	"	"	"	---	108	"	---	---	
Endrin Aldehyde	185	2.50	5.00	"	"	"	---	92	30-145%	---	---	
Endrin ketone	225	2.50	5.00	"	"	"	---	113	65-135%	---	---	
Heptachlor	196	2.50	5.00	"	"	"	---	98	50-140%	---	---	
Heptachlor epoxide	187	2.50	5.00	"	"	"	---	94	65-130%	---	---	
Methoxychlor	247	5.00	10.0	"	"	"	---	123	55-145%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*		*Limits: 50-125 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*98 %*		*55-130 %*			*"*				
LCS (1205504-BS2)					Prepared: 05/24/12 16:06 Analyzed: 05/29/12 17:33							**C-05**
EPA 8081B												
cis-Nonachlor	235	2.50	5.00	ug/kg wet	1	250	---	94	50-150%	---	---	
2,4'-DDD	235	2.50	5.00	"	"	"	---	94	30-135%	---	---	
2,4'-DDE	206	2.50	5.00	"	"	"	---	82	50-140%	---	---	
2,4'-DDT	262	5.00	10.0	"	"	"	---	105	45-140%	---	---	
Hexachlorobenzene	190	2.50	5.00	"	"	"	---	76	50-150%	---	---	
Hexachlorobutadiene	151	2.50	5.00	"	"	"	---	61	"	---	---	Q-31
Mirex	224	2.50	5.00	"	"	"	---	90	"	---	---	
Oxychlordane	198	2.50	5.00	"	"	"	---	79	"	---	---	
trans-Nonachlor	208	2.50	5.00	"	"	"	---	83	"	---	---	

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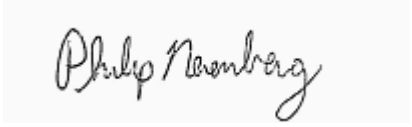

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205504 - EPA 3546/3640A (GPC)							**Soil**					
LCS (1205504-BS2)					Prepared: 05/24/12 16:06		Analyzed: 05/29/12 17:33					**C-05**
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 76 %*		*Limits: 50-125 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*101 %*		*55-130 %*			*"*				
Matrix Spike (1205504-MS1)					Prepared: 05/24/12 16:06		Analyzed: 05/29/12 21:45					**C-05**
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
EPA 8081B												
Aldrin	231	3.12	6.25	ug/kg dry	1	250	ND	92	45-140%	---	---	
alpha-BHC	257	3.12	6.25	"	"	"	ND	103	60-125%	---	---	
beta-BHC	264	3.12	6.25	"	"	"	ND	105	"	---	---	
delta-BHC	283	3.12	6.25	"	"	"	ND	113	55-130%	---	---	
gamma-BHC (Lindane)	264	3.12	6.25	"	"	"	ND	105	60-125%	---	---	
cis-Chlordane	249	3.12	6.25	"	"	"	ND	99	60-120%	---	---	
trans-Chlordane	265	3.12	6.25	"	"	"	ND	106	65-125%	---	---	
4,4'-DDD	288	3.12	6.25	"	"	"	ND	115	30-135%	---	---	
4,4'-DDE	269	3.12	6.25	"	"	"	ND	108	70-125%	---	---	
4,4'-DDT	333	3.12	6.25	"	"	"	ND	133	45-140%	---	---	Q-23
Dieldrin	271	3.12	6.25	"	"	"	ND	108	65-125%	---	---	
Endosulfan I	263	3.12	6.25	"	"	"	ND	105	15-135%	---	---	
Endosulfan II	290	3.12	6.25	"	"	"	ND	116	35-140%	---	---	
Endosulfan sulfate	303	3.12	6.25	"	"	"	ND	121	60-135%	---	---	
Endrin	318	3.12	6.25	"	"	"	ND	127	"	---	---	
Endrin Aldehyde	248	3.12	6.25	"	"	"	3.70	98	35-145%	---	---	
Endrin ketone	313	3.12	6.25	"	"	"	ND	125	65-135%	---	---	
Heptachlor	286	3.12	6.25	"	"	"	ND	114	50-140%	---	---	
Heptachlor epoxide	259	3.12	6.25	"	"	"	ND	103	65-130%	---	---	
Methoxychlor	364	6.25	12.5	"	"	"	ND	146	55-145%	---	---	Q-23
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 84 %*		*Limits: 50-125 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*101 %*		*55-130 %*			*"*				
Matrix Spike (1205504-MS2)					Prepared: 05/24/12 16:06		Analyzed: 05/29/12 22:03					**C-05**
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
EPA 8081B												
cis-Nonachlor	308	2.83	5.65	ug/kg dry	1	283	ND	109	50-150%	---	---	
2,4'-DDD	316	2.83	5.65	"	"	"	ND	112	30-135%	---	---	
2,4'-DDE	284	2.83	5.65	"	"	"	ND	100	50-140%	---	---	

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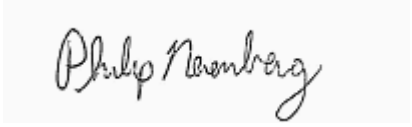

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205504 - EPA 3546/3640A (GPC)							**Soil**					
Matrix Spike (1205504-MS2)					Prepared: 05/24/12 16:06 Analyzed: 05/29/12 22:03							**C-05**
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
2,4'-DDT	365	5.65	11.3	ug/kg dry	"	"	ND	129	45-140%	---	---	
Hexachlorobenzene	254	2.83	5.65	"	"	"	ND	90	50-150%	---	---	
Hexachlorobutadiene	150	2.83	5.65	"	"	"	26.8	44	"	---	---	Q-01, Q-31
Mirex	303	2.83	5.65	"	"	"	ND	107	"	---	---	
Oxychlordane	268	2.83	5.65	"	"	"	ND	95	"	---	---	
trans-Nonachlor	282	2.83	5.65	"	"	"	ND	100	"	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 64 %*	*Limits: 50-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*91 %*	*55-130 %*			*"*					

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205425 - EPA 3546							Soil					
Blank (1205425-BLK1)					Prepared: 05/22/12 09:16 Analyzed: 05/22/12 13:40							
EPA 8270D (SIM)												
Acenaphthene	ND	1.43	2.86	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Anthracene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	2.86	5.71	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Chrysene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Fluorene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	2.86	5.71	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	2.86	5.71	"	"	---	---	---	---	---	---	
Naphthalene	ND	2.86	5.71	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Pyrene	ND	1.43	2.86	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*94 %*	*30-120 %*			*"*					
LCS (1205425-BS1)					Prepared: 05/22/12 09:16 Analyzed: 05/22/12 14:06							
EPA 8270D (SIM)												
Acenaphthene	713	2.00	4.00	ug/kg wet	1	800	---	89	45-125%	---	---	
Acenaphthylene	739	2.00	4.00	"	"	"	---	92	"	---	---	
Anthracene	746	2.00	4.00	"	"	"	---	93	55-125%	---	---	
Benz(a)anthracene	728	2.00	4.00	"	"	"	---	91	50-125%	---	---	
Benzo(a)pyrene	781	2.00	4.00	"	"	"	---	98	"	---	---	
Benzo(b)fluoranthene	734	2.00	4.00	"	"	"	---	92	45-125%	---	---	
Benzo(k)fluoranthene	755	2.00	4.00	"	"	"	---	94	"	---	---	
Benzo(b+k)fluoranthene(s)	1490	4.00	8.00	"	"	1600	---	93	"	---	---	
Benzo(g,h,i)perylene	664	2.00	4.00	"	"	800	---	83	40-125%	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205425 - EPA 3546							**Soil**					
LCS (1205425-BS1)					Prepared: 05/22/12 09:16 Analyzed: 05/22/12 14:06							
Chrysene	727	2.00	4.00	ug/kg wet	"	"	---	91	55-125%	---	---	
Dibenz(a,h)anthracene	755	2.00	4.00	"	"	"	---	94	40-125%	---	---	
Dibenzofuran	717	2.00	4.00	"	"	"	---	90	50-125%	---	---	
Fluoranthene	777	2.00	4.00	"	"	"	---	97	55-125%	---	---	
Fluorene	732	2.00	4.00	"	"	"	---	92	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	702	2.00	4.00	"	"	"	---	88	40-125%	---	---	
1-Methylnaphthalene	696	4.00	8.00	"	"	"	---	87	45-125%	---	---	
2-Methylnaphthalene	682	4.00	8.00	"	"	"	---	85	"	---	---	
Naphthalene	677	4.00	8.00	"	"	"	---	85	40-125%	---	---	
Phenanthrene	736	2.00	4.00	"	"	"	---	92	50-125%	---	---	
Pyrene	769	2.00	4.00	"	"	"	---	96	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*81 %*	*30-120 %*			*"*					
Duplicate (1205425-DUP1)					Prepared: 05/22/12 09:16 Analyzed: 05/22/12 14:59							
QC Source Sample: MW104-SS-4-5 (A12E281-01)												
EPA 8270D (SIM)												
Acenaphthene	**3.03**	1.73	3.47	ug/kg dry	1	---	2.74	---	---	10	30%	J
Acenaphthylene	**9.57**	1.73	3.47	"	"	---	4.41	---	---	74	30%	Q-17
Anthracene	**18.9**	1.73	3.47	"	"	---	8.88	---	---	72	30%	Q-17
Benz(a)anthracene	**40.8**	1.73	3.47	"	"	---	35.8	---	---	13	30%	
Benzo(a)pyrene	**55.3**	1.73	3.47	"	"	---	48.9	---	---	12	30%	
Benzo(b+k)fluoranthene(s)	**100**	3.47	6.93	"	"	---	87.3	---	---	14	30%	Q-26
Benzo(g,h,i)perylene	**53.7**	1.73	3.47	"	"	---	49.4	---	---	8	30%	
Chrysene	**55.9**	1.73	3.47	"	"	---	48.1	---	---	15	30%	
Dibenz(a,h)anthracene	**12.1**	1.73	3.47	"	"	---	10.1	---	---	18	30%	
Dibenzofuran	ND	1.73	3.47	"	"	---	1.97	---	---	***	30%	
Fluoranthene	**64.9**	1.73	3.47	"	"	---	54.3	---	---	18	30%	
Fluorene	**2.01**	1.73	3.47	"	"	---	ND	---	---		30%	J
Indeno(1,2,3-cd)pyrene	**52.9**	1.73	3.47	"	"	---	44.2	---	---	18	30%	
1-Methylnaphthalene	ND	3.47	6.93	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	3.47	6.93	"	"	---	ND	---	---	---	30%	
Naphthalene	**5.44**	3.47	6.93	"	"	---	5.25	---	---	3	30%	J
Phenanthrene	**26.8**	1.73	3.47	"	"	---	25.2	---	---	6	30%	
Pyrene	**71.0**	1.73	3.47	"	"	---	59.7	---	---	17	30%	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205425 - EPA 3546							**Soil**					
Duplicate (1205425-DUP1)					Prepared: 05/22/12 09:16 Analyzed: 05/22/12 14:59							
QC Source Sample: MW104-SS-4-5 (A12E281-01)												
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 73 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*71 %*	*30-120 %*			*"*					
Matrix Spike (1205425-MS1)					Prepared: 05/22/12 09:16 Analyzed: 05/22/12 16:44							
QC Source Sample: MW107-SS-11-12 (A12E281-04)												
EPA 8270D (SIM)												
Acenaphthene	497	2.31	4.62	ug/kg dry	1	924	3.18	53	45-125%	---	---	
Acenaphthylene	486	2.31	4.62	"	"	"	10.8	51	"	---	---	
Anthracene	581	2.31	4.62	"	"	"	30.1	60	55-125%	---	---	
Benz(a)anthracene	634	2.31	4.62	"	"	"	65.7	62	50-125%	---	---	
Benzo(a)pyrene	655	2.31	4.62	"	"	"	66.0	64	"	---	---	
Benzo(b)fluoranthene	661	2.31	4.62	"	"	"	65.0	65	45-125%	---	---	
Benzo(k)fluoranthene	586	2.31	4.62	"	"	"	23.0	61	"	---	---	
Benzo(b+k)fluoranthene(s)	1240	4.62	9.24	"	"	1850	88.3	63	"	---	---	
Benzo(g,h,i)perylene	559	2.31	4.62	"	"	924	39.3	56	40-125%	---	---	
Chrysene	639	2.31	4.62	"	"	"	75.1	61	55-125%	---	---	
Dibenz(a,h)anthracene	607	2.31	4.62	"	"	"	8.73	65	40-125%	---	---	
Dibenzofuran	488	2.31	4.62	"	"	"	ND	53	"	---	---	
Fluoranthene	711	2.31	4.62	"	"	"	113	65	55-125%	---	---	
Fluorene	529	2.31	4.62	"	"	"	4.57	57	20-125%	---	---	
Indeno(1,2,3-cd)pyrene	597	2.31	4.62	"	"	"	40.9	60	40-125%	---	---	
1-Methylnaphthalene	470	4.62	9.24	"	"	"	ND	51	45-125%	---	---	
2-Methylnaphthalene	457	4.62	9.24	"	"	"	ND	49	"	---	---	
Naphthalene	422	4.62	9.24	"	"	"	6.59	45	40-125%	---	---	
Phenanthrene	631	2.31	4.62	"	"	"	80.2	60	50-125%	---	---	
Pyrene	739	2.31	4.62	"	"	"	146	64	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 47 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*54 %*	*30-120 %*			*"*					

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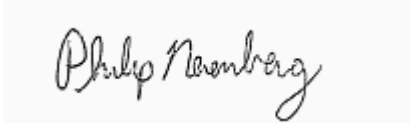

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205468 - EPA 3546							**Soil**					
Blank (1205468-BLK1)					Prepared: 05/23/12 13:10 Analyzed: 05/23/12 20:05							
EPA 8270D (SIM)												
Acenaphthene	ND	1.82	3.64	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Anthracene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	3.64	7.27	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Chrysene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Fluorene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	3.64	7.27	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	3.64	7.27	"	"	---	---	---	---	---	---	
Naphthalene	ND	3.64	7.27	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Pyrene	ND	1.82	3.64	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 77 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*84 %*	*30-120 %*			*"*					
LCS (1205468-BS1)					Prepared: 05/23/12 13:10 Analyzed: 05/23/12 20:31							
EPA 8270D (SIM)												
Acenaphthene	633	2.00	4.00	ug/kg wet	1	800	---	79	45-125%	---	---	
Acenaphthylene	658	2.00	4.00	"	"	"	---	82	"	---	---	
Anthracene	670	2.00	4.00	"	"	"	---	84	55-125%	---	---	
Benz(a)anthracene	662	2.00	4.00	"	"	"	---	83	50-125%	---	---	
Benzo(a)pyrene	706	2.00	4.00	"	"	"	---	88	"	---	---	
Benzo(b)fluoranthene	720	2.00	4.00	"	"	"	---	90	45-125%	---	---	
Benzo(k)fluoranthene	699	2.00	4.00	"	"	"	---	87	"	---	---	
Benzo(b+k)fluoranthene(s)	1420	4.00	8.00	"	"	1600	---	88	"	---	---	
Benzo(g,h,i)perylene	546	2.00	4.00	"	"	800	---	68	40-125%	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205468 - EPA 3546							**Soil**					
LCS (1205468-BS1)					Prepared: 05/23/12 13:10 Analyzed: 05/23/12 20:31							
Chrysene	664	2.00	4.00	ug/kg wet	"	"	---	83	55-125%	---	---	
Dibenz(a,h)anthracene	680	2.00	4.00	"	"	"	---	85	40-125%	---	---	
Dibenzofuran	634	2.00	4.00	"	"	"	---	79	50-125%	---	---	
Fluoranthene	689	2.00	4.00	"	"	"	---	86	55-125%	---	---	
Fluorene	645	2.00	4.00	"	"	"	---	81	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	613	2.00	4.00	"	"	"	---	77	40-125%	---	---	
1-Methylnaphthalene	670	4.00	8.00	"	"	"	---	84	45-125%	---	---	
2-Methylnaphthalene	662	4.00	8.00	"	"	"	---	83	"	---	---	
Naphthalene	634	4.00	8.00	"	"	"	---	79	40-125%	---	---	
Phenanthrene	655	2.00	4.00	"	"	"	---	82	50-125%	---	---	
Pyrene	701	2.00	4.00	"	"	"	---	88	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 74 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*79 %*	*30-120 %*			*"*					
Duplicate (1205468-DUP1)					Prepared: 05/23/12 13:10 Analyzed: 05/23/12 21:24							
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
EPA 8270D (SIM)												
Acenaphthene	ND	2.86	5.71	ug/kg dry	1	---	3.37	---	---	***	30%	
Acenaphthylene	**9.12**	2.86	5.71	"	"	---	9.67	---	---	6	30%	
Anthracene	**13.9**	2.86	5.71	"	"	---	21.4	---	---	43	30%	Q-17
Benz(a)anthracene	**92.7**	2.86	5.71	"	"	---	67.2	---	---	32	30%	Q-17
Benzo(a)pyrene	**102**	2.86	5.71	"	"	---	76.9	---	---	28	30%	
Benzo(b)fluoranthene	**110**	2.86	5.71	"	"	---	81.4	---	---	30	30%	Q-28
Benzo(k)fluoranthene	**36.5**	2.86	5.71	"	"	---	23.4	---	---	44	30%	Q-28
Benzo(b+k)fluoranthene(s)	**148**	5.71	11.4	"	"	---	106	---	---	33	30%	Q-17, Q-26
Benzo(g,h,i)perylene	**52.0**	2.86	5.71	"	"	---	49.3	---	---	5	30%	
Chrysene	**98.2**	2.86	5.71	"	"	---	79.6	---	---	21	30%	
Dibenz(a,h)anthracene	**12.1**	2.86	5.71	"	"	---	9.47	---	---	25	30%	
Dibenzofuran	ND	2.86	5.71	"	"	---	ND	---	---	---	30%	
Fluoranthene	**143**	2.86	5.71	"	"	---	117	---	---	20	30%	
Fluorene	ND	2.86	5.71	"	"	---	3.77	---	---	***	30%	
Indeno(1,2,3-cd)pyrene	**58.1**	2.86	5.71	"	"	---	48.8	---	---	17	30%	
1-Methylnaphthalene	ND	5.71	11.4	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	5.71	11.4	"	"	---	ND	---	---	---	30%	
Naphthalene	**7.12**	5.71	11.4	"	"	---	8.57	---	---	18	30%	J

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205468 - EPA 3546							**Soil**					
Duplicate (1205468-DUP1)					Prepared: 05/23/12 13:10 Analyzed: 05/23/12 21:24							
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
Phenanthrene	**36.7**	2.86	5.71	ug/kg dry	"	---	57.4	---	---	44	30%	Q-17
Pyrene	**163**	2.86	5.71	"	"	---	148	---	---	10	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 67 %*		*Limits: 45-120 %*		*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*75 %*		*30-120 %*		*"*					
Matrix Spike (1205468-MS1)					Prepared: 05/23/12 13:10 Analyzed: 05/23/12 21:50							
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
EPA 8270D (SIM)												
Acenaphthene	739	2.76	5.53	ug/kg dry	1	1110	3.37	67	45-125%	---	---	
Acenaphthylene	793	2.76	5.53	"	"	"	9.67	71	"	---	---	
Anthracene	960	2.76	5.53	"	"	"	21.4	85	55-125%	---	---	
Benz(a)anthracene	1090	2.76	5.53	"	"	"	67.2	93	50-125%	---	---	
Benzo(a)pyrene	1290	2.76	5.53	"	"	"	76.9	110	"	---	---	
Benzo(b)fluoranthene	1330	2.76	5.53	"	"	"	81.4	113	45-125%	---	---	
Benzo(k)fluoranthene	1050	2.76	5.53	"	"	"	23.4	93	"	---	---	
Benzo(b+k)fluoranthene(s)	2370	5.53	11.1	"	"	2210	106	103	"	---	---	
Benzo(g,h,i)perylene	946	2.76	5.53	"	"	1110	49.3	81	40-125%	---	---	
Chrysene	1290	2.76	5.53	"	"	"	79.6	109	55-125%	---	---	
Dibenz(a,h)anthracene	950	2.76	5.53	"	"	"	9.47	85	40-125%	---	---	
Dibenzofuran	750	2.76	5.53	"	"	"	ND	68	"	---	---	
Fluoranthene	1760	2.76	5.53	"	"	"	117	149	55-125%	---	---	Q-01
Fluorene	802	2.76	5.53	"	"	"	3.77	72	20-125%	---	---	
Indeno(1,2,3-cd)pyrene	1060	2.76	5.53	"	"	"	48.8	92	40-125%	---	---	
1-Methylnaphthalene	707	5.53	11.1	"	"	"	ND	64	45-125%	---	---	
2-Methylnaphthalene	692	5.53	11.1	"	"	"	ND	63	"	---	---	
Naphthalene	642	5.53	11.1	"	"	"	8.57	57	40-125%	---	---	
Phenanthrene	1300	2.76	5.53	"	"	"	57.4	113	50-125%	---	---	
Pyrene	1980	2.76	5.53	"	"	"	148	165	45-125%	---	---	Q-01
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 57 %*		*Limits: 45-120 %*		*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*75 %*		*30-120 %*		*"*					

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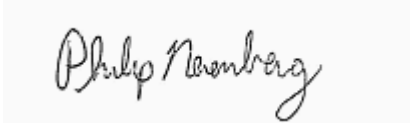

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205360 - EPA 3546							**Soil**					
Blank (1205360-BLK1)					Prepared: 05/17/12 12:57 Analyzed: 05/18/12 10:08							
EPA 8270D (SIM)												
Diethylphthalate	ND	38.5	76.9	ug/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	38.5	76.9	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	38.5	76.9	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	38.5	76.9	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	38.5	76.9	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	38.5	76.9	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 78 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*72 %*	*30-120 %*			*"*					
LCS (1205360-BS1)					Prepared: 05/17/12 12:57 Analyzed: 05/18/12 10:34							
EPA 8270D (SIM)												
Diethylphthalate	752	50.0	100	ug/kg wet	1	800	---	94	40-125%	---	---	
Dimethylphthalate	716	50.0	100	"	"	"	---	89	25-125%	---	---	
Di-n-butylphthalate	717	50.0	100	"	"	"	---	90	55-125%	---	---	
Di-n-octyl phthalate	766	50.0	100	"	"	"	---	96	35-125%	---	---	
Bis(2-ethylhexyl)phthalate	711	50.0	100	"	"	"	---	89	40-125%	---	---	
Butyl benzyl phthalate	665	50.0	100	"	"	"	---	83	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*83 %*	*30-120 %*			*"*					
Matrix Spike (1205360-MS2)					Prepared: 05/17/12 12:57 Analyzed: 05/18/12 18:08							
QC Source Sample: MW107-SS-11-12 (A12E281-04RE1)												
EPA 8270D (SIM)												
Diethylphthalate	798	57.7	115	ug/kg dry	1	923	ND	86	40-125%	---	---	
Dimethylphthalate	679	57.7	115	"	"	"	ND	74	25-125%	---	---	
Di-n-butylphthalate	871	57.7	115	"	"	"	ND	94	55-125%	---	---	
Di-n-octyl phthalate	940	57.7	115	"	"	"	ND	102	35-125%	---	---	
Bis(2-ethylhexyl)phthalate	853	57.7	115	"	"	"	ND	92	40-125%	---	---	
Butyl benzyl phthalate	803	57.7	115	"	"	"	ND	87	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 60 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*84 %*	*30-120 %*			*"*					

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205528 - EPA 3051A							Soil					
Blank (1205528-BLK1)					Prepared: 05/25/12 11:36 Analyzed: 05/29/12 11:14							
EPA 6020												
Aluminum	ND	12.5	25.0	mg/kg wet	5	---	---	---	---	---	---	
Antimony	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Arsenic	ND	0.250	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Lead	ND	0.250	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.250	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0200	0.0400	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Zinc	ND	1.00	2.00	"	"	---	---	---	---	---	---	
LCS (1205528-BS1)					Prepared: 05/25/12 11:36 Analyzed: 05/29/12 11:17							
EPA 6020												
Aluminum	4960	25.0	50.0	mg/kg wet	10	5000	---	99	80-120%	---	---	
Antimony	25.1	0.500	1.00	"	"	25.0	---	101	"	---	---	
Arsenic	49.6	0.500	2.00	"	"	50.0	---	99	"	---	---	
Cadmium	48.7	0.500	1.00	"	"	"	---	97	"	---	---	
Chromium	47.8	1.00	2.00	"	"	"	---	96	"	---	---	
Copper	49.3	1.00	2.00	"	"	"	---	99	"	---	---	
Lead	47.9	0.500	2.00	"	"	"	---	96	"	---	---	
Manganese	47.4	0.500	2.00	"	"	"	---	95	"	---	---	
Mercury	1.00	0.0400	0.0800	"	"	1.00	---	100	"	---	---	
Nickel	49.4	1.00	2.00	"	"	50.0	---	99	"	---	---	
Silver	24.3	0.500	1.00	"	"	25.0	---	97	"	---	---	
Zinc	50.1	2.00	4.00	"	"	50.0	---	100	"	---	---	

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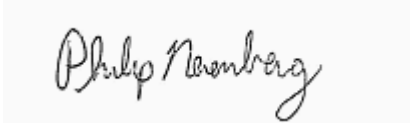

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1205379 - Total Solids (Dry Weight)							**Soil**					
Duplicate (1205379-DUP1)					Prepared: 05/18/12 11:19 Analyzed: 05/21/12 14:52							
QC Source Sample: MW107-SS-11-12 (A12E281-04)												
Apex SOP												
% Solids	**71.1**	---	1.00	% by Weight	1	---	71.7	---	---	0.8	20%	

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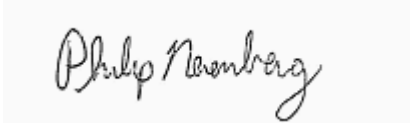

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

SAMPLE PREPARATION INFORMATION

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205373							
A12E281-01	Soil	NWTPH-Dx	05/15/12 13:35	05/18/12 08:56	13.56g/5mL	10g/5mL	0.74
A12E281-02	Soil	NWTPH-Dx	05/15/12 16:40	05/18/12 08:56	13.06g/5mL	10g/5mL	0.77
A12E281-03	Soil	NWTPH-Dx	05/15/12 10:15	05/18/12 08:56	12.82g/5mL	10g/5mL	0.78
A12E281-04	Soil	NWTPH-Dx	05/15/12 12:30	05/18/12 08:56	12.22g/5mL	10g/5mL	0.82

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205351							
A12E281-01	Soil	NWTPH-Gx (MS)	05/15/12 13:35	05/17/12 09:53	12.855g/10mL	10g/10mL	0.78
A12E281-02	Soil	NWTPH-Gx (MS)	05/15/12 16:40	05/17/12 09:53	11.755g/10mL	10g/10mL	0.85
A12E281-03	Soil	NWTPH-Gx (MS)	05/15/12 10:15	05/17/12 09:53	11.412g/10mL	10g/10mL	0.88
A12E281-04	Soil	NWTPH-Gx (MS)	05/15/12 12:30	05/17/12 09:53	11.491g/10mL	10g/10mL	0.87

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205556							
A12E281-01	Soil	EPA 8082A	05/15/12 13:35	05/29/12 16:12	11.18g/2mL	10g/2mL	0.89
A12E281-02	Soil	EPA 8082A	05/15/12 16:40	05/29/12 16:12	11.17g/2mL	10g/2mL	0.90
A12E281-03RE1	Soil	EPA 8082A	05/15/12 10:15	05/29/12 16:12	10.61g/2mL	10g/2mL	0.94
A12E281-04	Soil	EPA 8082A	05/15/12 12:30	05/29/12 16:12	10.76g/2mL	10g/2mL	0.93

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205504							
A12E281-01RE1	Soil	EPA 8081B	05/15/12 13:35	05/24/12 16:06	11.58g/10mL	10g/5mL	1.73
A12E281-02RE1	Soil	EPA 8081B	05/15/12 16:40	05/24/12 16:06	11.6g/10mL	10g/5mL	1.72
A12E281-03RE1	Soil	EPA 8081B	05/15/12 10:15	05/24/12 10:45	11.99g/10mL	10g/5mL	1.67
A12E281-04RE1	Soil	EPA 8081B	05/15/12 12:30	05/24/12 16:06	10.39g/10mL	10g/5mL	1.92

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205425							
A12E281-01	Soil	EPA 8270D (SIM)	05/15/12 13:35	05/22/12 09:16	11.73g/2mL	10g/2mL	0.85
A12E281-02	Soil	EPA 8270D (SIM)	05/15/12 16:40	05/22/12 09:16	12.53g/2mL	10g/2mL	0.80
A12E281-03	Soil	EPA 8270D (SIM)	05/15/12 10:15	05/22/12 09:16	12.72g/2mL	10g/2mL	0.79
Batch: 1205468							
A12E281-04RE1	Soil	EPA 8270D (SIM)	05/15/12 12:30	05/23/12 13:10	9.37g/2mL	10g/2mL	1.07

Phthalates by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205360							
A12E281-01RE1	Soil	EPA 8270D (SIM)	05/15/12 13:35	05/17/12 12:57	11.31g/5mL	10g/5mL	0.88
A12E281-02	Soil	EPA 8270D (SIM)	05/15/12 16:40	05/17/12 12:57	12.66g/5mL	10g/5mL	0.79
A12E281-03	Soil	EPA 8270D (SIM)	05/15/12 10:15	05/17/12 12:57	10.28g/5mL	10g/5mL	0.97
A12E281-04RE1	Soil	EPA 8270D (SIM)	05/15/12 12:30	05/17/12 12:57	12.39g/5mL	10g/5mL	0.81

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1205528							
A12E281-01	Soil	EPA 6020	05/15/12 13:35	05/25/12 11:36	0.521g/50mL	0.5g/50mL	0.96
A12E281-02	Soil	EPA 6020	05/15/12 16:40	05/25/12 11:36	0.5g/50mL	0.5g/50mL	1.00
A12E281-03	Soil	EPA 6020	05/15/12 10:15	05/25/12 11:36	0.511g/50mL	0.5g/50mL	0.98
A12E281-04	Soil	EPA 6020	05/15/12 12:30	05/25/12 11:36	0.495g/50mL	0.5g/50mL	1.01

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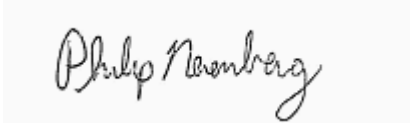

Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

Notes and Definitions

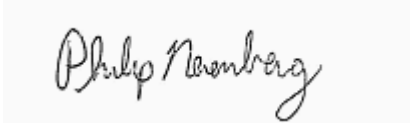
Qualifiers:

C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-01	Percent recovery and/or RPD is outside acceptance limits.
Q-17	RPD between original and duplicate sample is outside of established control limits.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
Q-26	Peak separation for Benzo(b) and Benzo(k)fluoranthenes does not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.
Q-28	Peak separation for Benzo(b) and Benzo(k)fluoranthenes does not meet method specified criteria. Data not reported. See result for Benzo(b+k)Fluoranthene(s).
Q-31	Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Data is likely biased low.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
V-06	Sample aliquot was subsampled from a soil jar with minimal headspace. The subsampled aliquot was preserved within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

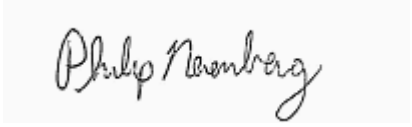
Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

***

Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	06/08/12 11:43

A12E281

HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 788-0717 • Fax (503) 227-2209

CHAIN OF CUSTODY

Laboratory Apex
Lab Project No.
Chain of Custody No.

Project Manager: Ross Rieke (Bridgewater Group)
Project No.:
Project Name: Schnitzer - Burgard Way
Collected by: Corey Rossone

Liquid with Sediment Sample: Test Filtrate / Test Sediment / Test Both
Multi-Phase Sample: Test One (which) / Test Separately / Stake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N)
Provide Preliminary Fax Results

Comments:
Sample Number Prefix: MW
Results & Invoicing to Ross Rieke at Bridgewater (rrieke@bridgeh2o.com
Metals List: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	Analyses to be Performed: PCBs (Aroclors)	PCBs (Congeners & Homologs)	Phthalates (EPA 8270 SIM)	Dioxins/Furans (EPA 8290)	Butyltins (KRONE)	Metals (EPA 6020)	PAHs (EPA 8270 SIM)	Organochlorine Pesticides (EPA 8081)	TPH - Gx	TPH - Dx	RUSH	REMARKS
	MW104-SS-4-5	15-May-12	13:35	IT slip - Head (south)	X			4	X	X	X	X	X	X	X	X	X	X		
	MW105-SS-9-10	15-May-12	16:40	IT slip - Head (north)	X			4	X	X	X	X	X	X	X	X	X	X		
	MW106-SS-10-11	15-May-12	10:15	IT Slip - South Dock (east)	X			4	X	X	X	X	X	X	X	X	X	X		
	MW107-SS-11-12	15-May-12	12:30	IT Slip - South Dock (west)	X			4	X	X	X	X	X	X	X	X	X	X		

Relinquished by: Company HAI — Date 5/17/12 — Time 08:25 — Received by — Company Apex
Relinquished by: Company — Date — Time — Received by — Company

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

May 22, 2012

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A12E281
ARI Job No.: UU92

Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the sample from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this package will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: UU92

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

SUBCONTRACT ORDER

Apex Laboratories

A12E281

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

UU92

Sample Name: MW104-SS-4-5 **Soil** **Sampled: 05/15/12 13:35** (A12E281-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	05/31/12 17:00	05/29/12 13:35	Krone--ARI
Containers Supplied: (C)8 oz Glass Jar			

5-17-12 KH

Sample Name: MW105-SS-9-10 **Soil** **Sampled: 05/15/12 16:40** (A12E281-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	05/31/12 17:00	05/29/12 16:40	Krone--ARI
Containers Supplied: (C)8 oz Glass Jar			

Sample Name: MW106-SS-10-11 **Soil** **Sampled: 05/15/12 10:15** (A12E281-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	05/31/12 17:00	05/29/12 10:15	Krone--ARI
Containers Supplied: (C)8 oz Glass Jar			

Sample Name: MW107-SS-11-12 **Soil** **Sampled: 05/15/12 12:30** (A12E281-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	05/31/12 17:00	05/29/12 12:30	Krone--ARI
Containers Supplied: (C)8 oz Glass Jar			

Standard TAT

Released By: [signature] Date: 5/17/12 1015 — Received By: UPS (Shipper) Date:

Released By: UPS (Shipper) Date: — Received By: [signature] Date: 5/18/12 1145

UU92 : 00002

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: APEX

Project Name: A12E281

COC No(s): (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No.: UU92

Tracking No.: 1ZX472GP1399434279 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 1.7

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90941619

Cooler Accepted by: AV Date: 5/18/12 Time: 1145

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: Equipment: Split by:

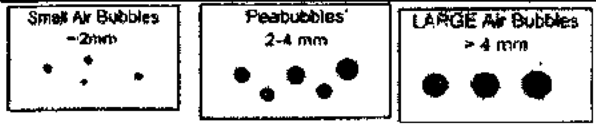
Samples Logged by: TS Date: 5-18-12 Time: 1445

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By Date



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

Case Narrative

Client: Apex Laboratories
Project: A12E281
ARI Job No.: UU92

Sample Receipt

Analytical Resources, Inc. (ARI) accepted four soil samples on May 18, 2012 under ARI job UU92. The cooler temperature measured by IR thermometer following ARI SOP was 1.7° C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for the parameters as requested on the COC.

Butyl Tins by Krone – 1988 SIM

There were no irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UU92
Client: Apex Labs
Project Event: N/A
Project Name: A12E281

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MW104-SS-4-5	UU92A	12-9102	Soil	05/15/12 13:35	05/18/12 11:45
2.	MW105-SS-9-10	UU92B	12-9103	Soil	05/15/12 16:40	05/18/12 11:45
3.	MW106-SS-10-11	UU92C	12-9104	Soil	05/15/12 10:15	05/18/12 11:45
4.	MW107-SS-11-12	UU92D	12-9105	Soil	05/15/12 12:30	05/18/12 11:45

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW104-SS-4-5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU92A
LIMS ID: 12-9102
Matrix: Soil
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU92-Apex Labs
Project: A12E281
Event: NA
Date Sampled: 05/15/12
Date Received: 05/18/12

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 12:54
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.42 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 11.8%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.6	5.5	
14488-53-0	Dibutyltin Ion	5.3	4.0	J
78763-54-9	Butyltin Ion	3.8	2.6	J

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	68.4%
Tripentyl Tin Chloride	83.2%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW105-SS-9-10**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU92B
LIMS ID: 12-9103
Matrix: Soil
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU92-Apex Labs
Project: A12E281
Event: NA
Date Sampled: 05/15/12
Date Received: 05/18/12

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 13:07
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.94 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 17.1%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.2	< 3.2	U
14488-53-0	Dibutyltin Ion	4.9	< 4.9	U
78763-54-9	Butyltin Ion	3.4	< 3.4	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	53.6%
Tripentyl Tin Chloride	75.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW106-SS-10-11**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU92C
LIMS ID: 12-9104
Matrix: Soil
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU92-Apex Labs
Project: A12E281
Event: NA
Date Sampled: 05/15/12
Date Received: 05/18/12

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 13:20
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.99 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 17.9%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.2	< 3.2	U
14488-53-0	Dibutyltin Ion	4.8	< 4.8	U
78763-54-9	Butyltin Ion	3.4	< 3.4	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	55.6%
Tripentyl Tin Chloride	84.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW107-SS-11-12**
Page 1 of 1 **SAMPLE**

Lab Sample ID: UU92D
LIMS ID: 12-9105
Matrix: Soil
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU92-Apex Labs
Project: A12E281
Event: NA
Date Sampled: 05/15/12
Date Received: 05/18/12

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 13:33
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.69 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 29.7%

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.4	< 3.4	U
14488-53-0	Dibutyltin Ion	5.1	< 5.1	U
78763-54-9	Butyltin Ion	3.6	< 3.6	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	44.6%
Tripentyl Tin Chloride	69.8%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: UU92-Apex Labs
Project: A12E281
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-052112	79.5%	100%	0
LCS-052112	76.9%	99.2%	0
LCSD-052112	64.0%	81.9%	0
MW104-SS-4-5	68.4%	83.2%	0
MW105-SS-9-10	53.6%	75.8%	0
MW106-SS-10-11	55.6%	84.7%	0
MW107-SS-11-12	44.6%	69.8%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(28-106)	(32-104)
(TPNT) = Tripentyl Tin Chloride	(35-130)	(25-140)

Prep Method: SW3546
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 12-9102 to 12-9105

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-052112**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-052112
LIMS ID: 12-9102
Matrix: Soil
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU92-Apex Labs
Project: A12E281

Date Sampled: NA
Date Received: NA

Date Extracted LCS: 05/21/12

Date Analyzed LCS: 05/22/12 12:16
LCSD: 05/22/12 12:29
Instrument/Analyst LCS: NT12/YZ
LCSD: NT12/YZ
Silica Gel Cleanup: No

Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	34.9	44.6	78.3%	29.8	44.6	66.8%	15.8%
Dibutyltin Ion	34.5	38.4	89.8%	31.4	38.4	81.8%	9.4%
Butyltin Ion	16.7	31.2	53.5%	15.5	31.2	49.7%	7.5%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	76.9%	64.0%
Tripentyl Tin Chloride	99.2%	81.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-052112**
Page 1 of 1 **METHOD BLANK**

Lab Sample ID: MB-052112
LIMS ID: 12-9102
Matrix: Soil
Data Release Authorized:
Reported: 05/22/12

QC Report No: UU92-Apex Labs
Project: A12E281
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 05/21/12
Date Analyzed: 05/22/12 12:03
Instrument/Analyst: NT12/YZ
Silica Gel Cleanup: No

Sample Amount: 5.00 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	3.9	< 3.9	U
14488-53-0	Dibutyltin Ion	5.8	< 5.8	U
78763-54-9	Butyltin Ion	4.1	< 4.1	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	79.5%
Tripentyl Tin Chloride	100%

Your Project #: A12E281
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2012/06/07

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B272296
Received: 2012/05/18, 12:00

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Soil (8290) (1)	4	2012/05/25	2012/06/01	BRL SOP-00406	EPA 8290 mod.
Moisture	4	N/A	2012/05/23	CAM SOP-00445	R.Carter,1993
PCB Congeners in Soil (1668A) (2)	4	2012/05/24	2012/06/01	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.
(2) Soils are reported on a dry weight basis unless otherwise specified.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LINA BARRETO, Project Manager
Email: LBarreto@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: A12E281
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2012/06/07

CERTIFICATE OF ANALYSIS

"signatories", as per section.

Total cover pages: 2

Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

RESULTS OF ANALYSES OF SOIL

Maxxam ID		NM7371	NM7372	NM7373	NM7373	NM7374		
Sampling Date		2012/05/15 13:35	2012/05/15 16:40	2012/05/15 10:15	2012/05/15 10:15	2012/05/15 12:30		
COC Number		na	na	na	na	na		
	Units	**MW104-SS-4-5**	**MW105-SS-9-10**	**MW106-SS-10-11**	**MW106-SS-10-11 Lab-Dup**	**MW107-SS-11-12**	**RDL**	**QC Batch**
Moisture	%	12	17	19	19	27	1.0	2857343

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.073 U	0.073	2.0	1.00	0.0730		2863069
1,2,3,7,8-Penta CDD	pg/g	0.14 U	0.14	5.0	1.00	0.140		2863069
1,2,3,4,7,8-Hexa CDD	pg/g	0.12 U	0.12	5.0	0.100	0.0120		2863069
1,2,3,6,7,8-Hexa CDD	pg/g	0.260 J	0.094	5.0	0.100	0.0260		2863069
1,2,3,7,8,9-Hexa CDD	pg/g	0.262 J	0.095	5.0	0.100	0.0262		2863069
1,2,3,4,6,7,8-Hepta CDD	pg/g	9.1	0.075	5.0	0.0100	0.0910		2863069
Octa CDD	pg/g	94	0.16	10	0.000300	0.0282		2863069
Total Tetra CDD	pg/g	0.223 J	0.073	2.0				2863069
Total Penta CDD	pg/g	0.14 U	0.14	5.0				2863069
Total Hexa CDD	pg/g	2.46 J	0.10	5.0				2863069
Total Hepta CDD	pg/g	20.4	0.075	5.0				2863069
2,3,7,8-Tetra CDF **	pg/g	0.102 J	0.089	2.0	0.100	0.0102		2863069
1,2,3,7,8-Penta CDF	pg/g	0.096 U	0.096	5.0	0.0300	0.00288		2863069
2,3,4,7,8-Penta CDF	pg/g	0.10 U	0.10	5.0	0.300	0.0300		2863069
1,2,3,4,7,8-Hexa CDF	pg/g	0.156 J	0.076	5.0	0.100	0.0156		2863069
1,2,3,6,7,8-Hexa CDF	pg/g	0.069 U	0.069	5.0	0.100	0.00690		2863069
2,3,4,6,7,8-Hexa CDF	pg/g	0.082 U	0.082	5.0	0.100	0.00820		2863069
1,2,3,7,8,9-Hexa CDF	pg/g	0.11 U	0.11	5.0	0.100	0.0110		2863069
1,2,3,4,6,7,8-Hepta CDF	pg/g	1.59 J	0.043	5.0	0.0100	0.0159		2863069
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.121 J	0.071	5.0	0.0100	0.00121		2863069
Octa CDF	pg/g	4.39 J	0.12	10	0.000300	0.00132		2863069
Total Tetra CDF	pg/g	0.102 J	0.089	2.0				2863069
Total Penta CDF	pg/g	1.00 J	0.099	5.0				2863069
Total Hexa CDF	pg/g	1.97 J	0.082	5.0				2863069
Total Hepta CDF	pg/g	5.1	0.053	5.0				2863069
TOTAL TOXIC EQUIVALENCY	pg/g					0.500		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	76						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**MW104-SS-4-5**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-1234678 HeptaCDF **	%	72						2863069
C13-123478 HexaCDF	%	78						2863069
C13-123678 HexaCDD *	%	83						2863069
C13-12378 PentaCDD	%	107						2863069
C13-12378 PentaCDF	%	83						2863069
C13-2378 TetraCDD	%	83						2863069
C13-2378 TetraCDF	%	79						2863069
C13-OCDD	%	73						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.13 U	0.13	2.0	1.00	0.130		2863069
1,2,3,7,8-Penta CDD	pg/g	0.093 U	0.093	5.0	1.00	0.0930		2863069
1,2,3,4,7,8-Hexa CDD	pg/g	0.12 U	0.12	5.0	0.100	0.0120		2863069
1,2,3,6,7,8-Hexa CDD	pg/g	0.14 U (1)	0.14	5.0	0.100	0.0140		2863069
1,2,3,7,8,9-Hexa CDD	pg/g	0.19 J	0.10	5.0	0.100	0.0190		2863069
1,2,3,4,6,7,8-Hepta CDD	pg/g	3.22 J	0.10	5.0	0.0100	0.0322		2863069
Octa CDD	pg/g	32	0.15	10	0.000300	0.00960		2863069
Total Tetra CDD	pg/g	0.13 U	0.13	2.0				2863069
Total Penta CDD	pg/g	0.093 U	0.093	5.0				2863069
Total Hexa CDD	pg/g	1.39 J	0.11	5.0				2863069
Total Hepta CDD	pg/g	6.8	0.10	5.0				2863069
2,3,7,8-Tetra CDF **	pg/g	0.10 U	0.10	2.0	0.100	0.0100		2863069
1,2,3,7,8-Penta CDF	pg/g	0.11 U	0.11	5.0	0.0300	0.00330		2863069
2,3,4,7,8-Penta CDF	pg/g	0.11 U	0.11	5.0	0.300	0.0330		2863069
1,2,3,4,7,8-Hexa CDF	pg/g	0.250 J	0.065	5.0	0.100	0.0250		2863069
1,2,3,6,7,8-Hexa CDF	pg/g	0.119 J	0.059	5.0	0.100	0.0119		2863069
2,3,4,6,7,8-Hexa CDF	pg/g	0.125 J	0.070	5.0	0.100	0.0125		2863069
1,2,3,7,8,9-Hexa CDF	pg/g	0.094 U	0.094	5.0	0.100	0.00940		2863069
1,2,3,4,6,7,8-Hepta CDF	pg/g	3.25 J	0.067	5.0	0.0100	0.0325		2863069
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.11 U	0.11	5.0	0.0100	0.00110		2863069
Octa CDF	pg/g	2.48 J	0.11	10	0.000300	0.000744		2863069
Total Tetra CDF	pg/g	0.15 J	0.10	2.0				2863069
Total Penta CDF	pg/g	1.48 J	0.11	5.0				2863069
Total Hexa CDF	pg/g	2.88 J	0.070	5.0				2863069
Total Hepta CDF	pg/g	5.7	0.083	5.0				2863069
TOTAL TOXIC EQUIVALENCY	pg/g					0.449		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	82						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			**TOXIC EQUIVALENCY**		**# of**	
	Units	**MW105-SS-9-10**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-1234678 HeptaCDF **	%	78						2863069
C13-123478 HexaCDF	%	82						2863069
C13-123678 HexaCDD *	%	88						2863069
C13-12378 PentaCDD	%	100						2863069
C13-12378 PentaCDF	%	78						2863069
C13-2378 TetraCDD	%	65						2863069
C13-2378 TetraCDF	%	58						2863069
C13-OCDD	%	77						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.081 U	0.081	2.0	1.00	0.0810		2863069
1,2,3,7,8-Penta CDD	pg/g	0.10 U	0.10	5.0	1.00	0.100		2863069
1,2,3,4,7,8-Hexa CDD	pg/g	0.078 U	0.078	5.0	0.100	0.00780		2863069
1,2,3,6,7,8-Hexa CDD	pg/g	0.063 U	0.063	5.0	0.100	0.00630		2863069
1,2,3,7,8,9-Hexa CDD	pg/g	0.141 J	0.064	5.0	0.100	0.0141		2863069
1,2,3,4,6,7,8-Hepta CDD	pg/g	0.83 J	0.11	5.0	0.0100	0.00830		2863069
Octa CDD	pg/g	6.66 J	0.12	10	0.000300	0.00200		2863069
Total Tetra CDD	pg/g	0.081 U	0.081	2.0				2863069
Total Penta CDD	pg/g	0.10 U	0.10	5.0				2863069
Total Hexa CDD	pg/g	0.661 J	0.067	5.0				2863069
Total Hepta CDD	pg/g	1.96 J	0.11	5.0				2863069
2,3,7,8-Tetra CDF **	pg/g	0.055 U	0.055	2.0	0.100	0.00550		2863069
1,2,3,7,8-Penta CDF	pg/g	0.086 U	0.086	5.0	0.0300	0.00258		2863069
2,3,4,7,8-Penta CDF	pg/g	0.091 U	0.091	5.0	0.300	0.0273		2863069
1,2,3,4,7,8-Hexa CDF	pg/g	0.175 J	0.081	5.0	0.100	0.0175		2863069
1,2,3,6,7,8-Hexa CDF	pg/g	0.073 U	0.073	5.0	0.100	0.00730		2863069
2,3,4,6,7,8-Hexa CDF	pg/g	0.087 U	0.087	5.0	0.100	0.00870		2863069
1,2,3,7,8,9-Hexa CDF	pg/g	0.12 U	0.12	5.0	0.100	0.0120		2863069
1,2,3,4,6,7,8-Hepta CDF	pg/g	0.219 J	0.054	5.0	0.0100	0.00219		2863069
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.088 U	0.088	5.0	0.0100	0.000880		2863069
Octa CDF	pg/g	0.11 U	0.11	10	0.000300	0.0000330		2863069
Total Tetra CDF	pg/g	0.055 U	0.055	2.0				2863069
Total Penta CDF	pg/g	0.089 U	0.089	5.0				2863069
Total Hexa CDF	pg/g	0.448 J	0.087	5.0				2863069
Total Hepta CDF	pg/g	0.219 J	0.067	5.0				2863069
TOTAL TOXIC EQUIVALENCY	pg/g					0.303		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	79						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	75						2863069
C13-123478 HexaCDF	%	82						2863069
C13-123678 HexaCDD *	%	87						2863069
C13-12378 PentaCDD	%	111						2863069
C13-12378 PentaCDF	%	88						2863069
C13-2378 TetraCDD	%	89						2863069
C13-2378 TetraCDF	%	84						2863069
C13-OCDD	%	72						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.12 U	0.12	2.0	1.00	0.120		2863069
1,2,3,7,8-Penta CDD	pg/g	0.10 U	0.10	5.0	1.00	0.100		2863069
1,2,3,4,7,8-Hexa CDD	pg/g	0.085 U	0.085	5.0	0.100	0.00850		2863069
1,2,3,6,7,8-Hexa CDD	pg/g	0.22 U (1)	0.22	5.0	0.100	0.0220		2863069
1,2,3,7,8,9-Hexa CDD	pg/g	0.30 U (1)	0.30	5.0	0.100	0.0300		2863069
1,2,3,4,6,7,8-Hepta CDD	pg/g	4.87 J	0.13	5.0	0.0100	0.0487		2863069
Octa CDD	pg/g	46	0.11	10	0.000300	0.0138		2863069
Total Tetra CDD	pg/g	0.45 J	0.12	2.0				2863069
Total Penta CDD	pg/g	0.10 U	0.10	5.0				2863069
Total Hexa CDD	pg/g	1.55 J	0.074	5.0				2863069
Total Hepta CDD	pg/g	12.0	0.13	5.0				2863069
2,3,7,8-Tetra CDF **	pg/g	0.11 U (2)	0.11	2.0	0.100	0.0110		2863069
1,2,3,7,8-Penta CDF	pg/g	0.083 U	0.083	5.0	0.0300	0.00249		2863069
2,3,4,7,8-Penta CDF	pg/g	0.087 U	0.087	5.0	0.300	0.0261		2863069
1,2,3,4,7,8-Hexa CDF	pg/g	0.077 J	0.061	5.0	0.100	0.00770		2863069
1,2,3,6,7,8-Hexa CDF	pg/g	0.055 U	0.055	5.0	0.100	0.00550		2863069
2,3,4,6,7,8-Hexa CDF	pg/g	0.066 U	0.066	5.0	0.100	0.00660		2863069
1,2,3,7,8,9-Hexa CDF	pg/g	0.089 U	0.089	5.0	0.100	0.00890		2863069
1,2,3,4,6,7,8-Hepta CDF	pg/g	0.47 U (1)	0.47	5.0	0.0100	0.00470		2863069
1,2,3,4,7,8,9-Hepta CDF	pg/g	0.093 U	0.093	5.0	0.0100	0.000930		2863069
Octa CDF	pg/g	0.86 U (1)	0.86	10	0.000300	0.000258		2863069
Total Tetra CDF	pg/g	0.109 J	0.072	2.0				2863069
Total Penta CDF	pg/g	0.197 J	0.085	5.0				2863069
Total Hexa CDF	pg/g	0.334 J	0.066	5.0				2863069
Total Hepta CDF	pg/g	0.831 J	0.071	5.0				2863069
TOTAL TOXIC EQUIVALENCY	pg/g					0.417		

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(2) RT > 3 seconds - PCDD/DF analysis - Peak detected exceeds expected retention time (from internal standard) by greater than 3 seconds.

Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**MW107-SS-11-12**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Surrogate Recovery (%)								
C13-1234678 HeptaCDD *	%	84						2863069
C13-1234678 HeptaCDF **	%	80						2863069
C13-123478 HexaCDF	%	83						2863069
C13-123678 HexaCDD	%	89						2863069
C13-12378 PentaCDD	%	105						2863069
C13-12378 PentaCDF	%	83						2863069
C13-2378 TetraCDD	%	67						2863069
C13-2378 TetraCDF	%	62						2863069
C13-OCDD	%	82						2863069

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00343 J	0.00019	0.010				2863065
3-MonoCB-(2)	ng/g	0.00068 J	0.00019	0.010				2863065
4-MonoCB-(3)	ng/g	0.00311 J	0.00020	0.010				2863065
22'-DiCB-(4)	ng/g	0.017	0.00034	0.010				2863065
2,3-DiCB-(5)	ng/g	0.00080 U (1)	0.00080	0.010				2863065
2,3'-DiCB-(6)	ng/g	0.011	0.00061	0.010				2863065
2,4-DiCB-(7)	ng/g	0.00208 J	0.00061	0.010				2863065
2,4'-DiCB-(8)	ng/g	0.060	0.00061	0.010				2863065
2,5-DiCB-(9)	ng/g	0.00309 J	0.00060	0.010				2863065
2,6-DiCB-(10)	ng/g	0.00078 J	0.00024	0.010				2863065
3,3'-DiCB-(11)	ng/g	0.00818 J	0.00062	0.010				2863065
DiCB-(12)+(13)	ng/g	0.0067 U (1)	0.0067	0.020				2863065
3,5-DiCB-(14)	ng/g	0.00063 U	0.00063	0.010				2863065
4,4'-DiCB-(15)	ng/g	0.079	0.00080	0.010				2863065
22'3-TriCB-(16)	ng/g	0.024	0.00041	0.010				2863065
22'4-TriCB-(17)	ng/g	0.022	0.00033	0.010				2863065
TriCB-(18)+(30)	ng/g	0.051	0.00026	0.020				2863065
22'6-TriCB-(19)	ng/g	0.010	0.00034	0.010				2863065
TriCB-(20) + (28)	ng/g	0.144	0.00035	0.020				2863065
TriCB-(21)+(33)	ng/g	0.068	0.00037	0.020				2863065
234'-TriCB-(22)	ng/g	0.044	0.00037	0.010				2863065
235-TriCB-(23)	ng/g	0.00037 U	0.00037	0.010				2863065
236-TriCB-(24)	ng/g	0.00023 U	0.00023	0.010				2863065
23'4-TriCB-(25)	ng/g	0.010	0.00037	0.010				2863065
TriCB-(26)+(29)	ng/g	0.020	0.00035	0.020				2863065
23'6-TriCB-(27)	ng/g	0.0038 U (1)	0.0038	0.010				2863065
24'5-TriCB-(31)	ng/g	0.118	0.00033	0.010				2863065
24'6-TriCB-(32)	ng/g	0.016	0.00021	0.010				2863065

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	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00036 U	0.00036	0.010				2863065
33'4-TriCB-(35)	ng/g	0.00301 J	0.00037	0.010				2863065
33'5-TriCB-(36)	ng/g	0.00032 U	0.00032	0.010				2863065
344'-TriCB-(37)	ng/g	0.070	0.00048	0.010				2863065
345-TriCB-(38)	ng/g	0.00036 U	0.00036	0.010				2863065
34'5-TriCB-(39)	ng/g	0.00034 U	0.00034	0.010				2863065
TetraCB-(40)+(41)+(71)	ng/g	0.094	0.00012	0.030				2863065
22'34'-TetraCB-(42)	ng/g	0.052	0.00015	0.010				2863065
22'35-TetraCB-(43)	ng/g	0.00600 J	0.00017	0.010				2863065
TetraCB-(44)+(47)+(65)	ng/g	0.344	0.00012	0.030				2863065
TetraCB-(45)+(51)	ng/g	0.028	0.00012	0.020				2863065
22'36'-TetraCB-(46)	ng/g	0.010	0.00015	0.010				2863065
22'45-TetraCB-(48)	ng/g	0.026	0.00012	0.010				2863065
TetraCB-(49)+TetraCB-(69)	ng/g	0.182	0.00011	0.020				2863065
TetraCB-(50)+(53)	ng/g	0.029	0.00012	0.020				2863065
22'55'-TetraCB-(52)	ng/g	0.708	0.00012	0.010				2863065
22'66'-TetraCB-(54)	ng/g	0.00029 U (1)	0.00029	0.010				2863065
233'4-TetraCB-(55)	ng/g	0.00058 U	0.00058	0.010				2863065
233'4'-Tetra CB(56)	ng/g	0.096	0.00064	0.010				2863065
233'5-TetraCB-(57)	ng/g	0.00058 U	0.00058	0.010				2863065
233'5'-TetraCB-(58)	ng/g	0.00057 U	0.00057	0.010				2863065
TetraCB-(59)+(62)+(75)	ng/g	0.0126 J	0.000091	0.030				2863065
2344'-TetraCB -(60)	ng/g	0.039	0.00058	0.010				2863065
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.673	0.00059	0.040				2863065
234'5-TetraCB-(63)	ng/g	0.00550 J	0.00055	0.010				2863065
234'6-TetraCB-(64)	ng/g	0.123	0.000099	0.010				2863065
23'44'-TetraCB-(66)	ng/g	0.210	0.00055	0.010				2863065
23'45-TetraCB-(67)	ng/g	0.00346 J	0.00054	0.010				2863065

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	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.00052 U	0.00052	0.010				2863065
23'55'-TetraCB-(72)	ng/g	0.0012 U (1)	0.0012	0.010				2863065
23'5'6-TetraCB-(73)	ng/g	0.000084 U	0.000084	0.010				2863065
33'44'-TetraCB-(77)	ng/g	0.024	0.00063	0.010	0.000100	0.00000240		2863065
33'45-TetraCB-(78)	ng/g	0.00058 U	0.00058	0.010				2863065
33'45'-TetraCB(79)	ng/g	0.011	0.00050	0.010				2863065
33'55'-TetraCB-(80)	ng/g	0.00054 U	0.00054	0.010				2863065
344'5-TetraCB-(81)	ng/g	0.00067 U	0.00067	0.010	0.000300	0.000000201		2863065
22'33'4-PentaCB-(82)	ng/g	0.142	0.00011	0.010				2863065
PentaCB-(83)+(99)	ng/g	0.729	0.000093	0.020				2863065
22'33'6-PentaCB-(84)	ng/g	0.365	0.00011	0.010				2863065
PentaCB-(85)+(116)+(117)	ng/g	0.238	0.000076	0.030				2863065
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.914	0.000083	0.060				2863065
PentaCB-(88)+(91)	ng/g	0.180	0.000092	0.020				2863065
22'346'-PentaCB-(89)	ng/g	0.00813 J	0.00010	0.010				2863065
PentaCB-(90)+(101)+(113)	ng/g	1.28	0.000079	0.030				2863065
22'355'-PentaCB-(92)	ng/g	0.258	0.000096	0.010				2863065
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.0338 J	0.000099	0.040				2863065
22'356'-PentaCB-(94)	ng/g	0.00409 J	0.00010	0.010				2863065
22'35'6-PentaCB-(95)	ng/g	1.09	0.000088	0.010				2863065
22'366'-PentaCB-(96)	ng/g	0.00473 J	0.000057	0.010				2863065
22'45'6-PentaCB-(103)	ng/g	0.00477 J	0.000084	0.010				2863065
22'466'-PentaCB-(104)	ng/g	0.000066 U	0.000066	0.010				2863065
233'44'-PentaCB-(105)	ng/g	0.510	0.00054	0.010	0.0000300	0.0000153		2863065
233'45-PentaCB-(106)	ng/g	0.00046 U	0.00046	0.010				2863065
233'4'5-PentaCB-(107)	ng/g	0.080	0.00045	0.010				2863065
PentaCB-(108)+(124)	ng/g	0.065	0.00048	0.020				2863065
PentaCB-(110)+(115)	ng/g	2.26	0.000080	0.020				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/g	0.000068 U	0.000068	0.010				2863065
233'56-PentaCB-(112)	ng/g	0.000075 U	0.000075	0.010				2863065
2344'5-PentaCB-(114)	ng/g	0.022	0.00051	0.010	0.0000300	0.000000660		2863065
23'44'5-PentaCB-(118)	ng/g	1.25	0.00054	0.010	0.0000300	0.0000375		2863065
23'455'-PentaCB-(120)	ng/g	0.00147 J	0.000066	0.010				2863065
23'45'6-PentaCB-(121)	ng/g	0.000069 U	0.000069	0.010				2863065
233'4'5'-PentaCB-(122)	ng/g	0.017	0.00051	0.010				2863065
23'44'5'-PentaCB-(123)	ng/g	0.030	0.00056	0.010	0.0000300	0.000000900		2863065
33'44'5-PentaCB-(126)	ng/g	0.00526 J	0.00053	0.010	0.100	0.000526		2863065
33'455'-PentaCB-(127)	ng/g	0.00290 J	0.00046	0.010				2863065
HexaCB-(128)+(166)	ng/g	0.550	0.00098	0.020				2863065
HexaCB-(129)+(138)+(163)	ng/g	3.99	0.0011	0.030				2863065
22'33'45'-HexaCB-(130)	ng/g	0.180	0.0012	0.010				2863065
22'33'46-HexaCB-(131)	ng/g	0.033	0.0013	0.010				2863065
22'33'46'-HexaCB-(132)	ng/g	0.894	0.0011	0.010				2863065
22'33'55'-HexaCB-(133)	ng/g	0.033	0.0011	0.010				2863065
HexaCB-(134)+(143)	ng/g	0.135	0.0013	0.020				2863065
HexaCB-(135)+(151)	ng/g	0.669	0.00015	0.020				2863065
22'33'66'-HexaCB-(136)	ng/g	0.216	0.00011	0.010				2863065
22'344'5-HexaCB-(137)	ng/g	0.127	0.0010	0.010				2863065
HexaCB-(139)+(140)	ng/g	0.039	0.0010	0.020				2863065
22'3455'-HexaCB-(141)	ng/g	0.539	0.0011	0.010				2863065
22'3456-HexaCB-(142)	ng/g	0.0012 U	0.0012	0.010				2863065
22'345'6-HexaCB-(144)	ng/g	0.083	0.00015	0.010				2863065
22'3466'-HexaCB-(145)	ng/g	0.00011 U	0.00011	0.010				2863065
22'34'55'-HexaCB-(146)	ng/g	0.391	0.00097	0.010				2863065
HexaCB-(147)+(149)	ng/g	2.27	0.0010	0.020				2863065
22'34'56'-HexaCB-(148)	ng/g	0.00014 U	0.00014	0.010				2863065
22'34'66'-HexaCB-(150)	ng/g	0.00130 J	0.00010	0.010				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	0.0010 U (1)	0.0010	0.010				2863065
HexaCB-(153)+(168)	ng/g	2.54	0.00083	0.020				2863065
22'44'56'-HexaCB-(154)	ng/g	0.011	0.00013	0.010				2863065
22'44'66'-HexaCB-(155)	ng/g	0.00013 U	0.00013	0.010				2863065
HexaCB-(156)+(157)	ng/g	0.368	0.00050	0.020	0.0000300	0.0000110		2863065
233'44'6-HexaCB-(158)	ng/g	0.317	0.00082	0.010				2863065
233'455'-HexaCB-(159)	ng/g	0.032	0.00047	0.010				2863065
233'456-HexaCB-(160)	ng/g	0.00085 U	0.00085	0.010				2863065
233'45'6-HexaCB-(161)	ng/g	0.00082 U	0.00082	0.010				2863065
233'4'55'-HexaCB-(162)	ng/g	0.011	0.00047	0.010				2863065
233'4'5'6-HexaCB-(164)	ng/g	0.249	0.00088	0.010				2863065
233'55'6-HexaCB-(165)	ng/g	0.00085 U	0.00085	0.010				2863065
23'44'55'-HexaCB-(167)	ng/g	0.150	0.00053	0.010	0.0000300	0.00000450		2863065
33'44'55'-HexaCB-(169)	ng/g	0.0020 U (1)	0.0020	0.010	0.0300	0.0000600		2863065
22'33'44'5-HeptaCB-(170)	ng/g	1.13	0.00048	0.010				2863065
HeptaCB-(171)+(173)	ng/g	0.257	0.00054	0.020				2863065
22'33'455'-HeptaCB-(172)	ng/g	0.161	0.00055	0.010				2863065
22'33'456'-HeptaCB-(174)	ng/g	1.09	0.00053	0.010				2863065
22'33'45'6-HeptaCB-(175)	ng/g	0.026	0.00019	0.010				2863065
22'33'466'-HeptaCB-(176)	ng/g	0.071	0.00013	0.010				2863065
22'33'45'6'-HeptaCB-(177)	ng/g	0.592	0.00053	0.010				2863065
22'33'55'6-HeptaCB-(178)	ng/g	0.182	0.00020	0.010				2863065
22'33'566'-HeptaCB-(179)	ng/g	0.302	0.00013	0.010				2863065
HeptaCB-(180)+(193)	ng/g	2.22	0.00040	0.020				2863065
22'344'56-HeptaCB-(181)	ng/g	0.00715 J	0.00049	0.010				2863065
22'344'56'-HeptaCB-(182)	ng/g	0.00179 J	0.00021	0.010				2863065
22'344'5'6-HeptaCB-(183)	ng/g	0.504	0.00047	0.010				2863065
22'344'66'-HeptaCB-(184)	ng/g	0.00012 U	0.00012	0.010				2863065

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	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3455'6-HeptaCB-(185)	ng/g	0.105	0.00048	0.010				2863065
22'34566'-HeptaCB-(186)	ng/g	0.00013 U	0.00013	0.010				2863065
22'34'55'6-HeptaCB-(187)	ng/g	1.20	0.00018	0.010				2863065
22'34'566'-HeptaCB-(188)	ng/g	0.00020 U	0.00020	0.010				2863065
233'44'55'-HeptaCB-(189)	ng/g	0.035	0.00057	0.010	0.0000300	0.00000105		2863065
233'44'56-HeptaCB-(190)	ng/g	0.190	0.00040	0.010				2863065
233'44'5'6-HeptaCB-(191)	ng/g	0.028	0.00039	0.010				2863065
233'455'6-HeptaCB-(192)	ng/g	0.00042 U	0.00042	0.010				2863065
22'33'44'55'-OctaCB-(194)	ng/g	0.588	0.00027	0.010				2863065
22'33'44'56-OctaCB-(195)	ng/g	0.215	0.00029	0.010				2863065
22'33'44'56'-OctaCB-(196)	ng/g	0.235	0.00027	0.010				2863065
22'33'44'66'OctaCB-(197)	ng/g	0.012	0.00019	0.010				2863065
OctaCB-(198)+(199)	ng/g	0.681	0.00027	0.020				2863065
22'33'4566'-OctaCB-(200)	ng/g	0.074	0.00020	0.010				2863065
22'33'45'66'-OctaCB-(201)	ng/g	0.060	0.00019	0.010				2863065
22'33'55'66'-OctaCB-(202)	ng/g	0.160	0.00029	0.010				2863065
22'344'55'6-OctaCB-(203)	ng/g	0.416	0.00025	0.010				2863065
22'344'566'-OctaCB-(204)	ng/g	0.00020 U	0.00020	0.010				2863065
233'44'55'6-OctaCB-(205)	ng/g	0.030	0.00023	0.010				2863065
22'33'44'55'6-NonaCB-(206)	ng/g	0.387	0.0013	0.010				2863065
22'33'44'566'-NonaCB-(207)	ng/g	0.034	0.00093	0.010				2863065
22'33'455'66'-NonaCB-(208)	ng/g	0.097	0.0013	0.010				2863065
DecaCB-(209)	ng/g	0.103	0.00030	0.010				2863065
Monochlorobiphenyl	ng/g	0.00723	0.00020	N/A				2863065
Dichlorobiphenyl	ng/g	0.180	0.00080	N/A				2863065
Trichlorobiphenyl	ng/g	0.601	0.00048	N/A				2863065
Tetrachlorobiphenyl	ng/g	2.68	0.00067	N/A				2863065
Pentachlorobiphenyl	ng/g	9.50	0.00056	N/A				2863065
Hexachlorobiphenyl	ng/g	13.8	0.0013	N/A				2863065

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Heptachlorobiphenyl	ng/g	8.10	0.00057	N/A				2863065
Octachlorobiphenyl	ng/g	2.47	0.00029	N/A				2863065
Nonachlorobiphenyl	ng/g	0.519	0.0013	N/A				2863065
Decachlorobiphenyl	ng/g	0.103	0.00030	N/A				2863065
Total PCB	ng/g	38.0	N/A	N/A				2863065
TOTAL TOXIC EQUIVALENCY	ng/g					0.000660		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	118						2863065
C13-22'33'44'55'6-NonaCB-(206)	%	80						2863065
C13-22'33'44'5-HeptaCB-(170)	%	103						2863065
C13-22'33'455'66'-NonaCB-(208)	%	86						2863065
C13-22'33'55'66'-OctaCB-(202)	%	93						2863065
C13-22'33'55'6-HeptaCB-(178)	%	90						2863065
C13-22'344'55'-HeptaCB-(180)	%	105						2863065
C13-22'34'566'-HeptaCB-(188)	%	85						2863065
C13-22'44'66'-HexaCB-(155)	%	76						2863065
C13-22'466'-PentaCB-(104)	%	76						2863065
C13-22'66'-TetraCB-(54)	%	57						2863065
C13-22'6-TriCB-(19)	%	67						2863065
C13-22'-DiCB-(4)	%	59						2863065
C13-233'44'55'6-OctaCB-(205)	%	102						2863065
C13-233'44'55'-HeptaCB-(189)	%	132						2863065
C13-233'44'-PentaCB-(105)	%	127						2863065
C13-233'55'-PentaCB-(111)	%	106						2863065
C13-23'44'55'-HexaCB-(167)	%	128						2863065
C13-2344'5-PentaCB-(114)	%	124						2863065
C13-23'44'5-PentaCB-(118)	%	127						2863065
C13-2'344'5-PentaCB-(123)	%	125						2863065
C13-2-MonoCB-(1)	%	79						2863065

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7371						
Sampling Date		2012/05/15 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-SS-4-5	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'55'-HexaCB-(169)	%	124						2863065
C13-33'44'5-PentaCB-(126)	%	128						2863065
C13-33'44'-TetraCB-(77)	%	118						2863065
C13-344'5-TetraCB-(81)	%	117						2863065
C13-344'-TriCB-(37)	%	116						2863065
C13-44'-DiCB-(15)	%	90						2863065
C13-4-MonoCB-(3)	%	86						2863065
C13-DecaCB-(209)	%	63						2863065
C13-HexaCB-(156)+(157)	%	128						2863065

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00027 J	0.00017	0.010				2863065
3-MonoCB-(2)	ng/g	0.00017 U	0.00017	0.010				2863065
4-MonoCB-(3)	ng/g	0.00024 J	0.00017	0.010				2863065
22'-DiCB-(4)	ng/g	0.0012 U (1)	0.0012	0.010				2863065
2,3-DiCB-(5)	ng/g	0.00070 U	0.00070	0.010				2863065
2,3'-DiCB-(6)	ng/g	0.00069 U	0.00069	0.010				2863065
2,4-DiCB-(7)	ng/g	0.00069 U	0.00069	0.010				2863065
2,4'-DiCB-(8)	ng/g	0.0018 U (1)	0.0018	0.010				2863065
2,5-DiCB-(9)	ng/g	0.00068 U	0.00068	0.010				2863065
2,6-DiCB-(10)	ng/g	0.00017 U	0.00017	0.010				2863065
3,3'-DiCB-(11)	ng/g	0.0054 U (1)	0.0054	0.010				2863065
DiCB-(12)+(13)	ng/g	0.00072 U	0.00072	0.020				2863065
3,5-DiCB-(14)	ng/g	0.00071 U	0.00071	0.010				2863065
4,4'-DiCB-(15)	ng/g	0.0054 U (1)	0.0054	0.010				2863065
22'3-TriCB-(16)	ng/g	0.00098 J	0.00034	0.010				2863065
22'4-TriCB-(17)	ng/g	0.00087 J	0.00028	0.010				2863065
TriCB-(18)+(30)	ng/g	0.00196 J	0.00022	0.020				2863065
22'6-TriCB-(19)	ng/g	0.00028 U	0.00028	0.010				2863065
TriCB-(20) + (28)	ng/g	0.00288 J	0.00013	0.020				2863065
TriCB-(21)+(33)	ng/g	0.00167 J	0.00013	0.020				2863065
234'-TriCB-(22)	ng/g	0.00119 J	0.00013	0.010				2863065
235-TriCB-(23)	ng/g	0.00013 U	0.00013	0.010				2863065
236-TriCB-(24)	ng/g	0.00020 U	0.00020	0.010				2863065
23'4-TriCB-(25)	ng/g	0.00026 J	0.00013	0.010				2863065
TriCB-(26)+(29)	ng/g	0.00052 J	0.00013	0.020				2863065
23'6-TriCB-(27)	ng/g	0.00018 U	0.00018	0.010				2863065
24'5-TriCB-(31)	ng/g	0.00291 J	0.00012	0.010				2863065
24'6-TriCB-(32)	ng/g	0.00067 J	0.00017	0.010				2863065

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
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Report Date: 2012/06/07

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00013 U	0.00013	0.010				2863065
33'4-TriCB-(35)	ng/g	0.00013 U	0.00013	0.010				2863065
33'5-TriCB-(36)	ng/g	0.00012 U	0.00012	0.010				2863065
344'-TriCB-(37)	ng/g	0.00095 J	0.00017	0.010				2863065
345-TriCB-(38)	ng/g	0.00013 U	0.00013	0.010				2863065
34'5-TriCB-(39)	ng/g	0.00012 U	0.00012	0.010				2863065
TetraCB-(40)+(41)+(71)	ng/g	0.00328 J	0.00016	0.030				2863065
22'34'-TetraCB-(42)	ng/g	0.00174 J	0.00021	0.010				2863065
22'35-TetraCB-(43)	ng/g	0.00023 U	0.00023	0.010				2863065
TetraCB-(44)+(47)+(65)	ng/g	0.0161 J	0.00016	0.030				2863065
TetraCB-(45)+(51)	ng/g	0.00101 J	0.00017	0.020				2863065
22'36'-TetraCB-(46)	ng/g	0.00034 J	0.00020	0.010				2863065
22'45-TetraCB-(48)	ng/g	0.00063 J	0.00016	0.010				2863065
TetraCB-(49)+TetraCB-(69)	ng/g	0.00866 J	0.00015	0.020				2863065
TetraCB-(50)+(53)	ng/g	0.00136 J	0.00016	0.020				2863065
22'55'-TetraCB-(52)	ng/g	0.046	0.00016	0.010				2863065
22'66'-TetraCB-(54)	ng/g	0.00015 U	0.00015	0.010				2863065
233'4-TetraCB-(55)	ng/g	0.00020 U	0.00020	0.010				2863065
233'4'-Tetra CB(56)	ng/g	0.00375 J	0.00022	0.010				2863065
233'5-TetraCB-(57)	ng/g	0.00021 U	0.00021	0.010				2863065
233'5'-TetraCB-(58)	ng/g	0.00375 J	0.00020	0.010				2863065
TetraCB-(59)+(62)+(75)	ng/g	0.00012 U	0.00012	0.030				2863065
2344'-TetraCB -(60)	ng/g	0.00131 J	0.00021	0.010				2863065
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.0389 J	0.00021	0.040				2863065
234'5-TetraCB-(63)	ng/g	0.00020 U	0.00020	0.010				2863065
234'6-TetraCB-(64)	ng/g	0.00521 J	0.00013	0.010				2863065
23'44'-TetraCB-(66)	ng/g	0.00921 J	0.00019	0.010				2863065
23'45-TetraCB-(67)	ng/g	0.00019 U	0.00019	0.010				2863065
23'45'-TetraCB-(68)	ng/g	0.00018 U	0.00018	0.010				2863065

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Report Date: 2012/06/07

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/g	0.00019 U	0.00019	0.010				2863065
23'5'6-TetraCB-(73)	ng/g	0.00011 U	0.00011	0.010				2863065
33'44'-TetraCB-(77)	ng/g	0.00103 J	0.00022	0.010	0.000100	0.000000103		2863065
33'45-TetraCB-(78)	ng/g	0.00020 U	0.00020	0.010				2863065
33'45'-TetraCB(79)	ng/g	0.00070 J	0.00018	0.010				2863065
33'55'-TetraCB-(80)	ng/g	0.00019 U	0.00019	0.010				2863065
344'5-TetraCB-(81)	ng/g	0.00023 U	0.00023	0.010	0.000300	0.0000000690		2863065
22'33'4-PentaCB-(82)	ng/g	0.00971 J	0.00014	0.010				2863065
PentaCB-(83)+(99)	ng/g	0.053	0.00012	0.020				2863065
22'33'6-PentaCB-(84)	ng/g	0.029	0.00015	0.010				2863065
PentaCB-(85)+(116)+(117)	ng/g	0.0184 J	0.000099	0.030				2863065
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.067	0.00011	0.060				2863065
PentaCB-(88)+(91)	ng/g	0.0141 J	0.00012	0.020				2863065
22'346'-PentaCB-(89)	ng/g	0.00013 U	0.00013	0.010				2863065
PentaCB-(90)+(101)+(113)	ng/g	0.104	0.00010	0.030				2863065
22'355'-PentaCB-(92)	ng/g	0.019	0.00013	0.010				2863065
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.00262 J	0.00013	0.040				2863065
22'356'-PentaCB-(94)	ng/g	0.00037 J	0.00013	0.010				2863065
22'35'6-PentaCB-(95)	ng/g	0.097	0.00011	0.010				2863065
22'366'-PentaCB-(96)	ng/g	0.00029 U (1)	0.00029	0.010				2863065
22'45'6-PentaCB-(103)	ng/g	0.00037 U (1)	0.00037	0.010				2863065
22'466'-PentaCB-(104)	ng/g	0.00012 U	0.00012	0.010				2863065
233'44'-PentaCB-(105)	ng/g	0.043	0.00050	0.010	0.0000300	0.00000129		2863065
233'45-PentaCB-(106)	ng/g	0.00042 U	0.00042	0.010				2863065
233'4'5-PentaCB-(107)	ng/g	0.00699 J	0.00041	0.010				2863065
PentaCB-(108)+(124)	ng/g	0.00570 J	0.00044	0.020				2863065
PentaCB-(110)+(115)	ng/g	0.214	0.00010	0.020				2863065
233'55'-PentaCB-(111)	ng/g	0.000089 U	0.000089	0.010				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.000097 U	0.000097	0.010				2863065
2344'5-PentaCB-(114)	ng/g	0.00211 J	0.00047	0.010	0.0000300	0.0000000633		2863065
23'44'5-PentaCB-(118)	ng/g	0.121	0.00050	0.010	0.0000300	0.00000363		2863065
23'455'-PentaCB-(120)	ng/g	0.000086 U	0.000086	0.010				2863065
23'45'6-PentaCB-(121)	ng/g	0.000089 U	0.000089	0.010				2863065
233'4'5'-PentaCB-(122)	ng/g	0.00139 J	0.00046	0.010				2863065
23'44'5'-PentaCB-(123)	ng/g	0.00231 J	0.00052	0.010	0.0000300	0.0000000693		2863065
33'44'5-PentaCB-(126)	ng/g	0.00049 U	0.00049	0.010	0.100	0.0000490		2863065
33'455'-PentaCB-(127)	ng/g	0.00067 J	0.00043	0.010				2863065
HexaCB-(128)+(166)	ng/g	0.100	0.00053	0.020				2863065
HexaCB-(129)+(138)+(163)	ng/g	0.502	0.00061	0.030				2863065
22'33'45'-HexaCB-(130)	ng/g	0.025	0.00063	0.010				2863065
22'33'46-HexaCB-(131)	ng/g	0.00373 J	0.00073	0.010				2863065
22'33'46'-HexaCB-(132)	ng/g	0.098	0.00061	0.010				2863065
22'33'55'-HexaCB-(133)	ng/g	0.00512 J	0.00059	0.010				2863065
HexaCB-(134)+(143)	ng/g	0.0141 J	0.00068	0.020				2863065
HexaCB-(135)+(151)	ng/g	0.064	0.00041	0.020				2863065
22'33'66'-HexaCB-(136)	ng/g	0.026	0.00030	0.010				2863065
22'344'5-HexaCB-(137)	ng/g	0.022	0.00054	0.010				2863065
HexaCB-(139)+(140)	ng/g	0.00830 J	0.00057	0.020				2863065
22'3455'-HexaCB-(141)	ng/g	0.043	0.00058	0.010				2863065
22'3456-HexaCB-(142)	ng/g	0.00063 U	0.00063	0.010				2863065
22'345'6-HexaCB-(144)	ng/g	0.00785 J	0.00041	0.010				2863065
22'3466'-HexaCB-(145)	ng/g	0.00030 U	0.00030	0.010				2863065
22'34'55'-HexaCB-(146)	ng/g	0.052	0.00052	0.010				2863065
HexaCB-(147)+(149)	ng/g	0.261	0.00056	0.020				2863065
22'34'56'-HexaCB-(148)	ng/g	0.00039 U	0.00039	0.010				2863065
22'34'66'-HexaCB-(150)	ng/g	0.00029 U	0.00029	0.010				2863065
22'3566'-HexaCB-(152)	ng/g	0.00029 U	0.00029	0.010				2863065

RDL = Reportable Detection Limit
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/g	0.229	0.00045	0.020				2863065
22'44'56'-HexaCB-(154)	ng/g	0.0013 U (1)	0.0013	0.010				2863065
22'44'66'-HexaCB-(155)	ng/g	0.00036 U	0.00036	0.010				2863065
HexaCB-(156)+(157)	ng/g	0.036	0.00027	0.020	0.0000300	0.00000108		2863065
233'44'6-HexaCB-(158)	ng/g	0.035	0.00045	0.010				2863065
233'455'-HexaCB-(159)	ng/g	0.00362 J	0.00026	0.010				2863065
233'456-HexaCB-(160)	ng/g	0.00046 U	0.00046	0.010				2863065
233'45'6-HexaCB-(161)	ng/g	0.00044 U	0.00044	0.010				2863065
233'4'55'-HexaCB-(162)	ng/g	0.00195 J	0.00026	0.010				2863065
233'4'5'6-HexaCB-(164)	ng/g	0.039	0.00047	0.010				2863065
233'55'6-HexaCB-(165)	ng/g	0.00046 U	0.00046	0.010				2863065
23'44'55'-HexaCB-(167)	ng/g	0.019	0.00030	0.010	0.0000300	0.000000570		2863065
33'44'55'-HexaCB-(169)	ng/g	0.00030 U	0.00030	0.010	0.0300	0.00000900		2863065
22'33'44'5-HeptaCB-(170)	ng/g	0.130	0.00037	0.010				2863065
HeptaCB-(171)+(173)	ng/g	0.036	0.00042	0.020				2863065
22'33'455'-HeptaCB-(172)	ng/g	0.020	0.00042	0.010				2863065
22'33'456'-HeptaCB-(174)	ng/g	0.114	0.00041	0.010				2863065
22'33'45'6-HeptaCB-(175)	ng/g	0.00428 J	0.00015	0.010				2863065
22'33'466'-HeptaCB-(176)	ng/g	0.010	0.00011	0.010				2863065
22'33'45'6'-HeptaCB-(177)	ng/g	0.062	0.00041	0.010				2863065
22'33'55'6-HeptaCB-(178)	ng/g	0.020	0.00016	0.010				2863065
22'33'566'-HeptaCB-(179)	ng/g	0.034	0.00010	0.010				2863065
HeptaCB-(180)+(193)	ng/g	0.275	0.00031	0.020				2863065
22'344'56-HeptaCB-(181)	ng/g	0.00038 U	0.00038	0.010				2863065
22'344'56'-HeptaCB-(182)	ng/g	0.00017 U	0.00017	0.010				2863065
22'344'5'6-HeptaCB-(183)	ng/g	0.073	0.00036	0.010				2863065
22'344'66'-HeptaCB-(184)	ng/g	0.000099 U	0.000099	0.010				2863065
22'3455'6-HeptaCB-(185)	ng/g	0.00773 J	0.00037	0.010				2863065

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	0.00011 U	0.00011	0.010				2863065
22'34'55'6-HeptaCB-(187)	ng/g	0.130	0.00015	0.010				2863065
22'34'566'-HeptaCB-(188)	ng/g	0.00025 J	0.00016	0.010				2863065
233'44'55'-HeptaCB-(189)	ng/g	0.00416 J	0.00042	0.010	0.0000300	0.000000125		2863065
233'44'56-HeptaCB-(190)	ng/g	0.018	0.00031	0.010				2863065
233'44'5'6-HeptaCB-(191)	ng/g	0.00431 J	0.00030	0.010				2863065
233'455'6-HeptaCB-(192)	ng/g	0.00033 U	0.00033	0.010				2863065
22'33'44'55'-OctaCB-(194)	ng/g	0.070	0.00087	0.010				2863065
22'33'44'56-OctaCB-(195)	ng/g	0.028	0.00092	0.010				2863065
22'33'44'56'-OctaCB-(196)	ng/g	0.040	0.00072	0.010				2863065
22'33'44'66'OctaCB-(197)	ng/g	0.00295 J	0.00050	0.010				2863065
OctaCB-(198)+(199)	ng/g	0.084	0.00073	0.020				2863065
22'33'4566'-OctaCB-(200)	ng/g	0.011	0.00054	0.010				2863065
22'33'45'66'-OctaCB-(201)	ng/g	0.011	0.00052	0.010				2863065
22'33'55'66'-OctaCB-(202)	ng/g	0.022	0.00077	0.010				2863065
22'344'55'6-OctaCB-(203)	ng/g	0.059	0.00067	0.010				2863065
22'344'566'-OctaCB-(204)	ng/g	0.00052 U	0.00052	0.010				2863065
233'44'55'6-OctaCB-(205)	ng/g	0.00486 J	0.00075	0.010				2863065
22'33'44'55'6-NonaCB-(206)	ng/g	0.057	0.00083	0.010				2863065
22'33'44'566'-NonaCB-(207)	ng/g	0.00744 J	0.00061	0.010				2863065
22'33'455'66'-NonaCB-(208)	ng/g	0.017	0.00084	0.010				2863065
DecaCB-(209)	ng/g	0.032	0.00032	0.010				2863065
Monochlorobiphenyl	ng/g	0.00051	0.00017	N/A				2863065
Dichlorobiphenyl	ng/g	0.00090 U	0.00090	N/A				2863065
Trichlorobiphenyl	ng/g	0.0149	0.00034	N/A				2863065
Tetrachlorobiphenyl	ng/g	0.143	0.00023	N/A				2863065
Pentachlorobiphenyl	ng/g	0.812	0.00052	N/A				2863065
Hexachlorobiphenyl	ng/g	1.59	0.00073	N/A				2863065
Heptachlorobiphenyl	ng/g	0.942	0.00042	N/A				2863065

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**MW105-SS-9-10**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Octachlorobiphenyl	ng/g	0.332	0.00092	N/A				2863065
Nonachlorobiphenyl	ng/g	0.0822	0.00084	N/A				2863065
Decachlorobiphenyl	ng/g	0.0319	0.0032	N/A				2863065
Total PCB	ng/g	3.95	N/A	N/A				2863065
TOTAL TOXIC EQUIVALENCY	ng/g					0.0000650		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	115						2863065
C13-22'33'44'55'6-NonaCB-(206)	%	81						2863065
C13-22'33'44'5-HeptaCB-(170)	%	96						2863065
C13-22'33'455'66'-NonaCB-(208)	%	83						2863065
C13-22'33'55'66'-OctaCB-(202)	%	86						2863065
C13-22'33'55'6-HeptaCB-(178)	%	92						2863065
C13-22'344'55'-HeptaCB-(180)	%	99						2863065
C13-22'34'566'-HeptaCB-(188)	%	85						2863065
C13-22'44'66'-HexaCB-(155)	%	75						2863065
C13-22'466'-PentaCB-(104)	%	75						2863065
C13-22'66'-TetraCB-(54)	%	56						2863065
C13-22'6-TriCB-(19)	%	69						2863065
C13-22'-DiCB-(4)	%	60						2863065
C13-233'44'55'6-OctaCB-(205)	%	103						2863065
C13-233'44'55'-HeptaCB-(189)	%	131						2863065
C13-233'44'-PentaCB-(105)	%	123						2863065
C13-233'55'-PentaCB-(111)	%	108						2863065
C13-23'44'55'-HexaCB-(167)	%	128						2863065
C13-2344'5-PentaCB-(114)	%	120						2863065
C13-23'44'5-PentaCB-(118)	%	122						2863065
C13-2'344'5-PentaCB-(123)	%	120						2863065
C13-2-MonoCB-(1)	%	82						2863065
C13-33'44'55'-HexaCB-(169)	%	124						2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7372						
Sampling Date		2012/05/15 16:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-SS-9-10	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'5-PentaCB-(126)	%	124						2863065
C13-33'44'-TetraCB-(77)	%	116						2863065
C13-344'5-TetraCB-(81)	%	113						2863065
C13-344'-TriCB-(37)	%	115						2863065
C13-44'-DiCB-(15)	%	86						2863065
C13-4-MonoCB-(3)	%	85						2863065
C13-DecaCB-(209)	%	65						2863065
C13-HexaCB-(156)+(157)	%	125						2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00017 U	0.00017	0.010				2863065
3-MonoCB-(2)	ng/g	0.00016 U	0.00016	0.010				2863065
4-MonoCB-(3)	ng/g	0.00017 U	0.00017	0.010				2863065
22'-DiCB-(4)	ng/g	0.00090 U (1)	0.00090	0.010				2863065
2,3-DiCB-(5)	ng/g	0.00048 U	0.00048	0.010				2863065
2,3'-DiCB-(6)	ng/g	0.00047 U	0.00047	0.010				2863065
2,4-DiCB-(7)	ng/g	0.00047 U	0.00047	0.010				2863065
2,4'-DiCB-(8)	ng/g	0.00190 J	0.00047	0.010				2863065
2,5-DiCB-(9)	ng/g	0.00046 U	0.00046	0.010				2863065
2,6-DiCB-(10)	ng/g	0.00012 U	0.00012	0.010				2863065
3,3'-DiCB-(11)	ng/g	0.00502 J	0.00048	0.010				2863065
DiCB-(12)+(13)	ng/g	0.00049 U	0.00049	0.020				2863065
3,5-DiCB-(14)	ng/g	0.00048 U	0.00048	0.010				2863065
4,4'-DiCB-(15)	ng/g	0.00194 J	0.00062	0.010				2863065
22'3-TriCB-(16)	ng/g	0.0014 U (1)	0.0014	0.010				2863065
22'4-TriCB-(17)	ng/g	0.00117 J	0.00021	0.010				2863065
TriCB-(18)+(30)	ng/g	0.00251 J	0.00017	0.020				2863065
22'6-TriCB-(19)	ng/g	0.00022 U	0.00022	0.010				2863065
TriCB-(20) + (28)	ng/g	0.00498 J	0.00010	0.020				2863065
TriCB-(21)+(33)	ng/g	0.00284 J	0.00011	0.020				2863065
234'-TriCB-(22)	ng/g	0.00198 J	0.00011	0.010				2863065
235-TriCB-(23)	ng/g	0.00011 U	0.00011	0.010				2863065
236-TriCB-(24)	ng/g	0.00015 U	0.00015	0.010				2863065
23'4-TriCB-(25)	ng/g	0.00034 J	0.00011	0.010				2863065
TriCB-(26)+(29)	ng/g	0.00070 J	0.00010	0.020				2863065
23'6-TriCB-(27)	ng/g	0.00014 U	0.00014	0.010				2863065
24'5-TriCB-(31)	ng/g	0.00373 J	0.000099	0.010				2863065
24'6-TriCB-(32)	ng/g	0.00086 J	0.00013	0.010				2863065

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Maxxam Job #: B272296
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Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00011 U	0.00011	0.010				2863065
33'4-TriCB-(35)	ng/g	0.00011 U	0.00011	0.010				2863065
33'5-TriCB-(36)	ng/g	0.000096 U	0.000096	0.010				2863065
344'-TriCB-(37)	ng/g	0.00171 J	0.00014	0.010				2863065
345-TriCB-(38)	ng/g	0.00011 U	0.00011	0.010				2863065
34'5-TriCB-(39)	ng/g	0.00010 U	0.00010	0.010				2863065
TetraCB-(40)+(41)+(71)	ng/g	0.00231 J	0.00010	0.030				2863065
22'34'-TetraCB-(42)	ng/g	0.00136 J	0.00013	0.010				2863065
22'35-TetraCB-(43)	ng/g	0.00014 U	0.00014	0.010				2863065
TetraCB-(44)+(47)+(65)	ng/g	0.00511 J	0.00010	0.030				2863065
TetraCB-(45)+(51)	ng/g	0.00093 U (1)	0.00093	0.020				2863065
22'36'-TetraCB-(46)	ng/g	0.00028 U (1)	0.00028	0.010				2863065
22'45-TetraCB-(48)	ng/g	0.00083 U (1)	0.00083	0.010				2863065
TetraCB-(49)+TetraCB-(69)	ng/g	0.00239 J	0.000093	0.020				2863065
TetraCB-(50)+(53)	ng/g	0.000667 J	0.000099	0.020				2863065
22'55'-TetraCB-(52)	ng/g	0.00729 J	0.00010	0.010				2863065
22'66'-TetraCB-(54)	ng/g	0.000058 U	0.000058	0.010				2863065
233'4-TetraCB-(55)	ng/g	0.00037 U	0.00037	0.010				2863065
233'4'-Tetra CB(56)	ng/g	0.00136 J	0.00041	0.010				2863065
233'5-TetraCB-(57)	ng/g	0.00038 U	0.00038	0.010				2863065
233'5'-TetraCB-(58)	ng/g	0.00037 U	0.00037	0.010				2863065
TetraCB-(59)+(62)+(75)	ng/g	0.000298 J	0.000077	0.030				2863065
2344'-TetraCB -(60)	ng/g	0.00038 U	0.00038	0.010				2863065
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.00681 J	0.00038	0.040				2863065
234'5-TetraCB-(63)	ng/g	0.00036 U	0.00036	0.010				2863065
234'6-TetraCB-(64)	ng/g	0.0018 U (1)	0.0018	0.010				2863065
23'44'-TetraCB-(66)	ng/g	0.00266 J	0.00035	0.010				2863065
23'45-TetraCB-(67)	ng/g	0.00035 U	0.00035	0.010				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.00033 U	0.00033	0.010				2863065
23'55'-TetraCB-(72)	ng/g	0.00035 U	0.00035	0.010				2863065
23'5'6-TetraCB-(73)	ng/g	0.000071 U	0.000071	0.010				2863065
33'44'-TetraCB-(77)	ng/g	0.00045 J	0.00041	0.010	0.000100	0.0000000450		2863065
33'45-TetraCB-(78)	ng/g	0.00037 U	0.00037	0.010				2863065
33'45'-TetraCB(79)	ng/g	0.00032 U	0.00032	0.010				2863065
33'55'-TetraCB-(80)	ng/g	0.00035 U	0.00035	0.010				2863065
344'5-TetraCB-(81)	ng/g	0.00043 U	0.00043	0.010	0.000300	0.000000129		2863065
22'33'4-PentaCB-(82)	ng/g	0.00110 J	0.00021	0.010				2863065
PentaCB-(83)+(99)	ng/g	0.00382 J	0.00018	0.020				2863065
22'33'6-PentaCB-(84)	ng/g	0.00265 J	0.00022	0.010				2863065
PentaCB-(85)+(116)+(117)	ng/g	0.00092 U (1)	0.00092	0.030				2863065
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.00797 J	0.00016	0.060				2863065
PentaCB-(88)+(91)	ng/g	0.00018 U	0.00018	0.020				2863065
22'346'-PentaCB-(89)	ng/g	0.00020 U	0.00020	0.010				2863065
PentaCB-(90)+(101)+(113)	ng/g	0.0173 J	0.00015	0.030				2863065
22'355'-PentaCB-(92)	ng/g	0.00288 J	0.00019	0.010				2863065
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.00027 U (1)	0.00027	0.040				2863065
22'356'-PentaCB-(94)	ng/g	0.00020 U	0.00020	0.010				2863065
22'35'6-PentaCB-(95)	ng/g	0.013	0.00017	0.010				2863065
22'366'-PentaCB-(96)	ng/g	0.000044 U	0.000044	0.010				2863065
22'45'6-PentaCB-(103)	ng/g	0.00017 U	0.00017	0.010				2863065
22'466'-PentaCB-(104)	ng/g	0.000050 U	0.000050	0.010				2863065
233'44'-PentaCB-(105)	ng/g	0.00401 J	0.00038	0.010	0.0000300	0.000000120		2863065
233'45-PentaCB-(106)	ng/g	0.00032 U	0.00032	0.010				2863065
233'4'5-PentaCB-(107)	ng/g	0.00032 U	0.00032	0.010				2863065
PentaCB-(108)+(124)	ng/g	0.00034 U	0.00034	0.020				2863065
PentaCB-(110)+(115)	ng/g	0.0176 J	0.00016	0.020				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/g	0.00013 U	0.00013	0.010				2863065
233'56-PentaCB-(112)	ng/g	0.00015 U	0.00015	0.010				2863065
2344'5-PentaCB-(114)	ng/g	0.00036 U	0.00036	0.010	0.0000300	0.0000000108		2863065
23'44'5-PentaCB-(118)	ng/g	0.012	0.00038	0.010	0.0000300	0.000000360		2863065
23'455'-PentaCB-(120)	ng/g	0.00013 U	0.00013	0.010				2863065
23'45'6-PentaCB-(121)	ng/g	0.00013 U	0.00013	0.010				2863065
233'4'5'-PentaCB-(122)	ng/g	0.00036 U	0.00036	0.010				2863065
23'44'5'-PentaCB-(123)	ng/g	0.00040 U	0.00040	0.010	0.0000300	0.0000000120		2863065
33'44'5-PentaCB-(126)	ng/g	0.00038 U	0.00038	0.010	0.100	0.0000380		2863065
33'455'-PentaCB-(127)	ng/g	0.00033 U	0.00033	0.010				2863065
HexaCB-(128)+(166)	ng/g	0.00359 J	0.00030	0.020				2863065
HexaCB-(129)+(138)+(163)	ng/g	0.031	0.00034	0.030				2863065
22'33'45'-HexaCB-(130)	ng/g	0.00135 J	0.00036	0.010				2863065
22'33'46-HexaCB-(131)	ng/g	0.00041 U	0.00041	0.010				2863065
22'33'46'-HexaCB-(132)	ng/g	0.00876 J	0.00035	0.010				2863065
22'33'55'-HexaCB-(133)	ng/g	0.00033 U	0.00033	0.010				2863065
HexaCB-(134)+(143)	ng/g	0.00147 J	0.00038	0.020				2863065
HexaCB-(135)+(151)	ng/g	0.00781 J	0.000083	0.020				2863065
22'33'66'-HexaCB-(136)	ng/g	0.00306 J	0.000062	0.010				2863065
22'344'5-HexaCB-(137)	ng/g	0.00054 J	0.00031	0.010				2863065
HexaCB-(139)+(140)	ng/g	0.00032 U	0.00032	0.020				2863065
22'3455'-HexaCB-(141)	ng/g	0.00628 J	0.00032	0.010				2863065
22'3456-HexaCB-(142)	ng/g	0.00036 U	0.00036	0.010				2863065
22'345'6-HexaCB-(144)	ng/g	0.00135 J	0.000084	0.010				2863065
22'3466'-HexaCB-(145)	ng/g	0.000063 U	0.000063	0.010				2863065
22'34'55'-HexaCB-(146)	ng/g	0.00336 J	0.00029	0.010				2863065
HexaCB-(147)+(149)	ng/g	0.022	0.00032	0.020				2863065
22'34'56'-HexaCB-(148)	ng/g	0.000081 U	0.000081	0.010				2863065
22'34'66'-HexaCB-(150)	ng/g	0.000059 U	0.000059	0.010				2863065

RDL = Reportable Detection Limit
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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	0.000060 U	0.000060	0.010				2863065
HexaCB-(153)+(168)	ng/g	0.022	0.00025	0.020				2863065
22'44'56'-HexaCB-(154)	ng/g	0.000074 U	0.000074	0.010				2863065
22'44'66'-HexaCB-(155)	ng/g	0.000075 U	0.000075	0.010				2863065
HexaCB-(156)+(157)	ng/g	0.00316 J	0.00026	0.020	0.0000300	0.0000000948		2863065
233'44'6-HexaCB-(158)	ng/g	0.00300 J	0.00025	0.010				2863065
233'455'-HexaCB-(159)	ng/g	0.00025 U	0.00025	0.010				2863065
233'456-HexaCB-(160)	ng/g	0.00026 U	0.00026	0.010				2863065
233'45'6-HexaCB-(161)	ng/g	0.00025 U	0.00025	0.010				2863065
233'4'55'-HexaCB-(162)	ng/g	0.00025 U	0.00025	0.010				2863065
233'4'5'6-HexaCB-(164)	ng/g	0.00255 J	0.00027	0.010				2863065
233'55'6-HexaCB-(165)	ng/g	0.00026 U	0.00026	0.010				2863065
23'44'55'-HexaCB-(167)	ng/g	0.00128 J	0.00028	0.010	0.0000300	0.0000000384		2863065
33'44'55'-HexaCB-(169)	ng/g	0.00029 U	0.00029	0.010	0.0300	0.00000870		2863065
22'33'44'5-HeptaCB-(170)	ng/g	0.00880 J	0.00025	0.010				2863065
HeptaCB-(171)+(173)	ng/g	0.00273 J	0.00028	0.020				2863065
22'33'455'-HeptaCB-(172)	ng/g	0.00119 J	0.00028	0.010				2863065
22'33'456'-HeptaCB-(174)	ng/g	0.00746 J	0.00027	0.010				2863065
22'33'45'6-HeptaCB-(175)	ng/g	0.000309 J	0.000081	0.010				2863065
22'33'466'-HeptaCB-(176)	ng/g	0.000949 J	0.000056	0.010				2863065
22'33'45'6'-HeptaCB-(177)	ng/g	0.00416 J	0.00028	0.010				2863065
22'33'55'6-HeptaCB-(178)	ng/g	0.00127 J	0.000084	0.010				2863065
22'33'566'-HeptaCB-(179)	ng/g	0.00238 J	0.000054	0.010				2863065
HeptaCB-(180)+(193)	ng/g	0.0141 J	0.00021	0.020				2863065
22'344'56-HeptaCB-(181)	ng/g	0.00026 U	0.00026	0.010				2863065
22'344'56'-HeptaCB-(182)	ng/g	0.000087 U	0.000087	0.010				2863065
22'344'5'6-HeptaCB-(183)	ng/g	0.00399 J	0.00024	0.010				2863065
22'344'66'-HeptaCB-(184)	ng/g	0.000052 U	0.000052	0.010				2863065
22'3455'6-HeptaCB-(185)	ng/g	0.00047 J	0.00025	0.010				2863065

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	0.000055 U	0.000055	0.010				2863065
22'34'55'6-HeptaCB-(187)	ng/g	0.00648 J	0.000078	0.010				2863065
22'34'566'-HeptaCB-(188)	ng/g	0.000085 U	0.000085	0.010				2863065
233'44'55'-HeptaCB-(189)	ng/g	0.00030 U (1)	0.00030	0.010	0.0000300	0.00000000900		2863065
233'44'56-HeptaCB-(190)	ng/g	0.0013 U (1)	0.0013	0.010				2863065
233'44'5'6-HeptaCB-(191)	ng/g	0.00027 U (1)	0.00027	0.010				2863065
233'455'6-HeptaCB-(192)	ng/g	0.00022 U	0.00022	0.010				2863065
22'33'44'55'-OctaCB-(194)	ng/g	0.00237 J	0.00071	0.010				2863065
22'33'44'56-OctaCB-(195)	ng/g	0.00113 J	0.00075	0.010				2863065
22'33'44'56'-OctaCB-(196)	ng/g	0.00144 J	0.00044	0.010				2863065
22'33'44'66'OctaCB-(197)	ng/g	0.00030 U	0.00030	0.010				2863065
OctaCB-(198)+(199)	ng/g	0.00239 J	0.00044	0.020				2863065
22'33'4566'-OctaCB-(200)	ng/g	0.00033 U	0.00033	0.010				2863065
22'33'45'66'-OctaCB-(201)	ng/g	0.00031 U	0.00031	0.010				2863065
22'33'55'66'-OctaCB-(202)	ng/g	0.00050 J	0.00046	0.010				2863065
22'344'55'6-OctaCB-(203)	ng/g	0.00166 J	0.00040	0.010				2863065
22'344'566'-OctaCB-(204)	ng/g	0.00032 U	0.00032	0.010				2863065
233'44'55'6-OctaCB-(205)	ng/g	0.00061 U	0.00061	0.010				2863065
22'33'44'55'6-NonaCB-(206)	ng/g	0.0011 U (1)	0.0011	0.010				2863065
22'33'44'566'-NonaCB-(207)	ng/g	0.00045 U	0.00045	0.010				2863065
22'33'455'66'-NonaCB-(208)	ng/g	0.00062 U	0.00062	0.010				2863065
DecaCB-(209)	ng/g	0.00046 U	0.00046	0.010				2863065
Monochlorobiphenyl	ng/g	0.00017 U	0.00017	N/A				2863065
Dichlorobiphenyl	ng/g	0.00886	0.00062	N/A				2863065
Trichlorobiphenyl	ng/g	0.0208	0.00026	N/A				2863065
Tetrachlorobiphenyl	ng/g	0.0307	0.00043	N/A				2863065
Pentachlorobiphenyl	ng/g	0.0822	0.00040	N/A				2863065
Hexachlorobiphenyl	ng/g	0.121	0.00041	N/A				2863065

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Heptachlorobiphenyl	ng/g	0.0543	0.00028	N/A				2863065
Octachlorobiphenyl	ng/g	0.00949	0.00075	N/A				2863065
Nonachlorobiphenyl	ng/g	0.00062 U	0.00062	N/A				2863065
Decachlorobiphenyl	ng/g	0.00046 U	0.00046	N/A				2863065
Total PCB	ng/g	0.328	N/A	N/A				2863065
TOTAL TOXIC EQUIVALENCY	ng/g					0.0000475		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	110						2863065
C13-22'33'44'55'6-NonaCB-(206)	%	80						2863065
C13-22'33'44'5-HeptaCB-(170)	%	96						2863065
C13-22'33'455'66'-NonaCB-(208)	%	81						2863065
C13-22'33'55'66'-OctaCB-(202)	%	86						2863065
C13-22'33'55'6-HeptaCB-(178)	%	92						2863065
C13-22'344'55'-HeptaCB-(180)	%	96						2863065
C13-22'34'566'-HeptaCB-(188)	%	86						2863065
C13-22'44'66'-HexaCB-(155)	%	79						2863065
C13-22'466'-PentaCB-(104)	%	75						2863065
C13-22'66'-TetraCB-(54)	%	73						2863065
C13-22'6-TriCB-(19)	%	79						2863065
C13-22'-DiCB-(4)	%	77						2863065
C13-233'44'55'6-OctaCB-(205)	%	96						2863065
C13-233'44'55'-HeptaCB-(189)	%	126						2863065
C13-233'44'-PentaCB-(105)	%	120						2863065
C13-233'55'-PentaCB-(111)	%	101						2863065
C13-23'44'55'-HexaCB-(167)	%	128						2863065
C13-2344'5-PentaCB-(114)	%	113						2863065
C13-23'44'5-PentaCB-(118)	%	116						2863065
C13-2'344'5-PentaCB-(123)	%	115						2863065
C13-2-MonoCB-(1)	%	72						2863065

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7373						
Sampling Date		2012/05/15 10:15						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-SS-10-11	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'55'-HexaCB-(169)	%	130						2863065
C13-33'44'5-PentaCB-(126)	%	118						2863065
C13-33'44'-TetraCB-(77)	%	106						2863065
C13-344'5-TetraCB-(81)	%	105						2863065
C13-344'-TriCB-(37)	%	106						2863065
C13-44'-DiCB-(15)	%	89						2863065
C13-4-MonoCB-(3)	%	77						2863065
C13-DecaCB-(209)	%	63						2863065
C13-HexaCB-(156)+(157)	%	125						2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.00077 J	0.00033	0.010				2863065
3-MonoCB-(2)	ng/g	0.00040 J	0.00032	0.010				2863065
4-MonoCB-(3)	ng/g	0.00080 J	0.00033	0.010				2863065
22'-DiCB-(4)	ng/g	0.00563 J	0.00036	0.010				2863065
2,3-DiCB-(5)	ng/g	0.00083 U	0.00083	0.010				2863065
2,3'-DiCB-(6)	ng/g	0.0025 U (1)	0.0025	0.010				2863065
2,4-DiCB-(7)	ng/g	0.00081 U	0.00081	0.010				2863065
2,4'-DiCB-(8)	ng/g	0.013	0.00082	0.010				2863065
2,5-DiCB-(9)	ng/g	0.00080 U	0.00080	0.010				2863065
2,6-DiCB-(10)	ng/g	0.00031 U (1)	0.00031	0.010				2863065
3,3'-DiCB-(11)	ng/g	0.0049 U (1)	0.0049	0.010				2863065
DiCB-(12)+(13)	ng/g	0.00085 U	0.00085	0.020				2863065
3,5-DiCB-(14)	ng/g	0.00084 U	0.00084	0.010				2863065
4,4'-DiCB-(15)	ng/g	0.022	0.0011	0.010				2863065
22'3-TriCB-(16)	ng/g	0.011	0.00067	0.010				2863065
22'4-TriCB-(17)	ng/g	0.010	0.00055	0.010				2863065
TriCB-(18)+(30)	ng/g	0.023	0.00043	0.020				2863065
22'6-TriCB-(19)	ng/g	0.010	0.00055	0.010				2863065
TriCB-(20) + (28)	ng/g	0.055	0.00016	0.020				2863065
TriCB-(21)+(33)	ng/g	0.0199 J	0.00017	0.020				2863065
234'-TriCB-(22)	ng/g	0.016	0.00017	0.010				2863065
235-TriCB-(23)	ng/g	0.00017 U	0.00017	0.010				2863065
236-TriCB-(24)	ng/g	0.00038 U	0.00038	0.010				2863065
23'4-TriCB-(25)	ng/g	0.00347 J	0.00017	0.010				2863065
TriCB-(26)+(29)	ng/g	0.00712 J	0.00016	0.020				2863065
23'6-TriCB-(27)	ng/g	0.00307 J	0.00036	0.010				2863065
24'5-TriCB-(31)	ng/g	0.036	0.00015	0.010				2863065
24'6-TriCB-(32)	ng/g	0.013	0.00034	0.010				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/g	0.00016 U	0.00016	0.010				2863065
33'4-TriCB-(35)	ng/g	0.00081 J	0.00017	0.010				2863065
33'5-TriCB-(36)	ng/g	0.00015 U	0.00015	0.010				2863065
344'-TriCB-(37)	ng/g	0.019	0.00022	0.010				2863065
345-TriCB-(38)	ng/g	0.00017 U	0.00017	0.010				2863065
34'5-TriCB-(39)	ng/g	0.00017 U (1)	0.00017	0.010				2863065
TetraCB-(40)+(41)+(71)	ng/g	0.052	0.00012	0.030				2863065
22'34'-TetraCB-(42)	ng/g	0.033	0.00015	0.010				2863065
22'35-TetraCB-(43)	ng/g	0.00294 J	0.00016	0.010				2863065
TetraCB-(44)+(47)+(65)	ng/g	0.114	0.00011	0.030				2863065
TetraCB-(45)+(51)	ng/g	0.023	0.00012	0.020				2863065
22'36'-TetraCB-(46)	ng/g	0.00852 J	0.00014	0.010				2863065
22'45-TetraCB-(48)	ng/g	0.00947 J	0.00012	0.010				2863065
TetraCB-(49)+TetraCB-(69)	ng/g	0.058	0.00010	0.020				2863065
TetraCB-(50)+(53)	ng/g	0.0187 J	0.00011	0.020				2863065
22'55'-TetraCB-(52)	ng/g	0.185	0.00011	0.010				2863065
22'66'-TetraCB-(54)	ng/g	0.00032 U (1)	0.00032	0.010				2863065
233'4-TetraCB-(55)	ng/g	0.00038 U (1)	0.00038	0.010				2863065
233'4'-Tetra CB(56)	ng/g	0.020	0.00015	0.010				2863065
233'5-TetraCB-(57)	ng/g	0.00017 J	0.00014	0.010				2863065
233'5'-TetraCB-(58)	ng/g	0.00719 J	0.00014	0.010				2863065
TetraCB-(59)+(62)+(75)	ng/g	0.00849 J	0.000087	0.030				2863065
2344'-TetraCB -(60)	ng/g	0.00980 J	0.00014	0.010				2863065
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.102	0.00014	0.040				2863065
234'5-TetraCB-(63)	ng/g	0.00147 J	0.00013	0.010				2863065
234'6-TetraCB-(64)	ng/g	0.043	0.000095	0.010				2863065
23'44'-TetraCB-(66)	ng/g	0.055	0.00013	0.010				2863065
23'45-TetraCB-(67)	ng/g	0.00166 J	0.00013	0.010				2863065

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/g	0.00029 J	0.00012	0.010				2863065
23'55'-TetraCB-(72)	ng/g	0.00041 J	0.00013	0.010				2863065
23'5'6-TetraCB-(73)	ng/g	0.000080 U	0.000080	0.010				2863065
33'44'-TetraCB-(77)	ng/g	0.00688 J	0.00015	0.010	0.000100	0.000000688		2863065
33'45-TetraCB-(78)	ng/g	0.00014 U	0.00014	0.010				2863065
33'45'-TetraCB(79)	ng/g	0.00234 J	0.00012	0.010				2863065
33'55'-TetraCB-(80)	ng/g	0.00013 U	0.00013	0.010				2863065
344'5-TetraCB-(81)	ng/g	0.00016 U	0.00016	0.010	0.000300	0.0000000480		2863065
22'33'4-PentaCB-(82)	ng/g	0.029	0.00026	0.010				2863065
PentaCB-(83)+(99)	ng/g	0.124	0.00023	0.020				2863065
22'33'6-PentaCB-(84)	ng/g	0.075	0.00028	0.010				2863065
PentaCB-(85)+(116)+(117)	ng/g	0.034	0.00019	0.030				2863065
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.180	0.00021	0.060				2863065
PentaCB-(88)+(91)	ng/g	0.032	0.00023	0.020				2863065
22'346'-PentaCB-(89)	ng/g	0.00203 J	0.00025	0.010				2863065
PentaCB-(90)+(101)+(113)	ng/g	0.255	0.00020	0.030				2863065
22'355'-PentaCB-(92)	ng/g	0.046	0.00024	0.010				2863065
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.00805 J	0.00025	0.040				2863065
22'356'-PentaCB-(94)	ng/g	0.00117 J	0.00025	0.010				2863065
22'35'6-PentaCB-(95)	ng/g	0.201	0.00022	0.010				2863065
22'366'-PentaCB-(96)	ng/g	0.00130 J	0.000036	0.010				2863065
22'45'6-PentaCB-(103)	ng/g	0.00101 J	0.00021	0.010				2863065
22'466'-PentaCB-(104)	ng/g	0.000041 U	0.000041	0.010				2863065
233'44'-PentaCB-(105)	ng/g	0.090	0.00017	0.010	0.0000300	0.00000270		2863065
233'45-PentaCB-(106)	ng/g	0.00014 U	0.00014	0.010				2863065
233'4'5-PentaCB-(107)	ng/g	0.012	0.00014	0.010				2863065
PentaCB-(108)+(124)	ng/g	0.00858 J	0.00015	0.020				2863065
PentaCB-(110)+(115)	ng/g	0.412	0.00020	0.020				2863065
233'55'-PentaCB-(111)	ng/g	0.00017 U	0.00017	0.010				2863065

RDL = Reportable Detection Limit
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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/g	0.00019 U	0.00019	0.010				2863065
2344'5-PentaCB-(114)	ng/g	0.00310 J	0.00016	0.010	0.0000300	0.0000000930		2863065
23'44'5-PentaCB-(118)	ng/g	0.233	0.00017	0.010	0.0000300	0.00000699		2863065
23'455'-PentaCB-(120)	ng/g	0.00016 U (1)	0.00016	0.010				2863065
23'45'6-PentaCB-(121)	ng/g	0.00017 U	0.00017	0.010				2863065
233'4'5'-PentaCB-(122)	ng/g	0.00284 J	0.00016	0.010				2863065
23'44'5'-PentaCB-(123)	ng/g	0.00384 J	0.00018	0.010	0.0000300	0.000000115		2863065
33'44'5-PentaCB-(126)	ng/g	0.00050 J	0.00017	0.010	0.100	0.0000500		2863065
33'455'-PentaCB-(127)	ng/g	0.00049 J	0.00015	0.010				2863065
HexaCB-(128)+(166)	ng/g	0.065	0.00046	0.020				2863065
HexaCB-(129)+(138)+(163)	ng/g	0.499	0.00053	0.030				2863065
22'33'45'-HexaCB-(130)	ng/g	0.021	0.00055	0.010				2863065
22'33'46-HexaCB-(131)	ng/g	0.00535 J	0.00063	0.010				2863065
22'33'46'-HexaCB-(132)	ng/g	0.132	0.00054	0.010				2863065
22'33'55'-HexaCB-(133)	ng/g	0.00378 J	0.00052	0.010				2863065
HexaCB-(134)+(143)	ng/g	0.0190 J	0.00059	0.020				2863065
HexaCB-(135)+(151)	ng/g	0.087	0.00016	0.020				2863065
22'33'66'-HexaCB-(136)	ng/g	0.036	0.00012	0.010				2863065
22'344'5-HexaCB-(137)	ng/g	0.018	0.00047	0.010				2863065
HexaCB-(139)+(140)	ng/g	0.00549 J	0.00049	0.020				2863065
22'3455'-HexaCB-(141)	ng/g	0.073	0.00050	0.010				2863065
22'3456-HexaCB-(142)	ng/g	0.00055 U	0.00055	0.010				2863065
22'345'6-HexaCB-(144)	ng/g	0.012	0.00016	0.010				2863065
22'3466'-HexaCB-(145)	ng/g	0.00012 U	0.00012	0.010				2863065
22'34'55'-HexaCB-(146)	ng/g	0.042	0.00046	0.010				2863065
HexaCB-(147)+(149)	ng/g	0.284	0.00049	0.020				2863065
22'34'56'-HexaCB-(148)	ng/g	0.00015 U	0.00015	0.010				2863065
22'34'66'-HexaCB-(150)	ng/g	0.00011 U	0.00011	0.010				2863065

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/g	0.00011 U	0.00011	0.010				2863065
HexaCB-(153)+(168)	ng/g	0.297	0.00039	0.020				2863065
22'44'56'-HexaCB-(154)	ng/g	0.00151 J	0.00014	0.010				2863065
22'44'66'-HexaCB-(155)	ng/g	0.00014 U	0.00014	0.010				2863065
HexaCB-(156)+(157)	ng/g	0.042	0.00056	0.020	0.0000300	0.00000126		2863065
233'44'6-HexaCB-(158)	ng/g	0.044	0.00039	0.010				2863065
233'455'-HexaCB-(159)	ng/g	0.00313 J	0.00054	0.010				2863065
233'456-HexaCB-(160)	ng/g	0.00040 U	0.00040	0.010				2863065
233'45'6-HexaCB-(161)	ng/g	0.00039 U	0.00039	0.010				2863065
233'4'55'-HexaCB-(162)	ng/g	0.00124 J	0.00054	0.010				2863065
233'4'5'6-HexaCB-(164)	ng/g	0.028	0.00041	0.010				2863065
233'55'6-HexaCB-(165)	ng/g	0.00040 U	0.00040	0.010				2863065
23'44'55'-HexaCB-(167)	ng/g	0.016	0.00061	0.010	0.0000300	0.000000480		2863065
33'44'55'-HexaCB-(169)	ng/g	0.00062 U	0.00062	0.010	0.0300	0.0000186		2863065
22'33'44'5-HeptaCB-(170)	ng/g	0.108	0.00048	0.010				2863065
HeptaCB-(171)+(173)	ng/g	0.028	0.00054	0.020				2863065
22'33'455'-HeptaCB-(172)	ng/g	0.015	0.00055	0.010				2863065
22'33'456'-HeptaCB-(174)	ng/g	0.102	0.00052	0.010				2863065
22'33'45'6-HeptaCB-(175)	ng/g	0.00306 J	0.00018	0.010				2863065
22'33'466'-HeptaCB-(176)	ng/g	0.00992 J	0.00012	0.010				2863065
22'33'45'6'-HeptaCB-(177)	ng/g	0.051	0.00053	0.010				2863065
22'33'55'6-HeptaCB-(178)	ng/g	0.015	0.00019	0.010				2863065
22'33'566'-HeptaCB-(179)	ng/g	0.029	0.00012	0.010				2863065
HeptaCB-(180)+(193)	ng/g	0.229	0.00040	0.020				2863065
22'344'56-HeptaCB-(181)	ng/g	0.00049 U	0.00049	0.010				2863065
22'344'56'-HeptaCB-(182)	ng/g	0.00019 U	0.00019	0.010				2863065
22'344'5'6-HeptaCB-(183)	ng/g	0.057	0.00046	0.010				2863065
22'344'66'-HeptaCB-(184)	ng/g	0.00012 U	0.00012	0.010				2863065
22'3455'6-HeptaCB-(185)	ng/g	0.00628 J	0.00048	0.010				2863065

RDL = Reportable Detection Limit
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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/g	0.00012 U	0.00012	0.010				2863065
22'34'55'6-HeptaCB-(187)	ng/g	0.104	0.00017	0.010				2863065
22'34'566'-HeptaCB-(188)	ng/g	0.00019 U	0.00019	0.010				2863065
233'44'55'-HeptaCB-(189)	ng/g	0.00319 J	0.00040	0.010	0.0000300	0.0000000957		2863065
233'44'56-HeptaCB-(190)	ng/g	0.017	0.00040	0.010				2863065
233'44'5'6-HeptaCB-(191)	ng/g	0.00349 J	0.00039	0.010				2863065
233'455'6-HeptaCB-(192)	ng/g	0.00042 U	0.00042	0.010				2863065
22'33'44'55'-OctaCB-(194)	ng/g	0.052	0.00039	0.010				2863065
22'33'44'56-OctaCB-(195)	ng/g	0.018	0.00042	0.010				2863065
22'33'44'56'-OctaCB-(196)	ng/g	0.025	0.00040	0.010				2863065
22'33'44'66'OctaCB-(197)	ng/g	0.00113 J	0.00027	0.010				2863065
OctaCB-(198)+(199)	ng/g	0.059	0.00040	0.020				2863065
22'33'4566'-OctaCB-(200)	ng/g	0.00731 J	0.00030	0.010				2863065
22'33'45'66'-OctaCB-(201)	ng/g	0.00679 J	0.00028	0.010				2863065
22'33'55'66'-OctaCB-(202)	ng/g	0.015	0.00042	0.010				2863065
22'344'55'6-OctaCB-(203)	ng/g	0.038	0.00037	0.010				2863065
22'344'566'-OctaCB-(204)	ng/g	0.00029 U	0.00029	0.010				2863065
233'44'55'6-OctaCB-(205)	ng/g	0.00242 J	0.00034	0.010				2863065
22'33'44'55'6-NonaCB-(206)	ng/g	0.038	0.00044	0.010				2863065
22'33'44'566'-NonaCB-(207)	ng/g	0.00411 J	0.00032	0.010				2863065
22'33'455'66'-NonaCB-(208)	ng/g	0.00944 J	0.00044	0.010				2863065
DecaCB-(209)	ng/g	0.014	0.00026	0.010				2863065
Monochlorobiphenyl	ng/g	0.00197	0.00033	N/A				2863065
Dichlorobiphenyl	ng/g	0.0405	0.0011	N/A				2863065
Trichlorobiphenyl	ng/g	0.228	0.00067	N/A				2863065
Tetrachlorobiphenyl	ng/g	0.763	0.00016	N/A				2863065
Pentachlorobiphenyl	ng/g	1.76	0.00028	N/A				2863065
Hexachlorobiphenyl	ng/g	1.73	0.00063	N/A				2863065
Heptachlorobiphenyl	ng/g	0.782	0.00055	N/A				2863065

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Octachlorobiphenyl	ng/g	0.224	0.00042	N/A				2863065
Nonachlorobiphenyl	ng/g	0.0520	0.00044	N/A				2863065
Decachlorobiphenyl	ng/g	0.0141	0.00026	N/A				2863065
Total PCB	ng/g	5.59	N/A	N/A				2863065
TOTAL TOXIC EQUIVALENCY	ng/g					0.0000811		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	102						2863065
C13-22'33'44'55'6-NonaCB-(206)	%	82						2863065
C13-22'33'44'5-HeptaCB-(170)	%	101						2863065
C13-22'33'455'66'-NonaCB-(208)	%	84						2863065
C13-22'33'55'66'-OctaCB-(202)	%	89						2863065
C13-22'33'55'6-HeptaCB-(178)	%	91						2863065
C13-22'344'55'-HeptaCB-(180)	%	101						2863065
C13-22'34'566'-HeptaCB-(188)	%	86						2863065
C13-22'44'66'-HexaCB-(155)	%	76						2863065
C13-22'466'-PentaCB-(104)	%	70						2863065
C13-22'66'-TetraCB-(54)	%	53						2863065
C13-22'6-TriCB-(19)	%	66						2863065
C13-22'-DiCB-(4)	%	53						2863065
C13-233'44'55'6-OctaCB-(205)	%	100						2863065
C13-233'44'55'-HeptaCB-(189)	%	133						2863065
C13-233'44'-PentaCB-(105)	%	125						2863065
C13-233'55'-PentaCB-(111)	%	102						2863065
C13-23'44'55'-HexaCB-(167)	%	131						2863065
C13-2344'5-PentaCB-(114)	%	123						2863065
C13-23'44'5-PentaCB-(118)	%	125						2863065
C13-2'344'5-PentaCB-(123)	%	123						2863065
C13-2-MonoCB-(1)	%	69						2863065
C13-33'44'55'-HexaCB-(169)	%	140						2863065

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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		NM7374						
Sampling Date		2012/05/15 12:30						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-SS-11-12	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'5-PentaCB-(126)	%	129						2863065
C13-33'44'-TetraCB-(77)	%	115						2863065
C13-344'5-TetraCB-(81)	%	114						2863065
C13-344'-TriCB-(37)	%	111						2863065
C13-44'-DiCB-(15)	%	87						2863065
C13-4-MonoCB-(3)	%	75						2863065
C13-DecaCB-(209)	%	67						2863065
C13-HexaCB-(156)+(157)	%	120						2863065

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QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B272296
Report Date: 2012/06/07

Apex Laboratories
Client Project #: A12E281

Test Summary

Maxxam ID NM7371 **Collected** 2012/05/15
Sample ID MW104-SS-4-5 **Shipped**
Matrix Soil **Received** 2012/05/18

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2863069	2012/05/25	2012/06/01	OWEN COSBY
Moisture	BAL	2857343	N/A	2012/05/23	VALENTINA KAFTANI
PCB Congeners in Soil (1668A)	HRMS/MS	2863065	2012/05/24	2012/06/01	BRANKO VRZIC

Maxxam ID NM7372 **Collected** 2012/05/15
Sample ID MW105-SS-9-10 **Shipped**
Matrix Soil **Received** 2012/05/18

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2863069	2012/05/25	2012/06/01	OWEN COSBY
Moisture	BAL	2857343	N/A	2012/05/23	VALENTINA KAFTANI
PCB Congeners in Soil (1668A)	HRMS/MS	2863065	2012/05/24	2012/06/01	BRANKO VRZIC

Maxxam ID NM7373 **Collected** 2012/05/15
Sample ID MW106-SS-10-11 **Shipped**
Matrix Soil **Received** 2012/05/18

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2863069	2012/05/25	2012/06/01	OWEN COSBY
Moisture	BAL	2857343	N/A	2012/05/23	VALENTINA KAFTANI
PCB Congeners in Soil (1668A)	HRMS/MS	2863065	2012/05/24	2012/06/01	BRANKO VRZIC

Maxxam ID NM7373 Dup **Collected** 2012/05/15
Sample ID MW106-SS-10-11 **Shipped**
Matrix Soil **Received** 2012/05/18

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Moisture	BAL	2857343	N/A	2012/05/23	VALENTINA KAFTANI

Maxxam ID NM7374 **Collected** 2012/05/15
Sample ID MW107-SS-11-12 **Shipped**
Matrix Soil **Received** 2012/05/18

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290)	HRMS/MS	2863069	2012/05/25	2012/06/01	OWEN COSBY
Moisture	BAL	2857343	N/A	2012/05/23	VALENTINA KAFTANI
PCB Congeners in Soil (1668A)	HRMS/MS	2863065	2012/05/24	2012/06/01	BRANKO VRZIC

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Package 1	5.6°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12E281
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB272296

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2857343	AC	RPD - Sample/Sample Dup	Moisture	2012/05/23	1.1		%	20
2863065	BY	Spiked Blank	C13-2,44'-TriCB-(28)	2012/06/01		98	%	30 - 135
			C13-22'33'44'55'6-NonaCB-(206)	2012/06/01		87	%	25 - 150
			C13-22'33'44'5-HeptaCB-(170)	2012/06/01		96	%	25 - 150
			C13-22'33'455'66'-NonaCB-(208)	2012/06/01		89	%	25 - 150
			C13-22'33'55'66'-OctaCB-(202)	2012/06/01		91	%	25 - 150
			C13-22'33'55'6-HeptaCB-(178)	2012/06/01		96	%	30 - 135
			C13-22'344'55'-HeptaCB-(180)	2012/06/01		98	%	30 - 135
			C13-22'34'566'-HeptaCB-(188)	2012/06/01		91	%	25 - 150
			C13-22'44'66'-HexaCB-(155)	2012/06/01		82	%	25 - 150
			C13-22'466'-PentaCB-(104)	2012/06/01		73	%	25 - 150
			C13-22'66'-TetraCB-(54)	2012/06/01		54	%	25 - 150
			C13-22'6-TriCB-(19)	2012/06/01		60	%	25 - 150
			C13-22'-DiCB-(4)	2012/06/01		55	%	25 - 150
			C13-233'44'55'6-OctaCB-(205)	2012/06/01		104	%	25 - 150
			C13-233'44'55'-HeptaCB-(189)	2012/06/01		119	%	25 - 150
			C13-233'44'-PentaCB-(105)	2012/06/01		110	%	25 - 150
			C13-233'55'-PentaCB-(111)	2012/06/01		103	%	30 - 135
			C13-23'44'55'-HexaCB-(167)	2012/06/01		117	%	25 - 150
			C13-2344'5-PentaCB-(114)	2012/06/01		107	%	25 - 150
			C13-23'44'5-PentaCB-(118)	2012/06/01		109	%	25 - 150
			C13-2'344'5-PentaCB-(123)	2012/06/01		106	%	25 - 150
			C13-2-MonoCB-(1)	2012/06/01		64	%	15 - 150
			C13-33'44'55'-HexaCB-(169)	2012/06/01		109	%	25 - 150
			C13-33'44'5-PentaCB-(126)	2012/06/01		111	%	25 - 150
			C13-33'44'-TetraCB-(77)	2012/06/01		107	%	25 - 150
			C13-344'5-TetraCB-(81)	2012/06/01		104	%	25 - 150
			C13-344'-TriCB-(37)	2012/06/01		101	%	25 - 150
			C13-44'-DiCB-(15)	2012/06/01		80	%	25 - 150
			C13-4-MonoCB-(3)	2012/06/01		69	%	15 - 150
			C13-DecaCB-(209)	2012/06/01		74	%	25 - 150
			C13-HexaCB-(156)+(157)	2012/06/01		117	%	25 - 150
			2-MonoCB-(1)	2012/06/01		92	%	50 - 150
			4-MonoCB-(3)	2012/06/01		91	%	50 - 150
			22'-DiCB-(4)	2012/06/01		105	%	50 - 150
			4,4'-DiCB-(15)	2012/06/01		98	%	50 - 150
			22'6-TriCB-(19)	2012/06/01		105	%	50 - 150
			235-TriCB-(23)	2012/06/01		93	%	50 - 150
			23'5'-TriCB-(34)	2012/06/01		93	%	50 - 150
			344'-TriCB-(37)	2012/06/01		98	%	50 - 150
			22'66'-TetraCB-(54)	2012/06/01		111	%	50 - 150
			33'44'-TetraCB-(77)	2012/06/01		99	%	50 - 150
			344'5-TetraCB-(81)	2012/06/01		99	%	50 - 150
			22'466'-PentaCB-(104)	2012/06/01		104	%	50 - 150
			233'44'-PentaCB-(105)	2012/06/01		98	%	50 - 150
			2344'5-PentaCB-(114)	2012/06/01		97	%	50 - 150
			23'44'5-PentaCB-(118)	2012/06/01		103	%	50 - 150
			23'44'5'-PentaCB-(123)	2012/06/01		99	%	50 - 150
			33'44'5-PentaCB-(126)	2012/06/01		97	%	50 - 150
			22'44'66'-HexaCB-(155)	2012/06/01		98	%	50 - 150
			HexaCB-(156)+(157)	2012/06/01		99	%	50 - 150
			23'44'55'-HexaCB-(167)	2012/06/01		99	%	50 - 150
			33'44'55'-HexaCB-(169)	2012/06/01		97	%	50 - 150

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2863065	BY	Spiked Blank	22'33'44'5-HeptaCB-(170)	2012/06/01		103	%	50 - 150
			HeptaCB-(180)+(193)	2012/06/01		91	%	50 - 150
			22'344'56'-HeptaCB-(182)	2012/06/01		88	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2012/06/01		88	%	50 - 150
			22'34'566'-HeptaCB-(188)	2012/06/01		101	%	50 - 150
			233'44'55'-HeptaCB-(189)	2012/06/01		97	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2012/06/01		99	%	50 - 150
			233'44'55'6-OctaCB-(205)	2012/06/01		98	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2012/06/01		101	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2012/06/01		99	%	50 - 150
			DecaCB-(209)	2012/06/01		98	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2012/06/01		89	%	30 - 135
			C13-22'33'44'55'6-NonaCB-(206)	2012/06/01		78	%	25 - 150
			C13-22'33'44'5-HeptaCB-(170)	2012/06/01		88	%	25 - 150
			C13-22'33'455'66'-NonaCB-(208)	2012/06/01		82	%	25 - 150
			C13-22'33'55'66'-OctaCB-(202)	2012/06/01		82	%	25 - 150
			C13-22'33'55'6-HeptaCB-(178)	2012/06/01		89	%	30 - 135
			C13-22'344'55'-HeptaCB-(180)	2012/06/01		89	%	30 - 135
			C13-22'34'566'-HeptaCB-(188)	2012/06/01		82	%	25 - 150
			C13-22'44'66'-HexaCB-(155)	2012/06/01		72	%	25 - 150
			C13-22'466'-PentaCB-(104)	2012/06/01		64	%	25 - 150
			C13-22'66'-TetraCB-(54)	2012/06/01		46	%	25 - 150
			C13-22'6-TriCB-(19)	2012/06/01		52	%	25 - 150
			C13-22'-DiCB-(4)	2012/06/01		47	%	25 - 150
			C13-233'44'55'6-OctaCB-(205)	2012/06/01		93	%	25 - 150
			C13-233'44'55'-HeptaCB-(189)	2012/06/01		110	%	25 - 150
			C13-233'44'-PentaCB-(105)	2012/06/01		102	%	25 - 150
			C13-233'55'-PentaCB-(111)	2012/06/01		94	%	30 - 135
			C13-23'44'55'-HexaCB-(167)	2012/06/01		109	%	25 - 150
			C13-2344'5-PentaCB-(114)	2012/06/01		98	%	25 - 150
			C13-23'44'5-PentaCB-(118)	2012/06/01		100	%	25 - 150
			C13-2'344'5-PentaCB-(123)	2012/06/01		100	%	25 - 150
			C13-2-MonoCB-(1)	2012/06/01		61	%	15 - 150
			C13-33'44'55'-HexaCB-(169)	2012/06/01		102	%	25 - 150
			C13-33'44'5-PentaCB-(126)	2012/06/01		100	%	25 - 150
			C13-33'44'-TetraCB-(77)	2012/06/01		94	%	25 - 150
			C13-344'5-TetraCB-(81)	2012/06/01		93	%	25 - 150
			C13-344'-TriCB-(37)	2012/06/01		87	%	25 - 150
			C13-44'-DiCB-(15)	2012/06/01		73	%	25 - 150
			C13-4-MonoCB-(3)	2012/06/01		62	%	15 - 150
			C13-DecaCB-(209)	2012/06/01		68	%	25 - 150
			C13-HexaCB-(156)+(157)	2012/06/01		110	%	25 - 150
			2-MonoCB-(1)	2012/06/01	0.00018 U, EDL=0.00018 (1)		ng/g	
			3-MonoCB-(2)	2012/06/01	0.00013 U, EDL=0.00013		ng/g	
			4-MonoCB-(3)	2012/06/01	0.00024 J, EDL=0.00013		ng/g	
			22'-DiCB-(4)	2012/06/01	0.00032 U, EDL=0.00032		ng/g	
			2,3-DiCB-(5)	2012/06/01	0.00080 U, EDL=0.00080		ng/g	
			2,3'-DiCB-(6)	2012/06/01	0.00079 U, EDL=0.00079		ng/g	
			2,4-DiCB-(7)	2012/06/01	0.00079 U, EDL=0.00079		ng/g	
			2,4'-DiCB-(8)	2012/06/01	0.00084 U, EDL=0.00084 (1)		ng/g	
			2,5-DiCB-(9)	2012/06/01	0.00078 U, EDL=0.00078		ng/g	
			2,6-DiCB-(10)	2012/06/01	0.00022 U, EDL=0.00022		ng/g	
			3,3'-DiCB-(11)	2012/06/01	0.00449 J, EDL=0.00081		ng/g	
			DiCB-(12)+(13)	2012/06/01	0.00083 U, EDL=0.00083		ng/g	
			3,5-DiCB-(14)	2012/06/01	0.00081 U, EDL=0.00081		ng/g	

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2863065	BY	Method Blank	4,4'-DiCB-(15)	2012/06/01	0.0010 U, EDL=0.0010		ng/g	
			22'3-TriCB-(16)	2012/06/01	0.00072 U, EDL=0.00072		ng/g	
			22'4-TriCB-(17)	2012/06/01	0.00059 U, EDL=0.00059		ng/g	
			TriCB-(18)+(30)	2012/06/01	0.00076 U, EDL=0.00076 (1)		ng/g	
			22'6-TriCB-(19)	2012/06/01	0.00060 U, EDL=0.00060		ng/g	
			TriCB-(20) + (28)	2012/06/01	0.00102 J, EDL=0.00014		ng/g	
			TriCB-(21)+(33)	2012/06/01	0.00065 J, EDL=0.00015		ng/g	
			234'-TriCB-(22)	2012/06/01	0.00036 J, EDL=0.00015		ng/g	
			235-TriCB-(23)	2012/06/01	0.00015 U, EDL=0.00015		ng/g	
			236-TriCB-(24)	2012/06/01	0.00041 U, EDL=0.00041		ng/g	
			23'4-TriCB-(25)	2012/06/01	0.00015 U, EDL=0.00015		ng/g	
			TriCB-(26)+(29)	2012/06/01	0.00019 J, EDL=0.00014		ng/g	
			23'6-TriCB-(27)	2012/06/01	0.00039 U, EDL=0.00039		ng/g	
			24'5-TriCB-(31)	2012/06/01	0.00098 J, EDL=0.00014		ng/g	
			24'6-TriCB-(32)	2012/06/01	0.00037 U, EDL=0.00037		ng/g	
			23'5'-TriCB-(34)	2012/06/01	0.00015 U, EDL=0.00015		ng/g	
			33'4-TriCB-(35)	2012/06/01	0.00015 U, EDL=0.00015		ng/g	
			33'5-TriCB-(36)	2012/06/01	0.00013 U, EDL=0.00013		ng/g	
			344'-TriCB-(37)	2012/06/01	0.00028 U, EDL=0.00028 (1)		ng/g	
			345-TriCB-(38)	2012/06/01	0.00015 U, EDL=0.00015		ng/g	
			34'5-TriCB-(39)	2012/06/01	0.00014 U, EDL=0.00014		ng/g	
			TetraCB-(40)+(41)+(71)	2012/06/01	0.00034 U, EDL=0.00034		ng/g	
			22'34'-TetraCB-(42)	2012/06/01	0.00043 U, EDL=0.00043		ng/g	
			22'35-TetraCB-(43)	2012/06/01	0.00047 U, EDL=0.00047		ng/g	
			TetraCB-(44)+(47)+(65)	2012/06/01	0.00133 J, EDL=0.00033		ng/g	
			TetraCB-(45)+(51)	2012/06/01	0.00034 U, EDL=0.00034		ng/g	
			22'36'-TetraCB-(46)	2012/06/01	0.00041 U, EDL=0.00041		ng/g	
			22'45-TetraCB-(48)	2012/06/01	0.00034 U, EDL=0.00034		ng/g	
			TetraCB-(49)+TetraCB-(69)	2012/06/01	0.00041 J, EDL=0.00030		ng/g	
			TetraCB-(50)+(53)	2012/06/01	0.00032 U, EDL=0.00032		ng/g	
			22'55'-TetraCB-(52)	2012/06/01	0.00232 J, EDL=0.00033		ng/g	
			22'66'-TetraCB-(54)	2012/06/01	0.00017 U, EDL=0.00017		ng/g	
			233'4-TetraCB-(55)	2012/06/01	0.00019 U, EDL=0.00019		ng/g	
			233'4'-Tetra CB(56)	2012/06/01	0.00030 J, EDL=0.00021		ng/g	
			233'5-TetraCB-(57)	2012/06/01	0.00019 U, EDL=0.00019		ng/g	
			233'5'-TetraCB-(58)	2012/06/01	0.00019 U, EDL=0.00019		ng/g	
			TetraCB-(59)+(62)+(75)	2012/06/01	0.00025 U, EDL=0.00025		ng/g	
			2344'-TetraCB -(60)	2012/06/01	0.00019 U, EDL=0.00019		ng/g	
			TetraCB-(61)+(70)+(74)+(76)	2012/06/01	0.0011 U, EDL=0.0011 (1)		ng/g	
			234'5-TetraCB-(63)	2012/06/01	0.00018 U, EDL=0.00018		ng/g	
			234'6-TetraCB-(64)	2012/06/01	0.00028 J, EDL=0.00028		ng/g	
			23'44'-TetraCB-(66)	2012/06/01	0.00040 U, EDL=0.00040 (1)		ng/g	
			23'45-TetraCB-(67)	2012/06/01	0.00018 U, EDL=0.00018		ng/g	
			23'45'-TetraCB-(68)	2012/06/01	0.00017 U, EDL=0.00017		ng/g	
			23'55'-TetraCB-(72)	2012/06/01	0.00018 U, EDL=0.00018		ng/g	
			23'5'6-TetraCB-(73)	2012/06/01	0.00023 U, EDL=0.00023		ng/g	
			33'44'-TetraCB-(77)	2012/06/01	0.00021 U, EDL=0.00021		ng/g	
			33'45-TetraCB-(78)	2012/06/01	0.00019 U, EDL=0.00019		ng/g	
			33'45'-TetraCB(79)	2012/06/01	0.00016 U, EDL=0.00016		ng/g	
			33'55'-TetraCB-(80)	2012/06/01	0.00018 U, EDL=0.00018		ng/g	
			344'5-TetraCB-(81)	2012/06/01	0.00022 U, EDL=0.00022		ng/g	
			22'33'4-PentaCB-(82)	2012/06/01	0.00021 U, EDL=0.00021		ng/g	
			PentaCB-(83)+(99)	2012/06/01	0.00048 J, EDL=0.00019		ng/g	
			22'33'6-PentaCB-(84)	2012/06/01	0.00052 J, EDL=0.00023		ng/g	
			PentaCB-(85)+(116)+(117)	2012/06/01	0.00015 U, EDL=0.00015		ng/g	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2863065	BY	Method Blank	PentaCB-(86)(87)(97)(109)(119)(125)	2012/06/01	0.00189 J,	EDL=0.00017	ng/g	
			PentaCB-(88)+(91)	2012/06/01	0.00019 U,	EDL=0.00019	ng/g	
			22'346'-PentaCB-(89)	2012/06/01	0.00020 U,	EDL=0.00020	ng/g	
			PentaCB-(90)+(101)+(113)	2012/06/01	0.00832 J,	EDL=0.00016	ng/g	
			22'355'-PentaCB-(92)	2012/06/01	0.00112 J,	EDL=0.00019	ng/g	
			PentaCB-(93)+(98)+(100)+(102)	2012/06/01	0.00020 U,	EDL=0.00020	ng/g	
			22'356'-PentaCB-(94)	2012/06/01	0.00020 U,	EDL=0.00020	ng/g	
			22'35'6-PentaCB-(95)	2012/06/01	0.00569 J,	EDL=0.00018	ng/g	
			22'366'-PentaCB-(96)	2012/06/01	0.000082 U,	EDL=0.000082	ng/g	
			22'45'6-PentaCB-(103)	2012/06/01	0.00017 U,	EDL=0.00017	ng/g	
			22'466'-PentaCB-(104)	2012/06/01	0.000094 U,	EDL=0.000094	ng/g	
			233'44'-PentaCB-(105)	2012/06/01	0.00037 U,	EDL=0.00037 (1)	ng/g	
			233'45-PentaCB-(106)	2012/06/01	0.00027 U,	EDL=0.00027	ng/g	
			233'4'5-PentaCB-(107)	2012/06/01	0.00027 U,	EDL=0.00027	ng/g	
			PentaCB-(108)+(124)	2012/06/01	0.00028 U,	EDL=0.00028	ng/g	
			PentaCB-(110)+(115)	2012/06/01	0.00498 J,	EDL=0.00016	ng/g	
			233'55'-PentaCB-(111)	2012/06/01	0.00014 U,	EDL=0.00014	ng/g	
			233'56-PentaCB-(112)	2012/06/01	0.00015 U,	EDL=0.00015	ng/g	
			2344'5-PentaCB-(114)	2012/06/01	0.00030 U,	EDL=0.00030	ng/g	
			23'44'5-PentaCB-(118)	2012/06/01	0.00296 J,	EDL=0.00032	ng/g	
			23'455'-PentaCB-(120)	2012/06/01	0.00013 U,	EDL=0.00013	ng/g	
			23'45'6-PentaCB-(121)	2012/06/01	0.00014 U,	EDL=0.00014	ng/g	
			233'4'5'-PentaCB-(122)	2012/06/01	0.00030 U,	EDL=0.00030	ng/g	
			23'44'5'-PentaCB-(123)	2012/06/01	0.00033 U,	EDL=0.00033	ng/g	
			33'44'5-PentaCB-(126)	2012/06/01	0.00032 U,	EDL=0.00032	ng/g	
			33'455'-PentaCB-(127)	2012/06/01	0.00027 U,	EDL=0.00027	ng/g	
			HexaCB-(128)+(166)	2012/06/01	0.0010 U,	EDL=0.0010 (1)	ng/g	
			HexaCB-(129)+(138)+(163)	2012/06/01	0.0147 J,	EDL=0.00057	ng/g	
			22'33'45'-HexaCB-(130)	2012/06/01	0.00052 U,	EDL=0.00052 (1)	ng/g	
			22'33'46-HexaCB-(131)	2012/06/01	0.00067 U,	EDL=0.00067	ng/g	
			22'33'46'-HexaCB-(132)	2012/06/01	0.00429 J,	EDL=0.00057	ng/g	
			22'33'55'-HexaCB-(133)	2012/06/01	0.00055 U,	EDL=0.00055	ng/g	
			HexaCB-(134)+(143)	2012/06/01	0.00063 U,	EDL=0.00063	ng/g	
			HexaCB-(135)+(151)	2012/06/01	0.00466 J,	EDL=0.000065	ng/g	
			22'33'66'-HexaCB-(136)	2012/06/01	0.00179 J,	EDL=0.000048	ng/g	
			22'344'5-HexaCB-(137)	2012/06/01	0.00132 J,	EDL=0.00051	ng/g	
			HexaCB-(139)+(140)	2012/06/01	0.00053 U,	EDL=0.00053	ng/g	
			22'3455'-HexaCB-(141)	2012/06/01	0.00324 J,	EDL=0.00054	ng/g	
			22'3456-HexaCB-(142)	2012/06/01	0.00059 U,	EDL=0.00059	ng/g	
			22'345'6-HexaCB-(144)	2012/06/01	0.000817 J,	EDL=0.000065	ng/g	
			22'3466'-HexaCB-(145)	2012/06/01	0.000049 U,	EDL=0.000049	ng/g	
			22'34'55'-HexaCB-(146)	2012/06/01	0.00188 J,	EDL=0.00049	ng/g	
			HexaCB-(147)+(149)	2012/06/01	0.0113 J,	EDL=0.00052	ng/g	
			22'34'56'-HexaCB-(148)	2012/06/01	0.000063 U,	EDL=0.000063	ng/g	
			22'34'66'-HexaCB-(150)	2012/06/01	0.000046 U,	EDL=0.000046	ng/g	
			22'3566'-HexaCB-(152)	2012/06/01	0.000047 U,	EDL=0.000047	ng/g	
			HexaCB-(153)+(168)	2012/06/01	0.0117 J,	EDL=0.00042	ng/g	
			22'44'56'-HexaCB-(154)	2012/06/01	0.000057 U,	EDL=0.000057	ng/g	
			22'44'66'-HexaCB-(155)	2012/06/01	0.000058 U,	EDL=0.000058	ng/g	
			HexaCB-(156)+(157)	2012/06/01	0.0011 U,	EDL=0.0011 (1)	ng/g	
			233'44'6-HexaCB-(158)	2012/06/01	0.00137 J,	EDL=0.00041	ng/g	
			233'455'-HexaCB-(159)	2012/06/01	0.00014 U,	EDL=0.00014	ng/g	
			233'456-HexaCB-(160)	2012/06/01	0.00043 U,	EDL=0.00043	ng/g	
			233'45'6-HexaCB-(161)	2012/06/01	0.00041 U,	EDL=0.00041	ng/g	
			233'4'55'-HexaCB-(162)	2012/06/01	0.00014 U,	EDL=0.00014	ng/g	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12E281
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB272296

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2863065	BY	Method Blank	233'4'5'6-HexaCB-(164)	2012/06/01	0.00044 U,	EDL=0.00044	ng/g	
			233'55'6-HexaCB-(165)	2012/06/01	0.00043 U,	EDL=0.00043	ng/g	
			23'44'55'-HexaCB-(167)	2012/06/01	0.00066 J,	EDL=0.00015	ng/g	
			33'44'55'-HexaCB-(169)	2012/06/01	0.00016 U,	EDL=0.00016	ng/g	
			22'33'44'5-HeptaCB-(170)	2012/06/01	0.00459 J,	EDL=0.00017	ng/g	
			HeptaCB-(171)+(173)	2012/06/01	0.00122 J,	EDL=0.00019	ng/g	
			22'33'455'-HeptaCB-(172)	2012/06/01	0.00071 J,	EDL=0.00019	ng/g	
			22'33'456'-HeptaCB-(174)	2012/06/01	0.00383 J,	EDL=0.00018	ng/g	
			22'33'45'6-HeptaCB-(175)	2012/06/01	0.00022 U,	EDL=0.00022 (1)	ng/g	
			22'33'466'-HeptaCB-(176)	2012/06/01	0.00050 U,	EDL=0.00050 (1)	ng/g	
			22'33'45'6'-HeptaCB-(177)	2012/06/01	0.00216 J,	EDL=0.00019	ng/g	
			22'33'55'6-HeptaCB-(178)	2012/06/01	0.00059 U,	EDL=0.00059 (1)	ng/g	
			22'33'566'-HeptaCB-(179)	2012/06/01	0.00128 J,	EDL=0.00010	ng/g	
			HeptaCB-(180)+(193)	2012/06/01	0.00709 J,	EDL=0.00014	ng/g	
			22'344'56-HeptaCB-(181)	2012/06/01	0.00017 U,	EDL=0.00017	ng/g	
			22'344'56'-HeptaCB-(182)	2012/06/01	0.00016 U,	EDL=0.00016	ng/g	
			22'344'5'6-HeptaCB-(183)	2012/06/01	0.00245 J,	EDL=0.00016	ng/g	
			22'344'66'-HeptaCB-(184)	2012/06/01	0.000097 U,	EDL=0.000097	ng/g	
			22'3455'6-HeptaCB-(185)	2012/06/01	0.00017 U,	EDL=0.00017	ng/g	
			22'34566'-HeptaCB-(186)	2012/06/01	0.00010 U,	EDL=0.00010	ng/g	
			22'34'55'6-HeptaCB-(187)	2012/06/01	0.00327 J,	EDL=0.00015	ng/g	
			22'34'566'-HeptaCB-(188)	2012/06/01	0.00016 U,	EDL=0.00016	ng/g	
			233'44'55'-HeptaCB-(189)	2012/06/01	0.00019 U,	EDL=0.00019	ng/g	
			233'44'56-HeptaCB-(190)	2012/06/01	0.00065 J,	EDL=0.00014	ng/g	
			233'44'5'6-HeptaCB-(191)	2012/06/01	0.00014 U,	EDL=0.00014	ng/g	
			233'455'6-HeptaCB-(192)	2012/06/01	0.00015 U,	EDL=0.00015	ng/g	
			22'33'44'55'-OctaCB-(194)	2012/06/01	0.00106 J,	EDL=0.00015	ng/g	
			22'33'44'56-OctaCB-(195)	2012/06/01	0.00047 U,	EDL=0.00047 (1)	ng/g	
			22'33'44'56'-OctaCB-(196)	2012/06/01	0.00053 U,	EDL=0.00053 (1)	ng/g	
			22'33'44'66'OctaCB-(197)	2012/06/01	0.000071 U,	EDL=0.000071	ng/g	
			OctaCB-(198)+(199)	2012/06/01	0.00088 J,	EDL=0.00010	ng/g	
			22'33'4566'-OctaCB-(200)	2012/06/01	0.000076 U,	EDL=0.000076	ng/g	
			22'33'45'66'-OctaCB-(201)	2012/06/01	0.000073 U,	EDL=0.000073	ng/g	
			22'33'55'66'-OctaCB-(202)	2012/06/01	0.00011 U,	EDL=0.00011	ng/g	
			22'344'55'6-OctaCB-(203)	2012/06/01	0.000575 J,	EDL=0.000095	ng/g	
			22'344'566'-OctaCB-(204)	2012/06/01	0.000074 U,	EDL=0.000074	ng/g	
			233'44'55'6-OctaCB-(205)	2012/06/01	0.00013 U,	EDL=0.00013	ng/g	
			22'33'44'55'6-NonaCB-(206)	2012/06/01	0.00031 U,	EDL=0.00031	ng/g	
			22'33'44'566'-NonaCB-(207)	2012/06/01	0.00023 U,	EDL=0.00023	ng/g	
			22'33'455'66'-NonaCB-(208)	2012/06/01	0.00032 U,	EDL=0.00032	ng/g	
			DecaCB-(209)	2012/06/01	0.00019 U,	EDL=0.00019	ng/g	
			Monochlorobiphenyl	2012/06/01	0.00024,	EDL=0.00013	ng/g	
			Dichlorobiphenyl	2012/06/01	0.0045,	EDL=0.0010	ng/g	
			Trichlorobiphenyl	2012/06/01	0.00320,	EDL=0.00072	ng/g	
			Tetrachlorobiphenyl	2012/06/01	0.00464,	EDL=0.00047	ng/g	
			Pentachlorobiphenyl	2012/06/01	0.0260,	EDL=0.00033	ng/g	
			Hexachlorobiphenyl	2012/06/01	0.0577,	EDL=0.00067	ng/g	
			Heptachlorobiphenyl	2012/06/01	0.0273,	EDL=0.00019	ng/g	
			Octachlorobiphenyl	2012/06/01	0.00251,	EDL=0.00015	ng/g	
			Nonachlorobiphenyl	2012/06/01	0.00032 U,	EDL=0.00032	ng/g	
			Decachlorobiphenyl	2012/06/01	0.00019 U,	EDL=0.00019	ng/g	
			Total PCB	2012/06/01	0.126		ng/g	
2863069	OBC	Spiked Blank	C13-1234678 HeptaCDD	2012/06/01		80	%	40 - 135
			C13-1234678 HeptaCDF	2012/06/01		76	%	40 - 135
			C13-123478 HexaCDF	2012/06/01		79	%	40 - 135

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12E281
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB272296

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2863069	OBC	Spiked Blank	C13-123678 HexaCDD	2012/06/01		85	%	40 - 135
			C13-12378 PentaCDD	2012/06/01		108	%	40 - 135
			C13-12378 PentaCDF	2012/06/01		84	%	40 - 135
			C13-2378 TetraCDD	2012/06/01		79	%	40 - 135
			C13-2378 TetraCDF	2012/06/01		72	%	40 - 135
			C13-OCDD	2012/06/01		76	%	40 - 135
			2,3,7,8-Tetra CDD	2012/06/01		109	%	80 - 140
			1,2,3,7,8-Penta CDD	2012/06/01		112	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2012/06/01		120	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2012/06/01		97	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2012/06/01		111	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2012/06/01		105	%	80 - 140
			Octa CDD	2012/06/01		103	%	80 - 140
			2,3,7,8-Tetra CDF	2012/06/01		96	%	80 - 140
			1,2,3,7,8-Penta CDF	2012/06/01		107	%	80 - 140
			2,3,4,7,8-Penta CDF	2012/06/01		127	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2012/06/01		104	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2012/06/01		93	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2012/06/01		102	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2012/06/01		129	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2012/06/01		95	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2012/06/01		125	%	80 - 140
			Octa CDF	2012/06/01		111	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2012/06/01		81	%	40 - 135
			C13-1234678 HeptaCDF	2012/06/01		77	%	40 - 135
			C13-123478 HexaCDF	2012/06/01		78	%	40 - 135
			C13-123678 HexaCDD	2012/06/01		87	%	40 - 135
			C13-12378 PentaCDD	2012/06/01		106	%	40 - 135
			C13-12378 PentaCDF	2012/06/01		82	%	40 - 135
			C13-2378 TetraCDD	2012/06/01		78	%	40 - 135
			C13-2378 TetraCDF	2012/06/01		71	%	40 - 135
			C13-OCDD	2012/06/01		78	%	40 - 135
			2,3,7,8-Tetra CDD	2012/06/01	0.058 U, EDL=0.058		pg/g	
			1,2,3,7,8-Penta CDD	2012/06/01	0.11 U, EDL=0.11		pg/g	
			1,2,3,4,7,8-Hexa CDD	2012/06/01	0.080 U, EDL=0.080		pg/g	
			1,2,3,6,7,8-Hexa CDD	2012/06/01	0.064 U, EDL=0.064		pg/g	
			1,2,3,7,8,9-Hexa CDD	2012/06/01	0.065 U, EDL=0.065		pg/g	
			1,2,3,4,6,7,8-Hepta CDD	2012/06/01	0.093 J, EDL=0.059		pg/g	
			Octa CDD	2012/06/01	0.22 J, EDL=0.14		pg/g	
			Total Tetra CDD	2012/06/01	0.058 U, EDL=0.058		pg/g	
			Total Penta CDD	2012/06/01	0.11 U, EDL=0.11		pg/g	
			Total Hexa CDD	2012/06/01	0.48 U, EDL=0.48 (1)		pg/g	
			Total Hepta CDD	2012/06/01	0.093 J, EDL=0.059		pg/g	
			2,3,7,8-Tetra CDF	2012/06/01	0.069 U, EDL=0.069		pg/g	
			1,2,3,7,8-Penta CDF	2012/06/01	0.068 U, EDL=0.068		pg/g	
			2,3,4,7,8-Penta CDF	2012/06/01	0.072 U, EDL=0.072		pg/g	
			1,2,3,4,7,8-Hexa CDF	2012/06/01	0.097 U, EDL=0.097		pg/g	
			1,2,3,6,7,8-Hexa CDF	2012/06/01	0.087 U, EDL=0.087		pg/g	
			2,3,4,6,7,8-Hexa CDF	2012/06/01	0.10 U, EDL=0.10		pg/g	
			1,2,3,7,8,9-Hexa CDF	2012/06/01	0.14 U, EDL=0.14		pg/g	
			1,2,3,4,6,7,8-Hepta CDF	2012/06/01	0.071 U, EDL=0.071		pg/g	
			1,2,3,4,7,8,9-Hepta CDF	2012/06/01	0.12 U, EDL=0.12		pg/g	
			Octa CDF	2012/06/01	0.11 U, EDL=0.11		pg/g	
			Total Tetra CDF	2012/06/01	0.069 U, EDL=0.069		pg/g	
			Total Penta CDF	2012/06/01	0.070 U, EDL=0.070		pg/g	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12E281
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB272296

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2863069	OBC	Method Blank	Total Hexa CDF	2012/06/01	0.10 U, EDL=0.10		pg/g	
			Total Hepta CDF	2012/06/01	0.088 U, EDL=0.088		pg/g	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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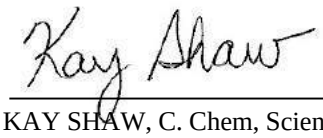
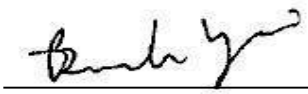
Validation Signature Page

Maxxam Job #: B272296

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



KAY SHAW, C. Chem, Scientific Specialist, HRMS Services



BRANKO VRZIC, A.SC.T., Senior Analyst, HRMS Services

BRAD NEWMAN, Scientific Specialist

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503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-PP01-3	P1L0598-01	Soil	12/18/01 12:00	12/19/01 14:38
S-PP01-6	P1L0598-02	Soil	12/18/01 12:00	12/19/01 14:38
S-PP01-9	P1L0598-03	Soil	12/18/01 12:00	12/19/01 14:38
S-PP01-13	P1L0598-04	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-1.5	P1L0598-06	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-5	P1L0598-07	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-9	P1L0598-08	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-13	P1L0598-09	Soil	12/18/01 12:00	12/19/01 14:38
S-PP02-17	P1L0598-10	Soil	12/18/01 12:00	12/19/01 14:38
S-PP03-1	P1L0598-11	Soil	12/18/01 12:00	12/19/01 14:38
S-PP03-5.5	P1L0598-12	Soil	12/18/01 12:00	12/19/01 14:38
S-PP04-13	P1L0598-16	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-6	P1L0598-20	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-9	P1L0598-21	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-13	P1L0598-22	Soil	12/18/01 12:00	12/19/01 14:38
S-PP05-17	P1L0598-23	Soil	12/18/01 12:00	12/19/01 14:38
GW-PP02-011218	P1L0598-25	Water	12/18/01 12:00	12/19/01 14:38
GW-PP03-011218	P1L0598-26	Water	12/18/01 12:00	12/19/01 14:38
GW-PP04-011218	P1L0598-27	Water	12/18/01 12:00	12/19/01 14:38
GW-PP05-011218	P1L0598-28	Water	12/18/01 12:00	12/19/01 14:38

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Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/21/01	1120706	
Diesel Range Hydrocarbons	**DET**	50.0	"	"	"	"	"	"	D-17
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	D-15
Surr: 1-Chlorooctadecane	*99.6 %*	*50-150*							
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/21/01	1120706	
Diesel Range Hydrocarbons	**DET**	50.0	"	"	"	"	"	"	D-17
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	D-15
Surr: 1-Chlorooctadecane	*124 %*	*50-150*							
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/26/01	12/27/01	1120815	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*91.9 %*	*50-150*							
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/26/01	12/26/01	1120815	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.8 %*	*50-150*							
S-PP02-1.5 (P1L0598-06) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*103 %*	*50-150*							

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.9 %*	*50-150*							
S-PP03-1 (P1L0598-11) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*85.4 %*	*50-150*							
S-PP03-5.5 (P1L0598-12) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*80.0 %*	*50-150*							
S-PP04-13 (P1L0598-16) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*85.8 %*	*50-150*							
S-PP05-6 (P1L0598-20) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*82.0 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP05-9 (P1L0598-21) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.8 %*	*50-150*							
S-PP05-13 (P1L0598-22) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*86.7 %*	*50-150*							
S-PP05-17 (P1L0598-23) Soil					Sampled: 12/18/01 Received: 12/19/01				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	12/20/01	12/20/01	1120706	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*87.7 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Diesel Range Organics	ND	25.0	mg/kg dry	1	NWTPH-Dx	12/28/01	12/31/01	1120919	
Heavy Oil Range Hydrocarbons	**112**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.8 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Diesel Range Organics	**89.9**	25.0	mg/kg dry	1	NWTPH-Dx	12/31/01	01/02/02	1120974	D-16
Heavy Oil Range Hydrocarbons	**146**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*94.8 %*	*50-150*							
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Diesel Range Organics	**169**	25.0	mg/kg dry	1	NWTPH-Dx	12/31/01	01/02/02	1120974	D-16
Heavy Oil Range Hydrocarbons	**230**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*109 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Antimony	**3.60**	0.500	mg/kg dry	1	EPA 6020	12/28/01	01/02/02	1120935	
Arsenic	**7.59**	0.500	"	"	"	"	"	"	
Barium	**155**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**27.2**	0.500	"	"	"	"	"	"	
Copper	**112**	1.00	"	"	"	"	"	"	
Lead	**131**	0.500	"	"	"	"	"	"	
Mercury	**0.232**	0.100	"	"	EPA 7471A	12/27/01	12/27/01	1120866	
Nickel	**33.9**	1.00	"	"	EPA 6020	12/28/01	01/02/02	1120935	
Zinc	**995**	25.0	"	10	"	"	01/03/02	"	
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	12/28/01	01/02/02	1120935	
Arsenic	**4.01**	0.500	"	"	"	"	"	"	
Barium	**114**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**13.9**	0.500	"	"	"	"	"	"	
Copper	**19.0**	1.00	"	"	"	"	"	"	
Lead	**18.1**	0.500	"	"	"	"	"	"	
Mercury	**0.130**	0.100	"	"	EPA 7471A	12/27/01	12/27/01	1120866	
Nickel	**16.0**	1.00	"	"	EPA 6020	12/28/01	01/02/02	1120935	
Zinc	**73.0**	2.50	"	"	"	"	01/03/02	"	
S-PP04-13 (P1L0598-16) Soil					Sampled: 12/18/01 Received: 12/19/01				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	12/28/01	01/02/02	1120935	
Arsenic	**2.48**	0.500	"	"	"	"	"	"	
Barium	**80.0**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**7.33**	0.500	"	"	"	"	"	"	
Copper	**13.0**	1.00	"	"	"	"	"	"	
Lead	**5.77**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	12/27/01	12/27/01	1120866	
Nickel	**11.1**	1.00	"	"	EPA 6020	12/28/01	01/02/02	1120935	
Zinc	**48.5**	2.50	"	"	"	"	01/03/02	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/21/01	12/28/01	1120747	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*65.1 %*	*36-140*							
Surr: Decachlorobiphenyl	*96.1 %*	*16-149*							
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/21/01	12/28/01	1120747	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*71.5 %*	*36-140*							
Surr: Decachlorobiphenyl	*77.9 %*	*16-149*							
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/28/01	01/03/02	1120913	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*100 %*	*36-140*							
Surr: Decachlorobiphenyl	*79.3 %*	*16-149*							

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP03-5.5 (P1L0598-12) Soil						Sampled: 12/18/01	Received: 12/19/01		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	12/28/01	01/03/02	1120913	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*92.9 %*	*36-140*							
Surr: Decachlorobiphenyl	*83.2 %*	*16-149*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*95.7 %*	*70-130*							
Surr: 1,2-DCA-d4	*122 %*	*70-130*							
Surr: Dibromofluoromethane	*104 %*	*70-130*							
Surr: Toluene-d8	*108 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	12/27/01	12/28/01	1120874	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*84.7 %*	*70-130*							
Surr: 1,2-DCA-d4	*109 %*	*70-130*							
Surr: Dibromofluoromethane	*95.3 %*	*70-130*							
Surr: Toluene-d8	*95.8 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP02-011218 (P1L0598-25) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/27/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP02-011218 (P1L0598-25) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/27/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*94.5 %*	*84-118*							
Surr: 1,2-DCA-d4	*122 %*	*79-123*							
Surr: Dibromofluoromethane	*108 %*	*81-121*							
Surr: Toluene-d8	*96.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP03-011218 (P1L0598-26) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP03-011218 (P1L0598-26) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*96.0 %*	*84-118*							
Surr: 1,2-DCA-d4	*124 %*	*79-123*							*S-08*
Surr: Dibromofluoromethane	*110 %*	*81-121*							
Surr: Toluene-d8	*98.5 %*	*87-111*							

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP04-011218 (P1L0598-27) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP04-011218 (P1L0598-27) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	**1.23**	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*93.0 %*	*84-118*							
Surr: 1,2-DCA-d4	*123 %*	*79-123*							
Surr: Dibromofluoromethane	*107 %*	*81-121*							
Surr: Toluene-d8	*94.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP05-011218 (P1L0598-28) Water					Sampled: 12/18/01 Received: 12/19/01				
Acetone	ND	25.0	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP05-011218 (P1L0598-28) Water					Sampled: 12/18/01 Received: 12/19/01				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	12/27/01	12/28/01	1120876	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*94.0 %*	*84-118*							
Surr: 1,2-DCA-d4	*121 %*	*79-123*							
Surr: Dibromofluoromethane	*106 %*	*81-121*							
Surr: Toluene-d8	*98.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01	Received: 12/19/01			**R-05**
Acenaphthene	ND	1.65	mg/kg dry	5	EPA 8270C	12/26/01	12/27/01	1120852	
Acenaphthylene	ND	1.65	"	"	"	"	"	"	
Anthracene	ND	1.65	"	"	"	"	"	"	
Benzo (a) anthracene	ND	1.65	"	"	"	"	"	"	
Benzo (a) pyrene	ND	1.65	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	1.65	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	1.65	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	1.65	"	"	"	"	"	"	
Benzoic Acid	ND	5.00	"	"	"	"	"	"	
Benzyl alcohol	ND	1.65	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	1.65	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	1.65	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	1.65	"	"	"	"	"	"	
4-Chloroaniline	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	1.65	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	1.65	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	1.65	"	"	"	"	"	"	
2-Chloronaphthalene	ND	1.65	"	"	"	"	"	"	
2-Chlorophenol	ND	1.65	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	1.65	"	"	"	"	"	"	
Chrysene	ND	1.65	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	1.65	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	1.65	"	"	"	"	"	"	
Dibenzofuran	ND	1.65	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	1.65	"	"	"	"	"	"	
Diethyl phthalate	ND	1.65	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	5.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	1.65	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	5.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	2.50	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	2.50	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	**2.25**	1.65	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				**R-05**
Fluorene	ND	1.65	mg/kg dry	5	EPA 8270C	12/26/01	12/27/01	1120852	
Hexachlorobenzene	ND	1.65	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	5.00	"	"	"	"	"	"	
Hexachloroethane	ND	5.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	1.65	"	"	"	"	"	"	
Isophorone	ND	1.65	"	"	"	"	"	"	
2-Methylnaphthalene	ND	1.65	"	"	"	"	"	"	
2-Methylphenol	ND	1.65	"	"	"	"	"	"	
3-,4-Methylphenol	ND	1.65	"	"	"	"	"	"	
Naphthalene	ND	1.65	"	"	"	"	"	"	
2-Nitroaniline	ND	1.65	"	"	"	"	"	"	
3-Nitroaniline	ND	5.00	"	"	"	"	"	"	
4-Nitroaniline	ND	1.65	"	"	"	"	"	"	
Nitrobenzene	ND	1.65	"	"	"	"	"	"	
2-Nitrophenol	ND	1.65	"	"	"	"	"	"	
4-Nitrophenol	ND	5.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	1.65	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	1.65	"	"	"	"	"	"	
Pentachlorophenol	ND	5.00	"	"	"	"	"	"	
Phenanthrene	**2.74**	1.65	"	"	"	"	"	"	
Phenol	ND	1.65	"	"	"	"	"	"	
Pyrene	**2.68**	1.65	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.65	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	1.65	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*65.5 %*	*44-146*							
Surr: 2-Fluorophenol	*70.9 %*	*42-126*							
Surr: Nitrobenzene-d5	*67.6 %*	*42-126*							
Surr: Phenol-d6	*61.4 %*	*42-131*							
Surr: p-Terphenyl-d14	*72.8 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*75.0 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01	Received: 12/19/01			**R-05**
Acenaphthene	ND	0.660	mg/kg dry	2	EPA 8270C	12/26/01	12/27/01	1120852	
Acenaphthylene	ND	0.660	"	"	"	"	"	"	
Anthracene	ND	0.660	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.660	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.660	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.660	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.660	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.660	"	"	"	"	"	"	
Benzoic Acid	ND	2.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.660	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.660	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.660	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.660	"	"	"	"	"	"	
4-Chloroaniline	ND	4.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.660	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.660	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.660	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.660	"	"	"	"	"	"	
2-Chlorophenol	ND	0.660	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.660	"	"	"	"	"	"	
Chrysene	ND	0.660	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	2.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.660	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.660	"	"	"	"	"	"	
Dibenzofuran	ND	0.660	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	2.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	2.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	2.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	2.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.660	"	"	"	"	"	"	
Diethyl phthalate	ND	0.660	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	2.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.660	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	4.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	1.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	1.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.00	"	"	"	"	"	"	
Fluoranthene	**0.766**	0.660	"	"	"	"	"	"	

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01	Received: 12/19/01			**R-05**
Fluorene	ND	0.660	mg/kg dry	2	EPA 8270C	12/26/01	12/27/01	1120852	
Hexachlorobenzene	ND	0.660	"	"	"	"	"	"	
Hexachlorobutadiene	ND	2.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	2.00	"	"	"	"	"	"	
Hexachloroethane	ND	2.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.660	"	"	"	"	"	"	
Isophorone	ND	0.660	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.660	"	"	"	"	"	"	
2-Methylphenol	ND	0.660	"	"	"	"	"	"	
3-,4-Methylphenol	**1.65**	0.660	"	"	"	"	"	"	
Naphthalene	ND	0.660	"	"	"	"	"	"	
2-Nitroaniline	ND	0.660	"	"	"	"	"	"	
3-Nitroaniline	ND	2.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.660	"	"	"	"	"	"	
Nitrobenzene	ND	0.660	"	"	"	"	"	"	
2-Nitrophenol	ND	0.660	"	"	"	"	"	"	
4-Nitrophenol	ND	2.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.660	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.660	"	"	"	"	"	"	
Pentachlorophenol	ND	2.00	"	"	"	"	"	"	
Phenanthrene	ND	0.660	"	"	"	"	"	"	
Phenol	ND	0.660	"	"	"	"	"	"	
Pyrene	**0.996**	0.660	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.660	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.660	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.660	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*69.2 %*	*44-146*							
Surr: 2-Fluorophenol	*71.0 %*	*42-126*							
Surr: Nitrobenzene-d5	*62.4 %*	*42-126*							
Surr: Phenol-d6	*65.9 %*	*42-131*							
Surr: p-Terphenyl-d14	*88.5 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*82.9 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/04/02	1120967	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/04/02	1120967	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*99.7 %*	*44-146*							
Surr: 2-Fluorophenol	*70.8 %*	*42-126*							
Surr: Nitrobenzene-d5	*87.8 %*	*42-126*							
Surr: Phenol-d6	*69.3 %*	*42-131*							
Surr: p-Terphenyl-d14	*115 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*87.7 %*	*48-119*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/03/02	1120967	
Acenaphthylene	ND	0.330	"	"	"	"	"	"	
Anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.330	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.330	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.330	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.330	"	"	"	"	"	"	
Benzoic Acid	ND	1.00	"	"	"	"	"	"	
Benzyl alcohol	ND	0.330	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.330	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.330	"	"	"	"	"	"	
4-Chloroaniline	ND	2.00	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.330	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.330	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.330	"	"	"	"	"	"	
2-Chlorophenol	ND	0.330	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.330	"	"	"	"	"	"	
Chrysene	ND	0.330	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	1.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.330	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.330	"	"	"	"	"	"	
Dibenzofuran	ND	0.330	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	1.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.330	"	"	"	"	"	"	
Diethyl phthalate	ND	0.330	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	1.00	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.330	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	1.00	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	2.00	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	0.500	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2.00	"	"	"	"	"	"	
Fluoranthene	ND	0.330	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
Fluorene	ND	0.330	mg/kg dry	1	EPA 8270C	12/31/01	01/03/02	1120967	
Hexachlorobenzene	ND	0.330	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	1.00	"	"	"	"	"	"	
Hexachloroethane	ND	1.00	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.330	"	"	"	"	"	"	
Isophorone	ND	0.330	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.330	"	"	"	"	"	"	
2-Methylphenol	ND	0.330	"	"	"	"	"	"	
3-,4-Methylphenol	ND	0.330	"	"	"	"	"	"	
Naphthalene	ND	0.330	"	"	"	"	"	"	
2-Nitroaniline	ND	0.330	"	"	"	"	"	"	
3-Nitroaniline	ND	1.00	"	"	"	"	"	"	
4-Nitroaniline	ND	0.330	"	"	"	"	"	"	
Nitrobenzene	ND	0.330	"	"	"	"	"	"	
2-Nitrophenol	ND	0.330	"	"	"	"	"	"	
4-Nitrophenol	ND	1.00	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.330	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	0.330	"	"	"	"	"	"	
Pentachlorophenol	ND	1.00	"	"	"	"	"	"	
Phenanthrene	ND	0.330	"	"	"	"	"	"	
Phenol	ND	0.330	"	"	"	"	"	"	
Pyrene	ND	0.330	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.330	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.330	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*72.7 %*	*44-146*							
Surr: 2-Fluorophenol	*130 %*	*42-126*							*S-08*
Surr: Nitrobenzene-d5	*70.1 %*	*42-126*							
Surr: Phenol-d6	*130 %*	*42-131*							
Surr: p-Terphenyl-d14	*78.1 %*	*49-150*							
Surr: 2,4,6-Tribromophenol	*153 %*	*48-119*							*S-08*

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	12/31/01	01/02/02	1120966	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	**104**	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	**161**	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	**116**	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	**199**	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	**105**	13.4	"	"	"	"	"	"	
Chrysene	**131**	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	**26.4**	13.4	"	"	"	"	"	"	
Fluoranthene	**180**	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**135**	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	**32.3**	13.4	"	"	"	"	"	"	
Pyrene	**276**	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*80.2 %*	*40-150*							
Surr: Pyrene-d10	*139 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*82.0 %*	*40-150*							
S-PP02-9 (P1L0598-08) Soil					Sampled: 12/18/01 Received: 12/19/01				**O-07**
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*83.9 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-9 (P1L0598-08) Soil					Sampled: 12/18/01	Received: 12/19/01			**O-07**
Surr: Pyrene-d10	*93.2 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*83.9 %*	*40-150*							
S-PP02-13 (P1L0598-09) Soil					Sampled: 12/18/01	Received: 12/19/01			**O-07**
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	**15.4**	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	**22.0**	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	**13.4**	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	**23.2**	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	**15.7**	13.4	"	"	"	"	"	"	
Chrysene	**19.4**	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	**43.0**	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	**15.8**	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	**30.7**	13.4	"	"	"	"	"	"	
Pyrene	**57.2**	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*105 %*	*40-150*							
Surr: Pyrene-d10	*120 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*117 %*	*40-150*							
S-PP02-17 (P1L0598-10) Soil					Sampled: 12/18/01	Received: 12/19/01			**O-07**
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP02-17 (P1L0598-10) Soil					Sampled: 12/18/01 Received: 12/19/01				**O-07**
Naphthalene	ND	13.4	ug/kg dry	1	EPA 8270m	01/11/02	01/15/02	2010323	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*89.3 %*	*40-150*							
Surr: Pyrene-d10	*95.2 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*102 %*	*40-150*							
S-PP03-5.5 (P1L0598-12) Soil					Sampled: 12/18/01 Received: 12/19/01				
Acenaphthene	ND	13.4	ug/kg dry	1	EPA 8270m	12/31/01	01/02/02	1120966	
Acenaphthylene	ND	13.4	"	"	"	"	"	"	
Anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) anthracene	ND	13.4	"	"	"	"	"	"	
Benzo (a) pyrene	ND	13.4	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	13.4	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	13.4	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	13.4	"	"	"	"	"	"	
Chrysene	ND	13.4	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	13.4	"	"	"	"	"	"	
Fluoranthene	ND	13.4	"	"	"	"	"	"	
Fluorene	ND	13.4	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	13.4	"	"	"	"	"	"	
Naphthalene	ND	13.4	"	"	"	"	"	"	
Phenanthrene	ND	13.4	"	"	"	"	"	"	
Pyrene	ND	13.4	"	"	"	"	"	"	
Surr: Fluorene-d10	*91.5 %*	*40-150*							
Surr: Pyrene-d10	*150 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*90.6 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP01-3 (P1L0598-01) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**86.1**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP01-6 (P1L0598-02) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**84.7**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP01-9 (P1L0598-03) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**86.9**	1.00	% by Weight	1	NCA SOP	12/26/01	12/27/01	1120821	
S-PP01-13 (P1L0598-04) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**90.0**	1.00	% by Weight	1	NCA SOP	12/26/01	12/27/01	1120821	
S-PP02-1.5 (P1L0598-06) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**88.8**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP02-5 (P1L0598-07) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**85.2**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP02-9 (P1L0598-08) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**81.8**	1.00	% by Weight	1	NCA SOP	01/11/02	01/14/02	2010331	
S-PP02-13 (P1L0598-09) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**79.0**	1.00	% by Weight	1	NCA SOP	01/11/02	01/14/02	2010331	
S-PP02-17 (P1L0598-10) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**79.6**	1.00	% by Weight	1	NCA SOP	01/11/02	01/14/02	2010331	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP03-1 (P1L0598-11) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**73.9**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP03-5.5 (P1L0598-12) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**76.9**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP04-13 (P1L0598-16) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**86.6**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-6 (P1L0598-20) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**91.4**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-9 (P1L0598-21) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**91.2**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-13 (P1L0598-22) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**91.0**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	
S-PP05-17 (P1L0598-23) Soil					Sampled: 12/18/01 Received: 12/19/01				
% Solids	**92.0**	1.00	% by Weight	1	NCA SOP	12/20/01	12/21/01	1120720	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120706 - TPH-HCID Extraction										
Blank (1120706-BLK1)				Prepared & Analyzed: 12/20/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*79.0*	*50-150*			
Duplicate (1120706-DUP1)	**Source: P1L0495-01**			Prepared & Analyzed: 12/20/01						
Gasoline Range Hydrocarbons	DET	20.0	mg/kg dry		DET			16.8	50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	ND	100	"		ND				50	
Surr: 1-Chlorooctadecane	*DET*		"	*5.14*		*86.8*	*50-150*			
Duplicate (1120706-DUP2)	**Source: P1L0598-01**			Prepared & Analyzed: 12/20/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	DET	50.0	"		DET			8.38	50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			26.1	50	
Surr: 1-Chlorooctadecane	*DET*		"	*4.60*		*99.1*	*50-150*			
Batch 1120815 - TPH-HCID Extraction										
Blank (1120815-BLK1)				Prepared & Analyzed: 12/26/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*84.1*	*50-150*			
Duplicate (1120815-DUP1)	**Source: P1L0598-03**			Prepared & Analyzed: 12/26/01						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			62.5	50	Q-14
Surr: 1-Chlorooctadecane	*DET*		"	*4.56*		*89.3*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120919 - EPA 3550 Fuels										
Blank (1120919-BLK1)				Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*4.55*		"	*4.80*		*94.8*	*50-150*			
LCS (1120919-BS1)				Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	106	25.0	mg/kg	129		82.2	50-150			
Heavy Oil Range Hydrocarbons	67.0	50.0	"	79.0		84.8	50-150			
Surr: 1-Chlorooctadecane	*6.01*		"	*4.80*		*125*	*50-150*			
Duplicate (1120919-DUP1)	**Source: P1L0598-03**			Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	ND	25.0	mg/kg dry		ND			16.6	50	
Heavy Oil Range Hydrocarbons	168	50.0	"		112			40.0	50	
Surr: 1-Chlorooctadecane	*4.56*		"	*5.53*		*82.5*	*50-150*			
Duplicate (1120919-DUP2)	**Source: P1L0710-01**			Prepared: 12/28/01 Analyzed: 12/31/01						
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	ND	50.0	"		ND				50	
Surr: 1-Chlorooctadecane	*4.78*		"	*5.65*		*84.6*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120974 - EPA 3550 Fuels										
Blank (1120974-BLK1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*3.90*		"	*4.80*		*81.2*	*50-150*			
LCS (1120974-BS1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Diesel Range Organics	118	25.0	mg/kg	129		91.5	50-150			
Heavy Oil Range Hydrocarbons	79.7	50.0	"	79.0		101	50-150			
Surr: 1-Chlorooctadecane	*4.48*		"	*4.80*		*93.3*	*50-150*			
Duplicate (1120974-DUP1)	**Source: P1L0751-01**			Prepared: 12/31/01 Analyzed: 01/01/02						
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	ND	50.0	"		ND				50	
Surr: 1-Chlorooctadecane	*5.86*		"	*5.72*		*102*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120866 - EPA 7471										
Blank (1120866-BLK1)				Prepared & Analyzed: 12/27/01						
Mercury	ND	0.100	mg/kg							
LCS (1120866-BS1)				Prepared & Analyzed: 12/27/01						
Mercury	1.02	0.100	mg/kg	1.00		102	80-120			
Duplicate (1120866-DUP1)		**Source: P1L0598-16**		Prepared & Analyzed: 12/27/01						
Mercury	ND	0.100	mg/kg dry		ND				40	
Matrix Spike (1120866-MS1)		**Source: P1L0598-16**		Prepared & Analyzed: 12/27/01						
Mercury	1.16	0.100	mg/kg dry	1.15	ND	101	75-125			
Matrix Spike (1120866-MS2)		**Source: P1L0726-01**		Prepared & Analyzed: 12/27/01						
Mercury	1.24	0.100	mg/kg dry	1.25	ND	99.2	75-125			
Batch 1120935 - EPA 3050										
Blank (1120935-BLK1)				Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	ND	0.500	mg/kg							
Arsenic	ND	0.500	"							
Barium	ND	1.00	"							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Copper	ND	1.00	"							
Lead	ND	0.500	"							
Nickel	ND	1.00	"							
Zinc	ND	2.50	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120935 - EPA 3050										
LCS (1120935-BS1)				Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	5.38	0.500	mg/kg	5.00		108	80-120			
Arsenic	10.5	0.500	"	10.0		105	80-120			
Barium	10.5	1.00	"	10.0		105	80-120			
Cadmium	10.8	0.500	"	10.0		108	80-120			
Chromium	9.08	0.500	"	10.0		90.8	80-120			
Copper	10.1	1.00	"	10.0		101	80-120			
Lead	11.3	0.500	"	10.0		113	80-120			
Nickel	9.88	1.00	"	10.0		98.8	80-120			
Zinc	11.3	2.50	"	10.0		113	80-120			
LCS Dup (1120935-BSD1)				Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	5.32	0.500	mg/kg	5.00		106	80-120	1.12	200	
Arsenic	10.1	0.500	"	10.0		101	80-120	3.88	200	
Barium	10.4	1.00	"	10.0		104	80-120	0.957	20	
Cadmium	10.9	0.500	"	10.0		109	80-120	0.922	200	
Chromium	9.48	0.500	"	10.0		94.8	80-120	4.31	40	
Copper	9.79	1.00	"	10.0		97.9	80-120	3.12	200	
Lead	11.3	0.500	"	10.0		113	80-120	0.00	200	
Nickel	9.64	1.00	"	10.0		96.4	80-120	2.46	200	
Zinc	11.1	2.50	"	10.0		111	80-120	1.79	200	
Duplicate (1120935-DUP1)		**Source: P1L0399-02**		Prepared: 12/28/01 Analyzed: 01/02/02						
Antimony	2.24	0.500	mg/kg dry		1.28			54.5	40	Q-14
Arsenic	24.1	0.500	"		23.0			4.67	40	
Barium	209	1.00	"		182			13.8	40	
Cadmium	0.711	0.500	"		ND			45.4	40	Q-14
Chromium	47.4	0.500	"		33.7			33.8	40	
Copper	96.5	1.00	"		112			14.9	40	
Lead	319	0.500	"		314			1.58	40	
Nickel	41.0	1.00	"		34.1			18.4	40	
Zinc	509	2.50	"		442			14.1	40	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120935 - EPA 3050										
Matrix Spike (1120935-MS1)	**Source: P1L0399-02**			Prepared: 12/28/01		Analyzed: 01/02/02				
Antimony	4.25	0.500	mg/kg dry	6.13	1.28	48.5	75-125			Q-14
Arsenic	34.2	0.500	"	12.3	23.0	91.1	75-125			
Barium	175	1.00	"	12.3	182	NR	75-125			Q-03
Cadmium	14.1	0.500	"	12.3	ND	111	75-125			
Chromium	46.8	0.500	"	12.3	33.7	107	75-125			
Copper	91.0	1.00	"	12.3	112	NR	75-125			Q-03
Lead	310	0.500	"	12.3	314	NR	75-125			Q-03
Nickel	45.1	1.00	"	12.3	34.1	89.4	75-125			
Zinc	418	2.50	"	12.3	442	NR	75-125			Q-14
Matrix Spike Dup (1120935-MSD1)	**Source: P1L0399-02**			Prepared: 12/28/01		Analyzed: 01/02/02				
Antimony	4.24	0.500	mg/kg dry	6.13	1.28	48.3	75-125	0.236	200	Q-14
Arsenic	34.5	0.500	"	12.3	23.0	93.5	75-125	0.873	40	
Barium	173	1.00	"	12.3	182	NR	75-125	1.15	40	Q-03
Cadmium	14.0	0.500	"	12.3	ND	110	75-125	0.712	40	
Chromium	46.2	0.500	"	12.3	33.7	102	75-125	1.29	40	
Copper	90.0	1.00	"	12.3	112	NR	75-125	1.10	40	Q-03
Lead	311	0.500	"	12.3	314	NR	75-125	0.322	40	Q-03
Nickel	44.5	1.00	"	12.3	34.1	84.6	75-125	1.34	40	
Zinc	409	2.50	"	12.3	442	NR	75-125	2.18	40	Q-14

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120747 - EPA 3550										
Blank (1120747-BLK1)				Prepared & Analyzed: 12/21/01						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*33.4*		"	*33.3*		*100*	*36-140*			
Surr: Decachlorobiphenyl	*33.1*		"	*33.3*		*99.4*	*16-149*			
LCS (1120747-BS1)				Prepared & Analyzed: 12/21/01						
Aroclor 1016	337	67.0	ug/kg	333		101	57-135			
Aroclor 1260	380	67.0	"	333		114	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*33.1*		"	*33.3*		*99.4*	*36-140*			
Surr: Decachlorobiphenyl	*34.6*		"	*33.3*		*104*	*16-149*			
Matrix Spike (1120747-MS1)	**Source: P1L0625-10**			Prepared & Analyzed: 12/21/01						
Aroclor 1016	306	67.0	ug/kg dry	460	ND	66.5	37-145			
Aroclor 1260	393	67.0	"	460	ND	85.4	25-144			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*32.6*		"	*46.0*		*70.9*	*36-140*			
Surr: Decachlorobiphenyl	*36.0*		"	*46.0*		*78.3*	*16-149*			
Matrix Spike Dup (1120747-MSD1)	**Source: P1L0625-10**			Prepared & Analyzed: 12/21/01						
Aroclor 1016	307	67.0	ug/kg dry	460	ND	66.7	37-145	0.326	26	
Aroclor 1260	386	67.0	"	460	ND	83.9	25-144	1.80	30	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*30.9*		"	*46.0*		*67.2*	*36-140*			
Surr: Decachlorobiphenyl	*33.9*		"	*46.0*		*73.7*	*16-149*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120913 - EPA 3550										
Blank (1120913-BLK1)				Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*37.7*		"	*33.3*		*113*	*36-140*			
Surr: Decachlorobiphenyl	*32.0*		"	*33.3*		*96.1*	*16-149*			
LCS (1120913-BS1)				Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	350	67.0	ug/kg	333		105	57-135			
Aroclor 1260	303	67.0	"	333		91.0	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*38.9*		"	*33.3*		*117*	*36-140*			
Surr: Decachlorobiphenyl	*32.0*		"	*33.3*		*96.1*	*16-149*			
Matrix Spike (1120913-MS1)	**Source: P1L0598-07**			Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	379	67.0	ug/kg dry	391	ND	96.9	37-145			
Aroclor 1260	295	67.0	"	391	ND	75.4	25-144			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*40.4*		"	*39.1*		*103*	*36-140*			
Surr: Decachlorobiphenyl	*27.3*		"	*39.1*		*69.8*	*16-149*			
Matrix Spike Dup (1120913-MSD1)	**Source: P1L0598-07**			Prepared: 12/28/01 Analyzed: 01/03/02						
Aroclor 1016	381	67.0	ug/kg dry	391	ND	97.4	37-145	0.526	26	
Aroclor 1260	311	67.0	"	391	ND	79.5	25-144	5.28	30	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*39.3*		"	*39.1*		*101*	*36-140*			
Surr: Decachlorobiphenyl	*28.6*		"	*39.1*		*73.1*	*16-149*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120874 - EPA 5035										
Blank (1120874-BLK1)				Prepared: 12/27/01 Analyzed: 12/28/01						
Acetone	ND	2500	ug/kg							
Benzene	ND	100	"							
Bromobenzene	ND	100	"							
Bromochloromethane	ND	100	"							
Bromodichloromethane	ND	100	"							
Bromoform	ND	100	"							
Bromomethane	ND	500	"							
2-Butanone	ND	1000	"							
n-Butylbenzene	ND	500	"							
sec-Butylbenzene	ND	100	"							
tert-Butylbenzene	ND	100	"							
Carbon disulfide	ND	1000	"							
Carbon tetrachloride	ND	100	"							
Chlorobenzene	ND	100	"							
Chloroethane	ND	100	"							
Chloroform	ND	100	"							
Chloromethane	ND	500	"							
2-Chlorotoluene	ND	100	"							
4-Chlorotoluene	ND	100	"							
1,2-Dibromo-3-chloropropane	ND	500	"							
Dibromochloromethane	ND	100	"							
1,2-Dibromoethane	ND	100	"							
Dibromomethane	ND	100	"							
1,2-Dichlorobenzene	ND	100	"							
1,3-Dichlorobenzene	ND	100	"							
1,4-Dichlorobenzene	ND	100	"							
Dichlorodifluoromethane	ND	500	"							
1,1-Dichloroethane	ND	100	"							
1,2-Dichloroethane	ND	100	"							
1,1-Dichloroethene	ND	100	"							
cis-1,2-Dichloroethene	ND	100	"							
trans-1,2-Dichloroethene	ND	100	"							
1,2-Dichloropropane	ND	100	"							
1,3-Dichloropropane	ND	100	"							
2,2-Dichloropropane	ND	100	"							
1,1-Dichloropropene	ND	100	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120874 - EPA 5035										
Blank (1120874-BLK1)				Prepared: 12/27/01 Analyzed: 12/28/01						
cis-1,3-Dichloropropene	ND	100	ug/kg							
trans-1,3-Dichloropropene	ND	100	"							
Ethylbenzene	ND	100	"							
Hexachlorobutadiene	ND	200	"							
2-Hexanone	ND	1000	"							
Isopropylbenzene	ND	200	"							
p-Isopropyltoluene	ND	200	"							
4-Methyl-2-pentanone	ND	500	"							
Methyl tert-butyl ether	ND	100	"							
Methylene chloride	ND	500	"							
Naphthalene	ND	200	"							
n-Propylbenzene	ND	100	"							
Styrene	ND	100	"							
1,1,1,2-Tetrachloroethane	ND	100	"							
1,1,2,2-Tetrachloroethane	ND	100	"							
Tetrachloroethene	ND	100	"							
Toluene	ND	100	"							
1,2,3-Trichlorobenzene	ND	100	"							
1,2,4-Trichlorobenzene	ND	100	"							
1,1,1-Trichloroethane	ND	100	"							
1,1,2-Trichloroethane	ND	100	"							
Trichloroethene	ND	100	"							
Trichlorofluoromethane	ND	100	"							
1,2,3-Trichloropropane	ND	100	"							
1,2,4-Trimethylbenzene	ND	100	"							
1,3,5-Trimethylbenzene	ND	100	"							
Vinyl chloride	ND	100	"							
o-Xylene	ND	100	"							
m,p-Xylene	ND	200	"							
Surr: 4-BFB	*2120*		"	*2000*		*106*	*70-130*			
Surr: 1,2-DCA-d4	*2220*		"	*2000*		*111*	*70-130*			
Surr: Dibromofluoromethane	*2150*		"	*2000*		*108*	*70-130*			
Surr: Toluene-d8	*2320*		"	*2000*		*116*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120874 - EPA 5035										
LCS (1120874-BS1)				Prepared: 12/27/01 Analyzed: 12/28/01						
Benzene	2530	100	ug/kg	2500		101	80-135			
Chlorobenzene	2500	100	"	2500		100	80-135			
1,1-Dichloroethene	2290	100	"	2500		91.6	60-150			
Toluene	2560	100	"	2500		102	80-130			
Trichloroethene	2360	100	"	2500		94.4	70-135			
Surr: 4-BFB	*2080*		"	*2000*		*104*	*70-130*			
Surr: 1,2-DCA-d4	*2230*		"	*2000*		*112*	*70-130*			
Surr: Dibromofluoromethane	*2100*		"	*2000*		*105*	*70-130*			
Surr: Toluene-d8	*2220*		"	*2000*		*111*	*70-130*			
Matrix Spike (1120874-MS1)	**Source: P1L0598-01**			Prepared: 12/27/01 Analyzed: 12/28/01						
Benzene	2780	100	ug/kg dry	2900	ND	95.9	60-135			
Chlorobenzene	2810	100	"	2900	ND	96.9	65-125			
1,1-Dichloroethene	2490	100	"	2900	ND	85.9	60-135			
Toluene	2890	100	"	2900	ND	99.2	60-125			
Trichloroethene	2800	100	"	2900	ND	96.6	60-125			
Surr: 4-BFB	*2190*		"	*2320*		*94.4*	*70-130*			
Surr: 1,2-DCA-d4	*2700*		"	*2320*		*116*	*70-130*			
Surr: Dibromofluoromethane	*2390*		"	*2320*		*103*	*70-130*			
Surr: Toluene-d8	*2400*		"	*2320*		*103*	*70-130*			
Matrix Spike Dup (1120874-MSD1)	**Source: P1L0598-01**			Prepared: 12/27/01 Analyzed: 12/28/01						
Benzene	2820	100	ug/kg dry	2900	ND	97.2	60-135	1.43	25	
Chlorobenzene	2860	100	"	2900	ND	98.6	65-125	1.76	25	
1,1-Dichloroethene	2480	100	"	2900	ND	85.5	60-135	0.402	25	
Toluene	2900	100	"	2900	ND	99.5	60-125	0.345	25	
Trichloroethene	2720	100	"	2900	ND	93.8	60-125	2.90	25	
Surr: 4-BFB	*2190*		"	*2320*		*94.4*	*70-130*			
Surr: 1,2-DCA-d4	*2740*		"	*2320*		*118*	*70-130*			
Surr: Dibromofluoromethane	*2350*		"	*2320*		*101*	*70-130*			
Surr: Toluene-d8	*2430*		"	*2320*		*105*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120876 - EPA 5030B										
Blank (1120876-BLK1)				Prepared & Analyzed: 12/27/01						
Acetone	ND	25.0	ug/l							
Benzene	ND	1.00	"							
Bromobenzene	ND	1.00	"							
Bromochloromethane	ND	1.00	"							
Bromodichloromethane	ND	1.00	"							
Bromoform	ND	1.00	"							
Bromomethane	ND	5.00	"							
2-Butanone	ND	10.0	"							
n-Butylbenzene	ND	5.00	"							
sec-Butylbenzene	ND	1.00	"							
tert-Butylbenzene	ND	1.00	"							
Carbon disulfide	ND	10.0	"							
Carbon tetrachloride	ND	1.00	"							
Chlorobenzene	ND	1.00	"							
Chloroethane	ND	1.00	"							
Chloroform	ND	1.00	"							
Chloromethane	ND	5.00	"							
2-Chlorotoluene	ND	1.00	"							
4-Chlorotoluene	ND	1.00	"							
1,2-Dibromo-3-chloropropane	ND	5.00	"							
Dibromochloromethane	ND	1.00	"							
1,2-Dibromoethane	ND	1.00	"							
Dibromomethane	ND	1.00	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorodifluoromethane	ND	5.00	"							
1,1-Dichloroethane	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
1,1-Dichloroethene	ND	1.00	"							
cis-1,2-Dichloroethene	ND	1.00	"							
trans-1,2-Dichloroethene	ND	1.00	"							
1,2-Dichloropropane	ND	1.00	"							
1,3-Dichloropropane	ND	1.00	"							
2,2-Dichloropropane	ND	1.00	"							
1,1-Dichloropropene	ND	1.00	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120876 - EPA 5030B										
Blank (1120876-BLK1)				Prepared & Analyzed: 12/27/01						
cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	*19.0*		"	*20.0*		*95.0*	*84-118*			
Surr: 1,2-DCA-d4	*22.4*		"	*20.0*		*112*	*79-123*			
Surr: Dibromofluoromethane	*20.2*		"	*20.0*		*101*	*81-121*			
Surr: Toluene-d8	*19.7*		"	*20.0*		*98.5*	*87-111*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120876 - EPA 5030B										
LCS (1120876-BS1)				Prepared & Analyzed: 12/27/01						
Benzene	20.2	1.00	ug/l	20.0		101	80-125			
Chlorobenzene	21.3	1.00	"	20.0		106	80-125			
1,1-Dichloroethene	18.8	1.00	"	20.0		94.0	70-135			
Toluene	21.1	1.00	"	20.0		106	80-125			
Trichloroethene	20.8	1.00	"	20.0		104	70-130			
Surr: 4-BFB	*20.4*		"	*20.0*		*102*	*84-118*			
Surr: 1,2-DCA-d4	*22.6*		"	*20.0*		*113*	*79-123*			
Surr: Dibromofluoromethane	*21.3*		"	*20.0*		*106*	*81-121*			
Surr: Toluene-d8	*20.3*		"	*20.0*		*102*	*87-111*			
Matrix Spike (1120876-MS1)	**Source: P1L0576-01**			Prepared & Analyzed: 12/27/01						
Benzene	21.3	1.00	ug/l	20.0	ND	106	80-125			
Chlorobenzene	21.6	1.00	"	20.0	ND	108	80-125			
1,1-Dichloroethene	20.8	1.00	"	20.0	ND	104	70-135			
Toluene	21.0	1.00	"	20.0	ND	105	80-125			
Trichloroethene	21.4	1.00	"	20.0	ND	107	70-130			
Surr: 4-BFB	*20.0*		"	*20.0*		*100*	*84-118*			
Surr: 1,2-DCA-d4	*22.4*		"	*20.0*		*112*	*79-123*			
Surr: Dibromofluoromethane	*20.9*		"	*20.0*		*104*	*81-121*			
Surr: Toluene-d8	*19.6*		"	*20.0*		*98.0*	*87-111*			
Matrix Spike Dup (1120876-MSD1)	**Source: P1L0576-01**			Prepared & Analyzed: 12/27/01						
Benzene	21.6	1.00	ug/l	20.0	ND	108	80-125	1.40	25	
Chlorobenzene	21.7	1.00	"	20.0	ND	108	80-125	0.462	25	
1,1-Dichloroethene	21.7	1.00	"	20.0	ND	108	70-135	4.24	25	
Toluene	21.1	1.00	"	20.0	ND	106	80-125	0.475	25	
Trichloroethene	21.5	1.00	"	20.0	ND	108	70-130	0.466	25	
Surr: 4-BFB	*20.5*		"	*20.0*		*102*	*84-118*			
Surr: 1,2-DCA-d4	*22.0*		"	*20.0*		*110*	*79-123*			
Surr: Dibromofluoromethane	*21.2*		"	*20.0*		*106*	*81-121*			
Surr: Toluene-d8	*19.5*		"	*20.0*		*97.5*	*87-111*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
Blank (1120852-BLK1)				Prepared: 12/26/01 Analyzed: 12/27/01						
Acenaphthene	ND	0.330	mg/kg							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
Bis(2-chloroethoxy)methane	ND	0.330	"							
Bis(2-chloroethyl)ether	ND	0.330	"							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
3,3'-Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
Blank (1120852-BLK1)				Prepared: 12/26/01 Analyzed: 12/27/01						
2,6-Dinitrotoluene	ND	0.500	mg/kg							
Bis(2-ethylhexyl)phthalate	ND	2.00	"							
Fluoranthene	ND	0.330	"							
Fluorene	ND	0.330	"							
Hexachlorobenzene	ND	0.330	"							
Hexachlorobutadiene	ND	1.00	"							
Hexachlorocyclopentadiene	ND	1.00	"							
Hexachloroethane	ND	1.00	"							
Indeno (1,2,3-cd) pyrene	ND	0.330	"							
Isophorone	ND	0.330	"							
2-Methylnaphthalene	ND	0.330	"							
2-Methylphenol	ND	0.330	"							
3-,4-Methylphenol	ND	0.330	"							
Naphthalene	ND	0.330	"							
2-Nitroaniline	ND	0.330	"							
3-Nitroaniline	ND	1.00	"							
4-Nitroaniline	ND	0.330	"							
Nitrobenzene	ND	0.330	"							
2-Nitrophenol	ND	0.330	"							
4-Nitrophenol	ND	1.00	"							
N-Nitrosodi-n-propylamine	ND	0.330	"							
N-Nitrosodiphenylamine	ND	0.330	"							
Pentachlorophenol	ND	1.00	"							
Phenanthrene	ND	0.330	"							
Phenol	ND	0.330	"							
Pyrene	ND	0.330	"							
1,2,4-Trichlorobenzene	ND	0.330	"							
2,4,5-Trichlorophenol	ND	0.330	"							
2,4,6-Trichlorophenol	ND	0.330	"							
Surr: 2-Fluorobiphenyl	*1.90*		"	*2.50*		*76.0*	*44-146*			
Surr: 2-Fluorophenol	*4.83*		"	*5.00*		*96.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.50*		"	*2.50*		*60.0*	*42-126*			
Surr: Phenol-d6	*4.00*		"	*5.00*		*80.0*	*42-131*			
Surr: p-Terphenyl-d14	*2.67*		"	*2.50*		*107*	*49-150*			
Surr: 2,4,6-Tribromophenol	*3.67*		"	*5.00*		*73.4*	*48-119*			

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
LCS (1120852-BS1)				Prepared: 12/26/01 Analyzed: 12/27/01						
Acenaphthene	2.07	0.330	mg/kg	2.50		82.8	30-115			
4-Chloro-3-methylphenol	4.70	0.330	"	5.00		94.0	40-110			
2-Chlorophenol	4.83	0.330	"	5.00		96.6	40-100			
1,4-Dichlorobenzene	1.40	1.00	"	2.50		56.0	10-100			
2,4-Dinitrotoluene	2.33	0.500	"	2.50		93.2	30-110			
4-Nitrophenol	3.90	1.00	"	5.00		78.0	30-130			
N-Nitrosodi-n-propylamine	1.93	0.330	"	2.50		77.2	30-110			
Pentachlorophenol	4.17	1.00	"	5.00		83.4	14-120			
Phenol	4.90	0.330	"	5.00		98.0	35-100			
Pyrene	2.40	0.330	"	2.50		96.0	30-115			
1,2,4-Trichlorobenzene	1.90	0.330	"	2.50		76.0	18-100			
Surr: 2-Fluorobiphenyl	*2.13*		*"*	*2.50*		*85.2*	*44-146*			
Surr: 2-Fluorophenol	*4.93*		*"*	*5.00*		*98.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.93*		*"*	*2.50*		*77.2*	*42-126*			
Surr: Phenol-d6	*5.60*		*"*	*5.00*		*112*	*42-131*			
Surr: p-Terphenyl-d14	*2.40*		*"*	*2.50*		*96.0*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.90*		*"*	*5.00*		*98.0*	*48-119*			
Matrix Spike (1120852-MS1)	**Source: P1L0598-02**			Prepared: 12/26/01 Analyzed: 12/27/01						
Acenaphthene	2.91		mg/kg dry	2.95	ND	98.6	40-110			
4-Chloro-3-methylphenol	5.19		"	5.90	ND	88.0	40-110			
2-Chlorophenol	4.80		"	5.90	ND	81.4	40-100			
1,4-Dichlorobenzene	1.10		"	2.95	ND	37.3	10-100			
2,4-Dinitrotoluene	2.36		"	2.95	ND	80.0	40-110			
4-Nitrophenol	5.51		"	5.90	ND	93.4	40-125			
N-Nitrosodi-n-propylamine	2.20		"	2.95	ND	74.6	30-110			
Pentachlorophenol	4.01		"	5.90	ND	68.0	25-110			
Phenol	4.56		"	5.90	ND	77.3	35-100			
Pyrene	5.04		"	2.95	0.996	137	40-110			Q-14
1,2,4-Trichlorobenzene	1.65		"	2.95	ND	55.9	30-101			
Surr: 2-Fluorobiphenyl	*2.12*		*"*	*2.95*		*71.9*	*44-146*			
Surr: 2-Fluorophenol	*4.56*		*"*	*5.90*		*77.3*	*42-126*			
Surr: Nitrobenzene-d5	*1.97*		*"*	*2.95*		*66.8*	*42-126*			
Surr: Phenol-d6	*5.19*		*"*	*5.90*		*88.0*	*42-131*			
Surr: p-Terphenyl-d14	*2.44*		*"*	*2.95*		*82.7*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.35*		*"*	*5.90*		*90.7*	*48-119*			

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120852 - EPA 3550										
Matrix Spike Dup (1120852-MSD1)	**Source: P1L0598-02**			Prepared: 12/26/01		Analyzed: 12/27/01				
Acenaphthene	2.68		mg/kg dry	2.95	ND	90.8	40-110	8.23	40	
4-Chloro-3-methylphenol	4.88		"	5.90	ND	82.7	40-110	6.16	40	
2-Chlorophenol	4.72		"	5.90	ND	80.0	40-100	1.68	40	
1,4-Dichlorobenzene	0.944		"	2.95	ND	32.0	10-100	15.3	60	
2,4-Dinitrotoluene	2.36		"	2.95	ND	80.0	40-110	0.00	40	
4-Nitrophenol	5.59		"	5.90	ND	94.7	40-125	1.44	40	
N-Nitrosodi-n-propylamine	2.20		"	2.95	ND	74.6	30-110	0.00	40	
Pentachlorophenol	4.01		"	5.90	ND	68.0	25-110	0.00	60	
Phenol	4.56		"	5.90	ND	77.3	35-100	0.00	40	
Pyrene	4.88		"	2.95	0.996	132	40-110	3.23	40	Q-14
1,2,4-Trichlorobenzene	1.50		"	2.95	ND	50.8	30-101	9.52	60	
Surr: 2-Fluorobiphenyl	*1.89*		"	*2.95*		*64.1*	*44-146*			
Surr: 2-Fluorophenol	*4.64*		"	*5.90*		*78.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.81*		"	*2.95*		*61.4*	*42-126*			
Surr: Phenol-d6	*5.27*		"	*5.90*		*89.3*	*42-131*			
Surr: p-Terphenyl-d14	*2.36*		"	*2.95*		*80.0*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.19*		"	*5.90*		*88.0*	*48-119*			
Batch 1120967 - EPA 3550										
Blank (1120967-BLK1)				Prepared: 12/31/01		Analyzed: 01/04/02				
Acenaphthene	ND	0.330	mg/kg							
Acenaphthylene	ND	0.330	"							
Anthracene	ND	0.330	"							
Benzo (a) anthracene	ND	0.330	"							
Benzo (a) pyrene	ND	0.330	"							
Benzo (b) fluoranthene	ND	0.330	"							
Benzo (ghi) perylene	ND	0.330	"							
Benzo (k) fluoranthene	ND	0.330	"							
Benzoic Acid	ND	1.00	"							
Benzyl alcohol	ND	0.330	"							
4-Bromophenyl phenyl ether	ND	0.330	"							
Butyl benzyl phthalate	ND	0.330	"							
4-Chloro-3-methylphenol	ND	0.330	"							
4-Chloroaniline	ND	2.00	"							
Bis(2-chloroethoxy)methane	ND	0.330	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
Blank (1120967-BLK1)				Prepared: 12/31/01 Analyzed: 01/04/02						
Bis(2-chloroethyl)ether	ND	0.330	mg/kg							
Bis(2-chloroisopropyl)ether	ND	0.330	"							
2-Chloronaphthalene	ND	0.330	"							
2-Chlorophenol	ND	0.330	"							
4-Chlorophenyl phenyl ether	ND	0.330	"							
Chrysene	ND	0.330	"							
Di-n-butyl phthalate	ND	1.00	"							
Di-n-octyl phthalate	ND	0.330	"							
Dibenzo (a,h) anthracene	ND	0.330	"							
Dibenzofuran	ND	0.330	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
3,3'-Dichlorobenzidine	ND	1.00	"							
2,4-Dichlorophenol	ND	0.330	"							
Diethyl phthalate	ND	0.330	"							
2,4-Dimethylphenol	ND	1.00	"							
Dimethyl phthalate	ND	0.330	"							
4,6-Dinitro-2-methylphenol	ND	1.00	"							
2,4-Dinitrophenol	ND	2.00	"							
2,4-Dinitrotoluene	ND	0.500	"							
2,6-Dinitrotoluene	ND	0.500	"							
Bis(2-ethylhexyl)phthalate	ND	2.00	"							
Fluoranthene	ND	0.330	"							
Fluorene	ND	0.330	"							
Hexachlorobenzene	ND	0.330	"							
Hexachlorobutadiene	ND	1.00	"							
Hexachlorocyclopentadiene	ND	1.00	"							
Hexachloroethane	ND	1.00	"							
Indeno (1,2,3-cd) pyrene	ND	0.330	"							
Isophorone	ND	0.330	"							
2-Methylnaphthalene	ND	0.330	"							
2-Methylphenol	ND	0.330	"							
3-,4-Methylphenol	ND	0.330	"							
Naphthalene	ND	0.330	"							
2-Nitroaniline	ND	0.330	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
Blank (1120967-BLK1)				Prepared: 12/31/01 Analyzed: 01/04/02						
3-Nitroaniline	ND	1.00	mg/kg							
4-Nitroaniline	ND	0.330	"							
Nitrobenzene	ND	0.330	"							
2-Nitrophenol	ND	0.330	"							
4-Nitrophenol	ND	1.00	"							
N-Nitrosodi-n-propylamine	ND	0.330	"							
N-Nitrosodiphenylamine	ND	0.330	"							
Pentachlorophenol	ND	1.00	"							
Phenanthrene	ND	0.330	"							
Phenol	ND	0.330	"							
Pyrene	ND	0.330	"							
1,2,4-Trichlorobenzene	ND	0.330	"							
2,4,5-Trichlorophenol	ND	0.330	"							
2,4,6-Trichlorophenol	ND	0.330	"							
Surr: 2-Fluorobiphenyl	*1.43*		"	*2.50*		*57.2*	*44-146*			
Surr: 2-Fluorophenol	*2.89*		"	*5.00*		*57.8*	*42-126*			
Surr: Nitrobenzene-d5	*1.39*		"	*2.50*		*55.6*	*42-126*			
Surr: Phenol-d6	*2.93*		"	*5.00*		*58.6*	*42-131*			
Surr: p-Terphenyl-d14	*1.63*		"	*2.50*		*65.2*	*49-150*			
Surr: 2,4,6-Tribromophenol	*2.76*		"	*5.00*		*55.2*	*48-119*			
LCS (1120967-BS1)				Prepared: 12/31/01 Analyzed: 01/04/02						
Acenaphthene	1.71	0.330	mg/kg	2.50		68.4	30-115			
4-Chloro-3-methylphenol	2.74	0.330	"	5.00		54.8	40-110			
2-Chlorophenol	2.76	0.330	"	5.00		55.2	40-100			
1,4-Dichlorobenzene	1.57	1.00	"	2.50		62.8	10-100			
2,4-Dinitrotoluene	1.85	0.500	"	2.50		74.0	30-110			
4-Nitrophenol	2.89	1.00	"	5.00		57.8	30-130			
N-Nitrosodi-n-propylamine	1.61	0.330	"	2.50		64.4	30-110			
Pentachlorophenol	2.74	1.00	"	5.00		54.8	14-120			
Phenol	2.64	0.330	"	5.00		52.8	35-100			
Pyrene	1.88	0.330	"	2.50		75.2	30-115			
1,2,4-Trichlorobenzene	1.71	0.330	"	2.50		68.4	18-100			
Surr: 2-Fluorobiphenyl	*1.77*		"	*2.50*		*70.8*	*44-146*			
Surr: 2-Fluorophenol	*4.53*		"	*5.00*		*90.6*	*42-126*			
Surr: Nitrobenzene-d5	*1.70*		"	*2.50*		*68.0*	*42-126*			

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
LCS (1120967-BS1)				Prepared: 12/31/01		Analyzed: 01/04/02				
Surr: Phenol-d6	*4.29*		*mg/kg*	*5.00*		*85.8*	*42-131*			
Surr: p-Terphenyl-d14	*2.03*		*"*	*2.50*		*81.2*	*49-150*			
Surr: 2,4,6-Tribromophenol	*4.96*		*"*	*5.00*		*99.2*	*48-119*			
Matrix Spike (1120967-MS1)		**Source: P1L0598-03**		Prepared: 12/31/01		Analyzed: 01/04/02				
Acenaphthene	2.31	0.330	mg/kg dry	2.88	ND	80.2	40-110			
4-Chloro-3-methylphenol	4.73	0.330	"	5.76	ND	82.1	40-110			
2-Chlorophenol	3.84	0.330	"	5.76	ND	66.7	40-100			
1,4-Dichlorobenzene	1.60	1.00	"	2.88	ND	55.6	10-100			
2,4-Dinitrotoluene	2.53	0.500	"	2.88	ND	87.8	40-110			
4-Nitrophenol	5.34	1.00	"	5.76	ND	92.7	40-125			
N-Nitrosodi-n-propylamine	1.93	0.330	"	2.88	ND	67.0	30-110			
Pentachlorophenol	5.10	1.00	"	5.76	ND	88.5	25-110			
Phenol	3.83	0.330	"	5.76	ND	66.5	35-100			
Pyrene	2.59	0.330	"	2.88	ND	89.9	40-110			
1,2,4-Trichlorobenzene	1.92	0.330	"	2.88	ND	66.7	30-101			
Surr: 2-Fluorobiphenyl	*2.77*		*"*	*2.88*		*96.2*	*44-146*			
Surr: 2-Fluorophenol	*3.85*		*"*	*5.76*		*66.8*	*42-126*			
Surr: Nitrobenzene-d5	*2.36*		*"*	*2.88*		*81.9*	*42-126*			
Surr: Phenol-d6	*4.03*		*"*	*5.76*		*70.0*	*42-131*			
Surr: p-Terphenyl-d14	*3.22*		*"*	*2.88*		*112*	*49-150*			
Surr: 2,4,6-Tribromophenol	*5.16*		*"*	*5.76*		*89.6*	*48-119*			
Matrix Spike Dup (1120967-MSD1)		**Source: P1L0598-03**		Prepared: 12/31/01		Analyzed: 01/04/02				
Acenaphthene	2.20	0.330	mg/kg dry	2.88	ND	76.4	40-110	4.88	40	
4-Chloro-3-methylphenol	4.31	0.330	"	5.76	ND	74.8	40-110	9.29	40	
2-Chlorophenol	3.75	0.330	"	5.76	ND	65.1	40-100	2.37	40	
1,4-Dichlorobenzene	1.54	1.00	"	2.88	ND	53.5	10-100	3.82	60	
2,4-Dinitrotoluene	2.36	0.500	"	2.88	ND	81.9	40-110	6.95	40	
4-Nitrophenol	4.45	1.00	"	5.76	ND	77.3	40-125	18.2	40	
N-Nitrosodi-n-propylamine	1.87	0.330	"	2.88	ND	64.9	30-110	3.16	40	
Pentachlorophenol	4.31	1.00	"	5.76	ND	74.8	25-110	16.8	60	
Phenol	3.86	0.330	"	5.76	ND	67.0	35-100	0.780	40	
Pyrene	2.23	0.330	"	2.88	ND	77.4	40-110	14.9	40	
1,2,4-Trichlorobenzene	1.85	0.330	"	2.88	ND	64.2	30-101	3.71	60	
Surr: 2-Fluorobiphenyl	*2.31*		*"*	*2.88*		*80.2*	*44-146*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120967 - EPA 3550										
Matrix Spike Dup (1120967-MSD1)	**Source: P1L0598-03**			Prepared: 12/31/01 Analyzed: 01/04/02						
Surr: 2-Fluorophenol	*6.02*		*mg/kg dry*	*5.76*		*105*	*42-126*			
Surr: Nitrobenzene-d5	*1.93*		*"*	*2.88*		*67.0*	*42-126*			
Surr: Phenol-d6	*6.32*		*"*	*5.76*		*110*	*42-131*			
Surr: p-Terphenyl-d14	*2.59*		*"*	*2.88*		*89.9*	*49-150*			
Surr: 2,4,6-Tribromophenol	*7.43*		*"*	*5.76*		*129*	*48-119*			*Q-01*

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120966 - EPA 3550										
Blank (1120966-BLK1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*72.3*		"	*83.3*		*86.8*	*40-150*			
Surr: Pyrene-d10	*122*		"	*83.3*		*146*	*40-150*			
Surr: Benzo (a) pyrene-d12	*72.0*		"	*83.3*		*86.4*	*40-150*			
LCS (1120966-BS1)				Prepared: 12/31/01 Analyzed: 01/02/02						
Acenaphthene	164	13.4	ug/kg	167		98.2	33-139			
Benzo (a) pyrene	161	13.4	"	167		96.4	45-149			
Pyrene	184	13.4	"	167		110	39-138			
Surr: Fluorene-d10	*74.1*		"	*83.3*		*89.0*	*40-150*			
Surr: Pyrene-d10	*122*		"	*83.3*		*146*	*40-150*			
Surr: Benzo (a) pyrene-d12	*71.6*		"	*83.3*		*86.0*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120966 - EPA 3550										
Matrix Spike (1120966-MS1)	**Source: P1L0598-12**			Prepared: 12/31/01		Analyzed: 01/02/02				
Acenaphthene	193	13.4	ug/kg dry	217	ND	88.9	33-139			
Benzo (a) pyrene	210	13.4	"	217	ND	96.8	45-149			
Pyrene	225	13.4	"	217	ND	104	39-138			
Surr: Fluorene-d10	*88.9*		"	*108*		*82.3*	*40-150*			
Surr: Pyrene-d10	*148*		"	*108*		*137*	*40-150*			
Surr: Benzo (a) pyrene-d12	*91.1*		"	*108*		*84.4*	*40-150*			
Matrix Spike Dup (1120966-MSD1)	**Source: P1L0598-12**			Prepared: 12/31/01		Analyzed: 01/02/02				
Acenaphthene	198	13.4	ug/kg dry	217	ND	91.2	33-139	2.56	60	
Benzo (a) pyrene	224	13.4	"	217	ND	103	45-149	6.45	60	
Pyrene	242	13.4	"	217	ND	112	39-138	7.28	60	
Surr: Fluorene-d10	*91.6*		"	*108*		*84.8*	*40-150*			
Surr: Pyrene-d10	*154*		"	*108*		*143*	*40-150*			
Surr: Benzo (a) pyrene-d12	*92.7*		"	*108*		*85.8*	*40-150*			
Batch 2010323 - EPA 3550										
Blank (2010323-BLK1)				Prepared: 01/11/02		Analyzed: 01/15/02				
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*71.9*		"	*83.3*		*86.3*	*40-150*			
Surr: Pyrene-d10	*81.3*		"	*83.3*		*97.6*	*40-150*			

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010323 - EPA 3550										
Blank (2010323-BLK1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Surr: Benzo (a) pyrene-d12	*80.1*		*ug/kg*	*83.3*		*96.2*	*40-150*			
LCS (2010323-BS1)				Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	123	13.4	ug/kg	167		73.7	33-139			
Benzo (a) pyrene	127	13.4	"	167		76.0	45-149			
Pyrene	130	13.4	"	167		77.8	39-138			
Surr: Fluorene-d10	*75.1*		*"*	*83.3*		*90.2*	*40-150*			
Surr: Pyrene-d10	*84.8*		*"*	*83.3*		*102*	*40-150*			
Surr: Benzo (a) pyrene-d12	*80.8*		*"*	*83.3*		*97.0*	*40-150*			
Matrix Spike (2010323-MS1)	**Source: P2A0115-01**			Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	130	26.8	ug/kg dry	181	ND	71.8	33-139			
Benzo (a) pyrene	195	26.8	"	181	95.5	55.0	45-149			
Pyrene	191	26.8	"	181	66.3	68.9	39-138			
Surr: Fluorene-d10	*80.6*		*"*	*90.7*		*88.9*	*40-150*			
Surr: Pyrene-d10	*85.8*		*"*	*90.7*		*94.6*	*40-150*			
Surr: Benzo (a) pyrene-d12	*90.5*		*"*	*90.7*		*99.8*	*40-150*			
Matrix Spike Dup (2010323-MSD1)	**Source: P2A0115-01**			Prepared: 01/11/02 Analyzed: 01/15/02						
Acenaphthene	128	26.8	ug/kg dry	181	ND	70.7	33-139	1.55	60	
Benzo (a) pyrene	192	26.8	"	181	95.5	53.3	45-149	1.55	60	
Pyrene	169	26.8	"	181	66.3	56.7	39-138	12.2	60	
Surr: Fluorene-d10	*77.6*		*"*	*90.7*		*85.6*	*40-150*			
Surr: Pyrene-d10	*82.8*		*"*	*90.7*		*91.3*	*40-150*			
Surr: Benzo (a) pyrene-d12	*89.4*		*"*	*90.7*		*98.6*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1120720 - Dry Weight										
Duplicate (1120720-DUP1)		**Source: P1L0596-01**		Prepared: 12/20/01	Analyzed: 12/21/01					
% Solids	91.3	1.00	% by Weight		81.7			11.1	20	
Batch 1120821 - Dry Weight										
Duplicate (1120821-DUP1)		**Source: P1L0598-03**		Prepared: 12/26/01	Analyzed: 12/27/01					
% Solids	87.5	1.00	% by Weight		86.9			0.688	20	
Duplicate (1120821-DUP3)		**Source: P1L0665-05**		Prepared: 12/26/01	Analyzed: 12/27/01					
% Solids	84.0	1.00	% by Weight		83.3			0.837	20	
Duplicate (1120821-DUP4)		**Source: P1L0692-01**		Prepared: 12/26/01	Analyzed: 12/27/01					
% Solids	73.3	1.00	% by Weight		72.8			0.684	20	
Batch 2010331 - Dry Weight										
Duplicate (2010331-DUP1)		**Source: P1L0598-08**		Prepared: 01/11/02	Analyzed: 01/14/02					
% Solids	81.7	1.00	% by Weight		81.8			0.122	20	
Duplicate (2010331-DUP2)		**Source: P2A0240-01**		Prepared: 01/11/02	Analyzed: 01/14/02					
% Solids	93.9	1.00	% by Weight		93.8			0.107	20	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

Notes and Definitions

D-15	Detected hydrocarbons have non-petroleum peaks or elution pattern that suggests the presence of biogenic interference.
D-16	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.
D-17	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.
O-07	This sample was extracted outside the EPA recommended holding time.
Q-01	The spike recovery, and/or RPD, for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
Q-03	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
Q-14	The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
R-05	Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
S-08	Surrogate recovery is above control limits. Since no analytes were detected in the sample, the quality of the data has not been affected.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	Sample results reported on a wet weight basis (as received)
RPD	Relative Percent Difference

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	01/17/02 13:01

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Philip Nerenberg, Laboratory Manager

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CHAIN OF CUSTODY REPORT Work Order #:

CLIENT: Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: FAX:

INVOICE TO: Bridgewater Group
P.O. NUMBER: SS1-001-21

PROJECT NAME: Burgard
PROJECT NUMBER: SS1-001-21
SAMPLED BY: Virgin / Rieke

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 | 7 | 5 | 4 | 3 | 2 | 1 | <1
Petroleum Hydrocarbon Analyses (STD.): 5 | 4 | 3 | 2 | 1 | <1
OTHER — Please Specify
*Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	REQUESTED ANALYSES: Hold until Notice	MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. S-PP01-3	12/18/01	X	S	1		
2. S-PP01-6						
3. S-PP01-9						
4. S-PP01-13						
5. S-PP01-18						
6. S-PP02-1,5						
7. S-PP02-5						
8. S-PP02-9						
9. S-PP02-13						
10. S-PP02-17						
11. S-PP03-1						
12. S-PP03-5,5						
13. S-PP03-10						
14. S-PP03-13						
15. S-PP03-18						

RELINQUISHED BY: [signature] DATE: 12/19
PRINT NAME: Ross Rieke FIRM: Bridgewater Gp TIME: 1438

RECEIVED BY: [signature] DATE: 12/19/01
PRINT NAME: Kim Davis FIRM: NCA TIME: 1438

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 10.6°C

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20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 (541) 383-9310 FAX 382-7588

CHAIN OF CUSTODY REPORT

Work Order #:

CLIENT: Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: FAX:

INVOICE TO: Bridgewater Group
P.O. NUMBER: SS1-001-21

PROJECT NAME: Burgard
PROJECT NUMBER: SS1001-21
SAMPLED BY: Virgin/Rieke

TURNAROUND REQUEST in Business Days*

Organic & Inorganic Analyses: 10 (STD.) | 7 | 5 | 4 | 3 | 2 | 1 | <1

Petroleum Hydrocarbon Analyses: 5 (STD.) | 4 | 3 | 2 | 1 | <1

OTHER — Please Specify

*Turnaround Requests less than standard may incur Rush Charges.

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Hold Until Notice											8260 VOCs		MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. S-PP04-13	12/18/01	X													S	1		
2. S-PP04-17																		
3. S-PP04-26																		
4. S-PP05-1																		
5. S-PP05-6																		
6. S-PP05-9																		
7. S-PP05-13																		
8. S-PP05-17																		
9. S-PP05-21		X																
10. GW-PP02-~~18~~ 011218													X		W	2	container labeled "121801"	
11. GW-PP03-011218													X					
12. GW-PP04-011218													X					
13. GW-PP05-011218													X					
14.																		
15.																		

RELINQUISHED BY: [signature] DATE: 12/19
PRINT NAME: Ross Rieke FIRM: Bridgewater Gp TIME: 1438

RECEIVED BY: [signature] DATE: 12/19/01
PRINT NAME: Kim Davis FIRM: NCA TIME: 1438

RELINQUISHED BY: DATE:
PRINT NAME: FIRM: TIME:

RECEIVED BY: DATE:
PRINT NAME: FIRM: TIME:

ADDITIONAL REMARKS:

TEMP: 10.6°C

COC REV 3/99

PAGE OF

8 May, 2003

Ross Rieke
Bridgewater Group
4500 Kruse Way Suite 110
Lake Oswego, OR 97035

RE: Schnitzer

Enclosed are the results of analyses for samples received by the laboratory on 04/16/03 12:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Philip Nerenberg
Laboratory Manager

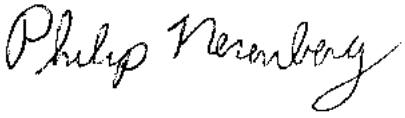
Work Orders included in this report:

P3D0520

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PP-06-06	P3D0520-01	Soil	04/15/03 12:50	04/16/03 12:25
PP-06-10	P3D0520-02	Soil	04/15/03 13:00	04/16/03 12:25
PP-06-14	P3D0520-03	Soil	04/15/03 13:01	04/16/03 12:25
PP-06-17	P3D0520-04	Soil	04/15/03 13:15	04/16/03 12:25
PP-08-06	P3D0520-05	Soil	04/15/03 09:00	04/16/03 12:25
PP-08-10	P3D0520-06	Soil	04/15/03 09:08	04/16/03 12:25
PP-08-14	P3D0520-07	Soil	04/15/03 09:10	04/16/03 12:25
PP-08-18	P3D0520-08	Soil	04/15/03 09:15	04/16/03 12:25
GW-PP-06-030415	P3D0520-09	Water	04/15/03 13:40	04/16/03 12:25
GW-PP-07-030415	P3D0520-10	Water	04/15/03 12:15	04/16/03 12:25
GW-PP-08-030415	P3D0520-11	Water	04/15/03 09:45	04/16/03 12:25
GW-PP-09-030415	P3D0520-12	Water	04/15/03 11:05	04/16/03 12:25



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Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-06 (P3D0520-01) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*93.0 %*	*50-150*							
PP-06-10 (P3D0520-02) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*90.4 %*	*50-150*							
PP-06-14 (P3D0520-03) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*99.1 %*	*50-150*							
PP-06-17 (P3D0520-04) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*94.6 %*	*50-150*							
PP-08-06 (P3D0520-05) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*114 %*	*50-150*							

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-08-10 (P3D0520-06) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*90.1 %*	*50-150*							
PP-08-14 (P3D0520-07) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*95.2 %*	*50-150*							
PP-08-18 (P3D0520-08) Soil					Sampled: 04/15/03 Received: 04/16/03				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	04/17/03	04/17/03	3040643	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*97.3 %*	*50-150*							

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-14 (P3D0520-03) Soil					Sampled: 04/15/03 Received: 04/16/03				
Diesel Range Organics	**42.6**	25.0	mg/kg dry	1	NWTPH-Dx	04/21/03	04/22/03	3040712	A-01
Heavy Oil Range Hydrocarbons	**198**	50.0	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*124 %*	*50-150*							

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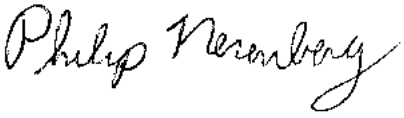
Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-06 (P3D0520-01) Soil					Sampled: 04/15/03	Received: 04/16/03			
Arsenic	**2.46**	0.342	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.342	"	"	"	"	04/17/03	"	
Copper	**20.2**	1.37	"	"	"	"	"	"	
Lead	**5.86**	0.342	"	"	"	"	"	"	
Zinc	**55.3**	1.37	"	"	"	"	"	"	
PP-06-10 (P3D0520-02) Soil					Sampled: 04/15/03	Received: 04/16/03			
Arsenic	**2.09**	0.410	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.410	"	"	"	"	04/17/03	"	
Copper	**16.8**	1.64	"	"	"	"	"	"	
Lead	**3.69**	0.410	"	"	"	"	"	"	
Zinc	**52.4**	1.64	"	"	"	"	"	"	
PP-06-14 (P3D0520-03) Soil					Sampled: 04/15/03	Received: 04/16/03			
Arsenic	**3.55**	0.323	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.323	"	"	"	"	04/17/03	"	
Copper	**53.3**	1.29	"	"	"	"	"	"	
Lead	**425**	1.98	"	6.14	"	"	04/17/03	"	
Zinc	**157**	1.29	"	1	"	"	04/17/03	"	
PP-06-17 (P3D0520-04) Soil					Sampled: 04/15/03	Received: 04/16/03			
Arsenic	**2.32**	0.362	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	2.21	"	6.11	"	"	04/17/03	"	R-03
Copper	**17.4**	1.45	"	1	"	"	"	"	
Lead	**5.19**	0.362	"	"	"	"	"	"	
Zinc	**52.4**	1.45	"	"	"	"	"	"	



The results in this report apply to the samples analyzed in accordance with the chain o custody document. This analytical report must be reproduced in its entirety.

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-08-06 (P3D0520-05) Soil					Sampled: 04/15/03 Received: 04/16/03				
Arsenic	**2.18**	0.431	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.431	"	"	"	"	04/17/03	"	
Copper	**24.8**	1.72	"	"	"	"	"	"	
Lead	**19.5**	0.431	"	"	"	"	"	"	
Zinc	**106**	1.72	"	"	"	"	"	"	
PP-08-10 (P3D0520-06) Soil					Sampled: 04/15/03 Received: 04/16/03				
Arsenic	**2.74**	0.388	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.388	"	"	"	"	04/17/03	"	
Copper	**32.5**	1.55	"	"	"	"	"	"	
Lead	**87.7**	0.388	"	"	"	"	"	"	
Zinc	**129**	1.55	"	"	"	"	"	"	
PP-08-14 (P3D0520-07) Soil					Sampled: 04/15/03 Received: 04/16/03				
Arsenic	**1.94**	0.357	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.357	"	"	"	"	04/17/03	"	
Copper	**14.1**	1.43	"	"	"	"	"	"	
Lead	**5.04**	0.357	"	"	"	"	"	"	
Zinc	**43.4**	1.43	"	"	"	"	"	"	
PP-08-18 (P3D0520-08) Soil					Sampled: 04/15/03 Received: 04/16/03				
Arsenic	**1.96**	0.347	mg/kg dry	1	EPA 6020	04/17/03	04/17/03	3040623	
Cadmium	ND	0.347	"	"	"	"	04/17/03	"	
Copper	**14.3**	1.39	"	"	"	"	"	"	
Lead	**5.43**	0.347	"	"	"	"	"	"	
Zinc	**44.0**	1.39	"	"	"	"	"	"	

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-06 (P3D0520-01) Soil					Sampled: 04/15/03 Received: 04/16/03				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/23/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*90.0 %*	*36-140*							
Surr: Decachlorobiphenyl	*95.8 %*	*16-149*							
PP-06-10 (P3D0520-02) Soil					Sampled: 04/15/03 Received: 04/16/03				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/23/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*89.0 %*	*36-140*							
Surr: Decachlorobiphenyl	*96.2 %*	*16-149*							
PP-06-14 (P3D0520-03) Soil					Sampled: 04/15/03 Received: 04/16/03				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/24/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*86.6 %*	*36-140*							
Surr: Decachlorobiphenyl	*84.6 %*	*16-149*							

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-17 (P3D0520-04) Soil					Sampled: 04/15/03 Received: 04/16/03				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/23/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*93.1 %*	*36-140*							
Surr: Decachlorobiphenyl	*97.2 %*	*16-149*							
PP-08-06 (P3D0520-05) Soil					Sampled: 04/15/03 Received: 04/16/03				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/26/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	**232**	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*78.6 %*	*36-140*							
Surr: Decachlorobiphenyl	*94.6 %*	*16-149*							
PP-08-10 (P3D0520-06) Soil					Sampled: 04/15/03 Received: 04/16/03				
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/26/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	134	"	2	"	"	"	"	R-03
Aroclor 1260	ND	67.0	"	1	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*66.2 %*	*36-140*							
Surr: Decachlorobiphenyl	*92.4 %*	*16-149*							

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-08-14 (P3D0520-07) Soil						Sampled: 04/15/03	Received: 04/16/03		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/26/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	**93.9**	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*84.4 %*	*36-140*							
Surr: Decachlorobiphenyl	*92.9 %*	*16-149*							
PP-08-18 (P3D0520-08) Soil						Sampled: 04/15/03	Received: 04/16/03		
Aroclor 1016	ND	67.0	ug/kg dry	1	EPA 8082	04/21/03	04/24/03	3040744	
Aroclor 1221	ND	134	"	"	"	"	"	"	
Aroclor 1232	ND	67.0	"	"	"	"	"	"	
Aroclor 1242	ND	67.0	"	"	"	"	"	"	
Aroclor 1248	ND	67.0	"	"	"	"	"	"	
Aroclor 1254	ND	67.0	"	"	"	"	"	"	
Aroclor 1260	ND	67.0	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*93.5 %*	*36-140*							
Surr: Decachlorobiphenyl	*103 %*	*16-149*							

North Creek Analytical - Portland

Philip Nerenberg

Philip Nerenberg, Laboratory Manager

The results in this report apply to the samples analyzed in accordance with the chain o custody document. This analytical report must be reproduced in its entirety.

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-06-030415 (P3D0520-09) Water					Sampled: 04/15/03 Received: 04/16/03				
Acetone	ND	25.0	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**1.69**	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-06-030415 (P3D0520-09) Water					Sampled: 04/15/03 Received: 04/16/03				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	**1.36**	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*101 %*	*84.5-124*							
Surr: 1,2-DCA-d4	*105 %*	*77.9-123*							
Surr: Dibromofluoromethane	*102 %*	*83.5-119*							
Surr: Toluene-d8	*98.5 %*	*84.1-116*							

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-07-030415 (P3D0520-10) Water					Sampled: 04/15/03 Received: 04/16/03				
Acetone	ND	25.0	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-07-030415 (P3D0520-10) Water					Sampled: 04/15/03 Received: 04/16/03				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*99.5 %*	*84.5-124*							
Surr: 1,2-DCA-d4	*102 %*	*77.9-123*							
Surr: Dibromofluoromethane	*98.5 %*	*83.5-119*							
Surr: Toluene-d8	*96.5 %*	*84.1-116*							

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-08-030415 (P3D0520-11) Water					Sampled: 04/15/03 Received: 04/16/03				
Acetone	ND	25.0	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-08-030415 (P3D0520-11) Water					Sampled: 04/15/03 Received: 04/16/03				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*98.0 %*	*84.5-124*							
Surr: 1,2-DCA-d4	*105 %*	*77.9-123*							
Surr: Dibromofluoromethane	*101 %*	*83.5-119*							
Surr: Toluene-d8	*98.0 %*	*84.1-116*							

North Creek Analytical - Portland

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-09-030415 (P3D0520-12) Water					Sampled: 04/15/03 Received: 04/16/03				
Acetone	ND	25.0	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg

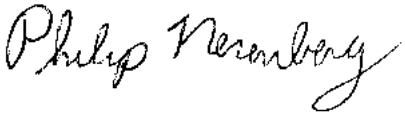
Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PP-09-030415 (P3D0520-12) Water					Sampled: 04/15/03 Received: 04/16/03				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	04/18/03	04/18/03	3040686	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*99.5 %*	*84.5-124*							
Surr: 1,2-DCA-d4	*104 %*	*77.9-123*							
Surr: Dibromofluoromethane	*102 %*	*83.5-119*							
Surr: Toluene-d8	*96.5 %*	*84.1-116*							



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Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-14 (P3D0520-03) Soil					Sampled: 04/15/03	Received: 04/16/03			**O-07, R-05**
Acenaphthene	ND	26.8	ug/kg dry	2	EPA 8270m	05/02/03	05/05/03	3050083	
Acenaphthylene	ND	26.8	"	"	"	"	"	"	
Anthracene	ND	26.8	"	"	"	"	"	"	
Benzo (a) anthracene	ND	26.8	"	"	"	"	"	"	
Benzo (a) pyrene	ND	26.8	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	26.8	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	26.8	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	26.8	"	"	"	"	"	"	
Chrysene	ND	26.8	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	26.8	"	"	"	"	"	"	
Fluoranthene	ND	26.8	"	"	"	"	"	"	
Fluorene	ND	26.8	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	26.8	"	"	"	"	"	"	
Naphthalene	ND	26.8	"	"	"	"	"	"	
Phenanthrene	ND	26.8	"	"	"	"	"	"	
Pyrene	**31.0**	26.8	"	"	"	"	"	"	
Surr: Fluorene-d10	*52.0 %*	*40-150*							
Surr: Pyrene-d10	*56.3 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*52.9 %*	*40-150*							

North Creek Analytical - Portland

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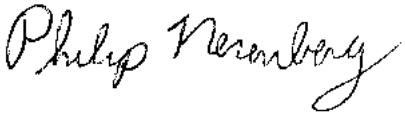
Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
PP-06-06 (P3D0520-01) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**83.3**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-06-10 (P3D0520-02) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**83.3**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-06-14 (P3D0520-03) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**83.9**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-06-17 (P3D0520-04) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**85.5**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-08-06 (P3D0520-05) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**86.2**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-08-10 (P3D0520-06) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**90.7**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-08-14 (P3D0520-07) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**91.2**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	
PP-08-18 (P3D0520-08) Soil					Sampled: 04/15/03	Received: 04/16/03			
% Solids	**86.7**	1.00	% by Weight	1	NCA SOP	04/21/03	04/22/03	3040736	



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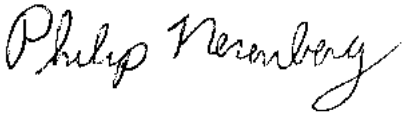
Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040643 - TPH-HCID Extraction										
Blank (3040643-BLK1)				Prepared & Analyzed: 04/17/03						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		*"*	*9.60*		*96.0*	*50-150*			
Duplicate (3040643-DUP1)		**Source: P3D0520-01**		Prepared & Analyzed: 04/17/03						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	ND	100	"		ND				50	
Surr: 1-Chlorooctadecane	*DET*		*"*	*11.5*		*93.9*	*50-150*			
Duplicate (3040643-DUP2)		**Source: P3D0520-02**		Prepared & Analyzed: 04/17/03						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	ND	100	"		ND				50	
Surr: 1-Chlorooctadecane	*DET*		*"*	*11.5*		*90.4*	*50-150*			



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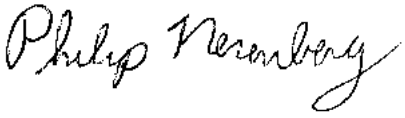
Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040712 - EPA 3550 Fuels										
Blank (3040712-BLK1)				Prepared & Analyzed: 04/21/03						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*5.15*		*"*	*4.80*		*107*	*50-150*			
LCS (3040712-BS1)				Prepared & Analyzed: 04/21/03						
Diesel Range Organics	113	25.0	mg/kg	125		90.4	50-150			
Heavy Oil Range Hydrocarbons	72.0	50.0	"	75.0		96.0	50-150			
Surr: 1-Chlorooctadecane	*5.14*		*"*	*4.80*		*107*	*50-150*			
Duplicate (3040712-DUP1)		**Source: P3D0352-01**		Prepared & Analyzed: 04/21/03						
Diesel Range Organics	75.8	25.0	mg/kg dry		60.3			22.8	50	
Heavy Oil Range Hydrocarbons	270	50.0	"		252			6.90	50	
Surr: 1-Chlorooctadecane	*5.19*		*"*	*5.27*		*98.5*	*50-150*			
Duplicate (3040712-DUP2)		**Source: P3D0388-06**		Prepared & Analyzed: 04/21/03						
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	ND	50.0	"		ND				50	
Surr: 1-Chlorooctadecane	*6.05*		*"*	*6.40*		*94.5*	*50-150*			



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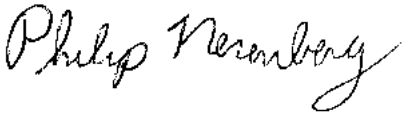
Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040623 - EPA 3050										
Blank (3040623-BLK1)				Prepared & Analyzed: 04/17/03						
Zinc	ND	1.80	mg/kg							
Blank (3040623-BLK2)				Prepared & Analyzed: 04/17/03						
Arsenic	ND	0.500	mg/kg							
Cadmium	ND	0.500	"							
Copper	ND	2.00	"							
Lead	ND	0.500	"							
Zinc	ND	2.00	"							
LCS (3040623-BS1)				Prepared & Analyzed: 04/17/03						
Copper	10.2	2.00	mg/kg	9.62		106	80-120			
Zinc	10.4	2.00	"	9.62		108	80-120			
LCS (3040623-BS2)				Prepared & Analyzed: 04/17/03						
Arsenic	9.69	0.500	mg/kg	10.0		96.9	80-120			
Cadmium	10.2	0.500	"	10.0		102	80-120			
Copper	10.5	2.00	"	10.0		105	80-120			
Lead	10.3	0.500	"	10.0		103	80-120			
Zinc	10.1	2.00	"	10.0		101	80-120			
Duplicate (3040623-DUP1)	**Source: P3D0526-01**			Prepared & Analyzed: 04/17/03						
Arsenic	4.26	0.420	mg/kg dry		4.31			1.17	40	
Cadmium	ND	0.420	"		ND				40	
Copper	15.7	1.68	"		15.8			0.635	40	
Lead	8.67	0.420	"		9.09			4.73	40	
Zinc	61.5	1.68	"		64.3			4.45	40	
Matrix Spike (3040623-MS1)	**Source: P3D0526-01**			Prepared & Analyzed: 04/17/03						
Arsenic	12.0	0.340	mg/kg dry	8.22	4.31	93.6	75-125			
Cadmium	7.72	0.340	"	8.22	ND	93.9	75-125			
Copper	23.8	1.36	"	8.22	15.8	97.3	75-125			
Lead	17.6	0.340	"	8.22	9.09	104	75-125			
Zinc	69.9	1.36	"	8.22	64.3	68.1	75-125			Q-19



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Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

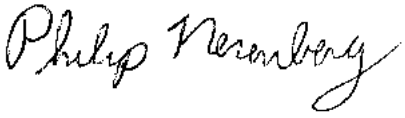
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040623 - EPA 3050										
Matrix Spike (3040623-MS2)	**Source: P3D0526-02**			Prepared & Analyzed: 04/17/03						
Arsenic	11.6	0.368	mg/kg dry	8.98	3.68	88.2	75-125			
Cadmium	8.67	0.368	"	8.98	ND	96.5	75-125			
Copper	22.7	1.47	"	8.98	15.4	81.3	75-125			
Lead	21.1	0.368	"	8.98	10.6	117	75-125			
Zinc	78.3	1.47	"	8.98	68.0	115	75-125			

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040744 - EPA 3550										
Blank (3040744-BLK1)				Prepared: 04/21/03 Analyzed: 04/26/03						
Aroclor 1016	ND	67.0	ug/kg							
Aroclor 1221	ND	134	"							
Aroclor 1232	ND	67.0	"							
Aroclor 1242	ND	67.0	"							
Aroclor 1248	ND	67.0	"							
Aroclor 1254	ND	67.0	"							
Aroclor 1260	ND	67.0	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*28.0*		"	*33.3*		*84.1*	*36-140*			
Surr: Decachlorobiphenyl	*31.3*		"	*33.3*		*94.0*	*16-149*			
LCS (3040744-BS1)				Prepared: 04/21/03 Analyzed: 04/26/03						
Aroclor 1016	296	67.0	ug/kg	333		88.9	57-135			
Aroclor 1260	305	67.0	"	333		91.6	60-135			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*29.5*		"	*33.3*		*88.6*	*36-140*			
Surr: Decachlorobiphenyl	*33.4*		"	*33.3*		*100*	*16-149*			
Matrix Spike (3040744-MS1)	**Source: P3D0520-08**			Prepared: 04/21/03 Analyzed: 04/26/03						
Aroclor 1016	333	67.0	ug/kg dry	384	ND	86.7	37-145			
Aroclor 1260	323	67.0	"	384	ND	84.1	25-144			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*32.3*		"	*38.4*		*84.1*	*36-140*			
Surr: Decachlorobiphenyl	*34.8*		"	*38.4*		*90.6*	*16-149*			
Matrix Spike Dup (3040744-MSD1)	**Source: P3D0520-08**			Prepared: 04/21/03 Analyzed: 04/26/03						
Aroclor 1016	341	67.0	ug/kg dry	384	ND	88.8	37-145	2.37	26	
Aroclor 1260	344	67.0	"	384	ND	89.6	25-144	6.30	30	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*32.9*		"	*38.4*		*85.7*	*36-140*			
Surr: Decachlorobiphenyl	*37.3*		"	*38.4*		*97.1*	*16-149*			



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Philip Nerenberg, Laboratory Manager

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040686 - EPA 5030B										
Blank (3040686-BLK1)				Prepared & Analyzed: 04/18/03						
Acetone	ND	25.0	ug/l							
Benzene	ND	1.00	"							
Bromobenzene	ND	1.00	"							
Bromochloromethane	ND	1.00	"							
Bromodichloromethane	ND	1.00	"							
Bromoform	ND	1.00	"							
Bromomethane	ND	5.00	"							
2-Butanone	ND	10.0	"							
n-Butylbenzene	ND	5.00	"							
sec-Butylbenzene	ND	1.00	"							
tert-Butylbenzene	ND	1.00	"							
Carbon disulfide	ND	10.0	"							
Carbon tetrachloride	ND	1.00	"							
Chlorobenzene	ND	1.00	"							
Chloroethane	ND	1.00	"							
Chloroform	ND	1.00	"							
Chloromethane	ND	5.00	"							
2-Chlorotoluene	ND	1.00	"							
4-Chlorotoluene	ND	1.00	"							
1,2-Dibromo-3-chloropropane	ND	5.00	"							
Dibromochloromethane	ND	1.00	"							
1,2-Dibromoethane	ND	1.00	"							
Dibromomethane	ND	1.00	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorodifluoromethane	ND	5.00	"							
1,1-Dichloroethane	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
1,1-Dichloroethene	ND	1.00	"							
cis-1,2-Dichloroethene	ND	1.00	"							
trans-1,2-Dichloroethene	ND	1.00	"							
1,2-Dichloropropane	ND	1.00	"							
1,3-Dichloropropane	ND	1.00	"							
2,2-Dichloropropane	ND	1.00	"							
1,1-Dichloropropene	ND	1.00	"							

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040686 - EPA 5030B										
Blank (3040686-BLK1)				Prepared & Analyzed: 04/18/03						
cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	*21.2*		*"*	*20.0*		*106*	*84.5-124*			
Surr: 1,2-DCA-d4	*21.7*		*"*	*20.0*		*108*	*77.9-123*			
Surr: Dibromofluoromethane	*20.6*		*"*	*20.0*		*103*	*83.5-119*			
Surr: Toluene-d8	*20.3*		*"*	*20.0*		*102*	*84.1-116*			

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

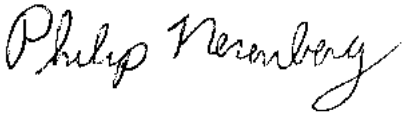
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040686 - EPA 5030B										
LCS (3040686-BS1)				Prepared & Analyzed: 04/18/03						
Benzene	20.8	1.00	ug/l	20.0		104	80-120			
Chlorobenzene	21.2	1.00	"	20.0		106	80-120			
1,1-Dichloroethene	20.7	1.00	"	20.0		104	80-120			
Toluene	21.2	1.00	"	20.0		106	80-120			
Trichloroethene	22.9	1.00	"	20.0		114	80-124			
Surr: 4-BFB	*20.0*		*"*	*20.0*		*100*	*84.5-124*			
Surr: 1,2-DCA-d4	*20.7*		*"*	*20.0*		*104*	*77.9-123*			
Surr: Dibromofluoromethane	*19.8*		*"*	*20.0*		*99.0*	*83.5-119*			
Surr: Toluene-d8	*20.3*		*"*	*20.0*		*102*	*84.1-116*			
Matrix Spike (3040686-MS1)	**Source: P3D0520-09**			Prepared & Analyzed: 04/18/03						
Benzene	20.5	1.00	ug/l	20.0	ND	102	80-124			
Chlorobenzene	20.2	1.00	"	20.0	ND	101	72.9-134			
1,1-Dichloroethene	20.1	1.00	"	20.0	ND	100	79.3-127			
Toluene	20.5	1.00	"	20.0	ND	102	79.7-131			
Trichloroethene	20.5	1.00	"	20.0	1.36	95.7	68.4-130			
Surr: 4-BFB	*20.3*		*"*	*20.0*		*102*	*84.5-124*			
Surr: 1,2-DCA-d4	*20.4*		*"*	*20.0*		*102*	*77.9-123*			
Surr: Dibromofluoromethane	*20.5*		*"*	*20.0*		*102*	*83.5-119*			
Surr: Toluene-d8	*20.6*		*"*	*20.0*		*103*	*84.1-116*			
Matrix Spike Dup (3040686-MSD1)	**Source: P3D0520-09**			Prepared & Analyzed: 04/18/03						
Benzene	20.6	1.00	ug/l	20.0	ND	103	80-124	0.487	25	
Chlorobenzene	19.9	1.00	"	20.0	ND	99.5	72.9-134	1.50	25	
1,1-Dichloroethene	20.5	1.00	"	20.0	ND	102	79.3-127	1.97	25	
Toluene	20.4	1.00	"	20.0	ND	102	79.7-131	0.489	25	
Trichloroethene	21.0	1.00	"	20.0	1.36	98.2	68.4-130	2.41	25	
Surr: 4-BFB	*20.8*		*"*	*20.0*		*104*	*84.5-124*			
Surr: 1,2-DCA-d4	*21.0*		*"*	*20.0*		*105*	*77.9-123*			
Surr: Dibromofluoromethane	*20.8*		*"*	*20.0*		*104*	*83.5-119*			
Surr: Toluene-d8	*20.6*		*"*	*20.0*		*103*	*84.1-116*			

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3050083 - EPA 3550										
Blank (3050083-BLK1)				Prepared: 05/02/03 Analyzed: 05/05/03						
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*66.2*		*"*	*83.3*		*79.5*	*40-150*			
Surr: Pyrene-d10	*77.7*		*"*	*83.3*		*93.3*	*40-150*			
Surr: Benzo (a) pyrene-d12	*71.2*		*"*	*83.3*		*85.5*	*40-150*			
LCS (3050083-BS1)				Prepared: 05/02/03 Analyzed: 05/05/03						
Acenaphthene	117	13.4	ug/kg	167		70.1	33-139			
Benzo (a) pyrene	119	13.4	"	167		71.3	45-149			
Pyrene	132	13.4	"	167		79.0	39-138			
Surr: Fluorene-d10	*67.8*		*"*	*83.3*		*81.4*	*40-150*			
Surr: Pyrene-d10	*76.2*		*"*	*83.3*		*91.5*	*40-150*			
Surr: Benzo (a) pyrene-d12	*70.0*		*"*	*83.3*		*84.0*	*40-150*			



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Philip Nerenberg, Laboratory Manager

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3050083 - EPA 3550										
Matrix Spike (3050083-MS1)	**Source: P3D0520-03**			Prepared: 05/02/03	Analyzed: 05/06/03					**R-05**
Acenaphthene	127	53.6	ug/kg dry	199	ND	63.8	33-139			
Benzo (a) pyrene	121	53.6	"	199	17.9	51.8	45-149			
Pyrene	183	53.6	"	199	31.0	76.4	39-138			
Surr: Fluorene-d10	*74.7*		*"*	*99.3*		*75.2*	*40-150*			
Surr: Pyrene-d10	*76.8*		*"*	*99.3*		*77.3*	*40-150*			
Surr: Benzo (a) pyrene-d12	*61.2*		*"*	*99.3*		*61.6*	*40-150*			
Matrix Spike Dup (3050083-MSD1)	**Source: P3D0520-03**			Prepared: 05/02/03	Analyzed: 05/06/03					**R-05**
Acenaphthene	103	53.6	ug/kg dry	199	ND	51.8	33-139	20.9	60	
Benzo (a) pyrene	120	53.6	"	199	17.9	51.3	45-149	0.830	60	
Pyrene	145	53.6	"	199	31.0	57.3	39-138	23.2	60	
Surr: Fluorene-d10	*64.1*		*"*	*99.3*		*64.6*	*40-150*			
Surr: Pyrene-d10	*60.2*		*"*	*99.3*		*60.6*	*40-150*			
Surr: Benzo (a) pyrene-d12	*57.1*		*"*	*99.3*		*57.5*	*40-150*			

Bridgewater Group	Project: Schnitzer	
4500 Kruse Way Suite 110	Project Number: none	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	05/08/03 12:41

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040736 - Dry Weight										
Duplicate (3040736-DUP1)		**Source: P3D0520-01**		Prepared: 04/21/03 Analyzed: 04/22/03						
% Solids	83.1	1.00	% by Weight		83.3			0.240	20	
Duplicate (3040736-DUP2)		**Source: P3D0520-02**		Prepared: 04/21/03 Analyzed: 04/22/03						
% Solids	83.4	1.00	% by Weight		83.3			0.120	20	
Duplicate (3040736-DUP3)		**Source: P3D0652-05**		Prepared: 04/21/03 Analyzed: 04/22/03						
% Solids	76.8	1.00	% by Weight		76.6			0.261	20	

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Philip Nerenberg

Philip Nerenberg, Laboratory Manager

Notes and Definitions

A-01	Detected hydrocarbons are mainly due to overlap from the heavy/oil range; however, there is a trace of weathered diesel detected.
O-07	This sample was extracted outside the EPA recommended holding time.
Q-19	The spike recovery for this QC sample is outside of established control limits due to a non-homogeneous matrix in the native sample.
R-03	The reporting limit for this analyte was raised due to matrix interference.
R-05	Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	Sample results reported on a wet weight basis (as received)
RPD	Relative Percent Difference

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14 February, 2002

Ross Rieke
Bridgewater Group
4500 Kruse Way Suite 110
Lake Oswego, OR 97035

RE: Burgard

Enclosed are the results of analyses for samples received by the laboratory on 01/28/02 17:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Philip Nerenberg
Laboratory Manager

Work Orders included in this report:
P2A0704

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW-PW01-020128	P2A0704-01	Water	01/28/02 13:45	01/28/02 17:20
GW-PW03-020128	P2A0704-02	Water	01/28/02 13:05	01/28/02 17:20
GW-MW01-020128	P2A0704-03	Water	01/28/02 08:55	01/28/02 17:20
GW-MW02-020128	P2A0704-04	Water	01/28/02 07:45	01/28/02 17:20
GW-MW03-020127	P2A0704-05	Water	01/27/02 18:45	01/28/02 17:20
GW-MW04-020127	P2A0704-06	Water	01/27/02 17:40	01/28/02 17:20
GW-MW05-020127	P2A0704-07	Water	01/27/02 16:10	01/28/02 17:20
GW-MW06-020128	P2A0704-08	Water	01/28/02 10:10	01/28/02 17:20
GW-MW07-020128	P2A0704-09	Water	01/28/02 11:45	01/28/02 17:20
GW-PW06-020127	P2A0704-10	Water	01/27/02 16:30	01/28/02 17:20
S-PP04-1.0	P2A0704-11	Soil	01/28/02 14:10	01/28/02 17:20
S-PP04-5.0	P2A0704-12	Soil	01/28/02 14:20	01/28/02 17:20
OFS-07-020128	P2A0704-14	Soil	01/28/02 15:10	01/28/02 17:20
CBS-07-020128	P2A0704-15	Soil	01/28/02 12:30	01/28/02 17:20
Trip Blank	P2A0704-16	Water	01/28/02 13:45	01/28/02 17:20

North Creek Analytical - Portland

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Hydrocarbon Identification per NW-TPH Methodology
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW01-020128 (P2A0704-03) Water					Sampled: 01/28/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	01/29/02	01/30/02	2010862	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*79.0 %*	*50-150*							
GW-MW02-020128 (P2A0704-04) Water					Sampled: 01/28/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	01/29/02	01/30/02	2010862	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*84.0 %*	*50-150*							
GW-MW03-020127 (P2A0704-05) Water					Sampled: 01/27/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	01/29/02	01/30/02	2010862	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*94.1 %*	*50-150*							
GW-MW04-020127 (P2A0704-06) Water					Sampled: 01/27/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	01/29/02	01/30/02	2010862	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*87.1 %*	*50-150*							
GW-MW05-020127 (P2A0704-07) Water					Sampled: 01/27/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	01/29/02	01/30/02	2010862	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*87.7 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Hydrocarbon Identification per NW-TPH Methodology

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW06-020128 (P2A0704-08) Water					Sampled: 01/28/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	0.250	mg/l	1	NWTPH HCID	01/29/02	01/31/02	2010862	
Diesel Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	0.630	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*82.0 %*	*50-150*							
S-PP04-1.0 (P2A0704-11) Soil					Sampled: 01/28/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/31/02	01/31/02	2010928	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*177 %*	*50-150*							*S-02*
S-PP04-5.0 (P2A0704-12) Soil					Sampled: 01/28/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	01/31/02	01/31/02	2010928	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	ND	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*97.0 %*	*50-150*							
CBS-07-020128 (P2A0704-15) Soil					Sampled: 01/28/02 Received: 01/28/02				
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry	1	NWTPH HCID	02/01/02	02/02/02	2020037	
Diesel Range Hydrocarbons	ND	50.0	"	"	"	"	"	"	
Heavy Oil Range Hydrocarbons	**DET**	100	"	"	"	"	"	"	
Surr: 1-Chlorooctadecane	*99.2 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP04-1.0 (P2A0704-11) Soil					Sampled: 01/28/02 Received: 01/28/02				
Diesel Range Organics	ND	125	mg/kg dry	5	NWTPH-Dx	02/08/02	02/08/02	2020224	R-02
Heavy Oil Range Hydrocarbons	**1520**	250	"	"	"	"	"	"	R-02
Surr: 1-Chlorooctadecane	*103 %*	*50-150*							
CBS-07-020128 (P2A0704-15) Soil					Sampled: 01/28/02 Received: 01/28/02				
Diesel Range Organics	ND	250	mg/kg dry	10	NWTPH-Dx	02/08/02	02/09/02	2020224	R-02
Heavy Oil Range Hydrocarbons	**2260**	500	"	"	"	"	"	"	R-02
Surr: 1-Chlorooctadecane	*127 %*	*50-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW02-020128 (P2A0704-04) Water					Sampled: 01/28/02 Received: 01/28/02				
Antimony	ND	0.00100	mg/l	1	EPA 6020	01/29/02	02/06/02	2010867	
Arsenic	**0.00107**	0.00100	"	"	"	"	01/30/02	"	
Barium	**0.0233**	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	**0.00196**	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	02/05/02	02/05/02	2020097	
Nickel	ND	0.00200	"	"	EPA 6020	01/29/02	01/30/02	2010867	
Zinc	**0.0106**	0.00500	"	"	"	"	"	"	
GW-MW03-020127 (P2A0704-05) Water					Sampled: 01/27/02 Received: 01/28/02				
Antimony	ND	0.00100	mg/l	1	EPA 6020	01/29/02	02/06/02	2010867	
Arsenic	**0.0308**	0.00100	"	"	"	"	01/30/02	"	
Barium	**0.148**	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	**0.00161**	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	02/05/02	02/05/02	2020097	
Nickel	**0.00578**	0.00200	"	"	EPA 6020	01/29/02	01/31/02	2010867	
Zinc	**0.00707**	0.00500	"	"	"	"	01/30/02	"	
GW-MW04-020127 (P2A0704-06) Water					Sampled: 01/27/02 Received: 01/28/02				
Antimony	ND	0.00100	mg/l	1	EPA 6020	01/29/02	02/06/02	2010867	
Arsenic	**0.00192**	0.00100	"	"	"	"	01/30/02	"	
Barium	**0.0472**	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	**0.00130**	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	02/05/02	02/05/02	2020097	
Nickel	**0.0123**	0.00200	"	"	EPA 6020	01/29/02	01/31/02	2010867	
Zinc	**0.00523**	0.00500	"	"	"	"	01/30/02	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW05-020127 (P2A0704-07) Water					Sampled: 01/27/02 Received: 01/28/02				
Antimony	ND	0.00100	mg/l	1	EPA 6020	01/29/02	02/06/02	2010867	
Arsenic	ND	0.00100	"	"	"	"	01/30/02	"	
Barium	**0.0130**	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	**0.00157**	0.00100	"	"	"	"	"	"	
Copper	**0.00230**	0.00200	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	02/05/02	02/05/02	2020097	
Nickel	**0.00229**	0.00200	"	"	EPA 6020	01/29/02	01/31/02	2010867	
Zinc	**0.0112**	0.00500	"	"	"	"	01/30/02	"	
GW-MW06-020128 (P2A0704-08) Water					Sampled: 01/28/02 Received: 01/28/02				
Antimony	ND	0.00100	mg/l	1	EPA 6020	01/29/02	02/06/02	2010867	
Arsenic	ND	0.00100	"	"	"	"	01/30/02	"	
Barium	**0.0331**	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	**0.00161**	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	02/05/02	02/05/02	2020097	
Nickel	**0.00863**	0.00200	"	"	EPA 6020	01/29/02	01/31/02	2010867	
Zinc	**0.00878**	0.00500	"	"	"	"	01/30/02	"	
GW-MW07-020128 (P2A0704-09) Water					Sampled: 01/28/02 Received: 01/28/02				
Antimony	ND	0.00100	mg/l	1	EPA 6020	01/29/02	02/06/02	2010867	
Arsenic	**0.00120**	0.00100	"	"	"	"	01/30/02	"	
Barium	**0.0647**	0.00200	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	**0.00182**	0.00100	"	"	"	"	"	"	
Copper	ND	0.00200	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	EPA 7470A	02/05/02	02/05/02	2020097	
Nickel	**0.00488**	0.00200	"	"	EPA 6020	01/29/02	01/31/02	2010867	
Zinc	ND	0.00500	"	"	"	"	01/30/02	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP04-1.0 (P2A0704-11) Soil					Sampled: 01/28/02 Received: 01/28/02				
Antimony	**1.60**	0.500	mg/kg dry	1	EPA 6020	01/31/02	01/31/02	2010936	
Arsenic	**5.18**	0.500	"	"	"	"	"	"	
Barium	**163**	1.00	"	"	"	"	"	"	
Cadmium	**2.47**	0.500	"	"	"	"	"	"	
Chromium	**71.4**	0.500	"	"	"	"	"	"	
Copper	**177**	1.00	"	"	"	"	"	"	
Lead	**222**	0.500	"	"	"	"	"	"	
Mercury	**0.811**	0.100	"	"	EPA 7471A	02/08/02	02/08/02	2020221	
Nickel	**33.5**	1.00	"	"	EPA 6020	01/31/02	01/31/02	2010936	
Zinc	**775**	14.1	"	5.65	"	"	01/31/02	"	
S-PP04-5.0 (P2A0704-12) Soil					Sampled: 01/28/02 Received: 01/28/02				
Antimony	ND	0.500	mg/kg dry	1	EPA 6020	01/31/02	01/31/02	2010936	
Arsenic	**3.13**	0.500	"	"	"	"	"	"	
Barium	**89.0**	1.00	"	"	"	"	"	"	
Cadmium	ND	0.500	"	"	"	"	"	"	
Chromium	**9.15**	0.500	"	"	"	"	"	"	
Copper	**15.9**	1.00	"	"	"	"	"	"	
Lead	**6.31**	0.500	"	"	"	"	"	"	
Mercury	ND	0.100	"	"	EPA 7471A	02/08/02	02/08/02	2020221	
Nickel	**14.0**	1.00	"	"	EPA 6020	01/31/02	01/31/02	2010936	
Zinc	**48.3**	2.50	"	"	"	"	"	"	
OFS-07-020128 (P2A0704-14) Soil					Sampled: 01/28/02 Received: 01/28/02				
Antimony	**20.0**	0.500	mg/kg dry	1	EPA 6020	01/31/02	01/31/02	2010936	
Arsenic	**11.8**	0.500	"	"	"	"	"	"	
Barium	**184**	1.00	"	"	"	"	"	"	
Cadmium	**3.19**	0.500	"	"	"	"	"	"	
Chromium	**117**	0.500	"	"	"	"	"	"	
Copper	**660**	1.00	"	"	"	"	"	"	
Lead	**493**	0.500	"	"	"	"	"	"	
Mercury	**0.769**	0.100	"	"	EPA 7471A	02/08/02	02/08/02	2020221	
Nickel	**78.9**	1.00	"	"	EPA 6020	01/31/02	01/31/02	2010936	
Zinc	**691**	2.50	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
CBS-07-020128 (P2A0704-15) Soil					Sampled: 01/28/02 Received: 01/28/02				
Antimony	**3.48**	0.500	mg/kg dry	1	EPA 6020	02/04/02	02/11/02	2020076	
Arsenic	**8.60**	0.500	"	"	"	"	02/06/02	"	
Barium	**271**	1.00	"	"	"	"	02/11/02	"	
Cadmium	**2.95**	0.500	"	"	"	"	02/06/02	"	
Chromium	**894**	3.18	"	6.36	"	"	02/06/02	"	
Copper	**331**	1.00	"	1	"	"	02/06/02	"	
Lead	**369**	0.500	"	"	"	"	"	"	
Mercury	**0.431**	0.100	"	"	EPA 7471A	02/08/02	02/08/02	2020221	
Nickel	**106**	1.00	"	"	EPA 6020	02/04/02	02/06/02	2020076	
Zinc	**2070**	15.9	"	6.36	"	"	02/06/02	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polychlorinated Biphenyls per EPA Method 8082

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW02-020128 (P2A0704-04) Water					Sampled: 01/28/02 Received: 01/28/02				
Aroclor 1016	ND	0.500	ug/l	1	EPA 8082	01/31/02	02/12/02	2020243	
Aroclor 1221	ND	1.00	"	"	"	"	"	"	
Aroclor 1232	ND	0.500	"	"	"	"	"	"	
Aroclor 1242	ND	0.500	"	"	"	"	"	"	
Aroclor 1248	ND	0.500	"	"	"	"	"	"	
Aroclor 1254	ND	0.500	"	"	"	"	"	"	
Aroclor 1260	ND	0.500	"	"	"	"	"	"	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*87.1 %*	*16-137*							
Surr: Decachlorobiphenyl	*85.0 %*	*12-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PW01-020128 (P2A0704-01) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PW01-020128 (P2A0704-01) Water					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*110 %*	*84-118*							
Surr: 1,2-DCA-d4	*101 %*	*79-123*							
Surr: Dibromofluoromethane	*101 %*	*81-121*							
Surr: Toluene-d8	*99.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PW03-020128 (P2A0704-02) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PW03-020128 (P2A0704-02) Water					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	**1.67**	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	**1.70**	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*102 %*	*84-118*							
Surr: 1,2-DCA-d4	*100 %*	*79-123*							
Surr: Dibromofluoromethane	*101 %*	*81-121*							
Surr: Toluene-d8	*100 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW01-020128 (P2A0704-03) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**9.13**	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW01-020128 (P2A0704-03) Water					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	**32.7**	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	**4.50**	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	**1.23**	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*105 %*	*84-118*							
Surr: 1,2-DCA-d4	*101 %*	*79-123*							
Surr: Dibromofluoromethane	*98.5 %*	*81-121*							
Surr: Toluene-d8	*97.0 %*	*87-111*							

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541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW02-020128 (P2A0704-04) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	**2.78**	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW02-020128 (P2A0704-04) Water						Sampled: 01/28/02	Received: 01/28/02		
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	**6.68**	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	**8.06**	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*110 %*	*84-118*							
Surr: 1,2-DCA-d4	*102 %*	*79-123*							
Surr: Dibromofluoromethane	*97.5 %*	*81-121*							
Surr: Toluene-d8	*99.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW03-020127 (P2A0704-05) Water					Sampled: 01/27/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW03-020127 (P2A0704-05) Water					Sampled: 01/27/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*109 %*	*84-118*							
Surr: 1,2-DCA-d4	*100 %*	*79-123*							
Surr: Dibromofluoromethane	*95.5 %*	*81-121*							
Surr: Toluene-d8	*99.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW04-020127 (P2A0704-06) Water					Sampled: 01/27/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW04-020127 (P2A0704-06) Water					Sampled: 01/27/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*106 %*	*84-118*							
Surr: 1,2-DCA-d4	*104 %*	*79-123*							
Surr: Dibromofluoromethane	*101 %*	*81-121*							
Surr: Toluene-d8	*97.5 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW05-020127 (P2A0704-07) Water					Sampled: 01/27/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW05-020127 (P2A0704-07) Water					Sampled: 01/27/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*108 %*	*84-118*							
Surr: 1,2-DCA-d4	*98.5 %*	*79-123*							
Surr: Dibromofluoromethane	*98.5 %*	*81-121*							
Surr: Toluene-d8	*96.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW06-020128 (P2A0704-08) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW06-020128 (P2A0704-08) Water					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*108 %*	*84-118*							
Surr: 1,2-DCA-d4	*99.5 %*	*79-123*							
Surr: Dibromofluoromethane	*99.5 %*	*81-121*							
Surr: Toluene-d8	*97.5 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW07-020128 (P2A0704-09) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW07-020128 (P2A0704-09) Water					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	**1.91**	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*106 %*	*84-118*							
Surr: 1,2-DCA-d4	*98.0 %*	*79-123*							
Surr: Dibromofluoromethane	*102 %*	*81-121*							
Surr: Toluene-d8	*99.5 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PW06-020127 (P2A0704-10) Water					Sampled: 01/27/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-PW06-020127 (P2A0704-10) Water					Sampled: 01/27/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*108 %*	*84-118*							
Surr: 1,2-DCA-d4	*100 %*	*79-123*							
Surr: Dibromofluoromethane	*100 %*	*81-121*							
Surr: Toluene-d8	*99.5 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
CBS-07-020128 (P2A0704-15) Soil					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	2500	ug/kg dry	1	EPA 8260B	01/31/02	02/06/02	2010939	
Benzene	ND	100	"	"	"	"	"	"	
Bromobenzene	ND	100	"	"	"	"	"	"	
Bromochloromethane	ND	100	"	"	"	"	"	"	
Bromodichloromethane	ND	100	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
2-Butanone	ND	1000	"	"	"	"	"	"	
n-Butylbenzene	ND	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	100	"	"	"	"	"	"	
tert-Butylbenzene	ND	100	"	"	"	"	"	"	
Carbon disulfide	ND	1000	"	"	"	"	"	"	
Carbon tetrachloride	ND	100	"	"	"	"	"	"	
Chlorobenzene	ND	100	"	"	"	"	"	"	
Chloroethane	ND	100	"	"	"	"	"	"	
Chloroform	ND	100	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	100	"	"	"	"	"	"	
4-Chlorotoluene	ND	100	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	100	"	"	"	"	"	"	
1,2-Dibromoethane	ND	100	"	"	"	"	"	"	
Dibromomethane	ND	100	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	100	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	100	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	100	"	"	"	"	"	"	
1,2-Dichloroethane	ND	100	"	"	"	"	"	"	
1,1-Dichloroethene	ND	100	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	100	"	"	"	"	"	"	
1,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,3-Dichloropropane	ND	100	"	"	"	"	"	"	
2,2-Dichloropropane	ND	100	"	"	"	"	"	"	
1,1-Dichloropropene	ND	100	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	100	"	"	"	"	"	"	
Ethylbenzene	ND	100	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
CBS-07-020128 (P2A0704-15) Soil					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	200	ug/kg dry	1	EPA 8260B	01/31/02	02/06/02	2010939	
2-Hexanone	ND	1000	"	"	"	"	"	"	
Isopropylbenzene	ND	200	"	"	"	"	"	"	
p-Isopropyltoluene	ND	200	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	100	"	"	"	"	"	"	
Methylene chloride	ND	500	"	"	"	"	"	"	
Naphthalene	ND	200	"	"	"	"	"	"	
n-Propylbenzene	ND	100	"	"	"	"	"	"	
Styrene	ND	100	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	100	"	"	"	"	"	"	
Tetrachloroethene	ND	100	"	"	"	"	"	"	
Toluene	ND	100	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	100	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	100	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	100	"	"	"	"	"	"	
Trichloroethene	ND	100	"	"	"	"	"	"	
Trichlorofluoromethane	ND	100	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	100	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	100	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	100	"	"	"	"	"	"	
Vinyl chloride	ND	100	"	"	"	"	"	"	
o-Xylene	ND	100	"	"	"	"	"	"	
m,p-Xylene	ND	200	"	"	"	"	"	"	
Surr: 4-BFB	*91.8 %*	*70-130*							
Surr: 1,2-DCA-d4	*102 %*	*70-130*							
Surr: Dibromofluoromethane	*88.6 %*	*70-130*							
Surr: Toluene-d8	*101 %*	*70-130*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
Trip Blank (P2A0704-16) Water					Sampled: 01/28/02 Received: 01/28/02				
Acetone	ND	25.0	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	5.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	10.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
Trip Blank (P2A0704-16) Water					Sampled: 01/28/02 Received: 01/28/02				
Hexachlorobutadiene	ND	2.00	ug/l	1	EPA 8260B	01/31/02	01/31/02	2010921	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	2.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	2.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	5.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.00	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	2.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surr: 4-BFB	*108 %*	*84-118*							
Surr: 1,2-DCA-d4	*100 %*	*79-123*							
Surr: Dibromofluoromethane	*98.5 %*	*81-121*							
Surr: Toluene-d8	*99.0 %*	*87-111*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW02-020128 (P2A0704-04) Water					Sampled: 01/28/02 Received: 01/28/02				
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	01/31/02	02/06/02	2010932	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW02-020128 (P2A0704-04) Water					Sampled: 01/28/02 Received: 01/28/02				
Fluorene	ND	5.00	ug/l	1	EPA 8270C	01/31/02	02/06/02	2010932	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*51.1 %*	*26-135*							
Surr: 2-Fluorophenol	*27.6 %*	*6-124*							
Surr: Nitrobenzene-d5	*43.8 %*	*23-147*							
Surr: Phenol-d6	*19.9 %*	*11-130*							
Surr: p-Terphenyl-d14	*63.7 %*	*38-149*							
Surr: 2,4,6-Tribromophenol	*56.9 %*	*19-126*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW03-020127 (P2A0704-05) Water					Sampled: 01/27/02 Received: 01/28/02				
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW03-020127 (P2A0704-05) Water					Sampled: 01/27/02 Received: 01/28/02				
Fluorene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	**18.4**	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*50.8 %*	*26-135*							
Surr: 2-Fluorophenol	*33.6 %*	*6-124*							
Surr: Nitrobenzene-d5	*58.6 %*	*23-147*							
Surr: Phenol-d6	*21.9 %*	*11-130*							
Surr: p-Terphenyl-d14	*80.4 %*	*38-149*							
Surr: 2,4,6-Tribromophenol	*92.3 %*	*19-126*							

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW04-020127 (P2A0704-06) Water					Sampled: 01/27/02 Received: 01/28/02				
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW04-020127 (P2A0704-06) Water					Sampled: 01/27/02 Received: 01/28/02				
Fluorene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*45.5 %*	*26-135*							
Surr: 2-Fluorophenol	*30.2 %*	*6-124*							
Surr: Nitrobenzene-d5	*57.3 %*	*23-147*							
Surr: Phenol-d6	*20.4 %*	*11-130*							
Surr: p-Terphenyl-d14	*74.0 %*	*38-149*							
Surr: 2,4,6-Tribromophenol	*76.8 %*	*19-126*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW05-020127 (P2A0704-07) Water					Sampled: 01/27/02 Received: 01/28/02				
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

North Creek Analytical - Portland

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW05-020127 (P2A0704-07) Water					Sampled: 01/27/02 Received: 01/28/02				
Fluorene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*51.1 %*	*26-135*							
Surr: 2-Fluorophenol	*33.7 %*	*6-124*							
Surr: Nitrobenzene-d5	*60.0 %*	*23-147*							
Surr: Phenol-d6	*22.2 %*	*11-130*							
Surr: p-Terphenyl-d14	*75.6 %*	*38-149*							
Surr: 2,4,6-Tribromophenol	*81.7 %*	*19-126*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW06-020128 (P2A0704-08) Water					Sampled: 01/28/02 Received: 01/28/02				
Acenaphthene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Acenaphthylene	ND	5.00	"	"	"	"	"	"	
Anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) anthracene	ND	5.00	"	"	"	"	"	"	
Benzo (a) pyrene	ND	5.00	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	5.00	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	5.00	"	"	"	"	"	"	
Benzoic Acid	ND	50.0	"	"	"	"	"	"	
Benzyl alcohol	ND	10.0	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	5.00	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	5.00	"	"	"	"	"	"	
4-Chloroaniline	ND	20.0	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	10.0	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	5.00	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	10.0	"	"	"	"	"	"	
2-Chloronaphthalene	ND	5.00	"	"	"	"	"	"	
2-Chlorophenol	ND	5.00	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	5.00	"	"	"	"	"	"	
Chrysene	ND	5.00	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	5.00	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	5.00	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	5.00	"	"	"	"	"	"	
Dibenzofuran	ND	5.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.00	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	5.00	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	5.00	"	"	"	"	"	"	
Diethyl phthalate	ND	5.00	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	10.0	"	"	"	"	"	"	
Dimethyl phthalate	ND	5.00	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	10.0	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	25.0	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	5.00	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.0	"	"	"	"	"	"	
Fluoranthene	ND	5.00	"	"	"	"	"	"	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW06-020128 (P2A0704-08) Water						Sampled: 01/28/02	Received: 01/28/02		
Fluorene	ND	5.00	ug/l	1	EPA 8270C	02/01/02	02/06/02	2020011	
Hexachlorobenzene	ND	5.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	10.0	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	10.0	"	"	"	"	"	"	
Hexachloroethane	ND	10.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	5.00	"	"	"	"	"	"	
Isophorone	ND	5.00	"	"	"	"	"	"	
2-Methylnaphthalene	ND	5.00	"	"	"	"	"	"	
2-Methylphenol	ND	10.0	"	"	"	"	"	"	
3-,4-Methylphenol	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	5.00	"	"	"	"	"	"	
2-Nitroaniline	ND	5.00	"	"	"	"	"	"	
3-Nitroaniline	ND	10.0	"	"	"	"	"	"	
4-Nitroaniline	ND	10.0	"	"	"	"	"	"	
Nitrobenzene	ND	5.00	"	"	"	"	"	"	
2-Nitrophenol	ND	5.00	"	"	"	"	"	"	
4-Nitrophenol	ND	25.0	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	10.0	"	"	"	"	"	"	
N-Nitrosodiphenylamine	ND	5.00	"	"	"	"	"	"	
Pentachlorophenol	ND	10.0	"	"	"	"	"	"	
Phenanthrene	ND	5.00	"	"	"	"	"	"	
Phenol	ND	5.00	"	"	"	"	"	"	
Pyrene	ND	5.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.00	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	5.00	"	"	"	"	"	"	
Surr: 2-Fluorobiphenyl	*41.5 %*	*26-135*							
Surr: 2-Fluorophenol	*34.4 %*	*6-124*							
Surr: Nitrobenzene-d5	*59.5 %*	*23-147*							
Surr: Phenol-d6	*22.0 %*	*11-130*							
Surr: p-Terphenyl-d14	*75.6 %*	*38-149*							
Surr: 2,4,6-Tribromophenol	*80.3 %*	*19-126*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW01-020128 (P2A0704-03) Water						Sampled: 01/28/02	Received: 01/28/02		
Acenaphthene	ND	0.100	ug/l	1	EPA 8270m	01/29/02	02/01/02	2010848	
Acenaphthylene	ND	0.100	"	"	"	"	"	"	
Anthracene	ND	0.100	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.100	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.100	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.100	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.100	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.100	"	"	"	"	"	"	
Chrysene	ND	0.100	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.200	"	"	"	"	"	"	
Fluoranthene	ND	0.100	"	"	"	"	"	"	
Fluorene	ND	0.100	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.100	"	"	"	"	"	"	
Naphthalene	ND	0.100	"	"	"	"	"	"	
Phenanthrene	ND	0.100	"	"	"	"	"	"	
Pyrene	ND	0.100	"	"	"	"	"	"	
Surr: Fluorene-d10	*71.2 %*	*25-125*							
Surr: Pyrene-d10	*89.8 %*	*23-150*							
Surr: Benzo (a) pyrene-d12	*69.1 %*	*10-125*							
GW-MW07-020128 (P2A0704-09) Water						Sampled: 01/28/02	Received: 01/28/02		
Acenaphthene	ND	0.100	ug/l	1	EPA 8270m	01/29/02	02/01/02	2010848	
Acenaphthylene	ND	0.100	"	"	"	"	"	"	
Anthracene	ND	0.100	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.100	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.100	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.100	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	0.100	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.100	"	"	"	"	"	"	
Chrysene	ND	0.100	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	0.200	"	"	"	"	"	"	
Fluoranthene	ND	0.100	"	"	"	"	"	"	
Fluorene	ND	0.100	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.100	"	"	"	"	"	"	
Naphthalene	ND	0.100	"	"	"	"	"	"	
Phenanthrene	ND	0.100	"	"	"	"	"	"	
Pyrene	ND	0.100	"	"	"	"	"	"	
Surr: Fluorene-d10	*69.5 %*	*25-125*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polynuclear Aromatic Compounds per EPA 8270M-SIM

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
GW-MW07-020128 (P2A0704-09) Water						Sampled: 01/28/02	Received: 01/28/02		
Surr: Pyrene-d10	*85.6 %*	*23-150*							
Surr: Benzo (a) pyrene-d12	*73.7 %*	*10-125*							
CBS-07-020128 (P2A0704-15) Soil						Sampled: 01/28/02	Received: 01/28/02		**R-05**
Acenaphthene	**181**	67.0	ug/kg dry	5	EPA 8270m	01/31/02	02/01/02	2010931	
Acenaphthylene	ND	67.0	"	"	"	"	"	"	
Anthracene	ND	67.0	"	"	"	"	"	"	
Benzo (a) anthracene	ND	67.0	"	"	"	"	"	"	
Benzo (a) pyrene	ND	67.0	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	67.0	"	"	"	"	"	"	
Benzo (ghi) perylene	ND	67.0	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	67.0	"	"	"	"	"	"	
Chrysene	ND	67.0	"	"	"	"	"	"	
Dibenzo (a,h) anthracene	ND	67.0	"	"	"	"	"	"	
Fluoranthene	**80.5**	67.0	"	"	"	"	"	"	
Fluorene	**301**	67.0	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	67.0	"	"	"	"	"	"	
Naphthalene	ND	335	"	"	"	"	"	"	
Phenanthrene	**491**	67.0	"	"	"	"	"	"	
Pyrene	**90.0**	67.0	"	"	"	"	"	"	
Surr: Fluorene-d10	*88.2 %*	*40-150*							
Surr: Pyrene-d10	*89.8 %*	*40-150*							
Surr: Benzo (a) pyrene-d12	*77.1 %*	*40-150*							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Percent Dry Weight (Solids) per Standard Methods
North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
S-PP04-1.0 (P2A0704-11) Soil					Sampled: 01/28/02 Received: 01/28/02				
% Solids	**84.7**	1.00	% by Weight	1	NCA SOP	01/29/02	01/30/02	2010846	
S-PP04-5.0 (P2A0704-12) Soil					Sampled: 01/28/02 Received: 01/28/02				
% Solids	**86.1**	1.00	% by Weight	1	NCA SOP	01/29/02	01/30/02	2010846	
OFS-07-020128 (P2A0704-14) Soil					Sampled: 01/28/02 Received: 01/28/02				
% Solids	**70.0**	1.00	% by Weight	1	NCA SOP	01/29/02	01/30/02	2010846	
CBS-07-020128 (P2A0704-15) Soil					Sampled: 01/28/02 Received: 01/28/02				
% Solids	**65.5**	1.00	% by Weight	1	NCA SOP	01/31/02	02/01/02	2010933	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010862 - EPA 3510 Fuels										
Blank (2010862-BLK1)				Prepared: 01/29/02 Analyzed: 01/30/02						
Gasoline Range Hydrocarbons	ND	0.125	mg/l							
Diesel Range Hydrocarbons	ND	0.315	"							
Heavy Oil Range Hydrocarbons	ND	0.315	"							
Surr: 1-Chlorooctadecane	*DET*		"	*0.0960*		*102*	*50-150*			
Batch 2010928 - TPH-HCID Extraction										
Blank (2010928-BLK1)				Prepared & Analyzed: 01/31/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*90.2*	*50-150*			
Duplicate (2010928-DUP1)		**Source: P2A0704-11**		Prepared & Analyzed: 01/31/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			29.9	50	
Surr: 1-Chlorooctadecane	*DET*		"	*4.68*		*174*	*50-150*			*S-02*
Batch 2020037 - TPH-HCID Extraction										
Blank (2020037-BLK1)				Prepared: 02/01/02 Analyzed: 02/04/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg							
Diesel Range Hydrocarbons	ND	50.0	"							
Heavy Oil Range Hydrocarbons	ND	100	"							
Surr: 1-Chlorooctadecane	*DET*		"	*3.96*		*108*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Hydrocarbon Identification per NW-TPH Methodology - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020037 - TPH-HCID Extraction										
Duplicate (2020037-DUP1)		**Source: P2A0704-15**		Prepared: 02/01/02 Analyzed: 02/02/02						
Gasoline Range Hydrocarbons	ND	20.0	mg/kg dry		ND				50	
Diesel Range Hydrocarbons	ND	50.0	"		ND				50	
Heavy Oil Range Hydrocarbons	DET	100	"		DET			46.1	50	
Surr: 1-Chlorooctadecane	*DET*		*"*	*6.05*		*100*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020224 - EPA 3550 Fuels										
Blank (2020224-BLK1)				Prepared & Analyzed: 02/08/02						
Diesel Range Organics	ND	25.0	mg/kg							
Heavy Oil Range Hydrocarbons	ND	50.0	"							
Surr: 1-Chlorooctadecane	*4.20*		"	*4.80*		*87.5*	*50-150*			
LCS (2020224-BS1)				Prepared & Analyzed: 02/08/02						
Diesel Range Organics	128	25.0	mg/kg	127		101	50-150			
Heavy Oil Range Hydrocarbons	62.3	50.0	"	75.1		83.0	50-150			
Surr: 1-Chlorooctadecane	*4.81*		"	*4.80*		*100*	*50-150*			
Duplicate (2020224-DUP1)		**Source: P2A0704-11**		Prepared & Analyzed: 02/08/02						
Diesel Range Organics	ND	125	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	2160	250	"		1520			34.8	50	
Surr: 1-Chlorooctadecane	*6.97*		"	*5.67*		*123*	*50-150*			
Duplicate (2020224-DUP2)		**Source: P2B0039-01**		Prepared & Analyzed: 02/08/02						
Diesel Range Organics	ND	25.0	mg/kg dry		ND				50	
Heavy Oil Range Hydrocarbons	ND	50.0	"		ND				50	
Surr: 1-Chlorooctadecane	*5.11*		"	*5.81*		*88.0*	*50-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010867 - EPA 200/3005										
Blank (2010867-BLK1)				Prepared: 01/29/02 Analyzed: 02/06/02						
Antimony	ND	0.00100	mg/l							
Arsenic	ND	0.00100	"							
Barium	ND	0.00200	"							
Cadmium	ND	0.00100	"							
Chromium	ND	0.00100	"							
Copper	ND	0.00200	"							
Lead	ND	0.00100	"							
Nickel	ND	0.00200	"							
Zinc	ND	0.00500	"							
LCS (2010867-BS1)				Prepared: 01/29/02 Analyzed: 02/06/02						
Antimony	0.0545	0.00100	mg/l	0.0500		109	80-120			
Arsenic	0.102	0.00100	"	0.100		102	80-120			
Barium	0.100	0.00200	"	0.100		100	80-120			
Cadmium	0.100	0.00100	"	0.100		100	80-120			
Chromium	0.108	0.00100	"	0.100		108	80-120			
Copper	0.110	0.00200	"	0.100		110	80-120			
Lead	0.0984	0.00100	"	0.100		98.4	80-120			
Nickel	0.109	0.00200	"	0.100		109	80-120			
Zinc	0.102	0.00500	"	0.100		102	80-120			
Duplicate (2010867-DUP1)		**Source: P2A0704-04**		Prepared: 01/29/02 Analyzed: 02/06/02						
Antimony	ND	0.00100	mg/l		ND			3.92	20	
Arsenic	ND	0.00100	"		0.00107				20	
Barium	0.0235	0.00200	"		0.0233			0.855	20	
Cadmium	ND	0.00100	"		ND				20	
Chromium	0.00177	0.00100	"		0.00196			10.2	20	
Copper	0.00844	0.00200	"		ND			126	20	Q-06
Lead	ND	0.00100	"		ND			0.00	20	
Nickel	ND	0.00200	"		ND			1.24	20	
Zinc	0.0113	0.00500	"		0.0106			6.39	20	

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010867 - EPA 200/3005										
Matrix Spike (2010867-MS1)		**Source: P2A0704-04**		Prepared: 01/29/02 Analyzed: 02/06/02						
Antimony	0.0582	0.00100	mg/l	0.0500	ND	115	75-125			
Arsenic	0.106	0.00100	"	0.100	0.00107	105	75-125			
Barium	0.126	0.00200	"	0.100	0.0233	103	75-125			
Cadmium	0.100	0.00100	"	0.100	ND	100	75-125			
Chromium	0.111	0.00100	"	0.100	0.00196	109	75-125			
Copper	0.117	0.00200	"	0.100	ND	115	75-125			
Lead	0.101	0.00100	"	0.100	ND	100	75-125			
Nickel	0.109	0.00200	"	0.100	ND	107	75-125			
Zinc	0.114	0.00500	"	0.100	0.0106	103	75-125			
Matrix Spike (2010867-MS2)		**Source: P2A0704-05**		Prepared: 01/29/02 Analyzed: 02/06/02						
Antimony	0.0567	0.00100	mg/l	0.0500	ND	113	75-125			
Arsenic	0.136	0.00100	"	0.100	0.0308	105	75-125			
Barium	0.247	0.00200	"	0.100	0.148	99.0	75-125			
Cadmium	0.100	0.00100	"	0.100	ND	100	75-125			
Chromium	0.112	0.00100	"	0.100	0.00161	110	75-125			
Copper	0.112	0.00200	"	0.100	ND	111	75-125			
Lead	0.0967	0.00100	"	0.100	ND	96.6	75-125			
Nickel	0.113	0.00200	"	0.100	0.00578	107	75-125			
Zinc	0.102	0.00500	"	0.100	0.00707	94.9	75-125			
Batch 2010936 - EPA 3050										
Blank (2010936-BLK1)				Prepared & Analyzed: 01/31/02						
Antimony	ND	0.500	mg/kg							
Arsenic	ND	0.500	"							
Barium	ND	1.00	"							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Copper	ND	1.00	"							
Lead	ND	0.500	"							
Nickel	ND	1.00	"							
Zinc	ND	2.50	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010936 - EPA 3050										
LCS (2010936-BS1)				Prepared & Analyzed: 01/31/02						
Antimony	5.22	0.500	mg/kg	5.00		104	80-120			
Arsenic	10.1	0.500	"	10.0		101	80-120			
Barium	10.4	1.00	"	10.0		104	80-120			
Cadmium	10.3	0.500	"	10.0		103	80-120			
Chromium	10.2	0.500	"	10.0		102	80-120			
Copper	10.8	1.00	"	10.0		108	80-120			
Lead	9.99	0.500	"	10.0		99.9	80-120			
Nickel	10.7	1.00	"	10.0		107	80-120			
Zinc	9.11	2.50	"	10.0		91.1	80-120			
Duplicate (2010936-DUP1)	**Source: P2A0704-12**			Prepared & Analyzed: 01/31/02						
Antimony	ND	0.500	mg/kg dry		ND			44.9	40	Q-06
Arsenic	2.45	0.500	"		3.13			24.4	40	
Barium	90.5	1.00	"		89.0			1.67	40	
Cadmium	ND	0.500	"		ND				40	
Chromium	8.51	0.500	"		9.15			7.25	40	
Copper	15.2	1.00	"		15.9			4.50	40	
Lead	7.33	0.500	"		6.31			15.0	40	
Nickel	12.4	1.00	"		14.0			12.1	40	
Zinc	43.6	2.50	"		48.3			10.2	40	
Matrix Spike (2010936-MS1)	**Source: P2A0704-12**			Prepared & Analyzed: 01/31/02						
Antimony	2.98	0.500	mg/kg dry	5.81	ND	49.4	75-125			Q-02
Arsenic	15.7	0.500	"	11.6	3.13	108	75-125			
Barium	112	1.00	"	11.6	89.0	198	75-125			Q-03
Cadmium	12.7	0.500	"	11.6	ND	109	75-125			
Chromium	22.9	0.500	"	11.6	9.15	119	75-125			
Copper	30.3	1.00	"	11.6	15.9	124	75-125			
Lead	19.9	0.500	"	11.6	6.31	117	75-125			
Nickel	27.7	1.00	"	11.6	14.0	118	75-125			
Zinc	62.2	2.50	"	11.6	48.3	120	75-125			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010936 - EPA 3050										
Matrix Spike (2010936-MS2)	**Source: P2A0704-14**			Prepared & Analyzed: 01/31/02						
Antimony	4.70	0.500	mg/kg dry	7.15	20.0	NR	75-125			Q-02
Arsenic	15.1	0.500	"	14.3	11.8	23.1	75-125			Q-02
Barium	137	1.00	"	14.3	184	NR	75-125			Q-03
Cadmium	16.7	0.500	"	14.3	3.19	94.5	75-125			
Chromium	106	0.500	"	14.3	117	NR	75-125			Q-03
Copper	456	1.00	"	14.3	660	NR	75-125			Q-03
Lead	625	0.500	"	14.3	493	NR	75-125			Q-03
Nickel	80.5	1.00	"	14.3	78.9	11.2	75-125			Q-03
Zinc	544	2.50	"	14.3	691	NR	75-125			Q-03
Batch 2020076 - EPA 3050										
Blank (2020076-BLK1)				Prepared: 02/04/02 Analyzed: 02/11/02						
Antimony	ND	0.500	mg/kg							
Arsenic	ND	0.500	"							
Barium	ND	1.00	"							
Cadmium	ND	0.500	"							
Chromium	ND	0.500	"							
Copper	ND	1.00	"							
Lead	ND	0.500	"							
Nickel	ND	1.00	"							
Zinc	ND	2.50	"							
LCS (2020076-BS1)				Prepared: 02/04/02 Analyzed: 02/11/02						
Antimony	4.90	0.500	mg/kg	5.00		98.0	80-120			
Arsenic	9.50	0.500	"	10.0		95.0	80-120			
Barium	10.7	1.00	"	10.0		107	80-120			
Cadmium	9.44	0.500	"	10.0		94.4	80-120			
Chromium	9.90	0.500	"	10.0		99.0	80-120			
Copper	9.78	1.00	"	10.0		97.8	80-120			
Lead	9.22	0.500	"	10.0		92.2	80-120			
Nickel	9.89	1.00	"	10.0		98.9	80-120			
Zinc	9.86	2.50	"	10.0		98.6	80-120			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020076 - EPA 3050										
Duplicate (2020076-DUP1)		**Source: P2A0704-15**		Prepared: 02/04/02 Analyzed: 02/11/02						
Antimony	3.28	0.500	mg/kg dry		3.48			5.92	40	
Arsenic	7.42	0.500	"		8.60			14.7	40	
Barium	269	1.00	"		271			0.741	40	
Cadmium	2.94	0.500	"		2.95			0.340	40	
Chromium	1050	3.07	"		894			16.0	40	
Copper	294	1.00	"		331			11.8	40	
Lead	363	0.500	"		369			1.64	40	
Nickel	97.2	1.00	"		106			8.66	40	
Zinc	2090	15.3	"		2070			0.962	40	
Matrix Spike (2020076-MS1)		**Source: P2A0704-15**		Prepared: 02/04/02 Analyzed: 02/11/02						
Antimony	6.61	0.500	mg/kg dry	7.64	3.48	41.0	75-125			Q-02
Arsenic	21.9	0.500	"	15.3	8.60	86.9	75-125			
Barium	307	1.00	"	15.3	271	NR	75-125			Q-03
Cadmium	17.4	0.500	"	15.3	2.95	94.4	75-125			
Chromium	1540	3.11	"	15.3	894	NR	75-125			Q-03
Copper	324	1.00	"	15.3	331	NR	75-125			Q-14
Lead	326	0.500	"	15.3	369	NR	75-125			Q-14
Nickel	117	1.00	"	15.3	106	71.9	75-125			Q-14
Zinc	2610	15.5	"	15.3	2070	NR	75-125			Q-03
Batch 2020097 - EPA 7470										
Blank (2020097-BLK1)				Prepared & Analyzed: 02/05/02						
Mercury	ND	0.000200	mg/l							
LCS (2020097-BS1)				Prepared & Analyzed: 02/05/02						
Mercury	0.00482	0.000200	mg/l	0.00500		96.4	80-120			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Total Metals per EPA 6000/7000 Series Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020097 - EPA 7470										
Duplicate (2020097-DUP1)		**Source: P2A0704-04**		Prepared & Analyzed: 02/05/02						
Mercury	ND	0.000200	mg/l		ND				20	
Matrix Spike (2020097-MS1)		**Source: P2A0704-04**		Prepared & Analyzed: 02/05/02						
Mercury	0.00487	0.000200	mg/l	0.00500	ND	97.4	75-125			
Matrix Spike (2020097-MS2)		**Source: P2A0704-09**		Prepared & Analyzed: 02/05/02						
Mercury	0.00492	0.000200	mg/l	0.00500	ND	98.4	75-125			
Batch 2020221 - EPA 7471										
Blank (2020221-BLK1)				Prepared & Analyzed: 02/08/02						
Mercury	ND	0.100	mg/kg							
LCS (2020221-BS1)				Prepared & Analyzed: 02/08/02						
Mercury	1.02	0.100	mg/kg	1.00		102	80-120			
Duplicate (2020221-DUP1)		**Source: P2A0704-11**		Prepared & Analyzed: 02/08/02						
Mercury	0.570	0.100	mg/kg dry		0.811			34.9	40	
Matrix Spike (2020221-MS1)		**Source: P2A0704-11**		Prepared & Analyzed: 02/08/02						
Mercury	1.66	0.100	mg/kg dry	1.18	0.811	71.9	75-125			Q-01
Matrix Spike (2020221-MS2)		**Source: P2A0704-12**		Prepared & Analyzed: 02/08/02						
Mercury	1.19	0.100	mg/kg dry	1.16	ND	103	75-125			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polychlorinated Biphenyls per EPA Method 8082 - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020243 - EPA 3510/600 Series										
Blank (2020243-BLK1)				Prepared: 01/31/02 Analyzed: 02/08/02						
Aroclor 1016	ND	0.500	ug/l							
Aroclor 1221	ND	1.00	"							
Aroclor 1232	ND	0.500	"							
Aroclor 1242	ND	0.500	"							
Aroclor 1248	ND	0.500	"							
Aroclor 1254	ND	0.500	"							
Aroclor 1260	ND	0.500	"							
Surr: 2,4,5,6-Tetrachloro-m-xylene	*0.335*		"	*0.500*		*67.0*	*16-137*			
Surr: Decachlorobiphenyl	*0.411*		"	*0.500*		*82.2*	*12-130*			
LCS (2020243-BS1)				Prepared: 01/31/02 Analyzed: 02/08/02						
Aroclor 1016	4.38	0.500	ug/l	5.00		87.6	57-122			
Aroclor 1260	4.90	0.500	"	5.00		98.0	62-120			
Surr: 2,4,5,6-Tetrachloro-m-xylene	*0.323*		"	*0.500*		*64.6*	*16-137*			
Surr: Decachlorobiphenyl	*0.487*		"	*0.500*		*97.4*	*12-130*			
LCS Dup (2020243-BSD1)				Prepared: 01/31/02 Analyzed: 02/08/02						
Aroclor 1016	4.54	0.500	ug/l	5.00		90.8	57-122	3.59	22	
Aroclor 1260	5.00	0.500	"	5.00		100	62-120	2.02	23	
Surr: 2,4,5,6-Tetrachloro-m-xylene	*0.355*		"	*0.500*		*71.0*	*16-137*			
Surr: Decachlorobiphenyl	*0.533*		"	*0.500*		*107*	*12-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010921 - EPA 5030B										
Blank (2010921-BLK1)				Prepared & Analyzed: 01/31/02						
Acetone	ND	25.0	ug/l							
Benzene	ND	1.00	"							
Bromobenzene	ND	1.00	"							
Bromochloromethane	ND	1.00	"							
Bromodichloromethane	ND	1.00	"							
Bromoform	ND	1.00	"							
Bromomethane	ND	5.00	"							
2-Butanone	ND	10.0	"							
n-Butylbenzene	ND	5.00	"							
sec-Butylbenzene	ND	1.00	"							
tert-Butylbenzene	ND	1.00	"							
Carbon disulfide	ND	10.0	"							
Carbon tetrachloride	ND	1.00	"							
Chlorobenzene	ND	1.00	"							
Chloroethane	ND	1.00	"							
Chloroform	ND	1.00	"							
Chloromethane	ND	5.00	"							
2-Chlorotoluene	ND	1.00	"							
4-Chlorotoluene	ND	1.00	"							
1,2-Dibromo-3-chloropropane	ND	5.00	"							
Dibromochloromethane	ND	1.00	"							
1,2-Dibromoethane	ND	1.00	"							
Dibromomethane	ND	1.00	"							
1,2-Dichlorobenzene	ND	1.00	"							
1,3-Dichlorobenzene	ND	1.00	"							
1,4-Dichlorobenzene	ND	1.00	"							
Dichlorodifluoromethane	ND	5.00	"							
1,1-Dichloroethane	ND	1.00	"							
1,2-Dichloroethane	ND	1.00	"							
1,1-Dichloroethene	ND	1.00	"							
cis-1,2-Dichloroethene	ND	1.00	"							
trans-1,2-Dichloroethene	ND	1.00	"							
1,2-Dichloropropane	ND	1.00	"							
1,3-Dichloropropane	ND	1.00	"							
2,2-Dichloropropane	ND	1.00	"							
1,1-Dichloropropene	ND	1.00	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010921 - EPA 5030B										
Blank (2010921-BLK1)				Prepared & Analyzed: 01/31/02						
cis-1,3-Dichloropropene	ND	1.00	ug/l							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	2.00	"							
p-Isopropyltoluene	ND	2.00	"							
4-Methyl-2-pentanone	ND	5.00	"							
Methyl tert-butyl ether	ND	1.00	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	2.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surr: 4-BFB	*22.2*		"	*20.0*		*111*	*84-118*			
Surr: 1,2-DCA-d4	*20.2*		"	*20.0*		*101*	*79-123*			
Surr: Dibromofluoromethane	*19.8*		"	*20.0*		*99.0*	*81-121*			
Surr: Toluene-d8	*20.0*		"	*20.0*		*100*	*87-111*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010921 - EPA 5030B										
LCS (2010921-BS1)				Prepared & Analyzed: 01/31/02						
Benzene	19.5	1.00	ug/l	20.0		97.5	80-125			
Chlorobenzene	21.1	1.00	"	20.0		106	80-125			
1,1-Dichloroethene	19.1	1.00	"	20.0		95.5	70-135			
Toluene	20.4	1.00	"	20.0		102	80-125			
Trichloroethene	20.3	1.00	"	20.0		102	70-130			
Surr: 4-BFB	*21.2*		"	*20.0*		*106*	*84-118*			
Surr: 1,2-DCA-d4	*20.2*		"	*20.0*		*101*	*79-123*			
Surr: Dibromofluoromethane	*20.4*		"	*20.0*		*102*	*81-121*			
Surr: Toluene-d8	*20.6*		"	*20.0*		*103*	*87-111*			
Matrix Spike (2010921-MS1)	**Source: P2A0704-03**			Prepared & Analyzed: 01/31/02						
Benzene	21.4	1.00	ug/l	20.0	ND	107	80-125			
Chlorobenzene	21.7	1.00	"	20.0	ND	108	80-125			
1,1-Dichloroethene	21.8	1.00	"	20.0	ND	108	70-135			
Toluene	21.4	1.00	"	20.0	ND	107	80-125			
Trichloroethene	25.2	1.00	"	20.0	4.50	104	70-130			
Surr: 4-BFB	*21.7*		"	*20.0*		*108*	*84-118*			
Surr: 1,2-DCA-d4	*19.0*		"	*20.0*		*95.0*	*79-123*			
Surr: Dibromofluoromethane	*20.3*		"	*20.0*		*102*	*81-121*			
Surr: Toluene-d8	*20.1*		"	*20.0*		*100*	*87-111*			
Matrix Spike Dup (2010921-MSD1)	**Source: P2A0704-03**			Prepared & Analyzed: 01/31/02						
Benzene	19.9	1.00	ug/l	20.0	ND	99.5	80-125	7.26	25	
Chlorobenzene	20.4	1.00	"	20.0	ND	102	80-125	6.18	25	
1,1-Dichloroethene	21.4	1.00	"	20.0	ND	106	70-135	1.85	25	
Toluene	19.8	1.00	"	20.0	ND	99.0	80-125	7.77	25	
Trichloroethene	23.7	1.00	"	20.0	4.50	96.0	70-130	6.13	25	
Surr: 4-BFB	*21.2*		"	*20.0*		*106*	*84-118*			
Surr: 1,2-DCA-d4	*20.0*		"	*20.0*		*100*	*79-123*			
Surr: Dibromofluoromethane	*20.5*		"	*20.0*		*102*	*81-121*			
Surr: Toluene-d8	*20.1*		"	*20.0*		*100*	*87-111*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010939 - EPA 5035										
Blank (2010939-BLK1)				Prepared: 01/31/02 Analyzed: 02/06/02						
Acetone	ND	2500	ug/kg							
Benzene	ND	100	"							
Bromobenzene	ND	100	"							
Bromochloromethane	ND	100	"							
Bromodichloromethane	ND	100	"							
Bromoform	ND	100	"							
Bromomethane	ND	500	"							
2-Butanone	ND	1000	"							
n-Butylbenzene	ND	500	"							
sec-Butylbenzene	ND	100	"							
tert-Butylbenzene	ND	100	"							
Carbon disulfide	ND	1000	"							
Carbon tetrachloride	ND	100	"							
Chlorobenzene	ND	100	"							
Chloroethane	ND	100	"							
Chloroform	ND	100	"							
Chloromethane	ND	500	"							
2-Chlorotoluene	ND	100	"							
4-Chlorotoluene	ND	100	"							
1,2-Dibromo-3-chloropropane	ND	500	"							
Dibromochloromethane	ND	100	"							
1,2-Dibromoethane	ND	100	"							
Dibromomethane	ND	100	"							
1,2-Dichlorobenzene	ND	100	"							
1,3-Dichlorobenzene	ND	100	"							
1,4-Dichlorobenzene	ND	100	"							
Dichlorodifluoromethane	ND	500	"							
1,1-Dichloroethane	ND	100	"							
1,2-Dichloroethane	ND	100	"							
1,1-Dichloroethene	ND	100	"							
cis-1,2-Dichloroethene	ND	100	"							
trans-1,2-Dichloroethene	ND	100	"							
1,2-Dichloropropane	ND	100	"							
1,3-Dichloropropane	ND	100	"							
2,2-Dichloropropane	ND	100	"							
1,1-Dichloropropene	ND	100	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010939 - EPA 5035										
Blank (2010939-BLK1)				Prepared: 01/31/02 Analyzed: 02/06/02						
cis-1,3-Dichloropropene	ND	100	ug/kg							
trans-1,3-Dichloropropene	ND	100	"							
Ethylbenzene	ND	100	"							
Hexachlorobutadiene	ND	200	"							
2-Hexanone	ND	1000	"							
Isopropylbenzene	ND	200	"							
p-Isopropyltoluene	ND	200	"							
4-Methyl-2-pentanone	ND	500	"							
Methyl tert-butyl ether	ND	100	"							
Methylene chloride	ND	500	"							
Naphthalene	ND	200	"							
n-Propylbenzene	ND	100	"							
Styrene	ND	100	"							
1,1,1,2-Tetrachloroethane	ND	100	"							
1,1,2,2-Tetrachloroethane	ND	100	"							
Tetrachloroethene	ND	100	"							
Toluene	ND	100	"							
1,2,3-Trichlorobenzene	ND	100	"							
1,2,4-Trichlorobenzene	ND	100	"							
1,1,1-Trichloroethane	ND	100	"							
1,1,2-Trichloroethane	ND	100	"							
Trichloroethene	ND	100	"							
Trichlorofluoromethane	ND	100	"							
1,2,3-Trichloropropane	ND	100	"							
1,2,4-Trimethylbenzene	ND	100	"							
1,3,5-Trimethylbenzene	ND	100	"							
Vinyl chloride	ND	100	"							
o-Xylene	ND	100	"							
m,p-Xylene	ND	200	"							
Surr: 4-BFB	*2080*		"	*2000*		*104*	*70-130*			
Surr: 1,2-DCA-d4	*2460*		"	*2000*		*123*	*70-130*			
Surr: Dibromofluoromethane	*1990*		"	*2000*		*99.5*	*70-130*			
Surr: Toluene-d8	*2300*		"	*2000*		*115*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Volatile Organic Compounds per EPA Method 8260B - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010939 - EPA 5035										
LCS (2010939-BS1)				Prepared: 01/31/02 Analyzed: 02/06/02						
Benzene	2520	100	ug/kg	2500		101	80-135			
Chlorobenzene	2450	100	"	2500		98.0	80-135			
1,1-Dichloroethene	2490	100	"	2500		99.6	60-150			
Toluene	2500	100	"	2500		100	80-130			
Trichloroethene	2420	100	"	2500		96.8	70-135			
Surr: 4-BFB	*2030*		"	*2000*		*102*	*70-130*			
Surr: 1,2-DCA-d4	*2430*		"	*2000*		*122*	*70-130*			
Surr: Dibromofluoromethane	*2110*		"	*2000*		*106*	*70-130*			
Surr: Toluene-d8	*2350*		"	*2000*		*118*	*70-130*			
Matrix Spike (2010939-MS1)	**Source: P2A0667-05**			Prepared: 01/31/02 Analyzed: 02/06/02						
Benzene	2990	100	ug/kg dry	2920	ND	102	60-135			
Chlorobenzene	2910	100	"	2920	ND	99.7	65-125			
1,1-Dichloroethene	2930	100	"	2920	ND	100	60-135			
Toluene	3000	100	"	2920	ND	103	60-125			
Trichloroethene	2840	100	"	2920	ND	97.3	60-125			
Surr: 4-BFB	*2500*		"	*2330*		*107*	*70-130*			
Surr: 1,2-DCA-d4	*2770*		"	*2330*		*119*	*70-130*			
Surr: Dibromofluoromethane	*2450*		"	*2330*		*105*	*70-130*			
Surr: Toluene-d8	*2730*		"	*2330*		*117*	*70-130*			
Matrix Spike Dup (2010939-MSD1)	**Source: P2A0667-05**			Prepared: 01/31/02 Analyzed: 02/06/02						
Benzene	2980	100	ug/kg dry	2920	ND	102	60-135	0.335	25	
Chlorobenzene	2900	100	"	2920	ND	99.3	65-125	0.344	25	
1,1-Dichloroethene	2840	100	"	2920	ND	97.3	60-135	3.12	25	
Toluene	2960	100	"	2920	ND	101	60-125	1.34	25	
Trichloroethene	2750	100	"	2920	ND	94.2	60-125	3.22	25	
Surr: 4-BFB	*2460*		"	*2330*		*106*	*70-130*			
Surr: 1,2-DCA-d4	*2700*		"	*2330*		*116*	*70-130*			
Surr: Dibromofluoromethane	*2400*		"	*2330*		*103*	*70-130*			
Surr: Toluene-d8	*2650*		"	*2330*		*114*	*70-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010932 - EPA 3510/600 Series										
Blank (2010932-BLK1)				Prepared: 01/31/02 Analyzed: 02/06/02						
Acenaphthene	ND	5.00	ug/l							
Acenaphthylene	ND	5.00	"							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (ghi) perylene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzoic Acid	ND	50.0	"							
Benzyl alcohol	ND	10.0	"							
4-Bromophenyl phenyl ether	ND	5.00	"							
Butyl benzyl phthalate	ND	5.00	"							
4-Chloro-3-methylphenol	ND	5.00	"							
4-Chloroaniline	ND	20.0	"							
Bis(2-chloroethoxy)methane	ND	10.0	"							
Bis(2-chloroethyl)ether	ND	5.00	"							
Bis(2-chloroisopropyl)ether	ND	10.0	"							
2-Chloronaphthalene	ND	5.00	"							
2-Chlorophenol	ND	5.00	"							
4-Chlorophenyl phenyl ether	ND	5.00	"							
Chrysene	ND	5.00	"							
Di-n-butyl phthalate	ND	5.00	"							
Di-n-octyl phthalate	ND	5.00	"							
Dibenzo (a,h) anthracene	ND	5.00	"							
Dibenzofuran	ND	5.00	"							
1,2-Dichlorobenzene	ND	5.00	"							
1,3-Dichlorobenzene	ND	5.00	"							
1,4-Dichlorobenzene	ND	5.00	"							
3,3'-Dichlorobenzidine	ND	5.00	"							
2,4-Dichlorophenol	ND	5.00	"							
Diethyl phthalate	ND	5.00	"							
2,4-Dimethylphenol	ND	10.0	"							
Dimethyl phthalate	ND	5.00	"							
4,6-Dinitro-2-methylphenol	ND	10.0	"							
2,4-Dinitrophenol	ND	25.0	"							
2,4-Dinitrotoluene	ND	5.00	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010932 - EPA 3510/600 Series										
Blank (2010932-BLK1)				Prepared: 01/31/02 Analyzed: 02/06/02						
2,6-Dinitrotoluene	ND	5.00	ug/l							
Bis(2-ethylhexyl)phthalate	ND	10.0	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Hexachlorobenzene	ND	5.00	"							
Hexachlorobutadiene	ND	10.0	"							
Hexachlorocyclopentadiene	ND	10.0	"							
Hexachloroethane	ND	10.0	"							
Indeno (1,2,3-cd) pyrene	ND	5.00	"							
Isophorone	ND	5.00	"							
2-Methylnaphthalene	ND	5.00	"							
2-Methylphenol	ND	10.0	"							
3-,4-Methylphenol	ND	5.00	"							
Naphthalene	ND	5.00	"							
2-Nitroaniline	ND	5.00	"							
3-Nitroaniline	ND	10.0	"							
4-Nitroaniline	ND	10.0	"							
Nitrobenzene	ND	5.00	"							
2-Nitrophenol	ND	5.00	"							
4-Nitrophenol	ND	25.0	"							
N-Nitrosodi-n-propylamine	ND	10.0	"							
N-Nitrosodiphenylamine	ND	5.00	"							
Pentachlorophenol	ND	10.0	"							
Phenanthrene	ND	5.00	"							
Phenol	ND	5.00	"							
Pyrene	ND	5.00	"							
1,2,4-Trichlorobenzene	ND	5.00	"							
2,4,5-Trichlorophenol	ND	5.00	"							
2,4,6-Trichlorophenol	ND	5.00	"							
Surr: 2-Fluorobiphenyl	*54.7*		"	*75.0*		*72.9*	*26-135*			
Surr: 2-Fluorophenol	*63.3*		"	*150*		*42.2*	*6-124*			
Surr: Nitrobenzene-d5	*54.4*		"	*75.0*		*72.5*	*23-147*			
Surr: Phenol-d6	*48.8*		"	*150*		*32.5*	*11-130*			
Surr: p-Terphenyl-d14	*60.0*		"	*75.0*		*80.0*	*38-149*			
Surr: 2,4,6-Tribromophenol	*104*		"	*150*		*69.3*	*19-126*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010932 - EPA 3510/600 Series										
LCS (2010932-BS1)				Prepared: 01/31/02 Analyzed: 02/06/02						
Acenaphthene	52.1	5.00	ug/l	75.0		69.5	40-110			
4-Chloro-3-methylphenol	112	5.00	"	150		74.7	40-110			
2-Chlorophenol	102	5.00	"	150		68.0	40-110			
1,4-Dichlorobenzene	37.0	5.00	"	75.0		49.3	20-90			
2,4-Dinitrotoluene	63.9	5.00	"	75.0		85.2	50-110			
4-Nitrophenol	53.3	25.0	"	150		35.5	15-100			
N-Nitrosodi-n-propylamine	42.2	10.0	"	75.0		56.3	40-110			
Pentachlorophenol	128	10.0	"	150		85.3	30-120			
Phenol	56.1	5.00	"	150		37.4	15-110			
Pyrene	55.3	5.00	"	75.0		73.7	40-110			
1,2,4-Trichlorobenzene	46.6	5.00	"	75.0		62.1	25-100			
Surr: 2-Fluorobiphenyl	*62.5*		"	*75.0*		*83.3*	*26-135*			
Surr: 2-Fluorophenol	*77.0*		"	*150*		*51.3*	*6-124*			
Surr: Nitrobenzene-d5	*57.1*		"	*75.0*		*76.1*	*23-147*			
Surr: Phenol-d6	*54.1*		"	*150*		*36.1*	*11-130*			
Surr: p-Terphenyl-d14	*61.1*		"	*75.0*		*81.5*	*38-149*			
Surr: 2,4,6-Tribromophenol	*124*		"	*150*		*82.7*	*19-126*			
LCS Dup (2010932-BSD1)				Prepared: 01/31/02 Analyzed: 02/06/02						
Acenaphthene	50.1	5.00	ug/l	75.0		66.8	40-110	3.91	36	
4-Chloro-3-methylphenol	105	5.00	"	150		70.0	40-110	6.45	43	
2-Chlorophenol	97.2	5.00	"	150		64.8	40-110	4.82	38	
1,4-Dichlorobenzene	36.3	5.00	"	75.0		48.4	20-90	1.91	43	
2,4-Dinitrotoluene	62.1	5.00	"	75.0		82.8	50-110	2.86	31	
4-Nitrophenol	54.6	25.0	"	150		36.4	15-100	2.41	36	
N-Nitrosodi-n-propylamine	41.9	10.0	"	75.0		55.9	40-110	0.713	37	
Pentachlorophenol	124	10.0	"	150		82.7	30-120	3.17	40	
Phenol	53.1	5.00	"	150		35.4	15-110	5.49	36	
Pyrene	54.7	5.00	"	75.0		72.9	40-110	1.09	31	
1,2,4-Trichlorobenzene	43.8	5.00	"	75.0		58.4	25-100	6.19	42	
Surr: 2-Fluorobiphenyl	*57.4*		"	*75.0*		*76.5*	*26-135*			
Surr: 2-Fluorophenol	*72.8*		"	*150*		*48.5*	*6-124*			
Surr: Nitrobenzene-d5	*54.5*		"	*75.0*		*72.7*	*23-147*			
Surr: Phenol-d6	*53.7*		"	*150*		*35.8*	*11-130*			
Surr: p-Terphenyl-d14	*59.9*		"	*75.0*		*79.9*	*38-149*			
Surr: 2,4,6-Tribromophenol	*119*		"	*150*		*79.3*	*19-126*			

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010932 - EPA 3510/600 Series										
Batch 2020011 - EPA 3510/600 Series										
Blank (2020011-BLK1)				Prepared: 02/01/02 Analyzed: 02/06/02						
Acenaphthene	ND	5.00	ug/l							
Acenaphthylene	ND	5.00	"							
Anthracene	ND	5.00	"							
Benzo (a) anthracene	ND	5.00	"							
Benzo (a) pyrene	ND	5.00	"							
Benzo (b) fluoranthene	ND	5.00	"							
Benzo (ghi) perylene	ND	5.00	"							
Benzo (k) fluoranthene	ND	5.00	"							
Benzoic Acid	ND	50.0	"							
Benzyl alcohol	ND	10.0	"							
4-Bromophenyl phenyl ether	ND	5.00	"							
Butyl benzyl phthalate	ND	5.00	"							
4-Chloro-3-methylphenol	ND	5.00	"							
4-Chloroaniline	ND	20.0	"							
Bis(2-chloroethoxy)methane	ND	10.0	"							
Bis(2-chloroethyl)ether	ND	5.00	"							
Bis(2-chloroisopropyl)ether	ND	10.0	"							
2-Chloronaphthalene	ND	5.00	"							
2-Chlorophenol	ND	5.00	"							
4-Chlorophenyl phenyl ether	ND	5.00	"							
Chrysene	ND	5.00	"							
Di-n-butyl phthalate	ND	5.00	"							
Di-n-octyl phthalate	ND	5.00	"							
Dibenzo (a,h) anthracene	ND	5.00	"							
Dibenzofuran	ND	5.00	"							
1,2-Dichlorobenzene	ND	5.00	"							
1,3-Dichlorobenzene	ND	5.00	"							
1,4-Dichlorobenzene	ND	5.00	"							
3,3'-Dichlorobenzidine	ND	5.00	"							
2,4-Dichlorophenol	ND	5.00	"							
Diethyl phthalate	ND	5.00	"							
2,4-Dimethylphenol	ND	10.0	"							
Dimethyl phthalate	ND	5.00	"							
4,6-Dinitro-2-methylphenol	ND	10.0	"							

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020011 - EPA 3510/600 Series										
Blank (2020011-BLK1)				Prepared: 02/01/02 Analyzed: 02/06/02						
2,4-Dinitrophenol	ND	25.0	ug/l							
2,4-Dinitrotoluene	ND	5.00	"							
2,6-Dinitrotoluene	ND	5.00	"							
Bis(2-ethylhexyl)phthalate	ND	10.0	"							
Fluoranthene	ND	5.00	"							
Fluorene	ND	5.00	"							
Hexachlorobenzene	ND	5.00	"							
Hexachlorobutadiene	ND	10.0	"							
Hexachlorocyclopentadiene	ND	10.0	"							
Hexachloroethane	ND	10.0	"							
Indeno (1,2,3-cd) pyrene	ND	5.00	"							
Isophorone	ND	5.00	"							
2-Methylnaphthalene	ND	5.00	"							
2-Methylphenol	ND	10.0	"							
3-,4-Methylphenol	ND	5.00	"							
Naphthalene	ND	5.00	"							
2-Nitroaniline	ND	5.00	"							
3-Nitroaniline	ND	10.0	"							
4-Nitroaniline	ND	10.0	"							
Nitrobenzene	ND	5.00	"							
2-Nitrophenol	ND	5.00	"							
4-Nitrophenol	ND	25.0	"							
N-Nitrosodi-n-propylamine	ND	10.0	"							
N-Nitrosodiphenylamine	ND	5.00	"							
Pentachlorophenol	ND	10.0	"							
Phenanthrene	ND	5.00	"							
Phenol	ND	5.00	"							
Pyrene	ND	5.00	"							
1,2,4-Trichlorobenzene	ND	5.00	"							
2,4,5-Trichlorophenol	ND	5.00	"							
2,4,6-Trichlorophenol	ND	5.00	"							
Surr: 2-Fluorobiphenyl	*49.3*		"	*75.0*		*65.7*	*26-135*			
Surr: 2-Fluorophenol	*80.6*		"	*150*		*53.7*	*6-124*			
Surr: Nitrobenzene-d5	*64.0*		"	*75.0*		*85.3*	*23-147*			
Surr: Phenol-d6	*52.5*		"	*150*		*35.0*	*11-130*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020011 - EPA 3510/600 Series										
Blank (2020011-BLK1)				Prepared: 02/01/02 Analyzed: 02/06/02						
Surr: p-Terphenyl-d14	*66.0*		*ug/l*	*75.0*		*88.0*	*38-149*			
Surr: 2,4,6-Tribromophenol	*146*		*"*	*150*		*97.3*	*19-126*			
LCS (2020011-BS1)				Prepared: 02/01/02 Analyzed: 02/06/02						
Acenaphthene	54.4	5.00	ug/l	75.0		72.5	40-110			
4-Chloro-3-methylphenol	116	5.00	"	150		77.3	40-110			
2-Chlorophenol	111	5.00	"	150		74.0	40-110			
1,4-Dichlorobenzene	39.5	5.00	"	75.0		52.7	20-90			
2,4-Dinitrotoluene	63.8	5.00	"	75.0		85.1	50-110			
4-Nitrophenol	60.0	25.0	"	150		40.0	15-100			
N-Nitrosodi-n-propylamine	48.9	10.0	"	75.0		65.2	40-110			
Pentachlorophenol	113	10.0	"	150		75.3	30-120			
Phenol	48.4	5.00	"	150		32.3	15-110			
Pyrene	58.0	5.00	"	75.0		77.3	40-110			
1,2,4-Trichlorobenzene	42.3	5.00	"	75.0		56.4	25-100			
Surr: 2-Fluorobiphenyl	*43.6*		*"*	*75.0*		*58.1*	*26-135*			
Surr: 2-Fluorophenol	*78.1*		*"*	*150*		*52.1*	*6-124*			
Surr: Nitrobenzene-d5	*61.5*		*"*	*75.0*		*82.0*	*23-147*			
Surr: Phenol-d6	*49.6*		*"*	*150*		*33.1*	*11-130*			
Surr: p-Terphenyl-d14	*64.2*		*"*	*75.0*		*85.6*	*38-149*			
Surr: 2,4,6-Tribromophenol	*144*		*"*	*150*		*96.0*	*19-126*			
LCS Dup (2020011-BSD1)				Prepared: 02/01/02 Analyzed: 02/06/02						
Acenaphthene	51.8	5.00	ug/l	75.0		69.1	40-110	4.90	36	
4-Chloro-3-methylphenol	113	5.00	"	150		75.3	40-110	2.62	43	
2-Chlorophenol	100	5.00	"	150		66.7	40-110	10.4	38	
1,4-Dichlorobenzene	38.4	5.00	"	75.0		51.2	20-90	2.82	43	
2,4-Dinitrotoluene	59.1	5.00	"	75.0		78.8	50-110	7.65	31	
4-Nitrophenol	57.2	25.0	"	150		38.1	15-100	4.78	36	
N-Nitrosodi-n-propylamine	49.2	10.0	"	75.0		65.6	40-110	0.612	37	
Pentachlorophenol	107	10.0	"	150		71.3	30-120	5.45	40	
Phenol	45.0	5.00	"	150		30.0	15-110	7.28	36	
Pyrene	54.8	5.00	"	75.0		73.1	40-110	5.67	31	
1,2,4-Trichlorobenzene	41.1	5.00	"	75.0		54.8	25-100	2.88	42	
Surr: 2-Fluorobiphenyl	*40.9*		*"*	*75.0*		*54.5*	*26-135*			
Surr: 2-Fluorophenol	*71.7*		*"*	*150*		*47.8*	*6-124*			

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Philip Nerenberg, Laboratory Manager

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Semivolatile Organic Compounds per EPA Method 8270C - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2020011 - EPA 3510/600 Series										
LCS Dup (2020011-BSD1)				Prepared: 02/01/02 Analyzed: 02/06/02						
Surr: Nitrobenzene-d5	*57.8*		*ug/l*	*75.0*		*77.1*	*23-147*			
Surr: Phenol-d6	*47.0*		*"*	*150*		*31.3*	*11-130*			
Surr: p-Terphenyl-d14	*60.8*		*"*	*75.0*		*81.1*	*38-149*			
Surr: 2,4,6-Tribromophenol	*137*		*"*	*150*		*91.3*	*19-126*			

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541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010848 - EPA 3520/600 Series										
Blank (2010848-BLK1)				Prepared: 01/29/02 Analyzed: 02/01/02						
Acenaphthene	ND	0.100	ug/l							
Acenaphthylene	ND	0.100	"							
Anthracene	ND	0.100	"							
Benzo (a) anthracene	ND	0.100	"							
Benzo (a) pyrene	ND	0.100	"							
Benzo (b) fluoranthene	ND	0.100	"							
Benzo (ghi) perylene	ND	0.100	"							
Benzo (k) fluoranthene	ND	0.100	"							
Chrysene	ND	0.100	"							
Dibenzo (a,h) anthracene	ND	0.200	"							
Fluoranthene	ND	0.100	"							
Fluorene	ND	0.100	"							
Indeno (1,2,3-cd) pyrene	ND	0.100	"							
Naphthalene	ND	0.100	"							
Phenanthrene	ND	0.100	"							
Pyrene	ND	0.100	"							
Surr: Fluorene-d10	*2.10*		"	*2.50*		*84.0*	*25-125*			
Surr: Pyrene-d10	*2.31*		"	*2.50*		*92.4*	*23-150*			
Surr: Benzo (a) pyrene-d12	*1.90*		"	*2.50*		*76.0*	*10-125*			
LCS (2010848-BS1)				Prepared: 01/29/02 Analyzed: 02/01/02						
Acenaphthene	2.07	0.100	ug/l	2.50		82.8	26-135			
Benzo (a) pyrene	2.08	0.100	"	2.50		83.2	38-137			
Pyrene	2.14	0.100	"	2.50		85.6	33-133			
Surr: Fluorene-d10	*1.97*		"	*2.50*		*78.8*	*25-125*			
Surr: Pyrene-d10	*2.14*		"	*2.50*		*85.6*	*23-150*			
Surr: Benzo (a) pyrene-d12	*2.04*		"	*2.50*		*81.6*	*10-125*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010848 - EPA 3520/600 Series										
LCS Dup (2010848-BSD1)				Prepared: 01/29/02 Analyzed: 02/01/02						
Acenaphthene	2.20	0.100	ug/l	2.50		88.0	26-135	6.09	60	
Benzo (a) pyrene	2.18	0.100	"	2.50		87.2	38-137	4.69	60	
Pyrene	2.29	0.100	"	2.50		91.6	33-133	6.77	60	
Surr: Fluorene-d10	*2.12*		"	*2.50*		*84.8*	*25-125*			
Surr: Pyrene-d10	*2.33*		"	*2.50*		*93.2*	*23-150*			
Surr: Benzo (a) pyrene-d12	*2.17*		"	*2.50*		*86.8*	*10-125*			
Batch 2010931 - EPA 3550										
Blank (2010931-BLK1)				Prepared: 01/31/02 Analyzed: 02/01/02						
Acenaphthene	ND	13.4	ug/kg							
Acenaphthylene	ND	13.4	"							
Anthracene	ND	13.4	"							
Benzo (a) anthracene	ND	13.4	"							
Benzo (a) pyrene	ND	13.4	"							
Benzo (b) fluoranthene	ND	13.4	"							
Benzo (ghi) perylene	ND	13.4	"							
Benzo (k) fluoranthene	ND	13.4	"							
Chrysene	ND	13.4	"							
Dibenzo (a,h) anthracene	ND	13.4	"							
Fluoranthene	ND	13.4	"							
Fluorene	ND	13.4	"							
Indeno (1,2,3-cd) pyrene	ND	13.4	"							
Naphthalene	ND	13.4	"							
Phenanthrene	ND	13.4	"							
Pyrene	ND	13.4	"							
Surr: Fluorene-d10	*73.2*		"	*83.3*		*87.9*	*40-150*			
Surr: Pyrene-d10	*80.4*		"	*83.3*		*96.5*	*40-150*			
Surr: Benzo (a) pyrene-d12	*73.9*		"	*83.3*		*88.7*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010931 - EPA 3550										
LCS (2010931-BS1)				Prepared: 01/31/02 Analyzed: 02/01/02						**Q-23**
Acenaphthene	122	13.4	ug/kg	167		73.1	33-139			
Benzo (a) pyrene	131	13.4	"	167		78.4	45-149			
Pyrene	125	13.4	"	167		74.9	39-138			
Surr: Fluorene-d10	*70.9*		"	*83.3*		*85.1*	*40-150*			
Surr: Pyrene-d10	*74.4*		"	*83.3*		*89.3*	*40-150*			
Surr: Benzo (a) pyrene-d12	*71.2*		"	*83.3*		*85.5*	*40-150*			

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Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2010846 - Dry Weight										
Duplicate (2010846-DUP1)		**Source: P2A0673-01**		Prepared: 01/29/02	Analyzed: 01/30/02					
% Solids	72.6	1.00	% by Weight		72.9			0.412	20	
Duplicate (2010846-DUP2)		**Source: P2A0667-05**		Prepared: 01/29/02	Analyzed: 01/30/02					
% Solids	85.9	1.00	% by Weight		85.7			0.233	20	
Batch 2010933 - Dry Weight										
Duplicate (2010933-DUP1)		**Source: P2A0788-01**		Prepared: 01/31/02	Analyzed: 02/01/02					
% Solids	90.8	1.00	% by Weight		91.1			0.330	20	

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541.383.9310 fax 541.382.7588

Bridgewater Group	Project: Burgard	
4500 Kruse Way Suite 110	Project Number: SS1-001-21	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	02/14/02 10:08

Notes and Definitions

Q-01	The spike recovery, and/or RPD, for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
Q-02	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
Q-03	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte already present in the sample.
Q-06	Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
Q-14	The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
Q-23	The Matrix Spike/Duplicate for this batch could not be reported. Source sample contains high levels of target analyte, non-target analyte, and/or matrix interference requiring high dilution.
R-02	The reporting limit for this analyte was raised due to the high analyte concentration present in the sample.
R-05	Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
wet	Sample results reported on a wet weight basis (as received)
RPD	Relative Percent Difference

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CHAIN OF CUSTODY REPORT

Work Order #: P2A0704

CLIENT: ~~Sobotta~~ Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: FAX:

INVOICE TO: Ross Rieke, Bridgewater Group
P.O. NUMBER: SSI-001-21

PROJECT NAME: Burgard
PROJECT NUMBER: SSI-001-21
SAMPLED BY: Virgin

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 | 7 | 5 | 4 | 3 | 2 | 1 | <1
STD. Petroleum Hydrocarbon Analyses: 5 | 4 | 3 | 2 | 1 | <1
STD. OTHER Please Specify
*Turnaround Requests less than standard may incur Rush Charges.

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOCs	HCID QID	Metals* Total	PAHs	SVOCs	PCBs	MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA WO ID
1. GW-PW01-~~020128~~ 020128	1/28/02 1345	X						W	2		
2. GW-PW03-020128	1/28/02 1305	X						W	2		
3. GW-MW01-020128	1/28/02 0855	X	X	~~X~~ NO Pb	X			W	6		
4. GW-MW02-020128	1/28/02 0745	X	X	X		X	X	W	8	SVOCs priority if insufficient sample vol.	
5. GW-MW03-020127	1/27/02 1845	X	X	X		X		W	8		
6. GW-MW04-020127	1/27/02 1740	X	X	X		X		W	8		
7. GW-MW05-020127	1/27/02 1610	X	X	X		X		W	8		
8. GW-MW06-020128	1/28/02 1010	X	X	X		X		W	8		
9. GW-MW07-020128	1/28/02 1145	X	~~X~~ NO Pb	X	X			W	7		
10. GW-PW06-020127	1/27/02 1630	X						W	2		
11. S-PP04-1.0	1/28/02 1410		X	X				S	1		
12. S-PP04-5.0	1/28/02 1420		X	X				S	1	Analyze deeper sample if detect	
13. S-PP04-9.0	1/28/02 1425							S	1		
14. OFS-07-020128	1/28/02 1510			X				S	1		
15. CBS-07-020128	1/28/02 1230	X	X	X	X			S	1		

RELINQUISHED BY:	DATE: 01/28/02	RECEIVED BY:		DATE: 1/28/02
PRINT NAME: John Virgin	FIRM: Tetra Tech	TIME: 1550	PRINT NAME: Ross D. Rieke	FIRM: BGT	TIME: 1550
RELINQUISHED BY:	DATE: ~~5:20~~ 1/28/02	RECEIVED BY:		DATE: 1/28/02
PRINT NAME: Ross D. Rieke	FIRM: Bridgewater Gp	TIME: 5:20	PRINT NAME: Kim Davis	FIRM: NCA	TIME: 1720

ADDITIONAL REMARKS: Ship to: Bridgewater Group, Phone: [illegible]

1P:

6

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CHAIN OF CUSTODY REPORT

Work Order #: P2A0704

CLIENT: ~~Sabritex~~ Bridgewater Group
REPORT TO: Ross Rieke
ADDRESS:
PHONE: FAX:

INVOICE TO: Ross Rieke
Bridgewater Group

P.O. NUMBER: SS1-001-21

PROJECT NAME: Burgard
PROJECT NUMBER: SS1-001-21
SAMPLED BY: Virgin

TURNAROUND REQUEST in Business Days*
Organic & Inorganic Analyses: 10 7 5 4 3 2 1 <1 (STD.)
Petroleum Hydrocarbon Analyses: 5 4 3 2 1 <1 (STD.)
OTHER Please Specify
*Turnaround Requests less than standard may incur Rush Charges.

REQUESTED ANALYSES

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	VOCs	HCID QID	Metals Total*	PAHs	SVOCs	PCBs	MATRIX (W, S, O)	# OF CONT.	COMMENTS	NCA-WO ID
1. GW-PW01-~~022802~~ 020128 W	1/28/02 1345	X						W	2		
2. GW-PW03-020128	1/28/02 1305	X						W	2		
3. GW-MW01-020128	1/28/02 0855	X	X	~~X~~ no M	X			W	6		
4. GW-MW02-020128	1/28/02 0745	X	X	X		X	X	W	8	SVOCs priority if insufficient sample vol.	
5. GW-MW03-020127	1/27/02 1845	X	X	X		X		W	8		
6. GW-MW04-020127	1/27/02 1740	X	X	X		X		W	8		
7. GW-MW05-020127	1/27/02 1610	X	X	X		X		W	8		
8. GW-MW06-020128	1/28/02 1010	X	X	X		X		W	8		
9. GW-MW07-020128	1/28/02 1145	X	~~X~~ no M	X	X			W	7		
10. GW-PW06-020127	1/27/02 1630	X						W	2		
11. S-PP04-1.0	1/28/02 1410		X	X				S	1		
12. S-PP04-5.0	1/28/02 1420		X	X				S	1	Analyze deeper sample if detect	
13. S-PP04-9.0	1/28/02 1425							S	1		
14. OFS-07-020128	1/28/02 1510			X				S	1		
15. CBS-07-020128	1/28/02 1230	X	X	X	X			S	1		

RELINQUISHED BY: [signature] DATE: 01/28/02
PRINT NAME: John Virgin FIRM: Tetra Tech TIME: 1550

RECEIVED BY: [signature] DATE: 1/28/02
PRINT NAME: Ross D. Rieke FIRM: BGI TIME: 1550

RELINQUISHED BY: [signature] DATE: ~~5:20~~ 1/28/02
PRINT NAME: Ross D. Rieke FIRM: Bridgewater Gp TIME: 5:20

RECEIVED BY: [signature] DATE: 1/28/02
PRINT NAME: Kim Davis FIRM: NCA TIME: 1720

ADDITIONAL REMARKS: * Sb, As, Ba, Cd, Cr, Cu, Pb, Hg, Ni, Zn ... TEMP: [illegible]

COC REV 2/00

Apex Labs

12232 S.W. Garden Place
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503-718-2323 Phone
503-718-0333 Fax

Tuesday, September 13, 2011

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

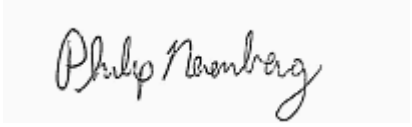
RE: Schnitzer-Burgard / 8004

Enclosed are the results of analyses for work order A11G258, which was received by the laboratory on 7/20/2011 at 4:15:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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503-718-0333 Fax

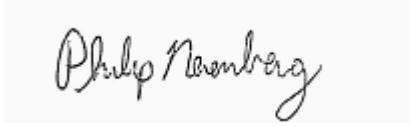
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
8004-110720-100-MW1	A11G258-01	Water	07/20/11 11:17	07/20/11 16:15
8004-110720-101-MW2	A11G258-02	Water	07/20/11 11:15	07/20/11 16:15
8004-110720-102-MW3	A11G258-03	Water	07/20/11 12:55	07/20/11 16:15
8004-110720-103-MW4	A11G258-04	Water	07/20/11 14:30	07/20/11 16:15
8004-110720-104-MW-5	A11G258-05	Water	07/20/11 13:57	07/20/11 16:15

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL CASE NARRATIVE

Work Order: A11G258

-- Semivolatile Organic Compounds by EPA 8270D --

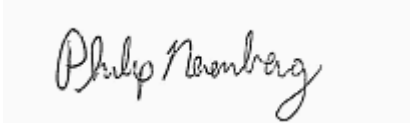
Samples extracted in batch 1107359 are reported with B flags indicating contamination in the method blank. The contamination in the blank is suspected to have come from samples not associated with this work order that have very high levels of contaminating analytes present.

All samples from this work order have hits less than ten times the level of the blank and may be biased high. All samples were out of holding time before the contamination was detected, so re-extraction without contamination was not an option.

If you have any questions about this report, please feel free to contact us.

Evan Holloway
QA Manager
August 3, 2011

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107336**			
Diesel Range Organics	ND	0.101	0.202	mg/L	1	07/25/11 14:02	NWTPH-Dx	
Oil Range Organics	ND	0.202	0.404	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107336**			
Diesel Range Organics	ND	0.0935	0.187	mg/L	1	07/25/11 17:37	NWTPH-Dx	
Oil Range Organics	ND	0.187	0.374	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107336**			
Diesel Range Organics	ND	0.0935	0.187	mg/L	1	07/25/11 18:01	NWTPH-Dx	
Oil Range Organics	ND	0.187	0.374	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107336**			
Diesel Range Organics	**0.452**	0.102	0.204	mg/L	1	07/25/11 18:25	NWTPH-Dx	F-11
Oil Range Organics	**0.356**	0.204	0.408	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107336**			
Diesel Range Organics	ND	0.0935	0.187	mg/L	1	07/25/11 18:25	NWTPH-Dx	
Oil Range Organics	ND	0.187	0.374	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	

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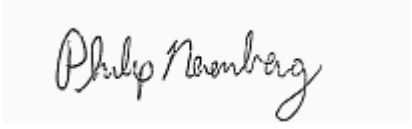

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107315**			
Gasoline Range Organics	**0.0639**	0.0500	0.100	mg/L	1	07/22/11 13:11	NWTPH-Gx	J
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 87 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107315**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	07/22/11 13:37	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107315**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	07/22/11 14:02	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*87 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107315**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	07/22/11 14:27	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*88 %*	*Limits: 50-150 %*	"	"	"	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107315**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	07/22/11 14:52	NWTPH-Gx	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*89 %*	*Limits: 50-150 %*	"	"	"	

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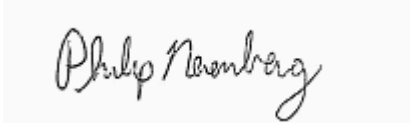

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107350**			**C-07**
Aroclor 1016	ND	0.0101	0.0202	ug/L	1	07/27/11 14:04	EPA 8082A	
Aroclor 1221	ND	0.0101	0.0202	"	"	"	"	
Aroclor 1232	ND	0.0101	0.0202	"	"	"	"	
Aroclor 1242	ND	0.0101	0.0202	"	"	"	"	
Aroclor 1248	ND	0.0101	0.0202	"	"	"	"	
Aroclor 1254	ND	0.0101	0.0202	"	"	"	"	
Aroclor 1260	ND	0.0101	0.0202	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 73 %*	*Limits: 30-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*79 %*	*Limits: 40-120 %*	"	"	"	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107350**			**C-07**
Aroclor 1016	ND	0.00935	0.0187	ug/L	1	07/27/11 14:21	EPA 8082A	
Aroclor 1221	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1232	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1242	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1248	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1254	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1260	ND	0.00935	0.0187	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 74 %*	*Limits: 30-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*66 %*	*Limits: 40-120 %*	"	"	"	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107350**			**C-07**
Aroclor 1016	ND	0.00935	0.0187	ug/L	1	07/27/11 14:39	EPA 8082A	
Aroclor 1221	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1232	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1242	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1248	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1254	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1260	ND	0.00935	0.0187	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 71 %*	*Limits: 30-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*74 %*	*Limits: 40-120 %*	"	"	"	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107350**			**C-07**
Aroclor 1016	ND	0.0102	0.0204	ug/L	1	07/27/11 14:56	EPA 8082A	
Aroclor 1221	ND	0.0102	0.0204	"	"	"	"	
Aroclor 1232	ND	0.0102	0.0204	"	"	"	"	
Aroclor 1242	ND	0.0102	0.0204	"	"	"	"	

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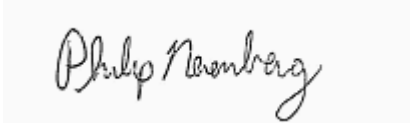

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107350**			**C-07**
Aroclor 1248	ND	0.0102	0.0204	ug/L	1	"	EPA 8082A	
Aroclor 1254	ND	0.0102	0.0204	"	"	"	"	
Aroclor 1260	ND	0.0102	0.0204	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 73 %*	*Limits: 30-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*62 %*	*Limits: 40-120 %*	"	"	"	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107350**			**C-07**
Aroclor 1016	ND	0.00935	0.0187	ug/L	1	07/27/11 15:14	EPA 8082A	
Aroclor 1221	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1232	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1242	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1248	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1254	ND	0.00935	0.0187	"	"	"	"	
Aroclor 1260	ND	0.00935	0.0187	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 62 %*	*Limits: 30-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*66 %*	*Limits: 40-120 %*	"	"	"	

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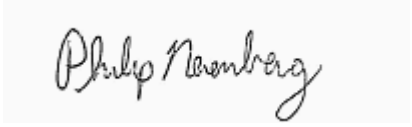

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01RE1)			**Matrix: Water**		**Batch: 1107401**			**C-05**
Aldrin	ND	0.0200	0.0600	ug/L	1	07/29/11 14:05	EPA 8081B	
alpha-BHC	ND	0.0200	0.0600	"	"	"	"	
beta-BHC	ND	0.0200	0.0600	"	"	"	"	
delta-BHC	ND	0.0200	0.0600	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0200	0.0600	"	"	"	"	
cis-Chlordane	ND	0.0200	0.0600	"	"	"	"	
trans-Chlordane	ND	0.0200	0.0600	"	"	"	"	
4,4'-DDD	ND	0.0200	0.0600	"	"	"	"	
4,4'-DDE	ND	0.0200	0.0600	"	"	"	"	
4,4'-DDT	ND	0.0200	0.0600	"	"	"	"	
Dieldrin	ND	0.0200	0.0600	"	"	"	"	
Endosulfan I	ND	0.0200	0.0600	"	"	"	"	
Endosulfan II	ND	0.0200	0.0600	"	"	"	"	
Endosulfan sulfate	ND	0.0200	0.0600	"	"	"	"	
Endrin	ND	0.0200	0.0600	"	"	"	"	
Endrin Aldehyde	ND	0.0200	0.0600	"	"	"	"	
Endrin ketone	ND	0.0200	0.0600	"	"	"	"	
Heptachlor	ND	0.0200	0.0600	"	"	"	"	
Heptachlor epoxide	ND	0.0200	0.0600	"	"	"	"	
Methoxychlor	ND	0.0200	0.160	"	"	"	"	
Chlordane (Technical)	ND	0.200	0.750	"	"	"	"	
Toxaphene (Total)	ND	0.200	2.00	"	"	"	"	
cis-Nonachlor	ND	0.0200	0.0600	"	"	"	"	
2,4'-DDD	ND	0.0200	0.0600	"	"	"	"	
2,4'-DDE	ND	0.0200	0.0600	"	"	"	"	
2,4'-DDT	ND	0.0200	0.0600	"	"	"	"	
Hexachlorobenzene	ND	0.0200	0.0600	"	"	"	"	
Hexachlorobutadiene	ND	0.0200	0.0600	"	"	"	"	Q-30
Mirex	ND	0.0200	0.0600	"	"	"	"	
Oxychlordane	ND	0.0200	0.0600	"	"	"	"	
trans-Nonachlor	ND	0.0200	0.0600	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 77 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*112 %*	*Limits: 55-130 %*	"	"	"	

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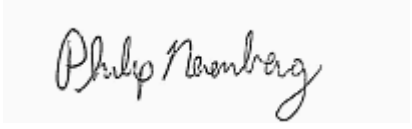

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-101-MW2 (A11G258-02RE1)			**Matrix: Water**		**Batch: 1107401**			**C-05**
Aldrin	ND	0.0187	0.0561	ug/L	1	07/29/11 14:23	EPA 8081B	
alpha-BHC	ND	0.0187	0.0561	"	"	"	"	
beta-BHC	ND	0.0187	0.0561	"	"	"	"	
delta-BHC	ND	0.0187	0.0561	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0187	0.0561	"	"	"	"	
cis-Chlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Chlordane	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Dieldrin	ND	0.0187	0.0561	"	"	"	"	
Endosulfan I	ND	0.0187	0.0561	"	"	"	"	
Endosulfan II	ND	0.0187	0.0561	"	"	"	"	
Endosulfan sulfate	ND	0.0187	0.0561	"	"	"	"	
Endrin	ND	0.0187	0.0561	"	"	"	"	
Endrin Aldehyde	ND	0.0187	0.0561	"	"	"	"	
Endrin ketone	ND	0.0187	0.0561	"	"	"	"	
Heptachlor	ND	0.0187	0.0561	"	"	"	"	
Heptachlor epoxide	ND	0.0187	0.0561	"	"	"	"	
Methoxychlor	ND	0.0187	0.150	"	"	"	"	
Chlordane (Technical)	ND	0.187	0.701	"	"	"	"	
Toxaphene (Total)	ND	0.187	1.87	"	"	"	"	
cis-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobenzene	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobutadiene	ND	0.0187	0.0561	"	"	"	"	Q-30
Mirex	ND	0.0187	0.0561	"	"	"	"	
Oxychlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*117 %*	*Limits: 55-130 %*	"	"	"	

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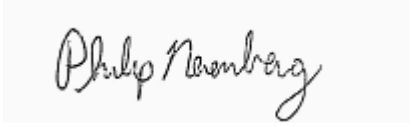

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-102-MW3 (A11G258-03RE1)			**Matrix: Water**		**Batch: 1107401**			**C-05**
Aldrin	ND	0.0187	0.0561	ug/L	1	07/29/11 14:41	EPA 8081B	
alpha-BHC	ND	0.0187	0.0561	"	"	"	"	
beta-BHC	ND	0.0187	0.0561	"	"	"	"	
delta-BHC	ND	0.0187	0.0561	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0187	0.0561	"	"	"	"	
cis-Chlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Chlordane	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Dieldrin	ND	0.0187	0.0561	"	"	"	"	
Endosulfan I	ND	0.0187	0.0561	"	"	"	"	
Endosulfan II	ND	0.0187	0.0561	"	"	"	"	
Endosulfan sulfate	ND	0.0187	0.0561	"	"	"	"	
Endrin	ND	0.0187	0.0561	"	"	"	"	
Endrin Aldehyde	ND	0.0187	0.0561	"	"	"	"	
Endrin ketone	ND	0.0187	0.0561	"	"	"	"	
Heptachlor	ND	0.0187	0.0561	"	"	"	"	
Heptachlor epoxide	ND	0.0187	0.0561	"	"	"	"	
Methoxychlor	ND	0.0187	0.150	"	"	"	"	
Chlordane (Technical)	ND	0.187	0.701	"	"	"	"	
Toxaphene (Total)	ND	0.187	1.87	"	"	"	"	
cis-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobenzene	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobutadiene	ND	0.0187	0.0561	"	"	"	"	Q-30
Mirex	ND	0.0187	0.0561	"	"	"	"	
Oxychlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 78 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*121 %*	*Limits: 55-130 %*	"	"	"	

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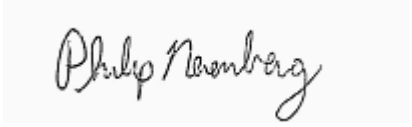

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-103-MW4 (A11G258-04RE1)			**Matrix: Water**		**Batch: 1107401**			**C-05**
Aldrin	ND	0.0196	0.0588	ug/L	1	07/29/11 14:58	EPA 8081B	
alpha-BHC	ND	0.0196	0.0588	"	"	"	"	
beta-BHC	ND	0.0196	0.0588	"	"	"	"	
delta-BHC	ND	0.0196	0.0588	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0196	0.0588	"	"	"	"	
cis-Chlordane	ND	0.0196	0.0588	"	"	"	"	
trans-Chlordane	ND	0.0196	0.0588	"	"	"	"	
4,4'-DDD	ND	0.0196	0.0588	"	"	"	"	
4,4'-DDE	ND	0.0196	0.0588	"	"	"	"	
4,4'-DDT	ND	0.0196	0.0588	"	"	"	"	
Dieldrin	ND	0.0196	0.0588	"	"	"	"	
Endosulfan I	ND	0.0196	0.0588	"	"	"	"	
Endosulfan II	ND	0.0196	0.0588	"	"	"	"	
Endosulfan sulfate	ND	0.0196	0.0588	"	"	"	"	
Endrin	ND	0.0196	0.0588	"	"	"	"	
Endrin Aldehyde	ND	0.0196	0.0588	"	"	"	"	
Endrin ketone	ND	0.0196	0.0588	"	"	"	"	
Heptachlor	ND	0.0196	0.0588	"	"	"	"	
Heptachlor epoxide	ND	0.0196	0.0588	"	"	"	"	
Methoxychlor	ND	0.0196	0.157	"	"	"	"	
Chlordane (Technical)	ND	0.196	0.735	"	"	"	"	
Toxaphene (Total)	ND	0.196	1.96	"	"	"	"	
cis-Nonachlor	ND	0.0196	0.0588	"	"	"	"	
2,4'-DDD	ND	0.0196	0.0588	"	"	"	"	
2,4'-DDE	ND	0.0196	0.0588	"	"	"	"	
2,4'-DDT	ND	0.0196	0.0588	"	"	"	"	
Hexachlorobenzene	ND	0.0196	0.0588	"	"	"	"	
Hexachlorobutadiene	ND	0.0196	0.0588	"	"	"	"	Q-30
Mirex	ND	0.0196	0.0588	"	"	"	"	
Oxychlordane	ND	0.0196	0.0588	"	"	"	"	
trans-Nonachlor	ND	0.0196	0.0588	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 78 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*119 %*	*Limits: 55-130 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-104-MW-5 (A11G258-05RE1)			**Matrix: Water**		**Batch: 1107401**			**C-05**
Aldrin	ND	0.0187	0.0561	ug/L	1	07/29/11 15:16	EPA 8081B	
alpha-BHC	ND	0.0187	0.0561	"	"	"	"	
beta-BHC	ND	0.0187	0.0561	"	"	"	"	
delta-BHC	ND	0.0187	0.0561	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0187	0.0561	"	"	"	"	
cis-Chlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Chlordane	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Dieldrin	ND	0.0187	0.0561	"	"	"	"	
Endosulfan I	ND	0.0187	0.0561	"	"	"	"	
Endosulfan II	ND	0.0187	0.0561	"	"	"	"	
Endosulfan sulfate	ND	0.0187	0.0561	"	"	"	"	
Endrin	ND	0.0187	0.0561	"	"	"	"	
Endrin Aldehyde	ND	0.0187	0.0561	"	"	"	"	
Endrin ketone	ND	0.0187	0.0561	"	"	"	"	
Heptachlor	ND	0.0187	0.0561	"	"	"	"	
Heptachlor epoxide	ND	0.0187	0.0561	"	"	"	"	
Methoxychlor	ND	0.0187	0.150	"	"	"	"	
Chlordane (Technical)	ND	0.187	0.701	"	"	"	"	
Toxaphene (Total)	ND	0.187	1.87	"	"	"	"	
cis-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobenzene	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobutadiene	ND	0.0187	0.0561	"	"	"	"	Q-30
Mirex	ND	0.0187	0.0561	"	"	"	"	
Oxychlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 77 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*118 %*	*Limits: 55-130 %*	"	"	"	

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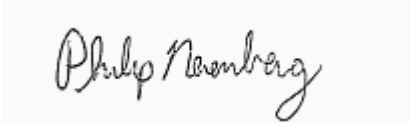

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107359**			
Acenaphthene	**0.0111**	0.00980	0.0196	ug/L	1	07/28/11 12:49	EPA 8270D (SIM)	J, B
Acenaphthylene	ND	0.00980	0.0196	"	"	"	"	
Anthracene	**0.0342**	0.00980	0.0196	"	"	"	"	
Benz(a)anthracene	ND	0.00980	0.0196	"	"	"	"	
Benzo(a)pyrene	ND	0.00980	0.0196	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00980	0.0196	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00980	0.0196	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00980	0.0196	"	"	"	"	
Chrysene	ND	0.00980	0.0196	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00980	0.0196	"	"	"	"	
Dibenzofuran	ND	0.00980	0.0196	"	"	"	"	
Fluoranthene	ND	0.00980	0.0196	"	"	"	"	
Fluorene	ND	0.00980	0.0196	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00980	0.0196	"	"	"	"	
1-Methylnaphthalene	ND	0.0196	0.0392	"	"	"	"	
2-Methylnaphthalene	**0.0284**	0.0196	0.0392	"	"	"	"	J, B
Naphthalene	**0.272**	0.0196	0.0392	"	"	"	"	B, X
Phenanthrene	ND	0.00980	0.0196	"	"	"	"	
Pyrene	ND	0.00980	0.0196	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 46 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 30-120 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107359**			
Acenaphthene	**0.0115**	0.00935	0.0187	ug/L	1	07/28/11 13:17	EPA 8270D (SIM)	J, B
Acenaphthylene	ND	0.00935	0.0187	"	"	"	"	
Anthracene	**0.0233**	0.00935	0.0187	"	"	"	"	
Benz(a)anthracene	ND	0.00935	0.0187	"	"	"	"	
Benzo(a)pyrene	ND	0.00935	0.0187	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00935	0.0187	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00935	0.0187	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00935	0.0187	"	"	"	"	
Chrysene	ND	0.00935	0.0187	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00935	0.0187	"	"	"	"	
Dibenzofuran	**0.00970**	0.00935	0.0187	"	"	"	"	J
Fluoranthene	ND	0.00935	0.0187	"	"	"	"	
Fluorene	ND	0.00935	0.0187	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00935	0.0187	"	"	"	"	
1-Methylnaphthalene	ND	0.0187	0.0374	"	"	"	"	
2-Methylnaphthalene	**0.0280**	0.0187	0.0374	"	"	"	"	J, B
Naphthalene	**0.228**	0.0187	0.0374	"	"	"	"	B, X
Phenanthrene	ND	0.00935	0.0187	"	"	"	"	
Pyrene	ND	0.00935	0.0187	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 45 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-120 %*	"	"	"	

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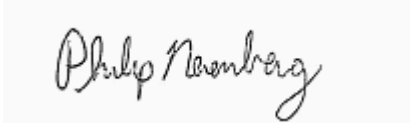

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107359**			
Acenaphthene	**0.0120**	0.00935	0.0187	ug/L	1	07/28/11 13:44	EPA 8270D (SIM)	J, B
Acenaphthylene	ND	0.00935	0.0187	"	"	"	"	
Anthracene	ND	0.00935	0.0187	"	"	"	"	
Benz(a)anthracene	ND	0.00935	0.0187	"	"	"	"	
Benzo(a)pyrene	ND	0.00935	0.0187	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00935	0.0187	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00935	0.0187	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00935	0.0187	"	"	"	"	
Chrysene	ND	0.00935	0.0187	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00935	0.0187	"	"	"	"	
Dibenzofuran	ND	0.00935	0.0187	"	"	"	"	
Fluoranthene	ND	0.00935	0.0187	"	"	"	"	
Fluorene	ND	0.00935	0.0187	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00935	0.0187	"	"	"	"	
1-Methylnaphthalene	**0.0194**	0.0187	0.0374	"	"	"	"	J, B
2-Methylnaphthalene	**0.0289**	0.0187	0.0374	"	"	"	"	J, B
Naphthalene	**0.313**	0.0187	0.0374	"	"	"	"	B, X
Phenanthrene	ND	0.00935	0.0187	"	"	"	"	
Pyrene	ND	0.00935	0.0187	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 47 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*73 %*	*Limits: 30-120 %*	"	"	"	

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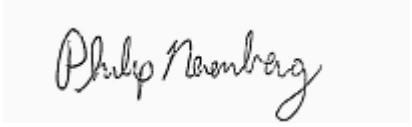

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107359**			
Acenaphthene	**0.0371**	0.00980	0.0196	ug/L	1	07/28/11 14:12	EPA 8270D (SIM)	B, B-02
Acenaphthylene	ND	0.00980	0.0196	"	"	"	"	
Anthracene	**0.0378**	0.00980	0.0196	"	"	"	"	
Benz(a)anthracene	ND	0.00980	0.0196	"	"	"	"	
Benzo(a)pyrene	ND	0.00980	0.0196	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00980	0.0196	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00980	0.0196	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00980	0.0196	"	"	"	"	
Chrysene	ND	0.00980	0.0196	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00980	0.0196	"	"	"	"	
Dibenzofuran	ND	0.00980	0.0196	"	"	"	"	
Fluoranthene	**0.0125**	0.00980	0.0196	"	"	"	"	J
Fluorene	ND	0.00980	0.0196	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00980	0.0196	"	"	"	"	
1-Methylnaphthalene	ND	0.0196	0.0392	"	"	"	"	
2-Methylnaphthalene	ND	0.0196	0.0392	"	"	"	"	
Naphthalene	**0.0599**	0.0196	0.0392	"	"	"	"	B, X
Phenanthrene	ND	0.00980	0.0196	"	"	"	"	
Pyrene	**0.0211**	0.00980	0.0196	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 41 %*	*Limits: 45-120 %*	"	"	"	*S-06*
p-Terphenyl-d14 (Surr)			*64 %*	*Limits: 30-120 %*	"	"	"	

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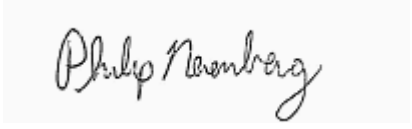

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107359**			
Acenaphthene	ND	0.00943	0.0189	ug/L	1	07/28/11 14:39	EPA 8270D (SIM)	
Acenaphthylene	ND	0.00943	0.0189	"	"	"	"	
Anthracene	ND	0.00943	0.0189	"	"	"	"	
Benz(a)anthracene	ND	0.00943	0.0189	"	"	"	"	
Benzo(a)pyrene	ND	0.00943	0.0189	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00943	0.0189	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00943	0.0189	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00943	0.0189	"	"	"	"	
Chrysene	ND	0.00943	0.0189	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00943	0.0189	"	"	"	"	
Dibenzofuran	ND	0.00943	0.0189	"	"	"	"	
Fluoranthene	ND	0.00943	0.0189	"	"	"	"	
Fluorene	ND	0.00943	0.0189	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00943	0.0189	"	"	"	"	
1-Methylnaphthalene	ND	0.0189	0.0377	"	"	"	"	
2-Methylnaphthalene	ND	0.0189	0.0377	"	"	"	"	
Naphthalene	**0.0865**	0.0189	0.0377	"	"	"	"	B, X
Phenanthrene	ND	0.00943	0.0189	"	"	"	"	
Pyrene	ND	0.00943	0.0189	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 48 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*88 %*	*Limits: 30-120 %*	"	"	"	

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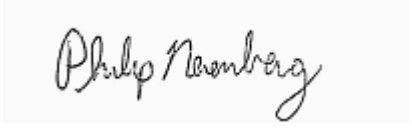

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107359**			
Diethylphthalate	ND	0.245	0.490	ug/L	1	07/28/11 12:49	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.245	0.490	"	"	"	"	
Di-n-butylphthalate	ND	0.245	0.490	"	"	"	"	
Di-n-octyl phthalate	ND	0.245	0.490	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**0.560**	0.245	0.490	"	"	"	"	
Butyl benzyl phthalate	ND	0.245	0.490	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 46 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 30-120 %*	"	"	"	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107359**			
Diethylphthalate	ND	0.234	0.467	ug/L	1	07/28/11 13:17	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.234	0.467	"	"	"	"	
Di-n-butylphthalate	ND	0.234	0.467	"	"	"	"	
Di-n-octyl phthalate	ND	0.234	0.467	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**0.484**	0.234	0.467	"	"	"	"	
Butyl benzyl phthalate	ND	0.234	0.467	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 45 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-120 %*	"	"	"	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107359**			
Diethylphthalate	ND	0.234	0.467	ug/L	1	07/28/11 13:44	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.234	0.467	"	"	"	"	
Di-n-butylphthalate	ND	0.234	0.467	"	"	"	"	
Di-n-octyl phthalate	ND	0.234	0.467	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.234	0.467	"	"	"	"	
Butyl benzyl phthalate	ND	0.234	0.467	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 47 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*73 %*	*Limits: 30-120 %*	"	"	"	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107359**			
Diethylphthalate	ND	0.245	0.490	ug/L	1	07/28/11 14:12	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.245	0.490	"	"	"	"	
Di-n-butylphthalate	ND	0.245	0.490	"	"	"	"	
Di-n-octyl phthalate	ND	0.245	0.490	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.245	0.490	"	"	"	"	
Butyl benzyl phthalate	ND	0.245	0.490	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 41 %*	*Limits: 45-120 %*	"	"	"	*S-06*

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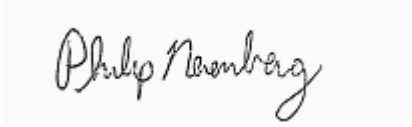

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107359**			
Surrogate: p-Terphenyl-d14 (Surr)			*Recovery: 64 %*	*Limits: 30-120 %*	1	"	EPA 8270D (SIM)	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107359**			
Diethylphthalate	ND	0.236	0.472	ug/L	1	07/28/11 14:39	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.236	0.472	"	"	"	"	
Di-n-butylphthalate	ND	0.236	0.472	"	"	"	"	
Di-n-octyl phthalate	ND	0.236	0.472	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.236	0.472	"	"	"	"	
Butyl benzyl phthalate	ND	0.236	0.472	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 48 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*88 %*	*Limits: 30-120 %*	"	"	"	

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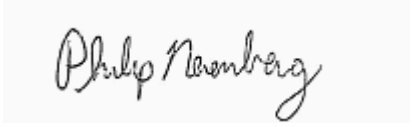

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4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1108002**			
Aluminum	**5.48**	4.00	50.0	ug/L	1	08/01/11 16:52	EPA 6020	J
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.389**	0.200	2.00	"	"	"	"	J
Copper	**0.689**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**82.3**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	
Nickel	**3.56**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	ND	1.30	4.00	"	"	"	"	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1108002**			
Aluminum	**28.2**	4.00	50.0	ug/L	1	08/01/11 16:55	EPA 6020	J
Antimony	**0.733**	0.333	1.00	"	"	"	"	J
Arsenic	**0.678**	0.500	2.00	"	"	"	"	J
Cadmium	**0.333**	0.100	1.00	"	"	"	"	J
Chromium	**0.367**	0.200	2.00	"	"	"	"	J
Copper	**1.09**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**545**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	
Nickel	**3.18**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	**55.2**	1.30	4.00	"	"	"	"	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1108002**			
Aluminum	**5.06**	4.00	50.0	ug/L	1	08/01/11 17:14	EPA 6020	J
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.378**	0.200	2.00	"	"	"	"	J
Copper	**0.489**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**48.1**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1108002**			
Nickel	**1.49**	0.300	2.00	ug/L	1	"	EPA 6020	J
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	**7.01**	1.30	4.00	"	"	"	"	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1108002**			
Aluminum	**17.7**	4.00	50.0	ug/L	1	08/01/11 17:37	EPA 6020	J
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	**7.91**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.778**	0.200	2.00	"	"	"	"	J
Copper	ND	0.300	4.00	"	"	"	"	
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**5310**	3.33	10.0	"	10	08/01/11 17:45	"	
Mercury	ND	0.0200	0.0800	"	1	08/01/11 17:37	"	
Nickel	**4.14**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	ND	1.30	4.00	"	"	"	"	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1108002**			
Aluminum	**29.7**	4.00	50.0	ug/L	1	08/01/11 17:20	EPA 6020	J
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.311**	0.200	2.00	"	"	"	"	J
Copper	**0.511**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**126**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	
Nickel	**2.88**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	ND	1.30	4.00	"	"	"	"	

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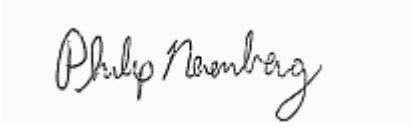

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107425**			
Aluminum	ND	4.00	50.0	ug/L	1	07/29/11 12:54	EPA 6020 (Diss)	
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.533**	0.200	2.00	"	"	"	"	J
Copper	**0.722**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**82.5**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	
Nickel	**3.49**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	ND	1.30	4.00	"	"	"	"	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107425**			
Aluminum	ND	4.00	50.0	ug/L	1	07/29/11 12:51	EPA 6020 (Diss)	
Antimony	**0.800**	0.333	1.00	"	"	"	"	J
Arsenic	**0.578**	0.500	2.00	"	"	"	"	J
Cadmium	**0.344**	0.100	1.00	"	"	"	"	J
Chromium	**0.511**	0.200	2.00	"	"	"	"	J
Copper	**1.37**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**505**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	
Nickel	**3.51**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	**59.6**	1.30	4.00	"	"	"	"	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107425**			
Aluminum	**14.0**	4.00	50.0	ug/L	1	07/29/11 12:57	EPA 6020 (Diss)	J
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.489**	0.200	2.00	"	"	"	"	J
Copper	**1.03**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**95.4**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	

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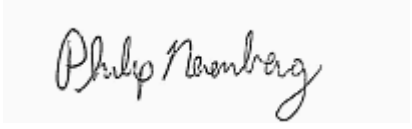

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107425**			
Nickel	**1.82**	0.300	2.00	ug/L	1	"	EPA 6020 (Diss)	J
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	**7.47**	1.30	4.00	"	"	"	"	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107440**			
Aluminum	**4.56**	4.00	50.0	ug/L	1	08/04/11 15:48	EPA 6020 (Diss)	J
Antimony	**0.456**	0.333	1.00	"	"	"	"	J
Arsenic	**7.44**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.611**	0.200	2.00	"	"	"	"	J
Copper	**0.300**	0.300	4.00	"	"	"	"	J
Lead	ND	0.200	1.00	"	"	"	"	
Manganese	**5140**	6.66	20.0	"	20	08/04/11 15:36	"	
Mercury	ND	0.0200	0.0800	"	1	08/04/11 15:48	"	
Nickel	**4.22**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	ND	1.30	4.00	"	"	"	"	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107440**			
Aluminum	**5.10**	4.00	50.0	ug/L	1	08/04/11 15:33	EPA 6020 (Diss)	J
Antimony	ND	0.333	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.100	1.00	"	"	"	"	
Chromium	**0.411**	0.200	2.00	"	"	"	"	J
Copper	**0.511**	0.300	4.00	"	"	"	"	J
Lead	**0.567**	0.200	1.00	"	"	"	"	J
Manganese	**119**	0.333	1.00	"	"	"	"	
Mercury	ND	0.0200	0.0800	"	"	"	"	
Nickel	**3.27**	0.300	2.00	"	"	"	"	
Silver	ND	0.100	1.00	"	"	"	"	
Zinc	**1.34**	1.30	4.00	"	"	"	"	J

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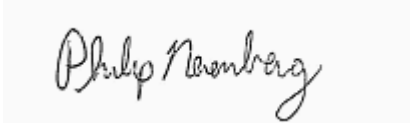

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4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
8004-110720-100-MW1 (A11G258-01)			**Matrix: Water**		**Batch: 1107346**			
Total Suspended Solids	**5.00**	---	5.00	mg/L	1	07/25/11 17:55	SM 2540 D	
8004-110720-101-MW2 (A11G258-02)			**Matrix: Water**		**Batch: 1107346**			
Total Suspended Solids	ND	---	5.00	mg/L	1	07/25/11 16:50	SM 2540 D	
8004-110720-102-MW3 (A11G258-03)			**Matrix: Water**		**Batch: 1107346**			
Total Suspended Solids	ND	---	5.00	mg/L	1	07/25/11 16:50	SM 2540 D	
8004-110720-103-MW4 (A11G258-04)			**Matrix: Water**		**Batch: 1107346**			
Total Suspended Solids	**35.0**	---	5.00	mg/L	1	07/25/11 17:55	SM 2540 D	
8004-110720-104-MW-5 (A11G258-05)			**Matrix: Water**		**Batch: 1107346**			
Total Suspended Solids	ND	---	5.00	mg/L	1	07/25/11 16:50	SM 2540 D	

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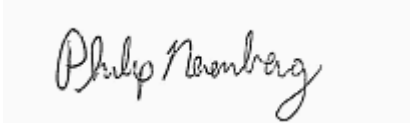

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107336 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1107336-BLK2)					Prepared: 07/25/11 08:32 Analyzed: 07/25/11 14:02							
NWTPH-Dx												
Diesel Range Organics	ND	0.0909	0.182	mg/L	2.5	---	---	---	---	---	---	
Oil Range Organics	ND	0.182	0.364	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*			*Dilution: 2.5x*					
LCS (1107336-BS2)					Prepared: 07/25/11 08:32 Analyzed: 07/25/11 14:26							
NWTPH-Dx												
Diesel Range Organics	1.23	0.100	0.200	mg/L	2.5	1.25	---	98	64-121%	---	---	
Oil Range Organics	1.33	0.200	0.400	"	"	"	---	106	78-127%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 101 %*	*Limits: 50-150 %*			*Dilution: 2.5x*					
LCS Dup (1107336-BSD2)					Prepared: 07/25/11 08:32 Analyzed: 07/25/11 14:50							**Q-19**
NWTPH-Dx												
Diesel Range Organics	1.20	0.100	0.200	mg/L	2.5	1.25	---	96	64-121%	3	20%	
Oil Range Organics	1.32	0.200	0.400	"	"	"	---	106	78-127%	0.2	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 102 %*	*Limits: 50-150 %*			*Dilution: 2.5x*					

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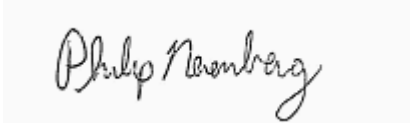

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107315 - EPA 5030B							**Water**					
Blank (1107315-BLK1)					Prepared: 07/22/11 08:59 Analyzed: 07/22/11 10:40							
NWTPH-Gx												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 83 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*80 %*	*50-150 %*			*"*					
LCS (1107315-BS2)					Prepared: 07/22/11 08:59 Analyzed: 07/22/11 10:14							
NWTPH-Gx												
Gasoline Range Organics	0.436	0.0500	0.100	mg/L	1	0.500	---	87	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 82 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*83 %*	*50-150 %*			*"*					

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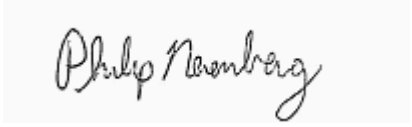

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107350 - EPA 3510C (Neutral pH)							**Water**					
Blank (1107350-BLK1)					Prepared: 07/25/11 14:46 Analyzed: 07/27/11 13:11							**C-07**
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 82 %*	*Limits: 30-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*79 %*	*40-120 %*			*"*					
LCS (1107350-BS1)					Prepared: 07/25/11 14:46 Analyzed: 07/27/11 13:29							**C-07**
EPA 8082A												
Aroclor 1016	0.550	0.0100	0.0200	ug/L	1	0.625	---	88	40-140%	---	---	
Aroclor 1260	0.555	0.0100	0.0200	"	"	"	---	89	"	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 78 %*	*Limits: 30-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*66 %*	*40-120 %*			*"*					
LCS Dup (1107350-BSD1)					Prepared: 07/25/11 14:46 Analyzed: 07/27/11 13:46							**C-07, Q-19**
EPA 8082A												
Aroclor 1016	0.551	0.0100	0.0200	ug/L	1	0.625	---	88	40-140%	0.2	30%	
Aroclor 1260	0.546	0.0100	0.0200	"	"	"	---	87	"	2	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 76 %*	*Limits: 30-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*65 %*	*40-120 %*			*"*					

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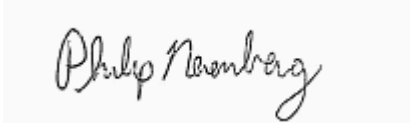

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107401 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
Blank (1107401-BLK1)					Prepared: 07/27/11 08:37 Analyzed: 07/29/11 12:36							**C-05**
EPA 8081B												
Aldrin	ND	0.0182	0.0545	ug/L	1	---	---	---	---	---	---	
alpha-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin ketone	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Heptachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.0182	0.145	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.182	0.682	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.182	1.82	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	Q-30
Mirex	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Oxychlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
trans-Nonachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	

Surr: 2,4,5,6-TCMX (Surr) *Recovery: 54 %* *Limits: 25-140 %* *Dilution: 1x*

Decachlorobiphenyl (Surr) *104 %* *55-130 %* *"*

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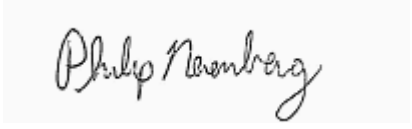

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107401 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
LCS (1107401-BS1)					Prepared: 07/27/11 08:37 Analyzed: 07/29/11 12:54							**C-05**
EPA 8081B												
Aldrin	1.30	0.0200	0.0600	ug/L	1	2.00	---	65	25-140%	---	---	
alpha-BHC	1.44	0.0200	0.0600	"	"	"	---	72	60-130%	---	---	
beta-BHC	1.72	0.0200	0.0600	"	"	"	---	86	65-125%	---	---	
delta-BHC	1.88	0.0200	0.0600	"	"	"	---	94	45-135%	---	---	
gamma-BHC (Lindane)	1.54	0.0200	0.0600	"	"	"	---	77	25-135%	---	---	
cis-Chlordane	1.63	0.0200	0.0600	"	"	"	---	81	65-125%	---	---	
trans-Chlordane	1.67	0.0200	0.0600	"	"	"	---	84	60-125%	---	---	
4,4'-DDD	1.99	0.0200	0.0600	"	"	"	---	100	25-150%	---	---	
4,4'-DDE	1.94	0.0200	0.0600	"	"	"	---	97	35-140%	---	---	
4,4'-DDT	2.07	0.0200	0.0600	"	"	"	---	104	45-140%	---	---	
Dieldrin	1.85	0.0200	0.0600	"	"	"	---	93	60-130%	---	---	
Endosulfan I	1.74	0.0200	0.0600	"	"	"	---	87	50-110%	---	---	
Endosulfan II	2.08	0.0200	0.0600	"	"	"	---	104	30-130%	---	---	
Endosulfan sulfate	2.12	0.0200	0.0600	"	"	"	---	106	55-135%	---	---	
Endrin	1.98	0.0200	0.0600	"	"	"	---	99	"	---	---	
Endrin Aldehyde	1.73	0.0200	0.0600	"	"	"	---	86	"	---	---	
Endrin ketone	2.08	0.0200	0.0600	"	"	"	---	104	75-125%	---	---	
Heptachlor	1.44	0.0200	0.0600	"	"	"	---	72	40-130%	---	---	
Heptachlor epoxide	1.71	0.0200	0.0600	"	"	"	---	85	60-130%	---	---	
Methoxychlor	2.45	0.0200	0.160	"	"	"	---	123	55-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 59 %*		*Limits: 25-140 %*				*Dilution: 1x*			
Decachlorobiphenyl (Surr)			*101 %*		*55-130 %*				*"*			
LCS (1107401-BS2)					Prepared: 07/27/11 08:37 Analyzed: 07/29/11 13:29							**C-05**
EPA 8081B												
cis-Nonachlor	2.26	0.0200	0.0600	ug/L	1	2.50	---	91	50-150%	---	---	
2,4'-DDD	2.56	0.0200	0.0600	"	"	"	---	102	30-135%	---	---	
2,4'-DDE	2.22	0.0200	0.0600	"	"	"	---	89	50-140%	---	---	
2,4'-DDT	2.62	0.0200	0.0600	"	"	"	---	105	45-140%	---	---	
Hexachlorobenzene	1.71	0.0200	0.0600	"	"	"	---	68	50-150%	---	---	
Hexachlorobutadiene	1.18	0.0200	0.0600	"	"	"	---	47	"	---	---	Q-30
Mirex	1.92	0.0200	0.0600	"	"	"	---	77	"	---	---	
Oxychlordane	1.87	0.0200	0.0600	"	"	"	---	75	"	---	---	
trans-Nonachlor	2.01	0.0200	0.0600	"	"	"	---	80	"	---	---	

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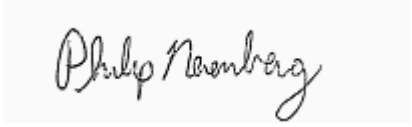

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107401 - EPA 3510C (Neutral pH)/3640A (GPC)								**Water**				
LCS (1107401-BS2)					Prepared: 07/27/11 08:37		Analyzed: 07/29/11 13:29					**C-05**
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 62 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*106 %*		*55-130 %*			*"*				
LCS Dup (1107401-BSD1)					Prepared: 07/27/11 08:37		Analyzed: 07/29/11 13:11					**C-05, Q-19**
EPA 8081B												
Aldrin	1.47	0.0200	0.0600	ug/L	1	2.00	---	74	25-140%	12	30%	
alpha-BHC	1.66	0.0200	0.0600	"	"	"	---	83	60-130%	15	30%	
beta-BHC	1.87	0.0200	0.0600	"	"	"	---	94	65-125%	8	30%	
delta-BHC	2.02	0.0200	0.0600	"	"	"	---	101	45-135%	7	30%	
gamma-BHC (Lindane)	1.74	0.0200	0.0600	"	"	"	---	87	25-135%	13	30%	
cis-Chlordane	1.71	0.0200	0.0600	"	"	"	---	86	65-125%	5	30%	
trans-Chlordane	1.77	0.0200	0.0600	"	"	"	---	89	60-125%	6	30%	
4,4'-DDD	2.03	0.0200	0.0600	"	"	"	---	101	25-150%	2	30%	
4,4'-DDE	2.08	0.0200	0.0600	"	"	"	---	104	35-140%	7	30%	
4,4'-DDT	2.17	0.0200	0.0600	"	"	"	---	109	45-140%	5	30%	
Dieldrin	1.95	0.0200	0.0600	"	"	"	---	97	60-130%	5	30%	
Endosulfan I	1.82	0.0200	0.0600	"	"	"	---	91	50-110%	5	30%	
Endosulfan II	2.14	0.0200	0.0600	"	"	"	---	107	30-130%	3	30%	
Endosulfan sulfate	2.15	0.0200	0.0600	"	"	"	---	108	55-135%	1	30%	
Endrin	2.09	0.0200	0.0600	"	"	"	---	104	"	5	30%	
Endrin Aldehyde	1.97	0.0200	0.0600	"	"	"	---	98	"	13	30%	
Endrin ketone	2.12	0.0200	0.0600	"	"	"	---	106	75-125%	2	30%	
Heptachlor	1.62	0.0200	0.0600	"	"	"	---	81	40-130%	12	30%	
Heptachlor epoxide	1.84	0.0200	0.0600	"	"	"	---	92	60-130%	7	30%	
Methoxychlor	2.53	0.0200	0.160	"	"	"	---	127	55-150%	3	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 66 %*		*Limits: 25-140 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*104 %*		*55-130 %*			*"*				
LCS Dup (1107401-BSD2)					Prepared: 07/27/11 08:37		Analyzed: 07/29/11 13:47					**C-05, Q-19**
EPA 8081B												
cis-Nonachlor	2.37	0.0200	0.0600	ug/L	1	2.50	---	95	50-150%	5	30%	
2,4'-DDD	2.68	0.0200	0.0600	"	"	"	---	107	30-135%	5	30%	
2,4'-DDE	2.38	0.0200	0.0600	"	"	"	---	95	50-140%	7	30%	
2,4'-DDT	2.73	0.0200	0.0600	"	"	"	---	109	45-140%	4	30%	
Hexachlorobenzene	1.70	0.0200	0.0600	"	"	"	---	68	50-150%	0.7	30%	
Hexachlorobutadiene	1.25	0.0200	0.0600	"	"	"	---	50	"	5	30%	

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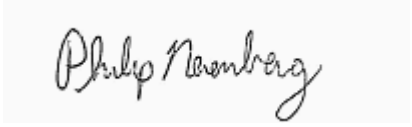

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107401 - EPA 3510C (Neutral pH)/3640A (GPC)								**Water**				
LCS Dup (1107401-BSD2)					Prepared: 07/27/11 08:37		Analyzed: 07/29/11 13:47					**C-05, Q-19**
Mirex	2.07	0.0200	0.0600	ug/L	"	"	---	83	"	7	30%	
Oxychlordane	2.08	0.0200	0.0600	"	"	"	---	83	"	10	30%	
trans-Nonachlor	2.15	0.0200	0.0600	"	"	"	---	86	"	7	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 60 %*		*Limits: 25-140 %*				*Dilution: 1x*			
Decachlorobiphenyl (Surr)			*109 %*		*55-130 %*				*"*			

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107359 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1107359-BLK1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 16:26							
EPA 8270D (SIM)												
Acenaphthene	**0.0289**	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	B
Acenaphthylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Carbazole	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluorene	**0.00951**	0.00909	0.0182	"	"	---	---	---	---	---	---	B-02, J
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	**0.0414**	0.0182	0.0364	"	"	---	---	---	---	---	---	B
2-Methylnaphthalene	**0.0593**	0.0182	0.0364	"	"	---	---	---	---	---	---	B
Naphthalene	**0.826**	0.0182	0.0364	"	"	---	---	---	---	---	---	B
Phenanthrene	**0.0107**	0.00909	0.0182	"	"	---	---	---	---	---	---	B-02, J
Pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*111 %*	*30-120 %*			*"*					
LCS (1107359-BS1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 16:54							
EPA 8270D (SIM)												
Acenaphthene	2.97	0.0100	0.0200	ug/L	1	4.00	---	74	45-125%	---	---	B
Acenaphthylene	3.07	0.0100	0.0200	"	"	"	---	77	50-125%	---	---	
Anthracene	3.65	0.0100	0.0200	"	"	"	---	91	55-125%	---	---	
Benz(a)anthracene	4.02	0.0100	0.0200	"	"	"	---	100	"	---	---	
Benzo(a)pyrene	4.49	0.0100	0.0200	"	"	"	---	112	"	---	---	
Benzo(b)fluoranthene	4.27	0.0100	0.0200	"	"	"	---	107	45-125%	---	---	
Benzo(k)fluoranthene	4.27	0.0100	0.0200	"	"	"	---	107	"	---	---	
Benzo(b+k)fluoranthene(s)	8.51	0.0200	0.0400	"	"	8.00	---	106	"	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107359 - EPA 3510C (Acid Extraction)								**Water**				
LCS (1107359-BS1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 16:54							
Benzo(g,h,i)perylene	4.28	0.0100	0.0200	ug/L	"	4.00	---	107	40-125%	---	---	
Carbazole	4.18	0.0100	0.0200	"	"	"	---	104	50-125%	---	---	
Chrysene	4.13	0.0100	0.0200	"	"	"	---	103	55-125%	---	---	
Dibenz(a,h)anthracene	4.36	0.0100	0.0200	"	"	"	---	109	40-125%	---	---	
Dibenzofuran	3.28	0.0100	0.0200	"	"	"	---	82	55-125%	---	---	
Fluoranthene	4.14	0.0100	0.0200	"	"	"	---	103	"	---	---	
Fluorene	3.34	0.0100	0.0200	"	"	"	---	84	50-125%	---	---	B
Indeno(1,2,3-cd)pyrene	4.20	0.0100	0.0200	"	"	"	---	105	45-125%	---	---	
1-Methylnaphthalene	2.96	0.0200	0.0400	"	"	"	---	74	"	---	---	B
2-Methylnaphthalene	2.97	0.0200	0.0400	"	"	"	---	74	"	---	---	B
Naphthalene	2.94	0.0200	0.0400	"	"	"	---	73	40-125%	---	---	B
Phenanthrene	3.59	0.0100	0.0200	"	"	"	---	90	50-125%	---	---	B
Pyrene	4.05	0.0100	0.0200	"	"	"	---	101	"	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 70 %*	*Limits: 45-120 %*				*Dilution: 1x*				
p-Terphenyl-d14 (Surr)			*106 %*	*30-120 %*				*"*				
LCS Dup (1107359-BSD1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 17:22							**Q-19**
EPA 8270D (SIM)												
Acenaphthene	3.47	0.0100	0.0200	ug/L	1	4.00	---	87	45-125%	15	30%	B
Acenaphthylene	3.61	0.0100	0.0200	"	"	"	---	90	50-125%	16	30%	
Anthracene	4.33	0.0100	0.0200	"	"	"	---	108	55-125%	17	30%	
Benz(a)anthracene	4.42	0.0100	0.0200	"	"	"	---	110	"	9	30%	
Benzo(a)pyrene	4.90	0.0100	0.0200	"	"	"	---	122	"	9	30%	
Benzo(b)fluoranthene	4.69	0.0100	0.0200	"	"	"	---	117	45-125%	9	30%	
Benzo(k)fluoranthene	4.69	0.0100	0.0200	"	"	"	---	117	"	9	30%	
Benzo(b+k)fluoranthene(s)	9.34	0.0200	0.0400	"	"	8.00	---	117	"	9	30%	
Benzo(g,h,i)perylene	4.70	0.0100	0.0200	"	"	4.00	---	117	40-125%	9	30%	
Carbazole	4.68	0.0100	0.0200	"	"	"	---	117	50-125%	11	30%	
Chrysene	4.55	0.0100	0.0200	"	"	"	---	114	55-125%	10	30%	
Dibenz(a,h)anthracene	4.79	0.0100	0.0200	"	"	"	---	120	40-125%	9	30%	
Dibenzofuran	3.85	0.0100	0.0200	"	"	"	---	96	55-125%	16	30%	
Fluoranthene	4.68	0.0100	0.0200	"	"	"	---	117	"	12	30%	
Fluorene	4.01	0.0100	0.0200	"	"	"	---	100	50-125%	18	30%	B
Indeno(1,2,3-cd)pyrene	4.53	0.0100	0.0200	"	"	"	---	113	45-125%	8	30%	
1-Methylnaphthalene	3.49	0.0200	0.0400	"	"	"	---	87	"	17	30%	B

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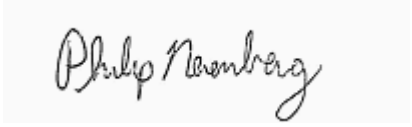

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107359 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (1107359-BSD1)					Prepared: 07/26/11 08:44		Analyzed: 07/26/11 17:22					**Q-19**
2-Methylnaphthalene	3.50	0.0200	0.0400	ug/L	"	"	---	88	"	16	30%	B
Naphthalene	3.24	0.0200	0.0400	"	"	"	---	81	40-125%	10	30%	B
Phenanthrene	4.19	0.0100	0.0200	"	"	"	---	105	50-125%	15	30%	B
Pyrene	4.48	0.0100	0.0200	"	"	"	---	112	"	10	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*		*Limits: 45-120 %*		*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*116 %*		*30-120 %*		*"*					

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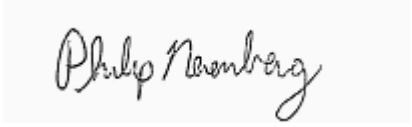

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107359 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1107359-BLK1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 16:26							
EPA 8270D (SIM)												
Diethylphthalate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	**0.326**	0.227	0.455	"	"	---	---	---	---	---	---	B-02, J
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 75 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*111 %*	*30-120 %*			*"*					
LCS (1107359-BS1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 16:54							
EPA 8270D (SIM)												
Diethylphthalate	3.53	0.250	0.500	ug/L	1	4.00	---	88	40-125%	---	---	
Dimethylphthalate	3.48	0.250	0.500	"	"	"	---	87	25-125%	---	---	
Di-n-butylphthalate	3.98	0.250	0.500	"	"	"	---	99	55-125%	---	---	
Di-n-octyl phthalate	4.30	0.250	0.500	"	"	"	---	107	35-125%	---	---	
Bis(2-ethylhexyl)phthalate	4.56	0.250	0.500	"	"	"	---	114	40-125%	---	---	
Butyl benzyl phthalate	4.49	0.250	0.500	"	"	"	---	112	45-125%	---	---	B
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 70 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*106 %*	*30-120 %*			*"*					
LCS Dup (1107359-BSD1)					Prepared: 07/26/11 08:44 Analyzed: 07/26/11 17:22							**Q-19**
EPA 8270D (SIM)												
Diethylphthalate	4.08	0.250	0.500	ug/L	1	4.00	---	102	40-125%	15	30%	
Dimethylphthalate	4.22	0.250	0.500	"	"	"	---	106	25-125%	19	30%	
Di-n-butylphthalate	4.39	0.250	0.500	"	"	"	---	110	55-125%	10	30%	
Di-n-octyl phthalate	4.64	0.250	0.500	"	"	"	---	116	35-125%	8	30%	
Bis(2-ethylhexyl)phthalate	4.96	0.250	0.500	"	"	"	---	124	40-125%	8	30%	
Butyl benzyl phthalate	4.79	0.250	0.500	"	"	"	---	120	45-125%	6	30%	B
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 82 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*116 %*	*30-120 %*			*"*					

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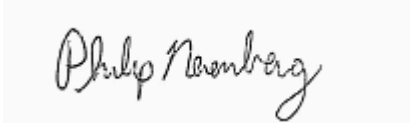

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1108002 - EPA 3015A							**Water**					
Blank (1108002-BLK1)					Prepared: 08/01/11 09:15 Analyzed: 08/01/11 15:44							
EPA 6020												
Aluminum	ND	4.00	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.333	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.100	1.00	"	"	---	---	---	---	---	---	
Chromium	**0.322**	0.200	2.00	"	"	---	---	---	---	---	---	J
Copper	ND	0.300	4.00	"	"	---	---	---	---	---	---	
Lead	ND	0.200	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.333	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0200	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.300	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	1.30	4.00	"	"	---	---	---	---	---	---	
LCS (1108002-BS1)					Prepared: 08/01/11 09:15 Analyzed: 08/01/11 14:30							
EPA 6020												
Aluminum	5370	4.00	50.0	ug/L	1	5560	---	97	80-120%	---	---	
Antimony	27.8	0.333	1.00	"	"	27.8	---	100	"	---	---	
Arsenic	51.8	0.500	2.00	"	"	55.6	---	93	85-115%	---	---	
Cadmium	52.4	0.100	1.00	"	"	"	---	94	80-120%	---	---	
Chromium	52.4	0.200	2.00	"	"	"	---	94	"	---	---	
Copper	51.1	0.300	4.00	"	"	"	---	92	"	---	---	
Lead	51.3	0.200	1.00	"	"	"	---	92	"	---	---	
Manganese	51.5	0.333	1.00	"	"	"	---	93	"	---	---	
Mercury	1.04	0.0200	0.0800	"	"	1.11	---	93	"	---	---	
Nickel	51.9	0.300	2.00	"	"	55.6	---	93	"	---	---	
Silver	28.0	0.100	1.00	"	"	27.8	---	101	"	---	---	
Zinc	52.0	1.30	4.00	"	"	55.6	---	94	"	---	---	
Duplicate (1108002-DUP1)					Prepared: 08/01/11 09:15 Analyzed: 08/01/11 16:58							
QC Source Sample: 8004-110720-101-MW2 (A11G258-02)												
EPA 6020												
Aluminum	**31.8**	4.00	50.0	ug/L	1	---	28.2	---	---	12	20%	J
Antimony	**0.700**	0.333	1.00	"	"	---	0.733	---	---	5	20%	J
Arsenic	**0.667**	0.500	2.00	"	"	---	0.678	---	---	2	20%	J

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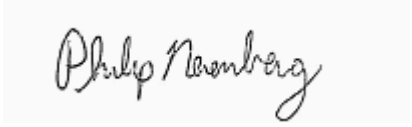

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1108002 - EPA 3015A							**Water**					
Duplicate (1108002-DUP1)					Prepared: 08/01/11 09:15 Analyzed: 08/01/11 16:58							
QC Source Sample: 8004-110720-101-MW2 (A11G258-02)												
Cadmium	**0.333**	0.100	1.00	ug/L	"	---	0.333	---	---	0	20%	J
Chromium	**0.333**	0.200	2.00	"	"	---	0.367	---	---	10	20%	J
Copper	**1.14**	0.300	4.00	"	"	---	1.09	---	---	5	20%	J
Lead	ND	0.200	1.00	"	"	---	ND	---	---	---	20%	
Manganese	**543**	0.333	1.00	"	"	---	545	---	---	0.3	20%	
Mercury	ND	0.0200	0.0800	"	"	---	ND	---	---	---	20%	
Nickel	**3.18**	0.300	2.00	"	"	---	3.18	---	---	0	20%	
Silver	ND	0.100	1.00	"	"	---	ND	---	---	---	20%	
Zinc	**55.1**	1.30	4.00	"	"	---	55.2	---	---	0.2	20%	
Duplicate (1108002-DUP2)					Prepared: 08/01/11 09:15 Analyzed: 08/01/11 17:11							
QC Source Sample: 8004-110720-101-MW2 (A11G258-02)												
EPA 6020												
Aluminum	**26.9**	4.00	50.0	ug/L	1	---	28.2	---	---	5	20%	J
Antimony	**0.978**	0.333	1.00	"	"	---	0.733	---	---	29	20%	Q-05, J
Arsenic	**0.778**	0.500	2.00	"	"	---	0.678	---	---	14	20%	J
Cadmium	**0.311**	0.100	1.00	"	"	---	0.333	---	---	7	20%	J
Chromium	**0.400**	0.200	2.00	"	"	---	0.367	---	---	9	20%	J
Copper	**1.11**	0.300	4.00	"	"	---	1.09	---	---	2	20%	J
Lead	ND	0.200	1.00	"	"	---	ND	---	---	---	20%	
Manganese	**552**	0.333	1.00	"	"	---	545	---	---	1	20%	
Mercury	ND	0.0200	0.0800	"	"	---	ND	---	---	---	20%	
Nickel	**3.17**	0.300	2.00	"	"	---	3.18	---	---	0.4	20%	
Silver	ND	0.100	1.00	"	"	---	ND	---	---	---	20%	
Zinc	**55.5**	1.30	4.00	"	"	---	55.2	---	---	0.6	20%	
Post Spike (1108002-PS1)					Prepared: 08/01/11 17:20 Analyzed: 08/01/11 17:29							
QC Source Sample: 8004-110720-101-MW2 (A11G258-02)												
EPA 6020												
Aluminum	4840			ug/L	1	4930	25.1	97	80-120%		---	
Antimony	21.1			"	"	24.7	0.651	83	"		---	
Arsenic	48.6			"	"	49.3	0.602	97	"		---	
Cadmium	48.8			"	"	"	0.296	98	"		---	
Chromium	48.3			"	"	"	0.326	97	"		---	

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Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1108002 - EPA 3015A							**Water**					
Post Spike (1108002-PS1)					Prepared: 08/01/11 17:20 Analyzed: 08/01/11 17:29							
QC Source Sample: 8004-110720-101-MW2 (A11G258-02)												
Copper	46.1			ug/L	"	"	0.967	92	"		---	
Lead	45.3			"	"	"	0.138	91	"		---	
Manganese	533			"	"	"	484	100	"		---	
Mercury	0.909			"	"	0.987	-0.00353	92	"		---	
Nickel	49.0			"	"	49.3	2.82	94	"		---	
Silver	24.7			"	"	24.7	-0.00987	100	"		---	
Zinc	94.6			"	"	49.3	49.0	92	"		---	

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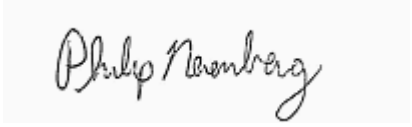

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4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107425 - EPA 3015A - Dissolved							**Water**					
Blank (1107425-BLK1)					Prepared: 07/28/11 14:27 Analyzed: 07/29/11 11:36							
EPA 6020 (Diss)												
Aluminum	**4.20**	4.00	50.0	ug/L	1	---	---	---	---	---	---	A-01, FILT1, J
Antimony	ND	0.333	1.00	"	"	---	---	---	---	---	---	A-01, FILT1
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	A-01, FILT1
Cadmium	ND	0.100	1.00	"	"	---	---	---	---	---	---	A-01, FILT1
Chromium	**0.411**	0.200	2.00	"	"	---	---	---	---	---	---	A-01, FILT1, J
Copper	ND	0.300	4.00	"	"	---	---	---	---	---	---	A-01, FILT1
Lead	ND	0.200	1.00	"	"	---	---	---	---	---	---	A-01, FILT1
Manganese	ND	0.333	1.00	"	"	---	---	---	---	---	---	A-01, FILT1
Mercury	ND	0.0200	0.0800	"	"	---	---	---	---	---	---	A-01, FILT1
Nickel	ND	0.300	2.00	"	"	---	---	---	---	---	---	A-01, FILT1
Silver	ND	0.100	1.00	"	"	---	---	---	---	---	---	A-01, FILT1
Zinc	ND	1.30	4.00	"	"	---	---	---	---	---	---	A-01, FILT1
Blank (1107425-BLK2)					Prepared: 07/28/11 14:27 Analyzed: 07/29/11 11:42							
EPA 6020 (Diss)												
Aluminum	**5.28**	4.00	50.0	ug/L	1	---	---	---	---	---	---	A-02, J
Antimony	ND	0.333	1.00	"	"	---	---	---	---	---	---	A-02
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	A-02
Cadmium	ND	0.100	1.00	"	"	---	---	---	---	---	---	A-02
Chromium	**0.444**	0.200	2.00	"	"	---	---	---	---	---	---	A-02, J
Copper	ND	0.300	4.00	"	"	---	---	---	---	---	---	A-02
Lead	ND	0.200	1.00	"	"	---	---	---	---	---	---	A-02
Manganese	ND	0.333	1.00	"	"	---	---	---	---	---	---	A-02
Mercury	ND	0.0200	0.0800	"	"	---	---	---	---	---	---	A-02
Nickel	ND	0.300	2.00	"	"	---	---	---	---	---	---	A-02
Silver	ND	0.100	1.00	"	"	---	---	---	---	---	---	A-02
Zinc	ND	1.30	4.00	"	"	---	---	---	---	---	---	A-02
LCS (1107425-BS1)					Prepared: 07/28/11 14:27 Analyzed: 07/29/11 11:39							
EPA 6020 (Diss)												
Aluminum	5430	4.00	50.0	ug/L	1	5560	---	98	80-120%	---	---	
Antimony	29.4	0.333	1.00	"	"	27.8	---	106	"	---	---	
Arsenic	53.2	0.500	2.00	"	"	55.6	---	96	"	---	---	

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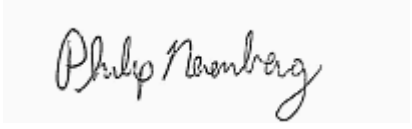

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107425 - EPA 3015A - Dissolved									**Water**			
LCS (1107425-BS1)					Prepared: 07/28/11 14:27		Analyzed: 07/29/11 11:39					
Cadmium	54.0	0.100	1.00	ug/L	"	"	---	97	"	---	---	
Chromium	53.7	0.200	2.00	"	"	"	---	97	"	---	---	
Copper	53.7	0.300	4.00	"	"	"	---	97	"	---	---	
Lead	53.0	0.200	1.00	"	"	"	---	95	"	---	---	
Manganese	52.0	0.333	1.00	"	"	"	---	94	"	---	---	
Mercury	1.10	0.0200	0.0800	"	"	1.11	---	99	"	---	---	
Nickel	54.2	0.300	2.00	"	"	55.6	---	98	"	---	---	
Silver	29.4	0.100	1.00	"	"	27.8	---	106	"	---	---	
Zinc	52.8	1.30	4.00	"	"	55.6	---	95	"	---	---	

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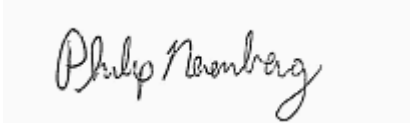

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107440 - EPA 3015A - Dissolved							**Water**					
Blank (1107440-BLK1)					Prepared: 07/29/11 10:21		Analyzed: 07/29/11 14:34					
EPA 6020 (Diss)												
Aluminum	ND	4.00	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.333	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.100	1.00	"	"	---	---	---	---	---	---	
Chromium	**0.367**	0.200	2.00	"	"	---	---	---	---	---	---	J
Copper	ND	0.300	4.00	"	"	---	---	---	---	---	---	
Lead	ND	0.200	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.333	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0200	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.300	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	1.30	4.00	"	"	---	---	---	---	---	---	
LCS (1107440-BS1)					Prepared: 07/29/11 10:21		Analyzed: 07/29/11 14:37					
EPA 6020 (Diss)												
Aluminum	5360	4.00	50.0	ug/L	1	5550	---	97	80-120%	---	---	
Antimony	29.0	0.333	1.00	"	"	27.8	---	105	"	---	---	
Arsenic	53.0	0.500	2.00	"	"	55.5	---	95	"	---	---	
Cadmium	54.5	0.100	1.00	"	"	"	---	98	"	---	---	
Chromium	52.7	0.200	2.00	"	"	"	---	95	"	---	---	
Copper	53.0	0.300	4.00	"	"	"	---	95	"	---	---	
Lead	53.3	0.200	1.00	"	"	"	---	96	"	---	---	
Manganese	51.3	0.333	1.00	"	"	"	---	92	"	---	---	
Mercury	1.12	0.0200	0.0800	"	"	1.11	---	101	"	---	---	
Nickel	52.9	0.300	2.00	"	"	55.5	---	95	"	---	---	
Silver	29.0	0.100	1.00	"	"	27.8	---	105	"	---	---	
Zinc	52.2	1.30	4.00	"	"	55.5	---	94	"	---	---	

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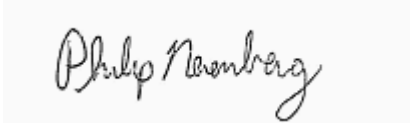

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4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1107346 - Total Suspended Solids									Water			
Blank (1107346-BLK1)					Prepared: 07/25/11 10:50		Analyzed: 07/25/11 16:50					
SM 2540 D												
Total Suspended Solids	ND	---	5.00	mg/L	1	---	---	---	---	---	---	
Reference (1107346-SRM1)					Prepared: 07/25/11 10:50		Analyzed: 07/25/11 17:55					
SM 2540 D												
Total Suspended Solids	100	---		mg/L	1	96.6		104	90-110%	---	---	

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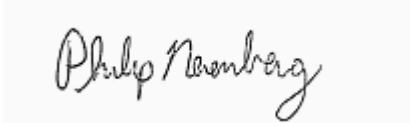

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

SAMPLE PREPARATION INFORMATION

Diesel Range (C10-C22) and Oil Range (>C22-C40) Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107336							
A11G258-01	Water	NWTPH-Dx	07/20/11 11:17	07/25/11 08:32	990mL/5mL	1000mL/5mL	1.01
A11G258-02	Water	NWTPH-Dx	07/20/11 11:15	07/25/11 08:32	1070mL/5mL	1000mL/5mL	0.94
A11G258-03	Water	NWTPH-Dx	07/20/11 12:55	07/25/11 08:32	1070mL/5mL	1000mL/5mL	0.94
A11G258-04	Water	NWTPH-Dx	07/20/11 14:30	07/25/11 08:32	980mL/5mL	1000mL/5mL	1.02
A11G258-05	Water	NWTPH-Dx	07/20/11 13:57	07/25/11 08:32	1070mL/5mL	1000mL/5mL	0.94

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107315							
A11G258-01	Water	NWTPH-Gx	07/20/11 11:17	07/22/11 09:59	5mL/5mL	5mL/5mL	1.00
A11G258-02	Water	NWTPH-Gx	07/20/11 11:15	07/22/11 09:59	5mL/5mL	5mL/5mL	1.00
A11G258-03	Water	NWTPH-Gx	07/20/11 12:55	07/22/11 09:59	5mL/5mL	5mL/5mL	1.00
A11G258-04	Water	NWTPH-Gx	07/20/11 14:30	07/22/11 09:59	5mL/5mL	5mL/5mL	1.00
A11G258-05	Water	NWTPH-Gx	07/20/11 13:57	07/22/11 09:59	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107350							
A11G258-01	Water	EPA 8082A	07/20/11 11:17	07/25/11 14:46	990mL/1mL	1000mL/1mL	1.01
A11G258-02	Water	EPA 8082A	07/20/11 11:15	07/25/11 14:46	1070mL/1mL	1000mL/1mL	0.94
A11G258-03	Water	EPA 8082A	07/20/11 12:55	07/25/11 14:46	1070mL/1mL	1000mL/1mL	0.94
A11G258-04	Water	EPA 8082A	07/20/11 14:30	07/25/11 14:46	980mL/1mL	1000mL/1mL	1.02
A11G258-05	Water	EPA 8082A	07/20/11 13:57	07/25/11 14:46	1070mL/1mL	1000mL/1mL	0.94

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3510C (Neutral pH)/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107401							
A11G258-01RE1	Water	EPA 8081B	07/20/11 11:17	07/27/11 08:37	1000mL/10mL	1000mL/5mL	2.00
A11G258-02RE1	Water	EPA 8081B	07/20/11 11:15	07/27/11 08:37	1070mL/10mL	1000mL/5mL	1.87

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4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

SAMPLE PREPARATION INFORMATION

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3510C (Neutral pH)/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A11G258-03RE1	Water	EPA 8081B	07/20/11 12:55	07/27/11 08:37	1070mL/10mL	1000mL/5mL	1.87
A11G258-04RE1	Water	EPA 8081B	07/20/11 14:30	07/27/11 08:37	1020mL/10mL	1000mL/5mL	1.96
A11G258-05RE1	Water	EPA 8081B	07/20/11 13:57	07/27/11 08:37	1070mL/10mL	1000mL/5mL	1.87

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107359							
A11G258-01	Water	EPA 8270D (SIM)	07/20/11 11:17	07/26/11 08:44	1020mL/1mL	1000mL/1mL	0.98
A11G258-02	Water	EPA 8270D (SIM)	07/20/11 11:15	07/26/11 08:44	1070mL/1mL	1000mL/1mL	0.94
A11G258-03	Water	EPA 8270D (SIM)	07/20/11 12:55	07/26/11 08:44	1070mL/1mL	1000mL/1mL	0.94
A11G258-04	Water	EPA 8270D (SIM)	07/20/11 14:30	07/26/11 08:44	1020mL/1mL	1000mL/1mL	0.98
A11G258-05	Water	EPA 8270D (SIM)	07/20/11 13:57	07/26/11 08:44	1060mL/1mL	1000mL/1mL	0.94

Phthalates by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107359							
A11G258-01	Water	EPA 8270D (SIM)	07/20/11 11:17	07/26/11 08:44	1020mL/1mL	1000mL/2mL	0.49
A11G258-02	Water	EPA 8270D (SIM)	07/20/11 11:15	07/26/11 08:44	1070mL/1mL	1000mL/2mL	0.47
A11G258-03	Water	EPA 8270D (SIM)	07/20/11 12:55	07/26/11 08:44	1070mL/1mL	1000mL/2mL	0.47
A11G258-04	Water	EPA 8270D (SIM)	07/20/11 14:30	07/26/11 08:44	1020mL/1mL	1000mL/2mL	0.49
A11G258-05	Water	EPA 8270D (SIM)	07/20/11 13:57	07/26/11 08:44	1060mL/1mL	1000mL/2mL	0.47

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1108002							
A11G258-01	Water	EPA 6020	07/20/11 11:17	08/01/11 09:15	45mL/50mL	45mL/50mL	1.00
A11G258-02	Water	EPA 6020	07/20/11 11:15	08/01/11 09:15	45mL/50mL	45mL/50mL	1.00
A11G258-03	Water	EPA 6020	07/20/11 12:55	08/01/11 09:15	45mL/50mL	45mL/50mL	1.00
A11G258-04	Water	EPA 6020	07/20/11 14:30	08/01/11 09:15	45mL/50mL	45mL/50mL	1.00
A11G258-05	Water	EPA 6020	07/20/11 13:57	08/01/11 09:15	45mL/50mL	45mL/50mL	1.00

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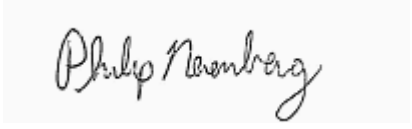

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4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

SAMPLE PREPARATION INFORMATION

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

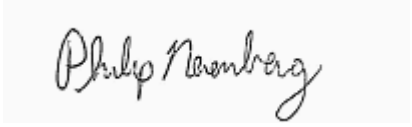
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107425							
A11G258-01	Water	EPA 6020 (Diss)	07/20/11 11:17	07/28/11 14:27	45mL/50mL	45mL/50mL	1.00
A11G258-02	Water	EPA 6020 (Diss)	07/20/11 11:15	07/28/11 14:27	45mL/50mL	45mL/50mL	1.00
A11G258-03	Water	EPA 6020 (Diss)	07/20/11 12:55	07/28/11 14:27	45mL/50mL	45mL/50mL	1.00
Batch: 1107440							
A11G258-04	Water	EPA 6020 (Diss)	07/20/11 14:30	07/29/11 10:21	45mL/50mL	45mL/50mL	1.00
A11G258-05	Water	EPA 6020 (Diss)	07/20/11 13:57	07/29/11 10:21	45mL/50mL	45mL/50mL	1.00

Conventional Chemistry Parameters

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1107346							
A11G258-01	Water	SM 2540 D	07/20/11 11:17	07/25/11 10:50	1N/A/1N/A	1N/A/1mL	NA
A11G258-02	Water	SM 2540 D	07/20/11 11:15	07/25/11 10:50	1N/A/1N/A	1N/A/1mL	NA
A11G258-03	Water	SM 2540 D	07/20/11 12:55	07/25/11 10:50	1N/A/1N/A	1N/A/1mL	NA
A11G258-04	Water	SM 2540 D	07/20/11 14:30	07/25/11 10:50	1N/A/1N/A	1N/A/1mL	NA
A11G258-05	Water	SM 2540 D	07/20/11 13:57	07/25/11 10:50	1N/A/1N/A	1N/A/1mL	NA

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

Notes and Definitions

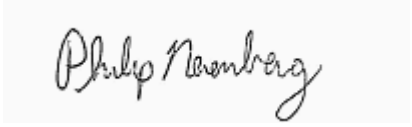
Qualifiers:

A-01	Filtration blank from lab filter batch 1107322
A-02	Non filtered method blank
B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
F-11	The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
FILT1	Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-05	Analyses are not controlled on RPD values from sample or duplicate concentrations near or below the reporting level.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-30	Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
S-06	Surrogate recovery is outside of established control limits.
X	See Case Narrative.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
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503-718-2323 Phone
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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

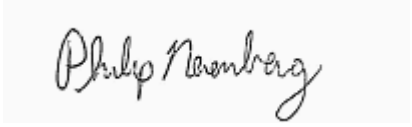
Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

***

Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

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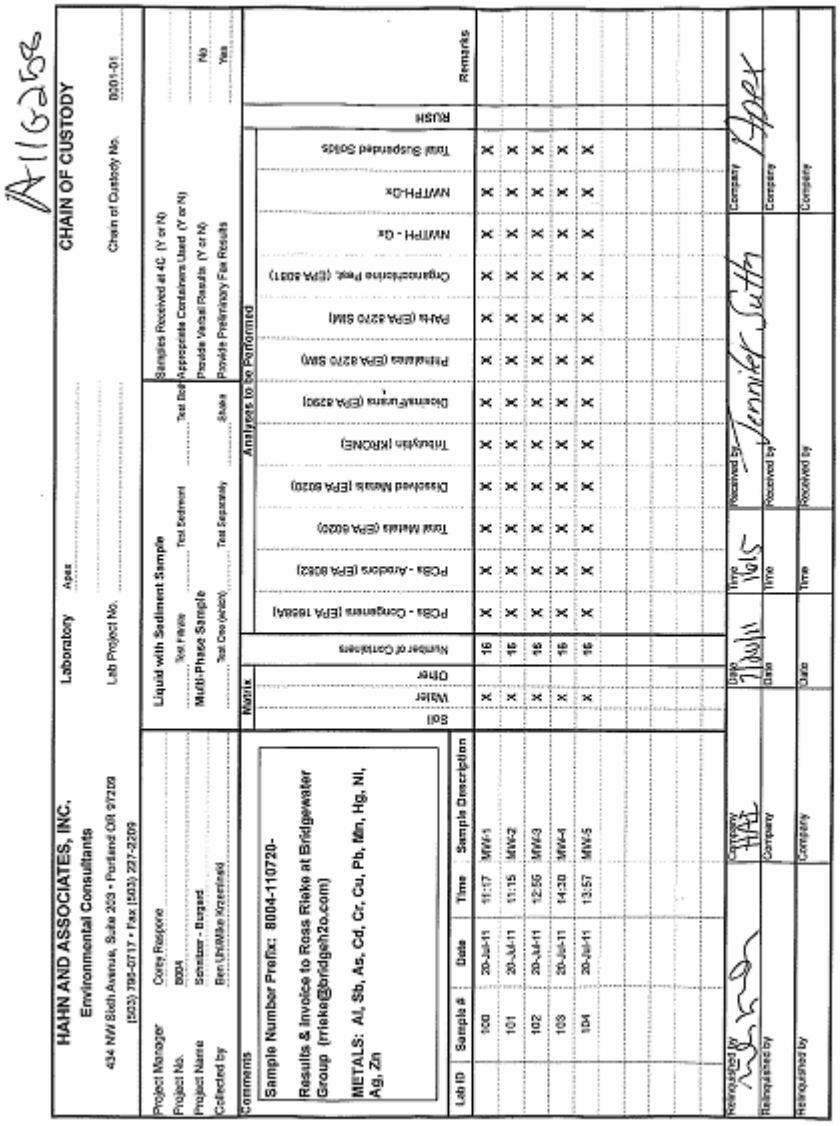
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8004	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	09/13/11 14:44

A11G258



HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 796-0717 • Fax (503) 227-2209

CHAIN OF CUSTODY

Laboratory: Apex
Lab Project No.:
Chain of Custody No.: 8001-01

Project Manager: Corey Rasgone
Project No.: 8004
Project Name: Schnitzer - Burgard
Collected by: Ben Uhl/Mike Krzeminski

Liquid with Sediment Sample — Test Filtrate / Test Sediment / Test Both
Multi-Phase Sample — Test Cone (which) / Test Separately / Shake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N) — No
Provide Preliminary Fax Results — Yes

Comments

Sample Number Prefix: 8004-110720-

Results & Invoice to Ross Rieke at Bridgewater Group (rrieke@bridgeh2o.com)

METALS: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Analyses to be Performed

Lab ID	Sample #	Date	Time	Sample Description	Soil	Water	Other	Number of Containers	PCBs - Congeners (EPA 1668A)	PCBs - Aroclors (EPA 8082)	Total Metals (EPA 6020)	Dissolved Metals (EPA 6020)	Tributyltin (KRONE)	Dioxins/Furans (EPA 8290)	Phthalates (EPA 8270 SIM)	PAHs (EPA 8270 SIM)	Organochlorine Pest. (EPA 8081)	NWTPH - Gx	NWTPH-Dx	Total Suspended Solids	RUSH	Remarks
	100	20-Jul-11	11:17	MW-1		X		16	X	X	X	X	X	X	X	X	X	X	X	X		
	101	20-Jul-11	11:15	MW-2		X		16	X	X	X	X	X	X	X	X	X	X	X	X		
	102	20-Jul-11	12:55	MW-3		X		16	X	X	X	X	X	X	X	X	X	X	X	X		
	103	20-Jul-11	14:30	MW-4		X		16	X	X	X	X	X	X	X	X	X	X	X	X		
	104	20-Jul-11	13:57	MW-5		X		16	X	X	X	X	X	X	X	X	X	X	X	X		

Relinquished by: [signature]	Company: HAI	Date: 7/20/11	Time: 1615	Received by: Jennifer Sutton	Company: Apex
Relinquished by:	Company:	Date:	Time:	Received by:	Company:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

August 5, 2011

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A11G258
ARI ID: TF28

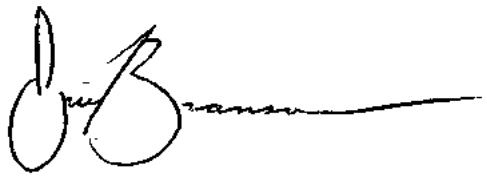
Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record, sample receipt documentation, and the final data for the sample from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this package will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Eric Branson
Project Manager
206 695 6213
eric@arilabs.com
www.arilabs.com

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Case Narrative

- Sample Receipt & Analytical Details -

Sample Receipt:

Analytical Resources, Inc. accepted five water samples in good condition on August 22, 2011. For further details regarding sample receipt please refer to the enclosed Cooler Receipt Form.

On July 25, 2011 an updated Chain of Custody was received with sample ID edits, which were made by ARI at this time. Both Chains of Custody have been included with this report.

The samples were analyzed for the parameter listed below, as requested on the Chain of Custody.

Butyl Tins by Krone - 1988 SIM (GC/MS):

Sample **8004-110720-103-MW4** had a "J" qualifier applied to the detection for the Butyltin Ion to indicate an estimated detection below the reporting limit. Please refer to the enclosed Data Reporting Qualifiers sheet for further details regarding this qualifier.

There were no irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: TF28
Client: Apex Labs
Project Event: N/A
Project Name: A11G258

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	8004-110720-100	TF28A	11-15799	Water	07/20/11 11:17	07/22/11 09:45
2.	8004-110720-101	TF28B	11-15800	Water	07/20/11 11:15	07/22/11 09:45
3.	8004-110720-102	TF28C	11-15801	Water	07/20/11 12:55	07/22/11 09:45
4.	8004-110720-103	TF28D	11-15802	Water	07/20/11 14:30	07/22/11 09:45
5.	8004-110720-104	TF28E	11-15803	Water	07/20/11 13:57	07/22/11 09:45

Printed 07/22/11

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

TF28 : 00004

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

TF28 : 00006

SUBCONTRACT ORDER

Apex Laboratories

A11G258

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6211
Fax: (206) 695-6201

Sample Name: 8004-110720-100 **Water** **Sampled: 07/20/11 11:17** (A11G258-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 11:17	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Sample Name: 8004-110720-101 **Water** **Sampled: 07/20/11 11:15** (A11G258-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 11:15	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Sample Name: 8004-110720-102 **Water** **Sampled: 07/20/11 12:55** (A11G258-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 12:55	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Sample Name: 8004-110720-103 **Water** **Sampled: 07/20/11 14:30** (A11G258-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 14:30	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Released By	Date	Received By	Date
	7/21/11		7/22/11 945
Released By	Date	Received By	Date

TF28 : 00007

SUBCONTRACT ORDER

Apex Laboratories

A11G258

Sample Name: 8004-110720-104 **Water** **Sampled: 07/20/11 13:57** (A11G258-05)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 13:57	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Standard turn

Released By	Date	Received By	Date
[signature]	7/21/11	[signature]	7/22/11 945
Released By	Date	Received By	Date

TF28 : 00068

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex Labs

Project Name: AIG258

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: TF28

Tracking No: 1Z X47 20R 13 9012 7500 NA
1Z X47 20R 13 9490 5699

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 1.8 1.4		

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90947619

Cooler Accepted by: JM Date 7/22/11 Time: 945

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	(Bubble Wrap) (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	(NO)
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

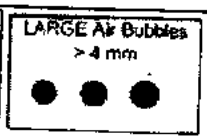
Samples Logged by: JM Date: 7/22/11 Time: 1514

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles >4 mm
		

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

SUBCONTRACT ORDER

Apex Laboratories

A11G258

updated 7/29/11

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6211
Fax: (206) 695-6201

Sample Name: 8004-110720-100-MW1 Water **Sampled: 07/20/11 11:17** (A11G258-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 11:17	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Sample Name: 8004-110720-101-MW2 Water **Sampled: 07/20/11 11:15** (A11G258-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 11:15	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Sample Name: 8004-110720-102-MW3 Water **Sampled: 07/20/11 12:55** (A11G258-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 12:55	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Sample Name: 8004-110720-103-MW4 Water **Sampled: 07/20/11 14:30** (A11G258-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 14:30	Krone
Containers Supplied			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Released By	Date	Received By	Date
Released By	Date	Received By	Date

TF28 : 00010

Updated 7/25/11

SUBCONTRACT ORDER

Apex Laboratories

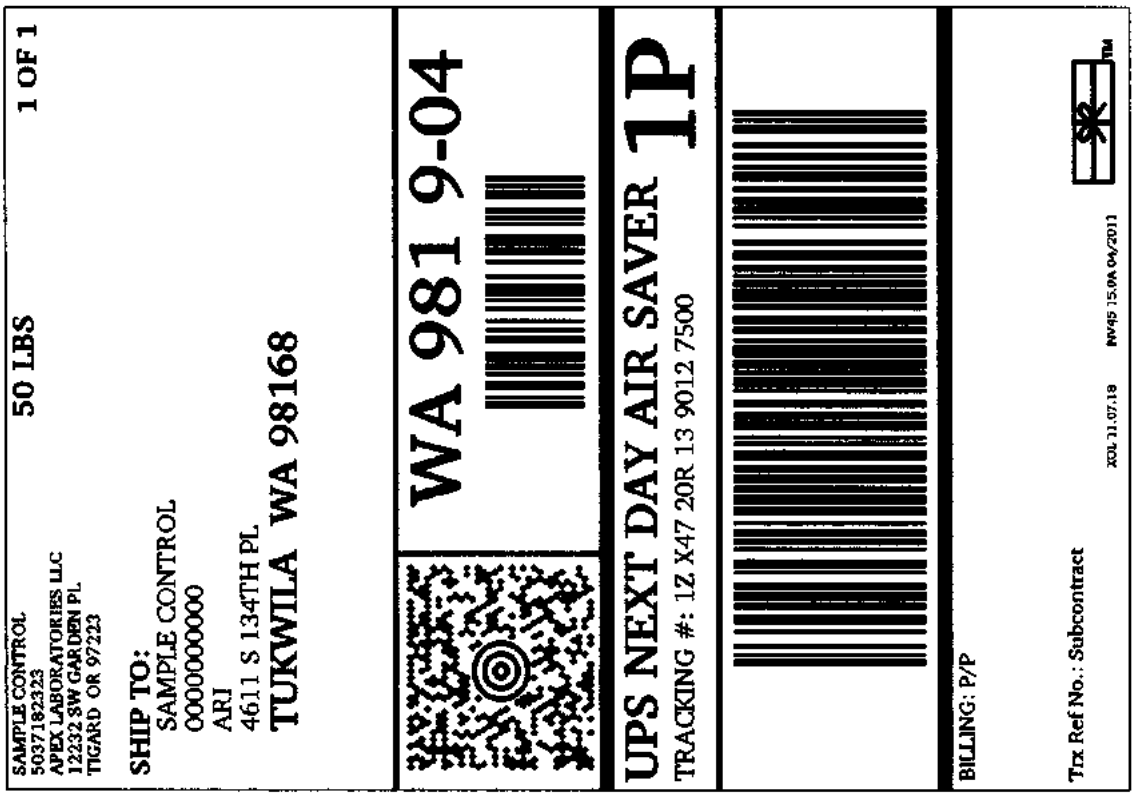
A11G258

Sample Name: 8004-110720-104-MW-5 **Water** **Sampled: 07/20/11 13:57** (A11G258-05)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	08/03/11 17:00	08/03/11 13:57	Krone
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Released By	Date	Received By	Date
Released By	Date	Received By	Date

TF28 : 00011



Create New Shipment View Pending Shipments

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: 8004-110720-100-MW1
SAMPLE

Lab Sample ID: TF28A
LIMS ID: 11-15799
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA
Date Sampled: 07/20/11
Date Received: 07/22/11

Date Extracted: 07/25/11
Date Analyzed: 07/28/11 13:36
Instrument/Analyst: NT12/JLW

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	67.7%
Tripentyl Tin Chloride	97.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8004-110720-101-MW2**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TF28B
LIMS ID: 11-15800
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA
Date Sampled: 07/20/11
Date Received: 07/22/11

Date Extracted: 07/25/11
Date Analyzed: 07/28/11 13:50
Instrument/Analyst: NT12/JLW

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	80.0%
Tripentyl Tin Chloride	109%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8004-110720-102-MW3**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TF28C
LIMS ID: 11-15801
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA
Date Sampled: 07/20/11
Date Received: 07/22/11

Date Extracted: 07/25/11
Date Analyzed: 07/28/11 14:04
Instrument/Analyst: NT12/JLW

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	70.3%
Tripentyl Tin Chloride	104%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8004-110720-103-MW4**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TF28D
LIMS ID: 11-15802
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA
Date Sampled: 07/20/11
Date Received: 07/22/11

Date Extracted: 07/25/11
Date Analyzed: 07/28/11 14:18
Instrument/Analyst: NT12/JLW

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	**Butyltin Ion**	**0.20**	**0.11**	**J**

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	58.5%
Tripentyl Tin Chloride	89.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: 8004-110720-104-MW5**
Page 1 of 1 **SAMPLE**

Lab Sample ID: TF28E
LIMS ID: 11-15803
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA
Date Sampled: 07/20/11
Date Received: 07/22/11

Date Extracted: 07/25/11
Date Analyzed: 07/28/11 14:32
Instrument/Analyst: NT12/JLW

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	58.9%
Tripentyl Tin Chloride	87.7%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-072511	33.2%	37.4%	0
LCS-072511	82.0%	118%	0
8004-110720-100-MW1	67.7%	97.1%	0
8004-110720-101-MW2	80.0%	109%	0
8004-110720-102-MW3	70.3%	104%	0
8004-110720-103-MW4	58.5%	89.5%	0
8004-110720-104-MW5	58.9%	87.7%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)	(30-160)

Prep Method: SW3510C
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 11-15799 to 11-15803

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-072511**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-072511
LIMS ID: 11-15799
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Date Sampled: NA
Date Received: NA

Date Extracted LCS: 07/25/11
Date Analyzed LCS: 07/28/11 13:09
Instrument/Analyst LCS: NT12/JLW

Sample Amount LCS: 100 mL
Final Extract Volume LCS: 0.50 mL
Dilution Factor LCS: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added	Recovery
Tributyltin Ion	2.18	2.23	97.8%
Dibutyltin Ion	1.87	1.92	97.4%
Butyltin Ion	0.66	1.56	42.3%

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	82.0%
Tripentyl Tin Chloride	118%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: MB-072511
METHOD BLANK

Lab Sample ID: MB-072511
LIMS ID: 11-15799
Matrix: Water
Data Release Authorized:
Reported: 08/05/11

QC Report No: TF28-Apex Labs
Project: A11G258
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 07/25/11
Date Analyzed: 07/28/11 12:55
Instrument/Analyst: NT12/JLW

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	33.2%
Tripentyl Tin Chloride	37.4%

Maxxam

Success Through Science®

Your Project #: A11G258
Your C.O.C. #: NA

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2011/09/22
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B1A9655
Received: 2011/07/22, 12:15

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Water (8290) (1)	5	2011/07/28	2011/08/03	BRL SOP-00406	EPA 8290 mod.
PCB Congeners in Water (1668A)	5	2011/07/27	2011/08/02	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

LINA BARRETO, Project Manager
Email: LBarreto@maxxam.ca
Phone# (905) 817-5700

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Total cover pages: 1

Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.87 U	0.87	20	1.00	0.870		2567784
1,2,3,7,8-Penta CDD	pg/L	0.64 U	0.64	51	1.00	0.640		2567784
1,2,3,4,7,8-Hexa CDD	pg/L	0.87 U	0.87	51	0.100	0.0870		2567784
1,2,3,6,7,8-Hexa CDD	pg/L	0.77 U	0.77	51	0.100	0.0770		2567784
1,2,3,7,8,9-Hexa CDD	pg/L	0.77 U	0.77	51	0.100	0.0770		2567784
1,2,3,4,6,7,8-Hepta CDD	pg/L	3.54 J	0.71	51	0.0100	0.0354		2567784
Octa CDD	pg/L	12.1 J	1.1	100	0.000300	0.00363		2567784
Total Tetra CDD	pg/L	0.87 U	0.87	20				2567784
Total Penta CDD	pg/L	0.64 U	0.64	51				2567784
Total Hexa CDD	pg/L	0.80 U	0.80	150				2567784
Total Hepta CDD	pg/L	4.95 J	0.71	51				2567784
2,3,7,8-Tetra CDF **	pg/L	0.78 U	0.78	20	0.100	0.0780		2567784
1,2,3,7,8-Penta CDF	pg/L	0.76 U	0.76	51	0.0300	0.0228		2567784
2,3,4,7,8-Penta CDF	pg/L	0.78 U	0.78	51	0.300	0.234		2567784
1,2,3,4,7,8-Hexa CDF	pg/L	0.62 U	0.62	51	0.100	0.0620		2567784
1,2,3,6,7,8-Hexa CDF	pg/L	0.62 U	0.62	51	0.100	0.0620		2567784
2,3,4,6,7,8-Hexa CDF	pg/L	0.70 U	0.70	51	0.100	0.0700		2567784
1,2,3,7,8,9-Hexa CDF	pg/L	0.74 U	0.74	51	0.100	0.0740		2567784
1,2,3,4,6,7,8-Hepta CDF	pg/L	1.2 U (1)	1.2	51	0.0100	0.0120		2567784
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.81 U	0.81	51	0.0100	0.00810		2567784
Octa CDF	pg/L	3.5 J	1.1	100	0.000300	0.00105		2567784
Total Tetra CDF	pg/L	0.78 U	0.78	20				2567784
Total Penta CDF	pg/L	0.77 U	0.77	100				2567784
Total Hexa CDF	pg/L	0.67 U	0.67	200				2567784
Total Hepta CDF	pg/L	1.22 J	0.73	100				2567784
TOTAL TOXIC EQUIVALENCY	pg/L					2.41		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	100						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	99						2567784
C13-123478 HexaCDF	%	101						2567784
C13-123678 HexaCDD *	%	102						2567784
C13-12378 PentaCDD	%	80						2567784
C13-12378 PentaCDF	%	75						2567784
C13-2378 TetraCDD	%	83						2567784
C13-2378 TetraCDF	%	78						2567784
C13-OCDD	%	92						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9101						
Sampling Date		2011/07/20 11:15						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.71 U	0.71	19	1.00	0.710		2567784
1,2,3,7,8-Penta CDD	pg/L	0.68 U	0.68	48	1.00	0.680		2567784
1,2,3,4,7,8-Hexa CDD	pg/L	0.77 U	0.77	48	0.100	0.0770		2567784
1,2,3,6,7,8-Hexa CDD	pg/L	0.69 U	0.69	48	0.100	0.0690		2567784
1,2,3,7,8,9-Hexa CDD	pg/L	0.68 U	0.68	48	0.100	0.0680		2567784
1,2,3,4,6,7,8-Hepta CDD	pg/L	3.20 J	0.60	48	0.0100	0.0320		2567784
Octa CDD	pg/L	10.0 J	1.1	95	0.000300	0.00300		2567784
Total Tetra CDD	pg/L	0.71 U	0.71	19				2567784
Total Penta CDD	pg/L	0.68 U	0.68	48				2567784
Total Hexa CDD	pg/L	0.71 U	0.71	140				2567784
Total Hepta CDD	pg/L	4.70 J	0.60	48				2567784
2,3,7,8-Tetra CDF **	pg/L	0.72 U	0.72	19	0.100	0.0720		2567784
1,2,3,7,8-Penta CDF	pg/L	0.70 U	0.70	48	0.0300	0.0210		2567784
2,3,4,7,8-Penta CDF	pg/L	0.72 U	0.72	48	0.300	0.216		2567784
1,2,3,4,7,8-Hexa CDF	pg/L	0.53 U	0.53	48	0.100	0.0530		2567784
1,2,3,6,7,8-Hexa CDF	pg/L	0.52 U	0.52	48	0.100	0.0520		2567784
2,3,4,6,7,8-Hexa CDF	pg/L	0.59 U	0.59	48	0.100	0.0590		2567784
1,2,3,7,8,9-Hexa CDF	pg/L	0.62 U	0.62	48	0.100	0.0620		2567784
1,2,3,4,6,7,8-Hepta CDF	pg/L	0.85 U (1)	0.85	48	0.0100	0.00850		2567784
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.79 U	0.79	48	0.0100	0.00790		2567784
Octa CDF	pg/L	2.56 J	0.97	95	0.000300	0.000768		2567784
Total Tetra CDF	pg/L	0.83 U (1)	0.83	19				2567784
Total Penta CDF	pg/L	0.71 U	0.71	95				2567784
Total Hexa CDF	pg/L	0.56 U	0.56	190				2567784
Total Hepta CDF	pg/L	1.54 J	0.70	95				2567784
TOTAL TOXIC EQUIVALENCY	pg/L					2.19		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	103						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9101						
Sampling Date		2011/07/20 11:15						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	99						2567784
C13-123478 HexaCDF	%	104						2567784
C13-123678 HexaCDD *	%	104						2567784
C13-12378 PentaCDD	%	78						2567784
C13-12378 PentaCDF	%	71						2567784
C13-2378 TetraCDD	%	80						2567784
C13-2378 TetraCDF	%	73						2567784
C13-OCDD	%	91						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.56 U	0.56	19	1.00	0.560		2567784
1,2,3,7,8-Penta CDD	pg/L	0.57 U	0.57	47	1.00	0.570		2567784
1,2,3,4,7,8-Hexa CDD	pg/L	0.54 U	0.54	47	0.100	0.0540		2567784
1,2,3,6,7,8-Hexa CDD	pg/L	0.48 U	0.48	47	0.100	0.0480		2567784
1,2,3,7,8,9-Hexa CDD	pg/L	0.47 U	0.47	47	0.100	0.0470		2567784
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.38 J	0.86	47	0.0100	0.0138		2567784
Octa CDD	pg/L	4.2 J	1.1	94	0.000300	0.00126		2567784
Total Tetra CDD	pg/L	0.56 U	0.56	19				2567784
Total Penta CDD	pg/L	0.57 U	0.57	47				2567784
Total Hexa CDD	pg/L	0.50 U	0.50	140				2567784
Total Hepta CDD	pg/L	1.38 J	0.86	47				2567784
2,3,7,8-Tetra CDF **	pg/L	0.66 U	0.66	19	0.100	0.0660		2567784
1,2,3,7,8-Penta CDF	pg/L	0.67 U	0.67	47	0.0300	0.0201		2567784
2,3,4,7,8-Penta CDF	pg/L	0.69 U	0.69	47	0.300	0.207		2567784
1,2,3,4,7,8-Hexa CDF	pg/L	0.59 U	0.59	47	0.100	0.0590		2567784
1,2,3,6,7,8-Hexa CDF	pg/L	0.59 U	0.59	47	0.100	0.0590		2567784
2,3,4,6,7,8-Hexa CDF	pg/L	0.67 U	0.67	47	0.100	0.0670		2567784
1,2,3,7,8,9-Hexa CDF	pg/L	0.70 U	0.70	47	0.100	0.0700		2567784
1,2,3,4,6,7,8-Hepta CDF	pg/L	0.88 U (1)	0.88	47	0.0100	0.00880		2567784
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.62 U	0.62	47	0.0100	0.00620		2567784
Octa CDF	pg/L	1.8 J	1.0	94	0.000300	0.000540		2567784
Total Tetra CDF	pg/L	1.23 J	0.66	19				2567784
Total Penta CDF	pg/L	0.68 U	0.68	94				2567784
Total Hexa CDF	pg/L	0.63 U	0.63	190				2567784
Total Hepta CDF	pg/L	0.98 U (1)	0.98	94				2567784
TOTAL TOXIC EQUIVALENCY	pg/L					1.86		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	105						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	99						2567784
C13-123478 HexaCDF	%	103						2567784
C13-123678 HexaCDD *	%	103						2567784
C13-12378 PentaCDD	%	79						2567784
C13-12378 PentaCDF	%	72						2567784
C13-2378 TetraCDD	%	80						2567784
C13-2378 TetraCDF	%	75						2567784
C13-OCDD	%	92						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.57 U	0.57	20	1.00	0.570		2567784
1,2,3,7,8-Penta CDD	pg/L	0.63 U	0.63	49	1.00	0.630		2567784
1,2,3,4,7,8-Hexa CDD	pg/L	0.67 U	0.67	49	0.100	0.0670		2567784
1,2,3,6,7,8-Hexa CDD	pg/L	0.60 U	0.60	49	0.100	0.0600		2567784
1,2,3,7,8,9-Hexa CDD	pg/L	0.60 U	0.60	49	0.100	0.0600		2567784
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.89 J	0.54	49	0.0100	0.0189		2567784
Octa CDD	pg/L	5.6 J	1.2	98	0.000300	0.00168		2567784
Total Tetra CDD	pg/L	0.57 U	0.57	20				2567784
Total Penta CDD	pg/L	0.63 U	0.63	49				2567784
Total Hexa CDD	pg/L	0.62 U	0.62	150				2567784
Total Hepta CDD	pg/L	2.58 J	0.54	49				2567784
2,3,7,8-Tetra CDF **	pg/L	0.65 U	0.65	20	0.100	0.0650		2567784
1,2,3,7,8-Penta CDF	pg/L	0.66 U	0.66	49	0.0300	0.0198		2567784
2,3,4,7,8-Penta CDF	pg/L	0.84 J	0.68	49	0.300	0.252		2567784
1,2,3,4,7,8-Hexa CDF	pg/L	0.55 U	0.55	49	0.100	0.0550		2567784
1,2,3,6,7,8-Hexa CDF	pg/L	0.54 U	0.54	49	0.100	0.0540		2567784
2,3,4,6,7,8-Hexa CDF	pg/L	0.61 U	0.61	49	0.100	0.0610		2567784
1,2,3,7,8,9-Hexa CDF	pg/L	0.65 U	0.65	49	0.100	0.0650		2567784
1,2,3,4,6,7,8-Hepta CDF	pg/L	0.56 U	0.56	49	0.0100	0.00560		2567784
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.70 U	0.70	49	0.0100	0.00700		2567784
Octa CDF	pg/L	1.5 J	1.0	98	0.000300	0.000450		2567784
Total Tetra CDF	pg/L	1.21 J	0.65	20				2567784
Total Penta CDF	pg/L	0.84 J	0.67	98				2567784
Total Hexa CDF	pg/L	0.58 U	0.58	200				2567784
Total Hepta CDF	pg/L	0.62 U	0.62	98				2567784
TOTAL TOXIC EQUIVALENCY	pg/L					1.99		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	97						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	94						2567784
C13-123478 HexaCDF	%	97						2567784
C13-123678 HexaCDD *	%	99						2567784
C13-12378 PentaCDD	%	74						2567784
C13-12378 PentaCDF	%	68						2567784
C13-2378 TetraCDD	%	76						2567784
C13-2378 TetraCDF	%	70						2567784
C13-OCDD	%	86						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.81 U	0.81	19	1.00	0.810		2567784
1,2,3,7,8-Penta CDD	pg/L	0.59 U	0.59	48	1.00	0.590		2567784
1,2,3,4,7,8-Hexa CDD	pg/L	0.62 U	0.62	48	0.100	0.0620		2567784
1,2,3,6,7,8-Hexa CDD	pg/L	0.55 U	0.55	48	0.100	0.0550		2567784
1,2,3,7,8,9-Hexa CDD	pg/L	0.55 U	0.55	48	0.100	0.0550		2567784
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.3 U (1)	1.3	48	0.0100	0.0130		2567784
Octa CDD	pg/L	4.6 J	1.0	95	0.000300	0.00138		2567784
Total Tetra CDD	pg/L	0.81 U	0.81	19				2567784
Total Penta CDD	pg/L	0.59 U	0.59	48				2567784
Total Hexa CDD	pg/L	0.57 U	0.57	140				2567784
Total Hepta CDD	pg/L	0.67 J	0.62	48				2567784
2,3,7,8-Tetra CDF **	pg/L	0.56 U	0.56	19	0.100	0.0560		2567784
1,2,3,7,8-Penta CDF	pg/L	0.65 U	0.65	48	0.0300	0.0195		2567784
2,3,4,7,8-Penta CDF	pg/L	0.80 J	0.67	48	0.300	0.240		2567784
1,2,3,4,7,8-Hexa CDF	pg/L	0.81 U	0.81	48	0.100	0.0810		2567784
1,2,3,6,7,8-Hexa CDF	pg/L	0.80 U	0.80	48	0.100	0.0800		2567784
2,3,4,6,7,8-Hexa CDF	pg/L	0.91 U	0.91	48	0.100	0.0910		2567784
1,2,3,7,8,9-Hexa CDF	pg/L	0.96 U	0.96	48	0.100	0.0960		2567784
1,2,3,4,6,7,8-Hepta CDF	pg/L	0.77 U (1)	0.77	48	0.0100	0.00770		2567784
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.64 U	0.64	48	0.0100	0.00640		2567784
Octa CDF	pg/L	1.2 U (1)	1.2	95	0.000300	0.000360		2567784
Total Tetra CDF	pg/L	1.40 J	0.56	19				2567784
Total Penta CDF	pg/L	0.80 J	0.66	95				2567784
Total Hexa CDF	pg/L	0.86 U	0.86	190				2567784
Total Hepta CDF	pg/L	0.86 U (1)	0.86	95				2567784
TOTAL TOXIC EQUIVALENCY	pg/L					2.26		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	103						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	100						2567784
C13-123478 HexaCDF	%	100						2567784
C13-123678 HexaCDD *	%	102						2567784
C13-12378 PentaCDD	%	79						2567784
C13-12378 PentaCDF	%	70						2567784
C13-2378 TetraCDD	%	79						2567784
C13-2378 TetraCDF	%	73						2567784
C13-OCDD	%	96						2567784

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.00309 J	0.00086	0.10				2567990
3-MonoCB-(2)	ng/L	0.0013 U (1)	0.0013	0.10				2567990
4-MonoCB-(3)	ng/L	0.00493 J	0.00087	0.10				2567990
22'-DiCB-(4)	ng/L	0.0050 U	0.0050	0.10				2567990
2,3-DiCB-(5)	ng/L	0.011 U	0.011	0.10				2567990
2,3'-DiCB-(6)	ng/L	0.010 U	0.010	0.10				2567990
2,4-DiCB-(7)	ng/L	0.039 J	0.011	0.10				2567990
2,4'-DiCB-(8)	ng/L	0.010 U	0.010	0.10				2567990
2,5-DiCB-(9)	ng/L	0.010 U	0.010	0.10				2567990
2,6-DiCB-(10)	ng/L	0.0047 U	0.0047	0.10				2567990
3,3'-DiCB-(11)	ng/L	0.050 J	0.010	0.10				2567990
DiCB-(12)+(13)	ng/L	0.011 U	0.011	0.20				2567990
3,5-DiCB-(14)	ng/L	0.010 U	0.010	0.10				2567990
4,4'-DiCB-(15)	ng/L	0.013 U	0.013	0.10				2567990
22'3-TriCB-(16)	ng/L	0.0029 J	0.0017	0.10				2567990
22'4-TriCB-(17)	ng/L	0.0033 U (1)	0.0033	0.10				2567990
TriCB-(18)+(30)	ng/L	0.0054 J	0.0013	0.20				2567990
22'6-TriCB-(19)	ng/L	0.0014 U	0.0014	0.10				2567990
TriCB-(20) + (28)	ng/L	0.0130 J	0.00025	0.20				2567990
TriCB-(21)+(33)	ng/L	0.00640 J	0.00024	0.20				2567990
234'-TriCB-(22)	ng/L	0.00459 J	0.00026	0.10				2567990
235-TriCB-(23)	ng/L	0.00027 U	0.00027	0.10				2567990
236-TriCB-(24)	ng/L	0.0011 U	0.0011	0.10				2567990
23'4-TriCB-(25)	ng/L	0.00068 J	0.00022	0.10				2567990
TriCB-(26)+(29)	ng/L	0.00168 J	0.00024	0.20				2567990
23'6-TriCB-(27)	ng/L	0.0011 U	0.0011	0.10				2567990
24'5-TriCB-(31)	ng/L	0.0103 J	0.00023	0.10				2567990
24'6-TriCB-(32)	ng/L	0.0010 U	0.0010	0.10				2567990

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.00025 U	0.00025	0.10				2567990
33'4-TriCB-(35)	ng/L	0.00078 U (1)	0.00078	0.10				2567990
33'5-TriCB-(36)	ng/L	0.00022 U	0.00022	0.10				2567990
344'-TriCB-(37)	ng/L	0.00238 J	0.00028	0.10				2567990
345-TriCB-(38)	ng/L	0.00025 U	0.00025	0.10				2567990
34'5-TriCB-(39)	ng/L	0.00024 U	0.00024	0.10				2567990
TetraCB-(40)+(41)+(71)	ng/L	0.0033 U (1)	0.0033	0.30				2567990
22'34'-TetraCB-(42)	ng/L	0.0019 U (1)	0.0019	0.10				2567990
22'35-TetraCB-(43)	ng/L	0.0011 U	0.0011	0.10				2567990
TetraCB-(44)+(47)+(65)	ng/L	0.0109 J	0.00089	0.30				2567990
TetraCB-(45)+(51)	ng/L	0.0083 U (1)	0.0083	0.20				2567990
22'36'-TetraCB-(46)	ng/L	0.0012 U	0.0012	0.10				2567990
22'45-TetraCB-(48)	ng/L	0.0010 U	0.0010	0.10				2567990
TetraCB-(49)+TetraCB-(69)	ng/L	0.00390 J	0.00087	0.20				2567990
TetraCB-(50)+(53)	ng/L	0.00098 U	0.00098	0.20				2567990
22'55'-TetraCB-(52)	ng/L	0.0120 J	0.00096	0.10				2567990
22'66'-TetraCB-(54)	ng/L	0.0011 U	0.0011	0.10				2567990
233'4-TetraCB-(55)	ng/L	0.00091 U	0.00091	0.10				2567990
233'4'-Tetra CB(56)	ng/L	0.00167 J	0.00076	0.10				2567990
233'5-TetraCB-(57)	ng/L	0.00084 U	0.00084	0.10				2567990
233'5'-TetraCB-(58)	ng/L	0.00086 U	0.00086	0.10				2567990
TetraCB-(59)+(62)+(75)	ng/L	0.00077 U	0.00077	0.30				2567990
2344'-TetraCB -(60)	ng/L	0.0012 U	0.0012	0.10				2567990
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0073 U (1)	0.0073	0.40				2567990
234'5-TetraCB-(63)	ng/L	0.00080 U	0.00080	0.10				2567990
234'6-TetraCB-(64)	ng/L	0.0023 U (1)	0.0023	0.10				2567990
23'44'-TetraCB-(66)	ng/L	0.00447 J	0.00081	0.10				2567990
23'45-TetraCB-(67)	ng/L	0.00077 U	0.00077	0.10				2567990

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0028 U (1)	0.0028	0.10				2567990
23'55'-TetraCB-(72)	ng/L	0.00081 U	0.00081	0.10				2567990
23'5'6-TetraCB-(73)	ng/L	0.00077 U	0.00077	0.10				2567990
33'44'-TetraCB-(77)	ng/L	0.00093 U	0.00093	0.10	0.000100	0.0000000930		2567990
33'45-TetraCB-(78)	ng/L	0.00086 U	0.00086	0.10				2567990
33'45'-TetraCB(79)	ng/L	0.00073 U	0.00073	0.10				2567990
33'55'-TetraCB-(80)	ng/L	0.00076 U	0.00076	0.10				2567990
344'5-TetraCB-(81)	ng/L	0.00090 U	0.00090	0.10	0.000300	0.000000270		2567990
22'33'4-PentaCB-(82)	ng/L	0.00089 U (1)	0.00089	0.10				2567990
PentaCB-(83)+(99)	ng/L	0.0034 U (1)	0.0034	0.20				2567990
22'33'6-PentaCB-(84)	ng/L	0.0020 U (1)	0.0020	0.10				2567990
PentaCB-(85)+(116)+(117)	ng/L	0.00051 J	0.00020	0.30				2567990
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.00731 J	0.00021	0.60				2567990
PentaCB-(88)+(91)	ng/L	0.00090 U (1)	0.00090	0.20				2567990
22'346'-PentaCB-(89)	ng/L	0.00026 U	0.00026	0.10				2567990
PentaCB-(90)+(101)+(113)	ng/L	0.0260 J	0.00021	0.30				2567990
22'355'-PentaCB-(92)	ng/L	0.0032 U (1)	0.0032	0.10				2567990
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.00023 U	0.00023	0.40				2567990
22'356'-PentaCB-(94)	ng/L	0.00027 U	0.00027	0.10				2567990
22'35'6-PentaCB-(95)	ng/L	0.0171 J	0.00023	0.10				2567990
22'366'-PentaCB-(96)	ng/L	0.00030 U	0.00030	0.10				2567990
22'45'6-PentaCB-(103)	ng/L	0.00021 U	0.00021	0.10				2567990
22'466'-PentaCB-(104)	ng/L	0.00025 U	0.00025	0.10				2567990
233'44'-PentaCB-(105)	ng/L	0.00240 J	0.00026	0.10	0.0000300	0.0000000720		2567990
233'45-PentaCB-(106)	ng/L	0.00025 U	0.00025	0.10				2567990
233'4'5-PentaCB-(107)	ng/L	0.00022 U	0.00022	0.10				2567990
PentaCB-(108)+(124)	ng/L	0.00025 U	0.00025	0.20				2567990
PentaCB-(110)+(115)	ng/L	0.0144 J	0.00017	0.20				2567990

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00018 U	0.00018	0.10				2567990
233'56-PentaCB-(112)	ng/L	0.00018 U	0.00018	0.10				2567990
2344'5-PentaCB-(114)	ng/L	0.00025 U	0.00025	0.10	0.0000300	0.00000000750		2567990
23'44'5-PentaCB-(118)	ng/L	0.0101 J	0.00025	0.10	0.0000300	0.000000303		2567990
23'455'-PentaCB-(120)	ng/L	0.00017 U	0.00017	0.10				2567990
23'45'6-PentaCB-(121)	ng/L	0.00018 U	0.00018	0.10				2567990
233'4'5'-PentaCB-(122)	ng/L	0.00027 U	0.00027	0.10				2567990
23'44'5'-PentaCB-(123)	ng/L	0.00026 U	0.00026	0.10	0.0000300	0.00000000780		2567990
33'44'5-PentaCB-(126)	ng/L	0.00026 U	0.00026	0.10	0.100	0.0000260		2567990
33'455'-PentaCB-(127)	ng/L	0.00024 U	0.00024	0.10				2567990
HexaCB-(128)+(166)	ng/L	0.00292 J	0.00053	0.20				2567990
HexaCB-(129)+(138)+(163)	ng/L	0.0313 J	0.00054	0.30				2567990
22'33'45'-HexaCB-(130)	ng/L	0.0015 U (1)	0.0015	0.10				2567990
22'33'46-HexaCB-(131)	ng/L	0.00064 U	0.00064	0.10				2567990
22'33'46'-HexaCB-(132)	ng/L	0.0103 J	0.00067	0.10				2567990
22'33'55'-HexaCB-(133)	ng/L	0.00061 U	0.00061	0.10				2567990
HexaCB-(134)+(143)	ng/L	0.00123 J	0.00068	0.20				2567990
HexaCB-(135)+(151)	ng/L	0.0124 J	0.00032	0.20				2567990
22'33'66'-HexaCB-(136)	ng/L	0.00395 J	0.00023	0.10				2567990
22'344'5-HexaCB-(137)	ng/L	0.00067 U	0.00067	0.10				2567990
HexaCB-(139)+(140)	ng/L	0.00058 U	0.00058	0.20				2567990
22'3455'-HexaCB-(141)	ng/L	0.0081 U (1)	0.0081	0.10				2567990
22'3456-HexaCB-(142)	ng/L	0.00067 U	0.00067	0.10				2567990
22'345'6-HexaCB-(144)	ng/L	0.00229 J	0.00031	0.10				2567990
22'3466'-HexaCB-(145)	ng/L	0.00025 U	0.00025	0.10				2567990
22'34'55'-HexaCB-(146)	ng/L	0.00499 J	0.00054	0.10				2567990
HexaCB-(147)+(149)	ng/L	0.0259 J	0.00063	0.20				2567990
22'34'56'-HexaCB-(148)	ng/L	0.00030 U	0.00030	0.10				2567990

RDL = Reportable Detection Limit
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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.00023 U	0.00023	0.10				2567990
22'3566'-HexaCB-(152)	ng/L	0.00022 U	0.00022	0.10				2567990
HexaCB-(153)+(168)	ng/L	0.0314 J	0.00047	0.20				2567990
22'44'56'-HexaCB-(154)	ng/L	0.00027 U	0.00027	0.10				2567990
22'44'66'-HexaCB-(155)	ng/L	0.00020 U	0.00020	0.10				2567990
HexaCB-(156)+(157)	ng/L	0.00333 J	0.00024	0.20	0.0000300	0.0000000999		2567990
233'44'6-HexaCB-(158)	ng/L	0.00348 J	0.00042	0.10				2567990
233'455'-HexaCB-(159)	ng/L	0.00025 U	0.00025	0.10				2567990
233'456-HexaCB-(160)	ng/L	0.00049 U	0.00049	0.10				2567990
233'45'6-HexaCB-(161)	ng/L	0.00044 U	0.00044	0.10				2567990
233'4'55'-HexaCB-(162)	ng/L	0.00025 U	0.00025	0.10				2567990
233'4'5'6-HexaCB-(164)	ng/L	0.00300 J	0.00044	0.10				2567990
233'55'6-HexaCB-(165)	ng/L	0.00050 U	0.00050	0.10				2567990
23'44'55'-HexaCB-(167)	ng/L	0.0013 U (1)	0.0013	0.10	0.0000300	0.0000000390		2567990
33'44'55'-HexaCB-(169)	ng/L	0.00024 U	0.00024	0.10	0.0300	0.00000720		2567990
22'33'44'5-HeptaCB-(170)	ng/L	0.00755 J	0.00032	0.10				2567990
HeptaCB-(171)+(173)	ng/L	0.00224 J	0.00041	0.20				2567990
22'33'455'-HeptaCB-(172)	ng/L	0.0014 U (1)	0.0014	0.10				2567990
22'33'456'-HeptaCB-(174)	ng/L	0.00712 J	0.00039	0.10				2567990
22'33'45'6-HeptaCB-(175)	ng/L	0.00028 U	0.00028	0.10				2567990
22'33'466'-HeptaCB-(176)	ng/L	0.0010 U (1)	0.0010	0.10				2567990
22'33'45'6'-HeptaCB-(177)	ng/L	0.00463 J	0.00040	0.10				2567990
22'33'55'6-HeptaCB-(178)	ng/L	0.00180 J	0.00029	0.10				2567990
22'33'566'-HeptaCB-(179)	ng/L	0.00288 J	0.00020	0.10				2567990
HeptaCB-(180)+(193)	ng/L	0.0144 J	0.00029	0.20				2567990
22'344'56-HeptaCB-(181)	ng/L	0.00038 U	0.00038	0.10				2567990
22'344'56'-HeptaCB-(182)	ng/L	0.00029 U	0.00029	0.10				2567990
22'344'5'6-HeptaCB-(183)	ng/L	0.00454 J	0.00035	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00020 U	0.00020	0.10				2567990
22'3455'6-HeptaCB-(185)	ng/L	0.00038 U	0.00038	0.10				2567990
22'34566'-HeptaCB-(186)	ng/L	0.00022 U	0.00022	0.10				2567990
22'34'55'6-HeptaCB-(187)	ng/L	0.00829 J	0.00027	0.10				2567990
22'34'566'-HeptaCB-(188)	ng/L	0.00023 U	0.00023	0.10				2567990
233'44'55'-HeptaCB-(189)	ng/L	0.00045 U	0.00045	0.10	0.0000300	0.0000000135		2567990
233'44'56-HeptaCB-(190)	ng/L	0.0014 U (1)	0.0014	0.10				2567990
233'44'5'6-HeptaCB-(191)	ng/L	0.00029 U	0.00029	0.10				2567990
233'455'6-HeptaCB-(192)	ng/L	0.00032 U	0.00032	0.10				2567990
22'33'44'55'-OctaCB-(194)	ng/L	0.00247 J	0.00058	0.10				2567990
22'33'44'56-OctaCB-(195)	ng/L	0.00063 U	0.00063	0.10				2567990
22'33'44'56'-OctaCB-(196)	ng/L	0.0012 U (1)	0.0012	0.10				2567990
22'33'44'66'OctaCB-(197)	ng/L	0.00052 U	0.00052	0.10				2567990
OctaCB-(198)+(199)	ng/L	0.00212 J	0.00070	0.20				2567990
22'33'4566'-OctaCB-(200)	ng/L	0.00047 U	0.00047	0.10				2567990
22'33'45'66'-OctaCB-(201)	ng/L	0.00048 U	0.00048	0.10				2567990
22'33'55'66'-OctaCB-(202)	ng/L	0.00055 U	0.00055	0.10				2567990
22'344'55'6-OctaCB-(203)	ng/L	0.00086 U (1)	0.00086	0.10				2567990
22'344'566'-OctaCB-(204)	ng/L	0.00050 U	0.00050	0.10				2567990
233'44'55'6-OctaCB-(205)	ng/L	0.00043 U	0.00043	0.10				2567990
22'33'44'55'6-NonaCB-(206)	ng/L	0.0027 U	0.0027	0.10				2567990
22'33'44'566'-NonaCB-(207)	ng/L	0.0024 U	0.0024	0.10				2567990
22'33'455'66'-NonaCB-(208)	ng/L	0.0027 U	0.0027	0.10				2567990
DecaCB-(209)	ng/L	0.0010 U (1)	0.0010	0.10				2567990
Monochlorobiphenyl	ng/L	0.00802	0.00095	N/A				2567990
Dichlorobiphenyl	ng/L	0.089	0.013	N/A				2567990
Trichlorobiphenyl	ng/L	0.0473	0.0017	N/A				2567990
Tetrachlorobiphenyl	ng/L	0.0329	0.0012	N/A				2567990

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EDL = Estimated Detection Limit
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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B1A9655
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Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.0777	0.00030	N/A				2567990
Hexachlorobiphenyl	ng/L	0.136	0.00068	N/A				2567990
Heptachlorobiphenyl	ng/L	0.0535	0.00045	N/A				2567990
Octachlorobiphenyl	ng/L	0.00459	0.00070	N/A				2567990
Nonachlorobiphenyl	ng/L	0.0027 U	0.0027	N/A				2567990
Decachlorobiphenyl	ng/L	0.00060 U	0.00060	N/A				2567990
Total PCB	ng/L	0.449	N/A	N/A				2567990
TOTAL TOXIC EQUIVALENCY	ng/L					0.0000341		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	73						2567990
C13-22'33'44'55'6-NonaCB-(206)	%	123						2567990
C13-22'33'44'5-HeptaCB-(170)	%	103						2567990
C13-22'33'455'66'-NonaCB-(208)	%	125						2567990
C13-22'33'55'66'-OctaCB-(202)	%	111						2567990
C13-22'33'55'6-HeptaCB-(178)	%	135 (1)						2567990
C13-22'344'55'-HeptaCB-(180)	%	104						2567990
C13-22'34'566'-HeptaCB-(188)	%	126						2567990
C13-22'44'66'-HexaCB-(155)	%	122						2567990
C13-22'466'-PentaCB-(104)	%	87						2567990
C13-22'66'-TetraCB-(54)	%	64						2567990
C13-22'6-TriCB-(19)	%	54						2567990
C13-22'-DiCB-(4)	%	54						2567990
C13-233'44'55'6-OctaCB-(205)	%	116						2567990
C13-233'44'55'-HeptaCB-(189)	%	99						2567990
C13-233'44'-PentaCB-(105)	%	90						2567990
C13-233'55'-PentaCB-(111)	%	104						2567990
C13-23'44'55'-HexaCB-(167)	%	111						2567990
C13-2344'5-PentaCB-(114)	%	88						2567990

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9100						
Sampling Date		2011/07/20 11:17						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-100-MW1/A11G258-01	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-23'44'5-PentaCB-(118)	%	90						2567990
C13-2'344'5-PentaCB-(123)	%	88						2567990
C13-2-MonoCB-(1)	%	43						2567990
C13-33'44'55'-HexaCB-(169)	%	112						2567990
C13-33'44'5-PentaCB-(126)	%	97						2567990
C13-33'44'-TetraCB-(77)	%	90						2567990
C13-344'5-TetraCB-(81)	%	90						2567990
C13-344'-TriCB-(37)	%	79						2567990
C13-44'-DiCB-(15)	%	62						2567990
C13-4-MonoCB-(3)	%	49						2567990
C13-DecaCB-(209)	%	134						2567990
C13-HexaCB-(156)+(157)	%	109						2567990

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Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9101						
Sampling Date		2011/07/20 11:15						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.00442 J	0.00064	0.10				2567990
3-MonoCB-(2)	ng/L	0.0020 U (1)	0.0020	0.10				2567990
4-MonoCB-(3)	ng/L	0.00513 J	0.00065	0.10				2567990
22'-DiCB-(4)	ng/L	0.0058 U	0.0058	0.10				2567990
2,3-DiCB-(5)	ng/L	0.0099 U	0.0099	0.10				2567990
2,3'-DiCB-(6)	ng/L	0.0095 U	0.0095	0.10				2567990
2,4-DiCB-(7)	ng/L	0.0364 J	0.0098	0.10				2567990
2,4'-DiCB-(8)	ng/L	0.0092 U (1)	0.0092	0.10				2567990
2,5-DiCB-(9)	ng/L	0.0092 U	0.0092	0.10				2567990
2,6-DiCB-(10)	ng/L	0.0055 U	0.0055	0.10				2567990
3,3'-DiCB-(11)	ng/L	0.0585 J	0.0095	0.10				2567990
DiCB-(12)+(13)	ng/L	0.0099 U	0.0099	0.20				2567990
3,5-DiCB-(14)	ng/L	0.0095 U	0.0095	0.10				2567990
4,4'-DiCB-(15)	ng/L	0.012 U	0.012	0.10				2567990
22'3-TriCB-(16)	ng/L	0.0038 U	0.0038	0.10				2567990
22'4-TriCB-(17)	ng/L	0.0036 U	0.0036	0.10				2567990
TriCB-(18)+(30)	ng/L	0.0061 J	0.0029	0.20				2567990
22'6-TriCB-(19)	ng/L	0.0030 U	0.0030	0.10				2567990
TriCB-(20) + (28)	ng/L	0.0117 J	0.00037	0.20				2567990
TriCB-(21)+(33)	ng/L	0.00547 J	0.00037	0.20				2567990
234'-TriCB-(22)	ng/L	0.0038 U (1)	0.0038	0.10				2567990
235-TriCB-(23)	ng/L	0.00040 U	0.00040	0.10				2567990
236-TriCB-(24)	ng/L	0.0025 U	0.0025	0.10				2567990
23'4-TriCB-(25)	ng/L	0.00077 J	0.00033	0.10				2567990
TriCB-(26)+(29)	ng/L	0.00180 J	0.00037	0.20				2567990
23'6-TriCB-(27)	ng/L	0.0025 U	0.0025	0.10				2567990
24'5-TriCB-(31)	ng/L	0.00989 J	0.00035	0.10				2567990
24'6-TriCB-(32)	ng/L	0.0023 U	0.0023	0.10				2567990

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Report Date: 2011/09/22

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9101						
Sampling Date		2011/07/20 11:15						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.00038 U	0.00038	0.10				2567990
33'4-TriCB-(35)	ng/L	0.00039 U	0.00039	0.10				2567990
33'5-TriCB-(36)	ng/L	0.00032 U	0.00032	0.10				2567990
344'-TriCB-(37)	ng/L	0.00231 J	0.00042	0.10				2567990
345-TriCB-(38)	ng/L	0.00037 U	0.00037	0.10				2567990
34'5-TriCB-(39)	ng/L	0.00036 U	0.00036	0.10				2567990
TetraCB-(40)+(41)+(71)	ng/L	0.0050 J	0.0013	0.30				2567990
22'34'-TetraCB-(42)	ng/L	0.0032 J	0.0014	0.10				2567990
22'35-TetraCB-(43)	ng/L	0.0013 U	0.0013	0.10				2567990
TetraCB-(44)+(47)+(65)	ng/L	0.0235 J	0.0011	0.30				2567990
TetraCB-(45)+(51)	ng/L	0.0079 J	0.0013	0.20				2567990
22'36'-TetraCB-(46)	ng/L	0.0016 U	0.0016	0.10				2567990
22'45-TetraCB-(48)	ng/L	0.0018 U (1)	0.0018	0.10				2567990
TetraCB-(49)+TetraCB-(69)	ng/L	0.0123 J	0.0011	0.20				2567990
TetraCB-(50)+(53)	ng/L	0.0022 U (1)	0.0022	0.20				2567990
22'55'-TetraCB-(52)	ng/L	0.0722 J	0.0012	0.10				2567990
22'66'-TetraCB-(54)	ng/L	0.0013 U	0.0013	0.10				2567990
233'4-TetraCB-(55)	ng/L	0.0012 U	0.0012	0.10				2567990
233'4'-Tetra CB(56)	ng/L	0.0036 J	0.0010	0.10				2567990
233'5-TetraCB-(57)	ng/L	0.0011 U	0.0011	0.10				2567990
233'5'-TetraCB-(58)	ng/L	0.0074 J	0.0011	0.10				2567990
TetraCB-(59)+(62)+(75)	ng/L	0.00097 U	0.00097	0.30				2567990
2344'-TetraCB -(60)	ng/L	0.0012 U	0.0012	0.10				2567990
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0304 J	0.0011	0.40				2567990
234'5-TetraCB-(63)	ng/L	0.0011 U	0.0011	0.10				2567990
234'6-TetraCB-(64)	ng/L	0.00695 J	0.00094	0.10				2567990
23'44'-TetraCB-(66)	ng/L	0.0111 J	0.0011	0.10				2567990
23'45-TetraCB-(67)	ng/L	0.0010 U	0.0010	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9101						
Sampling Date		2011/07/20 11:15						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0029 J	0.0010	0.10				2567990
23'55'-TetraCB-(72)	ng/L	0.0011 U	0.0011	0.10				2567990
23'5'6-TetraCB-(73)	ng/L	0.00097 U	0.00097	0.10				2567990
33'44'-TetraCB-(77)	ng/L	0.0013 U	0.0013	0.10	0.000100	0.000000130		2567990
33'45-TetraCB-(78)	ng/L	0.0012 U	0.0012	0.10				2567990
33'45'-TetraCB(79)	ng/L	0.00097 U	0.00097	0.10				2567990
33'55'-TetraCB-(80)	ng/L	0.0010 U	0.0010	0.10				2567990
344'5-TetraCB-(81)	ng/L	0.0012 U	0.0012	0.10	0.000300	0.000000360		2567990
22'33'4-PentaCB-(82)	ng/L	0.00729 J	0.00047	0.10				2567990
PentaCB-(83)+(99)	ng/L	0.0477 J	0.00043	0.20				2567990
22'33'6-PentaCB-(84)	ng/L	0.0328 J	0.00048	0.10				2567990
PentaCB-(85)+(116)+(117)	ng/L	0.0125 J	0.00035	0.30				2567990
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.0487 J	0.00035	0.60				2567990
PentaCB-(88)+(91)	ng/L	0.0190 J	0.00042	0.20				2567990
22'346'-PentaCB-(89)	ng/L	0.00044 U	0.00044	0.10				2567990
PentaCB-(90)+(101)+(113)	ng/L	0.114 J	0.00036	0.30				2567990
22'355'-PentaCB-(92)	ng/L	0.0285 J	0.00042	0.10				2567990
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.00285 J	0.00040	0.40				2567990
22'356'-PentaCB-(94)	ng/L	0.00045 U	0.00045	0.10				2567990
22'35'6-PentaCB-(95)	ng/L	0.15	0.00038	0.10				2567990
22'366'-PentaCB-(96)	ng/L	0.0011 U (1)	0.0011	0.10				2567990
22'45'6-PentaCB-(103)	ng/L	0.00036 U	0.00036	0.10				2567990
22'466'-PentaCB-(104)	ng/L	0.00025 U	0.00025	0.10				2567990
233'44'-PentaCB-(105)	ng/L	0.0117 J	0.00039	0.10	0.0000300	0.000000351		2567990
233'45-PentaCB-(106)	ng/L	0.00039 U	0.00039	0.10				2567990
233'4'5-PentaCB-(107)	ng/L	0.00219 J	0.00034	0.10				2567990
PentaCB-(108)+(124)	ng/L	0.00281 J	0.00038	0.20				2567990
PentaCB-(110)+(115)	ng/L	0.120 J	0.00030	0.20				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

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	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00031 U	0.00031	0.10				2567990
233'56-PentaCB-(112)	ng/L	0.00031 U	0.00031	0.10				2567990
2344'5-PentaCB-(114)	ng/L	0.00039 U	0.00039	0.10	0.0000300	0.0000000117		2567990
23'44'5-PentaCB-(118)	ng/L	0.0411 J	0.00038	0.10	0.0000300	0.00000123		2567990
23'455'-PentaCB-(120)	ng/L	0.00029 U	0.00029	0.10				2567990
23'45'6-PentaCB-(121)	ng/L	0.00031 U	0.00031	0.10				2567990
233'4'5'-PentaCB-(122)	ng/L	0.00041 U	0.00041	0.10				2567990
23'44'5'-PentaCB-(123)	ng/L	0.00039 U	0.00039	0.10	0.0000300	0.0000000117		2567990
33'44'5-PentaCB-(126)	ng/L	0.00039 U	0.00039	0.10	0.100	0.0000390		2567990
33'455'-PentaCB-(127)	ng/L	0.00037 U	0.00037	0.10				2567990
HexaCB-(128)+(166)	ng/L	0.0137 J	0.00030	0.20				2567990
HexaCB-(129)+(138)+(163)	ng/L	0.122 J	0.00030	0.30				2567990
22'33'45'-HexaCB-(130)	ng/L	0.0061 U (1)	0.0061	0.10				2567990
22'33'46-HexaCB-(131)	ng/L	0.00136 J	0.00036	0.10				2567990
22'33'46'-HexaCB-(132)	ng/L	0.0508 J	0.00038	0.10				2567990
22'33'55'-HexaCB-(133)	ng/L	0.00175 J	0.00034	0.10				2567990
HexaCB-(134)+(143)	ng/L	0.00766 J	0.00038	0.20				2567990
HexaCB-(135)+(151)	ng/L	0.0726 J	0.00048	0.20				2567990
22'33'66'-HexaCB-(136)	ng/L	0.0291 J	0.00034	0.10				2567990
22'344'5-HexaCB-(137)	ng/L	0.0032 U (1)	0.0032	0.10				2567990
HexaCB-(139)+(140)	ng/L	0.00175 J	0.00033	0.20				2567990
22'3455'-HexaCB-(141)	ng/L	0.0298 J	0.00035	0.10				2567990
22'3456-HexaCB-(142)	ng/L	0.00037 U	0.00037	0.10				2567990
22'345'6-HexaCB-(144)	ng/L	0.0066 U (1)	0.0066	0.10				2567990
22'3466'-HexaCB-(145)	ng/L	0.00037 U	0.00037	0.10				2567990
22'34'55'-HexaCB-(146)	ng/L	0.0202 J	0.00030	0.10				2567990
HexaCB-(147)+(149)	ng/L	0.140 J	0.00035	0.20				2567990
22'34'56'-HexaCB-(148)	ng/L	0.00045 U	0.00045	0.10				2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

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	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.00034 U	0.00034	0.10				2567990
22'3566'-HexaCB-(152)	ng/L	0.00033 U	0.00033	0.10				2567990
HexaCB-(153)+(168)	ng/L	0.116 J	0.00026	0.20				2567990
22'44'56'-HexaCB-(154)	ng/L	0.00041 U (1)	0.00041	0.10				2567990
22'44'66'-HexaCB-(155)	ng/L	0.00030 U	0.00030	0.10				2567990
HexaCB-(156)+(157)	ng/L	0.00756 J	0.00045	0.20	0.0000300	0.000000227		2567990
233'44'6-HexaCB-(158)	ng/L	0.00994 J	0.00023	0.10				2567990
233'455'-HexaCB-(159)	ng/L	0.00120 J	0.00047	0.10				2567990
233'456-HexaCB-(160)	ng/L	0.00027 U	0.00027	0.10				2567990
233'45'6-HexaCB-(161)	ng/L	0.00025 U	0.00025	0.10				2567990
233'4'55'-HexaCB-(162)	ng/L	0.00047 U	0.00047	0.10				2567990
233'4'5'6-HexaCB-(164)	ng/L	0.00978 J	0.00025	0.10				2567990
233'55'6-HexaCB-(165)	ng/L	0.00028 U	0.00028	0.10				2567990
23'44'55'-HexaCB-(167)	ng/L	0.0036 U (1)	0.0036	0.10	0.0000300	0.000000108		2567990
33'44'55'-HexaCB-(169)	ng/L	0.00045 U	0.00045	0.10	0.0300	0.0000135		2567990
22'33'44'5-HeptaCB-(170)	ng/L	0.0257 J	0.00056	0.10				2567990
HeptaCB-(171)+(173)	ng/L	0.00873 J	0.00071	0.20				2567990
22'33'455'-HeptaCB-(172)	ng/L	0.00518 J	0.00071	0.10				2567990
22'33'456'-HeptaCB-(174)	ng/L	0.0323 J	0.00068	0.10				2567990
22'33'45'6-HeptaCB-(175)	ng/L	0.00176 J	0.00038	0.10				2567990
22'33'466'-HeptaCB-(176)	ng/L	0.0035 U (1)	0.0035	0.10				2567990
22'33'45'6'-HeptaCB-(177)	ng/L	0.0170 J	0.00069	0.10				2567990
22'33'55'6-HeptaCB-(178)	ng/L	0.00642 J	0.00040	0.10				2567990
22'33'566'-HeptaCB-(179)	ng/L	0.0140 J	0.00028	0.10				2567990
HeptaCB-(180)+(193)	ng/L	0.0576 J	0.00050	0.20				2567990
22'344'56-HeptaCB-(181)	ng/L	0.00066 U	0.00066	0.10				2567990
22'344'56'-HeptaCB-(182)	ng/L	0.00039 U	0.00039	0.10				2567990
22'344'5'6-HeptaCB-(183)	ng/L	0.0188 J	0.00060	0.10				2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9101						
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COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00028 U	0.00028	0.10				2567990
22'3455'6-HeptaCB-(185)	ng/L	0.00066 U	0.00066	0.10				2567990
22'34566'-HeptaCB-(186)	ng/L	0.00030 U	0.00030	0.10				2567990
22'34'55'6-HeptaCB-(187)	ng/L	0.0350 J	0.00037	0.10				2567990
22'34'566'-HeptaCB-(188)	ng/L	0.00031 U	0.00031	0.10				2567990
233'44'55'-HeptaCB-(189)	ng/L	0.00046 U	0.00046	0.10	0.0000300	0.0000000138		2567990
233'44'56-HeptaCB-(190)	ng/L	0.00415 J	0.00052	0.10				2567990
233'44'5'6-HeptaCB-(191)	ng/L	0.00051 U	0.00051	0.10				2567990
233'455'6-HeptaCB-(192)	ng/L	0.00056 U	0.00056	0.10				2567990
22'33'44'55'-OctaCB-(194)	ng/L	0.0088 U (1)	0.0088	0.10				2567990
22'33'44'56-OctaCB-(195)	ng/L	0.00435 J	0.00092	0.10				2567990
22'33'44'56'-OctaCB-(196)	ng/L	0.00591 J	0.00048	0.10				2567990
22'33'44'66'OctaCB-(197)	ng/L	0.00037 U	0.00037	0.10				2567990
OctaCB-(198)+(199)	ng/L	0.0121 J	0.00049	0.20				2567990
22'33'4566'-OctaCB-(200)	ng/L	0.0011 U (1)	0.0011	0.10				2567990
22'33'45'66'-OctaCB-(201)	ng/L	0.0011 U (1)	0.0011	0.10				2567990
22'33'55'66'-OctaCB-(202)	ng/L	0.0021 U (1)	0.0021	0.10				2567990
22'344'55'6-OctaCB-(203)	ng/L	0.00667 J	0.00045	0.10				2567990
22'344'566'-OctaCB-(204)	ng/L	0.00035 U	0.00035	0.10				2567990
233'44'55'6-OctaCB-(205)	ng/L	0.00063 U	0.00063	0.10				2567990
22'33'44'55'6-NonaCB-(206)	ng/L	0.0046 J	0.0027	0.10				2567990
22'33'44'566'-NonaCB-(207)	ng/L	0.0024 U	0.0024	0.10				2567990
22'33'455'66'-NonaCB-(208)	ng/L	0.0027 U	0.0027	0.10				2567990
DecaCB-(209)	ng/L	0.00400 J	0.00051	0.10				2567990
Monochlorobiphenyl	ng/L	0.00955	0.00071	N/A				2567990
Dichlorobiphenyl	ng/L	0.095	0.012	N/A				2567990
Trichlorobiphenyl	ng/L	0.0381	0.0038	N/A				2567990
Tetrachlorobiphenyl	ng/L	0.186	0.0016	N/A				2567990

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	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.644	0.00048	N/A				2567990
Hexachlorobiphenyl	ng/L	0.636	0.00048	N/A				2567990
Heptachlorobiphenyl	ng/L	0.227	0.00071	N/A				2567990
Octachlorobiphenyl	ng/L	0.0290	0.00092	N/A				2567990
Nonachlorobiphenyl	ng/L	0.0046	0.0027	N/A				2567990
Decachlorobiphenyl	ng/L	0.00400	0.00051	N/A				2567990
Total PCB	ng/L	1.87	N/A	N/A				2567990
TOTAL TOXIC EQUIVALENCY	ng/L					0.0000549		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	69						2567990
C13-22'33'44'55'6-NonaCB-(206)	%	109						2567990
C13-22'33'44'5-HeptaCB-(170)	%	92						2567990
C13-22'33'455'66'-NonaCB-(208)	%	103						2567990
C13-22'33'55'66'-OctaCB-(202)	%	99						2567990
C13-22'33'55'6-HeptaCB-(178)	%	118						2567990
C13-22'344'55'-HeptaCB-(180)	%	95						2567990
C13-22'34'566'-HeptaCB-(188)	%	116						2567990
C13-22'44'66'-HexaCB-(155)	%	115						2567990
C13-22'466'-PentaCB-(104)	%	82						2567990
C13-22'66'-TetraCB-(54)	%	62						2567990
C13-22'6-TriCB-(19)	%	48						2567990
C13-22'-DiCB-(4)	%	46						2567990
C13-233'44'55'6-OctaCB-(205)	%	102						2567990
C13-233'44'55'-HeptaCB-(189)	%	92						2567990
C13-233'44'-PentaCB-(105)	%	84						2567990
C13-233'55'-PentaCB-(111)	%	95						2567990
C13-23'44'55'-HexaCB-(167)	%	101						2567990
C13-2344'5-PentaCB-(114)	%	84						2567990
C13-23'44'5-PentaCB-(118)	%	84						2567990

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Sampling Date		2011/07/20 11:15						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-101-MW2/A11G258-02	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	83						2567990
C13-2-MonoCB-(1)	%	37						2567990
C13-33'44'55'-HexaCB-(169)	%	102						2567990
C13-33'44'5-PentaCB-(126)	%	90						2567990
C13-33'44'-TetraCB-(77)	%	87						2567990
C13-344'5-TetraCB-(81)	%	87						2567990
C13-344'-TriCB-(37)	%	78						2567990
C13-44'-DiCB-(15)	%	58						2567990
C13-4-MonoCB-(3)	%	40						2567990
C13-DecaCB-(209)	%	122						2567990
C13-HexaCB-(156)+(157)	%	101						2567990

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0060 J	0.0011	0.10				2567990
3-MonoCB-(2)	ng/L	0.0021 U (1)	0.0021	0.10				2567990
4-MonoCB-(3)	ng/L	0.0043 J	0.0011	0.10				2567990
22'-DiCB-(4)	ng/L	0.0137 J	0.0042	0.10				2567990
2,3-DiCB-(5)	ng/L	0.012 U	0.012	0.10				2567990
2,3'-DiCB-(6)	ng/L	0.011 U	0.011	0.10				2567990
2,4-DiCB-(7)	ng/L	0.028 U (1)	0.028	0.10				2567990
2,4'-DiCB-(8)	ng/L	0.013 U (1)	0.013	0.10				2567990
2,5-DiCB-(9)	ng/L	0.011 U	0.011	0.10				2567990
2,6-DiCB-(10)	ng/L	0.0040 U	0.0040	0.10				2567990
3,3'-DiCB-(11)	ng/L	0.050 U (1)	0.050	0.10				2567990
DiCB-(12)+(13)	ng/L	0.012 U	0.012	0.20				2567990
3,5-DiCB-(14)	ng/L	0.011 U	0.011	0.10				2567990
4,4'-DiCB-(15)	ng/L	0.014 U	0.014	0.10				2567990
22'3-TriCB-(16)	ng/L	0.0061 J	0.0017	0.10				2567990
22'4-TriCB-(17)	ng/L	0.0057 U (1)	0.0057	0.10				2567990
TriCB-(18)+(30)	ng/L	0.012 U (1)	0.012	0.20				2567990
22'6-TriCB-(19)	ng/L	0.0051 J	0.0013	0.10				2567990
TriCB-(20) + (28)	ng/L	0.0166 J	0.00046	0.20				2567990
TriCB-(21)+(33)	ng/L	0.00831 J	0.00046	0.20				2567990
234'-TriCB-(22)	ng/L	0.00518 J	0.00050	0.10				2567990
235-TriCB-(23)	ng/L	0.00050 U	0.00050	0.10				2567990
236-TriCB-(24)	ng/L	0.0011 U	0.0011	0.10				2567990
23'4-TriCB-(25)	ng/L	0.00171 J	0.00042	0.10				2567990
TriCB-(26)+(29)	ng/L	0.00495 J	0.00046	0.20				2567990
23'6-TriCB-(27)	ng/L	0.0011 U	0.0011	0.10				2567990
24'5-TriCB-(31)	ng/L	0.0125 J	0.00043	0.10				2567990
24'6-TriCB-(32)	ng/L	0.0049 J	0.0010	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.00047 U	0.00047	0.10				2567990
33'4-TriCB-(35)	ng/L	0.00049 U	0.00049	0.10				2567990
33'5-TriCB-(36)	ng/L	0.00040 U	0.00040	0.10				2567990
344'-TriCB-(37)	ng/L	0.00415 J	0.00052	0.10				2567990
345-TriCB-(38)	ng/L	0.00047 U	0.00047	0.10				2567990
34'5-TriCB-(39)	ng/L	0.00044 U	0.00044	0.10				2567990
TetraCB-(40)+(41)+(71)	ng/L	0.0117 J	0.0014	0.30				2567990
22'34'-TetraCB-(42)	ng/L	0.0073 J	0.0015	0.10				2567990
22'35-TetraCB-(43)	ng/L	0.0015 U	0.0015	0.10				2567990
TetraCB-(44)+(47)+(65)	ng/L	0.0333 J	0.0012	0.30				2567990
TetraCB-(45)+(51)	ng/L	0.0141 J	0.0014	0.20				2567990
22'36'-TetraCB-(46)	ng/L	0.0025 U (1)	0.0025	0.10				2567990
22'45-TetraCB-(48)	ng/L	0.0029 J	0.0014	0.10				2567990
TetraCB-(49)+TetraCB-(69)	ng/L	0.0220 J	0.0012	0.20				2567990
TetraCB-(50)+(53)	ng/L	0.0074 J	0.0013	0.20				2567990
22'55'-TetraCB-(52)	ng/L	0.0989 J	0.0013	0.10				2567990
22'66'-TetraCB-(54)	ng/L	0.0013 U	0.0013	0.10				2567990
233'4-TetraCB-(55)	ng/L	0.0011 U	0.0011	0.10				2567990
233'4'-Tetra CB(56)	ng/L	0.00414 J	0.00093	0.10				2567990
233'5-TetraCB-(57)	ng/L	0.0010 U	0.0010	0.10				2567990
233'5'-TetraCB-(58)	ng/L	0.0075 J	0.0010	0.10				2567990
TetraCB-(59)+(62)+(75)	ng/L	0.0018 J	0.0011	0.30				2567990
2344'-TetraCB -(60)	ng/L	0.0028 J	0.0011	0.10				2567990
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0310 J	0.00099	0.40				2567990
234'5-TetraCB-(63)	ng/L	0.00098 U	0.00098	0.10				2567990
234'6-TetraCB-(64)	ng/L	0.0089 J	0.0010	0.10				2567990
23'44'-TetraCB-(66)	ng/L	0.0145 J	0.00099	0.10				2567990
23'45-TetraCB-(67)	ng/L	0.00094 U	0.00094	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.00311 J	0.00095	0.10				2567990
23'55'-TetraCB-(72)	ng/L	0.00098 U	0.00098	0.10				2567990
23'5'6-TetraCB-(73)	ng/L	0.0011 U	0.0011	0.10				2567990
33'44'-TetraCB-(77)	ng/L	0.0013 U (1)	0.0013	0.10	0.000100	0.000000130		2567990
33'45-TetraCB-(78)	ng/L	0.0011 U	0.0011	0.10				2567990
33'45'-TetraCB(79)	ng/L	0.00089 U	0.00089	0.10				2567990
33'55'-TetraCB-(80)	ng/L	0.00092 U	0.00092	0.10				2567990
344'5-TetraCB-(81)	ng/L	0.0011 U	0.0011	0.10	0.000300	0.000000330		2567990
22'33'4-PentaCB-(82)	ng/L	0.0057 U (1)	0.0057	0.10				2567990
PentaCB-(83)+(99)	ng/L	0.0433 J	0.00040	0.20				2567990
22'33'6-PentaCB-(84)	ng/L	0.0359 J	0.00045	0.10				2567990
PentaCB-(85)+(116)+(117)	ng/L	0.011 U (1)	0.011	0.30				2567990
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.0534 J	0.00033	0.60				2567990
PentaCB-(88)+(91)	ng/L	0.0232 J	0.00039	0.20				2567990
22'346'-PentaCB-(89)	ng/L	0.00079 J	0.00041	0.10				2567990
PentaCB-(90)+(101)+(113)	ng/L	0.118 J	0.00033	0.30				2567990
22'355'-PentaCB-(92)	ng/L	0.0288 J	0.00039	0.10				2567990
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0032 U (1)	0.0032	0.40				2567990
22'356'-PentaCB-(94)	ng/L	0.00053 U (1)	0.00053	0.10				2567990
22'35'6-PentaCB-(95)	ng/L	0.18	0.00036	0.10				2567990
22'366'-PentaCB-(96)	ng/L	0.00071 U (1)	0.00071	0.10				2567990
22'45'6-PentaCB-(103)	ng/L	0.00125 J	0.00034	0.10				2567990
22'466'-PentaCB-(104)	ng/L	0.00018 U	0.00018	0.10				2567990
233'44'-PentaCB-(105)	ng/L	0.0155 J	0.00046	0.10	0.0000300	0.000000465		2567990
233'45-PentaCB-(106)	ng/L	0.00045 U	0.00045	0.10				2567990
233'4'5-PentaCB-(107)	ng/L	0.00311 J	0.00039	0.10				2567990
PentaCB-(108)+(124)	ng/L	0.00045 U	0.00045	0.20				2567990
PentaCB-(110)+(115)	ng/L	0.130 J	0.00028	0.20				2567990

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Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00029 U	0.00029	0.10				2567990
233'56-PentaCB-(112)	ng/L	0.00029 U	0.00029	0.10				2567990
2344'5-PentaCB-(114)	ng/L	0.00045 U	0.00045	0.10	0.0000300	0.0000000135		2567990
23'44'5-PentaCB-(118)	ng/L	0.0530 J	0.00044	0.10	0.0000300	0.00000159		2567990
23'455'-PentaCB-(120)	ng/L	0.00027 U	0.00027	0.10				2567990
23'45'6-PentaCB-(121)	ng/L	0.00029 U	0.00029	0.10				2567990
233'4'5'-PentaCB-(122)	ng/L	0.00048 U	0.00048	0.10				2567990
23'44'5'-PentaCB-(123)	ng/L	0.00082 U (1)	0.00082	0.10	0.0000300	0.0000000246		2567990
33'44'5-PentaCB-(126)	ng/L	0.00046 U	0.00046	0.10	0.100	0.0000460		2567990
33'455'-PentaCB-(127)	ng/L	0.00043 U	0.00043	0.10				2567990
HexaCB-(128)+(166)	ng/L	0.0127 J	0.00073	0.20				2567990
HexaCB-(129)+(138)+(163)	ng/L	0.0995 J	0.00074	0.30				2567990
22'33'45'-HexaCB-(130)	ng/L	0.00511 J	0.00092	0.10				2567990
22'33'46-HexaCB-(131)	ng/L	0.00127 J	0.00089	0.10				2567990
22'33'46'-HexaCB-(132)	ng/L	0.0393 J	0.00092	0.10				2567990
22'33'55'-HexaCB-(133)	ng/L	0.00179 J	0.00084	0.10				2567990
HexaCB-(134)+(143)	ng/L	0.00567 J	0.00094	0.20				2567990
HexaCB-(135)+(151)	ng/L	0.0411 J	0.00064	0.20				2567990
22'33'66'-HexaCB-(136)	ng/L	0.0163 J	0.00045	0.10				2567990
22'344'5-HexaCB-(137)	ng/L	0.00381 J	0.00092	0.10				2567990
HexaCB-(139)+(140)	ng/L	0.00153 J	0.00080	0.20				2567990
22'3455'-HexaCB-(141)	ng/L	0.0212 J	0.00086	0.10				2567990
22'3456-HexaCB-(142)	ng/L	0.00092 U	0.00092	0.10				2567990
22'345'6-HexaCB-(144)	ng/L	0.00558 J	0.00061	0.10				2567990
22'3466'-HexaCB-(145)	ng/L	0.00049 U	0.00049	0.10				2567990
22'34'55'-HexaCB-(146)	ng/L	0.0153 J	0.00075	0.10				2567990
HexaCB-(147)+(149)	ng/L	0.0844 J	0.00086	0.20				2567990
22'34'56'-HexaCB-(148)	ng/L	0.00060 U	0.00060	0.10				2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.00046 U	0.00046	0.10				2567990
22'3566'-HexaCB-(152)	ng/L	0.00044 U	0.00044	0.10				2567990
HexaCB-(153)+(168)	ng/L	0.0884 J	0.00065	0.20				2567990
22'44'56'-HexaCB-(154)	ng/L	0.00054 U (1)	0.00054	0.10				2567990
22'44'66'-HexaCB-(155)	ng/L	0.00040 U	0.00040	0.10				2567990
HexaCB-(156)+(157)	ng/L	0.00902 J	0.00040	0.20	0.0000300	0.000000271		2567990
233'44'6-HexaCB-(158)	ng/L	0.00954 J	0.00058	0.10				2567990
233'455'-HexaCB-(159)	ng/L	0.00070 U (1)	0.00070	0.10				2567990
233'456-HexaCB-(160)	ng/L	0.00068 U	0.00068	0.10				2567990
233'45'6-HexaCB-(161)	ng/L	0.00061 U	0.00061	0.10				2567990
233'4'55'-HexaCB-(162)	ng/L	0.00042 U	0.00042	0.10				2567990
233'4'5'6-HexaCB-(164)	ng/L	0.00831 J	0.00061	0.10				2567990
233'55'6-HexaCB-(165)	ng/L	0.00068 U	0.00068	0.10				2567990
23'44'55'-HexaCB-(167)	ng/L	0.00361 J	0.00039	0.10	0.0000300	0.000000108		2567990
33'44'55'-HexaCB-(169)	ng/L	0.00040 U	0.00040	0.10	0.0300	0.0000120		2567990
22'33'44'5-HeptaCB-(170)	ng/L	0.0157 J	0.00034	0.10				2567990
HeptaCB-(171)+(173)	ng/L	0.00516 J	0.00043	0.20				2567990
22'33'455'-HeptaCB-(172)	ng/L	0.00281 J	0.00043	0.10				2567990
22'33'456'-HeptaCB-(174)	ng/L	0.0166 J	0.00041	0.10				2567990
22'33'45'6-HeptaCB-(175)	ng/L	0.00094 U (1)	0.00094	0.10				2567990
22'33'466'-HeptaCB-(176)	ng/L	0.0020 U (1)	0.0020	0.10				2567990
22'33'45'6'-HeptaCB-(177)	ng/L	0.00955 J	0.00042	0.10				2567990
22'33'55'6-HeptaCB-(178)	ng/L	0.0030 U (1)	0.0030	0.10				2567990
22'33'566'-HeptaCB-(179)	ng/L	0.00615 J	0.00029	0.10				2567990
HeptaCB-(180)+(193)	ng/L	0.0328 J	0.00031	0.20				2567990
22'344'56-HeptaCB-(181)	ng/L	0.00040 U	0.00040	0.10				2567990
22'344'56'-HeptaCB-(182)	ng/L	0.00041 U	0.00041	0.10				2567990
22'344'5'6-HeptaCB-(183)	ng/L	0.0109 J	0.00037	0.10				2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00029 U	0.00029	0.10				2567990
22'3455'6-HeptaCB-(185)	ng/L	0.00041 U	0.00041	0.10				2567990
22'34566'-HeptaCB-(186)	ng/L	0.00031 U	0.00031	0.10				2567990
22'34'55'6-HeptaCB-(187)	ng/L	0.0177 J	0.00039	0.10				2567990
22'34'566'-HeptaCB-(188)	ng/L	0.00032 U	0.00032	0.10				2567990
233'44'55'-HeptaCB-(189)	ng/L	0.00065 U	0.00065	0.10	0.0000300	0.0000000195		2567990
233'44'56-HeptaCB-(190)	ng/L	0.00320 J	0.00032	0.10				2567990
233'44'5'6-HeptaCB-(191)	ng/L	0.00031 U	0.00031	0.10				2567990
233'455'6-HeptaCB-(192)	ng/L	0.00034 U	0.00034	0.10				2567990
22'33'44'55'-OctaCB-(194)	ng/L	0.00436 J	0.00056	0.10				2567990
22'33'44'56-OctaCB-(195)	ng/L	0.00061 U	0.00061	0.10				2567990
22'33'44'56'-OctaCB-(196)	ng/L	0.0021 U (1)	0.0021	0.10				2567990
22'33'44'66'OctaCB-(197)	ng/L	0.00070 U	0.00070	0.10				2567990
OctaCB-(198)+(199)	ng/L	0.00466 J	0.00095	0.20				2567990
22'33'4566'-OctaCB-(200)	ng/L	0.00064 U	0.00064	0.10				2567990
22'33'45'66'-OctaCB-(201)	ng/L	0.00065 U	0.00065	0.10				2567990
22'33'55'66'-OctaCB-(202)	ng/L	0.00074 U	0.00074	0.10				2567990
22'344'55'6-OctaCB-(203)	ng/L	0.0028 U (1)	0.0028	0.10				2567990
22'344'566'-OctaCB-(204)	ng/L	0.00067 U	0.00067	0.10				2567990
233'44'55'6-OctaCB-(205)	ng/L	0.00041 U	0.00041	0.10				2567990
22'33'44'55'6-NonaCB-(206)	ng/L	0.0024 U	0.0024	0.10				2567990
22'33'44'566'-NonaCB-(207)	ng/L	0.0022 U	0.0022	0.10				2567990
22'33'455'66'-NonaCB-(208)	ng/L	0.0024 U	0.0024	0.10				2567990
DecaCB-(209)	ng/L	0.0020 U (1)	0.0020	0.10				2567990
Monochlorobiphenyl	ng/L	0.0103	0.0012	N/A				2567990
Dichlorobiphenyl	ng/L	0.014 U	0.014	N/A				2567990
Trichlorobiphenyl	ng/L	0.0694	0.0017	N/A				2567990
Tetrachlorobiphenyl	ng/L	0.271	0.0017	N/A				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.684	0.00048	N/A				2567990
Hexachlorobiphenyl	ng/L	0.473	0.00094	N/A				2567990
Heptachlorobiphenyl	ng/L	0.120	0.00065	N/A				2567990
Octachlorobiphenyl	ng/L	0.00902	0.00095	N/A				2567990
Nonachlorobiphenyl	ng/L	0.0024 U	0.0024	N/A				2567990
Decachlorobiphenyl	ng/L	0.00037 U	0.00037	N/A				2567990
Total PCB	ng/L	1.65	N/A	N/A				2567990
TOTAL TOXIC EQUIVALENCY	ng/L					0.0000610		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	82						2567990
C13-22'33'44'55'6-NonaCB-(206)	%	114						2567990
C13-22'33'44'5-HeptaCB-(170)	%	99						2567990
C13-22'33'455'66'-NonaCB-(208)	%	118						2567990
C13-22'33'55'66'-OctaCB-(202)	%	103						2567990
C13-22'33'55'6-HeptaCB-(178)	%	121						2567990
C13-22'344'55'-HeptaCB-(180)	%	99						2567990
C13-22'34'566'-HeptaCB-(188)	%	120						2567990
C13-22'44'66'-HexaCB-(155)	%	121						2567990
C13-22'466'-PentaCB-(104)	%	92						2567990
C13-22'66'-TetraCB-(54)	%	72						2567990
C13-22'6-TriCB-(19)	%	63						2567990
C13-22'-DiCB-(4)	%	60						2567990
C13-233'44'55'6-OctaCB-(205)	%	108						2567990
C13-233'44'55'-HeptaCB-(189)	%	96						2567990
C13-233'44'-PentaCB-(105)	%	88						2567990
C13-233'55'-PentaCB-(111)	%	99						2567990
C13-23'44'55'-HexaCB-(167)	%	106						2567990
C13-2344'5-PentaCB-(114)	%	88						2567990
C13-23'44'5-PentaCB-(118)	%	88						2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9102						
Sampling Date		2011/07/20 12:55						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-102-MW3/A11G258-03	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	87						2567990
C13-2-MonoCB-(1)	%	51						2567990
C13-33'44'55'-HexaCB-(169)	%	106						2567990
C13-33'44'5-PentaCB-(126)	%	93						2567990
C13-33'44'-TetraCB-(77)	%	91						2567990
C13-344'5-TetraCB-(81)	%	89						2567990
C13-344'-TriCB-(37)	%	86						2567990
C13-44'-DiCB-(15)	%	75						2567990
C13-4-MonoCB-(3)	%	56						2567990
C13-DecaCB-(209)	%	124						2567990
C13-HexaCB-(156)+(157)	%	106						2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.00749 J	0.00084	0.10				2567990
3-MonoCB-(2)	ng/L	0.0026 U (1)	0.0026	0.10				2567990
4-MonoCB-(3)	ng/L	0.0052 U (1)	0.0052	0.10				2567990
22'-DiCB-(4)	ng/L	0.0122 J	0.0042	0.10				2567990
2,3-DiCB-(5)	ng/L	0.010 U	0.010	0.10				2567990
2,3'-DiCB-(6)	ng/L	0.0038 U (1)	0.0038	0.10				2567990
2,4-DiCB-(7)	ng/L	0.021 U (1)	0.021	0.10				2567990
2,4'-DiCB-(8)	ng/L	0.019 U (1)	0.019	0.10				2567990
2,5-DiCB-(9)	ng/L	0.0097 U	0.0097	0.10				2567990
2,6-DiCB-(10)	ng/L	0.0040 U	0.0040	0.10				2567990
3,3'-DiCB-(11)	ng/L	0.0871 J	0.0099	0.10				2567990
DiCB-(12)+(13)	ng/L	0.010 U	0.010	0.20				2567990
3,5-DiCB-(14)	ng/L	0.0099 U	0.0099	0.10				2567990
4,4'-DiCB-(15)	ng/L	0.012 U	0.012	0.10				2567990
22'3-TriCB-(16)	ng/L	0.0046 U (1)	0.0046	0.10				2567990
22'4-TriCB-(17)	ng/L	0.0072 J	0.0013	0.10				2567990
TriCB-(18)+(30)	ng/L	0.0116 J	0.0011	0.20				2567990
22'6-TriCB-(19)	ng/L	0.0011 U	0.0011	0.10				2567990
TriCB-(20) + (28)	ng/L	0.0182 J	0.00098	0.20				2567990
TriCB-(21)+(33)	ng/L	0.00926 J	0.00096	0.20				2567990
234'-TriCB-(22)	ng/L	0.0062 J	0.0010	0.10				2567990
235-TriCB-(23)	ng/L	0.0011 U	0.0011	0.10				2567990
236-TriCB-(24)	ng/L	0.00093 U	0.00093	0.10				2567990
23'4-TriCB-(25)	ng/L	0.0012 U (1)	0.0012	0.10				2567990
TriCB-(26)+(29)	ng/L	0.0026 U (1)	0.0026	0.20				2567990
23'6-TriCB-(27)	ng/L	0.00092 U	0.00092	0.10				2567990
24'5-TriCB-(31)	ng/L	0.0140 J	0.00091	0.10				2567990
24'6-TriCB-(32)	ng/L	0.00420 J	0.00085	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.00099 U	0.00099	0.10				2567990
33'4-TriCB-(35)	ng/L	0.00085 U (1)	0.00085	0.10				2567990
33'5-TriCB-(36)	ng/L	0.00086 U	0.00086	0.10				2567990
344'-TriCB-(37)	ng/L	0.0038 J	0.0011	0.10				2567990
345-TriCB-(38)	ng/L	0.00098 U	0.00098	0.10				2567990
34'5-TriCB-(39)	ng/L	0.00094 U	0.00094	0.10				2567990
TetraCB-(40)+(41)+(71)	ng/L	0.00713 J	0.00098	0.30				2567990
22'34'-TetraCB-(42)	ng/L	0.0032 J	0.0011	0.10				2567990
22'35-TetraCB-(43)	ng/L	0.0010 U	0.0010	0.10				2567990
TetraCB-(44)+(47)+(65)	ng/L	0.0181 J	0.00084	0.30				2567990
TetraCB-(45)+(51)	ng/L	0.0094 U (1)	0.0094	0.20				2567990
22'36'-TetraCB-(46)	ng/L	0.0016 U (1)	0.0016	0.10				2567990
22'45-TetraCB-(48)	ng/L	0.00273 J	0.00098	0.10				2567990
TetraCB-(49)+TetraCB-(69)	ng/L	0.0134 J	0.00082	0.20				2567990
TetraCB-(50)+(53)	ng/L	0.0032 U (1)	0.0032	0.20				2567990
22'55'-TetraCB-(52)	ng/L	0.0376 J	0.00090	0.10				2567990
22'66'-TetraCB-(54)	ng/L	0.0011 U	0.0011	0.10				2567990
233'4-TetraCB-(55)	ng/L	0.0017 U	0.0017	0.10				2567990
233'4'-Tetra CB(56)	ng/L	0.0026 U (1)	0.0026	0.10				2567990
233'5-TetraCB-(57)	ng/L	0.0016 U	0.0016	0.10				2567990
233'5'-TetraCB-(58)	ng/L	0.0029 U (1)	0.0029	0.10				2567990
TetraCB-(59)+(62)+(75)	ng/L	0.0010 U (1)	0.0010	0.30				2567990
2344'-TetraCB -(60)	ng/L	0.0021 J	0.0017	0.10				2567990
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0189 J	0.0015	0.40				2567990
234'5-TetraCB-(63)	ng/L	0.0015 U	0.0015	0.10				2567990
234'6-TetraCB-(64)	ng/L	0.0055 U (1)	0.0055	0.10				2567990
23'44'-TetraCB-(66)	ng/L	0.0101 J	0.0015	0.10				2567990
23'45-TetraCB-(67)	ng/L	0.0015 U	0.0015	0.10				2567990

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Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0030 J	0.0015	0.10				2567990
23'55'-TetraCB-(72)	ng/L	0.0015 U	0.0015	0.10				2567990
23'5'6-TetraCB-(73)	ng/L	0.00073 U	0.00073	0.10				2567990
33'44'-TetraCB-(77)	ng/L	0.0018 U	0.0018	0.10	0.000100	0.000000180		2567990
33'45-TetraCB-(78)	ng/L	0.0016 U	0.0016	0.10				2567990
33'45'-TetraCB(79)	ng/L	0.0014 U	0.0014	0.10				2567990
33'55'-TetraCB-(80)	ng/L	0.0014 U	0.0014	0.10				2567990
344'5-TetraCB-(81)	ng/L	0.0017 U	0.0017	0.10	0.000300	0.000000510		2567990
22'33'4-PentaCB-(82)	ng/L	0.0013 U (1)	0.0013	0.10				2567990
PentaCB-(83)+(99)	ng/L	0.0226 J	0.00076	0.20				2567990
22'33'6-PentaCB-(84)	ng/L	0.0065 U (1)	0.0065	0.10				2567990
PentaCB-(85)+(116)+(117)	ng/L	0.00332 J	0.00061	0.30				2567990
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.016 U (1)	0.016	0.60				2567990
PentaCB-(88)+(91)	ng/L	0.00690 J	0.00074	0.20				2567990
22'346'-PentaCB-(89)	ng/L	0.00078 U	0.00078	0.10				2567990
PentaCB-(90)+(101)+(113)	ng/L	0.0630 J	0.00063	0.30				2567990
22'355'-PentaCB-(92)	ng/L	0.0163 J	0.00075	0.10				2567990
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.00071 U	0.00071	0.40				2567990
22'356'-PentaCB-(94)	ng/L	0.00081 U	0.00081	0.10				2567990
22'35'6-PentaCB-(95)	ng/L	0.0608 J	0.00068	0.10				2567990
22'366'-PentaCB-(96)	ng/L	0.00053 U	0.00053	0.10				2567990
22'45'6-PentaCB-(103)	ng/L	0.0020 U (1)	0.0020	0.10				2567990
22'466'-PentaCB-(104)	ng/L	0.00043 U	0.00043	0.10				2567990
233'44'-PentaCB-(105)	ng/L	0.0037 U (1)	0.0037	0.10	0.0000300	0.000000111		2567990
233'45-PentaCB-(106)	ng/L	0.00070 U	0.00070	0.10				2567990
233'4'5-PentaCB-(107)	ng/L	0.00061 U	0.00061	0.10				2567990
PentaCB-(108)+(124)	ng/L	0.00069 U	0.00069	0.20				2567990
PentaCB-(110)+(115)	ng/L	0.0461 J	0.00053	0.20				2567990

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Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00054 U	0.00054	0.10				2567990
233'56-PentaCB-(112)	ng/L	0.00055 U	0.00055	0.10				2567990
2344'5-PentaCB-(114)	ng/L	0.00070 U	0.00070	0.10	0.0000300	0.0000000210		2567990
23'44'5-PentaCB-(118)	ng/L	0.0197 J	0.00069	0.10	0.0000300	0.000000591		2567990
23'455'-PentaCB-(120)	ng/L	0.00052 U	0.00052	0.10				2567990
23'45'6-PentaCB-(121)	ng/L	0.00055 U	0.00055	0.10				2567990
233'4'5'-PentaCB-(122)	ng/L	0.00074 U	0.00074	0.10				2567990
23'44'5'-PentaCB-(123)	ng/L	0.00071 U	0.00071	0.10	0.0000300	0.0000000213		2567990
33'44'5-PentaCB-(126)	ng/L	0.00071 U	0.00071	0.10	0.100	0.0000710		2567990
33'455'-PentaCB-(127)	ng/L	0.00067 U	0.00067	0.10				2567990
HexaCB-(128)+(166)	ng/L	0.00527 J	0.00033	0.20				2567990
HexaCB-(129)+(138)+(163)	ng/L	0.0642 J	0.00033	0.30				2567990
22'33'45'-HexaCB-(130)	ng/L	0.00345 J	0.00041	0.10				2567990
22'33'46-HexaCB-(131)	ng/L	0.00040 U	0.00040	0.10				2567990
22'33'46'-HexaCB-(132)	ng/L	0.0234 J	0.00041	0.10				2567990
22'33'55'-HexaCB-(133)	ng/L	0.0011 U (1)	0.0011	0.10				2567990
HexaCB-(134)+(143)	ng/L	0.0029 U (1)	0.0029	0.20				2567990
HexaCB-(135)+(151)	ng/L	0.0346 J	0.00066	0.20				2567990
22'33'66'-HexaCB-(136)	ng/L	0.0135 J	0.00047	0.10				2567990
22'344'5-HexaCB-(137)	ng/L	0.00074 U (1)	0.00074	0.10				2567990
HexaCB-(139)+(140)	ng/L	0.00036 U	0.00036	0.20				2567990
22'3455'-HexaCB-(141)	ng/L	0.0162 J	0.00038	0.10				2567990
22'3456-HexaCB-(142)	ng/L	0.00041 U	0.00041	0.10				2567990
22'345'6-HexaCB-(144)	ng/L	0.00396 J	0.00063	0.10				2567990
22'3466'-HexaCB-(145)	ng/L	0.00051 U	0.00051	0.10				2567990
22'34'55'-HexaCB-(146)	ng/L	0.0140 J	0.00033	0.10				2567990
HexaCB-(147)+(149)	ng/L	0.0745 J	0.00039	0.20				2567990
22'34'56'-HexaCB-(148)	ng/L	0.00062 U	0.00062	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.00047 U	0.00047	0.10				2567990
22'3566'-HexaCB-(152)	ng/L	0.00045 U	0.00045	0.10				2567990
HexaCB-(153)+(168)	ng/L	0.0706 J	0.00029	0.20				2567990
22'44'56'-HexaCB-(154)	ng/L	0.00121 J	0.00056	0.10				2567990
22'44'66'-HexaCB-(155)	ng/L	0.00041 U	0.00041	0.10				2567990
HexaCB-(156)+(157)	ng/L	0.00465 J	0.00049	0.20	0.0000300	0.000000140		2567990
233'44'6-HexaCB-(158)	ng/L	0.0049 U (1)	0.0049	0.10				2567990
233'455'-HexaCB-(159)	ng/L	0.00051 U	0.00051	0.10				2567990
233'456-HexaCB-(160)	ng/L	0.00030 U	0.00030	0.10				2567990
233'45'6-HexaCB-(161)	ng/L	0.00027 U	0.00027	0.10				2567990
233'4'55'-HexaCB-(162)	ng/L	0.00051 U	0.00051	0.10				2567990
233'4'5'6-HexaCB-(164)	ng/L	0.0049 U (1)	0.0049	0.10				2567990
233'55'6-HexaCB-(165)	ng/L	0.00031 U	0.00031	0.10				2567990
23'44'55'-HexaCB-(167)	ng/L	0.00261 J	0.00048	0.10	0.0000300	0.0000000783		2567990
33'44'55'-HexaCB-(169)	ng/L	0.00049 U	0.00049	0.10	0.0300	0.0000147		2567990
22'33'44'5-HeptaCB-(170)	ng/L	0.0129 J	0.00052	0.10				2567990
HeptaCB-(171)+(173)	ng/L	0.0040 U (1)	0.0040	0.20				2567990
22'33'455'-HeptaCB-(172)	ng/L	0.00315 J	0.00066	0.10				2567990
22'33'456'-HeptaCB-(174)	ng/L	0.0159 J	0.00063	0.10				2567990
22'33'45'6-HeptaCB-(175)	ng/L	0.00083 U	0.00083	0.10				2567990
22'33'466'-HeptaCB-(176)	ng/L	0.0018 U (1)	0.0018	0.10				2567990
22'33'45'6'-HeptaCB-(177)	ng/L	0.00868 J	0.00064	0.10				2567990
22'33'55'6-HeptaCB-(178)	ng/L	0.0034 U (1)	0.0034	0.10				2567990
22'33'566'-HeptaCB-(179)	ng/L	0.00671 J	0.00039	0.10				2567990
HeptaCB-(180)+(193)	ng/L	0.0279 J	0.00046	0.20				2567990
22'344'56-HeptaCB-(181)	ng/L	0.00061 U	0.00061	0.10				2567990
22'344'56'-HeptaCB-(182)	ng/L	0.00056 U	0.00056	0.10				2567990
22'344'5'6-HeptaCB-(183)	ng/L	0.0068 U (1)	0.0068	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00040 U	0.00040	0.10				2567990
22'3455'6-HeptaCB-(185)	ng/L	0.00079 J	0.00062	0.10				2567990
22'34566'-HeptaCB-(186)	ng/L	0.00042 U	0.00042	0.10				2567990
22'34'55'6-HeptaCB-(187)	ng/L	0.0176 J	0.00053	0.10				2567990
22'34'566'-HeptaCB-(188)	ng/L	0.00044 U	0.00044	0.10				2567990
233'44'55'-HeptaCB-(189)	ng/L	0.00102 J	0.00069	0.10	0.0000300	0.0000000306		2567990
233'44'56-HeptaCB-(190)	ng/L	0.0021 U (1)	0.0021	0.10				2567990
233'44'5'6-HeptaCB-(191)	ng/L	0.00047 U	0.00047	0.10				2567990
233'455'6-HeptaCB-(192)	ng/L	0.00052 U	0.00052	0.10				2567990
22'33'44'55'-OctaCB-(194)	ng/L	0.00455 J	0.00046	0.10				2567990
22'33'44'56-OctaCB-(195)	ng/L	0.00214 J	0.00049	0.10				2567990
22'33'44'56'-OctaCB-(196)	ng/L	0.0017 U (1)	0.0017	0.10				2567990
22'33'44'66'OctaCB-(197)	ng/L	0.00052 U	0.00052	0.10				2567990
OctaCB-(198)+(199)	ng/L	0.0041 U (1)	0.0041	0.20				2567990
22'33'4566'-OctaCB-(200)	ng/L	0.00047 U	0.00047	0.10				2567990
22'33'45'66'-OctaCB-(201)	ng/L	0.00048 U	0.00048	0.10				2567990
22'33'55'66'-OctaCB-(202)	ng/L	0.00095 J	0.00055	0.10				2567990
22'344'55'6-OctaCB-(203)	ng/L	0.00257 J	0.00064	0.10				2567990
22'344'566'-OctaCB-(204)	ng/L	0.00050 U	0.00050	0.10				2567990
233'44'55'6-OctaCB-(205)	ng/L	0.00050 J	0.00034	0.10				2567990
22'33'44'55'6-NonaCB-(206)	ng/L	0.0030 U	0.0030	0.10				2567990
22'33'44'566'-NonaCB-(207)	ng/L	0.0028 U	0.0028	0.10				2567990
22'33'455'66'-NonaCB-(208)	ng/L	0.0030 U	0.0030	0.10				2567990
DecaCB-(209)	ng/L	0.0023 U (1)	0.0023	0.10				2567990
Monochlorobiphenyl	ng/L	0.00749	0.00092	N/A				2567990
Dichlorobiphenyl	ng/L	0.099	0.012	N/A				2567990
Trichlorobiphenyl	ng/L	0.0745	0.0014	N/A				2567990
Tetrachlorobiphenyl	ng/L	0.116	0.0018	N/A				2567990

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Maxxam Job #: B1A9655
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9103						
Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.239	0.00085	N/A				2567990
Hexachlorobiphenyl	ng/L	0.332	0.00066	N/A				2567990
Heptachlorobiphenyl	ng/L	0.0946	0.00069	N/A				2567990
Octachlorobiphenyl	ng/L	0.0107	0.00070	N/A				2567990
Nonachlorobiphenyl	ng/L	0.0030 U	0.0030	N/A				2567990
Decachlorobiphenyl	ng/L	0.00083 U	0.00083	N/A				2567990
Total PCB	ng/L	0.974	N/A	N/A				2567990
TOTAL TOXIC EQUIVALENCY	ng/L					0.0000874		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	86						2567990
C13-22'33'44'55'6-NonaCB-(206)	%	113						2567990
C13-22'33'44'5-HeptaCB-(170)	%	95						2567990
C13-22'33'455'66'-NonaCB-(208)	%	114						2567990
C13-22'33'55'66'-OctaCB-(202)	%	96						2567990
C13-22'33'55'6-HeptaCB-(178)	%	118						2567990
C13-22'344'55'-HeptaCB-(180)	%	97						2567990
C13-22'34'566'-HeptaCB-(188)	%	118						2567990
C13-22'44'66'-HexaCB-(155)	%	118						2567990
C13-22'466'-PentaCB-(104)	%	85						2567990
C13-22'66'-TetraCB-(54)	%	69						2567990
C13-22'6-TriCB-(19)	%	62						2567990
C13-22'-DiCB-(4)	%	61						2567990
C13-233'44'55'6-OctaCB-(205)	%	106						2567990
C13-233'44'55'-HeptaCB-(189)	%	94						2567990
C13-233'44'-PentaCB-(105)	%	88						2567990
C13-233'55'-PentaCB-(111)	%	99						2567990
C13-23'44'55'-HexaCB-(167)	%	107						2567990
C13-2344'5-PentaCB-(114)	%	87						2567990
C13-23'44'5-PentaCB-(118)	%	90						2567990

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Sampling Date		2011/07/20 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-103-MW4/A11G258-04	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	88						2567990
C13-2-MonoCB-(1)	%	56						2567990
C13-33'44'55'-HexaCB-(169)	%	110						2567990
C13-33'44'5-PentaCB-(126)	%	96						2567990
C13-33'44'-TetraCB-(77)	%	95						2567990
C13-344'5-TetraCB-(81)	%	96						2567990
C13-344'-TriCB-(37)	%	88						2567990
C13-44'-DiCB-(15)	%	71						2567990
C13-4-MonoCB-(3)	%	59						2567990
C13-DecaCB-(209)	%	115						2567990
C13-HexaCB-(156)+(157)	%	110						2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0041 J	0.0011	0.10				2567990
3-MonoCB-(2)	ng/L	0.0014 U (1)	0.0014	0.10				2567990
4-MonoCB-(3)	ng/L	0.0045 U (1)	0.0045	0.10				2567990
22'-DiCB-(4)	ng/L	0.0069 U	0.0069	0.10				2567990
2,3-DiCB-(5)	ng/L	0.016 U	0.016	0.10				2567990
2,3'-DiCB-(6)	ng/L	0.016 U	0.016	0.10				2567990
2,4-DiCB-(7)	ng/L	0.036 U (1)	0.036	0.10				2567990
2,4'-DiCB-(8)	ng/L	0.016 U	0.016	0.10				2567990
2,5-DiCB-(9)	ng/L	0.015 U	0.015	0.10				2567990
2,6-DiCB-(10)	ng/L	0.0066 U	0.0066	0.10				2567990
3,3'-DiCB-(11)	ng/L	0.066 J	0.015	0.10				2567990
DiCB-(12)+(13)	ng/L	0.016 U	0.016	0.20				2567990
3,5-DiCB-(14)	ng/L	0.016 U	0.016	0.10				2567990
4,4'-DiCB-(15)	ng/L	0.020 U	0.020	0.10				2567990
22'3-TriCB-(16)	ng/L	0.0017 U	0.0017	0.10				2567990
22'4-TriCB-(17)	ng/L	0.0048 J	0.0016	0.10				2567990
TriCB-(18)+(30)	ng/L	0.0071 U (1)	0.0071	0.20				2567990
22'6-TriCB-(19)	ng/L	0.0014 U	0.0014	0.10				2567990
TriCB-(20) + (28)	ng/L	0.0157 J	0.00059	0.20				2567990
TriCB-(21)+(33)	ng/L	0.0072 U (1)	0.0072	0.20				2567990
234'-TriCB-(22)	ng/L	0.0055 U (1)	0.0055	0.10				2567990
235-TriCB-(23)	ng/L	0.00064 U	0.00064	0.10				2567990
236-TriCB-(24)	ng/L	0.0011 U	0.0011	0.10				2567990
23'4-TriCB-(25)	ng/L	0.00076 U (1)	0.00076	0.10				2567990
TriCB-(26)+(29)	ng/L	0.0019 U (1)	0.0019	0.20				2567990
23'6-TriCB-(27)	ng/L	0.0011 U	0.0011	0.10				2567990
24'5-TriCB-(31)	ng/L	0.0134 J	0.00055	0.10				2567990
24'6-TriCB-(32)	ng/L	0.0010 U	0.0010	0.10				2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.00060 U	0.00060	0.10				2567990
33'4-TriCB-(35)	ng/L	0.00090 J	0.00062	0.10				2567990
33'5-TriCB-(36)	ng/L	0.00052 U	0.00052	0.10				2567990
344'-TriCB-(37)	ng/L	0.0033 U (1)	0.0033	0.10				2567990
345-TriCB-(38)	ng/L	0.00060 U	0.00060	0.10				2567990
34'5-TriCB-(39)	ng/L	0.00057 U	0.00057	0.10				2567990
TetraCB-(40)+(41)+(71)	ng/L	0.0053 J	0.0015	0.30				2567990
22'34'-TetraCB-(42)	ng/L	0.0021 U (1)	0.0021	0.10				2567990
22'35-TetraCB-(43)	ng/L	0.0015 U	0.0015	0.10				2567990
TetraCB-(44)+(47)+(65)	ng/L	0.0166 J	0.0013	0.30				2567990
TetraCB-(45)+(51)	ng/L	0.0162 J	0.0015	0.20				2567990
22'36'-TetraCB-(46)	ng/L	0.0018 U	0.0018	0.10				2567990
22'45-TetraCB-(48)	ng/L	0.0015 U	0.0015	0.10				2567990
TetraCB-(49)+TetraCB-(69)	ng/L	0.0057 J	0.0012	0.20				2567990
TetraCB-(50)+(53)	ng/L	0.0014 U	0.0014	0.20				2567990
22'55'-TetraCB-(52)	ng/L	0.0187 J	0.0014	0.10				2567990
22'66'-TetraCB-(54)	ng/L	0.0015 U	0.0015	0.10				2567990
233'4-TetraCB-(55)	ng/L	0.00094 U	0.00094	0.10				2567990
233'4'-Tetra CB(56)	ng/L	0.00316 J	0.00079	0.10				2567990
233'5-TetraCB-(57)	ng/L	0.00086 U	0.00086	0.10				2567990
233'5'-TetraCB-(58)	ng/L	0.00088 U	0.00088	0.10				2567990
TetraCB-(59)+(62)+(75)	ng/L	0.0011 U	0.0011	0.30				2567990
2344'-TetraCB -(60)	ng/L	0.00270 J	0.00093	0.10				2567990
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0159 J	0.00084	0.40				2567990
234'5-TetraCB-(63)	ng/L	0.00083 U	0.00083	0.10				2567990
234'6-TetraCB-(64)	ng/L	0.0032 U (1)	0.0032	0.10				2567990
23'44'-TetraCB-(66)	ng/L	0.0071 U (1)	0.0071	0.10				2567990
23'45-TetraCB-(67)	ng/L	0.00080 U	0.00080	0.10				2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.00496 J	0.00080	0.10				2567990
23'55'-TetraCB-(72)	ng/L	0.00083 U	0.00083	0.10				2567990
23'5'6-TetraCB-(73)	ng/L	0.0011 U	0.0011	0.10				2567990
33'44'-TetraCB-(77)	ng/L	0.00138 J	0.00096	0.10	0.000100	0.000000138		2567990
33'45-TetraCB-(78)	ng/L	0.00089 U	0.00089	0.10				2567990
33'45'-TetraCB(79)	ng/L	0.00075 U	0.00075	0.10				2567990
33'55'-TetraCB-(80)	ng/L	0.00078 U	0.00078	0.10				2567990
344'5-TetraCB-(81)	ng/L	0.00093 U	0.00093	0.10	0.000300	0.000000279		2567990
22'33'4-PentaCB-(82)	ng/L	0.0013 U (1)	0.0013	0.10				2567990
PentaCB-(83)+(99)	ng/L	0.00850 J	0.00078	0.20				2567990
22'33'6-PentaCB-(84)	ng/L	0.0035 U (1)	0.0035	0.10				2567990
PentaCB-(85)+(116)+(117)	ng/L	0.0021 U (1)	0.0021	0.30				2567990
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.0140 J	0.00064	0.61				2567990
PentaCB-(88)+(91)	ng/L	0.0015 U (1)	0.0015	0.20				2567990
22'346'-PentaCB-(89)	ng/L	0.00080 U	0.00080	0.10				2567990
PentaCB-(90)+(101)+(113)	ng/L	0.0365 J	0.00065	0.30				2567990
22'355'-PentaCB-(92)	ng/L	0.00683 J	0.00076	0.10				2567990
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.00073 U	0.00073	0.40				2567990
22'356'-PentaCB-(94)	ng/L	0.00082 U	0.00082	0.10				2567990
22'35'6-PentaCB-(95)	ng/L	0.0229 J	0.00070	0.10				2567990
22'366'-PentaCB-(96)	ng/L	0.00042 U	0.00042	0.10				2567990
22'45'6-PentaCB-(103)	ng/L	0.00066 U	0.00066	0.10				2567990
22'466'-PentaCB-(104)	ng/L	0.00034 U	0.00034	0.10				2567990
233'44'-PentaCB-(105)	ng/L	0.00547 J	0.00047	0.10	0.0000300	0.000000164		2567990
233'45-PentaCB-(106)	ng/L	0.00046 U	0.00046	0.10				2567990
233'4'5-PentaCB-(107)	ng/L	0.00040 U	0.00040	0.10				2567990
PentaCB-(108)+(124)	ng/L	0.00076 U (1)	0.00076	0.20				2567990
PentaCB-(110)+(115)	ng/L	0.0260 J	0.00054	0.20				2567990

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00056 U	0.00056	0.10				2567990
233'56-PentaCB-(112)	ng/L	0.00056 U	0.00056	0.10				2567990
2344'5-PentaCB-(114)	ng/L	0.00046 U	0.00046	0.10	0.0000300	0.0000000138		2567990
23'44'5-PentaCB-(118)	ng/L	0.0193 J	0.00045	0.10	0.0000300	0.000000579		2567990
23'455'-PentaCB-(120)	ng/L	0.00053 U	0.00053	0.10				2567990
23'45'6-PentaCB-(121)	ng/L	0.00056 U	0.00056	0.10				2567990
233'4'5'-PentaCB-(122)	ng/L	0.00049 U	0.00049	0.10				2567990
23'44'5'-PentaCB-(123)	ng/L	0.00047 U	0.00047	0.10	0.0000300	0.0000000141		2567990
33'44'5-PentaCB-(126)	ng/L	0.00046 U	0.00046	0.10	0.100	0.0000460		2567990
33'455'-PentaCB-(127)	ng/L	0.00044 U	0.00044	0.10				2567990
HexaCB-(128)+(166)	ng/L	0.0067 U (1)	0.0067	0.20				2567990
HexaCB-(129)+(138)+(163)	ng/L	0.0599 J	0.00045	0.30				2567990
22'33'45'-HexaCB-(130)	ng/L	0.00370 J	0.00056	0.10				2567990
22'33'46-HexaCB-(131)	ng/L	0.00054 U	0.00054	0.10				2567990
22'33'46'-HexaCB-(132)	ng/L	0.0152 J	0.00057	0.10				2567990
22'33'55'-HexaCB-(133)	ng/L	0.00051 U	0.00051	0.10				2567990
HexaCB-(134)+(143)	ng/L	0.0019 U (1)	0.0019	0.20				2567990
HexaCB-(135)+(151)	ng/L	0.0157 J	0.00055	0.20				2567990
22'33'66'-HexaCB-(136)	ng/L	0.00604 J	0.00039	0.10				2567990
22'344'5-HexaCB-(137)	ng/L	0.00120 J	0.00056	0.10				2567990
HexaCB-(139)+(140)	ng/L	0.00049 U	0.00049	0.20				2567990
22'3455'-HexaCB-(141)	ng/L	0.0116 J	0.00053	0.10				2567990
22'3456-HexaCB-(142)	ng/L	0.00056 U	0.00056	0.10				2567990
22'345'6-HexaCB-(144)	ng/L	0.00276 J	0.00053	0.10				2567990
22'3466'-HexaCB-(145)	ng/L	0.00042 U	0.00042	0.10				2567990
22'34'55'-HexaCB-(146)	ng/L	0.0073 U (1)	0.0073	0.10				2567990
HexaCB-(147)+(149)	ng/L	0.0406 J	0.00053	0.20				2567990
22'34'56'-HexaCB-(148)	ng/L	0.00052 U	0.00052	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.00039 U	0.00039	0.10				2567990
22'3566'-HexaCB-(152)	ng/L	0.00038 U	0.00038	0.10				2567990
HexaCB-(153)+(168)	ng/L	0.0522 J	0.00040	0.20				2567990
22'44'56'-HexaCB-(154)	ng/L	0.00047 U	0.00047	0.10				2567990
22'44'66'-HexaCB-(155)	ng/L	0.00034 U	0.00034	0.10				2567990
HexaCB-(156)+(157)	ng/L	0.00560 J	0.00032	0.20	0.0000300	0.000000168		2567990
233'44'6-HexaCB-(158)	ng/L	0.00511 J	0.00035	0.10				2567990
233'455'-HexaCB-(159)	ng/L	0.00033 U	0.00033	0.10				2567990
233'456-HexaCB-(160)	ng/L	0.00041 U	0.00041	0.10				2567990
233'45'6-HexaCB-(161)	ng/L	0.00037 U	0.00037	0.10				2567990
233'4'55'-HexaCB-(162)	ng/L	0.00033 U	0.00033	0.10				2567990
233'4'5'6-HexaCB-(164)	ng/L	0.00452 J	0.00038	0.10				2567990
233'55'6-HexaCB-(165)	ng/L	0.00042 U	0.00042	0.10				2567990
23'44'55'-HexaCB-(167)	ng/L	0.0022 U (1)	0.0022	0.10	0.0000300	0.0000000660		2567990
33'44'55'-HexaCB-(169)	ng/L	0.00032 U	0.00032	0.10	0.0300	0.00000960		2567990
22'33'44'5-HeptaCB-(170)	ng/L	0.010 U (1)	0.010	0.10				2567990
HeptaCB-(171)+(173)	ng/L	0.0011 U	0.0011	0.20				2567990
22'33'455'-HeptaCB-(172)	ng/L	0.0022 J	0.0011	0.10				2567990
22'33'456'-HeptaCB-(174)	ng/L	0.0097 U (1)	0.0097	0.10				2567990
22'33'45'6-HeptaCB-(175)	ng/L	0.00036 U	0.00036	0.10				2567990
22'33'466'-HeptaCB-(176)	ng/L	0.00184 J	0.00028	0.10				2567990
22'33'45'6'-HeptaCB-(177)	ng/L	0.0096 J	0.0010	0.10				2567990
22'33'55'6-HeptaCB-(178)	ng/L	0.0020 U (1)	0.0020	0.10				2567990
22'33'566'-HeptaCB-(179)	ng/L	0.0047 U (1)	0.0047	0.10				2567990
HeptaCB-(180)+(193)	ng/L	0.0215 J	0.00076	0.20				2567990
22'344'56-HeptaCB-(181)	ng/L	0.0010 U	0.0010	0.10				2567990
22'344'56'-HeptaCB-(182)	ng/L	0.00037 U	0.00037	0.10				2567990
22'344'5'6-HeptaCB-(183)	ng/L	0.00834 J	0.00092	0.10				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00027 U	0.00027	0.10				2567990
22'3455'6-HeptaCB-(185)	ng/L	0.0010 U	0.0010	0.10				2567990
22'34566'-HeptaCB-(186)	ng/L	0.00029 U	0.00029	0.10				2567990
22'34'55'6-HeptaCB-(187)	ng/L	0.0158 J	0.00035	0.10				2567990
22'34'566'-HeptaCB-(188)	ng/L	0.00030 U	0.00030	0.10				2567990
233'44'55'-HeptaCB-(189)	ng/L	0.00078 U	0.00078	0.10	0.0000300	0.0000000234		2567990
233'44'56-HeptaCB-(190)	ng/L	0.00079 U	0.00079	0.10				2567990
233'44'5'6-HeptaCB-(191)	ng/L	0.00078 U	0.00078	0.10				2567990
233'455'6-HeptaCB-(192)	ng/L	0.00085 U	0.00085	0.10				2567990
22'33'44'55'-OctaCB-(194)	ng/L	0.0033 U (1)	0.0033	0.10				2567990
22'33'44'56-OctaCB-(195)	ng/L	0.0025 U (1)	0.0025	0.10				2567990
22'33'44'56'-OctaCB-(196)	ng/L	0.0014 U (1)	0.0014	0.10				2567990
22'33'44'66'OctaCB-(197)	ng/L	0.00052 U	0.00052	0.10				2567990
OctaCB-(198)+(199)	ng/L	0.00431 J	0.00070	0.20				2567990
22'33'4566'-OctaCB-(200)	ng/L	0.00047 U	0.00047	0.10				2567990
22'33'45'66'-OctaCB-(201)	ng/L	0.00048 U	0.00048	0.10				2567990
22'33'55'66'-OctaCB-(202)	ng/L	0.00167 J	0.00055	0.10				2567990
22'344'55'6-OctaCB-(203)	ng/L	0.00380 J	0.00063	0.10				2567990
22'344'566'-OctaCB-(204)	ng/L	0.00049 U	0.00049	0.10				2567990
233'44'55'6-OctaCB-(205)	ng/L	0.0012 U	0.0012	0.10				2567990
22'33'44'55'6-NonaCB-(206)	ng/L	0.0037 U	0.0037	0.10				2567990
22'33'44'566'-NonaCB-(207)	ng/L	0.0034 U	0.0034	0.10				2567990
22'33'455'66'-NonaCB-(208)	ng/L	0.0037 U	0.0037	0.10				2567990
DecaCB-(209)	ng/L	0.0022 U (1)	0.0022	0.10				2567990
Monochlorobiphenyl	ng/L	0.0041	0.0012	N/A				2567990
Dichlorobiphenyl	ng/L	0.066	0.020	N/A				2567990
Trichlorobiphenyl	ng/L	0.0348	0.0017	N/A				2567990
Tetrachlorobiphenyl	ng/L	0.0906	0.0018	N/A				2567990

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Maxxam Job #: B1A9655
Report Date: 2011/09/22

Apex Laboratories
Client Project #: A11G258

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	**8004-110720-104-MW5/A11G258-05**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Pentachlorobiphenyl	ng/L	0.140	0.00087	N/A				2567990
Hexachlorobiphenyl	ng/L	0.224	0.00057	N/A				2567990
Heptachlorobiphenyl	ng/L	0.0593	0.0011	N/A				2567990
Octachlorobiphenyl	ng/L	0.0098	0.0017	N/A				2567990
Nonachlorobiphenyl	ng/L	0.0037 U	0.0037	N/A				2567990
Decachlorobiphenyl	ng/L	0.00095 U	0.00095	N/A				2567990
Total PCB	ng/L	0.628	N/A	N/A				2567990
TOTAL TOXIC EQUIVALENCY	ng/L					0.0000570		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	82						2567990
C13-22'33'44'55'6-NonaCB-(206)	%	113						2567990
C13-22'33'44'5-HeptaCB-(170)	%	99						2567990
C13-22'33'455'66'-NonaCB-(208)	%	110						2567990
C13-22'33'55'66'-OctaCB-(202)	%	98						2567990
C13-22'33'55'6-HeptaCB-(178)	%	113						2567990
C13-22'344'55'-HeptaCB-(180)	%	98						2567990
C13-22'34'566'-HeptaCB-(188)	%	113						2567990
C13-22'44'66'-HexaCB-(155)	%	112						2567990
C13-22'466'-PentaCB-(104)	%	81						2567990
C13-22'66'-TetraCB-(54)	%	66						2567990
C13-22'6-TriCB-(19)	%	60						2567990
C13-22'-DiCB-(4)	%	56						2567990
C13-233'44'55'6-OctaCB-(205)	%	107						2567990
C13-233'44'55'-HeptaCB-(189)	%	98						2567990
C13-233'44'-PentaCB-(105)	%	92						2567990
C13-233'55'-PentaCB-(111)	%	99						2567990
C13-23'44'55'-HexaCB-(167)	%	109						2567990
C13-2344'5-PentaCB-(114)	%	92						2567990
C13-23'44'5-PentaCB-(118)	%	92						2567990

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		KG9104						
Sampling Date		2011/07/20 13:57						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	8004-110720-104-MW5/A11G258-05	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	92						2567990
C13-2-MonoCB-(1)	%	51						2567990
C13-33'44'55'-HexaCB-(169)	%	108						2567990
C13-33'44'5-PentaCB-(126)	%	98						2567990
C13-33'44'-TetraCB-(77)	%	94						2567990
C13-344'5-TetraCB-(81)	%	92						2567990
C13-344'-TriCB-(37)	%	87						2567990
C13-44'-DiCB-(15)	%	71						2567990
C13-4-MonoCB-(3)	%	55						2567990
C13-DecaCB-(209)	%	116						2567990
C13-HexaCB-(156)+(157)	%	109						2567990

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Apex Laboratories
Client Project #: A11G258

Test Summary

Maxxam ID KG9100 **Collected** 2011/07/20
Sample ID 8004-110720-100-MW1/A11G258-01 **Shipped**
Matrix Water **Received** 2011/07/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2567784	2011/07/28	2011/08/03	OWEN COSBY
PCB Congeners in Water (1668A)	HRMS/MS	2567990	2011/07/27	2011/08/02	BRANKO VRZIC

Maxxam ID KG9101 **Collected** 2011/07/20
Sample ID 8004-110720-101-MW2/A11G258-02 **Shipped**
Matrix Water **Received** 2011/07/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2567784	2011/07/28	2011/08/03	OWEN COSBY
PCB Congeners in Water (1668A)	HRMS/MS	2567990	2011/07/27	2011/08/02	BRANKO VRZIC

Maxxam ID KG9102 **Collected** 2011/07/20
Sample ID 8004-110720-102-MW3/A11G258-03 **Shipped**
Matrix Water **Received** 2011/07/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2567784	2011/07/28	2011/08/03	OWEN COSBY
PCB Congeners in Water (1668A)	HRMS/MS	2567990	2011/07/27	2011/08/02	BRANKO VRZIC

Maxxam ID KG9103 **Collected** 2011/07/20
Sample ID 8004-110720-103-MW4/A11G258-04 **Shipped**
Matrix Water **Received** 2011/07/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2567784	2011/07/28	2011/08/03	OWEN COSBY
PCB Congeners in Water (1668A)	HRMS/MS	2567990	2011/07/27	2011/08/02	BRANKO VRZIC

Maxxam ID KG9104 **Collected** 2011/07/20
Sample ID 8004-110720-104-MW5/A11G258-05 **Shipped**
Matrix Water **Received** 2011/07/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2567784	2011/07/28	2011/08/03	OWEN COSBY
PCB Congeners in Water (1668A)	HRMS/MS	2567990	2011/07/27	2011/08/02	BRANKO VRZIC

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Apex Laboratories
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Package 1	8.2°C
Package 2	8.8°C
Package 3	8.6°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A11G258
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB1A9655

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2567784	OBC	Spiked Blank	C13-1234678 HeptaCDD	2011/08/01		115	%	40 - 135
			C13-1234678 HeptaCDF	2011/08/01		130	%	40 - 135
			C13-123478 HexaCDF	2011/08/01		121	%	40 - 135
			C13-123678 HexaCDD	2011/08/01		100	%	40 - 135
			C13-12378 PentaCDD	2011/08/01		84	%	40 - 135
			C13-12378 PentaCDF	2011/08/01		91	%	40 - 135
			C13-2378 TetraCDD	2011/08/01		65	%	40 - 135
			C13-2378 TetraCDF	2011/08/01		77	%	40 - 135
			C13-OCDD	2011/08/01		119	%	40 - 135
			2,3,7,8-Tetra CDD	2011/08/01		110	%	80 - 140
			1,2,3,7,8-Penta CDD	2011/08/01		111	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2011/08/01		115	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2011/08/01		105	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2011/08/01		115	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2011/08/01		91	%	80 - 140
			Octa CDD	2011/08/01		93	%	80 - 140
			2,3,7,8-Tetra CDF	2011/08/01		99	%	80 - 140
			1,2,3,7,8-Penta CDF	2011/08/01		102	%	80 - 140
			2,3,4,7,8-Penta CDF	2011/08/01		114	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2011/08/01		101	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2011/08/01		99	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2011/08/01		100	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2011/08/01		107	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2011/08/01		95	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2011/08/01		97	%	80 - 140
			Octa CDF	2011/08/01		102	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2011/08/01		114	%	40 - 135
			C13-1234678 HeptaCDF	2011/08/01		130	%	40 - 135
			C13-123478 HexaCDF	2011/08/01		126	%	40 - 135
			C13-123678 HexaCDD	2011/08/01		103	%	40 - 135
			C13-12378 PentaCDD	2011/08/01		85	%	40 - 135
			C13-12378 PentaCDF	2011/08/01		96	%	40 - 135
			C13-2378 TetraCDD	2011/08/01		71	%	40 - 135
			C13-2378 TetraCDF	2011/08/01		82	%	40 - 135
			C13-OCDD	2011/08/01		112	%	40 - 135
			2,3,7,8-Tetra CDD	2011/08/01	0.86 U, EDL=0.86		pg/L	
			1,2,3,7,8-Penta CDD	2011/08/01	0.92 U, EDL=0.92		pg/L	
			1,2,3,4,7,8-Hexa CDD	2011/08/01	0.82 U, EDL=0.82		pg/L	
			1,2,3,6,7,8-Hexa CDD	2011/08/01	0.73 U, EDL=0.73		pg/L	
			1,2,3,7,8,9-Hexa CDD	2011/08/01	0.73 U, EDL=0.73		pg/L	
			1,2,3,4,6,7,8-Hepta CDD	2011/08/01	0.69 U, EDL=0.69 (1)		pg/L	
			Octa CDD	2011/08/01	1.7 U, EDL=1.7 (1)		pg/L	
			Total Tetra CDD	2011/08/01	0.86 U, EDL=0.86		pg/L	
			Total Penta CDD	2011/08/01	0.92 U, EDL=0.92		pg/L	
			Total Hexa CDD	2011/08/01	6.3 U, EDL=6.3 (1)		pg/L	
			Total Hepta CDD	2011/08/01	0.69 U, EDL=0.69 (1)		pg/L	
			2,3,7,8-Tetra CDF	2011/08/01	1.1 U, EDL=1.1		pg/L	
			1,2,3,7,8-Penta CDF	2011/08/01	0.79 U, EDL=0.79		pg/L	
			2,3,4,7,8-Penta CDF	2011/08/01	0.81 U, EDL=0.81		pg/L	
			1,2,3,4,7,8-Hexa CDF	2011/08/01	0.76 U, EDL=0.76		pg/L	
			1,2,3,6,7,8-Hexa CDF	2011/08/01	0.75 U, EDL=0.75		pg/L	
			2,3,4,6,7,8-Hexa CDF	2011/08/01	0.85 U, EDL=0.85		pg/L	
			1,2,3,7,8,9-Hexa CDF	2011/08/01	0.90 U, EDL=0.90		pg/L	
			1,2,3,4,6,7,8-Hepta CDF	2011/08/01	0.58 U, EDL=0.58		pg/L	
			1,2,3,4,7,8,9-Hepta CDF	2011/08/01	0.72 U, EDL=0.72		pg/L	

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Maxxam Job Number: GB1A9655

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2567784	OBC	Method Blank	Octa CDF	2011/08/01	0.88 J, EDL=0.79		pg/L	
			Total Tetra CDF	2011/08/01	1.3 J, EDL=1.1		pg/L	
			Total Penta CDF	2011/08/01	0.80 U, EDL=0.80		pg/L	
			Total Hexa CDF	2011/08/01	0.81 U, EDL=0.81		pg/L	
			Total Hepta CDF	2011/08/01	0.64 U, EDL=0.64		pg/L	
2567990	BY	Spiked Blank	C13-2,44'-TriCB-(28)	2011/08/02		76	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2011/08/02		111	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2011/08/02		91	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2011/08/02		111	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2011/08/02		101	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2011/08/02		114	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2011/08/02		92	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2011/08/02		113	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2011/08/02		119	%	30 - 140
			C13-22'466'-PentaCB-(104)	2011/08/02		90	%	30 - 140
			C13-22'66'-TetraCB-(54)	2011/08/02		84	%	30 - 140
			C13-22'6-TriCB-(19)	2011/08/02		74	%	30 - 140
			C13-22'-DiCB-(4)	2011/08/02		77	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2011/08/02		98	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2011/08/02		87	%	30 - 140
			C13-233'44'-PentaCB-(105)	2011/08/02		79	%	30 - 140
			C13-233'55'-PentaCB-(111)	2011/08/02		91	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2011/08/02		95	%	30 - 140
			C13-2344'5-PentaCB-(114)	2011/08/02		77	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2011/08/02		78	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2011/08/02		77	%	30 - 140
			C13-2-MonoCB-(1)	2011/08/02		63	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2011/08/02		95	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2011/08/02		83	%	30 - 140
			C13-33'44'-TetraCB-(77)	2011/08/02		84	%	30 - 140
			C13-344'5-TetraCB-(81)	2011/08/02		82	%	30 - 140
			C13-344'-TriCB-(37)	2011/08/02		79	%	30 - 140
			C13-44'-DiCB-(15)	2011/08/02		75	%	30 - 140
			C13-4-MonoCB-(3)	2011/08/02		67	%	15 - 140
			C13-DecaCB-(209)	2011/08/02		124	%	30 - 140
			C13-HexaCB-(156)+(157)	2011/08/02		93	%	30 - 140
			2-MonoCB-(1)	2011/08/02		104	%	50 - 150
			4-MonoCB-(3)	2011/08/02		101	%	50 - 150
			22'-DiCB-(4)	2011/08/02		97	%	50 - 150
			4,4'-DiCB-(15)	2011/08/02		104	%	50 - 150
			22'6-TriCB-(19)	2011/08/02		98	%	50 - 150
			235-TriCB-(23)	2011/08/02		104	%	50 - 150
			23'5'-TriCB-(34)	2011/08/02		107	%	50 - 150
			344'-TriCB-(37)	2011/08/02		98	%	50 - 150
			22'66'-TetraCB-(54)	2011/08/02		104	%	50 - 150
			33'44'-TetraCB-(77)	2011/08/02		100	%	50 - 150
			344'5-TetraCB-(81)	2011/08/02		101	%	50 - 150
			22'466'-PentaCB-(104)	2011/08/02		101	%	50 - 150
			233'44'-PentaCB-(105)	2011/08/02		101	%	50 - 150
			2344'5-PentaCB-(114)	2011/08/02		102	%	50 - 150
			23'44'5-PentaCB-(118)	2011/08/02		102	%	50 - 150
			23'44'5'-PentaCB-(123)	2011/08/02		101	%	50 - 150
			33'44'5-PentaCB-(126)	2011/08/02		102	%	50 - 150
			22'44'66'-HexaCB-(155)	2011/08/02		100	%	50 - 150
			HexaCB-(156)+(157)	2011/08/02		97	%	50 - 150

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2567990	BY	Spiked Blank	23'44'55'-HexaCB-(167)	2011/08/02		97	%	50 - 150
			33'44'55'-HexaCB-(169)	2011/08/02		97	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2011/08/02		97	%	50 - 150
			HeptaCB-(180)+(193)	2011/08/02		92	%	50 - 150
			22'344'56'-HeptaCB-(182)	2011/08/02		102	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2011/08/02		102	%	50 - 150
			22'34'566'-HeptaCB-(188)	2011/08/02		98	%	50 - 150
			233'44'55'-HeptaCB-(189)	2011/08/02		94	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2011/08/02		100	%	50 - 150
			233'44'55'6-OctaCB-(205)	2011/08/02		97	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2011/08/02		95	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2011/08/02		92	%	50 - 150
			DecaCB-(209)	2011/08/02		92	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2011/08/02		78	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2011/08/02		117	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2011/08/02		98	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2011/08/02		110	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2011/08/02		107	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2011/08/02		130 (2)	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2011/08/02		100	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2011/08/02		123	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2011/08/02		129	%	30 - 140
			C13-22'466'-PentaCB-(104)	2011/08/02		95	%	30 - 140
			C13-22'66'-TetraCB-(54)	2011/08/02		80	%	30 - 140
			C13-22'6-TriCB-(19)	2011/08/02		63	%	30 - 140
			C13-22'-DiCB-(4)	2011/08/02		64	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2011/08/02		104	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2011/08/02		92	%	30 - 140
			C13-233'44'-PentaCB-(105)	2011/08/02		81	%	30 - 140
			C13-233'55'-PentaCB-(111)	2011/08/02		102	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2011/08/02		99	%	30 - 140
			C13-2344'5-PentaCB-(114)	2011/08/02		81	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2011/08/02		82	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2011/08/02		80	%	30 - 140
			C13-2-MonoCB-(1)	2011/08/02		51	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2011/08/02		97	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2011/08/02		88	%	30 - 140
			C13-33'44'-TetraCB-(77)	2011/08/02		89	%	30 - 140
			C13-344'5-TetraCB-(81)	2011/08/02		86	%	30 - 140
			C13-344'-TriCB-(37)	2011/08/02		79	%	30 - 140
			C13-44'-DiCB-(15)	2011/08/02		67	%	30 - 140
			C13-4-MonoCB-(3)	2011/08/02		54	%	15 - 140
			C13-DecaCB-(209)	2011/08/02		128	%	30 - 140
			C13-HexaCB-(156)+(157)	2011/08/02		97	%	30 - 140
			2-MonoCB-(1)	2011/08/02	0.0015 U, EDL=0.0015 (1)		ng/L	
			3-MonoCB-(2)	2011/08/02	0.0015 U, EDL=0.0015 (1)		ng/L	
			4-MonoCB-(3)	2011/08/02	0.00397 J, EDL=0.00088		ng/L	
			22'-DiCB-(4)	2011/08/02	0.0061 U, EDL=0.0061		ng/L	
			2,3-DiCB-(5)	2011/08/02	0.0088 U, EDL=0.0088		ng/L	
			2,3'-DiCB-(6)	2011/08/02	0.0084 U, EDL=0.0084		ng/L	
			2,4-DiCB-(7)	2011/08/02	0.0087 U, EDL=0.0087		ng/L	
			2,4'-DiCB-(8)	2011/08/02	0.0092 J, EDL=0.0084		ng/L	
			2,5-DiCB-(9)	2011/08/02	0.0082 U, EDL=0.0082		ng/L	
			2,6-DiCB-(10)	2011/08/02	0.0058 U, EDL=0.0058		ng/L	
			3,3'-DiCB-(11)	2011/08/02	0.0672 J, EDL=0.0084		ng/L	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2567990	BY	Method Blank	DiCB-(12)+(13)	2011/08/02	0.0088 U,	EDL=0.0088	ng/L	
			3,5-DiCB-(14)	2011/08/02	0.0084 U,	EDL=0.0084	ng/L	
			4,4'-DiCB-(15)	2011/08/02	0.011 U,	EDL=0.011	ng/L	
			22'3-TriCB-(16)	2011/08/02	0.0033 J,	EDL=0.0026	ng/L	
			22'4-TriCB-(17)	2011/08/02	0.0025 U,	EDL=0.0025	ng/L	
			TriCB-(18)+(30)	2011/08/02	0.0079 J,	EDL=0.0020	ng/L	
			22'6-TriCB-(19)	2011/08/02	0.0021 U,	EDL=0.0021	ng/L	
			TriCB-(20) + (28)	2011/08/02	0.0193 J,	EDL=0.00094	ng/L	
			TriCB-(21)+(33)	2011/08/02	0.00930 J,	EDL=0.00093	ng/L	
			234'-TriCB-(22)	2011/08/02	0.0055 J,	EDL=0.0010	ng/L	
			235-TriCB-(23)	2011/08/02	0.0010 U,	EDL=0.0010	ng/L	
			236-TriCB-(24)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			23'4-TriCB-(25)	2011/08/02	0.00131 J,	EDL=0.00085	ng/L	
			TriCB-(26)+(29)	2011/08/02	0.00253 J,	EDL=0.00093	ng/L	
			23'6-TriCB-(27)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			24'5-TriCB-(31)	2011/08/02	0.0142 J,	EDL=0.00088	ng/L	
			24'6-TriCB-(32)	2011/08/02	0.0022 U,	EDL=0.0022 (1)	ng/L	
			23'5'-TriCB-(34)	2011/08/02	0.00096 U,	EDL=0.00096	ng/L	
			33'4-TriCB-(35)	2011/08/02	0.00099 U,	EDL=0.00099	ng/L	
			33'5-TriCB-(36)	2011/08/02	0.00082 U,	EDL=0.00082	ng/L	
			344'-TriCB-(37)	2011/08/02	0.0034 J,	EDL=0.0011	ng/L	
			345-TriCB-(38)	2011/08/02	0.00095 U,	EDL=0.00095	ng/L	
			34'5-TriCB-(39)	2011/08/02	0.00090 U,	EDL=0.00090	ng/L	
			TetraCB-(40)+(41)+(71)	2011/08/02	0.0036 U,	EDL=0.0036 (1)	ng/L	
			22'34'-TetraCB-(42)	2011/08/02	0.0016 U,	EDL=0.0016 (1)	ng/L	
			22'35-TetraCB-(43)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			TetraCB-(44)+(47)+(65)	2011/08/02	0.0106 J,	EDL=0.0013	ng/L	
			TetraCB-(45)+(51)	2011/08/02	0.0017 U,	EDL=0.0017 (1)	ng/L	
			22'36'-TetraCB-(46)	2011/08/02	0.0018 U,	EDL=0.0018	ng/L	
			22'45-TetraCB-(48)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			TetraCB-(49)+TetraCB-(69)	2011/08/02	0.0059 J,	EDL=0.0012	ng/L	
			TetraCB-(50)+(53)	2011/08/02	0.0014 U,	EDL=0.0014	ng/L	
			22'55'-TetraCB-(52)	2011/08/02	0.0156 J,	EDL=0.0014	ng/L	
			22'66'-TetraCB-(54)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			233'4-TetraCB-(55)	2011/08/02	0.0016 U,	EDL=0.0016	ng/L	
			233'4'-Tetra CB(56)	2011/08/02	0.0029 J,	EDL=0.0014	ng/L	
			233'5-TetraCB-(57)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			233'5'-TetraCB-(58)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			TetraCB-(59)+(62)+(75)	2011/08/02	0.0013 J,	EDL=0.0011	ng/L	
			2344'-TetraCB -(60)	2011/08/02	0.0030 J,	EDL=0.0016	ng/L	
			TetraCB-(61)+(70)+(74)+(76)	2011/08/02	0.0177 J,	EDL=0.0014	ng/L	
			234'5-TetraCB-(63)	2011/08/02	0.0014 U,	EDL=0.0014	ng/L	
			234'6-TetraCB-(64)	2011/08/02	0.0039 U,	EDL=0.0039 (1)	ng/L	
			23'44'-TetraCB-(66)	2011/08/02	0.0087 J,	EDL=0.0014	ng/L	
			23'45-TetraCB-(67)	2011/08/02	0.0014 U,	EDL=0.0014	ng/L	
			23'45'-TetraCB-(68)	2011/08/02	0.0014 U,	EDL=0.0014	ng/L	
			23'55'-TetraCB-(72)	2011/08/02	0.0014 U,	EDL=0.0014	ng/L	
			23'5'6-TetraCB-(73)	2011/08/02	0.0011 U,	EDL=0.0011	ng/L	
			33'44'-TetraCB-(77)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			33'45-TetraCB-(78)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			33'45'-TetraCB(79)	2011/08/02	0.0013 U,	EDL=0.0013	ng/L	
			33'55'-TetraCB-(80)	2011/08/02	0.0013 U,	EDL=0.0013	ng/L	
			344'5-TetraCB-(81)	2011/08/02	0.0016 U,	EDL=0.0016	ng/L	
			22'33'4-PentaCB-(82)	2011/08/02	0.00043 U,	EDL=0.00043	ng/L	
			PentaCB-(83)+(99)	2011/08/02	0.0046 U,	EDL=0.0046 (1)	ng/L	

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Quality Assurance Report (Continued)

Maxxam Job Number: GB1A9655

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2567990	BY	Method Blank	22'33'6-PentaCB-(84)	2011/08/02	0.00333 J,	EDL=0.00043	ng/L	
			PentaCB-(85)+(116)+(117)	2011/08/02	0.0010 U,	EDL=0.0010 (1)	ng/L	
			PentaCB-(86)(87)(97)(109)(119)(125)	2011/08/02	0.0107 J,	EDL=0.00032	ng/L	
			PentaCB-(88)+(91)	2011/08/02	0.00163 J,	EDL=0.00038	ng/L	
			22'346'-PentaCB-(89)	2011/08/02	0.00040 U,	EDL=0.00040	ng/L	
			PentaCB-(90)+(101)+(113)	2011/08/02	0.0334 J,	EDL=0.00032	ng/L	
			22'355'-PentaCB-(92)	2011/08/02	0.0047 U,	EDL=0.0047 (1)	ng/L	
			PentaCB-(93)+(98)+(100)+(102)	2011/08/02	0.00036 U,	EDL=0.00036	ng/L	
			22'356'-PentaCB-(94)	2011/08/02	0.00041 U,	EDL=0.00041	ng/L	
			22'35'6-PentaCB-(95)	2011/08/02	0.0197 J,	EDL=0.00035	ng/L	
			22'366'-PentaCB-(96)	2011/08/02	0.00057 U,	EDL=0.00057	ng/L	
			22'45'6-PentaCB-(103)	2011/08/02	0.00033 U,	EDL=0.00033	ng/L	
			22'466'-PentaCB-(104)	2011/08/02	0.00046 U,	EDL=0.00046	ng/L	
			233'44'-PentaCB-(105)	2011/08/02	0.00382 J,	EDL=0.00049	ng/L	
			233'45-PentaCB-(106)	2011/08/02	0.00049 U,	EDL=0.00049	ng/L	
			233'4'5-PentaCB-(107)	2011/08/02	0.00042 U,	EDL=0.00042	ng/L	
			PentaCB-(108)+(124)	2011/08/02	0.00048 U,	EDL=0.00048	ng/L	
			PentaCB-(110)+(115)	2011/08/02	0.0191 J,	EDL=0.00027	ng/L	
			233'55'-PentaCB-(111)	2011/08/02	0.00028 U,	EDL=0.00028	ng/L	
			233'56-PentaCB-(112)	2011/08/02	0.00028 U,	EDL=0.00028	ng/L	
			2344'5-PentaCB-(114)	2011/08/02	0.00048 U,	EDL=0.00048	ng/L	
			23'44'5-PentaCB-(118)	2011/08/02	0.0149 J,	EDL=0.00048	ng/L	
			23'455'-PentaCB-(120)	2011/08/02	0.00026 U,	EDL=0.00026	ng/L	
			23'45'6-PentaCB-(121)	2011/08/02	0.00028 U,	EDL=0.00028	ng/L	
			233'4'5'-PentaCB-(122)	2011/08/02	0.00051 U,	EDL=0.00051	ng/L	
			23'44'5'-PentaCB-(123)	2011/08/02	0.00049 U,	EDL=0.00049	ng/L	
			33'44'5-PentaCB-(126)	2011/08/02	0.00049 U,	EDL=0.00049	ng/L	
			33'455'-PentaCB-(127)	2011/08/02	0.00046 U,	EDL=0.00046	ng/L	
			HexaCB-(128)+(166)	2011/08/02	0.0039 J,	EDL=0.0014	ng/L	
			HexaCB-(129)+(138)+(163)	2011/08/02	0.0403 J,	EDL=0.0014	ng/L	
			22'33'45'-HexaCB-(130)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			22'33'46-HexaCB-(131)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			22'33'46'-HexaCB-(132)	2011/08/02	0.0119 J,	EDL=0.0017	ng/L	
			22'33'55'-HexaCB-(133)	2011/08/02	0.0016 U,	EDL=0.0016	ng/L	
			HexaCB-(134)+(143)	2011/08/02	0.0018 U,	EDL=0.0018	ng/L	
			HexaCB-(135)+(151)	2011/08/02	0.0160 J,	EDL=0.00044	ng/L	
			22'33'66'-HexaCB-(136)	2011/08/02	0.00505 J,	EDL=0.00031	ng/L	
			22'344'5-HexaCB-(137)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			HexaCB-(139)+(140)	2011/08/02	0.0015 U,	EDL=0.0015	ng/L	
			22'3455'-HexaCB-(141)	2011/08/02	0.0109 J,	EDL=0.0016	ng/L	
			22'3456-HexaCB-(142)	2011/08/02	0.0017 U,	EDL=0.0017	ng/L	
			22'345'6-HexaCB-(144)	2011/08/02	0.00226 J,	EDL=0.00042	ng/L	
			22'3466'-HexaCB-(145)	2011/08/02	0.00034 U,	EDL=0.00034	ng/L	
			22'34'55'-HexaCB-(146)	2011/08/02	0.0066 J,	EDL=0.0014	ng/L	
			HexaCB-(147)+(149)	2011/08/02	0.0323 J,	EDL=0.0016	ng/L	
			22'34'56'-HexaCB-(148)	2011/08/02	0.00042 U,	EDL=0.00042	ng/L	
			22'34'66'-HexaCB-(150)	2011/08/02	0.00032 U,	EDL=0.00032	ng/L	
			22'3566'-HexaCB-(152)	2011/08/02	0.00030 U,	EDL=0.00030	ng/L	
			HexaCB-(153)+(168)	2011/08/02	0.0390 J,	EDL=0.0012	ng/L	
			22'44'56'-HexaCB-(154)	2011/08/02	0.00037 U,	EDL=0.00037	ng/L	
			22'44'66'-HexaCB-(155)	2011/08/02	0.00028 U,	EDL=0.00028	ng/L	
			HexaCB-(156)+(157)	2011/08/02	0.0038 U,	EDL=0.0038 (1)	ng/L	
			233'44'6-HexaCB-(158)	2011/08/02	0.0030 U,	EDL=0.0030 (1)	ng/L	
			233'455'-HexaCB-(159)	2011/08/02	0.00050 U,	EDL=0.00050	ng/L	
			233'456-HexaCB-(160)	2011/08/02	0.0013 U,	EDL=0.0013	ng/L	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A11G258
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB1A9655

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2567990	BY	Method Blank	233'45'6-HexaCB-(161)	2011/08/02	0.0011 U, EDL=0.0011		ng/L	
			233'4'55'-HexaCB-(162)	2011/08/02	0.00050 U, EDL=0.00050		ng/L	
			233'4'5'6-HexaCB-(164)	2011/08/02	0.0029 J, EDL=0.0011		ng/L	
			233'55'6-HexaCB-(165)	2011/08/02	0.0013 U, EDL=0.0013		ng/L	
			23'44'55'-HexaCB-(167)	2011/08/02	0.00217 J, EDL=0.00047		ng/L	
			33'44'55'-HexaCB-(169)	2011/08/02	0.00048 U, EDL=0.00048		ng/L	
			22'33'44'5-HeptaCB-(170)	2011/08/02	0.00865 J, EDL=0.00098		ng/L	
			HeptaCB-(171)+(173)	2011/08/02	0.0012 U, EDL=0.0012		ng/L	
			22'33'455'-HeptaCB-(172)	2011/08/02	0.0012 U, EDL=0.0012		ng/L	
			22'33'456'-HeptaCB-(174)	2011/08/02	0.0077 J, EDL=0.0012		ng/L	
			22'33'45'6-HeptaCB-(175)	2011/08/02	0.00050 U, EDL=0.00050		ng/L	
			22'33'466'-HeptaCB-(176)	2011/08/02	0.0012 U, EDL=0.0012 (1)		ng/L	
			22'33'45'6'-HeptaCB-(177)	2011/08/02	0.0045 J, EDL=0.0012		ng/L	
			22'33'55'6-HeptaCB-(178)	2011/08/02	0.0016 U, EDL=0.0016 (1)		ng/L	
			22'33'566'-HeptaCB-(179)	2011/08/02	0.00365 J, EDL=0.00037		ng/L	
			HeptaCB-(180)+(193)	2011/08/02	0.0172 J, EDL=0.00087		ng/L	
			22'344'56-HeptaCB-(181)	2011/08/02	0.0012 U, EDL=0.0012		ng/L	
			22'344'56'-HeptaCB-(182)	2011/08/02	0.00052 U, EDL=0.00052		ng/L	
			22'344'5'6-HeptaCB-(183)	2011/08/02	0.0054 J, EDL=0.0011		ng/L	
			22'344'66'-HeptaCB-(184)	2011/08/02	0.00037 U, EDL=0.00037		ng/L	
			22'3455'6-HeptaCB-(185)	2011/08/02	0.0012 U, EDL=0.0012		ng/L	
			22'34566'-HeptaCB-(186)	2011/08/02	0.00040 U, EDL=0.00040		ng/L	
			22'34'55'6-HeptaCB-(187)	2011/08/02	0.0088 U, EDL=0.0088 (1)		ng/L	
			22'34'566'-HeptaCB-(188)	2011/08/02	0.00042 U, EDL=0.00042		ng/L	
			233'44'55'-HeptaCB-(189)	2011/08/02	0.00074 U, EDL=0.00074		ng/L	
			233'44'56-HeptaCB-(190)	2011/08/02	0.00156 J, EDL=0.00090		ng/L	
			233'44'5'6-HeptaCB-(191)	2011/08/02	0.00089 U, EDL=0.00089		ng/L	
			233'455'6-HeptaCB-(192)	2011/08/02	0.00097 U, EDL=0.00097		ng/L	
			22'33'44'55'-OctaCB-(194)	2011/08/02	0.00267 J, EDL=0.00077		ng/L	
			22'33'44'56-OctaCB-(195)	2011/08/02	0.0010 U, EDL=0.0010 (1)		ng/L	
			22'33'44'56'-OctaCB-(196)	2011/08/02	0.0014 U, EDL=0.0014		ng/L	
			22'33'44'66'OctaCB-(197)	2011/08/02	0.0011 U, EDL=0.0011		ng/L	
			OctaCB-(198)+(199)	2011/08/02	0.0015 U, EDL=0.0015		ng/L	
			22'33'4566'-OctaCB-(200)	2011/08/02	0.00098 U, EDL=0.00098		ng/L	
			22'33'45'66'-OctaCB-(201)	2011/08/02	0.00099 U, EDL=0.00099		ng/L	
			22'33'55'66'-OctaCB-(202)	2011/08/02	0.0011 U, EDL=0.0011		ng/L	
			22'344'55'6-OctaCB-(203)	2011/08/02	0.0013 U, EDL=0.0013		ng/L	
			22'344'566'-OctaCB-(204)	2011/08/02	0.0010 U, EDL=0.0010		ng/L	
			233'44'55'6-OctaCB-(205)	2011/08/02	0.00057 U, EDL=0.00057		ng/L	
			22'33'44'55'6-NonaCB-(206)	2011/08/02	0.0033 U, EDL=0.0033		ng/L	
			22'33'44'566'-NonaCB-(207)	2011/08/02	0.0030 U, EDL=0.0030		ng/L	
			22'33'455'66'-NonaCB-(208)	2011/08/02	0.0033 U, EDL=0.0033		ng/L	
			DecaCB-(209)	2011/08/02	0.00135 J, EDL=0.00053		ng/L	
			Monochlorobiphenyl	2011/08/02	0.00397, EDL=0.00095		ng/L	
			Dichlorobiphenyl	2011/08/02	0.076, EDL=0.011		ng/L	
			Trichlorobiphenyl	2011/08/02	0.0667, EDL=0.0026		ng/L	
			Tetrachlorobiphenyl	2011/08/02	0.0659, EDL=0.0018		ng/L	
			Pentachlorobiphenyl	2011/08/02	0.107, EDL=0.00057		ng/L	
			Hexachlorobiphenyl	2011/08/02	0.173, EDL=0.0018		ng/L	
			Heptachlorobiphenyl	2011/08/02	0.0486, EDL=0.0012		ng/L	
			Octachlorobiphenyl	2011/08/02	0.0027, EDL=0.0015		ng/L	
			Nonachlorobiphenyl	2011/08/02	0.0033 U, EDL=0.0033		ng/L	
			Decachlorobiphenyl	2011/08/02	0.00135, EDL=0.00053		ng/L	
			Total PCB	2011/08/02	0.545		ng/L	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A11G258
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB1A9655

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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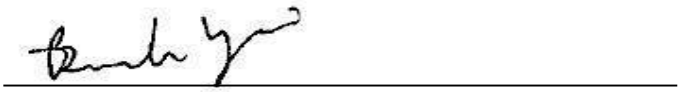
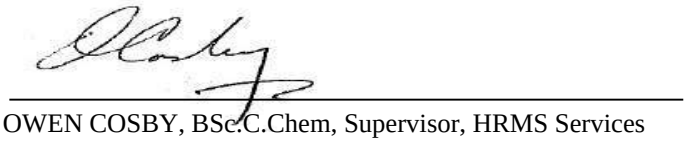
Validation Signature Page

Maxxam Job #: B1A9655

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



BRANKO VRZIC, A.SC.T., Senior Analyst, HRMS Services



OWEN COSBY, BSc.C.Chem, Supervisor, HRMS Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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DATA VALIDATION REPORT

Analyses of July 2011 Burgard Groundwaters
for
PCDDs/PCDFs and Chlorinated Biphenyl Congeners

Prepared for:
Bridgewater Group
Lake Oswego, OR

Prepared by:
Marilyn Hoyt
Seattle, WA

October 2012

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List of Attachments

Attachment A Data Summary

DATA QUALIFIER DEFINITION

U The U qualifier indicates that the analyte must be considered to be nondetected at the concentration listed. U qualifiers may be added during validation as a result of detection of target analytes in field, trip, or laboratory blanks.

J The J qualifier indicates that the associated result is quantitatively uncertain. J qualifiers are added when a result is measured below instrument calibration or during validation as a result of a QC element falling outside of required acceptance limits.

UJ The UJ qualifier indicates that the associated analyte was not detected at or above the cited limit. However, the cited limit is approximate and may be biased.

R The R qualifier indicates that a result has been rejected due to serious QC problems. It is not possible to definitively determine whether the analyte is present or absent in the sample.

ACRONYMS

CB	chlorinated biphenyl
CLP	USEPA Contract Laboratory Program
COC	chain of custody
EDL	estimated detection limit
EMPC	estimated maximum possible concentration
EPA	United States Environmental Protection Agency
ID	identification
LOC	level of chlorination
MRL	method reporting limit
NBS	National Bureau of Standards
OPR	ongoing precision and recovery
PCB	polychlorinated biphenyl
PCDDs/PCDFs	polychlorinated dibenzodioxins/polychlorinated dibenzofurans
PFK	perfluorokerosene
QC	quality control
RL	reporting limit
RPD	relative percent difference
RR	relative response
RRF	relative response factor
RSD	relative standard deviation
SOP	Standard Operating Procedure
TEF	toxic equivalency factor
TEQ	toxicity equivalency
WHO	World Health Organization

1.0 INTRODUCTION

This validation report documents the quality of polycholorinated dibenzodioxin and polychlorinated dibenzofurans (PCDD/PCDF) and chlorinated biphenyl (CB) congener data for five groundwater samples collected at the Burgard site on July 20, 2011 and submitted to Apex Labs of Tigard, OR. Apex subsequently transferred custody of the samples under their Project Number A11G258 Maxxam Analytics, Inc., Mississauga, Ontario for analyses.

Maxxam assigned their Job Number of B1A9655 to the samples. Maxxam conducted analyses for PCDDs and PCDFs in accordance with EPA Method 8290 and for CB congeners in accordance with EPA 1668A.

Validated data are found in Attachment A to this report.

2.0 SAMPLES

Samples included in this review are listed below:

Sample ID
8004-110720-100-MW1
8004-110720-101-MW2
8004-110720-102-MW3
8004-110720-103-MW4
8004-110720-104-MW5

3.0 SUMMARY OF VALIDATION FINDINGS

3.1 PCDD/PCDFs

PCDD/PCDF analyses were conducted in compliance with the analytical requirements of EPA Method 8290. Quality control measures associated with sample analyses met method criteria for accuracy and precision.

With limited qualifications, reported results for detected analytes are valid. Qualifications applied to data as reported are summarized below:

- Reported data for detections below the instrument calibration range are qualified as estimated (J, Reason Code RL).

- Reported results for low-level detections of 1,2,3,4,6,7,8-HpCDD, OCDD and OCDF in groundwater samples were qualified to be non-detected due to the presence of comparable levels of the analyte in the laboratory method blank and/or system blank. (U, Reason Code B)

- Results reported by Maxxam with an (1) qualifier represent peaks that failed to meet method criteria for positive identification. These peaks are qualified to be non-detected with detection limits representing an Estimated Maximum Possible Concentration (U, Reason Code EMPC).

3.2 Chlorinated Biphenyl Congeners

Analyses for CB congeners were conducted in accordance with EPA Method 1668A. Quality control measures met method requirements. With qualifications, reported data are valid. Qualifications applied to data are summarized below:

- Reported results for trace level detections of numerous congeners in all groundwater samples have been qualified to be non-detected due to the presence of comparable levels in the method blanks.

- Reported data for detections below the instrument calibration range are qualified as estimated (J, Reason Code RL).

4.0 DATA VALIDATION

4.1 Methodology

Data for PCDDs/PCDFs have been reviewed and validated with reference to the requirements of EPA Method 8290, the USEPA *National Functional Guidelines for Chlorinated Dibenzo-p-dioxins and Chlorinated Dibenzofurans Data Review* (EPA-540-R-11-016, September 2011) and EPA Region 10 *SOP For the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data*, January 1996. For those instances where Method 8290 requirements or criteria differ from the US EPA Contract Laboratory Program (CLP) Statement of Work for Polychlorinated Dioxin/Furan analyses, upon which the Functional Guidelines are based, the requirements and criteria of the cited method were applied.

CB data have been reviewed and validated with reference to the requirements of EPA Method 1668A (2003) and the *EPA Region 10 SOP for the Validation of Method 1668 Toxic Dioxin-like PCB Data* (1995). The Region 10 SOP was developed prior to the Revision A; where differences in requirements were noted, Revision A specifications were given precedence in the review.

Raw data were reviewed for all sample and quality control analyses associated with the samples in this set.

The laboratory's certified analytical report and supporting documentation were reviewed to assess the following:

1. Data completeness and deliverables
2. Sample receipt

3. Chain of Custody documentation
4. Holding times, storage and preservation
5. Sample preparation notes
6. Mass calibration and mass spectrometer resolution
7. Window defining mixture and chromatographic resolution
8. Initial calibration
9. Continuing calibrations
10. Method Blanks
11. On-going Precision and Accuracy
12. Identification criteria
13. Second column confirmation analysis
14. Reporting and Detection Limits
15. Labeled compound recoveries
16. Interferences
17. Calculations

Data for all standards, blanks and samples were reviewed for quality assurance/quality control results. Calculations were verified and reported results on the final summary forms were checked against the raw data instrument print-outs for sample concentrations. Chromatograms and peak integrations and identifications were reviewed for all samples in this set.

4.2 Data completeness and deliverables

Full data packages were submitted in electronic format. All documentation elements required for validation of the laboratory analyses were provided.

4.3 Sample Receipt

Apex shipped four 1-liter bottles for each sample on to the Maxxam Analytics sample receiving site in Buffalo, NY. Groundwater samples were received on July 21, 2011.

4.4 Chain of Custody (COC) Documentation

Forms for sample transfer were legible and provided necessary information on sampling dates and analysis requests. Custody documentation was not signed by either laboratory for the groundwater samples. Copies of the original COCs documenting sample custody from the field to Apex were not provided to Maxxam and are not included in the Maxxam final report. Apex transferred samples to Maxxam under Subcontract Order A11G0258..

4.5 Holding Times, Storage and Preservation

The July 20, 2011 groundwater samples were received at Maxxam with cooler temperatures between 8.3 and 8.8^{o}C. The groundwater sample temperatures exceed EPA's current preservation guidance as included in the *Functional Guidelines,* which recommends that

professional judgment be applied for data qualification in the event that shipment temperatures exceed 4°C. Samples were received at Maxxam within one day of sampling; results have not been qualified for the short time of the temperature variance.

All method holding times for extraction and analysis were met. Method 1668A allows for holding times for CB congeners in aqueous samples of 1 year. Method 8290 for PCDDs/PCDFs recommends a holding time of 30 days.

4.6 PCDD/PCDF DATA VALIDATION FINDINGS

4.6.1 Sample Preparation

Samples were spiked with carbon isotope labeled internal standards (identified as surrogates on the Maxxam report forms) and then extracted in separatory funnels in accordance with the method. Groundwater extracts were cleaned with acidic and basic silica gel and alumina.

4.6.2 Mass Calibration and Resolution

Mass calibration and resolution were checked prior to and after each analytical run sequence used for program samples. Mass calibration and resolution met method criteria prior to all sample analyses with a static resolving power of greater than 10,000 and a mass accuracy within 5 ppb of the actual for all perfluorokerosene (PFK) peaks monitored. Mass calibration and resolution were also verified after sample analyses.

4.6.3 Window Defining Mixture and Chromatographic Resolution

The retention times for the first- and last-eluting congener at each PCDD and PCDF chlorination level were demonstrated by the analysis of the window-defining mixture prior to each analytical run. All congeners in the solution were detected within the time windows monitored. The height of the valley between the closely eluting isomers 1,2,3,8-TCDD and 2,3,7,8-TCDD was less than 25%. No qualifications were required.

4.6.4 Initial Calibrations

Five-point calibrations were conducted on the instrument used for analysis of the groundwaters on July 31, 2011. The initial calibration was acceptable with %RSDs $\leq$20% for the relative responses (RRs) for unlabeled compounds and $\leq$35% for the relative response factors (RRFs) for labeled compounds. The relative retention times and ion abundance ratios were within the QC limits listed in Method 8290 for all standards. No qualifications were required. The calibrations were verified against an NBS standard for 2,3,7,8-TCDD and a second-source standard for target PCDDs/PCDFs.

4.6.5 Continuing Calibrations

Mid-point calibration standards and the window-defining mix were analyzed prior to each 12-hour analytical sequence. Sample analyses for groundwaters on the DB5 column were conducted on August 3, 2011. All calibration checks demonstrated acceptable response stability, with the %D of the RRFs of unlabeled compounds within 20% of the average from the initial calibration and within 35% of the average for the labeled compounds. The ion abundance ratios, sensitivity and relative retention times were within the method QC limits. No qualifications were required.

4.6.6 Method and System Blanks

Aqueous method blanks were prepared with the initial sample extractions. The method blank for the groundwaters contained OCDF at 0.88 pg/l and peaks for 1,2,3,4,6,7,8-HpCDD and OCDD that were marginally outside of the criteria for positive identification. This method blank was analyzed in a separate analytical sequence from the groundwater samples. A system blank was analyzed prior to the groundwater samples, and this blank contained OCDF at 2.75 pg/l, 1,2,3,4,6,7,8-HpCDD at 2.47 pg/l and OCDD at 6.09 pg/l. Results from both blanks were used for sample qualifications. All groundwater samples had detections of one or more of these analytes less than or within a factor of 2 of the blank levels. Results have been qualified to be non-detected at the levels noted..

4.6.7 On-going Precision and Recovery

Ongoing precision and recovery (OPR) samples were prepared by spiking laboratory water with target PCDDs/PCDFs. These were extracted and analyzed with the sample batches. Recoveries and ion ratios for all target PCDDs and PCDFs were within the method control limits.

4.6.8 Identification Criteria

Target PCDDs and PCDFs are identified based on peak retention time and the presence of the two masses monitored for the congener level. Positive identifications can only be made when the two peaks maximize within 2 seconds and their relative abundances fall within 15% of the theoretical value. Since numerous chemicals may result in one of both of the masses monitored for the PCDDs/PCDFs, a peak cannot be positively identified as a target analyte unless the ratio criterion is met.

Maxxam qualified results with a (1) qualifier for peaks at the retention time for a target PCDD or PCDF when the two masses monitored failed to meet the ratio criterion. Region 10 guidance indicates that these peaks should be qualified to be non-detected. The EPA *Functional Guidelines* recommends professional judgment be applied for qualifications but also requires that estimated maximum concentrations (EMPC) be calculated and reported for these peaks. Raw data for all peaks reported were reviewed.

All results qualified as not meeting criteria have been qualified to be non-detected, with the reporting limit representing the EMPC (U, EMPC).

4.6.9 Confirmation Analyses

2\,3,7,8-TCDF was not detected in any sample so no confirmation analyses were required.

4.6.10 Reporting Limits/Detection Limits

Non-detected results are reported to estimated detection limits (EDLs) calculated on a sample-specific, analyte specific basis using the signal to noise level in each ion channel, as required by the method and EPA guidance. Detection limits for analytes where a peak that failed to meet criteria for identification was present have been elevated to reflect the estimated maximum possible concentration (EMPC) that could be present.

4.6.11 Labeled Compound Recoveries

Internal standards are added to samples prior to their extraction. These include carbon-13 labeled analogs for 9 of the target 2,3,7,8-substituted PCDDs and PCDFs. Two additional labeled PCDDs were added prior to sample analysis to monitor the recoveries of the internal standards through the extraction, cleanup and analysis steps. Recoveries of internal standards were within Method 8290 control limits for all samples in this set.

4.6.12 Interferences

No significant interferences were noted in the raw data for samples.

4.6.13 Calculations

Calculations for response factors, calibration verifications and concentrations of detected target PCDDs and PCDFs in field and quality control samples were verified. No errors were noted.

Toxic equivalencies for the samples have been calculated using the World Health Organization (WHO) 2005 toxic equivalency factors (TEFs). One-half the detection limit was used for non-detected PCDDs/PCDFs.

Results for the totals in each congener class of PCDDs and PCDFs should be considered as estimated in all samples. These data are not included in the TEQ calculations. They are quantified based on the assumption that their response factors are the same as the 2,3,7,8-substitued isomers at the same chlorination level. Results for Total Congeners in the summary data table attached to this report reflect adjustments made for the 2,3,7,8-PCDDs/PCDFs that were qualified as non-detected due to blank levels but these data have not been further validated. They do not include EMPCs for the congener classes.

4.7 CHLORINATED BIPHENYL DATA VALIDATION FINDINGS

4.7.1 Sample Preparation

Samples were spiked with carbon-13 labeled CB congeners to serve as internal standards and were then extracted. The Maxxam data package for the groundwater samples did not include laboratory records for sample preparation or extract cleanup. Data have not been qualified for this omission since chromatograms do not indicate that any significant interferents were in the extracts and recoveries of internal standards were acceptable.

4.7.2 Mass Calibration and Resolution

Mass calibration and resolution were checked prior to the analytical run sequence used for program samples. Mass calibration and resolution met method criteria prior to all sample analyses with a static resolving power of greater than 10,000 and a mass accuracy within 5 ppb of the actual for all PFK peaks monitored. Mass calibration and resolution were also verified after sample analyses.

4.7.3 Initial Calibrations

A five-point calibration was conducted on March 29, 2011 with a mix of 29 congeners that includes all CBs that have been assigned toxicity equivalency factors (TEF), the predominant congeners in commercial Aroclor mixes, representative CBs for each level of chlorination (LOC) and the first- and last-eluting congeners from the mono through deca homologue groups. This mix is referred to as the Native Toxics/LOC solution. The initial calibration was acceptable with %RSDs $\leq$20% for the relative responses (RRs) for unlabeled compounds analyzed using isotope dilution and $\leq$35% for the relative response factors (RRFs) for compounds analyzed using the internal standard method. The relative retention times and ion abundance ratios were within the QC limits listed in Method 1668A for all standards. No qualifications were required. The calibration was verified against a second source standard for the midpoint of the curve.

An additional single-point calibration was conducted for the remaining 180 CB congeners prior to the sample analysis sequence.

4.7.4 Continuing Calibrations

Mid-point calibration standards and the single point full congener mix were analyzed prior to each 12-hour analytical sequence. Groundwater analyses were conducted on August 2, 2011. The calibration checks demonstrated acceptable response stability, with the %D of the RRFs of unlabeled compounds within 20% of the average from the initial calibration and the difference in RRFs of the labeled compounds <35% from the average. The ion abundance ratios, sensitivity and relative retention times were within the method QC limits. No qualifications were required.

4.7.5 Method Blanks

One method blank was analyzed with the set of groundwaters. Trace levels of numerous congeners, most marginally above their EDLs, were present in the blank. A total of 49 peaks representing 73 congeners were identified in the method blank. Trace level detections in samples that were within a factor of 5 of the blank concentration have been qualified as non-detected at the level noted..

4.7.6 Laboratory Spikes

One laboratory spike sample was prepared and analyzed with the groundwaters.to verify ongoing recovery. The spikes was prepared by adding a second-source Native Toxics/LOC mix to laboratory water, and processing the spike sample along with program samples. All recoveries were within method limits.

4.7.7 Identification Criteria

Target CB congeners are identified based on peak retention time and the presence of the two masses monitored for the congener level. Positive identifications can only be made when the two peaks maximize within 2 scans and fall within the retention time limits established during calibration and when the relative abundances of the two monitored masses fall within 15% of the theoretical value. Since numerous chemicals may result in one of both of the masses monitored for the CBs, a peak cannot be positively identified as a target analyte unless the ratio criterion is met.

Maxxam qualified results with a (1) qualifier for peaks at the retention time for a target CB when the two masses monitored fail to meet the ratio criterion. Region 10 guidance indicates that these peaks should be qualified to be non-detected. All peaks not meeting all criteria for identification are reported as non-detected (U).

4.7.8 Confirmation Analyses

No confirmation analyses were required.

4.7.9 Reporting Limits/Detection Limits

Non-detected results are reported to estimated detection limits (EDLs) calculated on a sample-specific, analyte specific basis using the signal to noise level in each ion channel, as required by the method and EPA guidance.

4.7.10 Labeled Compound Recoveries

Carbon-13 labeled CBs are added to samples prior to their extraction to serve as internal standards for the quantitation of native CBs. These include labeled analogs for the CBs in the

Native Toxics/LOC mix. Three additional isotopically labeled CBs are added prior to sample analysis to monitor recoveries of the internal standards.

Recoveries as reported were within method limits for all groundwater and seep samples.

4.7.11 Interferences

No significant interferences were noted in the raw data for samples.

4.7.12 Calculations

Calculations for response factors, calibration verifications and concentrations of detected target CBs in field and quality control samples were verified. No errors were noted.

Results for Total CB homologues detected have been adjusted to reflect the qualifications to data based on blank detections.

Toxic equivalencies from CB congeners for the samples have been calculated using the World Health Organization (WHO) 2005 toxic equivalency factors (TEF). One-half the detection limit was used for non-detected congeners.

5.0 REFERENCES

USEPA 1994. *Method 1613B Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRCG/HRMS*. October 1994.

USEPA 2003. *Method 1668 Revision A. Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids and Tissue by HIGC/HRMS*. EPA 821-R-07-004. August 2003

USEPA. 2011. *USEPA Analytical Services Branch: National Functional Guidelines for Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review*, EPA540-R-11-016.

US EPA Region 10. 1995 *SOP For the Validation of Method 1668 Toxic, Dioxin-like PCB Data*, December 1995.

US EPA Region 10. 1996 *SOP For the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF)Data*, January 1996.

ATTACHMENT A: VALIDATED SAMPLE RESULTS

July 2011 Burgard Groundwater

Chemical	MW-1 7/20/2011			MW-2 7/20/2011			MW-3 7/20/2011			MW-4 7/20/2011			MW-5 7/20/2011		
PCBs (ug/l) [1]	ug/l	Q		ug/l	Q		ug/l	Q		ug/l	Q		ug/l	Q	
Aroclor 1016	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Aroclor 1221	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Aroclor 1232	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Aroclor 1242	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Aroclor 1248	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Aroclor 1254	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Aroclor 1260	0.010	U		0.0094	U		0.0094	U		0.010	U		0.0094	U	
Chlorinated Biphenyls (ng/l)	ng/l	Q	RC	ng/l	Q	RC	ng/l	Q	RC	ng/l	Q	RC	ng/l	Q	RC
2-MonoCB-(1)	0.0031	J	RL	0.0044	J	RL	0.006	J	RL	0.0075	J	RL	0.0041	J	
3-MonoCB-(2)	0.0013	U		0.0020	U		0.0021	U		0.0026	U		0.0014	U	
4-MonoCB-(3)	0.0049	U	B	0.0051	U	B	0.0043	U	B	0.0052	U		0.0045	U	
22'-DiCB-(4)	0.0050	U		0.0058	U		0.014	J	RL	0.012	J	RL	0.0069	U	
2,3-DiCB-(5)	0.011	U		0.0099	U		0.012	U		0.010	U		0.016	U	
2,3'-DiCB-(6)	0.010	U		0.0095	U		0.011	U		0.0038	U		0.016	U	
2,4-DiCB-(7)	0.039	J		0.036	J	RL	0.028	U		0.021	U		0.036	U	
2,4'-DiCB-(8)	0.010	U		0.0092	U		0.013	U		0.019	U		0.016	U	
2,5-DiCB-(9)	0.010	U		0.0092	U		0.011	U		0.0097	U		0.015	U	
2,6-DiCB-(10)	0.0047	U		0.0055	U		0.0040	U		0.0040	U		0.0066	U	
3,3'-DiCB-(11)	0.050	U	B	0.059	U	B	0.050	U		0.087	U	B	0.066	U	B
DiCB-(12)+(13)	0.011	U		0.0099	U		0.012	U		0.010	U		0.016	U	
3,5-DiCB-(14)	0.010	U		0.0095	U		0.011	U		0.0099	U		0.016	U	
4,4'-DiCB-(15)	0.013	U		0.012	U		0.014	U		0.012	U		0.020	U	
22'3-TriCB-(16)	0.0029	U	B	0.0038	U		0.0061	U	B	0.0046	U		0.0017	U	
22'4-TriCB-(17)	0.0033	U		0.0036	U		0.0057	U		0.0072	J	RL	0.0048	J	RL
22'6-TriCB-(19)	0.0014	U		0.003	U		0.0051	J	RL	0.0011	U		0.0014	U	
TriCB-(21)+(33)	0.0064	U	B	0.0055	U	B	0.0083	U	B	0.0093	U	B	0.0072	U	
234'-TriCB-(22)	0.0046	U	B	0.0038	U	B	0.0052	U	B	0.0062	U	B	0.0055	U	
235-TriCB-(23)	0.00027	U		0.0004	U		0.0005	U		0.0011	U		0.00064	U	
236-TriCB-(24)	0.0011	U		0.0025	U		0.0011	U		0.00093	U		0.0011	U	
23'4-TriCB-(25)	0.00068	U	B	0.00077	U	B	0.0017	U	B	0.0012	U		0.00076	U	
TriCB-(26)+(29)	0.0017	U	B	0.0018	U	B	0.0050	U	B	0.0026	U		0.0019	U	
23'6-TriCB-(27)	0.0011	U		0.0025	U		0.0011	U		0.00092	U		0.0011	U	
TriCB-(20) + (28)	0.013	U	B	0.012	U	B	0.017	U	B	0.018	U	B	0.016	U	B
TriCB-(18)+(30)	0.0054	U	B	0.0061	U	B	0.012	U		0.012	U	B	0.0071	U	
24'5-TriCB-(31)	0.010	U	B	0.0099	U	B	0.013	U	B	0.014	U	B	0.013	U	B
24'6-TriCB-(32)	0.0010	U		0.0023	U		0.0049	J	RL	0.0042	J	RL	0.0010	U	
23'5'-TriCB-(34)	0.00025	U		0.00038	U		0.00047	U		0.00099	U		0.00060	U	
33'4-TriCB-(35)	0.00078	U		0.00039	U		0.00049	U		0.00085	U		0.00090	J	RL
33'5-TriCB-(36)	0.00022	U		0.00032	U		0.0004	U		0.00086	U		0.00052	U	
344'-TriCB-(37)	0.0024	U	B	0.0023	U	B	0.00415	U	B	0.0038	U	B	0.0033	U	
345-TriCB-(38)	0.00025	U		0.00037	U		0.00047	U		0.00098	U		0.00060	U	
34'5-TriCB-(39)	0.00024	U		0.00036	U		0.00044	U		0.00094	U		0.00057	U	
TetraCB-(40)+(41)+(71)	0.0033	U		0.0050	J	RL	0.012	J	RL	0.0071	J	RL	0.0053	J	RL
22'34'-TetraCB-(42)	0.0019	U		0.0032	J	RL	0.0073	J	RL	0.0032	J	RL	0.0021	U	
22'35-TetraCB-(43)	0.0011	U		0.0013	U		0.0015	U		0.0010	U		0.0015	U	

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Chemical	MW-1 7/20/2011	MW-2 7/20/2011	MW-3 7/20/2011	MW-4 7/20/2011	MW-5 7/20/2011
TetraCB-(44)+(47)+(65)	0.011 U B	0.0235 U B	0.033 U B	0.018 U B	0.017 U B
TetraCB-(45)+(51)	0.0083 U	0.0079 J RL	0.014 J RL	0.0094 U	0.016 J RL
22'36'-TetraCB-(46)	0.0012 U	0.0016 U	0.0025 U	0.0016 U	0.0018 U
22'45-TetraCB-(48)	0.0010 U	0.0018 U	0.0029 J RL	0.0027 J RL	0.0015 U
TetraCB-(50)+(53)	0.00098 U	0.0022 U	0.0074 J RL	0.0032 U	0.0014 U
22'55'-TetraCB-(52)	0.012 U B	0.072 U B	0.099 U B	0.038 U B	0.019 U B
22'66'-TetraCB-(54)	0.0011 U	0.0013 U	0.0013 U	0.0011 U	0.0015 U
233'4-TetraCB-(55)	0.00091 U	0.0012 U	0.0011 U	0.0017 U	0.00094 U
233'4'-Tetra CB(56)	0.00167 U B	0.0036 U B	0.0041 U B	0.0026 U B	0.0032 U B
233'5-TetraCB-(57)	0.00084 U	0.0011 U	0.001 U	0.0016 U	0.00086 U
233'5'-TetraCB-(58)	0.00086 U	0.0074 J RL	0.0075 J RL	0.0029 U	0.00088 U
TetraCB-(59)+(62)+(75)	0.00077 U	0.00097 U	0.0018 U B	0.0010 U	0.0011 U
2344'-TetraCB -(60)	0.0012 U	0.0012 U	0.0028 U B	0.0021 U B	0.0027 U B
TetraCB-(61)+(70)+(74)+(76)	0.0073 U	0.030 U B	0.031 U B	0.019 U B	0.016 U B
234'5-TetraCB-(63)	0.0008 U	0.0011 U	0.00098 U	0.0015 U	0.00083 U
234'6-TetraCB-(64)	0.0023 U	0.0070 J RL	0.0089 J RL	0.0055 U	0.0032 U
23'44'-TetraCB-(66)	0.00447 U B	0.011 U B	0.015 U B	0.010 U B	0.0071 U
23'45-TetraCB-(67)	0.00077 U	0.0010 U	0.00094 U	0.0015 U	0.00080 U
23'45'-TetraCB-(68)	0.0028 U	0.0029 J RL	0.0031 J RL	0.003 J RL	0.0050 J
TetraCB-(49)+TetraCB-(69)	0.0039 U B	0.0123 U B	0.022 U B	0.013 U B	0.0057 U B
23'55'-TetraCB-(72)	0.00081 U	0.0011 U	0.00098 U	0.0015 U	0.00083 U
23'5'6-TetraCB-(73)	0.00077 U	0.00097 U	0.0011 U	0.00073 U	0.0011 U
33'44'-TetraCB-(77)	0.00093 U	0.0013 U	0.0013 U	0.0018 U	0.0014 J RL
33'45-TetraCB-(78)	0.00086 U	0.0012 U	0.0011 U	0.0016 U	0.00089 U
33'45'-TetraCB(79)	0.00073 U	0.0010 U	0.00089 U	0.0014 U	0.00075 U
33'55'-TetraCB-(80)	0.00076 U	0.0010 U	0.00092 U	0.0014 U	0.00078 U
344'5-TetraCB-(81)	0.0009 U	0.0012 U	0.0011 U	0.0017 U	0.00093 U
22'33'4-PentaCB-(82)	0.00089 U	0.00729 J RL	0.0057 U	0.0013 U	0.0013 U
PentaCB-(83)+(99)	0.0034 U	0.0477 J RL	0.043 J RL	0.023 J RL	0.0085 J RL
22'33'6-PentaCB-(84)	0.002 U	0.0328 J RL	0.036 U B	0.0065 U	0.0035 U
PentaCB-(88)+(91)	0.0009 U	0.019 J RL	0.023 J RL	0.0069 U B	0.0015 U
22'346'-PentaCB-(89)	0.00026 U	0.00044 U	0.00079 J RL	0.00078 U	0.00080 U
PentaCB-(90)+(101)+(113)	0.026 U B	0.114 U B	0.12 U B	0.063 U B	0.037 U B
22'355'-PentaCB-(92)	0.0032 U	0.0285 J RL	0.029 J RL	0.016 J RL	0.0068 J RL
PentaCB-(93)+(98)+(100)+(102)	0.00023 U	0.00285 J RL	0.0032 U	0.00071 U	0.00073 U
22'356'-PentaCB-(94)	0.00027 U	0.00045 U	0.00053 U	0.00081 U	0.00082 U
22'35'6-PentaCB-(95)	0.0171 U B	0.15	0.18	0.061 U B	0.023 U B
22'366'-PentaCB-(96)	0.0003 U	0.0011 U	0.00071 U	0.00053 U	0.00042 U
22'45'6-PentaCB-(103)	0.00021 U	0.00036 U	0.0013 J RL	0.0020 U	0.00066 U
22'466'-PentaCB-(104)	0.00025 U	0.00025 U	0.00018 U	0.00043 U	0.00034 U
233'44'-PentaCB-(105)	0.0024 U B	0.0117 U B	0.016 U B	0.0037 U	0.0055 U B
233'45-PentaCB-(106)	0.00025 U	0.00039 U	0.00045 U	0.00070 U	0.00046 U
233'4'5-PentaCB-(107)	0.00022 U	0.00219 J RL	0.0031 J RL	0.00061 U	0.00040 U
PentaCB-(108)+(124)	0.00025 U	0.00281 J RL	0.00045 U	0.00069 U	0.00076 U
PentaCB-(86)(87)(97)(109)(119)(125	0.00731 U B	0.0487 U B	0.053 U B	0.016 U B	0.014 U B
PentaCB-(110)+(115)	0.0144 U B	0.12 J RL	0.13 J RL	0.046 U B	0.026 U B
233'55'-PentaCB-(111)	0.00018 U	0.00031 U	0.00029 U	0.00054 U	0.00056 U
233'56-PentaCB-(112)	0.00018 U	0.00031 U	0.00029 U	0.00055 U	0.00056 U

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Chemical	MW-1 7/20/2011	MW-2 7/20/2011	MW-3 7/20/2011	MW-4 7/20/2011	MW-5 7/20/2011
2344'5-PentaCB-(114)	0.00025 U	0.00039 U	0.00045 U	0.00070 U	0.00046 U
PentaCB-(85)+(116)+(117)	0.00051 J RL	0.0125 J RL	0.011 U	0.0033 J RL	0.0021 U
23'44'5-PentaCB-(118)	0.0101 U B	0.0411 U B	0.053 U B	0.020 U B	0.019 U B
23'455'-PentaCB-(120)	0.00017 U	0.00029 U	0.00027 U	0.00052 U	0.00053 U
23'45'6-PentaCB-(121)	0.00018 U	0.00031 U	0.00029 U	0.00055 U	0.00056 U
233'4'5'-PentaCB-(122)	0.00027 U	0.00041 U	0.00048 U	0.00074 U	0.00049 U
23'44'5'-PentaCB-(123)	0.00026 U	0.00039 U	0.00082 U	0.00071 U	0.00047 U
33'44'5-PentaCB-(126)	0.00026 U	0.00039 U	0.00046 U	0.00071 U	0.00046 U
33'455'-PentaCB-(127)	0.00024 U	0.00037 U	0.00043 U	0.00067 U	0.00044 U
HexaCB-(128)+(166)	0.00292 U B	0.0137 U B	0.013 U B	0.0053 U B	0.0067 U
HexaCB-(129)+(138)+(163)	0.0313 U B	0.122 U B	0.100 U B	0.064 U B	0.060 U B
22'33'45'-HexaCB-(130)	0.0015 U	0.0061 U	0.0051 J RL	0.0035 J RL	0.0037 J
22'33'46-HexaCB-(131)	0.00064 U	0.00136 J RL	0.0013 J RL	0.0004 U	0.00054 U
22'33'46'-HexaCB-(132)	0.0103 U B	0.0508 U B	0.039 U B	0.023 U B	0.015 U B
22'33'55'-HexaCB-(133)	0.00061 U	0.00175 J RL	0.0018 J RL	0.0011 U	0.00051 U
HexaCB-(134)+(143)	0.00123 J RL	0.00766 J RL	0.0057 J RL	0.0029 U	0.0019 U
HexaCB-(135)+(151)	0.0124 U B	0.0726 U B	0.041 U B	0.035 U B	0.016 U B
22'33'66'-HexaCB-(136)	0.00395 U B	0.0291 U B	0.016 U B	0.014 U B	0.0060 U B
22'344'5-HexaCB-(137)	0.00067 U	0.0032 U	0.0038 J RL	0.00074 U	0.0012 J RL
HexaCB-(139)+(140)	0.00058 U	0.00175 J RL	0.0015 J RL	0.00036 U	0.00049 U
22'3455'-HexaCB-(141)	0.0081 U	0.0298 U B	0.021 U B	0.016 U B	0.012 U B
22'3456-HexaCB-(142)	0.00067 U	0.00037 U	0.00092 U	0.00041 U	0.00056 U
22'345'6-HexaCB-(144)	0.00229 U B	0.0066 U B	0.00558 U B	0.0040 U B	0.0028 U B
22'3466'-HexaCB-(145)	0.00025 U	0.00037 U	0.00049 U	0.00051 U	0.00042 U
22'34'55'-HexaCB-(146)	0.00499 U B	0.0202 U B	0.0153 U B	0.014 U B	0.0073 U
HexaCB-(147)+(149)	0.0259 U B	0.14 U B	0.0844 U B	0.075 U B	0.041 U B
22'34'56'-HexaCB-(148)	0.0003 U	0.00045 U	0.0006 U	0.00062 U	0.00052 U
22'34'66'-HexaCB-(150)	0.00023 U	0.00034 U	0.00046 U	0.00047 U	0.00039 U
22'3566'-HexaCB-(152)	0.00022 U	0.00033 U	0.00044 U	0.00045 U	0.00038 U
HexaCB-(153)+(168)	0.0314 U B	0.116 U B	0.088 U B	0.071 U B	0.052 U B
22'44'56'-HexaCB-(154)	0.00027 U	0.00041 U	0.00054 U	0.0012 J RL	0.00047 U
22'44'66'-HexaCB-(155)	0.0002 U	0.0003 U	0.00040 U	0.00041 U	0.00034 U
HexaCB-(156)+(157)	0.00333 J RL	0.00756 J RL	0.0090 J RL	0.0047 J RL	0.0056 J RL
233'44'6-HexaCB-(158)	0.00348 J RL	0.00994 J RL	0.0095 J RL	0.0049 U	0.0051 J RL
233'455'-HexaCB-(159)	0.00025 U	0.0012 J RL	0.00070 U	0.00051 U	0.00033 U
233'456-HexaCB-(160)	0.00049 U	0.00027 U	0.00068 U	0.00030 U	0.00041 U
233'45'6-HexaCB-(161)	0.00044 U	0.00025 U	0.00061 U	0.00027 U	0.00037 U
233'4'55'-HexaCB-(162)	0.00025 U	0.00047 U	0.00042 U	0.00051 U	0.00033 U
233'4'5'6-HexaCB-(164)	0.0030 U B	0.00978 U B	0.0083 U B	0.0049 U	0.0045 U B
233'55'6-HexaCB-(165)	0.0005 U	0.00028 U	0.00068 U	0.00031 U	0.00042 U
23'44'55'-HexaCB-(167)	0.0013 U	0.0036 U	0.0036 U B	0.0026 U B	0.0022 U
33'44'55'-HexaCB-(169)	0.00024 U	0.00045 U	0.00040 U	0.00049 U	0.00032 U
22'33'44'5-HeptaCB-(170)	0.0076 U B	0.0257 U B	0.016 U B	0.013 U B	0.01 U
HeptaCB-(171)+(173)	0.0022 J RL	0.0087 J RL	0.0052 J RL	0.0040 U	0.0011 U
22'33'455'-HeptaCB-(172)	0.0014 U	0.00518 J RL	0.0028 J RL	0.0032 J RL	0.0022 J RL
22'33'456'-HeptaCB-(174)	0.0071 U B	0.032 U B	0.017 U B	0.016 U B	0.0097 U
22'33'45'6-HeptaCB-(175)	0.00028 U	0.0018 J RL	0.00094 U	0.00083 U	0.00036 U
22'33'466'-HeptaCB-(176)	0.001 U	0.0035 U	0.0020 U	0.0018 U	0.0018 J RL

July 2011 Burgard Groundwater

Chemical	MW-1 7/20/2011			MW-2 7/20/2011			MW-3 7/20/2011			MW-4 7/20/2011			MW-5 7/20/2011		
22'33'45'6'-HeptaCB-(177)	0.0046	U	B	0.017	U	B	0.0096	U	B	0.0087	U	B	0.0096	U	B
22'33'55'6-HeptaCB-(178)	0.0018	J	RL	0.00642	J	RL	0.0030	U		0.0034	U		0.0020	U	
22'33'566'-HeptaCB-(179)	0.0029	J	RL	0.014	J	RL	0.0062	J	RL	0.0067	J	RL	0.0047	U	
HeptaCB-(180)+(193)	0.014	U	B	0.0576	U	B	0.033	U	B	0.028	U	B	0.022	U	B
22'344'56-HeptaCB-(181)	0.00038	U		0.00066	U		0.00040	U		0.00061	U		0.0010	U	
22'344'56'-HeptaCB-(182)	0.00029	U		0.00039	U		0.00041	U		0.00056	U		0.00037	U	
22'344'5'6-HeptaCB-(183)	0.0045	U	B	0.019	U	B	0.011	U	B	0.0068	U		0.0083	U	B
22'344'66'-HeptaCB-(184)	0.00020	U		0.00028	U		0.00029	U		0.00040	U		0.00027	U	
22'3455'6-HeptaCB-(185)	0.00038	U		0.00066	U		0.00041	U		0.00079	J	RL	0.001	U	
22'34566'-HeptaCB-(186)	0.00022	U		0.0003	U		0.00031	U		0.00042	U		0.00029	U	
22'34'55'6-HeptaCB-(187)	0.0083	J	RL	0.035	J	RL	0.018	J	RL	0.018	J	RL	0.016	J	RL
22'34'566'-HeptaCB-(188)	0.00023	U		0.00031	U		0.00032	U		0.00044	U		0.0003	U	
233'44'55'-HeptaCB-(189)	0.00045	U		0.00046	U		0.00065	U		0.0010	J	RL	0.00078	U	
233'44'56-HeptaCB-(190)	0.0014	U		0.00415	U	B	0.0032	U	B	0.0021	U		0.00079	U	
233'44'5'6-HeptaCB-(191)	0.00029	U		0.00051	U		0.00031	U		0.00047	U		0.00078	U	
233'455'6-HeptaCB-(192)	0.00032	U		0.00056	U		0.00034	U		0.00052	U		0.00085	U	
22'33'44'55'-OctaCB-(194)	0.0025	U	B	0.0088	U		0.00436	U	B	0.0046	U	B	0.0033	U	
22'33'44'56-OctaCB-(195)	0.00063	U		0.0044	J	RL	0.00061	U		0.00214	J	RL	0.0025	U	
22'33'44'56'-OctaCB-(196)	0.0012	U		0.0059	J	RL	0.0021	U		0.0017	U		0.0014	U	
22'33'44'66'OctaCB-(197)	0.00052	U		0.00037	U		0.00070	U		0.00052	U		0.00052	U	
OctaCB-(198)+(199)	0.0021	J	RL	0.012	J	RL	0.00466	J	RL	0.0041	U		0.00431	J	RL
22'33'4566'-OctaCB-(200)	0.00047	U		0.0011	U		0.00064	U		0.00047	U		0.00047	U	
22'33'45'66'-OctaCB-(201)	0.00048	U		0.0011	U		0.00065	U		0.00048	U		0.00048	U	
22'33'55'66'-OctaCB-(202)	0.00055	U		0.0021	U		0.00074	U		0.00095	J	RL	0.00167	J	RL
22'344'55'6-OctaCB-(203)	0.00086	U		0.00667	J	RL	0.0028	U		0.00257	J	RL	0.0038	J	RL
22'344'566'-OctaCB-(204)	0.00050	U		0.00035	U		0.00067	U		0.0005	U		0.00049	U	
233'44'55'6-OctaCB-(205)	0.00043	U		0.00063	U		0.00041	U		0.0005	J	RL	0.0012	U	
22'33'44'55'6-NonaCB-(206)	0.0027	U		0.0046	J	RL	0.0024	U		0.003	U		0.0037	U	
22'33'44'566'-NonaCB-(207)	0.0024	U		0.0024	U		0.0022	U		0.0028	U		0.0034	U	
22'33'455'66'-NonaCB-(208)	0.0027	U		0.0027	U		0.0024	U		0.003	U		0.0037	U	
DecaCB-(209)	0.001	U		0.0040	U	B	0.002	U		0.0023	U		0.0022	U	
Detected CB Homologs (ng/l)															
Monochlorobiphenyl	0.0031	J	RL	0.004	J	RL	0.006	J	RL	0.0075	J	RL	0.0041	J	RL
Dichlorobiphenyl	0.039	J	RL	0.04	J	RL	0.014	U		0.01	J	RL	0.066	U	
Trichlorobiphenyl	0.064	U		0.012	U		0.010	J	RL	0.012	J	RL	0.006	J	RL
Tetrachlorobiphenyl	0.012	U		0.03	J	RL	0.06	J	RL	0.02	J	RL	0.028	J	RL
Pentachlorobiphenyl	0.001	J	RL	0.42	J	RL	0.40	J	RL	0.03	J	RL	0.02	J	RL
Hexachlorobiphenyl	0.01	J	RL	0.02	J	RL	0.03	J	RL	0.005	J	RL	0.04	J	RL
Heptachlorobiphenyl	0.016	J	RL	0.07	J	RL	0.03	J	RL	0.029	J	RL	0.020	J	RL
Octachlorobiphenyl	0.0021	J	RL	0.029	J	RL	0.005	J	RL	0.006	J	RL	0.0098	J	RL
Nonachlorobiphenyl	0.0027	U		0.0046	J	RL	0.0024	U		0.0030	U		0.0037	U	
Decachlorobiphenyl	0.0006	U		0.0040	U		0.0004	U		0.0008	U		0.0010	U	
Total Detected CBs (Method 1668)	0.07	J	RL	0.6	J	RL	0.5	J	RL	0.12	J	RL	0.12	J	RL
PCBs TEQ, ng/l	1.71E-05			2.76E-05			3.06E-05			4.38E-05			2.87E-05		

July 2011 Burgard Groundwater

Chemical	MW-1 7/20/2011			MW-2 7/20/2011			MW-3 7/20/2011			MW-4 7/20/2011			MW-5 7/20/2011		
Dioxins and furans (pg/l)	pg/l	Q	RC	pg/l	Q	RC	pg/l	Q	RC	pg/l	Q	RC	pg/l	Q	RC
1,2,3,4,6,7,8-HeptaCDD	3.5	U	B	3.2	U	B	1.4	U	B	1.9	U	B	1.3	U	EMPC
1,2,3,4,6,7,8-HeptaCDF	1.2	U	EMPC	0.85	U	EMPC	0.88	U	EMPC	0.56	U		0.77	U	EMPC
1,2,3,4,7,8,9-HeptaCDF	0.81	U		0.79	U		0.62	U		0.70	U		0.64	U	
1,2,3,4,7,8-HexaCDD	0.87	U		0.77	U		0.54	U		0.67	U		0.62	U	
1,2,3,4,7,8-HexaCDF	0.62	U		0.53	U		0.59	U		0.55	U		0.81	U	
1,2,3,6,7,8-HexaCDD	0.77	U		0.69	U		0.48	U		0.60	U		0.55	U	
1,2,3,6,7,8-HexaCDF	0.62	U		0.52	U		0.59	U		0.54	U		0.80	U	
1,2,3,7,8,9-HexaCDD	0.77	U		0.68	U		0.47	U		0.60	U		0.55	U	
1,2,3,7,8,9-HexaCDF	0.74	U		0.62	U		0.70	U		0.65	U		0.96	U	
1,2,3,7,8-PentaCDD	0.64	U		0.68	U		0.57	U		0.63	U		0.59	U	
1,2,3,7,8-PentaCDF	0.76	U		0.70	U		0.67	U		0.66	U		0.65	U	
2,3,4,6,7,8-HexaCDF	0.70	U		0.59	U		0.67	U		0.61	U		0.91	U	
2,3,4,7,8-PentaCDF	0.78	U		0.72	U		0.69	U		0.84	J		0.80	J	
2,3,7,8-TetraCDD	0.87	U		0.71	U		0.56	U		0.57	U		0.81	U	
2,3,7,8-TetraCDF	0.78	U		0.72	U		0.66	U		0.65	U		0.56	U	
OCDD	12	U	B	10	U	B	4.2	U	B	5.6	U	B	4.6	U	B
OCDF	3.5	U	B	2.6	U	B	1.8	U	B	1.5	U	B	1.2	U	
HeptaCDD homologs	3.5	U	B	1.5	J		1.4	U	B	0.7	J		0.67	J	
HeptaCDF homologs	1.2	J		1.5	J		0.98	U		0.62	U		0.86	U	
HexaCDD homologs	0.80	U		0.71	U		0.50	U		0.62	U		0.57	U	
HexaCDF homologs	0.67	U		0.56	U		0.63	U		0.58	U		0.86	U	
PentaCDD homologs	0.64	U		0.68	U		0.57	U		0.63	U		0.59	U	
PentaCDF homologs	0.77	U		0.71	U		0.68	U		0.84	J		0.80	J	
TetraCDD homologs	0.87	U		0.71	U		0.56	U		0.57	U		0.81	U	
TetraCDF homologs	0.78	U		0.83	U		1.2	J		1.2	J		1.4	J	
Dioxin TEQ pg/l, 1/2 DL	1.2			1.1			0.93			1.1			1.3		
Total TEQ, Dioxins and PCBs, pg/l	1.2			1.1			0.96			1.2			1.3		

[1] Aroclor data provided by Apex Laboratories not included in validation

- Data qualified by validation process

Qualifiers (Q)

U - Not detectet at noted detection limit

J- Estimated value

Reason Code (RC)+A44

RL - Result is below the method reporting limit (J qualified by laboratory)

B- Detected in method blank. Raised detection limit.

EMPC - Peak fails to satisfy criteria for postive identification

Apex Labs

12232 S.W. Garden Place
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503-718-2323 Phone
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Monday, July 16, 2012

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

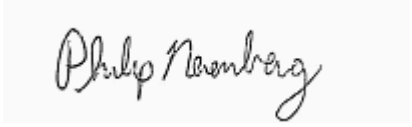
RE: Schnitzer-Burgard / HAI-8001

Enclosed are the results of analyses for work order A12F253, which was received by the laboratory on 6/14/2012 at 12:28:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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12232 S.W. Garden Place
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503-718-2323 Phone
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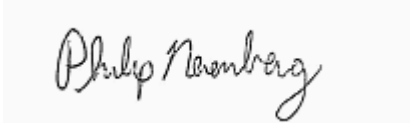
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW2-20120613	A12F253-01	Water	06/13/12 10:24	06/14/12 12:28
MW3-20120613	A12F253-02	Water	06/13/12 12:00	06/14/12 12:28
MW4-20120613	A12F253-03	Water	06/13/12 15:00	06/14/12 12:28
MW104-20120613	A12F253-04	Water	06/13/12 15:10	06/14/12 12:28
MW105-20120613	A12F253-05	Water	06/13/12 13:40	06/14/12 12:28
MW106-20120613	A12F253-06	Water	06/13/12 10:50	06/14/12 12:28
MW107-20120613	A12F253-07	Water	06/13/12 13:35	06/14/12 12:28

Apex Laboratories



Philip Nerenberg, Lab Director

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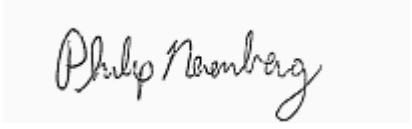
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206405**			
Diesel	**0.264**	0.0971	0.194	mg/L	1	06/20/12 21:42	NWTPH-Dx	F-11
Oil	ND	0.194	0.388	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*	"	"	"	
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206405**			
Diesel	**0.103**	0.0962	0.192	mg/L	1	06/20/12 22:06	NWTPH-Dx	J
Oil	ND	0.192	0.385	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*	"	"	"	
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206405**			
Diesel	ND	0.105	0.211	mg/L	1	06/20/12 22:30	NWTPH-Dx	
Oil	ND	0.211	0.421	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*	"	"	"	
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206405**			
Diesel	ND	0.0980	0.196	mg/L	1	06/20/12 22:53	NWTPH-Dx	
Oil	ND	0.196	0.392	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 79 %*	*Limits: 50-150 %*	"	"	"	
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206405**			
Diesel	ND	0.0971	0.194	mg/L	1	06/20/12 23:17	NWTPH-Dx	
Oil	ND	0.194	0.388	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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12232 S.W. Garden Place
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503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206307**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/14/12 17:38	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206307**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/14/12 18:04	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206307**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/14/12 18:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206307**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/14/12 18:56	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206307**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	06/14/12 19:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	

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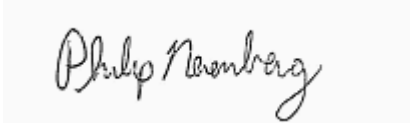

Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206307**			
Acetone	ND	10.0	20.0	ug/L	1	06/14/12 17:38	EPA 8260B	ESTa
Benzene	ND	0.125	0.250	"	"	"	"	
Bromobenzene	ND	0.250	0.500	"	"	"	"	
Bromochloromethane	ND	0.500	1.00	"	"	"	"	
Bromodichloromethane	ND	0.500	1.00	"	"	"	"	
Bromoform	ND	0.500	1.00	"	"	"	"	
Bromomethane	ND	5.00	5.00	"	"	"	"	
2-Butanone (MEK)	ND	5.00	10.0	"	"	"	"	
n-Butylbenzene	ND	0.500	1.00	"	"	"	"	
sec-Butylbenzene	ND	0.500	1.00	"	"	"	"	
tert-Butylbenzene	ND	0.500	1.00	"	"	"	"	
Carbon disulfide	ND	5.00	10.0	"	"	"	"	
Carbon tetrachloride	ND	0.250	0.500	"	"	"	"	
Chlorobenzene	ND	0.250	0.500	"	"	"	"	
Chloroethane	ND	5.00	5.00	"	"	"	"	
Chloroform	ND	0.500	1.00	"	"	"	"	
Chloromethane	ND	2.50	5.00	"	"	"	"	
2-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
4-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	"	"	"	"	
Dibromochloromethane	ND	0.500	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	"	"	
Dibromomethane	ND	0.500	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloroethane	ND	0.250	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	"	"	
1,1-Dichloroethene	ND	0.250	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
1,2-Dichloropropane	ND	0.250	0.500	"	"	"	"	
1,3-Dichloropropane	ND	0.500	1.00	"	"	"	"	
2,2-Dichloropropane	ND	0.500	1.00	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206307**			
1,1-Dichloropropene	ND	0.500	1.00	ug/L	1	"	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
Ethylbenzene	ND	0.250	0.500	"	"	"	"	
Hexachlorobutadiene	ND	2.50	5.00	"	"	"	"	
2-Hexanone	ND	5.00	10.0	"	"	"	"	
Iodomethane	ND	10.0	10.0	"	"	"	"	
Isopropylbenzene	ND	0.500	1.00	"	"	"	"	
4-Isopropyltoluene	ND	0.500	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	"	"	
Methylene chloride	ND	2.50	5.00	"	"	"	"	
Naphthalene	ND	1.00	2.00	"	"	"	"	
n-Propylbenzene	ND	0.250	0.500	"	"	"	"	
Styrene	ND	0.500	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.250	0.500	"	"	"	"	
Toluene	ND	0.500	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	0.250	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	0.250	0.500	"	"	"	"	
Trichlorofluoromethane	ND	1.00	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	0.500	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
Vinyl chloride	ND	0.250	0.500	"	"	"	"	
m,p-Xylene	ND	0.500	1.00	"	"	"	"	
o-Xylene	ND	0.250	0.500	"	"	"	"	
Acrylonitrile	ND	1.00	2.00	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 101 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	

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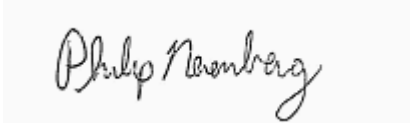

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206307**			
Surrogate: 4-Bromofluorobenzene (Surr)			*Recovery: 100 %*	*Limits: 80-120 %*	1	"	EPA 8260B	
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206307**			
Acetone	ND	10.0	20.0	ug/L	1	06/14/12 18:04	EPA 8260B	ESTa
Benzene	ND	0.125	0.250	"	"	"	"	
Bromobenzene	ND	0.250	0.500	"	"	"	"	
Bromochloromethane	ND	0.500	1.00	"	"	"	"	
Bromodichloromethane	ND	0.500	1.00	"	"	"	"	
Bromoform	ND	0.500	1.00	"	"	"	"	
Bromomethane	ND	5.00	5.00	"	"	"	"	
2-Butanone (MEK)	ND	5.00	10.0	"	"	"	"	
n-Butylbenzene	ND	0.500	1.00	"	"	"	"	
sec-Butylbenzene	ND	0.500	1.00	"	"	"	"	
tert-Butylbenzene	ND	0.500	1.00	"	"	"	"	
Carbon disulfide	ND	5.00	10.0	"	"	"	"	
Carbon tetrachloride	ND	0.250	0.500	"	"	"	"	
Chlorobenzene	ND	0.250	0.500	"	"	"	"	
Chloroethane	ND	5.00	5.00	"	"	"	"	
Chloroform	ND	0.500	1.00	"	"	"	"	
Chloromethane	ND	2.50	5.00	"	"	"	"	
2-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
4-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	"	"	"	"	
Dibromochloromethane	ND	0.500	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	"	"	
Dibromomethane	ND	0.500	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloroethane	ND	0.250	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	"	"	
1,1-Dichloroethene	ND	0.250	0.500	"	"	"	"	
cis-1,2-Dichloroethene	**0.390**	0.250	0.500	"	"	"	"	J
trans-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
1,2-Dichloropropane	ND	0.250	0.500	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206307**			
1,3-Dichloropropane	ND	0.500	1.00	ug/L	1	"	EPA 8260B	
2,2-Dichloropropane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloropropene	ND	0.500	1.00	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
Ethylbenzene	ND	0.250	0.500	"	"	"	"	
Hexachlorobutadiene	ND	2.50	5.00	"	"	"	"	
2-Hexanone	ND	5.00	10.0	"	"	"	"	
Iodomethane	ND	10.0	10.0	"	"	"	"	
Isopropylbenzene	ND	0.500	1.00	"	"	"	"	
4-Isopropyltoluene	**1.84**	0.500	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	"	"	
Methylene chloride	ND	2.50	5.00	"	"	"	"	
Naphthalene	ND	1.00	2.00	"	"	"	"	
n-Propylbenzene	ND	0.250	0.500	"	"	"	"	
Styrene	ND	0.500	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.250	0.500	"	"	"	"	
Toluene	ND	0.500	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	0.250	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	0.250	0.500	"	"	"	"	
Trichlorofluoromethane	ND	1.00	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	0.500	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
Vinyl chloride	ND	0.250	0.500	"	"	"	"	
m,p-Xylene	ND	0.500	1.00	"	"	"	"	
o-Xylene	ND	0.250	0.500	"	"	"	"	
Acrylonitrile	ND	1.00	2.00	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 104 %*	*Limits: 80-120 %*	"	"	"	

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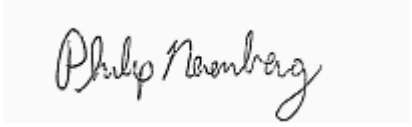

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206307**			
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	1	"	EPA 8260B	
Toluene-d8 (Surr)			*103 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206307**			
Acetone	ND	10.0	20.0	ug/L	1	06/14/12 18:30	EPA 8260B	ESTa
Benzene	ND	0.125	0.250	"	"	"	"	
Bromobenzene	ND	0.250	0.500	"	"	"	"	
Bromochloromethane	ND	0.500	1.00	"	"	"	"	
Bromodichloromethane	ND	0.500	1.00	"	"	"	"	
Bromoform	ND	0.500	1.00	"	"	"	"	
Bromomethane	ND	5.00	5.00	"	"	"	"	
2-Butanone (MEK)	ND	5.00	10.0	"	"	"	"	
n-Butylbenzene	ND	0.500	1.00	"	"	"	"	
sec-Butylbenzene	ND	0.500	1.00	"	"	"	"	
tert-Butylbenzene	ND	0.500	1.00	"	"	"	"	
Carbon disulfide	ND	5.00	10.0	"	"	"	"	
Carbon tetrachloride	ND	0.250	0.500	"	"	"	"	
Chlorobenzene	ND	0.250	0.500	"	"	"	"	
Chloroethane	ND	5.00	5.00	"	"	"	"	
Chloroform	ND	0.500	1.00	"	"	"	"	
Chloromethane	ND	2.50	5.00	"	"	"	"	
2-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
4-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	"	"	"	"	
Dibromochloromethane	ND	0.500	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	"	"	
Dibromomethane	ND	0.500	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloroethane	ND	0.250	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	"	"	
1,1-Dichloroethene	ND	0.250	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	

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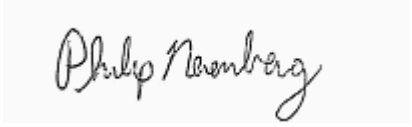

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503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206307**			
trans-1,2-Dichloroethene	ND	0.250	0.500	ug/L	1	"	EPA 8260B	
1,2-Dichloropropane	ND	0.250	0.500	"	"	"	"	
1,3-Dichloropropane	ND	0.500	1.00	"	"	"	"	
2,2-Dichloropropane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloropropene	ND	0.500	1.00	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
Ethylbenzene	ND	0.250	0.500	"	"	"	"	
Hexachlorobutadiene	ND	2.50	5.00	"	"	"	"	
2-Hexanone	ND	5.00	10.0	"	"	"	"	
Iodomethane	ND	10.0	10.0	"	"	"	"	
Isopropylbenzene	ND	0.500	1.00	"	"	"	"	
4-Isopropyltoluene	ND	0.500	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	"	"	
Methylene chloride	ND	2.50	5.00	"	"	"	"	
Naphthalene	ND	1.00	2.00	"	"	"	"	
n-Propylbenzene	ND	0.250	0.500	"	"	"	"	
Styrene	ND	0.500	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	0.250	0.500	"	"	"	"	
Toluene	ND	0.500	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	0.250	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	0.250	0.500	"	"	"	"	
Trichlorofluoromethane	ND	1.00	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	0.500	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
Vinyl chloride	ND	0.250	0.500	"	"	"	"	
m,p-Xylene	ND	0.500	1.00	"	"	"	"	
o-Xylene	ND	0.250	0.500	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206307**			
Acrylonitrile	ND	1.00	2.00	ug/L	1	"	EPA 8260B	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 104 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*104 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*101 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*103 %*	*Limits: 80-120 %*	"	"	"	
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206307**			
Acetone	ND	10.0	20.0	ug/L	1	06/14/12 18:56	EPA 8260B	ESTa
Benzene	ND	0.125	0.250	"	"	"	"	
Bromobenzene	ND	0.250	0.500	"	"	"	"	
Bromochloromethane	ND	0.500	1.00	"	"	"	"	
Bromodichloromethane	ND	0.500	1.00	"	"	"	"	
Bromoform	ND	0.500	1.00	"	"	"	"	
Bromomethane	ND	5.00	5.00	"	"	"	"	
2-Butanone (MEK)	ND	5.00	10.0	"	"	"	"	
n-Butylbenzene	ND	0.500	1.00	"	"	"	"	
sec-Butylbenzene	ND	0.500	1.00	"	"	"	"	
tert-Butylbenzene	ND	0.500	1.00	"	"	"	"	
Carbon disulfide	ND	5.00	10.0	"	"	"	"	
Carbon tetrachloride	ND	0.250	0.500	"	"	"	"	
Chlorobenzene	ND	0.250	0.500	"	"	"	"	
Chloroethane	ND	5.00	5.00	"	"	"	"	
Chloroform	ND	0.500	1.00	"	"	"	"	
Chloromethane	ND	2.50	5.00	"	"	"	"	
2-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
4-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	"	"	"	"	
Dibromochloromethane	ND	0.500	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	"	"	
Dibromomethane	ND	0.500	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloroethane	ND	0.250	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	"	"	

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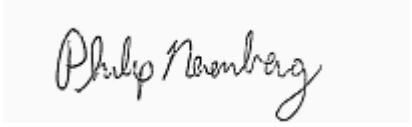

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206307**			
1,1-Dichloroethene	ND	0.250	0.500	ug/L	1	"	EPA 8260B	
cis-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
1,2-Dichloropropane	ND	0.250	0.500	"	"	"	"	
1,3-Dichloropropane	ND	0.500	1.00	"	"	"	"	
2,2-Dichloropropane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloropropene	ND	0.500	1.00	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
Ethylbenzene	ND	0.250	0.500	"	"	"	"	
Hexachlorobutadiene	ND	2.50	5.00	"	"	"	"	
2-Hexanone	ND	5.00	10.0	"	"	"	"	
Iodomethane	ND	10.0	10.0	"	"	"	"	
Isopropylbenzene	ND	0.500	1.00	"	"	"	"	
4-Isopropyltoluene	ND	0.500	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	"	"	
Methylene chloride	ND	2.50	5.00	"	"	"	"	
Naphthalene	ND	1.00	2.00	"	"	"	"	
n-Propylbenzene	ND	0.250	0.500	"	"	"	"	
Styrene	ND	0.500	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
Tetrachloroethene (PCE)	**0.360**	0.250	0.500	"	"	"	"	J
Toluene	ND	0.500	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	0.250	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	0.250	0.500	"	"	"	"	
Trichlorofluoromethane	ND	1.00	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	0.500	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	
Vinyl chloride	ND	0.250	0.500	"	"	"	"	

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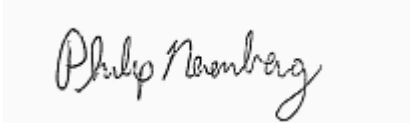

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206307**			
m,p-Xylene	ND	0.500	1.00	ug/L	1	"	EPA 8260B	
o-Xylene	ND	0.250	0.500	"	"	"	"	
Acrylonitrile	ND	1.00	2.00	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 103 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*103 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*104 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*101 %*	*Limits: 80-120 %*	"	"	"	
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206307**			
Acetone	ND	10.0	20.0	ug/L	1	06/14/12 19:22	EPA 8260B	ESTa
Benzene	ND	0.125	0.250	"	"	"	"	
Bromobenzene	ND	0.250	0.500	"	"	"	"	
Bromochloromethane	ND	0.500	1.00	"	"	"	"	
Bromodichloromethane	ND	0.500	1.00	"	"	"	"	
Bromoform	ND	0.500	1.00	"	"	"	"	
Bromomethane	ND	5.00	5.00	"	"	"	"	
2-Butanone (MEK)	ND	5.00	10.0	"	"	"	"	
n-Butylbenzene	ND	0.500	1.00	"	"	"	"	
sec-Butylbenzene	ND	0.500	1.00	"	"	"	"	
tert-Butylbenzene	ND	0.500	1.00	"	"	"	"	
Carbon disulfide	ND	5.00	10.0	"	"	"	"	
Carbon tetrachloride	ND	0.250	0.500	"	"	"	"	
Chlorobenzene	ND	0.250	0.500	"	"	"	"	
Chloroethane	ND	5.00	5.00	"	"	"	"	
Chloroform	ND	0.500	1.00	"	"	"	"	
Chloromethane	ND	2.50	5.00	"	"	"	"	
2-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
4-Chlorotoluene	ND	0.500	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	"	"	"	"	
Dibromochloromethane	ND	0.500	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	"	"	
Dibromomethane	ND	0.500	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	0.250	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	0.500	1.00	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206307**			
1,1-Dichloroethane	ND	0.250	0.500	ug/L	1	"	EPA 8260B	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	"	"	
1,1-Dichloroethene	ND	0.250	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.250	0.500	"	"	"	"	
1,2-Dichloropropane	ND	0.250	0.500	"	"	"	"	
1,3-Dichloropropane	ND	0.500	1.00	"	"	"	"	
2,2-Dichloropropane	ND	0.500	1.00	"	"	"	"	
1,1-Dichloropropene	ND	0.500	1.00	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.500	1.00	"	"	"	"	
Ethylbenzene	ND	0.250	0.500	"	"	"	"	
Hexachlorobutadiene	ND	2.50	5.00	"	"	"	"	
2-Hexanone	ND	5.00	10.0	"	"	"	"	
Iodomethane	ND	10.0	10.0	"	"	"	"	
Isopropylbenzene	ND	0.500	1.00	"	"	"	"	
4-Isopropyltoluene	ND	0.500	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	"	"	
Methylene chloride	ND	2.50	5.00	"	"	"	"	
Naphthalene	ND	1.00	2.00	"	"	"	"	
n-Propylbenzene	ND	0.250	0.500	"	"	"	"	
Styrene	ND	0.500	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	"	"	"	"	
Tetrachloroethene (PCE)	**0.550**	0.250	0.500	"	"	"	"	
Toluene	ND	0.500	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	0.250	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	0.250	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	0.250	0.500	"	"	"	"	
Trichlorofluoromethane	ND	1.00	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	0.500	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	"	"	

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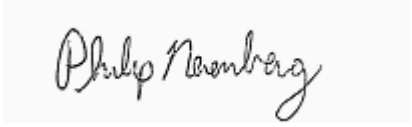

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206307**			
1,3,5-Trimethylbenzene	ND	0.500	1.00	ug/L	1	"	EPA 8260B	
Vinyl chloride	ND	0.250	0.500	"	"	"	"	
m,p-Xylene	ND	0.500	1.00	"	"	"	"	
o-Xylene	ND	0.250	0.500	"	"	"	"	
Acrylonitrile	ND	1.00	2.00	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*103 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	

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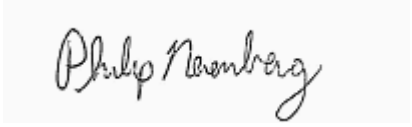

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206384**			
Acenaphthene	ND	0.0190	0.0190	ug/L	1	06/20/12 13:10	EPA 8270D (SIM)	
Acenaphthylene	ND	0.00952	0.0190	"	"	"	"	
Anthracene	**0.0265**	0.00952	0.0190	"	"	"	"	
Benz(a)anthracene	ND	0.00952	0.0190	"	"	"	"	
Benzo(a)pyrene	ND	0.00952	0.0190	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00952	0.0190	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00952	0.0190	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00952	0.0190	"	"	"	"	
Chrysene	ND	0.00952	0.0190	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00952	0.0190	"	"	"	"	
Fluoranthene	ND	0.00952	0.0190	"	"	"	"	
Fluorene	ND	0.00952	0.0190	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00952	0.0190	"	"	"	"	
Naphthalene	ND	0.0190	0.0381	"	"	"	"	
Phenanthrene	ND	0.00952	0.0190	"	"	"	"	
Pyrene	**0.0193**	0.00952	0.0190	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 42 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*75 %*	*Limits: 30-120 %*	"	"	"	

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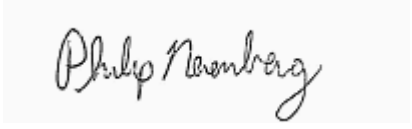

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206384**			
Acenaphthene	ND	0.00952	0.0190	ug/L	1	06/20/12 13:38	EPA 8270D (SIM)	
Acenaphthylene	**0.0109**	0.00952	0.0190	"	"	"	"	J
Anthracene	**0.0535**	0.00952	0.0190	"	"	"	"	
Benz(a)anthracene	ND	0.00952	0.0190	"	"	"	"	
Benzo(a)pyrene	ND	0.00952	0.0190	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00952	0.0190	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00952	0.0190	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00952	0.0190	"	"	"	"	
Chrysene	ND	0.00952	0.0190	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00952	0.0190	"	"	"	"	
Fluoranthene	ND	0.00952	0.0190	"	"	"	"	
Fluorene	ND	0.00952	0.0190	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00952	0.0190	"	"	"	"	
Naphthalene	ND	0.0190	0.0381	"	"	"	"	
Phenanthrene	**0.00984**	0.00952	0.0190	"	"	"	"	J
Pyrene	**0.0233**	0.00952	0.0190	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 39 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*77 %*	*Limits: 30-120 %*	"	"	"	

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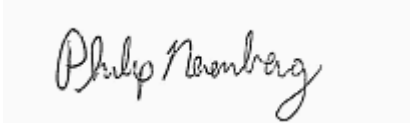

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503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206384**			
Acenaphthene	ND	0.00943	0.0189	ug/L	1	06/20/12 14:06	EPA 8270D (SIM)	
Acenaphthylene	ND	0.00943	0.0189	"	"	"	"	
Anthracene	**0.0312**	0.00943	0.0189	"	"	"	"	
Benz(a)anthracene	ND	0.00943	0.0189	"	"	"	"	
Benzo(a)pyrene	ND	0.00943	0.0189	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00943	0.0189	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00943	0.0189	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00943	0.0189	"	"	"	"	
Chrysene	ND	0.00943	0.0189	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00943	0.0189	"	"	"	"	
Fluoranthene	**0.0214**	0.00943	0.0189	"	"	"	"	
Fluorene	ND	0.00943	0.0189	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00943	0.0189	"	"	"	"	
Naphthalene	ND	0.0189	0.0377	"	"	"	"	
Phenanthrene	**0.0230**	0.00943	0.0189	"	"	"	"	
Pyrene	**0.0205**	0.00943	0.0189	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 49 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*73 %*	*Limits: 30-120 %*	"	"	"	

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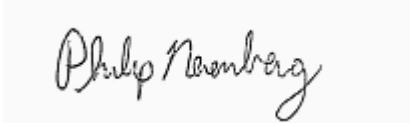

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206384**			
Acenaphthene	ND	0.00990	0.0198	ug/L	1	06/20/12 14:34	EPA 8270D (SIM)	
Acenaphthylene	ND	0.00990	0.0198	"	"	"	"	
Anthracene	ND	0.00990	0.0198	"	"	"	"	
Benz(a)anthracene	ND	0.00990	0.0198	"	"	"	"	
Benzo(a)pyrene	ND	0.00990	0.0198	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00990	0.0198	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00990	0.0198	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00990	0.0198	"	"	"	"	
Chrysene	ND	0.00990	0.0198	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00990	0.0198	"	"	"	"	
Fluoranthene	ND	0.00990	0.0198	"	"	"	"	
Fluorene	ND	0.00990	0.0198	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00990	0.0198	"	"	"	"	
Naphthalene	**0.0212**	0.0198	0.0396	"	"	"	"	J
Phenanthrene	ND	0.00990	0.0198	"	"	"	"	
Pyrene	ND	0.00990	0.0198	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 41 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*77 %*	*Limits: 30-120 %*	"	"	"	

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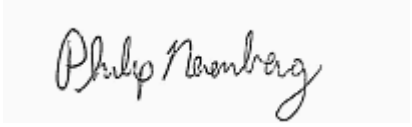

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206384**			
Acenaphthene	ND	0.00990	0.0198	ug/L	1	06/20/12 15:01	EPA 8270D (SIM)	
Acenaphthylene	ND	0.00990	0.0198	"	"	"	"	
Anthracene	**0.0420**	0.00990	0.0198	"	"	"	"	
Benz(a)anthracene	ND	0.00990	0.0198	"	"	"	"	
Benzo(a)pyrene	ND	0.00990	0.0198	"	"	"	"	
Benzo(b)fluoranthene	ND	0.00990	0.0198	"	"	"	"	
Benzo(k)fluoranthene	ND	0.00990	0.0198	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.00990	0.0198	"	"	"	"	
Chrysene	ND	0.00990	0.0198	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.00990	0.0198	"	"	"	"	
Fluoranthene	ND	0.00990	0.0198	"	"	"	"	
Fluorene	ND	0.00990	0.0198	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.00990	0.0198	"	"	"	"	
Naphthalene	ND	0.0198	0.0396	"	"	"	"	
Phenanthrene	ND	0.00990	0.0198	"	"	"	"	
Pyrene	ND	0.00990	0.0198	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 46 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*79 %*	*Limits: 30-120 %*	"	"	"	

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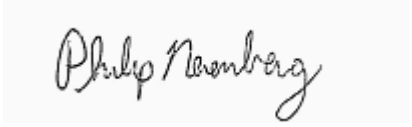

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW4-20120613 (A12F253-03)			**Matrix: Water**		**Batch: 1206384**			
Diethylphthalate	ND	0.238	0.476	ug/L	1	06/20/12 13:10	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.238	0.476	"	"	"	"	
Di-n-butylphthalate	ND	0.238	0.476	"	"	"	"	
Di-n-octyl phthalate	ND	0.238	0.476	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.238	0.476	"	"	"	"	
Butyl benzyl phthalate	ND	0.238	0.476	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 42 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*75 %*	*Limits: 30-120 %*	"	"	"	
MW104-20120613 (A12F253-04)			**Matrix: Water**		**Batch: 1206384**			
Diethylphthalate	ND	0.238	0.476	ug/L	1	06/20/12 13:38	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.238	0.476	"	"	"	"	
Di-n-butylphthalate	ND	0.238	0.476	"	"	"	"	
Di-n-octyl phthalate	ND	0.238	0.476	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.238	0.476	"	"	"	"	
Butyl benzyl phthalate	ND	0.238	0.476	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 39 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*77 %*	*Limits: 30-120 %*	"	"	"	
MW105-20120613 (A12F253-05)			**Matrix: Water**		**Batch: 1206384**			
Diethylphthalate	ND	0.236	0.472	ug/L	1	06/20/12 14:06	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.236	0.472	"	"	"	"	
Di-n-butylphthalate	ND	0.236	0.472	"	"	"	"	
Di-n-octyl phthalate	ND	0.236	0.472	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.236	0.472	"	"	"	"	
Butyl benzyl phthalate	ND	0.236	0.472	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 49 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*73 %*	*Limits: 30-120 %*	"	"	"	
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206384**			
Diethylphthalate	ND	0.248	0.495	ug/L	1	06/20/12 14:34	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.248	0.495	"	"	"	"	
Di-n-butylphthalate	ND	0.248	0.495	"	"	"	"	
Di-n-octyl phthalate	ND	0.248	0.495	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.248	0.495	"	"	"	"	
Butyl benzyl phthalate	ND	0.248	0.495	"	"	"	"	

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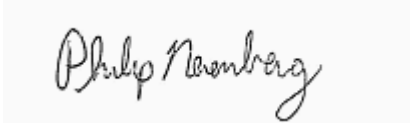

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW106-20120613 (A12F253-06)			**Matrix: Water**		**Batch: 1206384**			
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 41 %*	*Limits: 25-120 %*	1	"	EPA 8270D (SIM)	
p-Terphenyl-d14 (Surr)			*77 %*	*Limits: 30-120 %*	"	"	"	
MW107-20120613 (A12F253-07)			**Matrix: Water**		**Batch: 1206384**			
Diethylphthalate	ND	0.248	0.495	ug/L	1	06/20/12 15:01	EPA 8270D (SIM)	
Dimethylphthalate	ND	0.248	0.495	"	"	"	"	
Di-n-butylphthalate	ND	0.248	0.495	"	"	"	"	
Di-n-octyl phthalate	ND	0.248	0.495	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.248	0.495	"	"	"	"	
Butyl benzyl phthalate	ND	0.248	0.495	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 46 %*	*Limits: 25-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*79 %*	*Limits: 30-120 %*	"	"	"	

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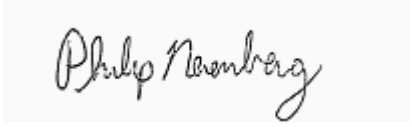

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW2-20120613 (A12F253-01)			**Matrix: Water**					
Batch: 1206534								
Manganese	**15.8**	0.500	1.00	ug/L	1	06/27/12 14:09	EPA 6020	
MW3-20120613 (A12F253-02)			**Matrix: Water**					
Batch: 1206534								
Manganese	**130**	0.500	1.00	ug/L	1	06/27/12 14:15	EPA 6020	
MW4-20120613 (A12F253-03)			**Matrix: Water**					
Batch: 1206534								
Aluminum	**29.1**	25.0	50.0	ug/L	1	06/27/12 14:18	EPA 6020	J
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**4.42**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	**1.08**	1.00	2.00	"	"	"	"	J
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**5710**	5.00	10.0	"	10	06/28/12 12:29	"	
Mercury	ND	0.0400	0.0800	"	1	06/27/12 14:18	"	
Nickel	**11.5**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**7.29**	2.00	4.00	"	"	"	"	
MW104-20120613 (A12F253-04)			**Matrix: Water**					
Batch: 1206534								
Aluminum	ND	25.0	50.0	ug/L	1	06/27/12 14:22	EPA 6020	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**8.86**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**1370**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**2.01**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**9.19**	2.00	4.00	"	"	"	"	
MW105-20120613 (A12F253-05)			**Matrix: Water**					
Batch: 1206534								

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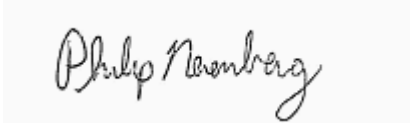

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-20120613 (A12F253-05)			**Matrix: Water**					
Aluminum	**134**	25.0	50.0	ug/L	1	06/27/12 14:25	EPA 6020	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**8.09**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**2290**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**1.34**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**3.32**	2.00	4.00	"	"	"	"	J
MW106-20120613 (A12F253-06)			**Matrix: Water**					
Batch: 1206534								
Aluminum	**72.6**	25.0	50.0	ug/L	1	06/28/12 12:13	EPA 6020	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.767**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**769**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**3.31**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**3.88**	2.00	4.00	"	"	"	"	J
MW107-20120613 (A12F253-07)			**Matrix: Water**					
Batch: 1206534								
Aluminum	**37.2**	25.0	50.0	ug/L	1	06/28/12 12:17	EPA 6020	J
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.833**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	**1.68**	1.00	2.00	"	"	"	"	J
Lead	ND	0.500	1.00	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-20120613 (A12F253-07)			**Matrix: Water**					
Manganese	**48.5**	0.500	1.00	ug/L	1	"	EPA 6020	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**7.20**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**8.10**	2.00	4.00	"	"	"	"	

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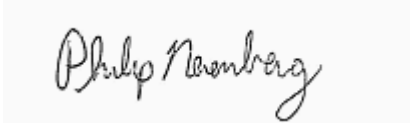

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW2-20120613 (A12F253-01)			**Matrix: Water**					
Batch: 1206476								
Manganese	**10.5**	0.500	1.00	ug/L	1	06/27/12 11:50	EPA 6020 (Diss)	
MW3-20120613 (A12F253-02)			**Matrix: Water**					
Batch: 1206476								
Manganese	**129**	0.500	1.00	ug/L	1	06/27/12 12:05	EPA 6020 (Diss)	
MW4-20120613 (A12F253-03)			**Matrix: Water**					
Batch: 1206476								
Aluminum	ND	25.0	50.0	ug/L	1	06/27/12 12:08	EPA 6020 (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**3.74**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**0.522**	0.500	2.00	"	"	"	"	J
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**5640**	5.00	10.0	"	10	06/27/12 13:27	"	
Mercury	ND	0.0400	0.0800	"	1	06/27/12 12:08	"	
Nickel	**11.9**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**3.84**	2.00	4.00	"	"	"	"	J
MW104-20120613 (A12F253-04)			**Matrix: Water**					
Batch: 1206476								
Aluminum	ND	25.0	50.0	ug/L	1	06/27/12 12:11	EPA 6020 (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**9.04**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**1380**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**2.08**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	ND	2.00	4.00	"	"	"	"	
MW105-20120613 (A12F253-05)			**Matrix: Water**					
Batch: 1206476								

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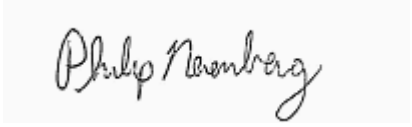

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW105-20120613 (A12F253-05)			**Matrix: Water**					
Aluminum	ND	25.0	50.0	ug/L	1	06/27/12 12:14	EPA 6020 (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**8.50**	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**2390**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**1.53**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**6.98**	2.00	4.00	"	"	"	"	
MW106-20120613 (A12F253-06)			**Matrix: Water**					
Batch: 1206476								
Aluminum	ND	25.0	50.0	ug/L	1	06/27/12 12:23	EPA 6020 (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.811**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**1.21**	0.500	2.00	"	"	"	"	J
Copper	ND	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**754**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**4.04**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**4.69**	2.00	4.00	"	"	"	"	
MW107-20120613 (A12F253-07)			**Matrix: Water**					
Batch: 1206476								
Aluminum	ND	25.0	50.0	ug/L	1	06/27/12 12:26	EPA 6020 (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.889**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**1.87**	0.500	2.00	"	"	"	"	J
Copper	**1.57**	1.00	2.00	"	"	"	"	J
Lead	ND	0.500	1.00	"	"	"	"	

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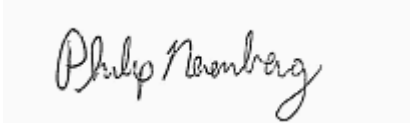

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW107-20120613 (A12F253-07)			**Matrix: Water**					
Manganese	**45.3**	0.500	1.00	ug/L	1	"	EPA 6020 (Diss)	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**8.34**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**9.50**	2.00	4.00	"	"	"	"	

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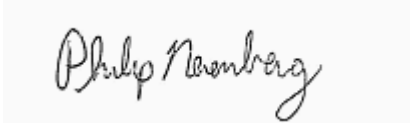

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW2-20120613 (A12F253-01)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	06/15/12 10:50	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**1.91**	1.11	2.22	"	"	06/19/12 15:15	SM 5310 B	C-08, J
MW3-20120613 (A12F253-02)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	06/15/12 10:50	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**1.69**	1.11	2.22	"	"	06/19/12 15:28	SM 5310 B	C-08, J
MW4-20120613 (A12F253-03)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	06/15/12 10:50	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**10.3**	1.11	2.22	"	"	06/19/12 15:40	SM 5310 B	C-08
MW104-20120613 (A12F253-04)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	**8.00**	5.00	5.00	mg/L	1	06/15/12 13:15	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**4.49**	1.11	2.22	"	"	06/19/12 16:33	SM 5310 B	A-01, C-08
MW105-20120613 (A12F253-05)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	**28.0**	5.00	5.00	mg/L	1	06/15/12 13:15	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**3.20**	1.11	2.22	"	"	06/19/12 16:45	SM 5310 B	A-01, C-08
MW106-20120613 (A12F253-06)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	06/15/12 10:50	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**1.70**	1.11	2.22	"	"	06/19/12 16:57	SM 5310 B	A-01, C-08, J
MW107-20120613 (A12F253-07)			**Matrix: Water**					
Batch: 1206325								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	06/15/12 10:50	SM 2540 D	
Batch: 1206393								
Total Organic Carbon	**5.61**	1.11	2.22	"	"	06/19/12 17:15	SM 5310 B	A-01, C-08

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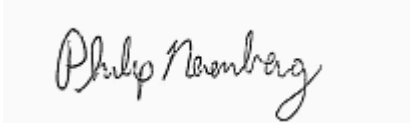

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206405 - EPA 3510C (Acid Extraction)									**Water**			
Blank (1206405-BLK1)					Prepared: 06/20/12 08:05 Analyzed: 06/20/12 20:32							
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	0.182	0.364	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS (1206405-BS1)					Prepared: 06/20/12 08:05 Analyzed: 06/20/12 20:55							
NWTPH-Dx												
Diesel	1.13	0.100	0.200	mg/L	1	1.25	---	90	64-121%	---	---	
Oil	1.13	0.200	0.400	"	"	"	---	91	78-127%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS Dup (1206405-BSD1)					Prepared: 06/20/12 08:05 Analyzed: 06/20/12 21:19							**Q-19**
NWTPH-Dx												
Diesel	1.11	0.100	0.200	mg/L	1	1.25	---	89	64-121%	0.9	20%	
Oil	1.18	0.200	0.400	"	"	"	---	94	78-127%	4	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*		*Dilution: 1x*						

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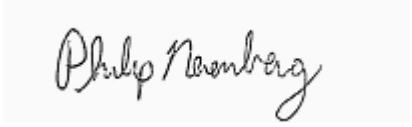

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206307 - EPA 5030B							**Water**					
Blank (1206307-BLK1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 12:02							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 93 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*95 %*		*50-150 %*				*"*			
LCS (1206307-BS2)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 11:36							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.509	0.0500	0.100	mg/L	1	0.500	---	102	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*96 %*		*50-150 %*				*"*			

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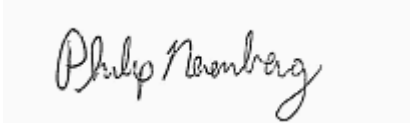

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206307 - EPA 5030B							**Water**					
Blank (1206307-BLK1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 12:02							
EPA 8260B												
Acetone	ND	10.0	20.0	ug/L	1	---	---	---	---	---	---	ESTa
Benzene	ND	0.125	0.250	"	"	---	---	---	---	---	---	
Bromobenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Bromoform	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Bromomethane	ND	5.00	5.00	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	5.00	10.0	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Carbon disulfide	ND	5.00	10.0	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Chloroethane	ND	5.00	5.00	"	"	---	---	---	---	---	---	
Chloroform	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chloromethane	ND	2.50	5.00	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Dibromomethane	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	0.500	1.00	"	"	---	---	---	---	---	---	

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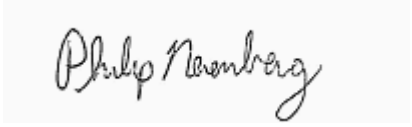

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206307 - EPA 5030B							**Water**					
Blank (1206307-BLK1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 12:02							
2,2-Dichloropropane	ND	0.500	1.00	ug/L	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
2-Hexanone	ND	5.00	10.0	"	"	---	---	---	---	---	---	
Iodomethane	ND	10.0	10.0	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	5.00	10.0	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Methylene chloride	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Naphthalene	ND	1.00	2.00	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Styrene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Toluene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	1.00	2.00	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	1.00	2.00	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	0.250	0.500	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	1.00	2.00	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	0.250	0.500	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	0.500	1.00	"	"	---	---	---	---	---	---	
o-Xylene	ND	0.250	0.500	"	"	---	---	---	---	---	---	
Acrylonitrile	ND	1.00	2.00	"	"	---	---	---	---	---	---	

Surr: Dibromofluoromethane (Surr) *Recovery: 99 %* *Limits: 80-120 %* *Dilution: 1x*
1,4-Difluorobenzene (Surr) *100 %* *80-120 %* *"*

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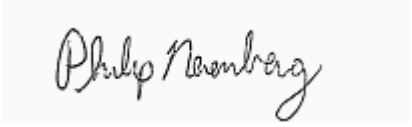

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206307 - EPA 5030B									**Water**			
Blank (1206307-BLK1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 12:02							
Surr: Toluene-d8 (Surr)			*Recovery: 99 %*	*Limits: 80-120 %*			*Dilution: 1x*					
4-Bromofluorobenzene (Surr)			*103 %*	*80-120 %*			*"*					
LCS (1206307-BS1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 11:10							
EPA 8260B												
Acetone	25.6	10.0	20.0	ug/L	1	40.0	---	64	70-130%	---	---	ESTa
Benzene	21.8	0.125	0.250	"	"	20.0	---	109	"	---	---	
Bromobenzene	22.6	0.250	0.500	"	"	"	---	113	"	---	---	
Bromochloromethane	22.8	0.500	1.00	"	"	"	---	114	"	---	---	
Bromodichloromethane	23.4	0.500	1.00	"	"	"	---	117	"	---	---	
Bromoform	20.6	0.500	1.00	"	"	"	---	103	"	---	---	
Bromomethane	19.8	5.00	5.00	"	"	"	---	99	"	---	---	
2-Butanone (MEK)	33.1	5.00	10.0	"	"	40.0	---	83	"	---	---	
n-Butylbenzene	23.1	0.500	1.00	"	"	20.0	---	116	"	---	---	
sec-Butylbenzene	23.0	0.500	1.00	"	"	"	---	115	"	---	---	
tert-Butylbenzene	22.4	0.500	1.00	"	"	"	---	112	"	---	---	
Carbon disulfide	17.3	5.00	10.0	"	"	"	---	86	"	---	---	
Carbon tetrachloride	21.8	0.250	0.500	"	"	"	---	109	"	---	---	
Chlorobenzene	22.5	0.250	0.500	"	"	"	---	112	"	---	---	
Chloroethane	20.7	5.00	5.00	"	"	"	---	103	"	---	---	
Chloroform	22.4	0.500	1.00	"	"	"	---	112	"	---	---	
Chloromethane	20.0	2.50	5.00	"	"	"	---	100	"	---	---	
2-Chlorotoluene	22.9	0.500	1.00	"	"	"	---	115	"	---	---	
4-Chlorotoluene	22.7	0.500	1.00	"	"	"	---	113	"	---	---	
1,2-Dibromo-3-chloropropane	23.4	2.50	5.00	"	"	"	---	117	"	---	---	
Dibromochloromethane	23.1	0.500	1.00	"	"	"	---	116	"	---	---	
1,2-Dibromoethane (EDB)	23.7	0.250	0.500	"	"	"	---	118	"	---	---	
Dibromomethane	22.4	0.500	1.00	"	"	"	---	112	"	---	---	
1,2-Dichlorobenzene	23.0	0.250	0.500	"	"	"	---	115	"	---	---	
1,3-Dichlorobenzene	22.8	0.250	0.500	"	"	"	---	114	"	---	---	
1,4-Dichlorobenzene	22.2	0.250	0.500	"	"	"	---	111	"	---	---	
Dichlorodifluoromethane	21.0	0.500	1.00	"	"	"	---	105	"	---	---	
1,1-Dichloroethane	22.9	0.250	0.500	"	"	"	---	115	"	---	---	
1,2-Dichloroethane (EDC)	22.4	0.250	0.500	"	"	"	---	112	"	---	---	
1,1-Dichloroethene	20.9	0.250	0.500	"	"	"	---	105	"	---	---	
cis-1,2-Dichloroethene	21.9	0.250	0.500	"	"	"	---	110	"	---	---	

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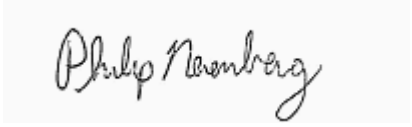

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206307 - EPA 5030B							**Water**					
LCS (1206307-BS1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 11:10							
trans-1,2-Dichloroethene	22.5	0.250	0.500	ug/L	"	"	---	112	"	---	---	
1,2-Dichloropropane	23.1	0.250	0.500	"	"	"	---	116	"	---	---	
1,3-Dichloropropane	22.4	0.500	1.00	"	"	"	---	112	"	---	---	
2,2-Dichloropropane	21.5	0.500	1.00	"	"	"	---	108	"	---	---	
1,1-Dichloropropene	21.3	0.500	1.00	"	"	"	---	107	"	---	---	
cis-1,3-Dichloropropene	22.3	0.500	1.00	"	"	"	---	111	"	---	---	
trans-1,3-Dichloropropene	22.5	0.500	1.00	"	"	"	---	112	"	---	---	
Ethylbenzene	22.7	0.250	0.500	"	"	"	---	113	"	---	---	
Hexachlorobutadiene	22.6	2.50	5.00	"	"	"	---	113	"	---	---	
2-Hexanone	38.4	5.00	10.0	"	"	40.0	---	96	"	---	---	
Iodomethane	30.7	10.0	10.0	"	"	"	---	77	"	---	---	
Isopropylbenzene	22.8	0.500	1.00	"	"	20.0	---	114	"	---	---	
4-Isopropyltoluene	24.0	0.500	1.00	"	"	"	---	120	"	---	---	
4-Methyl-2-pentanone (MiBK)	42.9	5.00	10.0	"	"	40.0	---	107	"	---	---	
Methyl tert-butyl ether (MTBE)	19.4	0.500	1.00	"	"	20.0	---	97	"	---	---	
Methylene chloride	22.0	2.50	5.00	"	"	"	---	110	"	---	---	
Naphthalene	24.0	1.00	2.00	"	"	"	---	120	"	---	---	
n-Propylbenzene	22.5	0.250	0.500	"	"	"	---	112	"	---	---	
Styrene	23.2	0.500	1.00	"	"	"	---	116	"	---	---	
1,1,1,2-Tetrachloroethane	22.9	0.250	0.500	"	"	"	---	115	"	---	---	
1,1,2,2-Tetrachloroethane	23.2	0.250	0.500	"	"	"	---	116	"	---	---	
Tetrachloroethene (PCE)	21.9	0.250	0.500	"	"	"	---	109	"	---	---	
Toluene	21.9	0.500	1.00	"	"	"	---	110	"	---	---	
1,2,3-Trichlorobenzene	22.4	1.00	2.00	"	"	"	---	112	"	---	---	
1,2,4-Trichlorobenzene	24.0	1.00	2.00	"	"	"	---	120	"	---	---	
1,1,1-Trichloroethane	21.8	0.250	0.500	"	"	"	---	109	"	---	---	
1,1,2-Trichloroethane	22.6	0.250	0.500	"	"	"	---	113	"	---	---	
Trichloroethene (TCE)	22.9	0.250	0.500	"	"	"	---	115	"	---	---	
Trichlorofluoromethane	15.6	1.00	2.00	"	"	"	---	78	"	---	---	
1,2,3-Trichloropropane	23.4	0.500	1.00	"	"	"	---	117	"	---	---	
1,2,4-Trimethylbenzene	23.1	0.500	1.00	"	"	"	---	115	"	---	---	
1,3,5-Trimethylbenzene	23.4	0.500	1.00	"	"	"	---	117	"	---	---	
Vinyl chloride	22.1	0.250	0.500	"	"	"	---	111	"	---	---	
m,p-Xylene	44.9	0.500	1.00	"	"	40.0	---	112	"	---	---	
o-Xylene	22.8	0.250	0.500	"	"	20.0	---	114	"	---	---	

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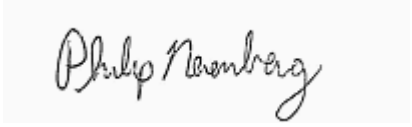

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206307 - EPA 5030B							**Water**					
LCS (1206307-BS1)					Prepared: 06/14/12 09:25 Analyzed: 06/14/12 11:10							
Acrylonitrile	21.7	1.00	2.00	ug/L	"	"	---	108	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 98 %*		*Limits: 80-120 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*99 %*		*80-120 %*		*"*					
Toluene-d8 (Surr)			*98 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*101 %*		*80-120 %*		*"*					

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206384 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1206384-BLK1)					Prepared: 06/19/12 08:22 Analyzed: 06/20/12 11:46							
EPA 8270D (SIM)												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 80 %*		*Limits: 25-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*93 %*		*30-120 %*				*"*			
LCS (1206384-BS1)					Prepared: 06/19/12 08:22 Analyzed: 06/20/12 12:14							
EPA 8270D (SIM)												
Acenaphthene	2.64	0.0100	0.0200	ug/L	1	4.00	---	66	45-125%	---	---	
Acenaphthylene	2.81	0.0100	0.0200	"	"	"	---	70	50-125%	---	---	
Anthracene	3.29	0.0100	0.0200	"	"	"	---	82	55-125%	---	---	
Benz(a)anthracene	3.61	0.0100	0.0200	"	"	"	---	90	"	---	---	
Benzo(a)pyrene	3.85	0.0100	0.0200	"	"	"	---	96	"	---	---	
Benzo(b)fluoranthene	3.77	0.0100	0.0200	"	"	"	---	94	45-125%	---	---	
Benzo(k)fluoranthene	3.74	0.0100	0.0200	"	"	"	---	94	"	---	---	
Benzo(b+k)fluoranthene(s)	7.49	0.0200	0.0400	"	"	8.00	---	94	"	---	---	
Benzo(g,h,i)perylene	3.79	0.0100	0.0200	"	"	4.00	---	95	40-125%	---	---	

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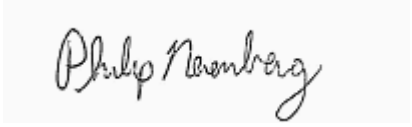

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206384 - EPA 3510C (Acid Extraction)									**Water**			
LCS (1206384-BS1)					Prepared: 06/19/12 08:22		Analyzed: 06/20/12 12:14					
Chrysene	3.73	0.0100	0.0200	ug/L	"	"	---	93	55-125%	---	---	
Dibenz(a,h)anthracene	3.94	0.0100	0.0200	"	"	"	---	99	40-125%	---	---	
Dibenzofuran	2.84	0.0100	0.0200	"	"	"	---	71	55-125%	---	---	
Fluoranthene	3.54	0.0100	0.0200	"	"	"	---	89	"	---	---	
Fluorene	2.98	0.0100	0.0200	"	"	"	---	75	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	3.86	0.0100	0.0200	"	"	"	---	96	45-125%	---	---	
1-Methylnaphthalene	2.08	0.0200	0.0400	"	"	"	---	52	"	---	---	
2-Methylnaphthalene	2.06	0.0200	0.0400	"	"	"	---	52	"	---	---	
Naphthalene	2.05	0.0200	0.0400	"	"	"	---	51	40-125%	---	---	
Phenanthrene	3.29	0.0100	0.0200	"	"	"	---	82	50-125%	---	---	
Pyrene	3.47	0.0100	0.0200	"	"	"	---	87	"	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 64 %*		*Limits: 25-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*83 %*		*30-120 %*				*"*			
LCS Dup (1206384-BSD1)					Prepared: 06/19/12 08:22		Analyzed: 06/20/12 12:42					**Q-19**
EPA 8270D (SIM)												
Acenaphthene	2.93	0.0100	0.0200	ug/L	1	4.00	---	73	45-125%	11	30%	
Acenaphthylene	3.05	0.0100	0.0200	"	"	"	---	76	50-125%	8	30%	
Anthracene	3.48	0.0100	0.0200	"	"	"	---	87	55-125%	5	30%	
Benz(a)anthracene	3.63	0.0100	0.0200	"	"	"	---	91	"	0.6	30%	
Benzo(a)pyrene	3.89	0.0100	0.0200	"	"	"	---	97	"	1	30%	
Benzo(b)fluoranthene	3.77	0.0100	0.0200	"	"	"	---	94	45-125%	0.05	30%	
Benzo(k)fluoranthene	3.78	0.0100	0.0200	"	"	"	---	95	"	1	30%	
Benzo(b+k)fluoranthene(s)	7.53	0.0200	0.0400	"	"	8.00	---	94	"	0.6	30%	
Benzo(g,h,i)perylene	3.78	0.0100	0.0200	"	"	4.00	---	95	40-125%	0.3	30%	
Chrysene	3.76	0.0100	0.0200	"	"	"	---	94	55-125%	0.7	30%	
Dibenz(a,h)anthracene	3.95	0.0100	0.0200	"	"	"	---	99	40-125%	0.2	30%	
Dibenzofuran	3.09	0.0100	0.0200	"	"	"	---	77	55-125%	9	30%	
Fluoranthene	3.54	0.0100	0.0200	"	"	"	---	88	"	0.1	30%	
Fluorene	3.24	0.0100	0.0200	"	"	"	---	81	50-125%	8	30%	
Indeno(1,2,3-cd)pyrene	3.92	0.0100	0.0200	"	"	"	---	98	45-125%	2	30%	
1-Methylnaphthalene	2.34	0.0200	0.0400	"	"	"	---	58	"	12	30%	
2-Methylnaphthalene	2.34	0.0200	0.0400	"	"	"	---	58	"	12	30%	
Naphthalene	2.29	0.0200	0.0400	"	"	"	---	57	40-125%	11	30%	
Phenanthrene	3.45	0.0100	0.0200	"	"	"	---	86	50-125%	5	30%	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206384 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (1206384-BSD1)					Prepared: 06/19/12 08:22		Analyzed: 06/20/12 12:42					**Q-19**
Pyrene	3.52	0.0100	0.0200	ug/L	"	"	---	88	"	2	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 70 %*		*Limits: 25-120 %*		*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*81 %*		*30-120 %*		*"*					

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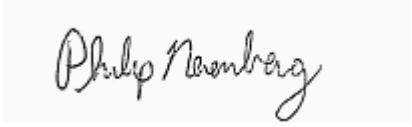

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Phthalates by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206384 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1206384-BLK1)					Prepared: 06/19/12 08:22 Analyzed: 06/20/12 11:46							
EPA 8270D (SIM)												
Diethylphthalate	ND	0.227	0.455	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	0.227	0.455	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 80 %*	*Limits: 25-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*93 %*	*30-120 %*			*"*					
LCS (1206384-BS1)					Prepared: 06/19/12 08:22 Analyzed: 06/20/12 12:14							
EPA 8270D (SIM)												
Diethylphthalate	3.28	0.250	0.500	ug/L	1	4.00	---	82	40-125%	---	---	
Dimethylphthalate	3.29	0.250	0.500	"	"	"	---	82	25-125%	---	---	
Di-n-butylphthalate	3.84	0.250	0.500	"	"	"	---	96	55-125%	---	---	
Di-n-octyl phthalate	4.40	0.250	0.500	"	"	"	---	110	35-125%	---	---	
Bis(2-ethylhexyl)phthalate	4.10	0.250	0.500	"	"	"	---	102	40-125%	---	---	
Butyl benzyl phthalate	3.92	0.250	0.500	"	"	"	---	98	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 64 %*	*Limits: 25-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*83 %*	*30-120 %*			*"*					
LCS Dup (1206384-BSD1)					Prepared: 06/19/12 08:22 Analyzed: 06/20/12 12:42							**Q-19**
EPA 8270D (SIM)												
Diethylphthalate	3.46	0.250	0.500	ug/L	1	4.00	---	87	40-125%	5	30%	
Dimethylphthalate	3.53	0.250	0.500	"	"	"	---	88	25-125%	7	30%	
Di-n-butylphthalate	3.81	0.250	0.500	"	"	"	---	95	55-125%	0.8	30%	
Di-n-octyl phthalate	4.31	0.250	0.500	"	"	"	---	108	35-125%	2	30%	
Bis(2-ethylhexyl)phthalate	4.05	0.250	0.500	"	"	"	---	101	40-125%	1	30%	
Butyl benzyl phthalate	3.90	0.250	0.500	"	"	"	---	97	45-125%	0.6	30%	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 70 %*	*Limits: 25-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*81 %*	*30-120 %*			*"*					

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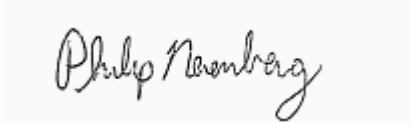

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206534 - EPA 3015A									**Water**			
Blank (1206534-BLK1)					Prepared: 06/26/12 12:41 Analyzed: 06/27/12 12:38							
EPA 6020												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1206534-BS1)					Prepared: 06/26/12 12:41 Analyzed: 06/27/12 12:41							
EPA 6020												
Aluminum	5630	25.0	50.0	ug/L	1	5560	---	101	80-120%	---	---	
Antimony	27.9	0.500	1.00	"	"	27.8	---	100	"	---	---	
Arsenic	56.9	0.500	2.00	"	"	55.6	---	102	85-115%	---	---	
Cadmium	56.5	0.500	1.00	"	"	"	---	102	80-120%	---	---	
Chromium	55.3	0.500	2.00	"	"	"	---	100	"	---	---	
Copper	56.4	1.00	2.00	"	"	"	---	102	"	---	---	
Lead	55.5	0.500	1.00	"	"	"	---	100	"	---	---	
Manganese	54.5	0.500	1.00	"	"	"	---	98	"	---	---	
Mercury	1.07	0.0400	0.0800	"	"	1.11	---	97	"	---	---	
Nickel	56.7	0.500	2.00	"	"	55.6	---	102	"	---	---	
Silver	28.7	0.500	1.00	"	"	27.8	---	103	"	---	---	
Zinc	55.9	2.00	4.00	"	"	55.6	---	101	"	---	---	
Matrix Spike (1206534-MS1)					Prepared: 06/26/12 12:41 Analyzed: 06/27/12 14:12							
QC Source Sample: MW2-20120613 (A12F253-01)												
EPA 6020												
Aluminum	5790	25.0	50.0	ug/L	1	5560	ND	104	75-125%	---	---	
Antimony	29.5	0.500	1.00	"	"	27.8	1.20	102	"	---	---	
Arsenic	58.4	0.500	2.00	"	"	55.6	0.589	104	70-130%	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206534 - EPA 3015A							**Water**					
Matrix Spike (1206534-MS1)					Prepared: 06/26/12 12:41 Analyzed: 06/27/12 14:12							
QC Source Sample: MW2-20120613 (A12F253-01)												
Cadmium	57.7	0.500	1.00	ug/L	"	"	ND	104	75-125%	---	---	
Chromium	55.3	0.500	2.00	"	"	"	ND	100	"	---	---	
Copper	58.2	1.00	2.00	"	"	"	1.34	102	"	---	---	
Lead	55.6	0.500	1.00	"	"	"	ND	100	"	---	---	
Manganese	70.1	0.500	1.00	"	"	"	15.8	98	"	---	---	
Mercury	1.16	0.0400	0.0800	"	"	1.11	ND	104	"	---	---	
Nickel	57.4	0.500	2.00	"	"	55.6	1.50	101	"	---	---	
Silver	28.6	0.500	1.00	"	"	27.8	ND	103	"	---	---	
Zinc	80.6	2.00	4.00	"	"	55.6	25.6	99	"	---	---	

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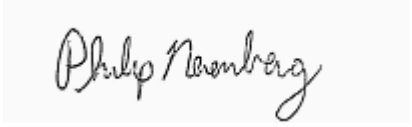

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206476 - EPA 3015A - Dissolved								**Water**				
Blank (1206476-BLK1)					Prepared: 06/22/12 13:05 Analyzed: 06/27/12 11:24							
EPA 6020 (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	**0.678**	0.500	2.00	"	"	---	---	---	---	---	---	J
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	**0.878**	0.500	2.00	"	"	---	---	---	---	---	---	J
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1206476-BS1)					Prepared: 06/22/12 13:05 Analyzed: 06/27/12 11:27							
EPA 6020 (Diss)												
Aluminum	5580	25.0	50.0	ug/L	1	5560	---	100	80-120%	---	---	
Antimony	27.4	0.500	1.00	"	"	27.8	---	99	"	---	---	
Arsenic	57.6	0.500	2.00	"	"	55.6	---	104	"	---	---	
Cadmium	55.5	0.500	1.00	"	"	"	---	100	"	---	---	
Chromium	56.1	0.500	2.00	"	"	"	---	101	"	---	---	
Copper	57.5	1.00	2.00	"	"	"	---	103	"	---	---	
Lead	55.8	0.500	1.00	"	"	"	---	100	"	---	---	
Manganese	55.5	0.500	1.00	"	"	"	---	100	"	---	---	
Mercury	1.15	0.0400	0.0800	"	"	1.11	---	103	"	---	---	
Nickel	57.6	0.500	2.00	"	"	55.6	---	104	"	---	---	
Silver	28.1	0.500	1.00	"	"	27.8	---	101	"	---	---	
Zinc	58.3	2.00	4.00	"	"	55.6	---	105	"	---	---	
Duplicate (1206476-DUP1)					Prepared: 06/22/12 13:05 Analyzed: 06/27/12 11:36							
QC Source Sample: MW2-20120613 (A12F253-01)												
EPA 6020 (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	ND	---	---	---	20%	
Antimony	**1.17**	0.500	1.00	"	"	---	1.19	---	---	2	20%	
Arsenic	**0.722**	0.500	2.00	"	"	---	0.867	---	---	18	20%	J

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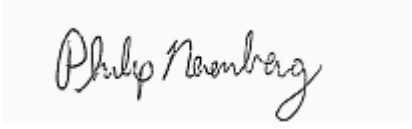

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206476 - EPA 3015A - Dissolved							**Water**					
Duplicate (1206476-DUP1)					Prepared: 06/22/12 13:05 Analyzed: 06/27/12 11:36							
QC Source Sample: MW2-20120613 (A12F253-01)												
Cadmium	ND	0.500	1.00	ug/L	"	---	ND	---	---	---	20%	
Chromium	**1.18**	0.500	2.00	"	"	---	1.67	---	---	34	20%	Q-05, J
Copper	**1.22**	1.00	2.00	"	"	---	1.21	---	---	0.9	20%	J
Lead	ND	0.500	1.00	"	"	---	ND	---	---	---	20%	
Manganese	**10.2**	0.500	1.00	"	"	---	10.5	---	---	3	20%	
Mercury	ND	0.0400	0.0800	"	"	---	ND	---	---	---	20%	
Nickel	**1.41**	0.500	2.00	"	"	---	1.79	---	---	24	20%	Q-05, J
Silver	ND	0.500	1.00	"	"	---	ND	---	---	---	20%	
Zinc	**25.4**	2.00	4.00	"	"	---	27.0	---	---	6	20%	
Matrix Spike (1206476-MS2)					Prepared: 06/22/12 13:05 Analyzed: 06/27/12 12:29							
QC Source Sample: MW107-20120613 (A12F253-07)												
EPA 6020 (Diss)												
Aluminum	5760	25.0	50.0	ug/L	1	5560	ND	104	75-125%	---	---	
Antimony	28.4	0.500	1.00	"	"	27.8	ND	102	"	---	---	
Arsenic	58.4	0.500	2.00	"	"	55.6	0.889	104	"	---	---	
Cadmium	58.4	0.500	1.00	"	"	"	ND	105	"	---	---	
Chromium	55.9	0.500	2.00	"	"	"	1.87	97	"	---	---	
Copper	58.5	1.00	2.00	"	"	"	1.57	102	"	---	---	
Lead	54.0	0.500	1.00	"	"	"	ND	97	"	---	---	
Manganese	99.8	0.500	1.00	"	"	"	45.3	98	"	---	---	
Mercury	1.14	0.0400	0.0800	"	"	1.11	ND	102	"	---	---	
Nickel	63.7	0.500	2.00	"	"	55.6	8.34	100	"	---	---	
Silver	28.2	0.500	1.00	"	"	27.8	ND	102	"	---	---	
Zinc	62.4	2.00	4.00	"	"	55.6	9.50	95	"	---	---	

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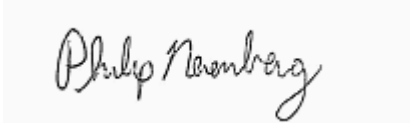

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206325 - Total Suspended Solids									Water			
Blank (1206325-BLK1)					Prepared: 06/14/12 15:50		Analyzed: 06/15/12 10:50					
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Reference (1206325-SRM1)					Prepared: 06/14/12 15:50		Analyzed: 06/15/12 13:15					
SM 2540 D												
Total Suspended Solids	100			mg/L	1	100		100	90-110%	---	---	

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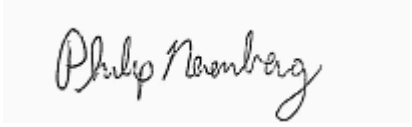

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1206393 - Method Prep: Aq									Water			
Blank (1206393-BLK1)					Prepared: 06/19/12 11:55		Analyzed: 06/19/12 12:53					
SM 5310 B												
Total Organic Carbon	ND	1.00	2.00	mg/L	1	---	---	---	---	---	---	
LCS (1206393-BS1)					Prepared: 06/19/12 11:55		Analyzed: 06/19/12 13:10					
SM 5310 B												
Total Organic Carbon	47.3	1.00	2.00	mg/L	1	50.0	---	95	90-110%	---	---	

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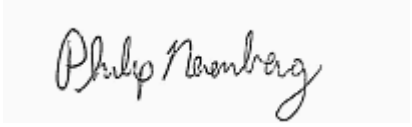

Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

SAMPLE PREPARATION INFORMATION

Diesel and Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206405							
A12F253-03	Water	NWTPH-Dx	06/13/12 15:00	06/20/12 08:05	1030mL/5mL	1000mL/5mL	0.97
A12F253-04	Water	NWTPH-Dx	06/13/12 15:10	06/20/12 08:05	1040mL/5mL	1000mL/5mL	0.96
A12F253-05	Water	NWTPH-Dx	06/13/12 13:40	06/20/12 08:05	950mL/5mL	1000mL/5mL	1.05
A12F253-06	Water	NWTPH-Dx	06/13/12 10:50	06/20/12 08:05	1020mL/5mL	1000mL/5mL	0.98
A12F253-07	Water	NWTPH-Dx	06/13/12 13:35	06/20/12 08:05	1030mL/5mL	1000mL/5mL	0.97

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206307							
A12F253-03	Water	NWTPH-Gx (MS)	06/13/12 15:00	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-04	Water	NWTPH-Gx (MS)	06/13/12 15:10	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-05	Water	NWTPH-Gx (MS)	06/13/12 13:40	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-06	Water	NWTPH-Gx (MS)	06/13/12 10:50	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-07	Water	NWTPH-Gx (MS)	06/13/12 13:35	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206307							
A12F253-03	Water	EPA 8260B	06/13/12 15:00	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-04	Water	EPA 8260B	06/13/12 15:10	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-05	Water	EPA 8260B	06/13/12 13:40	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-06	Water	EPA 8260B	06/13/12 10:50	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00
A12F253-07	Water	EPA 8260B	06/13/12 13:35	06/14/12 14:25	5mL/5mL	5mL/5mL	1.00

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206384							
A12F253-03	Water	EPA 8270D (SIM)	06/13/12 15:00	06/19/12 08:22	1050mL/1mL	1000mL/1mL	0.95
A12F253-04	Water	EPA 8270D (SIM)	06/13/12 15:10	06/19/12 08:22	1050mL/1mL	1000mL/1mL	0.95

Apex Laboratories

Philip Nerenberg, Lab Director

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Apex Labs

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A12F253-05	Water	EPA 8270D (SIM)	06/13/12 13:40	06/19/12 08:22	1060mL/1mL	1000mL/1mL	0.94
A12F253-06	Water	EPA 8270D (SIM)	06/13/12 10:50	06/19/12 08:22	1010mL/1mL	1000mL/1mL	0.99
A12F253-07	Water	EPA 8270D (SIM)	06/13/12 13:35	06/19/12 08:22	1010mL/1mL	1000mL/1mL	0.99

Phthalates by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206384							
A12F253-03	Water	EPA 8270D (SIM)	06/13/12 15:00	06/19/12 08:22	1050mL/1mL	1000mL/2mL	0.48
A12F253-04	Water	EPA 8270D (SIM)	06/13/12 15:10	06/19/12 08:22	1050mL/1mL	1000mL/2mL	0.48
A12F253-05	Water	EPA 8270D (SIM)	06/13/12 13:40	06/19/12 08:22	1060mL/1mL	1000mL/2mL	0.47
A12F253-06	Water	EPA 8270D (SIM)	06/13/12 10:50	06/19/12 08:22	1010mL/1mL	1000mL/2mL	0.50
A12F253-07	Water	EPA 8270D (SIM)	06/13/12 13:35	06/19/12 08:22	1010mL/1mL	1000mL/2mL	0.50

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206534							
A12F253-01	Water	EPA 6020	06/13/12 10:24	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00
A12F253-02	Water	EPA 6020	06/13/12 12:00	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00
A12F253-03	Water	EPA 6020	06/13/12 15:00	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00
A12F253-04	Water	EPA 6020	06/13/12 15:10	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00
A12F253-05	Water	EPA 6020	06/13/12 13:40	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00
A12F253-06	Water	EPA 6020	06/13/12 10:50	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00
A12F253-07	Water	EPA 6020	06/13/12 13:35	06/26/12 12:41	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206476							
A12F253-01	Water	EPA 6020 (Diss)	06/13/12 10:24	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00
A12F253-02	Water	EPA 6020 (Diss)	06/13/12 12:00	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00
A12F253-03	Water	EPA 6020 (Diss)	06/13/12 15:00	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00

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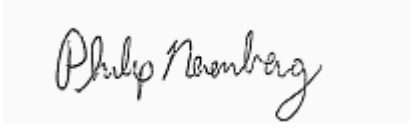

Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

SAMPLE PREPARATION INFORMATION

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A12F253-04	Water	EPA 6020 (Diss)	06/13/12 15:10	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00
A12F253-05	Water	EPA 6020 (Diss)	06/13/12 13:40	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00
A12F253-06	Water	EPA 6020 (Diss)	06/13/12 10:50	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00
A12F253-07	Water	EPA 6020 (Diss)	06/13/12 13:35	06/22/12 13:05	45mL/50mL	45mL/50mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206393							
A12F253-01	Water	SM 5310 B	06/13/12 10:24	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11
A12F253-02	Water	SM 5310 B	06/13/12 12:00	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11
A12F253-03	Water	SM 5310 B	06/13/12 15:00	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11
A12F253-04	Water	SM 5310 B	06/13/12 15:10	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11
A12F253-05	Water	SM 5310 B	06/13/12 13:40	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11
A12F253-06	Water	SM 5310 B	06/13/12 10:50	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11
A12F253-07	Water	SM 5310 B	06/13/12 13:35	06/19/12 11:55	0.9mL/1mL	1mL/1mL	1.11

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1206325							
A12F253-01	Water	SM 2540 D	06/13/12 10:24	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA
A12F253-02	Water	SM 2540 D	06/13/12 12:00	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA
A12F253-03	Water	SM 2540 D	06/13/12 15:00	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA
A12F253-04	Water	SM 2540 D	06/13/12 15:10	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA
A12F253-05	Water	SM 2540 D	06/13/12 13:40	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA
A12F253-06	Water	SM 2540 D	06/13/12 10:50	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA
A12F253-07	Water	SM 2540 D	06/13/12 13:35	06/14/12 15:50	1N/A/1N/A	1N/A/1N/A	NA

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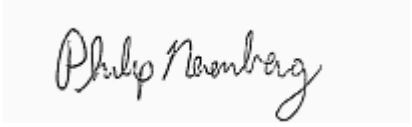

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52

Notes and Definitions

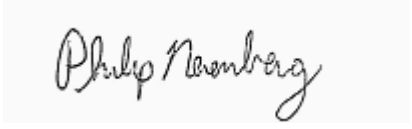
Qualifiers:

A-01	Sample preserved in lab
C-08	This sample has been treated with phosphoric acid to remove excessive inorganic carbon.
ESTa	Result reported as an Estimated Value. Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
F-11	The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-05	Analyses are not controlled on RPD values from sample or duplicate concentrations near or below the reporting level.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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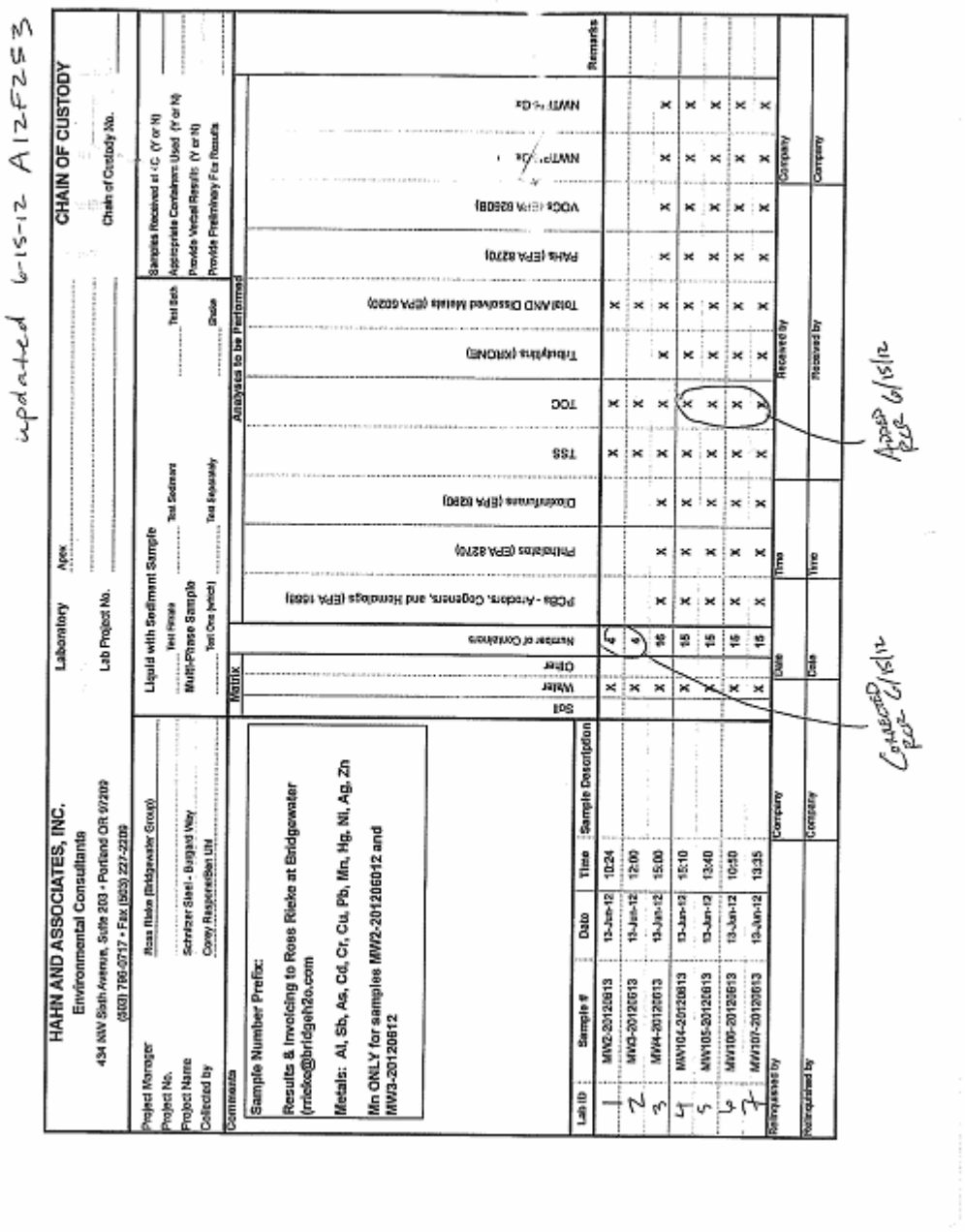
4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	07/16/12 15:52



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Philip Nerenberg

Philip Nerenberg, Lab Director

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4500 SW Kruse Way; Suite 110	Project Number: HAI-8001	**Reported:**
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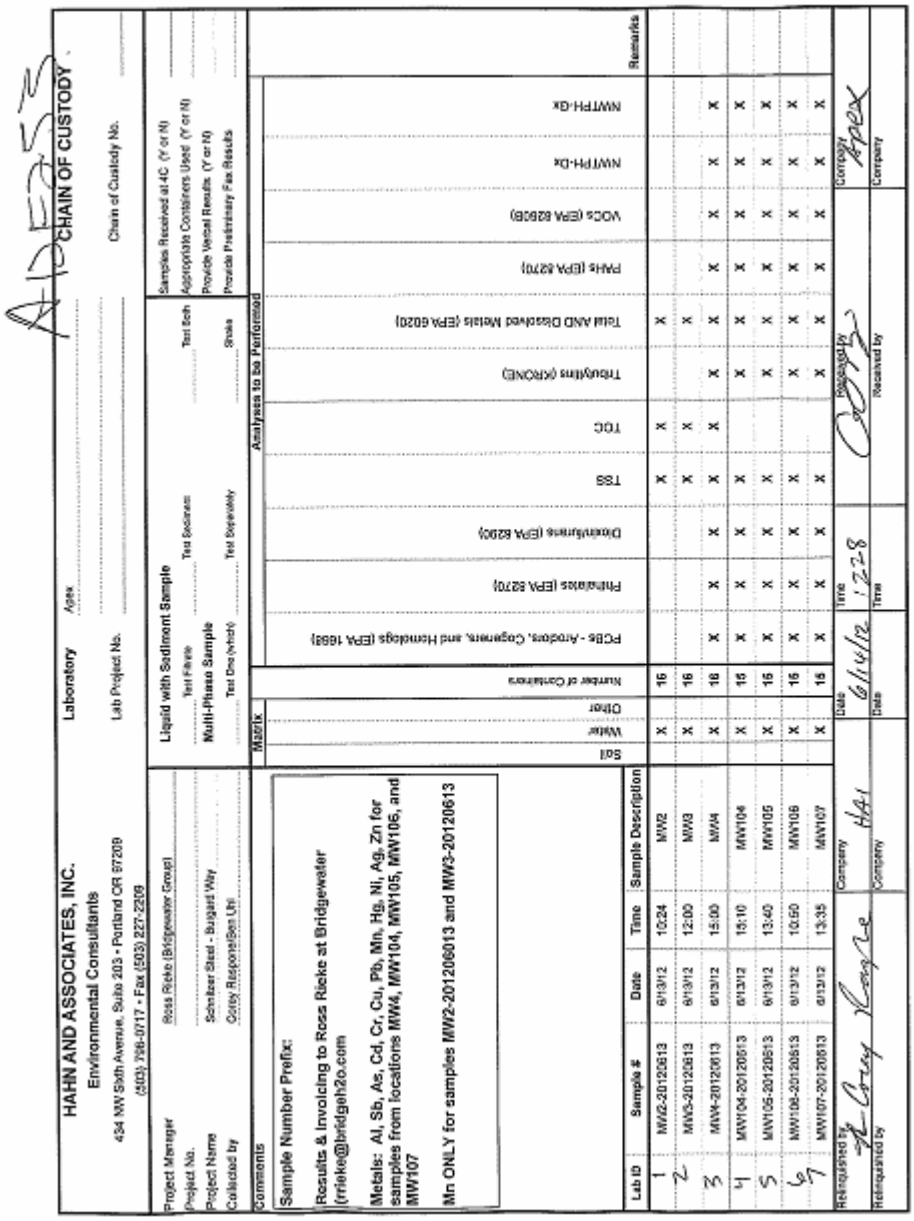

HAHN AND ASSOCIATES, INC.
Environmental Consultants
454 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 768-0717 • Fax (503) 227-2309

CHAIN OF CUSTODY

Laboratory: Apex
Lab Project No.:
Chain of Custody No.:

Project Manager: Ross Rieke (Bridgewater Group)
Project No.:
Project Name: Schnitzer Steel - Burgard Way
Collected by: Corey Response/Ben Uhl

Liquid with Sediment Sample
Test Filtrate / Test Solubles
Multi-Phase Sample
Test One (which):
Test Separately
Strata
Test Both

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N)
Provide Preliminary Fax Results

Comments:
Sample Number Prefix:
Results & Invoicing to Ross Rieke at Bridgewater (rrieke@bridgeh2o.com
Metals: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn for samples from locations MW4, MW104, MW105, MW106, and MW107
Mn ONLY for samples MW2-20120613 and MW3-20120613

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Soil	Water	Other	Number of Containers	PCBs - Aroclors, Organics, and Hemlocks (EPA 1668)	Phthalates (EPA 8270)	Chlorinated Phenols (EPA 8290)	TSS	TOC	Trihalomethanes (CHCl3)	Total AND Dissolved Metals (EPA 6020)	PAHs (EPA 8270)	VOCs (EPA 8260B)	NWTPH-Dx	NWTPH-Gx	Remarks
1	MW2-20120613	6/13/12	10:24	MW2		X		16				X	X		X					
2	MW3-20120613	6/13/12	12:00	MW3		X		16				X	X		X				X	
3	MW4-20120613	6/13/12	15:00	MW4		X		16	X	X	X	X		X	X	X	X	X	X	
4	MW104-20120613	6/13/12	15:10	MW104		X		16	X	X	X	X		X	X	X	X	X	X	
5	MW105-20120613	6/13/12	13:40	MW105		X		16	X	X	X	X		X	X	X	X	X	X	
6	MW106-20120613	6/13/12	10:50	MW106		X		16	X	X	X	X		X	X	X	X	X	X	
7	MW107-20120613	6/13/12	13:35	MW107		X		16	X	X	X	X		X	X	X	X	X	X	

Relinquished by: Corey Response — Company: HAI — Date: 6/14/12 — Time: 1228 — Received by: Apex — Company: Apex

Relinquished by: — Company: HAI — Date: — Time: — Received by: — Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

June 25, 2012

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A12F253
ARI Job No.: UZ25

Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody records (COC), sample receipt documentation, and the final data for the sample from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this package will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: UZ25

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

SUBCONTRACT ORDER

Apex Laboratories

A12F253

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

FF HNO3 out of pH

Sample Name: MW4-20120613 **Water** **Sampled: 06/13/12 15:00** (A12F253-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	06/28/12 17:00	06/27/12 15:00	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Sample Name: MW104-20120613 **Water** **Sampled: 06/13/12 15:10** (A12F253-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	06/28/12 17:00	06/27/12 15:10	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Sample Name: MW105-20120613 **Water** **Sampled: 06/13/12 13:40** (A12F253-05)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	06/28/12 17:00	06/27/12 13:40	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Sample Name: MW106-20120613 **Water** **Sampled: 06/13/12 10:50** (A12F253-06)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	06/28/12 17:00	06/27/12 10:50	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Standard TAT

Released By	Date	Received By	Date
[signature]	6/18/12 1205	[signature]	6/19/12 1055
Released By	Date	Received By	Date

UZ25 : 00002

SUBCONTRACT ORDER

Apex Laboratories

A12F253

Sample Name: MW107-20120613 **Water** **Sampled: 06/13/12 13:35** (A12F253-07)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	06/28/12 17:00	06/27/12 13:35	Krone--ARI
Containers Supplied:			
(I) 1 L Amber Glass - Non Preserved			
(J) 1 L Amber Glass - Non Preserved			

Released By	Date	Received By	Date
[signature]	6/18/12 1205	[signature]	6/19/12 1035

Released By	Date	Received By	Date

UZ25 : 00003

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex

Project Name: A12F253

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: UZ25

Tracking No: 1ZX4720R1399124523 NA
1ZX4720R1398789737

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)..... 5.0 2.1

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90941619

Cooler Accepted by: JM Date: 6/19/12 Time: 1035

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 6-19-12 Time: 1135

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

Case Narrative

Client: Apex Laboratories
Project: A12F253
ARI Job No.: UZ25

Sample Receipt

Analytical Resources, Inc. (ARI) accepted five water samples on June 19, 2012 under ARI job UZ53. The cooler temperatures measured by IR thermometer following ARI SOP were 2.1 and 5.0° C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for the parameters as requested on the COC.

Butyl Tins by Krone – 1988 SIM

The surrogate percent recoveries of Tripropyl Tin Chloride fell outside the control limits low in the method blank and LCS/LCSD for the initial analysis. All associated samples and QC were re-extracted outside the method recommended holding time and all surrogate percent recoveries were within control limits. Both sets of data have been reported. No further corrective action was taken.

There were no other irregularities with this analysis.

UZ25 : 00005

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: UZ25
Client: Apex Labs
Project Event: N/A
Project Name: A12F253

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MW4-20120613	UZ25A	12-11562	Water	06/13/12 15:00	06/19/12 10:35
2.	MW104-20120613	UZ25B	12-11563	Water	06/13/12 15:10	06/19/12 10:35
3.	MW105-20120613	UZ25C	12-11564	Water	06/13/12 13:40	06/19/12 10:35
4.	MW106-20120613	UZ25D	12-11565	Water	06/13/12 10:50	06/19/12 10:35
5.	MW107-20120613	UZ25E	12-11566	Water	06/13/12 13:35	06/19/12 10:35

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW4-20120613**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: UZ25A
LIMS ID: 12-11562
Matrix: Water
Data Release Authorized: NW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/17/12
Date Analyzed: 06/20/12 12:24
Instrument/Analyst: NT12/PK

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	83.0%
Tripentyl Tin Chloride	70.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW4-20120613**
Extraction Method: SW3510C **REANALYSIS**
Page 1 of 1

Lab Sample ID: UZ25A
LIMS ID: 12-11562
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/20/12
Date Analyzed: 06/23/12 10:40
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	90.5%
Tripentyl Tin Chloride	73.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW104-20120613**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: UZ25B
LIMS ID: 12-11563
Matrix: Water
Data Release Authorized:
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/17/12
Date Analyzed: 06/20/12 12:38
Instrument/Analyst: NT12/PK

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	82.4%
Tripentyl Tin Chloride	70.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW104-20120613**
Extraction Method: SW3510C **REANALYSIS**
Page 1 of 1

Lab Sample ID: UZ25B
LIMS ID: 12-11563
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/20/12
Date Analyzed: 06/23/12 10:54
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	82.5%
Tripentyl Tin Chloride	69.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW105-20120613**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: UZ25C
LIMS ID: 12-11564
Matrix: Water
Data Release Authorized:
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/17/12
Date Analyzed: 06/20/12 12:52
Instrument/Analyst: NT12/PK

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	78.3%
Tripentyl Tin Chloride	71.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW105-20120613**
Extraction Method: SW3510C **REANALYSIS**
Page 1 of 1

Lab Sample ID: UZ25C
LIMS ID: 12-11564
Matrix: Water
Data Release Authorized: WW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/20/12
Date Analyzed: 06/23/12 11:08
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	69.6%
Tripentyl Tin Chloride	62.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW106-20120613**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: UZ25D
LIMS ID: 12-11565
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/17/12
Date Analyzed: 06/20/12 13:06
Instrument/Analyst: NT12/PK

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	71.5%
Tripentyl Tin Chloride	70.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW106-20120613**
Extraction Method: SW3510C **REANALYSIS**
Page 1 of 1

Lab Sample ID: UZ25D
LIMS ID: 12-11565
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/20/12
Date Analyzed: 06/23/12 11:21
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	64.2%
Tripentyl Tin Chloride	56.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW107-20120613**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: UZ25E
LIMS ID: 12-11566
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/17/12
Date Analyzed: 06/20/12 13:20
Instrument/Analyst: NT12/PK

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	85.4%
Tripentyl Tin Chloride	70.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MW107-20120613**
Extraction Method: SW3510C **REANALYSIS**
Page 1 of 1

Lab Sample ID: UZ25E
LIMS ID: 12-11566
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: 06/13/12
Date Received: 06/19/12

Date Extracted: 06/20/12
Date Analyzed: 06/23/12 11:35
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	77.1%
Tripentyl Tin Chloride	61.8%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-061712	5.8%*	76.5%	1
LCS-061712	5.1%*	74.0%	1
LCSD-061712	7.8%*	67.8%	1
MW4-20120613	83.0%	70.3%	0
MW4-20120613 RE	90.5%	73.8%	0
MB-062012	94.6%	75.6%	0
LCS-062012	89.5%	73.1%	0
LCSD-062012	94.6%	78.9%	0
MW104-20120613	82.4%	70.5%	0
MW104-20120613 RE	82.5%	69.8%	0
MW105-20120613	78.3%	71.5%	0
MW105-20120613 RE	69.6%	62.4%	0
MW106-20120613	71.5%	70.8%	0
MW106-20120613 RE	64.2%	56.6%	0
MW107-20120613	85.4%	70.5%	0
MW107-20120613 RE	77.1%	61.8%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)	(30-160)

Prep Method: SW3510C
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 12-11562 to 12-11566

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-061712**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-061712
LIMS ID: 12-11562
Matrix: Water
Data Release Authorized:
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253

Date Sampled: NA
Date Received: NA

Date Extracted LCS: 06/17/12

Date Analyzed LCS: 06/20/12 11:56
LCSD: 06/20/12 12:10
Instrument/Analyst LCS: NT12/PK
LCSD: NT12/PK

Sample Amount LCS: 100 mL
LCSD: 100 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	1.56	2.23	70.0%	1.58	2.23	70.9%	1.3%
Dibutyltin Ion	1.09	1.92	56.8%	1.17	1.92	60.9%	7.1%
Butyltin Ion	0.35	1.56	22.4%	0.52	1.56	33.3%	39.1%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	5.1%	7.8%
Tripentyl Tin Chloride	74.0%	67.8%

FORM III

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-062012**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-062012
LIMS ID: 12-11563
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Date Sampled: NA
Date Received: NA

Date Extracted LCS: 06/20/12

Date Analyzed LCS: 06/23/12 10:08
LCSD: 06/23/12 10:22
Instrument/Analyst LCS: NT12/VTS
LCSD: NT12/VTS

Sample Amount LCS: 100 mL
LCSD: 100 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	1.76	2.23	78.9%	1.86	2.23	83.4%	5.5%
Dibutyltin Ion	1.24	1.92	64.6%	1.28	1.92	66.7%	3.2%
Butyltin Ion	0.68	1.56	43.6%	0.59	1.56	37.8%	14.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	89.5%	94.6%
Tripentyl Tin Chloride	73.1%	78.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-061712**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-061712
LIMS ID: 12-11562
Matrix: Water
Data Release Authorized:
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 06/17/12
Date Analyzed: 06/20/12 11:43
Instrument/Analyst: NT12/PK

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	5.8%
Tripentyl Tin Chloride	76.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-062012**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-062012
LIMS ID: 12-11563
Matrix: Water
Data Release Authorized: MW
Reported: 06/25/12

QC Report No: UZ25-Apex Labs
Project: A12F253
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 06/20/12
Date Analyzed: 06/23/12 09:54
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	RL	Result	Q
36643-28-4	Tributyltin Ion	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	94.6%
Tripentyl Tin Chloride	75.6%

Maxxam

Success Through Science®

Your Project #: A12F253
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2012/07/11

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B290439
Received: 2012/06/19, 11:55

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Water (8290) (1)	3	2012/06/22	2012/06/30	BRL SOP-00406	EPA 8290 mod.
Dioxins/Furans in Water (8290) (1)	2	2012/06/22	2012/07/01	BRL SOP-00406	EPA 8290 mod.
PCB Congeners in Water (1668A)	2	2012/06/27	2012/07/03	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Water (1668A)	2	2012/06/27	2012/07/04	BRL SOP-00408	EPA 1668A mod.
PCB Congeners in Water (1668A)	1	2012/07/05	2012/07/08	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Lina Barreto, Project Manager
Email: LBarreto@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.91 U	0.91	19	1.00	0.910		2893208
1,2,3,7,8-Penta CDD	pg/L	0.89 U	0.89	49	1.00	0.890		2893208
1,2,3,4,7,8-Hexa CDD	pg/L	0.78 U	0.78	49	0.100	0.0780		2893208
1,2,3,6,7,8-Hexa CDD	pg/L	0.71 U	0.71	49	0.100	0.0710		2893208
1,2,3,7,8,9-Hexa CDD	pg/L	0.70 U	0.70	49	0.100	0.0700		2893208
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.71 J	0.61	49	0.0100	0.0171		2893208
Octa CDD	pg/L	6.8 J	1.7	97	0.000300	0.00204		2893208
Total Tetra CDD	pg/L	0.91 U	0.91	19				2893208
Total Penta CDD	pg/L	0.89 U	0.89	49				2893208
Total Hexa CDD	pg/L	1.14 J	0.73	49				2893208
Total Hepta CDD	pg/L	2.92 J	0.61	49				2893208
2,3,7,8-Tetra CDF **	pg/L	0.63 U (1)	0.63	19	0.100	0.0630		2893208
1,2,3,7,8-Penta CDF	pg/L	0.96 U	0.96	49	0.0300	0.0288		2893208
2,3,4,7,8-Penta CDF	pg/L	0.97 U	0.97	49	0.300	0.291		2893208
1,2,3,4,7,8-Hexa CDF	pg/L	0.92 J	0.54	49	0.100	0.0920		2893208
1,2,3,6,7,8-Hexa CDF	pg/L	0.54 U	0.54	49	0.100	0.0540		2893208
2,3,4,6,7,8-Hexa CDF	pg/L	0.58 U	0.58	49	0.100	0.0580		2893208
1,2,3,7,8,9-Hexa CDF	pg/L	0.63 U	0.63	49	0.100	0.0630		2893208
1,2,3,4,6,7,8-Hepta CDF	pg/L	1.9 U (1)	1.9	49	0.0100	0.0190		2893208
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.87 U	0.87	49	0.0100	0.00870		2893208
Octa CDF	pg/L	2.2 J	1.1	97	0.000300	0.000660		2893208
Total Tetra CDF	pg/L	0.63 U (1)	0.63	19				2893208
Total Penta CDF	pg/L	0.96 U	0.96	49				2893208
Total Hexa CDF	pg/L	0.92 J	0.57	49				2893208
Total Hepta CDF	pg/L	2.1 U (1)	2.1	49				2893208
TOTAL TOXIC EQUIVALENCY	pg/L					2.72		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	96						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	98						2893208
C13-123478 HexaCDF	%	88						2893208
C13-123678 HexaCDD *	%	82						2893208
C13-12378 PentaCDD	%	85						2893208
C13-12378 PentaCDF	%	81						2893208
C13-2378 TetraCDD	%	81						2893208
C13-2378 TetraCDF	%	77						2893208
C13-OCDD	%	94						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.84 U	0.84	19	1.00	0.840		2893208
1,2,3,7,8-Penta CDD	pg/L	0.69 U	0.69	49	1.00	0.690		2893208
1,2,3,4,7,8-Hexa CDD	pg/L	0.83 U	0.83	49	0.100	0.0830		2893208
1,2,3,6,7,8-Hexa CDD	pg/L	0.76 U	0.76	49	0.100	0.0760		2893208
1,2,3,7,8,9-Hexa CDD	pg/L	0.75 U	0.75	49	0.100	0.0750		2893208
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.46 J	0.50	49	0.0100	0.0146		2893208
Octa CDD	pg/L	5.7 J	2.0	97	0.000300	0.00171		2893208
Total Tetra CDD	pg/L	0.84 U	0.84	19				2893208
Total Penta CDD	pg/L	0.69 U	0.69	49				2893208
Total Hexa CDD	pg/L	1.23 J	0.78	49				2893208
Total Hepta CDD	pg/L	2.51 J	0.50	49				2893208
2,3,7,8-Tetra CDF **	pg/L	0.51 U	0.51	19	0.100	0.0510		2893208
1,2,3,7,8-Penta CDF	pg/L	0.94 U	0.94	49	0.0300	0.0282		2893208
2,3,4,7,8-Penta CDF	pg/L	0.95 U	0.95	49	0.300	0.285		2893208
1,2,3,4,7,8-Hexa CDF	pg/L	0.99 J	0.64	49	0.100	0.0990		2893208
1,2,3,6,7,8-Hexa CDF	pg/L	0.63 U	0.63	49	0.100	0.0630		2893208
2,3,4,6,7,8-Hexa CDF	pg/L	0.69 U	0.69	49	0.100	0.0690		2893208
1,2,3,7,8,9-Hexa CDF	pg/L	0.74 U	0.74	49	0.100	0.0740		2893208
1,2,3,4,6,7,8-Hepta CDF	pg/L	1.5 U (1)	1.5	49	0.0100	0.0150		2893208
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.72 U	0.72	49	0.0100	0.00720		2893208
Octa CDF	pg/L	2.4 J	1.2	97	0.000300	0.000720		2893208
Total Tetra CDF	pg/L	0.51 U	0.51	19				2893208
Total Penta CDF	pg/L	0.94 U	0.94	49				2893208
Total Hexa CDF	pg/L	0.99 J	0.67	49				2893208
Total Hepta CDF	pg/L	1.6 U (1)	1.6	49				2893208
TOTAL TOXIC EQUIVALENCY	pg/L					2.47		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	89						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	93						2893208
C13-123478 HexaCDF	%	83						2893208
C13-123678 HexaCDD *	%	78						2893208
C13-12378 PentaCDD	%	83						2893208
C13-12378 PentaCDF	%	80						2893208
C13-2378 TetraCDD	%	80						2893208
C13-2378 TetraCDF	%	76						2893208
C13-OCDD	%	89						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.87 U	0.87	20	1.00	0.870		2893208
1,2,3,7,8-Penta CDD	pg/L	0.84 U	0.84	51	1.00	0.840		2893208
1,2,3,4,7,8-Hexa CDD	pg/L	0.73 U	0.73	51	0.100	0.0730		2893208
1,2,3,6,7,8-Hexa CDD	pg/L	0.66 U	0.66	51	0.100	0.0660		2893208
1,2,3,7,8,9-Hexa CDD	pg/L	0.65 U	0.65	51	0.100	0.0650		2893208
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.61 J	0.58	51	0.0100	0.0161		2893208
Octa CDD	pg/L	5.4 J	1.0	100	0.000300	0.00162		2893208
Total Tetra CDD	pg/L	0.87 U	0.87	20				2893208
Total Penta CDD	pg/L	0.84 U	0.84	51				2893208
Total Hexa CDD	pg/L	1.2 U (1)	1.2	51				2893208
Total Hepta CDD	pg/L	2.69 J	0.58	51				2893208
2,3,7,8-Tetra CDF **	pg/L	0.65 U	0.65	20	0.100	0.0650		2893208
1,2,3,7,8-Penta CDF	pg/L	0.88 U	0.88	51	0.0300	0.0264		2893208
2,3,4,7,8-Penta CDF	pg/L	0.89 U	0.89	51	0.300	0.267		2893208
1,2,3,4,7,8-Hexa CDF	pg/L	0.72 U (1)	0.72	51	0.100	0.0720		2893208
1,2,3,6,7,8-Hexa CDF	pg/L	0.62 U	0.62	51	0.100	0.0620		2893208
2,3,4,6,7,8-Hexa CDF	pg/L	0.67 U	0.67	51	0.100	0.0670		2893208
1,2,3,7,8,9-Hexa CDF	pg/L	0.73 U	0.73	51	0.100	0.0730		2893208
1,2,3,4,6,7,8-Hepta CDF	pg/L	1.7 U (1)	1.7	51	0.0100	0.0170		2893208
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.1 U	1.1	51	0.0100	0.0110		2893208
Octa CDF	pg/L	2.2 J	1.1	100	0.000300	0.000660		2893208
Total Tetra CDF	pg/L	0.65 U	0.65	20				2893208
Total Penta CDF	pg/L	0.88 U	0.88	51				2893208
Total Hexa CDF	pg/L	0.76 U (1)	0.76	51				2893208
Total Hepta CDF	pg/L	1.9 U (1)	1.9	51				2893208
TOTAL TOXIC EQUIVALENCY	pg/L					2.59		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	86						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	91						2893208
C13-123478 HexaCDF	%	84						2893208
C13-123678 HexaCDD *	%	78						2893208
C13-12378 PentaCDD	%	82						2893208
C13-12378 PentaCDF	%	80						2893208
C13-2378 TetraCDD	%	77						2893208
C13-2378 TetraCDF	%	73						2893208
C13-OCDD	%	89						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.69 U	0.69	20	1.00	0.690		2893208
1,2,3,7,8-Penta CDD	pg/L	0.62 U	0.62	51	1.00	0.620		2893208
1,2,3,4,7,8-Hexa CDD	pg/L	0.77 U	0.77	51	0.100	0.0770		2893208
1,2,3,6,7,8-Hexa CDD	pg/L	0.69 U	0.69	51	0.100	0.0690		2893208
1,2,3,7,8,9-Hexa CDD	pg/L	0.69 U	0.69	51	0.100	0.0690		2893208
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.47 J	0.66	51	0.0100	0.0147		2893208
Octa CDD	pg/L	4.7 J	1.0	100	0.000300	0.00141		2893208
Total Tetra CDD	pg/L	0.69 U	0.69	20				2893208
Total Penta CDD	pg/L	0.62 U	0.62	51				2893208
Total Hexa CDD	pg/L	1.7 U (1)	1.7	51				2893208
Total Hepta CDD	pg/L	1.47 J	0.66	51				2893208
2,3,7,8-Tetra CDF **	pg/L	0.70 U	0.70	20	0.100	0.0700		2893208
1,2,3,7,8-Penta CDF	pg/L	0.60 U	0.60	51	0.0300	0.0180		2893208
2,3,4,7,8-Penta CDF	pg/L	0.61 U	0.61	51	0.300	0.183		2893208
1,2,3,4,7,8-Hexa CDF	pg/L	0.75 U	0.75	51	0.100	0.0750		2893208
1,2,3,6,7,8-Hexa CDF	pg/L	0.75 U	0.75	51	0.100	0.0750		2893208
2,3,4,6,7,8-Hexa CDF	pg/L	0.82 U	0.82	51	0.100	0.0820		2893208
1,2,3,7,8,9-Hexa CDF	pg/L	0.90 U	0.90	51	0.100	0.0900		2893208
1,2,3,4,6,7,8-Hepta CDF	pg/L	1.5 U (1)	1.5	51	0.0100	0.0150		2893208
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.71 U	0.71	51	0.0100	0.00710		2893208
Octa CDF	pg/L	1.7 U (1)	1.7	100	0.000300	0.000510		2893208
Total Tetra CDF	pg/L	0.70 U	0.70	20				2893208
Total Penta CDF	pg/L	0.61 U	0.61	51				2893208
Total Hexa CDF	pg/L	0.80 U	0.80	51				2893208
Total Hepta CDF	pg/L	1.7 U (1)	1.7	51				2893208
TOTAL TOXIC EQUIVALENCY	pg/L					2.16		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	93						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	97						2893208
C13-123478 HexaCDF	%	86						2893208
C13-123678 HexaCDD *	%	78						2893208
C13-12378 PentaCDD	%	78						2893208
C13-12378 PentaCDF	%	76						2893208
C13-2378 TetraCDD	%	79						2893208
C13-2378 TetraCDF	%	74						2893208
C13-OCDD	%	89						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7631						
Sampling Date		2012/06/13 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	0.73 U	0.73	19	1.00	0.730		2893208
1,2,3,7,8-Penta CDD	pg/L	0.62 U	0.62	48	1.00	0.620		2893208
1,2,3,4,7,8-Hexa CDD	pg/L	0.73 U	0.73	48	0.100	0.0730		2893208
1,2,3,6,7,8-Hexa CDD	pg/L	0.65 U	0.65	48	0.100	0.0650		2893208
1,2,3,7,8,9-Hexa CDD	pg/L	0.65 U	0.65	48	0.100	0.0650		2893208
1,2,3,4,6,7,8-Hepta CDD	pg/L	1.8 U (1)	1.8	48	0.0100	0.0180		2893208
Octa CDD	pg/L	7.7 J	1.0	96	0.000300	0.00231		2893208
Total Tetra CDD	pg/L	0.73 U	0.73	19				2893208
Total Penta CDD	pg/L	0.62 U	0.62	48				2893208
Total Hexa CDD	pg/L	1.2 U (1)	1.2	48				2893208
Total Hepta CDD	pg/L	1.8 U (1)	1.8	48				2893208
2,3,7,8-Tetra CDF **	pg/L	0.69 U	0.69	19	0.100	0.0690		2893208
1,2,3,7,8-Penta CDF	pg/L	0.64 U	0.64	48	0.0300	0.0192		2893208
2,3,4,7,8-Penta CDF	pg/L	0.65 U	0.65	48	0.300	0.195		2893208
1,2,3,4,7,8-Hexa CDF	pg/L	0.76 U (1)	0.76	48	0.100	0.0760		2893208
1,2,3,6,7,8-Hexa CDF	pg/L	0.57 U	0.57	48	0.100	0.0570		2893208
2,3,4,6,7,8-Hexa CDF	pg/L	0.62 U	0.62	48	0.100	0.0620		2893208
1,2,3,7,8,9-Hexa CDF	pg/L	0.68 U	0.68	48	0.100	0.0680		2893208
1,2,3,4,6,7,8-Hepta CDF	pg/L	1.6 U (1)	1.6	48	0.0100	0.0160		2893208
1,2,3,4,7,8,9-Hepta CDF	pg/L	0.66 U	0.66	48	0.0100	0.00660		2893208
Octa CDF	pg/L	2.1 J	1.0	96	0.000300	0.000630		2893208
Total Tetra CDF	pg/L	0.69 U	0.69	19				2893208
Total Penta CDF	pg/L	0.64 U	0.64	48				2893208
Total Hexa CDF	pg/L	0.81 U (1)	0.81	48				2893208
Total Hepta CDF	pg/L	1.8 U (1)	1.8	48				2893208
TOTAL TOXIC EQUIVALENCY	pg/L					2.14		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	84						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		NV7631						
Sampling Date		2012/06/13 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	93						2893208
C13-123478 HexaCDF	%	88						2893208
C13-123678 HexaCDD *	%	76						2893208
C13-12378 PentaCDD	%	73						2893208
C13-12378 PentaCDF	%	73						2893208
C13-2378 TetraCDD	%	73						2893208
C13-2378 TetraCDF	%	71						2893208
C13-OCDD	%	89						2893208

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B290439
Report Date: 2012/07/11

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Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0046 U (1)	0.0046	0.10				2902010
3-MonoCB-(2)	ng/L	0.0027 U	0.0027	0.10				2902010
4-MonoCB-(3)	ng/L	0.0029 U (1)	0.0029	0.10				2902010
22'-DiCB-(4)	ng/L	0.017 U	0.017	0.10				2902010
2,3-DiCB-(5)	ng/L	0.031 U	0.031	0.10				2902010
2,3'-DiCB-(6)	ng/L	0.030 U	0.030	0.10				2902010
2,4-DiCB-(7)	ng/L	0.029 U	0.029	0.10				2902010
2,4'-DiCB-(8)	ng/L	0.028 U	0.028	0.10				2902010
2,5-DiCB-(9)	ng/L	0.028 U	0.028	0.10				2902010
2,6-DiCB-(10)	ng/L	0.015 U	0.015	0.10				2902010
3,3'-DiCB-(11)	ng/L	0.094 J	0.031	0.10				2902010
DiCB-(12)+(13)	ng/L	0.032 U	0.032	0.20				2902010
3,5-DiCB-(14)	ng/L	0.029 U	0.029	0.10				2902010
4,4'-DiCB-(15)	ng/L	0.043 U	0.043	0.10				2902010
22'3-TriCB-(16)	ng/L	0.0082 J	0.0069	0.10				2902010
22'4-TriCB-(17)	ng/L	0.0054 U	0.0054	0.10				2902010
TriCB-(18)+(30)	ng/L	0.0128 J	0.0043	0.20				2902010
22'6-TriCB-(19)	ng/L	0.0052 U	0.0052	0.10				2902010
TriCB-(20) + (28)	ng/L	0.0260 J	0.0016	0.20				2902010
TriCB-(21)+(33)	ng/L	0.0122 J	0.0017	0.20				2902010
234'-TriCB-(22)	ng/L	0.0074 U (1)	0.0074	0.10				2902010
235-TriCB-(23)	ng/L	0.0017 U	0.0017	0.10				2902010
236-TriCB-(24)	ng/L	0.0037 U	0.0037	0.10				2902010
23'4-TriCB-(25)	ng/L	0.0016 U (1)	0.0016	0.10				2902010
TriCB-(26)+(29)	ng/L	0.0031 U (1)	0.0031	0.20				2902010
23'6-TriCB-(27)	ng/L	0.0035 U	0.0035	0.10				2902010
24'5-TriCB-(31)	ng/L	0.0185 J	0.0015	0.10				2902010
24'6-TriCB-(32)	ng/L	0.0042 U (1)	0.0042	0.10				2902010

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0017 U	0.0017	0.10				2902010
33'4-TriCB-(35)	ng/L	0.0017 U	0.0017	0.10				2902010
33'5-TriCB-(36)	ng/L	0.0015 U	0.0015	0.10				2902010
344'-TriCB-(37)	ng/L	0.0093 U (1)	0.0093	0.10				2902010
345-TriCB-(38)	ng/L	0.0017 U	0.0017	0.10				2902010
34'5-TriCB-(39)	ng/L	0.0016 U	0.0016	0.10				2902010
TetraCB-(40)+(41)+(71)	ng/L	0.011 U (1)	0.011	0.30				2902010
22'34'-TetraCB-(42)	ng/L	0.0076 J	0.0028	0.10				2902010
22'35-TetraCB-(43)	ng/L	0.0031 U	0.0031	0.10				2902010
TetraCB-(44)+(47)+(65)	ng/L	0.0384 J	0.0023	0.30				2902010
TetraCB-(45)+(51)	ng/L	0.0090 J	0.0023	0.20				2902010
22'36'-TetraCB-(46)	ng/L	0.0029 U	0.0029	0.10				2902010
22'45-TetraCB-(48)	ng/L	0.0031 U (1)	0.0031	0.10				2902010
TetraCB-(49)+TetraCB-(69)	ng/L	0.016 U (1)	0.016	0.20				2902010
TetraCB-(50)+(53)	ng/L	0.0032 U (1)	0.0032	0.20				2902010
22'55'-TetraCB-(52)	ng/L	0.0505 J	0.0024	0.10				2902010
22'66'-TetraCB-(54)	ng/L	0.0022 U	0.0022	0.10				2902010
233'4-TetraCB-(55)	ng/L	0.00095 U	0.00095	0.10				2902010
233'4'-Tetra CB(56)	ng/L	0.0058 U (1)	0.0058	0.10				2902010
233'5-TetraCB-(57)	ng/L	0.00091 U	0.00091	0.10				2902010
233'5'-TetraCB-(58)	ng/L	0.00087 U	0.00087	0.10				2902010
TetraCB-(59)+(62)+(75)	ng/L	0.0027 U (1)	0.0027	0.30				2902010
2344'-TetraCB -(60)	ng/L	0.0021 U (1)	0.0021	0.10				2902010
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0300 J	0.00093	0.40				2902010
234'5-TetraCB-(63)	ng/L	0.00087 U	0.00087	0.10				2902010
234'6-TetraCB-(64)	ng/L	0.010 U (1)	0.010	0.10				2902010
23'44'-TetraCB-(66)	ng/L	0.0141 J	0.00085	0.10				2902010
23'45-TetraCB-(67)	ng/L	0.00134 J	0.00087	0.10				2902010

RDL = Reportable Detection Limit
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Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0021 U (1)	0.0021	0.10				2902010
23'55'-TetraCB-(72)	ng/L	0.00087 U	0.00087	0.10				2902010
23'5'6-TetraCB-(73)	ng/L	0.0017 U	0.0017	0.10				2902010
33'44'-TetraCB-(77)	ng/L	0.0029 J	0.0013	0.10	0.000100	0.000000290		2902010
33'45-TetraCB-(78)	ng/L	0.00094 U	0.00094	0.10				2902010
33'45'-TetraCB(79)	ng/L	0.00079 U	0.00079	0.10				2902010
33'55'-TetraCB-(80)	ng/L	0.00084 U	0.00084	0.10				2902010
344'5-TetraCB-(81)	ng/L	0.0013 U	0.0013	0.10	0.000300	0.000000390		2902010
22'33'4-PentaCB-(82)	ng/L	0.0046 U (1)	0.0046	0.10				2902010
PentaCB-(83)+(99)	ng/L	0.0302 J	0.0013	0.20				2902010
22'33'6-PentaCB-(84)	ng/L	0.0152 J	0.0015	0.10				2902010
PentaCB-(85)+(116)+(117)	ng/L	0.0073 J	0.0011	0.30				2902010
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.0398 J	0.0011	0.60				2902010
PentaCB-(88)+(91)	ng/L	0.0082 U (1)	0.0082	0.20				2902010
22'346'-PentaCB-(89)	ng/L	0.0014 U	0.0014	0.10				2902010
PentaCB-(90)+(101)+(113)	ng/L	0.0927 J	0.0010	0.30				2902010
22'355'-PentaCB-(92)	ng/L	0.019 U (1)	0.019	0.10				2902010
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0013 U	0.0013	0.40				2902010
22'356'-PentaCB-(94)	ng/L	0.0013 U	0.0013	0.10				2902010
22'35'6-PentaCB-(95)	ng/L	0.0992 J	0.0012	0.10				2902010
22'366'-PentaCB-(96)	ng/L	0.00074 U	0.00074	0.10				2902010
22'45'6-PentaCB-(103)	ng/L	0.0011 U	0.0011	0.10				2902010
22'466'-PentaCB-(104)	ng/L	0.00067 U	0.00067	0.10				2902010
233'44'-PentaCB-(105)	ng/L	0.0161 J	0.00094	0.10	0.0000300	0.000000483		2902010
233'45-PentaCB-(106)	ng/L	0.00072 U	0.00072	0.10				2902010
233'4'5-PentaCB-(107)	ng/L	0.00217 J	0.00070	0.10				2902010
PentaCB-(108)+(124)	ng/L	0.00225 J	0.00072	0.20				2902010
PentaCB-(110)+(115)	ng/L	0.100 J	0.0010	0.20				2902010

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00092 U	0.00092	0.10				2902010
233'56-PentaCB-(112)	ng/L	0.0010 U	0.0010	0.10				2902010
2344'5-PentaCB-(114)	ng/L	0.00089 U	0.00089	0.10	0.0000300	0.0000000267		2902010
23'44'5-PentaCB-(118)	ng/L	0.0441 J	0.00094	0.10	0.0000300	0.00000132		2902010
23'455'-PentaCB-(120)	ng/L	0.00089 U	0.00089	0.10				2902010
23'45'6-PentaCB-(121)	ng/L	0.00090 U	0.00090	0.10				2902010
233'4'5'-PentaCB-(122)	ng/L	0.00084 U	0.00084	0.10				2902010
23'44'5'-PentaCB-(123)	ng/L	0.00098 U	0.00098	0.10	0.0000300	0.0000000294		2902010
33'44'5-PentaCB-(126)	ng/L	0.00093 U	0.00093	0.10	0.100	0.0000930		2902010
33'455'-PentaCB-(127)	ng/L	0.00076 U	0.00076	0.10				2902010
HexaCB-(128)+(166)	ng/L	0.011 U (1)	0.011	0.20				2902010
HexaCB-(129)+(138)+(163)	ng/L	0.149 J	0.0015	0.30				2902010
22'33'45'-HexaCB-(130)	ng/L	0.0068 J	0.0017	0.10				2902010
22'33'46-HexaCB-(131)	ng/L	0.0017 U	0.0017	0.10				2902010
22'33'46'-HexaCB-(132)	ng/L	0.0519 J	0.0017	0.10				2902010
22'33'55'-HexaCB-(133)	ng/L	0.0016 U	0.0016	0.10				2902010
HexaCB-(134)+(143)	ng/L	0.0072 J	0.0017	0.20				2902010
HexaCB-(135)+(151)	ng/L	0.0810 J	0.0018	0.20				2902010
22'33'66'-HexaCB-(136)	ng/L	0.0337 J	0.0013	0.10				2902010
22'344'5-HexaCB-(137)	ng/L	0.0019 U (1)	0.0019	0.10				2902010
HexaCB-(139)+(140)	ng/L	0.0014 U	0.0014	0.20				2902010
22'3455'-HexaCB-(141)	ng/L	0.0320 J	0.0015	0.10				2902010
22'3456-HexaCB-(142)	ng/L	0.0017 U	0.0017	0.10				2902010
22'345'6-HexaCB-(144)	ng/L	0.0095 J	0.0017	0.10				2902010
22'3466'-HexaCB-(145)	ng/L	0.0013 U	0.0013	0.10				2902010
22'34'55'-HexaCB-(146)	ng/L	0.0243 J	0.0014	0.10				2902010
HexaCB-(147)+(149)	ng/L	0.128 J	0.0014	0.20				2902010
22'34'56'-HexaCB-(148)	ng/L	0.0017 U	0.0017	0.10				2902010

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Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0012 U	0.0012	0.10				2902010
22'3566'-HexaCB-(152)	ng/L	0.0011 U	0.0011	0.10				2902010
HexaCB-(153)+(168)	ng/L	0.123 J	0.0012	0.20				2902010
22'44'56'-HexaCB-(154)	ng/L	0.0015 U (1)	0.0015	0.10				2902010
22'44'66'-HexaCB-(155)	ng/L	0.0013 U	0.0013	0.10				2902010
HexaCB-(156)+(157)	ng/L	0.0115 J	0.0018	0.20	0.0000300	0.000000345		2902010
233'44'6-HexaCB-(158)	ng/L	0.0128 J	0.0011	0.10				2902010
233'455'-HexaCB-(159)	ng/L	0.0015 U	0.0015	0.10				2902010
233'456-HexaCB-(160)	ng/L	0.0012 U	0.0012	0.10				2902010
233'45'6-HexaCB-(161)	ng/L	0.0012 U	0.0012	0.10				2902010
233'4'55'-HexaCB-(162)	ng/L	0.0015 U	0.0015	0.10				2902010
233'4'5'6-HexaCB-(164)	ng/L	0.012 U (1)	0.012	0.10				2902010
233'55'6-HexaCB-(165)	ng/L	0.0012 U	0.0012	0.10				2902010
23'44'55'-HexaCB-(167)	ng/L	0.0058 J	0.0019	0.10	0.0000300	0.000000174		2902010
33'44'55'-HexaCB-(169)	ng/L	0.0019 U	0.0019	0.10	0.0300	0.0000570		2902010
22'33'44'5-HeptaCB-(170)	ng/L	0.0441 J	0.0013	0.10				2902010
HeptaCB-(171)+(173)	ng/L	0.0133 J	0.0013	0.20				2902010
22'33'455'-HeptaCB-(172)	ng/L	0.0060 U (1)	0.0060	0.10				2902010
22'33'456'-HeptaCB-(174)	ng/L	0.0396 J	0.0012	0.10				2902010
22'33'45'6-HeptaCB-(175)	ng/L	0.0023 U (1)	0.0023	0.10				2902010
22'33'466'-HeptaCB-(176)	ng/L	0.0072 J	0.0013	0.10				2902010
22'33'45'6'-HeptaCB-(177)	ng/L	0.0236 J	0.0013	0.10				2902010
22'33'55'6-HeptaCB-(178)	ng/L	0.0065 U (1)	0.0065	0.10				2902010
22'33'566'-HeptaCB-(179)	ng/L	0.0194 J	0.0012	0.10				2902010
HeptaCB-(180)+(193)	ng/L	0.0749 J	0.0010	0.20				2902010
22'344'56-HeptaCB-(181)	ng/L	0.0012 U	0.0012	0.10				2902010
22'344'56'-HeptaCB-(182)	ng/L	0.0017 U	0.0017	0.10				2902010
22'344'5'6-HeptaCB-(183)	ng/L	0.0211 J	0.0011	0.10				2902010

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.0011 U	0.0011	0.10				2902010
22'3455'6-HeptaCB-(185)	ng/L	0.0013 U	0.0013	0.10				2902010
22'34566'-HeptaCB-(186)	ng/L	0.0012 U	0.0012	0.10				2902010
22'34'55'6-HeptaCB-(187)	ng/L	0.0467 J	0.0015	0.10				2902010
22'34'566'-HeptaCB-(188)	ng/L	0.0016 U	0.0016	0.10				2902010
233'44'55'-HeptaCB-(189)	ng/L	0.0017 J	0.0015	0.10	0.0000300	0.0000000510		2902010
233'44'56-HeptaCB-(190)	ng/L	0.00675 J	0.00097	0.10				2902010
233'44'5'6-HeptaCB-(191)	ng/L	0.00093 U	0.00093	0.10				2902010
233'455'6-HeptaCB-(192)	ng/L	0.0010 U	0.0010	0.10				2902010
22'33'44'55'-OctaCB-(194)	ng/L	0.011 U (1)	0.011	0.10				2902010
22'33'44'56-OctaCB-(195)	ng/L	0.0050 J	0.0024	0.10				2902010
22'33'44'56'-OctaCB-(196)	ng/L	0.0053 U (1)	0.0053	0.10				2902010
22'33'44'66'OctaCB-(197)	ng/L	0.0012 U	0.0012	0.10				2902010
OctaCB-(198)+(199)	ng/L	0.0134 J	0.0019	0.20				2902010
22'33'4566'-OctaCB-(200)	ng/L	0.0015 U	0.0015	0.10				2902010
22'33'45'66'-OctaCB-(201)	ng/L	0.0020 U (1)	0.0020	0.10				2902010
22'33'55'66'-OctaCB-(202)	ng/L	0.0023 U (1)	0.0023	0.10				2902010
22'344'55'6-OctaCB-(203)	ng/L	0.0088 J	0.0018	0.10				2902010
22'344'566'-OctaCB-(204)	ng/L	0.0013 U	0.0013	0.10				2902010
233'44'55'6-OctaCB-(205)	ng/L	0.0021 U	0.0021	0.10				2902010
22'33'44'55'6-NonaCB-(206)	ng/L	0.0054 J	0.0036	0.10				2902010
22'33'44'566'-NonaCB-(207)	ng/L	0.0025 U	0.0025	0.10				2902010
22'33'455'66'-NonaCB-(208)	ng/L	0.0037 U	0.0037	0.10				2902010
DecaCB-(209)	ng/L	0.0056 U (1)	0.0056	0.10				2902010
Monochlorobiphenyl	ng/L	0.0029 U	0.0029	N/A				2902010
Dichlorobiphenyl	ng/L	0.094	0.043	N/A				2902010
Trichlorobiphenyl	ng/L	0.0777	0.0069	N/A				2902010
Tetrachlorobiphenyl	ng/L	0.154	0.0031	N/A				2902010

RDL = Reportable Detection Limit
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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW4-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.449	0.0015	N/A				2902010
Hexachlorobiphenyl	ng/L	0.676	0.0019	N/A				2902010
Heptachlorobiphenyl	ng/L	0.299	0.0018	N/A				2902010
Octachlorobiphenyl	ng/L	0.0272	0.0024	N/A				2902010
Nonachlorobiphenyl	ng/L	0.0054	0.0037	N/A				2902010
Decachlorobiphenyl	ng/L	0.0019 U	0.0019	N/A				2902010
Total PCB	ng/L	1.78	N/A	N/A				2902010
TOTAL TOXIC EQUIVALENCY	ng/L					0.000153		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	74						2902010
C13-22'33'44'55'6-NonaCB-(206)	%	84						2902010
C13-22'33'44'5-HeptaCB-(170)	%	93						2902010
C13-22'33'455'66'-NonaCB-(208)	%	87						2902010
C13-22'33'55'66'-OctaCB-(202)	%	87						2902010
C13-22'33'55'6-HeptaCB-(178)	%	84						2902010
C13-22'344'55'-HeptaCB-(180)	%	95						2902010
C13-22'34'566'-HeptaCB-(188)	%	84						2902010
C13-22'44'66'-HexaCB-(155)	%	74						2902010
C13-22'466'-PentaCB-(104)	%	55						2902010
C13-22'66'-TetraCB-(54)	%	30						2902010
C13-22'6-TriCB-(19)	%	31						2902010
C13-22'-DiCB-(4)	%	23 (1)						2902010
C13-233'44'55'6-OctaCB-(205)	%	100						2902010
C13-233'44'55'-HeptaCB-(189)	%	116						2902010
C13-233'44'-PentaCB-(105)	%	102						2902010
C13-233'55'-PentaCB-(111)	%	87						2902010
C13-23'44'55'-HexaCB-(167)	%	110						2902010
C13-2344'5-PentaCB-(114)	%	95						2902010

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) Internal standard recovery meets 14-107% acceptance criteria

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7627						
Sampling Date		2012/06/13 15:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**MW4-20120613**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-23'44'5-PentaCB-(118)	%	102						2902010
C13-2'344'5-PentaCB-(123)	%	100						2902010
C13-2-MonoCB-(1)	%	27						2902010
C13-33'44'55'-HexaCB-(169)	%	111						2902010
C13-33'44'5-PentaCB-(126)	%	105						2902010
C13-33'44'-TetraCB-(77)	%	95						2902010
C13-344'5-TetraCB-(81)	%	92						2902010
C13-344'-TriCB-(37)	%	85						2902010
C13-44'-DiCB-(15)	%	51						2902010
C13-4-MonoCB-(3)	%	32						2902010
C13-DecaCB-(209)	%	75						2902010
C13-HexaCB-(156)+(157)	%	113						2902010

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0028 U	0.0028	0.10				2896786
3-MonoCB-(2)	ng/L	0.0026 U	0.0026	0.10				2896786
4-MonoCB-(3)	ng/L	0.0028 U	0.0028	0.10				2896786
22'-DiCB-(4)	ng/L	0.015 U	0.015	0.10				2896786
2,3-DiCB-(5)	ng/L	0.028 U	0.028	0.10				2896786
2,3'-DiCB-(6)	ng/L	0.026 U	0.026	0.10				2896786
2,4-DiCB-(7)	ng/L	0.026 U	0.026	0.10				2896786
2,4'-DiCB-(8)	ng/L	0.024 U	0.024	0.10				2896786
2,5-DiCB-(9)	ng/L	0.025 U	0.025	0.10				2896786
2,6-DiCB-(10)	ng/L	0.012 U	0.012	0.10				2896786
3,3'-DiCB-(11)	ng/L	0.11	0.027	0.10				2896786
DiCB-(12)+(13)	ng/L	0.027 U	0.027	0.20				2896786
3,5-DiCB-(14)	ng/L	0.026 U	0.026	0.10				2896786
4,4'-DiCB-(15)	ng/L	0.037 U	0.037	0.10				2896786
22'3-TriCB-(16)	ng/L	0.0058 U	0.0058	0.10				2896786
22'4-TriCB-(17)	ng/L	0.0046 U	0.0046	0.10				2896786
TriCB-(18)+(30)	ng/L	0.018 U (1)	0.018	0.20				2896786
22'6-TriCB-(19)	ng/L	0.0044 U	0.0044	0.10				2896786
TriCB-(20) + (28)	ng/L	0.0295 J	0.0013	0.20				2896786
TriCB-(21)+(33)	ng/L	0.0158 J	0.0013	0.20				2896786
234'-TriCB-(22)	ng/L	0.011 U (1)	0.011	0.10				2896786
235-TriCB-(23)	ng/L	0.0013 U	0.0013	0.10				2896786
236-TriCB-(24)	ng/L	0.0033 U	0.0033	0.10				2896786
23'4-TriCB-(25)	ng/L	0.0020 U (1)	0.0020	0.10				2896786
TriCB-(26)+(29)	ng/L	0.0046 J	0.0013	0.20				2896786
23'6-TriCB-(27)	ng/L	0.0031 U	0.0031	0.10				2896786
24'5-TriCB-(31)	ng/L	0.0226 J	0.0012	0.10				2896786
24'6-TriCB-(32)	ng/L	0.0066 J	0.0029	0.10				2896786

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Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0013 U	0.0013	0.10				2896786
33'4-TriCB-(35)	ng/L	0.0022 U (1)	0.0022	0.10				2896786
33'5-TriCB-(36)	ng/L	0.0012 U	0.0012	0.10				2896786
344'-TriCB-(37)	ng/L	0.0069 U (1)	0.0069	0.10				2896786
345-TriCB-(38)	ng/L	0.0013 U	0.0013	0.10				2896786
34'5-TriCB-(39)	ng/L	0.0012 U	0.0012	0.10				2896786
TetraCB-(40)+(41)+(71)	ng/L	0.0131 J	0.0017	0.30				2896786
22'34'-TetraCB-(42)	ng/L	0.0085 J	0.0020	0.10				2896786
22'35-TetraCB-(43)	ng/L	0.0022 U	0.0022	0.10				2896786
TetraCB-(44)+(47)+(65)	ng/L	0.0334 J	0.0016	0.30				2896786
TetraCB-(45)+(51)	ng/L	0.010 U	0.010	0.20				2896786
22'36'-TetraCB-(46)	ng/L	0.0020 U	0.0020	0.10				2896786
22'45-TetraCB-(48)	ng/L	0.0055 J	0.0016	0.10				2896786
TetraCB-(49)+TetraCB-(69)	ng/L	0.0163 J	0.0015	0.20				2896786
TetraCB-(50)+(53)	ng/L	0.0044 U (1)	0.0044	0.20				2896786
22'55'-TetraCB-(52)	ng/L	0.0565 J	0.0016	0.10				2896786
22'66'-TetraCB-(54)	ng/L	0.0044 U	0.0044	0.10				2896786
233'4-TetraCB-(55)	ng/L	0.0024 U	0.0024	0.10				2896786
233'4'-Tetra CB(56)	ng/L	0.0082 U (1)	0.0082	0.10				2896786
233'5-TetraCB-(57)	ng/L	0.0023 U	0.0023	0.10				2896786
233'5'-TetraCB-(58)	ng/L	0.0023 U	0.0023	0.10				2896786
TetraCB-(59)+(62)+(75)	ng/L	0.0016 U (1)	0.0016	0.30				2896786
2344'-TetraCB -(60)	ng/L	0.0048 U (1)	0.0048	0.10				2896786
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0395 J	0.0024	0.40				2896786
234'5-TetraCB-(63)	ng/L	0.0023 U	0.0023	0.10				2896786
234'6-TetraCB-(64)	ng/L	0.0084 U (1)	0.0084	0.10				2896786
23'44'-TetraCB-(66)	ng/L	0.0180 J	0.0022	0.10				2896786
23'45-TetraCB-(67)	ng/L	0.0022 U	0.0022	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0022 U (1)	0.0022	0.10				2896786
23'55'-TetraCB-(72)	ng/L	0.0022 U	0.0022	0.10				2896786
23'5'6-TetraCB-(73)	ng/L	0.0012 U	0.0012	0.10				2896786
33'44'-TetraCB-(77)	ng/L	0.0029 U (1)	0.0029	0.10	0.000100	0.000000290		2896786
33'45-TetraCB-(78)	ng/L	0.0024 U	0.0024	0.10				2896786
33'45'-TetraCB(79)	ng/L	0.0021 U	0.0021	0.10				2896786
33'55'-TetraCB-(80)	ng/L	0.0022 U	0.0022	0.10				2896786
344'5-TetraCB-(81)	ng/L	0.0030 U	0.0030	0.10	0.000300	0.000000900		2896786
22'33'4-PentaCB-(82)	ng/L	0.0051 J	0.0013	0.10				2896786
PentaCB-(83)+(99)	ng/L	0.011 U (1)	0.011	0.20				2896786
22'33'6-PentaCB-(84)	ng/L	0.0138 J	0.0013	0.10				2896786
PentaCB-(85)+(116)+(117)	ng/L	0.0014 U (1)	0.0014	0.30				2896786
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.0444 J	0.00096	0.60				2896786
PentaCB-(88)+(91)	ng/L	0.0028 U (1)	0.0028	0.20				2896786
22'346'-PentaCB-(89)	ng/L	0.0012 U	0.0012	0.10				2896786
PentaCB-(90)+(101)+(113)	ng/L	0.10 U (1)	0.10	0.30				2896786
22'355'-PentaCB-(92)	ng/L	0.0166 J	0.0011	0.10				2896786
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0011 U	0.0011	0.40				2896786
22'356'-PentaCB-(94)	ng/L	0.0012 U	0.0012	0.10				2896786
22'35'6-PentaCB-(95)	ng/L	0.10	0.0010	0.10				2896786
22'366'-PentaCB-(96)	ng/L	0.0023 U	0.0023	0.10				2896786
22'45'6-PentaCB-(103)	ng/L	0.00095 U	0.00095	0.10				2896786
22'466'-PentaCB-(104)	ng/L	0.0025 U	0.0025	0.10				2896786
233'44'-PentaCB-(105)	ng/L	0.0103 J	0.0033	0.10	0.0000300	0.000000309		2896786
233'45-PentaCB-(106)	ng/L	0.0027 U	0.0027	0.10				2896786
233'4'5-PentaCB-(107)	ng/L	0.0027 U	0.0027	0.10				2896786
PentaCB-(108)+(124)	ng/L	0.0026 U	0.0026	0.20				2896786
PentaCB-(110)+(115)	ng/L	0.100 J	0.00090	0.20				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00080 U	0.00080	0.10				2896786
233'56-PentaCB-(112)	ng/L	0.00088 U	0.00088	0.10				2896786
2344'5-PentaCB-(114)	ng/L	0.0031 U	0.0031	0.10	0.0000300	0.0000000930		2896786
23'44'5-PentaCB-(118)	ng/L	0.0634 J	0.0033	0.10	0.0000300	0.00000190		2896786
23'455'-PentaCB-(120)	ng/L	0.00078 U	0.00078	0.10				2896786
23'45'6-PentaCB-(121)	ng/L	0.00078 U	0.00078	0.10				2896786
233'4'5'-PentaCB-(122)	ng/L	0.0030 U	0.0030	0.10				2896786
23'44'5'-PentaCB-(123)	ng/L	0.0034 U	0.0034	0.10	0.0000300	0.000000102		2896786
33'44'5-PentaCB-(126)	ng/L	0.0032 U	0.0032	0.10	0.100	0.000320		2896786
33'455'-PentaCB-(127)	ng/L	0.0028 U	0.0028	0.10				2896786
HexaCB-(128)+(166)	ng/L	0.0211 J	0.0022	0.20				2896786
HexaCB-(129)+(138)+(163)	ng/L	0.231 J	0.0024	0.30				2896786
22'33'45'-HexaCB-(130)	ng/L	0.0079 U (1)	0.0079	0.10				2896786
22'33'46-HexaCB-(131)	ng/L	0.0028 U	0.0028	0.10				2896786
22'33'46'-HexaCB-(132)	ng/L	0.0721 J	0.0025	0.10				2896786
22'33'55'-HexaCB-(133)	ng/L	0.0024 U (1)	0.0024	0.10				2896786
HexaCB-(134)+(143)	ng/L	0.0059 U (1)	0.0059	0.20				2896786
HexaCB-(135)+(151)	ng/L	0.0743 J	0.0022	0.20				2896786
22'33'66'-HexaCB-(136)	ng/L	0.0285 J	0.0016	0.10				2896786
22'344'5-HexaCB-(137)	ng/L	0.0024 U	0.0024	0.10				2896786
HexaCB-(139)+(140)	ng/L	0.0021 U	0.0021	0.20				2896786
22'3455'-HexaCB-(141)	ng/L	0.0584 J	0.0025	0.10				2896786
22'3456-HexaCB-(142)	ng/L	0.0026 U	0.0026	0.10				2896786
22'345'6-HexaCB-(144)	ng/L	0.0145 J	0.0022	0.10				2896786
22'3466'-HexaCB-(145)	ng/L	0.0016 U	0.0016	0.10				2896786
22'34'55'-HexaCB-(146)	ng/L	0.0254 J	0.0022	0.10				2896786
HexaCB-(147)+(149)	ng/L	0.175 J	0.0022	0.20				2896786
22'34'56'-HexaCB-(148)	ng/L	0.0022 U	0.0022	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0015 U	0.0015	0.10				2896786
22'3566'-HexaCB-(152)	ng/L	0.0014 U	0.0014	0.10				2896786
HexaCB-(153)+(168)	ng/L	0.179 J	0.0019	0.20				2896786
22'44'56'-HexaCB-(154)	ng/L	0.0019 U	0.0019	0.10				2896786
22'44'66'-HexaCB-(155)	ng/L	0.0019 U	0.0019	0.10				2896786
HexaCB-(156)+(157)	ng/L	0.0223 J	0.0020	0.20	0.0000300	0.000000669		2896786
233'44'6-HexaCB-(158)	ng/L	0.0184 J	0.0018	0.10				2896786
233'455'-HexaCB-(159)	ng/L	0.0020 U	0.0020	0.10				2896786
233'456-HexaCB-(160)	ng/L	0.0018 U	0.0018	0.10				2896786
233'45'6-HexaCB-(161)	ng/L	0.0018 U	0.0018	0.10				2896786
233'4'55'-HexaCB-(162)	ng/L	0.0019 U	0.0019	0.10				2896786
233'4'5'6-HexaCB-(164)	ng/L	0.0215 J	0.0019	0.10				2896786
233'55'6-HexaCB-(165)	ng/L	0.0019 U	0.0019	0.10				2896786
23'44'55'-HexaCB-(167)	ng/L	0.0090 U (1)	0.0090	0.10	0.0000300	0.000000270		2896786
33'44'55'-HexaCB-(169)	ng/L	0.0022 U	0.0022	0.10	0.0300	0.0000660		2896786
22'33'44'5-HeptaCB-(170)	ng/L	0.0759 J	0.0024	0.10				2896786
HeptaCB-(171)+(173)	ng/L	0.020 U (1)	0.020	0.20				2896786
22'33'455'-HeptaCB-(172)	ng/L	0.0106 J	0.0027	0.10				2896786
22'33'456'-HeptaCB-(174)	ng/L	0.0706 J	0.0028	0.10				2896786
22'33'45'6-HeptaCB-(175)	ng/L	0.0045 U	0.0045	0.10				2896786
22'33'466'-HeptaCB-(176)	ng/L	0.0066 U (1)	0.0066	0.10				2896786
22'33'45'6'-HeptaCB-(177)	ng/L	0.0355 J	0.0028	0.10				2896786
22'33'55'6-HeptaCB-(178)	ng/L	0.0108 J	0.0046	0.10				2896786
22'33'566'-HeptaCB-(179)	ng/L	0.0203 J	0.0030	0.10				2896786
HeptaCB-(180)+(193)	ng/L	0.113 J	0.0020	0.20				2896786
22'344'56-HeptaCB-(181)	ng/L	0.0025 U	0.0025	0.10				2896786
22'344'56'-HeptaCB-(182)	ng/L	0.0048 U	0.0048	0.10				2896786
22'344'5'6-HeptaCB-(183)	ng/L	0.0371 J	0.0024	0.10				2896786

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.0029 U	0.0029	0.10				2896786
22'3455'6-HeptaCB-(185)	ng/L	0.0043 U (1)	0.0043	0.10				2896786
22'34566'-HeptaCB-(186)	ng/L	0.0031 U	0.0031	0.10				2896786
22'34'55'6-HeptaCB-(187)	ng/L	0.0497 J	0.0043	0.10				2896786
22'34'566'-HeptaCB-(188)	ng/L	0.0045 U	0.0045	0.10				2896786
233'44'55'-HeptaCB-(189)	ng/L	0.0034 J	0.0026	0.10	0.0000300	0.000000102		2896786
233'44'56-HeptaCB-(190)	ng/L	0.0020 U	0.0020	0.10				2896786
233'44'5'6-HeptaCB-(191)	ng/L	0.0019 U	0.0019	0.10				2896786
233'455'6-HeptaCB-(192)	ng/L	0.0021 U	0.0021	0.10				2896786
22'33'44'55'-OctaCB-(194)	ng/L	0.0172 J	0.0036	0.10				2896786
22'33'44'56-OctaCB-(195)	ng/L	0.0065 U (1)	0.0065	0.10				2896786
22'33'44'56'-OctaCB-(196)	ng/L	0.0057 U (1)	0.0057	0.10				2896786
22'33'44'66'OctaCB-(197)	ng/L	0.0036 U	0.0036	0.10				2896786
OctaCB-(198)+(199)	ng/L	0.0133 J	0.0052	0.20				2896786
22'33'4566'-OctaCB-(200)	ng/L	0.0039 U	0.0039	0.10				2896786
22'33'45'66'-OctaCB-(201)	ng/L	0.0037 U	0.0037	0.10				2896786
22'33'55'66'-OctaCB-(202)	ng/L	0.0057 U	0.0057	0.10				2896786
22'344'55'6-OctaCB-(203)	ng/L	0.0078 U (1)	0.0078	0.10				2896786
22'344'566'-OctaCB-(204)	ng/L	0.0038 U	0.0038	0.10				2896786
233'44'55'6-OctaCB-(205)	ng/L	0.0031 U	0.0031	0.10				2896786
22'33'44'55'6-NonaCB-(206)	ng/L	0.0076 U	0.0076	0.10				2896786
22'33'44'566'-NonaCB-(207)	ng/L	0.0052 U	0.0052	0.10				2896786
22'33'455'66'-NonaCB-(208)	ng/L	0.0078 U	0.0078	0.10				2896786
DecaCB-(209)	ng/L	0.0053 U	0.0053	0.10				2896786
Monochlorobiphenyl	ng/L	0.0029 U	0.0029	N/A				2896786
Dichlorobiphenyl	ng/L	0.112	0.037	N/A				2896786
Trichlorobiphenyl	ng/L	0.0791	0.0058	N/A				2896786
Tetrachlorobiphenyl	ng/L	0.191	0.0044	N/A				2896786

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7628						
Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.356	0.0034	N/A				2896786
Hexachlorobiphenyl	ng/L	0.942	0.0028	N/A				2896786
Heptachlorobiphenyl	ng/L	0.427	0.0048	N/A				2896786
Octachlorobiphenyl	ng/L	0.0306	0.0057	N/A				2896786
Nonachlorobiphenyl	ng/L	0.0078 U	0.0078	N/A				2896786
Decachlorobiphenyl	ng/L	0.0053 U	0.0053	N/A				2896786
Total PCB	ng/L	2.14	N/A	N/A				2896786
TOTAL TOXIC EQUIVALENCY	ng/L					0.000391		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	115						2896786
C13-22'33'44'55'6-NonaCB-(206)	%	77						2896786
C13-22'33'44'5-HeptaCB-(170)	%	99						2896786
C13-22'33'455'66'-NonaCB-(208)	%	75						2896786
C13-22'33'55'66'-OctaCB-(202)	%	82						2896786
C13-22'33'55'6-HeptaCB-(178)	%	78						2896786
C13-22'344'55'-HeptaCB-(180)	%	99						2896786
C13-22'34'566'-HeptaCB-(188)	%	80						2896786
C13-22'44'66'-HexaCB-(155)	%	70						2896786
C13-22'466'-PentaCB-(104)	%	57						2896786
C13-22'66'-TetraCB-(54)	%	43						2896786
C13-22'6-TriCB-(19)	%	53						2896786
C13-22'-DiCB-(4)	%	35						2896786
C13-233'44'55'6-OctaCB-(205)	%	99						2896786
C13-233'44'55'-HeptaCB-(189)	%	126						2896786
C13-233'44'-PentaCB-(105)	%	124						2896786
C13-233'55'-PentaCB-(111)	%	93						2896786
C13-23'44'55'-HexaCB-(167)	%	132						2896786
C13-2344'5-PentaCB-(114)	%	121						2896786
C13-23'44'5-PentaCB-(118)	%	122						2896786

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Sampling Date		2012/06/13 15:10						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW104-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	125						2896786
C13-2-MonoCB-(1)	%	57						2896786
C13-33'44'55'-HexaCB-(169)	%	121						2896786
C13-33'44'5-PentaCB-(126)	%	126						2896786
C13-33'44'-TetraCB-(77)	%	114						2896786
C13-344'5-TetraCB-(81)	%	113						2896786
C13-344'-TriCB-(37)	%	119						2896786
C13-44'-DiCB-(15)	%	86						2896786
C13-4-MonoCB-(3)	%	63						2896786
C13-DecaCB-(209)	%	61						2896786
C13-HexaCB-(156)+(157)	%	125						2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0035 U	0.0035	0.10				2896786
3-MonoCB-(2)	ng/L	0.0033 U	0.0033	0.10				2896786
4-MonoCB-(3)	ng/L	0.0036 U (1)	0.0036	0.10				2896786
22'-DiCB-(4)	ng/L	0.015 U	0.015	0.10				2896786
2,3-DiCB-(5)	ng/L	0.018 U	0.018	0.10				2896786
2,3'-DiCB-(6)	ng/L	0.016 U	0.016	0.10				2896786
2,4-DiCB-(7)	ng/L	0.016 U	0.016	0.10				2896786
2,4'-DiCB-(8)	ng/L	0.015 U (1)	0.015	0.10				2896786
2,5-DiCB-(9)	ng/L	0.016 U	0.016	0.10				2896786
2,6-DiCB-(10)	ng/L	0.013 U	0.013	0.10				2896786
3,3'-DiCB-(11)	ng/L	0.14	0.017	0.10				2896786
DiCB-(12)+(13)	ng/L	0.017 U	0.017	0.21				2896786
3,5-DiCB-(14)	ng/L	0.016 U	0.016	0.10				2896786
4,4'-DiCB-(15)	ng/L	0.023 U	0.023	0.10				2896786
22'3-TriCB-(16)	ng/L	0.0065 U (1)	0.0065	0.10				2896786
22'4-TriCB-(17)	ng/L	0.0095 U (1)	0.0095	0.10				2896786
TriCB-(18)+(30)	ng/L	0.0174 J	0.0028	0.21				2896786
22'6-TriCB-(19)	ng/L	0.0034 U	0.0034	0.10				2896786
TriCB-(20) + (28)	ng/L	0.0257 J	0.0017	0.21				2896786
TriCB-(21)+(33)	ng/L	0.014 U (1)	0.014	0.21				2896786
234'-TriCB-(22)	ng/L	0.0092 J	0.0018	0.10				2896786
235-TriCB-(23)	ng/L	0.0020 U (1)	0.0020	0.10				2896786
236-TriCB-(24)	ng/L	0.0026 U	0.0026	0.10				2896786
23'4-TriCB-(25)	ng/L	0.0018 U (1)	0.0018	0.10				2896786
TriCB-(26)+(29)	ng/L	0.0035 U (1)	0.0035	0.21				2896786
23'6-TriCB-(27)	ng/L	0.0024 U	0.0024	0.10				2896786
24'5-TriCB-(31)	ng/L	0.0250 J	0.0016	0.10				2896786
24'6-TriCB-(32)	ng/L	0.0042 U (1)	0.0042	0.10				2896786

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Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0021 U (1)	0.0021	0.10				2896786
33'4-TriCB-(35)	ng/L	0.0017 U	0.0017	0.10				2896786
33'5-TriCB-(36)	ng/L	0.0016 U	0.0016	0.10				2896786
344'-TriCB-(37)	ng/L	0.0085 J	0.0025	0.10				2896786
345-TriCB-(38)	ng/L	0.0018 U	0.0018	0.10				2896786
34'5-TriCB-(39)	ng/L	0.0016 U	0.0016	0.10				2896786
TetraCB-(40)+(41)+(71)	ng/L	0.0093 J	0.0025	0.31				2896786
22'34'-TetraCB-(42)	ng/L	0.0030 U	0.0030	0.10				2896786
22'35-TetraCB-(43)	ng/L	0.0032 U	0.0032	0.10				2896786
TetraCB-(44)+(47)+(65)	ng/L	0.0353 J	0.0024	0.31				2896786
TetraCB-(45)+(51)	ng/L	0.013 U (1)	0.013	0.21				2896786
22'36'-TetraCB-(46)	ng/L	0.0030 U	0.0030	0.10				2896786
22'45-TetraCB-(48)	ng/L	0.0024 U	0.0024	0.10				2896786
TetraCB-(49)+TetraCB-(69)	ng/L	0.0140 J	0.0022	0.21				2896786
TetraCB-(50)+(53)	ng/L	0.0029 U (1)	0.0029	0.21				2896786
22'55'-TetraCB-(52)	ng/L	0.0594 J	0.0024	0.10				2896786
22'66'-TetraCB-(54)	ng/L	0.0022 U	0.0022	0.10				2896786
233'4-TetraCB-(55)	ng/L	0.0020 U	0.0020	0.10				2896786
233'4'-Tetra CB(56)	ng/L	0.0054 U (1)	0.0054	0.10				2896786
233'5-TetraCB-(57)	ng/L	0.0020 U	0.0020	0.10				2896786
233'5'-TetraCB-(58)	ng/L	0.0020 U	0.0020	0.10				2896786
TetraCB-(59)+(62)+(75)	ng/L	0.0018 U	0.0018	0.31				2896786
2344'-TetraCB -(60)	ng/L	0.0023 U (1)	0.0023	0.10				2896786
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0344 J	0.0020	0.42				2896786
234'5-TetraCB-(63)	ng/L	0.0019 U	0.0019	0.10				2896786
234'6-TetraCB-(64)	ng/L	0.0123 J	0.0020	0.10				2896786
23'44'-TetraCB-(66)	ng/L	0.0138 J	0.0019	0.10				2896786
23'45-TetraCB-(67)	ng/L	0.0019 U	0.0019	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0036 U (1)	0.0036	0.10				2896786
23'55'-TetraCB-(72)	ng/L	0.0018 U	0.0018	0.10				2896786
23'5'6-TetraCB-(73)	ng/L	0.0018 U	0.0018	0.10				2896786
33'44'-TetraCB-(77)	ng/L	0.0025 U (1)	0.0025	0.10	0.000100	0.000000250		2896786
33'45-TetraCB-(78)	ng/L	0.0020 U	0.0020	0.10				2896786
33'45'-TetraCB(79)	ng/L	0.0018 U	0.0018	0.10				2896786
33'55'-TetraCB-(80)	ng/L	0.0018 U	0.0018	0.10				2896786
344'5-TetraCB-(81)	ng/L	0.0026 U	0.0026	0.10	0.000300	0.000000780		2896786
22'33'4-PentaCB-(82)	ng/L	0.0028 U (1)	0.0028	0.10				2896786
PentaCB-(83)+(99)	ng/L	0.0098 U (1)	0.0098	0.21				2896786
22'33'6-PentaCB-(84)	ng/L	0.013 U (1)	0.013	0.10				2896786
PentaCB-(85)+(116)+(117)	ng/L	0.0018 U	0.0018	0.31				2896786
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.0353 J	0.0019	0.63				2896786
PentaCB-(88)+(91)	ng/L	0.0041 U (1)	0.0041	0.21				2896786
22'346'-PentaCB-(89)	ng/L	0.0023 U	0.0023	0.10				2896786
PentaCB-(90)+(101)+(113)	ng/L	0.131 J	0.0018	0.31				2896786
22'355'-PentaCB-(92)	ng/L	0.0191 J	0.0022	0.10				2896786
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0022 U	0.0022	0.42				2896786
22'356'-PentaCB-(94)	ng/L	0.0022 U	0.0022	0.10				2896786
22'35'6-PentaCB-(95)	ng/L	0.11	0.0020	0.10				2896786
22'366'-PentaCB-(96)	ng/L	0.0028 U	0.0028	0.10				2896786
22'45'6-PentaCB-(103)	ng/L	0.0018 U	0.0018	0.10				2896786
22'466'-PentaCB-(104)	ng/L	0.0031 U (1)	0.0031	0.10				2896786
233'44'-PentaCB-(105)	ng/L	0.0113 J	0.0027	0.10	0.0000300	0.000000339		2896786
233'45-PentaCB-(106)	ng/L	0.0023 U	0.0023	0.10				2896786
233'4'5-PentaCB-(107)	ng/L	0.0022 U	0.0022	0.10				2896786
PentaCB-(108)+(124)	ng/L	0.0022 U	0.0022	0.21				2896786
PentaCB-(110)+(115)	ng/L	0.107 J	0.0017	0.21				2896786

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.0015 U	0.0015	0.10				2896786
233'56-PentaCB-(112)	ng/L	0.0017 U	0.0017	0.10				2896786
2344'5-PentaCB-(114)	ng/L	0.0026 U	0.0026	0.10	0.0000300	0.0000000780		2896786
23'44'5-PentaCB-(118)	ng/L	0.0594 J	0.0027	0.10	0.0000300	0.00000178		2896786
23'455'-PentaCB-(120)	ng/L	0.0015 U	0.0015	0.10				2896786
23'45'6-PentaCB-(121)	ng/L	0.0015 U	0.0015	0.10				2896786
233'4'5'-PentaCB-(122)	ng/L	0.0024 U	0.0024	0.10				2896786
23'44'5'-PentaCB-(123)	ng/L	0.0028 U	0.0028	0.10	0.0000300	0.0000000840		2896786
33'44'5-PentaCB-(126)	ng/L	0.0027 U	0.0027	0.10	0.100	0.000270		2896786
33'455'-PentaCB-(127)	ng/L	0.0023 U	0.0023	0.10				2896786
HexaCB-(128)+(166)	ng/L	0.018 U (1)	0.018	0.21				2896786
HexaCB-(129)+(138)+(163)	ng/L	0.242 J	0.0069	0.31				2896786
22'33'45'-HexaCB-(130)	ng/L	0.0093 U (1)	0.0093	0.10				2896786
22'33'46-HexaCB-(131)	ng/L	0.0081 U	0.0081	0.10				2896786
22'33'46'-HexaCB-(132)	ng/L	0.0729 J	0.0072	0.10				2896786
22'33'55'-HexaCB-(133)	ng/L	0.0070 U	0.0070	0.10				2896786
HexaCB-(134)+(143)	ng/L	0.0094 U (1)	0.0094	0.21				2896786
HexaCB-(135)+(151)	ng/L	0.0760 J	0.0022	0.21				2896786
22'33'66'-HexaCB-(136)	ng/L	0.0277 J	0.0016	0.10				2896786
22'344'5-HexaCB-(137)	ng/L	0.0069 U	0.0069	0.10				2896786
HexaCB-(139)+(140)	ng/L	0.0061 U	0.0061	0.21				2896786
22'3455'-HexaCB-(141)	ng/L	0.0532 J	0.0070	0.10				2896786
22'3456-HexaCB-(142)	ng/L	0.0073 U	0.0073	0.10				2896786
22'345'6-HexaCB-(144)	ng/L	0.0145 J	0.0022	0.10				2896786
22'3466'-HexaCB-(145)	ng/L	0.0017 U	0.0017	0.10				2896786
22'34'55'-HexaCB-(146)	ng/L	0.027 U (1)	0.027	0.10				2896786
HexaCB-(147)+(149)	ng/L	0.177 J	0.0064	0.21				2896786
22'34'56'-HexaCB-(148)	ng/L	0.0022 U	0.0022	0.10				2896786

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Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0015 U	0.0015	0.10				2896786
22'3566'-HexaCB-(152)	ng/L	0.0015 U	0.0015	0.10				2896786
HexaCB-(153)+(168)	ng/L	0.179 J	0.0053	0.21				2896786
22'44'56'-HexaCB-(154)	ng/L	0.0020 U	0.0020	0.10				2896786
22'44'66'-HexaCB-(155)	ng/L	0.0038 U (1)	0.0038	0.10				2896786
HexaCB-(156)+(157)	ng/L	0.0211 J	0.0016	0.21	0.0000300	0.000000633		2896786
233'44'6-HexaCB-(158)	ng/L	0.0230 J	0.0050	0.10				2896786
233'455'-HexaCB-(159)	ng/L	0.0022 U (1)	0.0022	0.10				2896786
233'456-HexaCB-(160)	ng/L	0.0053 U	0.0053	0.10				2896786
233'45'6-HexaCB-(161)	ng/L	0.0051 U	0.0051	0.10				2896786
233'4'55'-HexaCB-(162)	ng/L	0.0016 U	0.0016	0.10				2896786
233'4'5'6-HexaCB-(164)	ng/L	0.0215 J	0.0055	0.10				2896786
233'55'6-HexaCB-(165)	ng/L	0.0054 U	0.0054	0.10				2896786
23'44'55'-HexaCB-(167)	ng/L	0.0104 J	0.0018	0.10	0.0000300	0.000000312		2896786
33'44'55'-HexaCB-(169)	ng/L	0.0018 U	0.0018	0.10	0.0300	0.0000540		2896786
22'33'44'5-HeptaCB-(170)	ng/L	0.0707 J	0.0023	0.10				2896786
HeptaCB-(171)+(173)	ng/L	0.020 U (1)	0.020	0.21				2896786
22'33'455'-HeptaCB-(172)	ng/L	0.0087 U (1)	0.0087	0.10				2896786
22'33'456'-HeptaCB-(174)	ng/L	0.0626 J	0.0027	0.10				2896786
22'33'45'6-HeptaCB-(175)	ng/L	0.0028 U (1)	0.0028	0.10				2896786
22'33'466'-HeptaCB-(176)	ng/L	0.0097 J	0.0014	0.10				2896786
22'33'45'6'-HeptaCB-(177)	ng/L	0.0315 J	0.0027	0.10				2896786
22'33'55'6-HeptaCB-(178)	ng/L	0.0097 J	0.0020	0.10				2896786
22'33'566'-HeptaCB-(179)	ng/L	0.0195 J	0.0013	0.10				2896786
HeptaCB-(180)+(193)	ng/L	0.107 J	0.0019	0.21				2896786
22'344'56-HeptaCB-(181)	ng/L	0.0024 U	0.0024	0.10				2896786
22'344'56'-HeptaCB-(182)	ng/L	0.0021 U	0.0021	0.10				2896786
22'344'5'6-HeptaCB-(183)	ng/L	0.0324 J	0.0023	0.10				2896786

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Report Date: 2012/07/11

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.0013 U	0.0013	0.10				2896786
22'3455'6-HeptaCB-(185)	ng/L	0.0028 U	0.0028	0.10				2896786
22'34566'-HeptaCB-(186)	ng/L	0.0014 U	0.0014	0.10				2896786
22'34'55'6-HeptaCB-(187)	ng/L	0.0527 J	0.0019	0.10				2896786
22'34'566'-HeptaCB-(188)	ng/L	0.0024 J	0.0020	0.10				2896786
233'44'55'-HeptaCB-(189)	ng/L	0.0036 J	0.0019	0.10	0.0000300	0.000000108		2896786
233'44'56-HeptaCB-(190)	ng/L	0.0098 U (1)	0.0098	0.10				2896786
233'44'5'6-HeptaCB-(191)	ng/L	0.0025 U (1)	0.0025	0.10				2896786
233'455'6-HeptaCB-(192)	ng/L	0.0020 U	0.0020	0.10				2896786
22'33'44'55'-OctaCB-(194)	ng/L	0.015 U (1)	0.015	0.10				2896786
22'33'44'56-OctaCB-(195)	ng/L	0.0063 U (1)	0.0063	0.10				2896786
22'33'44'56'-OctaCB-(196)	ng/L	0.0091 J	0.0022	0.10				2896786
22'33'44'66'OctaCB-(197)	ng/L	0.0016 U	0.0016	0.10				2896786
OctaCB-(198)+(199)	ng/L	0.012 U (1)	0.012	0.21				2896786
22'33'4566'-OctaCB-(200)	ng/L	0.0017 U	0.0017	0.10				2896786
22'33'45'66'-OctaCB-(201)	ng/L	0.0019 J	0.0016	0.10				2896786
22'33'55'66'-OctaCB-(202)	ng/L	0.0056 J	0.0025	0.10				2896786
22'344'55'6-OctaCB-(203)	ng/L	0.0061 U (1)	0.0061	0.10				2896786
22'344'566'-OctaCB-(204)	ng/L	0.0017 U	0.0017	0.10				2896786
233'44'55'6-OctaCB-(205)	ng/L	0.0027 U	0.0027	0.10				2896786
22'33'44'55'6-NonaCB-(206)	ng/L	0.0046 U	0.0046	0.10				2896786
22'33'44'566'-NonaCB-(207)	ng/L	0.0031 U	0.0031	0.10				2896786
22'33'455'66'-NonaCB-(208)	ng/L	0.0047 U	0.0047	0.10				2896786
DecaCB-(209)	ng/L	0.0059 U	0.0059	0.10				2896786
Monochlorobiphenyl	ng/L	0.0036 U	0.0036	N/A				2896786
Dichlorobiphenyl	ng/L	0.137	0.023	N/A				2896786
Trichlorobiphenyl	ng/L	0.0859	0.0045	N/A				2896786
Tetrachlorobiphenyl	ng/L	0.179	0.0032	N/A				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.476	0.0031	N/A				2896786
Hexachlorobiphenyl	ng/L	0.918	0.0081	N/A				2896786
Heptachlorobiphenyl	ng/L	0.401	0.0028	N/A				2896786
Octachlorobiphenyl	ng/L	0.0166	0.0031	N/A				2896786
Nonachlorobiphenyl	ng/L	0.0047 U	0.0047	N/A				2896786
Decachlorobiphenyl	ng/L	0.0059 U	0.0059	N/A				2896786
Total PCB	ng/L	2.21	N/A	N/A				2896786
TOTAL TOXIC EQUIVALENCY	ng/L					0.000328		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	103						2896786
C13-22'33'44'55'6-NonaCB-(206)	%	78						2896786
C13-22'33'44'5-HeptaCB-(170)	%	94						2896786
C13-22'33'455'66'-NonaCB-(208)	%	79						2896786
C13-22'33'55'66'-OctaCB-(202)	%	84						2896786
C13-22'33'55'6-HeptaCB-(178)	%	71						2896786
C13-22'344'55'-HeptaCB-(180)	%	100						2896786
C13-22'34'566'-HeptaCB-(188)	%	81						2896786
C13-22'44'66'-HexaCB-(155)	%	65						2896786
C13-22'466'-PentaCB-(104)	%	54						2896786
C13-22'66'-TetraCB-(54)	%	38						2896786
C13-22'6-TriCB-(19)	%	52						2896786
C13-22'-DiCB-(4)	%	39						2896786
C13-233'44'55'6-OctaCB-(205)	%	101						2896786
C13-233'44'55'-HeptaCB-(189)	%	126						2896786
C13-233'44'-PentaCB-(105)	%	124						2896786
C13-233'55'-PentaCB-(111)	%	90						2896786
C13-23'44'55'-HexaCB-(167)	%	125						2896786
C13-2344'5-PentaCB-(114)	%	118						2896786
C13-23'44'5-PentaCB-(118)	%	123						2896786

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Maxxam ID		NV7629						
Sampling Date		2012/06/13 13:40						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW105-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	120						2896786
C13-2-MonoCB-(1)	%	55						2896786
C13-33'44'55'-HexaCB-(169)	%	122						2896786
C13-33'44'5-PentaCB-(126)	%	125						2896786
C13-33'44'-TetraCB-(77)	%	112						2896786
C13-344'5-TetraCB-(81)	%	110						2896786
C13-344'-TriCB-(37)	%	111						2896786
C13-44'-DiCB-(15)	%	75						2896786
C13-4-MonoCB-(3)	%	60						2896786
C13-DecaCB-(209)	%	64						2896786
C13-HexaCB-(156)+(157)	%	125						2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0015 U (1)	0.0015	0.10				2896786
3-MonoCB-(2)	ng/L	0.0014 U (1)	0.0014	0.10				2896786
4-MonoCB-(3)	ng/L	0.0074 J	0.0013	0.10				2896786
22'-DiCB-(4)	ng/L	0.018 U (1)	0.018	0.10				2896786
2,3-DiCB-(5)	ng/L	0.018 U	0.018	0.10				2896786
2,3'-DiCB-(6)	ng/L	0.016 U	0.016	0.10				2896786
2,4-DiCB-(7)	ng/L	0.016 U	0.016	0.10				2896786
2,4'-DiCB-(8)	ng/L	0.015 U	0.015	0.10				2896786
2,5-DiCB-(9)	ng/L	0.016 U	0.016	0.10				2896786
2,6-DiCB-(10)	ng/L	0.010 U	0.010	0.10				2896786
3,3'-DiCB-(11)	ng/L	0.11	0.017	0.10				2896786
DiCB-(12)+(13)	ng/L	0.017 U	0.017	0.20				2896786
3,5-DiCB-(14)	ng/L	0.016 U	0.016	0.10				2896786
4,4'-DiCB-(15)	ng/L	0.024 U	0.024	0.10				2896786
22'3-TriCB-(16)	ng/L	0.0173 J	0.0044	0.10				2896786
22'4-TriCB-(17)	ng/L	0.0092 U (1)	0.0092	0.10				2896786
TriCB-(18)+(30)	ng/L	0.0253 J	0.0029	0.20				2896786
22'6-TriCB-(19)	ng/L	0.0037 U	0.0037	0.10				2896786
TriCB-(20) + (28)	ng/L	0.0340 J	0.0012	0.20				2896786
TriCB-(21)+(33)	ng/L	0.0168 J	0.0012	0.20				2896786
234'-TriCB-(22)	ng/L	0.0124 J	0.0013	0.10				2896786
235-TriCB-(23)	ng/L	0.0012 U	0.0012	0.10				2896786
236-TriCB-(24)	ng/L	0.0027 U	0.0027	0.10				2896786
23'4-TriCB-(25)	ng/L	0.0025 J	0.0013	0.10				2896786
TriCB-(26)+(29)	ng/L	0.0053 J	0.0012	0.20				2896786
23'6-TriCB-(27)	ng/L	0.0024 U	0.0024	0.10				2896786
24'5-TriCB-(31)	ng/L	0.0305 J	0.0011	0.10				2896786
24'6-TriCB-(32)	ng/L	0.0061 U (1)	0.0061	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0013 U	0.0013	0.10				2896786
33'4-TriCB-(35)	ng/L	0.0013 U	0.0013	0.10				2896786
33'5-TriCB-(36)	ng/L	0.0011 U	0.0011	0.10				2896786
344'-TriCB-(37)	ng/L	0.0075 J	0.0018	0.10				2896786
345-TriCB-(38)	ng/L	0.0012 U	0.0012	0.10				2896786
34'5-TriCB-(39)	ng/L	0.0011 U	0.0011	0.10				2896786
TetraCB-(40)+(41)+(71)	ng/L	0.013 U (1)	0.013	0.30				2896786
22'34'-TetraCB-(42)	ng/L	0.0053 U (1)	0.0053	0.10				2896786
22'35-TetraCB-(43)	ng/L	0.0056 U	0.0056	0.10				2896786
TetraCB-(44)+(47)+(65)	ng/L	0.0517 J	0.0041	0.30				2896786
TetraCB-(45)+(51)	ng/L	0.0199 J	0.0041	0.20				2896786
22'36'-TetraCB-(46)	ng/L	0.0051 U	0.0051	0.10				2896786
22'45-TetraCB-(48)	ng/L	0.0044 U (1)	0.0044	0.10				2896786
TetraCB-(49)+TetraCB-(69)	ng/L	0.018 U (1)	0.018	0.20				2896786
TetraCB-(50)+(53)	ng/L	0.0040 U	0.0040	0.20				2896786
22'55'-TetraCB-(52)	ng/L	0.0623 J	0.0041	0.10				2896786
22'66'-TetraCB-(54)	ng/L	0.0042 U	0.0042	0.10				2896786
233'4-TetraCB-(55)	ng/L	0.0019 U	0.0019	0.10				2896786
233'4'-Tetra CB(56)	ng/L	0.0091 J	0.0020	0.10				2896786
233'5-TetraCB-(57)	ng/L	0.0018 U	0.0018	0.10				2896786
233'5'-TetraCB-(58)	ng/L	0.0044 J	0.0018	0.10				2896786
TetraCB-(59)+(62)+(75)	ng/L	0.0031 U	0.0031	0.30				2896786
2344'-TetraCB -(60)	ng/L	0.0023 U (1)	0.0023	0.10				2896786
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0364 J	0.0019	0.40				2896786
234'5-TetraCB-(63)	ng/L	0.0017 U	0.0017	0.10				2896786
234'6-TetraCB-(64)	ng/L	0.0139 J	0.0034	0.10				2896786
23'44'-TetraCB-(66)	ng/L	0.013 U (1)	0.013	0.10				2896786
23'45-TetraCB-(67)	ng/L	0.0017 U	0.0017	0.10				2896786

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0041 U (1)	0.0041	0.10				2896786
23'55'-TetraCB-(72)	ng/L	0.0017 U	0.0017	0.10				2896786
23'5'6-TetraCB-(73)	ng/L	0.0030 U	0.0030	0.10				2896786
33'44'-TetraCB-(77)	ng/L	0.0022 U	0.0022	0.10	0.000100	0.000000220		2896786
33'45-TetraCB-(78)	ng/L	0.0018 U	0.0018	0.10				2896786
33'45'-TetraCB(79)	ng/L	0.0016 U	0.0016	0.10				2896786
33'55'-TetraCB-(80)	ng/L	0.0017 U	0.0017	0.10				2896786
344'5-TetraCB-(81)	ng/L	0.0023 U	0.0023	0.10	0.000300	0.000000690		2896786
22'33'4-PentaCB-(82)	ng/L	0.0016 U	0.0016	0.10				2896786
PentaCB-(83)+(99)	ng/L	0.0094 U (1)	0.0094	0.20				2896786
22'33'6-PentaCB-(84)	ng/L	0.015 U (1)	0.015	0.10				2896786
PentaCB-(85)+(116)+(117)	ng/L	0.0034 U (1)	0.0034	0.30				2896786
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.041 U (1)	0.041	0.60				2896786
PentaCB-(88)+(91)	ng/L	0.0026 U (1)	0.0026	0.20				2896786
22'346'-PentaCB-(89)	ng/L	0.0015 U	0.0015	0.10				2896786
PentaCB-(90)+(101)+(113)	ng/L	0.137 J	0.0011	0.30				2896786
22'355'-PentaCB-(92)	ng/L	0.0230 J	0.0014	0.10				2896786
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0014 U	0.0014	0.40				2896786
22'356'-PentaCB-(94)	ng/L	0.0015 U	0.0015	0.10				2896786
22'35'6-PentaCB-(95)	ng/L	0.11	0.0013	0.10				2896786
22'366'-PentaCB-(96)	ng/L	0.0012 U	0.0012	0.10				2896786
22'45'6-PentaCB-(103)	ng/L	0.0012 U	0.0012	0.10				2896786
22'466'-PentaCB-(104)	ng/L	0.0014 U	0.0014	0.10				2896786
233'44'-PentaCB-(105)	ng/L	0.010 U (1)	0.010	0.10	0.0000300	0.000000300		2896786
233'45-PentaCB-(106)	ng/L	0.0011 U	0.0011	0.10				2896786
233'4'5-PentaCB-(107)	ng/L	0.0011 U	0.0011	0.10				2896786
PentaCB-(108)+(124)	ng/L	0.0016 U (1)	0.0016	0.20				2896786
PentaCB-(110)+(115)	ng/L	0.115 J	0.0012	0.20				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00099 U	0.00099	0.10				2896786
233'56-PentaCB-(112)	ng/L	0.0011 U	0.0011	0.10				2896786
2344'5-PentaCB-(114)	ng/L	0.0013 U	0.0013	0.10	0.0000300	0.0000000390		2896786
23'44'5-PentaCB-(118)	ng/L	0.0651 J	0.0014	0.10	0.0000300	0.00000195		2896786
23'455'-PentaCB-(120)	ng/L	0.00099 U	0.00099	0.10				2896786
23'45'6-PentaCB-(121)	ng/L	0.0010 U	0.0010	0.10				2896786
233'4'5'-PentaCB-(122)	ng/L	0.0013 U	0.0013	0.10				2896786
23'44'5'-PentaCB-(123)	ng/L	0.0015 U	0.0015	0.10	0.0000300	0.0000000450		2896786
33'44'5-PentaCB-(126)	ng/L	0.0014 U	0.0014	0.10	0.100	0.000140		2896786
33'455'-PentaCB-(127)	ng/L	0.0012 U	0.0012	0.10				2896786
HexaCB-(128)+(166)	ng/L	0.0210 J	0.00092	0.20				2896786
HexaCB-(129)+(138)+(163)	ng/L	0.224 J	0.0010	0.30				2896786
22'33'45'-HexaCB-(130)	ng/L	0.0087 U (1)	0.0087	0.10				2896786
22'33'46-HexaCB-(131)	ng/L	0.0012 U	0.0012	0.10				2896786
22'33'46'-HexaCB-(132)	ng/L	0.0759 J	0.0011	0.10				2896786
22'33'55'-HexaCB-(133)	ng/L	0.0023 U (1)	0.0023	0.10				2896786
HexaCB-(134)+(143)	ng/L	0.0077 U (1)	0.0077	0.20				2896786
HexaCB-(135)+(151)	ng/L	0.0748 J	0.0021	0.20				2896786
22'33'66'-HexaCB-(136)	ng/L	0.025 U (1)	0.025	0.10				2896786
22'344'5-HexaCB-(137)	ng/L	0.0021 U (1)	0.0021	0.10				2896786
HexaCB-(139)+(140)	ng/L	0.00095 U	0.00095	0.20				2896786
22'3455'-HexaCB-(141)	ng/L	0.0557 J	0.0010	0.10				2896786
22'3456-HexaCB-(142)	ng/L	0.0011 U	0.0011	0.10				2896786
22'345'6-HexaCB-(144)	ng/L	0.012 U (1)	0.012	0.10				2896786
22'3466'-HexaCB-(145)	ng/L	0.0016 U	0.0016	0.10				2896786
22'34'55'-HexaCB-(146)	ng/L	0.0300 J	0.00098	0.10				2896786
HexaCB-(147)+(149)	ng/L	0.174 J	0.00099	0.20				2896786
22'34'56'-HexaCB-(148)	ng/L	0.0021 U	0.0021	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0015 U	0.0015	0.10				2896786
22'3566'-HexaCB-(152)	ng/L	0.0014 U	0.0014	0.10				2896786
HexaCB-(153)+(168)	ng/L	0.181 J	0.00082	0.20				2896786
22'44'56'-HexaCB-(154)	ng/L	0.0019 U	0.0019	0.10				2896786
22'44'66'-HexaCB-(155)	ng/L	0.0020 U	0.0020	0.10				2896786
HexaCB-(156)+(157)	ng/L	0.0223 J	0.00097	0.20	0.0000300	0.000000669		2896786
233'44'6-HexaCB-(158)	ng/L	0.0207 J	0.00077	0.10				2896786
233'455'-HexaCB-(159)	ng/L	0.00091 U	0.00091	0.10				2896786
233'456-HexaCB-(160)	ng/L	0.00085 U	0.00085	0.10				2896786
233'45'6-HexaCB-(161)	ng/L	0.00078 U	0.00078	0.10				2896786
233'4'55'-HexaCB-(162)	ng/L	0.00091 U	0.00091	0.10				2896786
233'4'5'6-HexaCB-(164)	ng/L	0.0183 J	0.00082	0.10				2896786
233'55'6-HexaCB-(165)	ng/L	0.00083 U	0.00083	0.10				2896786
23'44'55'-HexaCB-(167)	ng/L	0.0084 J	0.0010	0.10	0.0000300	0.000000252		2896786
33'44'55'-HexaCB-(169)	ng/L	0.0011 U	0.0011	0.10	0.0300	0.0000330		2896786
22'33'44'5-HeptaCB-(170)	ng/L	0.0600 J	0.0020	0.10				2896786
HeptaCB-(171)+(173)	ng/L	0.017 U (1)	0.017	0.20				2896786
22'33'455'-HeptaCB-(172)	ng/L	0.0087 U (1)	0.0087	0.10				2896786
22'33'456'-HeptaCB-(174)	ng/L	0.0561 J	0.0022	0.10				2896786
22'33'45'6-HeptaCB-(175)	ng/L	0.0020 U	0.0020	0.10				2896786
22'33'466'-HeptaCB-(176)	ng/L	0.0086 J	0.0015	0.10				2896786
22'33'45'6'-HeptaCB-(177)	ng/L	0.0311 J	0.0024	0.10				2896786
22'33'55'6-HeptaCB-(178)	ng/L	0.0092 U (1)	0.0092	0.10				2896786
22'33'566'-HeptaCB-(179)	ng/L	0.0211 J	0.0014	0.10				2896786
HeptaCB-(180)+(193)	ng/L	0.0969 J	0.0016	0.20				2896786
22'344'56-HeptaCB-(181)	ng/L	0.0022 U	0.0022	0.10				2896786
22'344'56'-HeptaCB-(182)	ng/L	0.0021 U	0.0021	0.10				2896786
22'344'5'6-HeptaCB-(183)	ng/L	0.027 U (1)	0.027	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.0014 U	0.0014	0.10				2896786
22'3455'6-HeptaCB-(185)	ng/L	0.0031 U (1)	0.0031	0.10				2896786
22'34566'-HeptaCB-(186)	ng/L	0.0014 U	0.0014	0.10				2896786
22'34'55'6-HeptaCB-(187)	ng/L	0.0486 J	0.0019	0.10				2896786
22'34'566'-HeptaCB-(188)	ng/L	0.0022 U	0.0022	0.10				2896786
233'44'55'-HeptaCB-(189)	ng/L	0.0043 J	0.0019	0.10	0.0000300	0.000000129		2896786
233'44'56-HeptaCB-(190)	ng/L	0.0098 J	0.0017	0.10				2896786
233'44'5'6-HeptaCB-(191)	ng/L	0.0037 J	0.0016	0.10				2896786
233'455'6-HeptaCB-(192)	ng/L	0.0017 U	0.0017	0.10				2896786
22'33'44'55'-OctaCB-(194)	ng/L	0.0136 J	0.0019	0.10				2896786
22'33'44'56-OctaCB-(195)	ng/L	0.0048 U (1)	0.0048	0.10				2896786
22'33'44'56'-OctaCB-(196)	ng/L	0.0058 U (1)	0.0058	0.10				2896786
22'33'44'66'OctaCB-(197)	ng/L	0.0014 U	0.0014	0.10				2896786
OctaCB-(198)+(199)	ng/L	0.0020 U	0.0020	0.20				2896786
22'33'4566'-OctaCB-(200)	ng/L	0.0014 U	0.0014	0.10				2896786
22'33'45'66'-OctaCB-(201)	ng/L	0.0014 U	0.0014	0.10				2896786
22'33'55'66'-OctaCB-(202)	ng/L	0.0022 U	0.0022	0.10				2896786
22'344'55'6-OctaCB-(203)	ng/L	0.0071 J	0.0018	0.10				2896786
22'344'566'-OctaCB-(204)	ng/L	0.0015 U	0.0015	0.10				2896786
233'44'55'6-OctaCB-(205)	ng/L	0.0017 U	0.0017	0.10				2896786
22'33'44'55'6-NonaCB-(206)	ng/L	0.0049 U	0.0049	0.10				2896786
22'33'44'566'-NonaCB-(207)	ng/L	0.0034 U	0.0034	0.10				2896786
22'33'455'66'-NonaCB-(208)	ng/L	0.0050 U	0.0050	0.10				2896786
DecaCB-(209)	ng/L	0.0045 U	0.0045	0.10				2896786
Monochlorobiphenyl	ng/L	0.0074	0.0013	N/A				2896786
Dichlorobiphenyl	ng/L	0.108	0.024	N/A				2896786
Trichlorobiphenyl	ng/L	0.152	0.0044	N/A				2896786
Tetrachlorobiphenyl	ng/L	0.198	0.0056	N/A				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	0.452	0.0017	N/A				2896786
Hexachlorobiphenyl	ng/L	0.906	0.0022	N/A				2896786
Heptachlorobiphenyl	ng/L	0.340	0.0024	N/A				2896786
Octachlorobiphenyl	ng/L	0.0207	0.0022	N/A				2896786
Nonachlorobiphenyl	ng/L	0.0050 U	0.0050	N/A				2896786
Decachlorobiphenyl	ng/L	0.0045 U	0.0045	N/A				2896786
Total PCB	ng/L	2.18	N/A	N/A				2896786
TOTAL TOXIC EQUIVALENCY	ng/L					0.000177		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	94						2896786
C13-22'33'44'55'6-NonaCB-(206)	%	88						2896786
C13-22'33'44'5-HeptaCB-(170)	%	104						2896786
C13-22'33'455'66'-NonaCB-(208)	%	86						2896786
C13-22'33'55'66'-OctaCB-(202)	%	92						2896786
C13-22'33'55'6-HeptaCB-(178)	%	97						2896786
C13-22'344'55'-HeptaCB-(180)	%	108						2896786
C13-22'34'566'-HeptaCB-(188)	%	95						2896786
C13-22'44'66'-HexaCB-(155)	%	75						2896786
C13-22'466'-PentaCB-(104)	%	67						2896786
C13-22'66'-TetraCB-(54)	%	39						2896786
C13-22'6-TriCB-(19)	%	51						2896786
C13-22'-DiCB-(4)	%	41						2896786
C13-233'44'55'6-OctaCB-(205)	%	111						2896786
C13-233'44'55'-HeptaCB-(189)	%	126						2896786
C13-233'44'-PentaCB-(105)	%	116						2896786
C13-233'55'-PentaCB-(111)	%	98						2896786
C13-23'44'55'-HexaCB-(167)	%	121						2896786
C13-2344'5-PentaCB-(114)	%	112						2896786
C13-23'44'5-PentaCB-(118)	%	112						2896786

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Maxxam ID		NV7630						
Sampling Date		2012/06/13 10:50						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW106-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	111						2896786
C13-2-MonoCB-(1)	%	56						2896786
C13-33'44'55'-HexaCB-(169)	%	113						2896786
C13-33'44'5-PentaCB-(126)	%	117						2896786
C13-33'44'-TetraCB-(77)	%	106						2896786
C13-344'5-TetraCB-(81)	%	101						2896786
C13-344'-TriCB-(37)	%	102						2896786
C13-44'-DiCB-(15)	%	73						2896786
C13-4-MonoCB-(3)	%	59						2896786
C13-DecaCB-(209)	%	80						2896786
C13-HexaCB-(156)+(157)	%	119						2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7631						
Sampling Date		2012/06/13 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0032 U (1)	0.0032	0.10				2896786
3-MonoCB-(2)	ng/L	0.0015 U (1)	0.0015	0.10				2896786
4-MonoCB-(3)	ng/L	0.0065 U (1)	0.0065	0.10				2896786
22'-DiCB-(4)	ng/L	0.014 U	0.014	0.10				2896786
2,3-DiCB-(5)	ng/L	0.015 U	0.015	0.10				2896786
2,3'-DiCB-(6)	ng/L	0.013 U	0.013	0.10				2896786
2,4-DiCB-(7)	ng/L	0.013 U	0.013	0.10				2896786
2,4'-DiCB-(8)	ng/L	0.016 U (1)	0.016	0.10				2896786
2,5-DiCB-(9)	ng/L	0.013 U	0.013	0.10				2896786
2,6-DiCB-(10)	ng/L	0.012 U	0.012	0.10				2896786
3,3'-DiCB-(11)	ng/L	0.10	0.013	0.10				2896786
DiCB-(12)+(13)	ng/L	0.013 U	0.013	0.20				2896786
3,5-DiCB-(14)	ng/L	0.013 U	0.013	0.10				2896786
4,4'-DiCB-(15)	ng/L	0.033 U (1)	0.033	0.10				2896786
22'3-TriCB-(16)	ng/L	0.015 U (1)	0.015	0.10				2896786
22'4-TriCB-(17)	ng/L	0.0181 J	0.0040	0.10				2896786
TriCB-(18)+(30)	ng/L	0.0347 J	0.0031	0.20				2896786
22'6-TriCB-(19)	ng/L	0.026 U (1)	0.026	0.10				2896786
TriCB-(20) + (28)	ng/L	0.0746 J	0.00079	0.20				2896786
TriCB-(21)+(33)	ng/L	0.0205 J	0.00082	0.20				2896786
234'-TriCB-(22)	ng/L	0.0193 J	0.00082	0.10				2896786
235-TriCB-(23)	ng/L	0.0113 J	0.00080	0.10				2896786
236-TriCB-(24)	ng/L	0.0029 U	0.0029	0.10				2896786
23'4-TriCB-(25)	ng/L	0.00494 J	0.00083	0.10				2896786
TriCB-(26)+(29)	ng/L	0.0085 U (1)	0.0085	0.20				2896786
23'6-TriCB-(27)	ng/L	0.0068 J	0.0027	0.10				2896786
24'5-TriCB-(31)	ng/L	0.0470 J	0.00076	0.10				2896786
24'6-TriCB-(32)	ng/L	0.0268 J	0.0026	0.10				2896786

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7631						
Sampling Date		2012/06/13 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0121 J	0.00083	0.10				2896786
33'4-TriCB-(35)	ng/L	0.00083 U	0.00083	0.10				2896786
33'5-TriCB-(36)	ng/L	0.00072 U	0.00072	0.10				2896786
344'-TriCB-(37)	ng/L	0.0296 J	0.0012	0.10				2896786
345-TriCB-(38)	ng/L	0.00082 U	0.00082	0.10				2896786
34'5-TriCB-(39)	ng/L	0.00075 U	0.00075	0.10				2896786
TetraCB-(40)+(41)+(71)	ng/L	0.0889 J	0.0035	0.30				2896786
22'34'-TetraCB-(42)	ng/L	0.0445 J	0.0043	0.10				2896786
22'35-TetraCB-(43)	ng/L	0.0047 U	0.0047	0.10				2896786
TetraCB-(44)+(47)+(65)	ng/L	0.167 J	0.0034	0.30				2896786
TetraCB-(45)+(51)	ng/L	0.0546 J	0.0035	0.20				2896786
22'36'-TetraCB-(46)	ng/L	0.016 U (1)	0.016	0.10				2896786
22'45-TetraCB-(48)	ng/L	0.012 U (1)	0.012	0.10				2896786
TetraCB-(49)+TetraCB-(69)	ng/L	0.0716 J	0.0031	0.20				2896786
TetraCB-(50)+(53)	ng/L	0.0383 J	0.0033	0.20				2896786
22'55'-TetraCB-(52)	ng/L	0.27	0.0035	0.10				2896786
22'66'-TetraCB-(54)	ng/L	0.0096 U (1)	0.0096	0.10				2896786
233'4-TetraCB-(55)	ng/L	0.0023 U	0.0023	0.10				2896786
233'4'-Tetra CB(56)	ng/L	0.016 U (1)	0.016	0.10				2896786
233'5-TetraCB-(57)	ng/L	0.0022 U	0.0022	0.10				2896786
233'5'-TetraCB-(58)	ng/L	0.0022 U	0.0022	0.10				2896786
TetraCB-(59)+(62)+(75)	ng/L	0.0150 J	0.0026	0.30				2896786
2344'-TetraCB -(60)	ng/L	0.0042 U (1)	0.0042	0.10				2896786
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.0807 J	0.0023	0.40				2896786
234'5-TetraCB-(63)	ng/L	0.0021 U	0.0021	0.10				2896786
234'6-TetraCB-(64)	ng/L	0.0739 J	0.0029	0.10				2896786
23'44'-TetraCB-(66)	ng/L	0.038 U (1)	0.038	0.10				2896786
23'45-TetraCB-(67)	ng/L	0.0022 U	0.0022	0.10				2896786

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	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0026 U (1)	0.0026	0.10				2896786
23'55'-TetraCB-(72)	ng/L	0.0021 U	0.0021	0.10				2896786
23'5'6-TetraCB-(73)	ng/L	0.0025 U	0.0025	0.10				2896786
33'44'-TetraCB-(77)	ng/L	0.0141 J	0.0027	0.10	0.000100	0.00000141		2896786
33'45-TetraCB-(78)	ng/L	0.0023 U	0.0023	0.10				2896786
33'45'-TetraCB(79)	ng/L	0.0020 U	0.0020	0.10				2896786
33'55'-TetraCB-(80)	ng/L	0.0021 U	0.0021	0.10				2896786
344'5-TetraCB-(81)	ng/L	0.010 U (1)	0.010	0.10	0.000300	0.00000300		2896786
22'33'4-PentaCB-(82)	ng/L	0.015 U (1)	0.015	0.10				2896786
PentaCB-(83)+(99)	ng/L	0.0735 J	0.0014	0.20				2896786
22'33'6-PentaCB-(84)	ng/L	0.0696 J	0.0018	0.10				2896786
PentaCB-(85)+(116)+(117)	ng/L	0.0190 J	0.0012	0.30				2896786
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.132 J	0.0013	0.60				2896786
PentaCB-(88)+(91)	ng/L	0.024 U (1)	0.024	0.20				2896786
22'346'-PentaCB-(89)	ng/L	0.0016 U	0.0016	0.10				2896786
PentaCB-(90)+(101)+(113)	ng/L	0.249 J	0.0012	0.30				2896786
22'355'-PentaCB-(92)	ng/L	0.0478 J	0.0015	0.10				2896786
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0078 U (1)	0.0078	0.40				2896786
22'356'-PentaCB-(94)	ng/L	0.0016 U	0.0016	0.10				2896786
22'35'6-PentaCB-(95)	ng/L	0.27	0.0014	0.10				2896786
22'366'-PentaCB-(96)	ng/L	0.0018 U (1)	0.0018	0.10				2896786
22'45'6-PentaCB-(103)	ng/L	0.0013 U	0.0013	0.10				2896786
22'466'-PentaCB-(104)	ng/L	0.0163 J	0.0021	0.10				2896786
233'44'-PentaCB-(105)	ng/L	0.0490 J	0.0022	0.10	0.0000300	0.00000147		2896786
233'45-PentaCB-(106)	ng/L	0.0017 U	0.0017	0.10				2896786
233'4'5-PentaCB-(107)	ng/L	0.0048 U (1)	0.0048	0.10				2896786
PentaCB-(108)+(124)	ng/L	0.0033 U (1)	0.0033	0.20				2896786
PentaCB-(110)+(115)	ng/L	0.31	0.0012	0.20				2896786

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	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.0010 U	0.0010	0.10				2896786
233'56-PentaCB-(112)	ng/L	0.0012 U	0.0012	0.10				2896786
2344'5-PentaCB-(114)	ng/L	0.0150 J	0.0021	0.10	0.0000300	0.000000450		2896786
23'44'5-PentaCB-(118)	ng/L	0.15	0.0023	0.10	0.0000300	0.00000450		2896786
23'455'-PentaCB-(120)	ng/L	0.0010 U	0.0010	0.10				2896786
23'45'6-PentaCB-(121)	ng/L	0.0010 U	0.0010	0.10				2896786
233'4'5'-PentaCB-(122)	ng/L	0.0020 U	0.0020	0.10				2896786
23'44'5'-PentaCB-(123)	ng/L	0.011 U (1)	0.011	0.10	0.0000300	0.000000330		2896786
33'44'5-PentaCB-(126)	ng/L	0.010 U (1)	0.010	0.10	0.100	0.00100		2896786
33'455'-PentaCB-(127)	ng/L	0.0019 U	0.0019	0.10				2896786
HexaCB-(128)+(166)	ng/L	0.0341 J	0.0021	0.20				2896786
HexaCB-(129)+(138)+(163)	ng/L	0.32	0.0023	0.30				2896786
22'33'45'-HexaCB-(130)	ng/L	0.0143 J	0.0027	0.10				2896786
22'33'46-HexaCB-(131)	ng/L	0.0041 J	0.0028	0.10				2896786
22'33'46'-HexaCB-(132)	ng/L	0.11	0.0026	0.10				2896786
22'33'55'-HexaCB-(133)	ng/L	0.0025 U	0.0025	0.10				2896786
HexaCB-(134)+(143)	ng/L	0.0146 J	0.0027	0.20				2896786
HexaCB-(135)+(151)	ng/L	0.0982 J	0.0029	0.20				2896786
22'33'66'-HexaCB-(136)	ng/L	0.0417 J	0.0021	0.10				2896786
22'344'5-HexaCB-(137)	ng/L	0.0059 U (1)	0.0059	0.10				2896786
HexaCB-(139)+(140)	ng/L	0.0030 J	0.0022	0.20				2896786
22'3455'-HexaCB-(141)	ng/L	0.0693 J	0.0023	0.10				2896786
22'3456-HexaCB-(142)	ng/L	0.0026 U	0.0026	0.10				2896786
22'345'6-HexaCB-(144)	ng/L	0.017 U (1)	0.017	0.10				2896786
22'3466'-HexaCB-(145)	ng/L	0.0022 U	0.0022	0.10				2896786
22'34'55'-HexaCB-(146)	ng/L	0.0393 J	0.0022	0.10				2896786
HexaCB-(147)+(149)	ng/L	0.25	0.0022	0.20				2896786
22'34'56'-HexaCB-(148)	ng/L	0.0028 U	0.0028	0.10				2896786

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7631						
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	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0021 U	0.0021	0.10				2896786
22'3566'-HexaCB-(152)	ng/L	0.0019 U	0.0019	0.10				2896786
HexaCB-(153)+(168)	ng/L	0.24	0.0019	0.20				2896786
22'44'56'-HexaCB-(154)	ng/L	0.0026 U	0.0026	0.10				2896786
22'44'66'-HexaCB-(155)	ng/L	0.013 U (1)	0.013	0.10				2896786
HexaCB-(156)+(157)	ng/L	0.0455 J	0.0020	0.20	0.0000300	0.00000137		2896786
233'44'6-HexaCB-(158)	ng/L	0.0317 J	0.0018	0.10				2896786
233'455'-HexaCB-(159)	ng/L	0.0019 U	0.0019	0.10				2896786
233'456-HexaCB-(160)	ng/L	0.0019 U	0.0019	0.10				2896786
233'45'6-HexaCB-(161)	ng/L	0.0018 U	0.0018	0.10				2896786
233'4'55'-HexaCB-(162)	ng/L	0.0019 U	0.0019	0.10				2896786
233'4'5'6-HexaCB-(164)	ng/L	0.0272 J	0.0019	0.10				2896786
233'55'6-HexaCB-(165)	ng/L	0.0019 U	0.0019	0.10				2896786
23'44'55'-HexaCB-(167)	ng/L	0.0240 J	0.0022	0.10	0.0000300	0.000000720		2896786
33'44'55'-HexaCB-(169)	ng/L	0.0094 U (1)	0.0094	0.10	0.0300	0.000282		2896786
22'33'44'5-HeptaCB-(170)	ng/L	0.0889 J	0.0030	0.10				2896786
HeptaCB-(171)+(173)	ng/L	0.0265 J	0.0036	0.20				2896786
22'33'455'-HeptaCB-(172)	ng/L	0.0143 J	0.0035	0.10				2896786
22'33'456'-HeptaCB-(174)	ng/L	0.0774 J	0.0033	0.10				2896786
22'33'45'6-HeptaCB-(175)	ng/L	0.0036 U (1)	0.0036	0.10				2896786
22'33'466'-HeptaCB-(176)	ng/L	0.0081 U (1)	0.0081	0.10				2896786
22'33'45'6'-HeptaCB-(177)	ng/L	0.0469 J	0.0036	0.10				2896786
22'33'55'6-HeptaCB-(178)	ng/L	0.0125 J	0.00089	0.10				2896786
22'33'566'-HeptaCB-(179)	ng/L	0.0270 J	0.00061	0.10				2896786
HeptaCB-(180)+(193)	ng/L	0.134 J	0.0025	0.20				2896786
22'344'56-HeptaCB-(181)	ng/L	0.0033 U	0.0033	0.10				2896786
22'344'56'-HeptaCB-(182)	ng/L	0.00677 J	0.00092	0.10				2896786
22'344'5'6-HeptaCB-(183)	ng/L	0.0385 J	0.0030	0.10				2896786

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	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00059 U	0.00059	0.10				2896786
22'3455'6-HeptaCB-(185)	ng/L	0.0035 U	0.0035	0.10				2896786
22'34566'-HeptaCB-(186)	ng/L	0.00062 U	0.00062	0.10				2896786
22'34'55'6-HeptaCB-(187)	ng/L	0.0723 J	0.00081	0.10				2896786
22'34'566'-HeptaCB-(188)	ng/L	0.00850 J	0.00093	0.10				2896786
233'44'55'-HeptaCB-(189)	ng/L	0.011 U (1)	0.011	0.10	0.0000300	0.000000330		2896786
233'44'56-HeptaCB-(190)	ng/L	0.0130 J	0.0026	0.10				2896786
233'44'5'6-HeptaCB-(191)	ng/L	0.0039 J	0.0025	0.10				2896786
233'455'6-HeptaCB-(192)	ng/L	0.0026 U	0.0026	0.10				2896786
22'33'44'55'-OctaCB-(194)	ng/L	0.0195 J	0.0023	0.10				2896786
22'33'44'56-OctaCB-(195)	ng/L	0.0072 J	0.0025	0.10				2896786
22'33'44'56'-OctaCB-(196)	ng/L	0.0118 J	0.0018	0.10				2896786
22'33'44'66'OctaCB-(197)	ng/L	0.0012 U	0.0012	0.10				2896786
OctaCB-(198)+(199)	ng/L	0.0191 J	0.0018	0.20				2896786
22'33'4566'-OctaCB-(200)	ng/L	0.0024 U (1)	0.0024	0.10				2896786
22'33'45'66'-OctaCB-(201)	ng/L	0.0013 U	0.0013	0.10				2896786
22'33'55'66'-OctaCB-(202)	ng/L	0.0020 U	0.0020	0.10				2896786
22'344'55'6-OctaCB-(203)	ng/L	0.010 U (1)	0.010	0.10				2896786
22'344'566'-OctaCB-(204)	ng/L	0.0014 U	0.0014	0.10				2896786
233'44'55'6-OctaCB-(205)	ng/L	0.0095 J	0.0021	0.10				2896786
22'33'44'55'6-NonaCB-(206)	ng/L	0.0127 J	0.0038	0.10				2896786
22'33'44'566'-NonaCB-(207)	ng/L	0.0027 U	0.0027	0.10				2896786
22'33'455'66'-NonaCB-(208)	ng/L	0.0093 J	0.0039	0.10				2896786
DecaCB-(209)	ng/L	0.0089 U (1)	0.0089	0.10				2896786
Monochlorobiphenyl	ng/L	0.0012 U	0.0012	N/A				2896786
Dichlorobiphenyl	ng/L	0.104	0.019	N/A				2896786
Trichlorobiphenyl	ng/L	0.306	0.0047	N/A				2896786
Tetrachlorobiphenyl	ng/L	0.914	0.0047	N/A				2896786

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Pentachlorobiphenyl	ng/L	1.39	0.0024	N/A				2896786
Hexachlorobiphenyl	ng/L	1.37	0.0029	N/A				2896786
Heptachlorobiphenyl	ng/L	0.570	0.0036	N/A				2896786
Octachlorobiphenyl	ng/L	0.0671	0.0025	N/A				2896786
Nonachlorobiphenyl	ng/L	0.0220	0.0039	N/A				2896786
Decachlorobiphenyl	ng/L	0.0033 U	0.0033	N/A				2896786
Total PCB	ng/L	4.74	N/A	N/A				2896786
TOTAL TOXIC EQUIVALENCY	ng/L					0.00130		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	97						2896786
C13-22'33'44'55'6-NonaCB-(206)	%	83						2896786
C13-22'33'44'5-HeptaCB-(170)	%	98						2896786
C13-22'33'455'66'-NonaCB-(208)	%	84						2896786
C13-22'33'55'66'-OctaCB-(202)	%	86						2896786
C13-22'33'55'6-HeptaCB-(178)	%	94						2896786
C13-22'344'55'-HeptaCB-(180)	%	98						2896786
C13-22'34'566'-HeptaCB-(188)	%	91						2896786
C13-22'44'66'-HexaCB-(155)	%	67						2896786
C13-22'466'-PentaCB-(104)	%	65						2896786
C13-22'66'-TetraCB-(54)	%	39						2896786
C13-22'6-TriCB-(19)	%	53						2896786
C13-22'-DiCB-(4)	%	38						2896786
C13-233'44'55'6-OctaCB-(205)	%	100						2896786
C13-233'44'55'-HeptaCB-(189)	%	115						2896786
C13-233'44'-PentaCB-(105)	%	113						2896786
C13-233'55'-PentaCB-(111)	%	97						2896786
C13-23'44'55'-HexaCB-(167)	%	117						2896786
C13-2344'5-PentaCB-(114)	%	107						2896786
C13-23'44'5-PentaCB-(118)	%	110						2896786

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		NV7631						
Sampling Date		2012/06/13 13:35						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	MW107-20120613	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	110						2896786
C13-2-MonoCB-(1)	%	54						2896786
C13-33'44'55'-HexaCB-(169)	%	111						2896786
C13-33'44'5-PentaCB-(126)	%	109						2896786
C13-33'44'-TetraCB-(77)	%	104						2896786
C13-344'5-TetraCB-(81)	%	99						2896786
C13-344'-TriCB-(37)	%	99						2896786
C13-44'-DiCB-(15)	%	78						2896786
C13-4-MonoCB-(3)	%	62						2896786
C13-DecaCB-(209)	%	77						2896786
C13-HexaCB-(156)+(157)	%	118						2896786

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B290439
Report Date: 2012/07/11

Apex Laboratories
Client Project #: A12F253

Test Summary

Maxxam ID NV7627 **Collected** 2012/06/13
Sample ID MW4-20120613 **Shipped**
Matrix Water **Received** 2012/06/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2893208	2012/06/22	2012/06/30	Branko Vrzic
PCB Congeners in Water (1668A)	HRMS/MS	2902010	2012/07/05	2012/07/08	Branko Vrzic

Maxxam ID NV7628 **Collected** 2012/06/13
Sample ID MW104-20120613 **Shipped**
Matrix Water **Received** 2012/06/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2893208	2012/06/22	2012/06/30	Branko Vrzic
PCB Congeners in Water (1668A)	HRMS/MS	2896786	2012/06/27	2012/07/03	Branko Vrzic

Maxxam ID NV7629 **Collected** 2012/06/13
Sample ID MW105-20120613 **Shipped**
Matrix Water **Received** 2012/06/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2893208	2012/06/22	2012/06/30	Branko Vrzic
PCB Congeners in Water (1668A)	HRMS/MS	2896786	2012/06/27	2012/07/03	Branko Vrzic

Maxxam ID NV7630 **Collected** 2012/06/13
Sample ID MW106-20120613 **Shipped**
Matrix Water **Received** 2012/06/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2893208	2012/06/22	2012/07/01	Branko Vrzic
PCB Congeners in Water (1668A)	HRMS/MS	2896786	2012/06/27	2012/07/04	Branko Vrzic

Maxxam ID NV7631 **Collected** 2012/06/13
Sample ID MW107-20120613 **Shipped**
Matrix Water **Received** 2012/06/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	2893208	2012/06/22	2012/07/01	Branko Vrzic
PCB Congeners in Water (1668A)	HRMS/MS	2896786	2012/06/27	2012/07/04	Branko Vrzic

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Report Date: 2012/07/11

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Package 1	4.9°C
Package 2	5.9°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Sample NV7627-01: Requires re-extraction due to low c13 internal recovery.

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12F253
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB290439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2893208	BY	Spiked Blank	C13-1234678 HeptaCDD	2012/06/30		95	%	40 - 135
			C13-1234678 HeptaCDF	2012/06/30		102	%	40 - 135
			C13-123478 HexaCDF	2012/06/30		90	%	40 - 135
			C13-123678 HexaCDD	2012/06/30		83	%	40 - 135
			C13-12378 PentaCDD	2012/06/30		86	%	40 - 135
			C13-12378 PentaCDF	2012/06/30		86	%	40 - 135
			C13-2378 TetraCDD	2012/06/30		83	%	40 - 135
			C13-2378 TetraCDF	2012/06/30		78	%	40 - 135
			C13-OCDD	2012/06/30		89	%	40 - 135
			2,3,7,8-Tetra CDD	2012/06/30		100	%	80 - 140
			1,2,3,7,8-Penta CDD	2012/06/30		107	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2012/06/30		117	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2012/06/30		102	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2012/06/30		116	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2012/06/30		97	%	80 - 140
			Octa CDD	2012/06/30		100	%	80 - 140
			2,3,7,8-Tetra CDF	2012/06/30		95	%	80 - 140
			1,2,3,7,8-Penta CDF	2012/06/30		97	%	80 - 140
			2,3,4,7,8-Penta CDF	2012/06/30		103	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2012/06/30		101	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2012/06/30		100	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2012/06/30		103	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2012/06/30		105	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2012/06/30		93	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2012/06/30		98	%	80 - 140
			Octa CDF	2012/06/30		108	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2012/06/30		91	%	40 - 135
			C13-1234678 HeptaCDF	2012/06/30		99	%	40 - 135
			C13-123478 HexaCDF	2012/06/30		89	%	40 - 135
			C13-123678 HexaCDD	2012/06/30		80	%	40 - 135
			C13-12378 PentaCDD	2012/06/30		87	%	40 - 135
			C13-12378 PentaCDF	2012/06/30		87	%	40 - 135
			C13-2378 TetraCDD	2012/06/30		83	%	40 - 135
			C13-2378 TetraCDF	2012/06/30		79	%	40 - 135
			C13-OCDD	2012/06/30		88	%	40 - 135
			2,3,7,8-Tetra CDD	2012/06/30	0.65 U, EDL=0.65		pg/L	
			1,2,3,7,8-Penta CDD	2012/06/30	0.74 U, EDL=0.74		pg/L	
			1,2,3,4,7,8-Hexa CDD	2012/06/30	0.82 U, EDL=0.82		pg/L	
			1,2,3,6,7,8-Hexa CDD	2012/06/30	0.74 U, EDL=0.74		pg/L	
			1,2,3,7,8,9-Hexa CDD	2012/06/30	0.74 U, EDL=0.74		pg/L	
			1,2,3,4,6,7,8-Hepta CDD	2012/06/30	1.64 J, EDL=0.64		pg/L	
			Octa CDD	2012/06/30	4.9 J, EDL=1.3		pg/L	
			Total Tetra CDD	2012/06/30	0.65 U, EDL=0.65		pg/L	
			Total Penta CDD	2012/06/30	0.74 U, EDL=0.74		pg/L	
			Total Hexa CDD	2012/06/30	1.29 J, EDL=0.77		pg/L	
			Total Hepta CDD	2012/06/30	2.66 J, EDL=0.64		pg/L	
			2,3,7,8-Tetra CDF	2012/06/30	0.71 U, EDL=0.71		pg/L	
			1,2,3,7,8-Penta CDF	2012/06/30	0.73 U, EDL=0.73		pg/L	
			2,3,4,7,8-Penta CDF	2012/06/30	0.74 U, EDL=0.74		pg/L	
			1,2,3,4,7,8-Hexa CDF	2012/06/30	0.80 U, EDL=0.80 (1)		pg/L	
			1,2,3,6,7,8-Hexa CDF	2012/06/30	0.57 U, EDL=0.57		pg/L	
			2,3,4,6,7,8-Hexa CDF	2012/06/30	0.62 U, EDL=0.62		pg/L	
			1,2,3,7,8,9-Hexa CDF	2012/06/30	0.67 U, EDL=0.67		pg/L	
			1,2,3,4,6,7,8-Hepta CDF	2012/06/30	1.7 U, EDL=1.7 (1)		pg/L	
			1,2,3,4,7,8,9-Hepta CDF	2012/06/30	0.62 U, EDL=0.62		pg/L	

Apex Laboratories
Attention: Philip Nerenberg
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Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB290439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2893208	BY	Method Blank	Octa CDF	2012/06/30	2.3 J, EDL=1.3		pg/L	
			Total Tetra CDF	2012/06/30	0.71 U, EDL=0.71		pg/L	
			Total Penta CDF	2012/06/30	0.74 U, EDL=0.74		pg/L	
			Total Hexa CDF	2012/06/30	0.85 U, EDL=0.85 (1)		pg/L	
			Total Hepta CDF	2012/06/30	1.9 U, EDL=1.9 (1)		pg/L	
2896786	BY	Spiked Blank	C13-2,44'-TriCB-(28)	2012/07/03		117	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2012/07/03		80	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2012/07/03		94	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2012/07/03		77	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2012/07/03		81	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2012/07/03		84	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2012/07/03		95	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2012/07/03		81	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2012/07/03		66	%	30 - 140
			C13-22'466'-PentaCB-(104)	2012/07/03		57	%	30 - 140
			C13-22'66'-TetraCB-(54)	2012/07/03		39	%	30 - 140
			C13-22'6-TriCB-(19)	2012/07/03		43	%	30 - 140
			C13-22'-DiCB-(4)	2012/07/03		29 (2)	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2012/07/03		105	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2012/07/03		123	%	30 - 140
			C13-233'44'-PentaCB-(105)	2012/07/03		122	%	30 - 140
			C13-233'55'-PentaCB-(111)	2012/07/03		93	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2012/07/03		123	%	30 - 140
			C13-2344'5-PentaCB-(114)	2012/07/03		118	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2012/07/03		120	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2012/07/03		117	%	30 - 140
			C13-2-MonoCB-(1)	2012/07/03		51	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2012/07/03		129	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2012/07/03		122	%	30 - 140
			C13-33'44'-TetraCB-(77)	2012/07/03		109	%	30 - 140
			C13-344'5-TetraCB-(81)	2012/07/03		106	%	30 - 140
			C13-344'-TriCB-(37)	2012/07/03		108	%	30 - 140
			C13-44'-DiCB-(15)	2012/07/03		75	%	30 - 140
			C13-4-MonoCB-(3)	2012/07/03		54	%	15 - 140
			C13-DecaCB-(209)	2012/07/03		63	%	30 - 140
			C13-HexaCB-(156)+(157)	2012/07/03		126	%	30 - 140
			2-MonoCB-(1)	2012/07/03		111	%	50 - 150
			4-MonoCB-(3)	2012/07/03		110	%	50 - 150
			22'-DiCB-(4)	2012/07/03		130	%	50 - 150
			4,4'-DiCB-(15)	2012/07/03		105	%	50 - 150
			22'6-TriCB-(19)	2012/07/03		115	%	50 - 150
			235-TriCB-(23)	2012/07/03		102	%	50 - 150
			23'5'-TriCB-(34)	2012/07/03		103	%	50 - 150
			344'-TriCB-(37)	2012/07/03		111	%	50 - 150
			22'66'-TetraCB-(54)	2012/07/03		118	%	50 - 150
			33'44'-TetraCB-(77)	2012/07/03		108	%	50 - 150
			344'5-TetraCB-(81)	2012/07/03		111	%	50 - 150
			22'466'-PentaCB-(104)	2012/07/03		124	%	50 - 150
			233'44'-PentaCB-(105)	2012/07/03		105	%	50 - 150
			2344'5-PentaCB-(114)	2012/07/03		109	%	50 - 150
			23'44'5-PentaCB-(118)	2012/07/03		108	%	50 - 150
			23'44'5'-PentaCB-(123)	2012/07/03		111	%	50 - 150
			33'44'5-PentaCB-(126)	2012/07/03		106	%	50 - 150
			22'44'66'-HexaCB-(155)	2012/07/03		122	%	50 - 150
			HexaCB-(156)+(157)	2012/07/03		106	%	50 - 150

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Quality Assurance Report (Continued)

Maxxam Job Number: GB290439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2896786	BY	Spiked Blank	23'44'55'-HexaCB-(167)	2012/07/03		106	%	50 - 150
			33'44'55'-HexaCB-(169)	2012/07/03		108	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2012/07/03		105	%	50 - 150
			HeptaCB-(180)+(193)	2012/07/03		87	%	50 - 150
			22'344'56'-HeptaCB-(182)	2012/07/03		95	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2012/07/03		88	%	50 - 150
			22'34'566'-HeptaCB-(188)	2012/07/03		110	%	50 - 150
			233'44'55'-HeptaCB-(189)	2012/07/03		107	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2012/07/03		114	%	50 - 150
			233'44'55'6-OctaCB-(205)	2012/07/03		102	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2012/07/03		109	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2012/07/03		110	%	50 - 150
			DecaCB-(209)	2012/07/03		115	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2012/07/03		113	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2012/07/03		78	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2012/07/03		94	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2012/07/03		76	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2012/07/03		82	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2012/07/03		77	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2012/07/03		94	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2012/07/03		77	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2012/07/03		64	%	30 - 140
			C13-22'466'-PentaCB-(104)	2012/07/03		53	%	30 - 140
			C13-22'66'-TetraCB-(54)	2012/07/03		45	%	30 - 140
			C13-22'6-TriCB-(19)	2012/07/03		50	%	30 - 140
			C13-22'-DiCB-(4)	2012/07/03		42	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2012/07/03		102	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2012/07/03		122	%	30 - 140
			C13-233'44'-PentaCB-(105)	2012/07/03		120	%	30 - 140
			C13-233'55'-PentaCB-(111)	2012/07/03		89	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2012/07/03		126	%	30 - 140
			C13-2344'5-PentaCB-(114)	2012/07/03		116	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2012/07/03		120	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2012/07/03		113	%	30 - 140
			C13-2-MonoCB-(1)	2012/07/03		53	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2012/07/03		128	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2012/07/03		122	%	30 - 140
			C13-33'44'-TetraCB-(77)	2012/07/03		109	%	30 - 140
			C13-344'5-TetraCB-(81)	2012/07/03		110	%	30 - 140
			C13-344'-TriCB-(37)	2012/07/03		113	%	30 - 140
			C13-44'-DiCB-(15)	2012/07/03		76	%	30 - 140
			C13-4-MonoCB-(3)	2012/07/03		61	%	15 - 140
			C13-DecaCB-(209)	2012/07/03		61	%	30 - 140
			C13-HexaCB-(156)+(157)	2012/07/03		129	%	30 - 140
			2-MonoCB-(1)	2012/07/03	0.0067 U, EDL=0.0067 (1)		ng/L	
			3-MonoCB-(2)	2012/07/03	0.0036 U, EDL=0.0036		ng/L	
			4-MonoCB-(3)	2012/07/03	0.0062 U, EDL=0.0062 (1)		ng/L	
			22'-DiCB-(4)	2012/07/03	0.0089 U, EDL=0.0089		ng/L	
			2,3-DiCB-(5)	2012/07/03	0.019 U, EDL=0.019		ng/L	
			2,3'-DiCB-(6)	2012/07/03	0.018 U, EDL=0.018		ng/L	
			2,4-DiCB-(7)	2012/07/03	0.018 U, EDL=0.018		ng/L	
			2,4'-DiCB-(8)	2012/07/03	0.017 U, EDL=0.017		ng/L	
			2,5-DiCB-(9)	2012/07/03	0.017 U, EDL=0.017		ng/L	
			2,6-DiCB-(10)	2012/07/03	0.0074 U, EDL=0.0074		ng/L	
			3,3'-DiCB-(11)	2012/07/03	0.059 J, EDL=0.019		ng/L	

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2896786	BY	Method Blank	DiCB-(12)+(13)	2012/07/03	0.018 U,	EDL=0.018	ng/L	
			3,5-DiCB-(14)	2012/07/03	0.018 U,	EDL=0.018	ng/L	
			4,4'-DiCB-(15)	2012/07/03	0.026 U,	EDL=0.026	ng/L	
			22'3-TriCB-(16)	2012/07/03	0.0075 U,	EDL=0.0075	ng/L	
			22'4-TriCB-(17)	2012/07/03	0.0059 U,	EDL=0.0059	ng/L	
			TriCB-(18)+(30)	2012/07/03	0.0046 U,	EDL=0.0046	ng/L	
			22'6-TriCB-(19)	2012/07/03	0.0057 U,	EDL=0.0057	ng/L	
			TriCB-(20) + (28)	2012/07/03	0.0070 J,	EDL=0.0012	ng/L	
			TriCB-(21)+(33)	2012/07/03	0.0024 U,	EDL=0.0024 (1)	ng/L	
			234'-TriCB-(22)	2012/07/03	0.0018 J,	EDL=0.0012	ng/L	
			235-TriCB-(23)	2012/07/03	0.0012 U,	EDL=0.0012	ng/L	
			236-TriCB-(24)	2012/07/03	0.0043 U,	EDL=0.0043	ng/L	
			23'4-TriCB-(25)	2012/07/03	0.0012 U,	EDL=0.0012	ng/L	
			TriCB-(26)+(29)	2012/07/03	0.0012 U,	EDL=0.0012	ng/L	
			23'6-TriCB-(27)	2012/07/03	0.0039 U,	EDL=0.0039	ng/L	
			24'5-TriCB-(31)	2012/07/03	0.0051 J,	EDL=0.0011	ng/L	
			24'6-TriCB-(32)	2012/07/03	0.0037 U,	EDL=0.0037	ng/L	
			23'5'-TriCB-(34)	2012/07/03	0.0012 U,	EDL=0.0012	ng/L	
			33'4-TriCB-(35)	2012/07/03	0.0012 U,	EDL=0.0012	ng/L	
			33'5-TriCB-(36)	2012/07/03	0.0011 U,	EDL=0.0011	ng/L	
			344'-TriCB-(37)	2012/07/03	0.0017 U,	EDL=0.0017	ng/L	
			345-TriCB-(38)	2012/07/03	0.0012 U,	EDL=0.0012	ng/L	
			34'5-TriCB-(39)	2012/07/03	0.0011 U,	EDL=0.0011	ng/L	
			TetraCB-(40)+(41)+(71)	2012/07/03	0.0029 U,	EDL=0.0029	ng/L	
			22'34'-TetraCB-(42)	2012/07/03	0.0036 U,	EDL=0.0036	ng/L	
			22'35-TetraCB-(43)	2012/07/03	0.0038 U,	EDL=0.0038	ng/L	
			TetraCB-(44)+(47)+(65)	2012/07/03	0.0033 U,	EDL=0.0033 (1)	ng/L	
			TetraCB-(45)+(51)	2012/07/03	0.0029 U,	EDL=0.0029	ng/L	
			22'36'-TetraCB-(46)	2012/07/03	0.0036 U,	EDL=0.0036	ng/L	
			22'45-TetraCB-(48)	2012/07/03	0.0029 U,	EDL=0.0029	ng/L	
			TetraCB-(49)+TetraCB-(69)	2012/07/03	0.0026 U,	EDL=0.0026	ng/L	
			TetraCB-(50)+(53)	2012/07/03	0.0028 U,	EDL=0.0028	ng/L	
			22'55'-TetraCB-(52)	2012/07/03	0.0084 J,	EDL=0.0029	ng/L	
			22'66'-TetraCB-(54)	2012/07/03	0.0044 U,	EDL=0.0044	ng/L	
			233'4-TetraCB-(55)	2012/07/03	0.0025 U,	EDL=0.0025	ng/L	
			233'4'-Tetra CB(56)	2012/07/03	0.0027 U,	EDL=0.0027	ng/L	
			233'5-TetraCB-(57)	2012/07/03	0.0024 U,	EDL=0.0024	ng/L	
			233'5'-TetraCB-(58)	2012/07/03	0.0024 U,	EDL=0.0024	ng/L	
			TetraCB-(59)+(62)+(75)	2012/07/03	0.0022 U,	EDL=0.0022	ng/L	
			2344'-TetraCB -(60)	2012/07/03	0.0025 U,	EDL=0.0025	ng/L	
			TetraCB-(61)+(70)+(74)+(76)	2012/07/03	0.0046 U,	EDL=0.0046 (1)	ng/L	
			234'5-TetraCB-(63)	2012/07/03	0.0023 U,	EDL=0.0023	ng/L	
			234'6-TetraCB-(64)	2012/07/03	0.0024 U,	EDL=0.0024	ng/L	
			23'44'-TetraCB-(66)	2012/07/03	0.0018 U,	EDL=0.0018 (1)	ng/L	
			23'45-TetraCB-(67)	2012/07/03	0.0023 U,	EDL=0.0023	ng/L	
			23'45'-TetraCB-(68)	2012/07/03	0.0022 U,	EDL=0.0022	ng/L	
			23'55'-TetraCB-(72)	2012/07/03	0.0022 U,	EDL=0.0022	ng/L	
			23'5'6-TetraCB-(73)	2012/07/03	0.0021 U,	EDL=0.0021	ng/L	
			33'44'-TetraCB-(77)	2012/07/03	0.0030 U,	EDL=0.0030	ng/L	
			33'45-TetraCB-(78)	2012/07/03	0.0024 U,	EDL=0.0024	ng/L	
			33'45'-TetraCB(79)	2012/07/03	0.0021 U,	EDL=0.0021	ng/L	
			33'55'-TetraCB-(80)	2012/07/03	0.0022 U,	EDL=0.0022	ng/L	
			344'5-TetraCB-(81)	2012/07/03	0.0032 U,	EDL=0.0032	ng/L	
			22'33'4-PentaCB-(82)	2012/07/03	0.0037 U,	EDL=0.0037	ng/L	
			PentaCB-(83)+(99)	2012/07/03	0.0031 U,	EDL=0.0031	ng/L	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2896786	BY	Method Blank	22'33'6-PentaCB-(84)	2012/07/03	0.0038 U, EDL=0.0038		ng/L	
			PentaCB-(85)+(116)+(117)	2012/07/03	0.0027 U, EDL=0.0027		ng/L	
			PentaCB-(86)(87)(97)(109)(119)(125)	2012/07/03	0.0031 U, EDL=0.0031 (1)		ng/L	
			PentaCB-(88)+(91)	2012/07/03	0.0031 U, EDL=0.0031		ng/L	
			22'346'-PentaCB-(89)	2012/07/03	0.0034 U, EDL=0.0034		ng/L	
			PentaCB-(90)+(101)+(113)	2012/07/03	0.014 U, EDL=0.014 (1)		ng/L	
			22'355'-PentaCB-(92)	2012/07/03	0.0032 U, EDL=0.0032		ng/L	
			PentaCB-(93)+(98)+(100)+(102)	2012/07/03	0.0032 U, EDL=0.0032		ng/L	
			22'356'-PentaCB-(94)	2012/07/03	0.0033 U, EDL=0.0033		ng/L	
			22'35'6-PentaCB-(95)	2012/07/03	0.010 U, EDL=0.010 (1)		ng/L	
			22'366'-PentaCB-(96)	2012/07/03	0.0032 U, EDL=0.0032		ng/L	
			22'45'6-PentaCB-(103)	2012/07/03	0.0027 U, EDL=0.0027		ng/L	
			22'466'-PentaCB-(104)	2012/07/03	0.0034 U, EDL=0.0034		ng/L	
			233'44'-PentaCB-(105)	2012/07/03	0.0024 U, EDL=0.0024 (1)		ng/L	
			233'45-PentaCB-(106)	2012/07/03	0.0017 U, EDL=0.0017		ng/L	
			233'4'5-PentaCB-(107)	2012/07/03	0.0017 U, EDL=0.0017		ng/L	
			PentaCB-(108)+(124)	2012/07/03	0.0017 U, EDL=0.0017		ng/L	
			PentaCB-(110)+(115)	2012/07/03	0.0079 U, EDL=0.0079 (1)		ng/L	
			233'55'-PentaCB-(111)	2012/07/03	0.0023 U, EDL=0.0023		ng/L	
			233'56-PentaCB-(112)	2012/07/03	0.0025 U, EDL=0.0025		ng/L	
			2344'5-PentaCB-(114)	2012/07/03	0.0019 U, EDL=0.0019		ng/L	
			23'44'5-PentaCB-(118)	2012/07/03	0.0079 J, EDL=0.0021		ng/L	
			23'455'-PentaCB-(120)	2012/07/03	0.0022 U, EDL=0.0022		ng/L	
			23'45'6-PentaCB-(121)	2012/07/03	0.0022 U, EDL=0.0022		ng/L	
			233'4'5'-PentaCB-(122)	2012/07/03	0.0018 U, EDL=0.0018		ng/L	
			23'44'5'-PentaCB-(123)	2012/07/03	0.0021 U, EDL=0.0021		ng/L	
			33'44'5-PentaCB-(126)	2012/07/03	0.0020 U, EDL=0.0020		ng/L	
			33'455'-PentaCB-(127)	2012/07/03	0.0017 U, EDL=0.0017		ng/L	
			HexaCB-(128)+(166)	2012/07/03	0.0025 U, EDL=0.0025		ng/L	
			HexaCB-(129)+(138)+(163)	2012/07/03	0.0297 J, EDL=0.0028		ng/L	
			22'33'45'-HexaCB-(130)	2012/07/03	0.0031 U, EDL=0.0031		ng/L	
			22'33'46-HexaCB-(131)	2012/07/03	0.0033 U, EDL=0.0033		ng/L	
			22'33'46'-HexaCB-(132)	2012/07/03	0.0045 U, EDL=0.0045 (1)		ng/L	
			22'33'55'-HexaCB-(133)	2012/07/03	0.0028 U, EDL=0.0028		ng/L	
			HexaCB-(134)+(143)	2012/07/03	0.0031 U, EDL=0.0031		ng/L	
			HexaCB-(135)+(151)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			22'33'66'-HexaCB-(136)	2012/07/03	0.0017 U, EDL=0.0017		ng/L	
			22'344'5-HexaCB-(137)	2012/07/03	0.0028 U, EDL=0.0028		ng/L	
			HexaCB-(139)+(140)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			22'3455'-HexaCB-(141)	2012/07/03	0.0079 J, EDL=0.0028		ng/L	
			22'3456-HexaCB-(142)	2012/07/03	0.0029 U, EDL=0.0029		ng/L	
			22'345'6-HexaCB-(144)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			22'3466'-HexaCB-(145)	2012/07/03	0.0018 U, EDL=0.0018		ng/L	
			22'34'55'-HexaCB-(146)	2012/07/03	0.0025 U, EDL=0.0025 (1)		ng/L	
			HexaCB-(147)+(149)	2012/07/03	0.0188 J, EDL=0.0026		ng/L	
			22'34'56'-HexaCB-(148)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			22'34'66'-HexaCB-(150)	2012/07/03	0.0017 U, EDL=0.0017		ng/L	
			22'3566'-HexaCB-(152)	2012/07/03	0.0016 U, EDL=0.0016		ng/L	
			HexaCB-(153)+(168)	2012/07/03	0.0217 J, EDL=0.0021		ng/L	
			22'44'56'-HexaCB-(154)	2012/07/03	0.0021 U, EDL=0.0021		ng/L	
			22'44'66'-HexaCB-(155)	2012/07/03	0.0021 U, EDL=0.0021		ng/L	
			HexaCB-(156)+(157)	2012/07/03	0.0037 U, EDL=0.0037 (1)		ng/L	
			233'44'6-HexaCB-(158)	2012/07/03	0.0020 U, EDL=0.0020		ng/L	
			233'455'-HexaCB-(159)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			233'456-HexaCB-(160)	2012/07/03	0.0021 U, EDL=0.0021		ng/L	

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Quality Assurance Report (Continued)

Maxxam Job Number: GB290439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2896786	BY	Method Blank	233'45'6-HexaCB-(161)	2012/07/03	0.0021 U, EDL=0.0021		ng/L	
			233'4'55'-HexaCB-(162)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			233'4'5'6-HexaCB-(164)	2012/07/03	0.0022 U, EDL=0.0022		ng/L	
			233'55'6-HexaCB-(165)	2012/07/03	0.0022 U, EDL=0.0022		ng/L	
			23'44'55'-HexaCB-(167)	2012/07/03	0.0026 U, EDL=0.0026		ng/L	
			33'44'55'-HexaCB-(169)	2012/07/03	0.0027 U, EDL=0.0027		ng/L	
			22'33'44'5-HeptaCB-(170)	2012/07/03	0.0092 U, EDL=0.0092 (1)		ng/L	
			HeptaCB-(171)+(173)	2012/07/03	0.0053 U, EDL=0.0053		ng/L	
			22'33'455'-HeptaCB-(172)	2012/07/03	0.0053 U, EDL=0.0053		ng/L	
			22'33'456'-HeptaCB-(174)	2012/07/03	0.0077 U, EDL=0.0077 (1)		ng/L	
			22'33'45'6-HeptaCB-(175)	2012/07/03	0.0014 U, EDL=0.0014		ng/L	
			22'33'466'-HeptaCB-(176)	2012/07/03	0.00099 U, EDL=0.00099		ng/L	
			22'33'45'6'-HeptaCB-(177)	2012/07/03	0.0054 U, EDL=0.0054		ng/L	
			22'33'55'6-HeptaCB-(178)	2012/07/03	0.0015 U, EDL=0.0015		ng/L	
			22'33'566'-HeptaCB-(179)	2012/07/03	0.00276 J, EDL=0.00094		ng/L	
			HeptaCB-(180)+(193)	2012/07/03	0.013 U, EDL=0.013 (1)		ng/L	
			22'344'56-HeptaCB-(181)	2012/07/03	0.0049 U, EDL=0.0049		ng/L	
			22'344'56'-HeptaCB-(182)	2012/07/03	0.0015 U, EDL=0.0015		ng/L	
			22'344'5'6-HeptaCB-(183)	2012/07/03	0.0047 U, EDL=0.0047		ng/L	
			22'344'66'-HeptaCB-(184)	2012/07/03	0.00092 U, EDL=0.00092		ng/L	
			22'3455'6-HeptaCB-(185)	2012/07/03	0.0058 U, EDL=0.0058		ng/L	
			22'34566'-HeptaCB-(186)	2012/07/03	0.00099 U, EDL=0.00099		ng/L	
			22'34'55'6-HeptaCB-(187)	2012/07/03	0.0088 J, EDL=0.0014		ng/L	
			22'34'566'-HeptaCB-(188)	2012/07/03	0.0014 U, EDL=0.0014		ng/L	
			233'44'55'-HeptaCB-(189)	2012/07/03	0.0022 U, EDL=0.0022		ng/L	
			233'44'56-HeptaCB-(190)	2012/07/03	0.0039 U, EDL=0.0039		ng/L	
			233'44'5'6-HeptaCB-(191)	2012/07/03	0.0038 U, EDL=0.0038		ng/L	
			233'455'6-HeptaCB-(192)	2012/07/03	0.0041 U, EDL=0.0041		ng/L	
			22'33'44'55'-OctaCB-(194)	2012/07/03	0.0027 U, EDL=0.0027		ng/L	
			22'33'44'56-OctaCB-(195)	2012/07/03	0.0026 U, EDL=0.0026		ng/L	
			22'33'44'56'-OctaCB-(196)	2012/07/03	0.0021 U, EDL=0.0021		ng/L	
			22'33'44'66'OctaCB-(197)	2012/07/03	0.0015 U, EDL=0.0015		ng/L	
			OctaCB-(198)+(199)	2012/07/03	0.0022 U, EDL=0.0022		ng/L	
			22'33'4566'-OctaCB-(200)	2012/07/03	0.0016 U, EDL=0.0016		ng/L	
			22'33'45'66'-OctaCB-(201)	2012/07/03	0.0015 U, EDL=0.0015		ng/L	
			22'33'55'66'-OctaCB-(202)	2012/07/03	0.0024 U, EDL=0.0024		ng/L	
			22'344'55'6-OctaCB-(203)	2012/07/03	0.0019 U, EDL=0.0019		ng/L	
			22'344'566'-OctaCB-(204)	2012/07/03	0.0016 U, EDL=0.0016		ng/L	
			233'44'55'6-OctaCB-(205)	2012/07/03	0.0023 U, EDL=0.0023		ng/L	
			22'33'44'55'6-NonaCB-(206)	2012/07/03	0.0047 U, EDL=0.0047		ng/L	
			22'33'44'566'-NonaCB-(207)	2012/07/03	0.0032 U, EDL=0.0032		ng/L	
			22'33'455'66'-NonaCB-(208)	2012/07/03	0.0048 U, EDL=0.0048		ng/L	
			DecaCB-(209)	2012/07/03	0.0045 U, EDL=0.0045		ng/L	
			Monochlorobiphenyl	2012/07/03	0.0040 U, EDL=0.0040		ng/L	
			Dichlorobiphenyl	2012/07/03	0.059, EDL=0.026		ng/L	
			Trichlorobiphenyl	2012/07/03	0.0139, EDL=0.0075		ng/L	
			Tetrachlorobiphenyl	2012/07/03	0.0084, EDL=0.0044		ng/L	
			Pentachlorobiphenyl	2012/07/03	0.0079, EDL=0.0038		ng/L	
			Hexachlorobiphenyl	2012/07/03	0.0781, EDL=0.0033		ng/L	
			Heptachlorobiphenyl	2012/07/03	0.0115, EDL=0.0058		ng/L	
			Octachlorobiphenyl	2012/07/03	0.0027 U, EDL=0.0027		ng/L	
			Nonachlorobiphenyl	2012/07/03	0.0048 U, EDL=0.0048		ng/L	
			Decachlorobiphenyl	2012/07/03	0.0045 U, EDL=0.0045		ng/L	
			Total PCB	2012/07/03	0.178		ng/L	
2902010	BY	Spiked Blank	C13-2,44'-TriCB-(28)	2012/07/08		77	%	40 - 125

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2902010	BY	Spiked Blank	C13-22'33'44'55'6-NonaCB-(206)	2012/07/08		76	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2012/07/08		88	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2012/07/08		76	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2012/07/08		76	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2012/07/08		78	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2012/07/08		89	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2012/07/08		78	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2012/07/08		66	%	30 - 140
			C13-22'466'-PentaCB-(104)	2012/07/08		51	%	30 - 140
			C13-22'66'-TetraCB-(54)	2012/07/08		32	%	30 - 140
			C13-22'6-TriCB-(19)	2012/07/08		34	%	30 - 140
			C13-22'-DiCB-(4)	2012/07/08		26 (3)	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2012/07/08		96	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2012/07/08		111	%	30 - 140
			C13-233'44'-PentaCB-(105)	2012/07/08		105	%	30 - 140
			C13-233'55'-PentaCB-(111)	2012/07/08		84	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2012/07/08		115	%	30 - 140
			C13-2344'5-PentaCB-(114)	2012/07/08		101	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2012/07/08		106	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2012/07/08		115	%	30 - 140
			C13-2-MonoCB-(1)	2012/07/08		39	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2012/07/08		113	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2012/07/08		106	%	30 - 140
			C13-33'44'-TetraCB-(77)	2012/07/08		94	%	30 - 140
			C13-344'5-TetraCB-(81)	2012/07/08		91	%	30 - 140
			C13-344'-TriCB-(37)	2012/07/08		82	%	30 - 140
			C13-44'-DiCB-(15)	2012/07/08		56	%	30 - 140
			C13-4-MonoCB-(3)	2012/07/08		40	%	15 - 140
			C13-DecaCB-(209)	2012/07/08		70	%	30 - 140
			C13-HexaCB-(156)+(157)	2012/07/08		114	%	30 - 140
			2-MonoCB-(1)	2012/07/08		99	%	50 - 150
			4-MonoCB-(3)	2012/07/08		103	%	50 - 150
			22'-DiCB-(4)	2012/07/08		123	%	50 - 150
			4,4'-DiCB-(15)	2012/07/08		92	%	50 - 150
			22'6-TriCB-(19)	2012/07/08		111	%	50 - 150
			235-TriCB-(23)	2012/07/08		95	%	50 - 150
			23'5'-TriCB-(34)	2012/07/08		90	%	50 - 150
			344'-TriCB-(37)	2012/07/08		107	%	50 - 150
			22'66'-TetraCB-(54)	2012/07/08		117	%	50 - 150
			33'44'-TetraCB-(77)	2012/07/08		108	%	50 - 150
			344'5-TetraCB-(81)	2012/07/08		106	%	50 - 150
			22'466'-PentaCB-(104)	2012/07/08		114	%	50 - 150
			233'44'-PentaCB-(105)	2012/07/08		104	%	50 - 150
			2344'5-PentaCB-(114)	2012/07/08		104	%	50 - 150
			23'44'5-PentaCB-(118)	2012/07/08		108	%	50 - 150
			23'44'5'-PentaCB-(123)	2012/07/08		104	%	50 - 150
			33'44'5-PentaCB-(126)	2012/07/08		104	%	50 - 150
			22'44'66'-HexaCB-(155)	2012/07/08		111	%	50 - 150
			HexaCB-(156)+(157)	2012/07/08		105	%	50 - 150
			23'44'55'-HexaCB-(167)	2012/07/08		107	%	50 - 150
			33'44'55'-HexaCB-(169)	2012/07/08		108	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2012/07/08		109	%	50 - 150
			HeptaCB-(180)+(193)	2012/07/08		89	%	50 - 150
			22'344'56'-HeptaCB-(182)	2012/07/08		92	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2012/07/08		87	%	50 - 150

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Quality Assurance Report (Continued)

Maxxam Job Number: GB290439

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2902010	BY	Spiked Blank	22'34'566'-HeptaCB-(188)	2012/07/08		106	%	50 - 150
			233'44'55'-HeptaCB-(189)	2012/07/08		104	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2012/07/08		113	%	50 - 150
			233'44'55'6-OctaCB-(205)	2012/07/08		111	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2012/07/08		110	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2012/07/08		110	%	50 - 150
			DecaCB-(209)	2012/07/08		100	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2012/07/08		98	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2012/07/08		79	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2012/07/08		86	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2012/07/08		76	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2012/07/08		83	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2012/07/08		90	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2012/07/08		91	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2012/07/08		81	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2012/07/08		71	%	30 - 140
			C13-22'466'-PentaCB-(104)	2012/07/08		60	%	30 - 140
			C13-22'66'-TetraCB-(54)	2012/07/08		39	%	30 - 140
			C13-22'6-TriCB-(19)	2012/07/08		45	%	30 - 140
			C13-22'-DiCB-(4)	2012/07/08		34	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2012/07/08		95	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2012/07/08		112	%	30 - 140
			C13-233'44'-PentaCB-(105)	2012/07/08		103	%	30 - 140
			C13-233'55'-PentaCB-(111)	2012/07/08		94	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2012/07/08		109	%	30 - 140
			C13-2344'5-PentaCB-(114)	2012/07/08		98	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2012/07/08		101	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2012/07/08		100	%	30 - 140
			C13-2-MonoCB-(1)	2012/07/08		49	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2012/07/08		110	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2012/07/08		103	%	30 - 140
			C13-33'44'-TetraCB-(77)	2012/07/08		93	%	30 - 140
			C13-344'5-TetraCB-(81)	2012/07/08		90	%	30 - 140
			C13-344'-TriCB-(37)	2012/07/08		88	%	30 - 140
			C13-44'-DiCB-(15)	2012/07/08		65	%	30 - 140
			C13-4-MonoCB-(3)	2012/07/08		52	%	15 - 140
			C13-DecaCB-(209)	2012/07/08		69	%	30 - 140
			C13-HexaCB-(156)+(157)	2012/07/08		109	%	30 - 140
			2-MonoCB-(1)	2012/07/08	0.0011 U, EDL=0.0011		ng/L	
			3-MonoCB-(2)	2012/07/08	0.0010 U, EDL=0.0010		ng/L	
			4-MonoCB-(3)	2012/07/08	0.0014 U, EDL=0.0014 (1)		ng/L	
			22'-DiCB-(4)	2012/07/08	0.0099 U, EDL=0.0099		ng/L	
			2,3-DiCB-(5)	2012/07/08	0.020 U, EDL=0.020		ng/L	
			2,3'-DiCB-(6)	2012/07/08	0.019 U, EDL=0.019		ng/L	
			2,4-DiCB-(7)	2012/07/08	0.018 U, EDL=0.018		ng/L	
			2,4'-DiCB-(8)	2012/07/08	0.018 U, EDL=0.018		ng/L	
			2,5-DiCB-(9)	2012/07/08	0.018 U, EDL=0.018		ng/L	
			2,6-DiCB-(10)	2012/07/08	0.0086 U, EDL=0.0086		ng/L	
			3,3'-DiCB-(11)	2012/07/08	0.046 J, EDL=0.019		ng/L	
			DiCB-(12)+(13)	2012/07/08	0.020 U, EDL=0.020		ng/L	
			3,5-DiCB-(14)	2012/07/08	0.018 U, EDL=0.018		ng/L	
			4,4'-DiCB-(15)	2012/07/08	0.027 U, EDL=0.027		ng/L	
			22'3-TriCB-(16)	2012/07/08	0.0065 U, EDL=0.0065		ng/L	
			22'4-TriCB-(17)	2012/07/08	0.0051 U, EDL=0.0051		ng/L	
			TriCB-(18)+(30)	2012/07/08	0.0040 U, EDL=0.0040 (1)		ng/L	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2902010	BY	Method Blank	22'6-TriCB-(19)	2012/07/08	0.0049 U, EDL=0.0049		ng/L	
			TriCB-(20) + (28)	2012/07/08	0.00537 J, EDL=0.00090		ng/L	
			TriCB-(21)+(33)	2012/07/08	0.0032 U, EDL=0.0032 (1)		ng/L	
			234'-TriCB-(22)	2012/07/08	0.00227 J, EDL=0.00095		ng/L	
			235-TriCB-(23)	2012/07/08	0.00096 U, EDL=0.00096		ng/L	
			236-TriCB-(24)	2012/07/08	0.0035 U, EDL=0.0035		ng/L	
			23'4-TriCB-(25)	2012/07/08	0.00090 U, EDL=0.00090		ng/L	
			TriCB-(26)+(29)	2012/07/08	0.00091 U, EDL=0.00091 (1)		ng/L	
			23'6-TriCB-(27)	2012/07/08	0.0033 U, EDL=0.0033		ng/L	
			24'5-TriCB-(31)	2012/07/08	0.0037 U, EDL=0.0037 (1)		ng/L	
			24'6-TriCB-(32)	2012/07/08	0.0032 U, EDL=0.0032		ng/L	
			23'5'-TriCB-(34)	2012/07/08	0.00091 U, EDL=0.00091		ng/L	
			33'4-TriCB-(35)	2012/07/08	0.00094 U, EDL=0.00094		ng/L	
			33'5-TriCB-(36)	2012/07/08	0.00082 U, EDL=0.00082		ng/L	
			344'-TriCB-(37)	2012/07/08	0.0014 U, EDL=0.0014 (1)		ng/L	
			345-TriCB-(38)	2012/07/08	0.00094 U, EDL=0.00094		ng/L	
			34'5-TriCB-(39)	2012/07/08	0.00087 U, EDL=0.00087		ng/L	
			TetraCB-(40)+(41)+(71)	2012/07/08	0.0022 U, EDL=0.0022		ng/L	
			22'34'-TetraCB-(42)	2012/07/08	0.0027 U, EDL=0.0027		ng/L	
			22'35-TetraCB-(43)	2012/07/08	0.0029 U, EDL=0.0029		ng/L	
			TetraCB-(44)+(47)+(65)	2012/07/08	0.020 U, EDL=0.020 (1)		ng/L	
			TetraCB-(45)+(51)	2012/07/08	0.0022 U, EDL=0.0022		ng/L	
			22'36'-TetraCB-(46)	2012/07/08	0.0027 U, EDL=0.0027		ng/L	
			22'45-TetraCB-(48)	2012/07/08	0.0023 U, EDL=0.0023		ng/L	
			TetraCB-(49)+TetraCB-(69)	2012/07/08	0.0020 U, EDL=0.0020		ng/L	
			TetraCB-(50)+(53)	2012/07/08	0.0021 U, EDL=0.0021		ng/L	
			22'55'-TetraCB-(52)	2012/07/08	0.0126 J, EDL=0.0023		ng/L	
			22'66'-TetraCB-(54)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			233'4-TetraCB-(55)	2012/07/08	0.0011 U, EDL=0.0011		ng/L	
			233'4'-Tetra CB(56)	2012/07/08	0.0011 U, EDL=0.0011		ng/L	
			233'5-TetraCB-(57)	2012/07/08	0.0010 U, EDL=0.0010		ng/L	
			233'5'-TetraCB-(58)	2012/07/08	0.0013 U, EDL=0.0013 (1)		ng/L	
			TetraCB-(59)+(62)+(75)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			2344'-TetraCB -(60)	2012/07/08	0.0011 U, EDL=0.0011		ng/L	
			TetraCB-(61)+(70)+(74)+(76)	2012/07/08	0.0036 U, EDL=0.0036 (1)		ng/L	
			234'5-TetraCB-(63)	2012/07/08	0.00097 U, EDL=0.00097		ng/L	
			234'6-TetraCB-(64)	2012/07/08	0.0018 U, EDL=0.0018 (1)		ng/L	
			23'44'-TetraCB-(66)	2012/07/08	0.00192 J, EDL=0.00095		ng/L	
			23'45-TetraCB-(67)	2012/07/08	0.00097 U, EDL=0.00097		ng/L	
			23'45'-TetraCB-(68)	2012/07/08	0.00272 J, EDL=0.00090		ng/L	
			23'55'-TetraCB-(72)	2012/07/08	0.00097 U, EDL=0.00097		ng/L	
			23'5'6-TetraCB-(73)	2012/07/08	0.0016 U, EDL=0.0016		ng/L	
			33'44'-TetraCB-(77)	2012/07/08	0.0014 U, EDL=0.0014		ng/L	
			33'45-TetraCB-(78)	2012/07/08	0.0010 U, EDL=0.0010		ng/L	
			33'45'-TetraCB(79)	2012/07/08	0.00088 U, EDL=0.00088		ng/L	
			33'55'-TetraCB-(80)	2012/07/08	0.00094 U, EDL=0.00094		ng/L	
			344'5-TetraCB-(81)	2012/07/08	0.0015 U, EDL=0.0015		ng/L	
			22'33'4-PentaCB-(82)	2012/07/08	0.0020 U, EDL=0.0020		ng/L	
			PentaCB-(83)+(99)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			22'33'6-PentaCB-(84)	2012/07/08	0.0020 U, EDL=0.0020		ng/L	
			PentaCB-(85)+(116)+(117)	2012/07/08	0.0014 U, EDL=0.0014		ng/L	
			PentaCB-(86)(87)(97)(109)(119)(125)	2012/07/08	0.0079 U, EDL=0.0079 (1)		ng/L	
			PentaCB-(88)+(91)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			22'346'-PentaCB-(89)	2012/07/08	0.0018 U, EDL=0.0018		ng/L	
			PentaCB-(90)+(101)+(113)	2012/07/08	0.034 U, EDL=0.034 (1)		ng/L	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2902010	BY	Method Blank	22'355'-PentaCB-(92)	2012/07/08	0.0053 U, EDL=0.0053 (1)		ng/L	
			PentaCB-(93)+(98)+(100)+(102)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			22'356'-PentaCB-(94)	2012/07/08	0.0018 U, EDL=0.0018		ng/L	
			22'35'6-PentaCB-(95)	2012/07/08	0.0276 J, EDL=0.0016		ng/L	
			22'366'-PentaCB-(96)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	
			22'45'6-PentaCB-(103)	2012/07/08	0.0015 U, EDL=0.0015		ng/L	
			22'466'-PentaCB-(104)	2012/07/08	0.0011 U, EDL=0.0011		ng/L	
			233'44'-PentaCB-(105)	2012/07/08	0.0019 U, EDL=0.0019		ng/L	
			233'45-PentaCB-(106)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	
			233'4'5-PentaCB-(107)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	
			PentaCB-(108)+(124)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	
			PentaCB-(110)+(115)	2012/07/08	0.021 U, EDL=0.021 (1)		ng/L	
			233'55'-PentaCB-(111)	2012/07/08	0.0012 U, EDL=0.0012		ng/L	
			233'56-PentaCB-(112)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	
			2344'5-PentaCB-(114)	2012/07/08	0.0016 U, EDL=0.0016		ng/L	
			23'44'5-PentaCB-(118)	2012/07/08	0.012 U, EDL=0.012 (1)		ng/L	
			23'455'-PentaCB-(120)	2012/07/08	0.0012 U, EDL=0.0012		ng/L	
			23'45'6-PentaCB-(121)	2012/07/08	0.0012 U, EDL=0.0012		ng/L	
			233'4'5'-PentaCB-(122)	2012/07/08	0.0015 U, EDL=0.0015		ng/L	
			23'44'5'-PentaCB-(123)	2012/07/08	0.0018 U, EDL=0.0018		ng/L	
			33'44'5-PentaCB-(126)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			33'455'-PentaCB-(127)	2012/07/08	0.0014 U, EDL=0.0014		ng/L	
			HexaCB-(128)+(166)	2012/07/08	0.0045 U, EDL=0.0045 (1)		ng/L	
			HexaCB-(129)+(138)+(163)	2012/07/08	0.0607 J, EDL=0.0032		ng/L	
			22'33'45'-HexaCB-(130)	2012/07/08	0.0037 U, EDL=0.0037		ng/L	
			22'33'46-HexaCB-(131)	2012/07/08	0.0036 U, EDL=0.0036		ng/L	
			22'33'46'-HexaCB-(132)	2012/07/08	0.0179 J, EDL=0.0034		ng/L	
			22'33'55'-HexaCB-(133)	2012/07/08	0.0033 U, EDL=0.0033		ng/L	
			HexaCB-(134)+(143)	2012/07/08	0.0035 U, EDL=0.0035		ng/L	
			HexaCB-(135)+(151)	2012/07/08	0.028 U, EDL=0.028 (1)		ng/L	
			22'33'66'-HexaCB-(136)	2012/07/08	0.0090 U, EDL=0.0090 (1)		ng/L	
			22'344'5-HexaCB-(137)	2012/07/08	0.0032 U, EDL=0.0032		ng/L	
			HexaCB-(139)+(140)	2012/07/08	0.0028 U, EDL=0.0028		ng/L	
			22'3455'-HexaCB-(141)	2012/07/08	0.014 U, EDL=0.014 (1)		ng/L	
			22'3456-HexaCB-(142)	2012/07/08	0.0034 U, EDL=0.0034		ng/L	
			22'345'6-HexaCB-(144)	2012/07/08	0.0032 U, EDL=0.0032 (1)		ng/L	
			22'3466'-HexaCB-(145)	2012/07/08	0.0012 U, EDL=0.0012		ng/L	
			22'34'55'-HexaCB-(146)	2012/07/08	0.0085 J, EDL=0.0030		ng/L	
			HexaCB-(147)+(149)	2012/07/08	0.0497 J, EDL=0.0030		ng/L	
			22'34'56'-HexaCB-(148)	2012/07/08	0.0017 U, EDL=0.0017		ng/L	
			22'34'66'-HexaCB-(150)	2012/07/08	0.0012 U, EDL=0.0012		ng/L	
			22'3566'-HexaCB-(152)	2012/07/08	0.0011 U, EDL=0.0011		ng/L	
			HexaCB-(153)+(168)	2012/07/08	0.0496 J, EDL=0.0025		ng/L	
			22'44'56'-HexaCB-(154)	2012/07/08	0.0015 U, EDL=0.0015		ng/L	
			22'44'66'-HexaCB-(155)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	
			HexaCB-(156)+(157)	2012/07/08	0.0070 J, EDL=0.0012		ng/L	
			233'44'6-HexaCB-(158)	2012/07/08	0.0056 J, EDL=0.0023		ng/L	
			233'455'-HexaCB-(159)	2012/07/08	0.0010 U, EDL=0.0010		ng/L	
			233'456-HexaCB-(160)	2012/07/08	0.0025 U, EDL=0.0025		ng/L	
			233'45'6-HexaCB-(161)	2012/07/08	0.0024 U, EDL=0.0024		ng/L	
			233'4'55'-HexaCB-(162)	2012/07/08	0.0010 U, EDL=0.0010		ng/L	
			233'4'5'6-HexaCB-(164)	2012/07/08	0.0038 U, EDL=0.0038 (1)		ng/L	
			233'55'6-HexaCB-(165)	2012/07/08	0.0026 U, EDL=0.0026		ng/L	
			23'44'55'-HexaCB-(167)	2012/07/08	0.0035 J, EDL=0.0013		ng/L	
			33'44'55'-HexaCB-(169)	2012/07/08	0.0013 U, EDL=0.0013		ng/L	

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2902010	BY	Method Blank	22'33'44'5-HeptaCB-(170)	2012/07/08	0.0208 J,	EDL=0.0023	ng/L	
			HeptaCB-(171)+(173)	2012/07/08	0.0062 J,	EDL=0.0023	ng/L	
			22'33'455'-HeptaCB-(172)	2012/07/08	0.0024 U,	EDL=0.0024 (1)	ng/L	
			22'33'456'-HeptaCB-(174)	2012/07/08	0.015 U,	EDL=0.015 (1)	ng/L	
			22'33'45'6-HeptaCB-(175)	2012/07/08	0.0019 U,	EDL=0.0019	ng/L	
			22'33'466'-HeptaCB-(176)	2012/07/08	0.0026 U,	EDL=0.0026 (1)	ng/L	
			22'33'45'6'-HeptaCB-(177)	2012/07/08	0.0103 J,	EDL=0.0023	ng/L	
			22'33'55'6-HeptaCB-(178)	2012/07/08	0.0030 U,	EDL=0.0030 (1)	ng/L	
			22'33'566'-HeptaCB-(179)	2012/07/08	0.0073 J,	EDL=0.0014	ng/L	
			HeptaCB-(180)+(193)	2012/07/08	0.0402 J,	EDL=0.0018	ng/L	
			22'344'56-HeptaCB-(181)	2012/07/08	0.0022 U,	EDL=0.0022	ng/L	
			22'344'56'-HeptaCB-(182)	2012/07/08	0.0020 U,	EDL=0.0020	ng/L	
			22'344'5'6-HeptaCB-(183)	2012/07/08	0.0090 J,	EDL=0.0020	ng/L	
			22'344'66'-HeptaCB-(184)	2012/07/08	0.0013 U,	EDL=0.0013	ng/L	
			22'3455'6-HeptaCB-(185)	2012/07/08	0.0023 U,	EDL=0.0023	ng/L	
			22'34566'-HeptaCB-(186)	2012/07/08	0.0014 U,	EDL=0.0014	ng/L	
			22'34'55'6-HeptaCB-(187)	2012/07/08	0.0208 J,	EDL=0.0018	ng/L	
			22'34'566'-HeptaCB-(188)	2012/07/08	0.0019 U,	EDL=0.0019	ng/L	
			233'44'55'-HeptaCB-(189)	2012/07/08	0.0023 U,	EDL=0.0023	ng/L	
			233'44'56-HeptaCB-(190)	2012/07/08	0.0025 U,	EDL=0.0025 (1)	ng/L	
			233'44'5'6-HeptaCB-(191)	2012/07/08	0.0017 U,	EDL=0.0017	ng/L	
			233'455'6-HeptaCB-(192)	2012/07/08	0.0018 U,	EDL=0.0018	ng/L	
			22'33'44'55'-OctaCB-(194)	2012/07/08	0.0062 J,	EDL=0.0020	ng/L	
			22'33'44'56-OctaCB-(195)	2012/07/08	0.0029 U,	EDL=0.0029 (1)	ng/L	
			22'33'44'56'-OctaCB-(196)	2012/07/08	0.0034 U,	EDL=0.0034	ng/L	
			22'33'44'66'OctaCB-(197)	2012/07/08	0.0022 U,	EDL=0.0022	ng/L	
			OctaCB-(198)+(199)	2012/07/08	0.0034 U,	EDL=0.0034	ng/L	
			22'33'4566'-OctaCB-(200)	2012/07/08	0.0026 U,	EDL=0.0026	ng/L	
			22'33'45'66'-OctaCB-(201)	2012/07/08	0.0024 U,	EDL=0.0024	ng/L	
			22'33'55'66'-OctaCB-(202)	2012/07/08	0.0035 U,	EDL=0.0035	ng/L	
			22'344'55'6-OctaCB-(203)	2012/07/08	0.0032 U,	EDL=0.0032	ng/L	
			22'344'566'-OctaCB-(204)	2012/07/08	0.0024 U,	EDL=0.0024	ng/L	
			233'44'55'6-OctaCB-(205)	2012/07/08	0.0020 U,	EDL=0.0020	ng/L	
			22'33'44'55'6-NonaCB-(206)	2012/07/08	0.0036 U,	EDL=0.0036	ng/L	
			22'33'44'566'-NonaCB-(207)	2012/07/08	0.0025 U,	EDL=0.0025	ng/L	
			22'33'455'66'-NonaCB-(208)	2012/07/08	0.0037 U,	EDL=0.0037	ng/L	
			DecaCB-(209)	2012/07/08	0.0031 U,	EDL=0.0031	ng/L	
			Monochlorobiphenyl	2012/07/08	0.0011 U,	EDL=0.0011	ng/L	
			Dichlorobiphenyl	2012/07/08	0.046,	EDL=0.027	ng/L	
			Trichlorobiphenyl	2012/07/08	0.0076,	EDL=0.0065	ng/L	
			Tetrachlorobiphenyl	2012/07/08	0.0173,	EDL=0.0029	ng/L	
			Pentachlorobiphenyl	2012/07/08	0.0276,	EDL=0.0020	ng/L	
			Hexachlorobiphenyl	2012/07/08	0.203,	EDL=0.0036	ng/L	
			Heptachlorobiphenyl	2012/07/08	0.115,	EDL=0.0024	ng/L	
			Octachlorobiphenyl	2012/07/08	0.0062,	EDL=0.0035	ng/L	
			Nonachlorobiphenyl	2012/07/08	0.0037 U,	EDL=0.0037	ng/L	
			Decachlorobiphenyl	2012/07/08	0.0031 U,	EDL=0.0031	ng/L	
			Total PCB	2012/07/08	0.422		ng/L	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(3) Internal standard recovery meets 14-107% acceptance criteria

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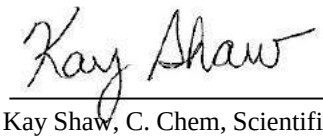
Validation Signature Page

Maxxam Job #: B290439

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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Edmond Mcneil, B.Sc.(Hons), C.Chem., Senior Scientific Specialist, HRMS Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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DATA VALIDATION REPORT

Analyses of June 2012 Burgard Groundwater Samples for PCDDs/PCDFs and Chlorinated Biphenyl Congeners

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September 2012

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DATA QUALIFIER DEFINITION

U The U qualifier indicates that the analyte must be considered to be nondetected at the concentration listed. U qualifiers may be added during validation as a result of detection of target analytes in field, trip, or laboratory blanks.

J The J qualifier indicates that the associated result is quantitatively uncertain. J qualifiers are added when a result is measured below instrument calibration or during validation as a result of a QC element falling outside of required acceptance limits.

UJ The UJ qualifier indicates that the associated analyte was not detected at or above the cited limit. However, the cited limit is approximate and may be biased.

R The R qualifier indicates that a result has been rejected due to serious QC problems. It is not possible to definitively determine whether the analyte is present or absent in the sample.

ACRONYMS

CB	chlorinated biphenyl
CLP	USEPA Contract Laboratory Program
COC	chain of custody
EDL	estimated detection limit
EMPC	estimated maximum possible concentration
EPA	United States Environmental Protection Agency
ID	identification
LOC	level of chlorination
MRL	method reporting limit
NBS	National Bureau of Standards
OPR	ongoing precision and recovery
PCB	polychlorinated biphenyl
PCDDs/PCDFs	polychlorinated dibenzodioxins/polychlorinated dibenzofurans
PFK	perfluorokerosene
QC	quality control
RL	reporting limit
RPD	relative percent difference
RR	relative response
RRF	relative response factor
RSD	relative standard deviation
SOP	Standard Operating Procedure
TEF	toxic equivalency factor
TEQ	toxicity equivalency
WHO	World Health Organization

1.0 INTRODUCTION

This validation report documents the quality of polycholorinated dibenzodioxin and polychlorinated dibenzofurans (PCDD/PCDF) and chlorinated biphenyl (CB) congener data for nine groundwater samples collected at the Burgard site on June 12 and 13, 2012. These samples were submitted to Apex Labs of Tigard, OR. Apex subsequently transferred custody of the samples under their Project Numbers A12F229 and A112F253 to Maxxam Analytics, Inc., Mississauga, Ontario for analyses.

Maxxam assigned their Job Numbers of B288949 and B290439 to the samples. Maxxam conducted analyses for PCDDs and PCDFs in accordance with EPA Method 8290 and for CB congeners in accordance with EPA 1668A.

2.0 SAMPLES

Samples included in this review are listed below:

Sample ID
MW5-20120612
MW103 -20120612
MW101-20120612
MW102-20120612

MW4-20120613
MW104-20120613
MW105-20120613
MW106-20120613
MW107-20120613

3.0 SUMMARY OF VALIDATION FINDINGS

3.1 PCDD/PCDFs

PCDD/PCDF analyses were conducted in compliance with the analytical requirements of EPA Method 8290. Quality control measures associated with sample analyses met method criteria for accuracy and precision.

With limited qualifications, reported results for detected analytes are valid. Qualifications applied to data as reported are summarized below:

- Reported data for detections below the instrument calibration range are qualified as estimated (J, Reason Code RL).

- Reported results for low-level detections of 1,2,3,4,6,7,8-HpCDD, OCDD and OCDF in all samples were qualified to be non-detected due to the presence of comparable levels of the analyte in the laboratory method blank. (U, Reason Code B)

- Results reported by Maxxam with an (1) qualifier represent peaks that failed to meet method criteria for positive identification. These peaks are qualified to be non-detected with reported limits representing an Estimated Maximum Possible Concentration (U, Reason Code EMPC).

3.2 Chlorinated Biphenyl Congeners

Analyses for CB congeners were conducted in accordance with EPA Method 1668A. Quality control measures met method requirements. With qualifications, reported data are valid. Qualifications applied to data are summarized below:

- Reported results for trace level detections of numerous congeners in all samples have been qualified to be non-detected due to the presence of comparable levels in the method blanks.

- Reported data for detections below the instrument calibration range are qualified as estimated (J, Reason Code RL).

4.0 DATA VALIDATION

4.1 Methodology

Data for PCDDs/PCDFs have been reviewed and validated with reference to the requirements of EPA Method 8290, the USEPA *National Functional Guidelines for Chlorinated Dibenzo-p-dioxins and Chlorinated Dibenzofurans Data Review* (EPA-540-R-11-016, September 2011) and EPA Region 10 *SOP For the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF) Data*, January 1996. For those instances where Method 8290 requirements or criteria differ from the US EPA Contract Laboratory Program (CLP) Statement of Work for Polychlorinated Dioxin/Furan analyses, upon which the Functional Guidelines are based, the requirements and criteria of the cited method were applied.

Chlorinated biphenyl data have been reviewed and validated with reference to the requirements of EPA Method 1668A (2003) and the *EPA Region 10 SOP for the Validation of Method 1668 Toxic Dioxin-like PCB Data* (1995). The Region 10 SOP was developed prior to the Revision A; where differences in requirements were noted, Revision A specifications were given precedence in the review.

Raw data were reviewed for all sample and quality control analyses associated with the samples in this set.

The laboratory's certified analytical report and supporting documentation were reviewed to assess the following:

1. Data completeness and deliverables
2. Sample receipt
3. Chain of Custody documentation
4. Holding times, storage and preservation
5. Sample preparation notes
6. Mass calibration and mass spectrometer resolution
7. Window defining mixture and chromatographic resolution
8. Initial calibration
9. Continuing calibrations
10. Method Blanks
11. On-going Precision and Accuracy
12. Identification criteria
13. Second column confirmation analysis
14. Reporting and Detection Limits
15. Labeled compound recoveries
16. Interferences
17. Calculations

Data for all standards, blanks and samples were reviewed for quality assurance/quality control results. Calculations were verified and reported results on the final summary forms were checked against the raw data instrument print-outs for sample concentrations. Chromatograms and peak integrations and identifications were reviewed for all samples in this set.

4.2 Data completeness and deliverables

Full data packages were submitted in electronic format. All documentation elements required for validation of the laboratory analyses were provided.

4.3 Sample Receipt

Apex shipped four 1-liter bottles for each sample on June 14 and June 18, 2012 to the Maxxam Analytics sample receiving site in Buffalo, NY. They were received on June 15, 2012 and June 19, 2012.

4.4 Chain of Custody (COC) Documentation

The COCs for sample transfers were legible and properly completed. Copies of the original COCs documenting sample custody from the field to Apex were not provided to Maxxam and are not included in the Maxxam final report. Apex transferred samples to Maxxam under Subcontract Orders AF12F229 and AF12F253. These documents were properly completed and contained all required custody information for the transfer.

4.5 Holding Times, Storage and Preservation

The June 12, 2012 samples were received at Maxxam with cooler temperatures at 10°C and 10.3^{0}C. The June 13, 2012 samples were received with cooler temperatures of 3.8, 5.7 and 6.1^{o}C. The June 12, 2012 temperatures exceed EPA's current preservation guidance as included in the *Functional Guidelines,* which recommends that professional judgment be applied for data qualification in the event that shipment temperatures exceed 4°C. No target analytes were detected in these samples above laboratory background levels; reported detection limits have not been qualified for the short time of the temperature variance.

All method holding times for extraction and analysis were met. Method 1668A allows for holding times for PCB congeners in aqueous samples of 1 year. Method 8290 for PCDDs/PCDFs recommends a holding time of 30 days.

4.6 PCDD/PCDF Data Validation Findings

4.6.1 Sample Preparation

Samples were spiked with carbon-13 isotopically labeled internal standards and extracted in accordance with the method. Extracts were cleaned with acidic and basic silica gel and alumina.

4.6.2 Mass Calibration and Resolution

Mass calibration and resolution were checked prior to and after each analytical run sequence used for program samples. Mass calibration and resolution met method criteria prior to all sample analyses with a static resolving power of greater than 10,000 and a mass accuracy within 5 ppb of the actual for all perfluorokerosene (PFK) peaks monitored. Mass calibration and resolution were also verified after sample analyses.

4.6.3 Window Defining Mixture and Chromatographic Resolution

The retention times for the first- and last-eluting congener at each PCDD and PCDF chlorination level were demonstrated by the analysis of the window-defining mixture prior to each analytical run. All congeners in the solution were detected within the time windows monitored. The height of the valley between the closely eluting isomers 1,2,3,8-TCDD and 2,3,7,8-TCDD was less than 25%. No qualifications were required.

4.6.4 Initial Calibrations

One instrument was used for the DB-5 column analysis for all PCDDs and PCDFs. A five-point calibration was conducted on June 24, 2012. The initial calibration was acceptable with %RSDs $\leq$20% for the relative responses (RRs) for unlabeled compounds and $\leq$35% for the relative response factors (RRFs) for labeled compounds. The relative retention times and ion abundance

ratios were within the QC limits listed in Method 8290 for all standards. No qualifications were required. The calibration was verified against an NBS standard for 2,3,7,8-TCDD and a second-source standard for target PCDDs/PCDFs.

4.6.5 Continuing Calibrations

Mid-point calibration standards and the window-defining mix were analyzed prior to each 12-hour analytical sequence. Sample analyses on the DB5 column were conducted on June 30 and-July 1, 2012. All calibration checks demonstrated acceptable response stability, with the %D of the RRFs of unlabeled compounds within 20% of the average from the initial calibration and the RRFs of the labeled compounds <35%. The ion abundance ratios, sensitivity and relative retention times were within the method QC limits. No qualifications were required.

4.6.6 Method Blanks

One aqueous method blank was prepared with the sample extractions. The method blank contained detectable levels of 1,2,3,4,6,7,8-HpCDD (1.64J pg/l), OCDD (4.9J pg/l) and OCDF (2.3 J pg/l).

All samples had detections for these analytes within a factor of 5 of the blank levels. Results have been qualified to be non-detected at the levels noted.

4.6.7 On-going Precision and Recovery

Ongoing precision and recovery (OPR) samples were prepared by spiking laboratory water with target PCDDs/PCDFs. These were extracted and analyzed with the sample batches. Recoveries and ion ratios for all target PCDDs and PCDFs were within the method control limits.

4.6.8 Identification Criteria

Target PCDDs and PCDFs are identified based on peak retention time and the presence of the two masses monitored for the congener level. Positive identifications can only be made when the two peaks maximize within 2 seconds and their relative abundances fall within 15% of the theoretical value. Since numerous chemicals may result in one of both of the masses monitored for the PCDDs/PCDFs, a peak cannot be positively identified as a target analyte unless the ratio criterion is met.

Maxxam qualified results with a (1) qualifier for peaks at the retention time for a target PCDD or PCDF when the two masses monitored fail to meet the ratio criterion. Region 10 guidance indicates that these peaks should be qualified to be non-detected. The EPA *Functional Guidelines* recommends professional judgment be applied for qualifications but also requires that estimated maximum concentrations (EMPC) be calculated and reported for these peaks. Raw data for all peaks reported were reviewed.

All results qualified as not meeting criteria have been qualified to be non-detected, with the reporting limit representing the EMPC (U, EMPC).

4.6.9 Confirmation Analyses

2\,3,7,8-TCFD was not detected in any sample so no confirmation analyses were required.

4.6.10 Reporting Limits/Detection Limits

Non-detected results are reported to estimated detection limits (EDLs) calculated on a sample-specific, analyte specific basis using the signal to noise level in each ion channel, as required by the method and EPA guidance.

4.6.11 Labeled Compound Recoveries

Internal standards are added to samples prior to their extraction. These include carbon-13 labeled analogs for 9 of the target 2,3,7,8-substituted PCDDs and PCDFs. Two additional labeled PCDD were added prior to sample analysis to monitor the overall method performance. Recoveries of internal standards were within Method 8290 control limits for all samples in this set.

4.6.12 Interferences

No significant interferences were noted in the raw data for samples.

4.6.13 Calculations

Calculations for response factors, calibration verifications and concentrations of detected target PCDDs and PCDFs in field and quality control samples were verified. No errors were noted.

Toxic equivalencies for the samples have been calculated using the World Health Organization (WHO) 2005 toxic equivalency factors (TEFs). One-half the detection limit was used for non-detected PCDDs/PCDFs.

Results for the totals in each congener class of PCDDs and PCDFs should be considered as estimated in all samples. These data are not included in the TEQ calculations. These are quantified based on the assumption that their response factors are the same as the 2378-substitued isomers. Results for Total Congeners in the summary data table attached to this report have been adjusted to reflect qualifications due to blank results but have not been further validated and do not include EMPCs for the congener classes.

4.7 Chlorinated Biphenyl Data Validation Findings

4.7.1 Sample Preparation

Samples were spiked with isotopically-labeled CBs to serve as internal standards and extracted in accordance with the method. Extracts were cleaned with acidic silica gel, sulfuric acid and then with chromatography over Florisil columns. Three additional labeled PCB congeners were spiked prior to sample injection to monitor recoveries of CBs through the extraction and cleanup steps.

4.7.2 Mass Calibration and Resolution

Mass calibration and resolution were checked prior to the analytical run sequence used for program samples. Mass calibration and resolution met method criteria prior to all sample analyses with a static resolving power of greater than 10,000 and a mass accuracy within 5 ppb of the actual for all PFK peaks monitored. Mass calibration and resolution were also verified after sample analyses.

4.7.3 Initial Calibrations

One instrument was used for the analyses for CB congeners. A five-point calibration was conducted on December 8, 2011 with a mix of 29 congeners that includes all CBs that have been assigned toxicity equivalency factors (TEF), the predominant congeners in commercial Aroclor mixes, representative CBs for each level of chlorination (LOC) and the first- and last-eluting congeners from the mono through deca homologue groups. This mix is referred to as the Native Toxics/LOC solution. The initial calibration was acceptable with %RSDs $\leq$20% for the relative responses (RRs) for unlabeled compounds analyzed using isotope dilution and $\leq$35% for the relative response factors (RRFs) for compounds analyzed using the internal standard method. The relative retention times and ion abundance ratios were within the QC limits listed in Method 1668A for all standards No qualifications were required. The calibration was verified against a second source standard for the midpoint of the curve.

An additional single-point calibration was conducted for the remaining 180 PCB congeners.

4.7.4 Continuing Calibrations

Mid-point calibration standards and the single point full congener mix were analyzed prior to each 12-hour analytical sequence. Sample analyses were conducted on July 3, 4 and 8, 2012. All calibration checks demonstrated acceptable response stability, with the %D of the RRFs of unlabeled compounds within 20% of the average from the initial calibration and the RRFs of the labeled compounds <35%. The ion abundance ratios, sensitivity and relative retention times were within the method QC limits. No qualifications were required.

4.7.5 Method Blanks

Three method blanks were analyzed with program samples, including one that was prepared with the initial sample extractions, one that was prepared with the re-extraction of MW4-20120613 and a third extracted in the same time period with project samples from another client. In all, a total of thirty-two peaks representing a total of forty-nine (49) congeners were detected in one or more of the blanks at trace levels. In addition, several peaks were noted in all blanks that did not meet ion ratio criteria for positive identification.

Twelve peaks representing seventeen (17) congeners at trace levels met criteria for positive identification in the method blank associated with the initial extraction of program samples. The method blank prepared with the re-extraction of MW-4 contained twenty-three (23) peaks representing thirty (30) congeners at trace levels that met method criteria for identification.

An additional blank analyzed with those samples run on July 4 contained trace levels for fifteen (15) peaks representing twenty-nine (29) PCB congeners.

Congeners positively identified in two or more of these blanks are likely representative of laboratory background and the highest concentration has been used for data qualification of all samples. Detections noted in only one of the blanks have been used for qualifications on only those samples prepared with or analyzed in the same sequence. Sample results for PCB congeners reported within a factor of five of the applicable blank level have been qualified to be non-detected (U, reason code B).

4.7.6 Laboratory Spikes

Laboratory spike samples were prepared and analyzed with program samples to verify ongoing method performance. Spikes were prepared by adding a second-source Native Toxics/LOC mix to laboratory water, and processing the spike sample along with program samples. All recoveries were within method limits.

4.7.7 Identification Criteria

Target CBs are identified based on peak retention time and the presence of the two masses monitored for the congener level. Positive identifications can only be made when the two peaks maximize within 2 scans and fall within the retention time limits established during calibration and when the relative abundances of the two monitored masses fall within 15% of the theoretical value. Since numerous chemicals may result in one of both of the masses monitored for the PCBs, a peak cannot be positively identified as a target analyte unless the ratio criterion is met.

Maxxam qualified results with a (1) qualifier for peaks at the retention time for a target CB when the two masses monitored fail to meet the ratio criterion. Region 10 guidance indicates that

these peaks should be qualified to be non-detected. All peaks not meeting all criteria for identification are reported as non-detected (U).

4.7.8 Confirmation Analyses

No confirmation analyses were required.

4.7.9 Reporting Limits/Detection Limits

Non-detected results are reported to estimated detection limits (EDLs) calculated on a sample-specific, analyte specific basis using the signal to noise level in each ion channel, as required by the method and EPA guidance.

4.7.10 Labeled Compound Recoveries

Carbon-13 labeled CBS were added to samples prior to their extraction to serve as internal standards for the quantitation of native PCBs. These included the carbon-13 labeled analogs for the 29 CBs in the Native Toxics/LOC mix. Three additional labeled CBs were added prior to sample cleanup to monitor performance.

Recoveries were reported to be unacceptable in the initial analysis of MW4-20120613. The sample was re-extracted and data from the second analysis are reported.

Recoveries of two labeled CBs, analogs of congeners 54 and 4, fell below control limits in MW5-20120613, and that for congener 4 fell below the limit in MW103-20120613 and MW4-20120613. The associated native CBs were not detected in the samples; reporting limits have been qualified as estimated (UJ, reason code IS).

4.7.11 Interferences

No significant interferences were noted in the raw data for samples.

4.7.12 Calculations

Calculations for response factors, calibration verifications and concentrations of detected target PCBs in field and quality control samples were verified. No errors were noted.

Calculations for total homologues at each chlorination level have been adjusted to reflect the qualification of individual CBs as non-detected due to blank detections. None of the congeners assigned toxicity equivalency values were detected in the blanks so TEQs calculated by Maxxan were not affected by data validation.

Toxic equivalencies from PCB congeners for the samples have been calculated using the World Health Organization (WHO) 2005 toxic equivalency factors (TEF). One-half the detection limit was used for non-detected congeners.

5.0 REFERENCES

USEPA 1994. *Method 1613B Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRCG/HRMS*. October 1994.

USEPA 2003. *Method 1668 Revision A. Chlorinated Biphenyl Congeners in Water, Soil, Sediment, Biosolids and Tissue by HIGC/HRMS*. EPA 821-R-07-004. August 2003

USEPA. 2011. *USEPA Analytical Services Branch: National Functional Guidelines for Chlorinated Dibenzo-p-dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review*, EPA540-R-11-016.

US EPA Region 10. 1995 *SOP For the Validation of Method 1668 Toxic, Dioxin-like PCB Data*, December 1995.

US EPA Region 10. 1996 *SOP For the Validation of Polychlorinated Dibenzodioxin (PCDD) and Polychlorinated Dibenzofuran (PCDF)Data*, January 1996.

ATTACHMENT A: VALIDATED SAMPLE RESULTS

2012 Burgard Groundwater Samples: Analytical Laboratory Results

Chemical	MW-4 6/13/2012		MW-5 6/12/2012		MW-101 6/12/2012		MW-102 6/12/2012		MW-103 6/12/2012		MW-104 6/13/2012		MW-105 6/13/2012		MW-106 6/13/2012		MW-107 6/13/2012	
	Q	RC	Q	RC	Q	RC	Q	RC	Q	RC	Q	RC	Q	RC	Q	RC	Q	RC
Chlorinated biphenyls, ng/l																		
2-MonoCB-(1)	0.0046 U		0.0019 U		0.0018 U		0.0058 U		0.0028 U		0.0028 U		0.0035 U		0.0015 U		0.0032 U	
3-MonoCB-(2)	0.0027 U		0.0018 U		0.0023 J	RL	0.0013 U		0.0026 U		0.0026 U		0.0033 U		0.0014 U		0.0015 U	
4-MonoCB-(3)	0.0029 U		0.0037 U		0.0045 U		0.0089 J	RL	0.0029 U		0.0028 U		0.0036 U		0.0074 J	RL	0.0065 U	
22'-DiCB-(4)	0.017 UJ	IS	0.021 U		0.028 U		0.017 U		0.018 UJ	IS	0.015 U		0.015 U		0.018 U		0.014 U	
2,3-DiCB-(5)	0.031 U		0.013 UJ	IS	0.012 U		0.015 U		0.021 U		0.028 U		0.018 U		0.018 U		0.015 U	
2,3'-DiCB-(6)	0.030 U		0.012 U		0.011 U		0.014 U		0.019 U		0.026 U		0.016 U		0.016 U		0.013 U	
2,4-DiCB-(7)	0.029 U		0.012 U		0.011 U		0.014 U		0.019 U		0.026 U		0.016 U		0.016 U		0.013 U	
2,4'-DiCB-(8)	0.028 U		0.011 U		0.019 U		0.018 J	RL	0.018 U		0.024 U		0.015 U		0.015 U		0.016 U	
2,5-DiCB-(9)	0.028 U		0.012 U		0.010 U		0.014 U		0.019 U		0.025 U		0.016 U		0.016 U		0.013 U	
2,6-DiCB-(10)	0.015 U		0.018 U		0.013 U		0.014 U		0.015 U		0.012 U		0.013 U		0.010 U		0.012 U	
3,3'-DiCB-(11)	0.094 U	B	0.051 U	B	0.094 U	B	0.13 U	B	0.035 U	B	0.11 U	B	0.14 U	B	0.11 U	B	0.10 U	B
DiCB-(12)+(13)	0.032 U		0.013 U		0.011 U		0.015 U		0.02 U		0.027 U		0.017 U		0.017 U		0.013 U	
3,5-DiCB-(14)	0.029 U		0.012 U		0.011 U		0.014 U		0.019 U		0.026 U		0.016 U		0.016 U		0.013 U	
4,4'-DiCB-(15)	0.043 U		0.018 U		0.052 J	RL	0.031 J	RL	0.028 U		0.037 U		0.023 U		0.024 U		0.033 U	
22'3-TriCB-(16)	0.0082 J	RL	0.016 U		0.035 U		0.014 U		0.036 U		0.0058 U		0.0065 U		0.0173 J	RL	0.015 U	
22'4-TriCB-(17)	0.0054 U		0.013 U		0.048 J	RL	0.015 U		0.035 J	RL	0.0046 U		0.0095 U		0.0092 U		0.018 J	RL
22'6-TriCB-(19)	0.0052 U		0.012 U		0.025 U		0.038 U		0.022 U		0.0044 U		0.0034 U		0.0037 U		0.026 U	
TriCB-(21)+(33)	0.012 J	RL	0.0061 U		0.029 J	RL	0.020 J	RL	0.023 J	RL	0.0158 J	RL	0.014 U		0.017 U	B	0.021 U	B
234'-TriCB-(22)	0.0074 U		0.0040 U		0.051 U	B	0.019 U	B	0.030 U	B	0.011 U		0.0092 U	B	0.012 U	B	0.019 U	B
235-TriCB-(23)	0.0017 U		0.0017 U		0.00076 U		0.0083 U		0.0012 U		0.0013 U		0.002 U		0.0012 U		0.011 J	RL
236-TriCB-(24)	0.0037 U		0.0092 U		0.0051 U		0.0032 U		0.0036 U		0.0033 U		0.0026 U		0.0027 U		0.0029 U	
23'4-TriCB-(25)	0.0016 U		0.0017 U		0.0091 J	RL	0.0033 U		0.0058 U		0.0020 U		0.0018 U		0.0025 J	RL	0.0049 J	RL
TriCB-(26)+(29)	0.0031 U		0.0017 J	RL	0.018 J	RL	0.0065 U		0.013 J	RL	0.0046 J	RL	0.0035 U		0.0053 J	RL	0.0085 U	
23'6-TriCB-(27)	0.0035 U		0.0085 U		0.015 U		0.0081 U		0.0082 U		0.0031 U		0.0024 U		0.0024 U		0.0068 J	RL
TriCB-(20) + (28)	0.026 U	B	0.013 U	B	0.21 U	B	0.069 U	B	0.121 U	B	0.030 U	B	0.026 U	B	0.034 U	B	0.075 U	B
TriCB-(18)+(30)	0.013 J	RL	0.010 U		0.15 J	RL	0.040 J	RL	0.068 J	RL	0.018 U		0.017 J	RL	0.025 J	RL	0.035 J	RL
24'5-TriCB-(31)	0.019 U	B	0.014 U	B	0.13		0.040 U	B	0.07 J	RL	0.023 U	B	0.025 U	B	0.031 U	B	0.047 U	B
24'6-TriCB-(32)	0.0042 U		0.0081 U		0.078 J	RL	0.037 J	RL	0.047 J	RL	0.0066 J	RL	0.0042 U		0.0061 U		0.027 J	RL
23'5'-TriCB-(34)	0.0017 U		0.0017 U		0.00077 U		0.010 U		0.0012 U		0.0013 U		0.0021 U		0.0013 U		0.012 J	RL
33'4-TriCB-(35)	0.0017 U		0.0017 U		0.00076 U		0.00080 U		0.0012 U		0.0022 U		0.0017 U		0.0013 U		0.00083 U	
33'5-TriCB-(36)	0.0015 U		0.0015 U		0.00069 U		0.00097 U		0.0011 U		0.0012 U		0.0016 U		0.0011 U		0.00072 U	
344'-TriCB-(37)	0.0093 U		0.0036 U		0.078 J	RL	0.019 J	RL	0.022 J	RL	0.0069 U		0.0085 J	RL	0.0075 J	RL	0.030 J	
345-TriCB-(38)	0.0017 U		0.0017 U		0.00078 U		0.0011 U		0.0013 U		0.0013 U		0.0018 U		0.0012 U		0.00082 U	
34'5-TriCB-(39)	0.0016 U		0.0016 U		0.00071 U		0.0010 U		0.0011 U		0.0012 U		0.0016 U		0.0011 U		0.00075 U	
TetraCB-(40)+(41)+(71)	0.011 U		0.0044 J	RL	0.276 J	RL	0.039 U		0.065 J	RL	0.013 J	RL	0.0093 J	RL	0.013 U		0.089 J	RL
22'34'-TetraCB-(42)	0.0076 J	RL	0.0026 U		0.14		0.020 U		0.032 U		0.0085 J	RL	0.0030 U		0.0053 U		0.045 J	RL
22'35-TetraCB-(43)	0.0031 U		0.0028 U		0.014 J	RL	0.0037 J	RL	0.0038 U		0.0022 U		0.0032 U		0.0056 U		0.0047 U	
TetraCB-(44)+(47)+(65)	0.038 J	RL	0.022 J	RL	0.52		0.080 J	RL	0.12 J	RL	0.033 J	RL	0.035 J	RL	0.052 U	B	0.17 J	RL
TetraCB-(45)+(51)	0.009 J	RL	0.0071 J	RL	0.10 U		0.030 J	RL	0.037 J	RL	0.010 U		0.013 U		0.020 J	RL	0.055 J	RL
22'36'-TetraCB-(46)	0.0029 U		0.0026 U		0.033 J	RL	0.0069 U		0.0091 J	RL	0.0020 U		0.0030 U		0.0051 U		0.016 U	
22'45-TetraCB-(48)	0.0031 U		0.0021 U		0.079 J	RL	0.011 J	RL	0.018 J	RL	0.0055 J	RL	0.0024 U		0.0044 U		0.012 U	
TetraCB-(50)+(53)	0.0032 U		0.0020 U		0.078 U		0.021 J	RL	0.022 U		0.0044 U		0.0029 U		0.0040 U		0.0383 J	RL
22'55'-TetraCB-(52)	0.051 U	B	0.037 U	B	0.83		0.12		0.15		0.057 U		0.059 U	B	0.062 U	B	0.27	

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Chemical	MW-4 6/13/2012	MW-5 6/12/2012	MW-101 6/12/2012	MW-102 6/12/2012	MW-103 6/12/2012	MW-104 6/13/2012	MW-105 6/13/2012	MW-106 6/13/2012	MW-107 6/13/2012
22'66'-TetraCB-(54)	0.0022 U	0.0030 UJ IS	0.0049 J RL	0.011 J RL	0.0022 U	0.0044 U	0.0022 U	0.0042 U	0.0096 U
233'4-TetraCB-(55)	0.00095 U	0.0025 U	0.0045 U	0.0016 U	0.0019 U	0.0024 U	0.0020 U	0.0019 U	0.0023 U
233'4'-Tetra CB(56)	0.0058 U	0.0048 U	0.20	0.016 J RL	0.018 U	0.0082 U	0.0054 U	0.0091 J RL	0.016 U
233'5-TetraCB-(57)	0.00091 U	0.0024 U	0.0044 U	0.0016 U	0.0018 U	0.0023 U	0.0020 U	0.0018 U	0.0022 U
233'5'-TetraCB-(58)	0.00087 U	0.0024 U	0.0043 U	0.0046 U	0.0018 U	0.0023 U	0.0020 U	0.0044 J RL	0.0022 U
TetraCB-(59)+(62)+(75)	0.0027 U	0.0016 U	0.032 U	0.0058 J RL	0.0073 J RL	0.0016 U	0.0018 U	0.0031 U	0.015 J RL
2344'-TetraCB -(60)	0.0021 U	0.0025 U	0.055 J RL	0.0045 U	0.0074 J RL	0.0048 U	0.0023 U	0.0023 U	0.0042 U
TetraCB-(61)+(70)+(74)+(76)	0.030 J RL	0.022 J RL	0.55	0.054 J RL	0.069 J RL	0.040 J RL	0.034 J RL	0.036 U B	0.081 J RL
234'5-TetraCB-(63)	0.00087 U	0.0024 U	0.0051 U	0.0015 U	0.0018 U	0.0023 U	0.0019 U	0.0017 U	0.0021 U
234'6-TetraCB-(64)	0.010 U	0.0053 U	0.29	0.034 J RL	0.048 J RL	0.0084 U	0.012 J RL	0.014 J RL	0.074 J RL
23'44'-TetraCB-(66)	0.014 J RL	0.0075 J RL	0.34	0.027 J RL	0.037 J RL	0.018 J RL	0.014 J RL	0.013 U	0.038 U
23'45-TetraCB-(67)	0.0013 J RL	0.0023 U	0.0046 U	0.0015 U	0.0017 U	0.0022 U	0.0019 U	0.0017 U	0.0022 U
23'45'-TetraCB-(68)	0.0021 U	0.0024 U	0.0055 U	0.0024 U	0.0027 U	0.0022 U	0.0036 U	0.0041 U	0.0026 U
TetraCB-(49)+TetraCB-(69)	0.016 U	0.0067 U	0.32	0.039 J RL	0.068 J RL	0.016 J RL	0.014 J RL	0.018 U	0.072 J RL
23'55'-TetraCB-(72)	0.00087 U	0.0023 U	0.0041 U	0.0015 U	0.0017 U	0.0022 U	0.0018 U	0.0017 U	0.0021 U
23'5'6-TetraCB-(73)	0.0017 U	0.0016 U	0.0012 U	0.0016 U	0.0022 U	0.0012 U	0.0018 U	0.0030 U	0.0025 U
33'44'-TetraCB-(77)	0.0029 J RL	0.0030 U	0.035 J RL	0.0078 J RL	0.0027 J RL	0.0029 U	0.0025 U	0.0022 U	0.014 J RL
33'45-TetraCB-(78)	0.00094 U	0.0025 U	0.0045 U	0.0016 U	0.0018 U	0.0024 U	0.0020 U	0.0018 U	0.0023 U
33'45'-TetraCB(79)	0.00079 U	0.0022 U	0.0039 U	0.0014 U	0.0016 U	0.0021 U	0.0018 U	0.0016 U	0.0020 U
33'55'-TetraCB-(80)	0.00084 U	0.0023 U	0.0041 U	0.0015 U	0.0017 U	0.0022 U	0.0018 U	0.0017 U	0.0021 U
344'5-TetraCB-(81)	0.0013 U	0.0032 U	0.0057 U	0.0062 J RL	0.0024 U	0.0030 U	0.0026 U	0.0023 U	0.010 U
22'33'4-PentaCB-(82)	0.0046 U	0.0016 U	0.078 J RL	0.0027 U	0.0040 J RL	0.0051 J RL	0.0028 U	0.0016 U	0.015 U
PentaCB-(83)+(99)	0.0302 J RL	0.0094 U	0.29	0.022 J RL	0.020 J RL	0.011 U	0.0098 U	0.0094 U	0.074 J RL
22'33'6-PentaCB-(84)	0.0152 J RL	0.0085 U	0.18	0.020 J RL	0.024 J RL	0.014 J RL	0.013 U	0.015 U	0.070 J RL
PentaCB-(88)+(91)	0.0082 U	0.0016 U	0.075 J RL	0.0053 J RL	0.0073 J RL	0.0028 U	0.0041 U	0.0026 U	0.024 U
22'346'-PentaCB-(89)	0.0014 U	0.0015 U	0.0064 U	0.0018 U	0.0025 U	0.0012 U	0.0023 U	0.0015 U	0.0016 U
PentaCB-(90)+(101)+(113)	0.0927 J RL	0.11 J RL	0.66	0.14 J RL	0.10 J RL	0.10 U	0.13 J RL	0.14 J RL	0.25 J RL
22'355'-PentaCB-(92)	0.019 U	0.015 J RL	0.12	0.019 U	0.017 U	0.017 J RL	0.019 J RL	0.023 J RL	0.048 J RL
PentaCB-(93)+(98)+(100)+(102)	0.0013 U	0.0014 U	0.023 J RL	0.0018 U	0.0024 U	0.0011 U	0.0022 U	0.0014 U	0.0078 U
22'356'-PentaCB-(94)	0.0013 U	0.0015 U	0.0034 U	0.0018 U	0.0025 U	0.0012 U	0.0022 U	0.0015 U	0.0016 U
22'35'6-PentaCB-(95)	0.0992 U B	0.076 J RL	0.54	0.12	0.099 J RL	0.10	0.11	0.11	0.27
22'366'-PentaCB-(96)	0.00074 U	0.0022 U	0.0043 U	0.0016 U	0.0017 U	0.0023 U	0.0028 U	0.0012 U	0.0018 U
22'45'6-PentaCB-(103)	0.0011 U	0.0012 U	0.0021 U	0.0015 U	0.0020 U	0.00095 U	0.0018 U	0.0012 U	0.0013 U
22'466'-PentaCB-(104)	0.00067 U	0.0024 U	0.00099 U	0.018 U	0.0018 U	0.0025 U	0.0031 U	0.0014 U	0.016 J RL
233'44'-PentaCB-(105)	0.0161 J RL	0.0098 U	0.28	0.020 J RL	0.013 U	0.010 J RL	0.011 J RL	0.01 U	0.049 J RL
233'45-PentaCB-(106)	0.00072 U	0.0015 U	0.0018 U	0.0016 U	0.0017 U	0.0027 U	0.0023 U	0.0011 U	0.0017 U
233'4'5-PentaCB-(107)	0.00217 J RL	0.0017 U	0.040 J RL	0.0019 U	0.0017 U	0.0027 U	0.0022 U	0.0011 U	0.0048 U
PentaCB-(108)+(124)	0.00225 J RL	0.0014 U	0.022 U	0.0024 J RL	0.0017 U	0.0026 U	0.0022 U	0.0016 U	0.0033 U
PentaCB-(86)(87)(97)(109)(119)(12	0.0398 J RL	0.032 J RL	0.46 J RL	0.053 J RL	0.047 J RL	0.044 J RL	0.0353 J RL	0.041 U	0.132 J RL
PentaCB-(110)+(115)	0.10 J RL	0.077 J RL	0.93	0.10 U	0.103 J RL	0.10 J RL	0.11 J RL	0.12 J RL	0.31
233'55'-PentaCB-(111)	0.00092 U	0.001 U	0.0012 U	0.0012 U	0.0017 U	0.00080 U	0.0015 U	0.00099 U	0.0010 U
233'56-PentaCB-(112)	0.001 U	0.0011 U	0.0014 U	0.0014 U	0.0019 U	0.00088 U	0.0017 U	0.0011 U	0.0012 U
2344'5-PentaCB-(114)	0.00089 U	0.0016 U	0.010 J RL	0.0061 J RL	0.002 U	0.0031 U	0.0026 U	0.0013 U	0.015 J RL
PentaCB-(85)+(116)+(117)	0.0073 J RL	0.0012 U	0.10 J RL	0.0048 J RL	0.0034 U	0.0014 U	0.0018 U	0.0034 U	0.019 J RL
23'44'5-PentaCB-(118)	0.044 J RL	0.051 J RL	0.71	0.075 J RL	0.056 J RL	0.063 J RL	0.059 J RL	0.065 J RL	0.15

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Chemical	MW-4 6/13/2012	MW-5 6/12/2012	MW-101 6/12/2012	MW-102 6/12/2012	MW-103 6/12/2012	MW-104 6/13/2012	MW-105 6/13/2012	MW-106 6/13/2012	MW-107 6/13/2012
23'455'-PentaCB-(120)	0.00089 U	0.00098 U	0.0012 U	0.0012 U	0.0017 U	0.00078 U	0.0015 U	0.00099 U	0.0010 U
23'45'6-PentaCB-(121)	0.0009 U	0.00098 U	0.0012 U	0.0012 U	0.0017 U	0.00078 U	0.0015 U	0.0010 U	0.0010 U
233'4'5'-PentaCB-(122)	0.00084 U	0.0016 U	0.0066 U	0.0017 U	0.0019 U	0.0030 U	0.0024 U	0.0013 U	0.0020 U
23'44'5'-PentaCB-(123)	0.00098 U	0.0018 U	0.0079 U	0.0062 U	0.0022 U	0.0034 U	0.0028 U	0.0015 U	0.011 U
33'44'5-PentaCB-(126)	0.00093 U	0.0017 U	0.0025 J RL	0.0041 U	0.0021 U	0.0032 U	0.0027 U	0.0014 U	0.01 U
33'455'-PentaCB-(127)	0.00076 U	0.0015 U	0.0018 U	0.0016 U	0.0018 U	0.0028 U	0.0023 U	0.0012 U	0.0019 U
HexaCB-(128)+(166)	0.011 U	0.0202 J RL	0.131 J RL	0.022 J RL	0.015 J RL	0.021 J RL	0.018 U	0.021 J RL	0.034 J RL
HexaCB-(129)+(138)+(163)	0.15 U B	0.23 U B	0.94	0.24 U B	0.15 U B	0.23 U B	0.24 U B	0.22 U B	0.32
22'33'45'-HexaCB-(130)	0.0068 J RL	0.011 J RL	0.0474 J RL	0.0087 J RL	0.0075 U	0.0079 U	0.0093 U	0.0087 U	0.014 J RL
22'33'46-HexaCB-(131)	0.0017 U	0.005 U	0.0092 U	0.0058 U	0.0079 U	0.0028 U	0.0081 U	0.0012 U	0.0041 J RL
22'33'46'-HexaCB-(132)	0.052 U B	0.062 J RL	0.26	0.078 J RL	0.045 U	0.072 J RL	0.073 J RL	0.076 J RL	0.11
22'33'55'-HexaCB-(133)	0.0016 U	0.0042 U	0.0086 U	0.0049 U	0.0068 U	0.0024 U	0.007 U	0.0023 U	0.0025 U
HexaCB-(134)+(143)	0.0072 J RL	0.0047 U	0.031 U	0.0063 U	0.0075 U	0.0059 U	0.0094 U	0.0077 U	0.015 J RL
HexaCB-(135)+(151)	0.081 J RL	0.062 J RL	0.171 J RL	0.07 J RL	0.041 U	0.074 J RL	0.076 J RL	0.075 J RL	0.098 J RL
22'33'66'-HexaCB-(136)	0.034 J RL	0.022 J RL	0.0683 J RL	0.028 J RL	0.015 J RL	0.029 J RL	0.0277 J RL	0.025 U	0.042 J RL
22'344'5-HexaCB-(137)	0.0019 U	0.0042 U	0.028 U	0.0049 U	0.0067 U	0.0024 U	0.0069 U	0.0021 U	0.0059 U
HexaCB-(139)+(140)	0.0014 U	0.0037 U	0.011 J RL	0.0043 U	0.0059 U	0.0021 U	0.0061 U	0.00095 U	0.0030 J RL
22'3455'-HexaCB-(141)	0.032 U B	0.051 J RL	0.14	0.055 J RL	0.035 U B	0.058 J RL	0.053 J RL	0.056 J RL	0.069 J RL
22'3456-HexaCB-(142)	0.0017 U	0.0045 U	0.0023 U	0.0052 U	0.0071 U	0.0026 U	0.0073 U	0.0011 U	0.0026 U
22'345'6-HexaCB-(144)	0.0095 J RL	0.0088 U	0.0283 J RL	0.01 U	0.0049 U	0.015 J RL	0.015 J RL	0.012 U	0.017 U
22'3466'-HexaCB-(145)	0.0013 U	0.0015 U	0.0015 U	0.0015 U	0.0012 U	0.0016 U	0.0017 U	0.0016 U	0.0022 U
22'34'55'-HexaCB-(146)	0.024 U B	0.027 J RL	0.0889 J RL	0.031 J RL	0.016 U	0.025 J RL	0.027 U	0.030 J RL	0.039 J RL
HexaCB-(147)+(149)	0.13 U B	0.15 U B	0.53	0.18 U B	0.11 U B	0.18 U B	0.18 U B	0.17 U B	0.25 U B
22'34'56'-HexaCB-(148)	0.0017 U	0.0020 U	0.0019 U	0.0019 U	0.0015 U	0.0022 U	0.0022 U	0.0021 U	0.0028 U
22'34'66'-HexaCB-(150)	0.0012 U	0.0014 U	0.0014 U	0.0014 U	0.0011 U	0.0015 U	0.0015 U	0.0015 U	0.0021 U
22'3566'-HexaCB-(152)	0.0011 U	0.0013 U	0.0013 U	0.0013 U	0.0010 U	0.0014 U	0.0015 U	0.0014 U	0.0019 U
HexaCB-(153)+(168)	0.12 U B	0.17 U B	0.58	0.18 U B	0.12 U B	0.18 U B	0.18 U B	0.18 U B	0.24 U B
22'44'56'-HexaCB-(154)	0.0015 U	0.0017 U	0.0028 U	0.0017 U	0.0014 U	0.0019 U	0.0020 U	0.0019 U	0.0026 U
22'44'66'-HexaCB-(155)	0.0013 U	0.0017 U	0.0017 U	0.014 U	0.0014 U	0.0019 U	0.0038 U	0.0020 U	0.013 U
HexaCB-(156)+(157)	0.0115 U B	0.021 J RL	0.108 J RL	0.029 J RL	0.014 J RL	0.022 J RL	0.021 J RL	0.022 J RL	0.046 J RL
233'44'6-HexaCB-(158)	0.013 U B	0.019 J RL	0.089 J RL	0.021 J RL	0.016 J RL	0.018 J RL	0.023 J RL	0.021 J RL	0.032 J RL
233'455'-HexaCB-(159)	0.0015 U	0.0026 U	0.0069 J RL	0.0015 U	0.0026 U	0.0020 U	0.0022 U	0.00091 U	0.0019 U
233'456-HexaCB-(160)	0.0012 U	0.0032 U	0.0016 U	0.0037 U	0.0051 U	0.0018 U	0.0053 U	0.00085 U	0.0019 U
233'45'6-HexaCB-(161)	0.0012 U	0.0031 U	0.0016 U	0.0036 U	0.0050 U	0.0018 U	0.0051 U	0.00078 U	0.0018 U
233'4'55'-HexaCB-(162)	0.0015 U	0.0026 U	0.0020 U	0.0015 U	0.0025 U	0.0019 U	0.0016 U	0.00091 U	0.0019 U
233'4'5'6-HexaCB-(164)	0.012 U	0.018 J RL	0.065 J RL	0.016 U	0.012 U	0.022 J RL	0.022 J RL	0.018 J RL	0.027 J RL
233'55'6-HexaCB-(165)	0.0012 U	0.0033 U	0.0017 U	0.0038 U	0.0052 U	0.0019 U	0.0054 U	0.00083 U	0.0019 U
23'44'55'-HexaCB-(167)	0.0058 U B	0.0088 J RL	0.038 J RL	0.014 J RL	0.0066 J RL	0.0090 U	0.010 J RL	0.0084 J RL	0.024 J RL
33'44'55'-HexaCB-(169)	0.0019 U	0.0030 U	0.0022 U	0.0036 U	0.0029 U	0.0022 U	0.0018 U	0.0011 U	0.0094 U
22'33'44'5-HeptaCB-(170)	0.044 U B	0.076 J RL	0.15 U	0.077 J RL	0.041 J RL	0.076 J RL	0.071 J RL	0.060 J RL	0.089 J RL
HeptaCB-(171)+(173)	0.013 U B	0.019 U	0.051 J RL	0.022 J RL	0.013 J RL	0.020 U	0.020 U	0.017 U	0.027 J RL
22'33'455'-HeptaCB-(172)	0.0060 U	0.013 J RL	0.027 J RL	0.010 U	0.0082 J RL	0.011 J RL	0.0087 U	0.0087 U	0.014 J RL
22'33'456'-HeptaCB-(174)	0.040 J RL	0.071 J RL	0.16	0.062 J RL	0.044 J RL	0.071 J RL	0.063 J RL	0.056 J RL	0.077 J RL
22'33'45'6-HeptaCB-(175)	0.0023 U	0.0024 U	0.0036 U	0.0024 J RL	0.0024 U	0.0045 U	0.0028 U	0.0020 U	0.0036 U
22'33'466'-HeptaCB-(176)	0.0072 J RL	0.0076 J RL	0.017 J RL	0.0058 U	0.0048 U	0.0066 U	0.0097 J RL	0.0086 J RL	0.0081 U

2012 Burgard Groundwater Samples: Analytical Laboratory Results

Chemical	MW-4 6/13/2012	MW-5 6/12/2012	MW-101 6/12/2012	MW-102 6/12/2012	MW-103 6/12/2012	MW-104 6/13/2012	MW-105 6/13/2012	MW-106 6/13/2012	MW-107 6/13/2012
22'33'45'6'-HeptaCB-(177)	0.024 U B	0.037 J RL	0.091 J RL	0.037 J RL	0.021 U	0.036 J RL	0.032 J RL	0.031 J RL	0.047 J RL
22'33'55'6-HeptaCB-(178)	0.0065 U	0.011 U	0.025 J RL	0.011 J RL	0.0074 J RL	0.011 J RL	0.0097 J RL	0.0092 U	0.013 J RL
22'33'566'-HeptaCB-(179)	0.019 U B	0.015 U	0.049 J RL	0.020 U B	0.012 U	0.020 U B	0.020 U B	0.021 U B	0.027 U B
HeptaCB-(180)+(193)	0.075 U B	0.12 U B	0.33	0.11 U B	0.070 U B	0.11 U B	0.11 U B	0.097 U B	0.13 U B
22'344'56-HeptaCB-(181)	0.0012 U	0.0035 U	0.0030 U	0.0019 U	0.0036 U	0.0025 U	0.0024 U	0.0022 U	0.0033 U
22'344'56'-HeptaCB-(182)	0.0017 U	0.0024 U	0.00099 U	0.0023 U	0.0026 U	0.0048 U	0.0021 U	0.0021 U	0.0068 J RL
22'344'5'6-HeptaCB-(183)	0.021 U B	0.032 U	0.097 J RL	0.035 J RL	0.019 J RL	0.037 J RL	0.032 J RL	0.027 U	0.039 J RL
22'344'66'-HeptaCB-(184)	0.0011 U	0.0014 U	0.00060 U	0.00063 U	0.0016 U	0.0029 U	0.0013 U	0.0014 U	0.00059 U
22'3455'6-HeptaCB-(185)	0.0013 U	0.0042 U	0.0036 U	0.0023 U	0.0042 U	0.0043 U	0.0028 U	0.0031 U	0.0035 U
22'34566'-HeptaCB-(186)	0.0012 U	0.0015 U	0.00064 U	0.00068 U	0.0017 U	0.0031 U	0.0014 U	0.0014 U	0.00062 U
22'34'55'6-HeptaCB-(187)	0.047 U B	0.052 U B	0.18	0.052 U B	0.032 U B	0.050 U B	0.053 U B	0.049 U B	0.072 U B
22'34'566'-HeptaCB-(188)	0.0016 U	0.0022 U	0.00093 U	0.0070 J RL	0.0024 U	0.0045 U	0.0024 J RL	0.0022 U	0.0085 J RL
233'44'55'-HeptaCB-(189)	0.0017 J RL	0.0028 U	0.0062 U	0.0076 J RL	0.0030 U	0.0034 J RL	0.0036 J RL	0.0043 J RL	0.011 U
233'44'56-HeptaCB-(190)	0.0068 J RL	0.010 U	0.028 J RL	0.010 U	0.0069 J RL	0.0020 U	0.0098 U	0.0098 J RL	0.013 J RL
233'44'5'6-HeptaCB-(191)	0.00093 U	0.0034 J RL	0.0055 U	0.002 U	0.0028 U	0.0019 U	0.0025 U	0.0037 J RL	0.0039 J RL
233'455'6-HeptaCB-(192)	0.0010 U	0.0030 U	0.0025 U	0.0016 U	0.003 U	0.0021 U	0.0020 U	0.0017 U	0.0026 U
22'33'44'55'-OctaCB-(194)	0.011 U	0.020 J RL	0.11	0.017 J RL	0.011 J RL	0.017 J RL	0.015 U	0.014 J RL	0.020 J RL
22'33'44'56-OctaCB-(195)	0.005 J RL	0.0078 U	0.029 J RL	0.0068 U	0.0050 U	0.0065 U	0.0063 U	0.0048 U	0.0072 J RL
22'33'44'56'-OctaCB-(196)	0.0053 U	0.0080 U	0.047 J RL	0.0069 U	0.0046 J RL	0.0057 U	0.0091 J RL	0.0058 U	0.012 J RL
22'33'44'66'OctaCB-(197)	0.0012 U	0.0020 U	0.0027 U	0.0021 U	0.0026 U	0.0036 U	0.0016 U	0.0014 U	0.0012 U
OctaCB-(198)+(199)	0.0134 J RL	0.013 U	0.21	0.012 J RL	0.0086 U	0.013 J RL	0.012 U	0.0020 U	0.019 J RL
22'33'4566'-OctaCB-(200)	0.0015 U	0.0022 U	0.018 J RL	0.0022 U	0.0028 U	0.0039 U	0.0017 U	0.0014 U	0.0024 U
22'33'45'66'-OctaCB-(201)	0.0020 U	0.0021 U	0.021 J RL	0.0021 U	0.0027 U	0.0037 U	0.0019 J RL	0.0014 U	0.0013 U
22'33'55'66'-OctaCB-(202)	0.0023 U	0.0032 U	0.085 U	0.0033 U	0.0042 U	0.0057 U	0.0056 J RL	0.0022 U	0.0020 U
22'344'55'6-OctaCB-(203)	0.0088 J RL	0.0076 J RL	0.15	0.0060 U	0.0051 J RL	0.0078 U	0.0061 U	0.0071 J RL	0.010 U
22'344'566'-OctaCB-(204)	0.0013 U	0.0021 U	0.0029 U	0.0022 U	0.0028 U	0.0038 U	0.0017 U	0.0015 U	0.0014 U
233'44'55'6-OctaCB-(205)	0.0021 U	0.0031 U	0.0034 U	0.0046 U	0.0027 U	0.0031 U	0.0027 U	0.0017 U	0.0095 J RL
22'33'44'55'6-NonaCB-(206)	0.0054 J RL	0.0062 U	0.35	0.013 J RL	0.0065 U	0.0076 U	0.0046 U	0.0049 U	0.013 J RL
22'33'44'566'-NonaCB-(207)	0.0025 U	0.0042 U	0.037 J RL	0.0037 U	0.0044 U	0.0052 U	0.0031 U	0.0034 U	0.0027 U
22'33'455'66'-NonaCB-(208)	0.0037 U	0.0063 U	0.17	0.0068 U	0.0066 U	0.0078 U	0.0047 U	0.0050 U	0.0093 J RL
DecaCB-(209)	0.006 U	0.015 J RL	0.13	0.0068 U	0.0029 U	0.0053 U	0.0059 U	0.0045 U	0.0089 U
Detected CB Homologues, ng/l									
Monochlorobiphenyl	0.0029 U	0.0020 U	0.0023 J	0.0089 J	0.0029 U	0.0029 U	0.0036 U	0.0074	0.0012 U
Dichlorobiphenyl	0.094 U	0.051 U	0.05 J	0.05 J	0.035 U	0.11 U B	0.14 U	0.11 U B	0.10 U B
Trichlorobiphenyl	0.037 J	0.002 J	0.54 J	0.11 J	0.28 J	0.027 J	0.026 J	0.06 J	0.14 J
Tetrachlorobiphenyl	0.10 J	0.06 J	3.7	0.46 J	0.63 J	0.19 J	0.12 J	0.05 J	0.91
Pentachlorobiphenyl	0.35 J	0.36 J	4.5	0.47 J	0.46 J	0.36 J	0.48 J	0.45 J	1.4
Hexachlorobiphenyl	0.14 J	0.32 J	3.3	0.36 J	0.19 J	0.36 J	0.32 J	0.33 J	0.9
Heptachlorobiphenyl	0.06 J	0.20 J	1.0	0.30 J	0.14 J	0.24 J	0.22 J	0.17 J	0.34 J
Octachlorobiphenyl	0.027 J	0.028 J	0.58	0.029 J	0.020 J	0.031 J	0.017 J	0.021 J	0.067 J
Nonachlorobiphenyl	0.0054 J	0.0063 U	0.56	0.013 J	0.0066 U	0.0078 U	0.0047 U	0.0050 U	0.022 J
Decachlorobiphenyl	0.0019 U	0.015 J	0.13	0.0048 U	0.0029 U	0.0053 U	0.0059 U	0.0045 U	0.0033 U
Total Detected Chlorinated Biphenyl	0.72	0.99	14	1.8	1.7	1.2	1.2	1.1	3.8
Total PCB Toxic Equivalency, ng/l	7.8E-05	1.3E-04	3.5E-04	2.7E-04	1.5E-04	2.0E-04	1.7E-04	9.0E-05	6.5E-04

2012 Burgard Groundwater Samples: Analytical Laboratory Results

Chemical	MW-4 6/13/2012	MW-5 6/12/2012	MW-101 6/12/2012	MW-102 6/12/2012	MW-103 6/12/2012	MW-104 6/13/2012	MW-105 6/13/2012	MW-106 6/13/2012	MW-107 6/13/2012
Dioxins (pg/l)									
1,2,3,4,6,7,8-HeptaCDD	1.7 U B	1.9 U B	2.9 U B	2.5 U B	1.6 U B	1.5 U B	1.6 U B	1.5 U B	1.8 U B
1,2,3,4,6,7,8-HeptaCDF	1.9 U EMPC	1.7 U EMPC	1.8 U	1.8 U EMPC	1.5 U EMPC	1.5 U EMPC	1.7 U EMPC	1.5 U EMPC	1.6 U EMPC
1,2,3,4,7,8,9-HeptaCDF	0.87 U	0.88 U	0.79 U	0.87 U	0.71 U	0.72 U	1.10 U	0.71 U	0.66 U
1,2,3,4,7,8-HexaCDD	0.78 U	0.69 U	0.73 U	0.77 U	0.79 U	0.83 U	0.73 U	0.77 U	0.73 U
1,2,3,4,7,8-HexaCDF	**0.92** J RL	0.89 U EMPC	0.68 U	0.60 U	0.73 U	0.99 J RL	0.72 U EMPC	0.75 U	0.76 U EMPC
1,2,3,6,7,8-HexaCDD	0.71 U	0.62 U	0.66 U	0.70 U	0.71 U	0.76 U	0.66 U	0.69 U	0.65 U
1,2,3,6,7,8-HexaCDF	0.54 U	0.65 U	0.68 U	0.59 U	0.73 U	0.63 U	0.62 U	0.75 U	0.57 U
1,2,3,7,8,9-HexaCDD	0.70 U	0.62 U	0.66 U	0.69 U	0.71 U	0.75 U	0.65 U	0.69 U	0.65 U
1,2,3,7,8,9-HexaCDF	0.63 U	0.76 U	0.80 U	0.69 U	0.85 U	0.74 U	0.73 U	0.90 U	0.68 U
1,2,3,7,8-PentaCDD	0.89 U	0.92 U	0.78 U	0.69 U	0.64 U	0.69 U	0.84 U	0.62 U	0.62 U
1,2,3,7,8-PentaCDF	0.96 U	0.92 U	0.74 U	0.95 U	0.81 U	0.94 U	0.88 U	0.60 U	0.64 U
2,3,4,6,7,8-HexaCDF	0.58 U	0.71 U	0.74 U	0.64 U	0.79 U	0.69 U	0.67 U	0.82 U	0.62 U
2,3,4,7,8-PentaCDF	0.97 U	0.92 U	0.74 U	0.95 U	0.82 U	0.95 U	0.89 U	0.61 U	0.65 U
2,3,7,8-TetraCDD	0.91 U	0.65 U	0.52 U	0.62 U	0.75 U	0.84 U	0.87 U	0.69 U	0.73 U
2,3,7,8-TetraCDF	0.63 U EMPC	0.73 U	0.70 U	0.55 U	0.64 U	0.51 U	0.65 U	0.70 U	0.69 U
OCDD	6.8 U B	5.8 U B	18 U B	11 U B	5.4 U B	5.7 U B	5.4 U B	4.7 U B	7.7 U B
OCDF	2.2 U B	2.3 U B	2.2 U B	2.3 U B	2.1 U B	2.4 U B	2.2 U B	1.7 U EMPC	2.1 U B
HeptaCDD homologs	2.9 J	2.9 J	5.6 J	2.5 J	1.6 J	2.5 J	2.7 J	1.5 J	1.8 U
HeptaCDF homologs	2.1 U	1.9 U	2.0 U	2.0 U	1.7 U	1.6 U	1.9 U	1.7 U	1.8 U
HexaCDD homologs	1.1 J	1.3 J	1.0 J	1.0 J	0.90 U	1.2 J	1.2 U	1.7 U	1.2 U
HexaCDF homologs	0.92 J	0.94 U	0.72 U	0.63 U	0.77 U	0.99 J	0.76 U	0.80 U	0.81 U
PentaCDD homologs	0.89 U	0.92 U	0.78 U	0.69 U	1.1 U	0.69 U	0.84 U	0.62 U	0.62 U
PentaCDF homologs	0.96 U	0.92 U	0.74 U	0.95 U	0.82 U	0.94 U	0.88 U	0.61 U	0.64 U
TetraCDD homologs	0.91 U	0.65 U	0.52 U	0.62 U	0.75 U	0.84 U	0.87 U	0.69 U	0.73 U
TetraCDF homologs	0.63 U	1.3 J	0.70 U	0.55 U	1.1 J	0.51 U	0.65 U	0.70 U	0.69 U
Total Dioxin TEQ, pg/l	1.4	1.2	1.1	1.1	1.2	1.3	1.3	1.1	1.1
Sample TEQ, Dioxins and PCBs, pg/l	1.5	1.4	1.4	1.4	1.3	1.5	1.5	1.2	1.7

- Data qualified iby validation process

Qualifiers (Q)
U - Not detected at noted limit
UJ - Not detected, estimated detection limit.
J- Estimated value
Reason Code
RL - Result is below the method reporting limit (J qualified by laboratory)
B- Detected in method blank. Raised detection limit.
EMPC - Peak fails to satisfy criteria for postive identification
IS - Low recovery of internal standard

Appendix B – Push Probe, Groundwater Monitoring Well Boring, and Well Construction Logs

Tetra Tech, Inc
6100 219th Street SW Suite 550
Mountlake Terrace, WA 98043

LOG OF EXPLORATORY BORING

CLIENT/PROJECT NAME: Schnitzer Steel Ind./ Burgard RI PROJECT #: 11907-01
LOGGED BY: John Virgin
DRILLING CONTRACTOR: GeoTech Explorations
DRILLING METHOD: Hollow Stem Auger
HOLE DIA.: 8-inch

BORING NO.: MW-01
START DATE: 1/3/02
END DATE: 1/3/02
TOTAL DEPTH: 23 feet
SHEET 1 OF 2

WATER LEVEL DATA			
DEPTH	19		
TIME	14:30		
DATE	1/3/02		
BORING DEPTH	23 ft		

FIELD LOCATION: NW dock area, to be surveyed per SAP

DEPTH IN FEET	WELL OR PIEZOMETER DETAILS	SAMPLING METHOD	SAMPLE NUMBER	BLOW COUNTS (per 6")	DEPTH SAMPLED/ RECOVERY	LITHOLOGIC COLUMN	LITHOLOGIC DESCRIPTION
0							**0 to 0.5 feet: Asphalt**
		SS		14			**0.6 to 2.3 feet: SANDY GRAVEL (GW),** gray to grayish brown, fine to coarse, angular, 30 percent medium sand, 10 percent non-plastic fines, damp, no noticeable odor (FILL).
1				13			
				15			
2		SS		11			**2.3 to 22.5: SILTY SAND (SM),** dark yellowish brown, very fine to medium, 20 percent non-plastic silt, damp, loose, no noticeable odor (FILL).
				15			
3				22			
		SB		10			
4				15			
				15			
5		SS		12			
				10			Lens of gravelly sand with 30 percent medium plasticity fines from 5.5 to 5.7 feet below ground surface (bgs).
6				10			
		SS; MW1-7		6			
7		MW1-7-d		6			
				7			
8		SB		3			
				6			
9				6			
		SS		6			
10				4			
				5			
11		SS		6			
		MW1-12		8			Few fine to medium rounded gravel, few 0.5 inch diameter clay inclusions from 11 to 12.5 feet bgs.
12				8			
		SB		10			
13				6			
				4			
14		SS		5			
				7			
15				7			
		SS		8			
16				6			
				5			
17		SB		7			
		MW1-18		10			
18		MW1-18-d		17			WL ATD = approximately 19 feet bgs based on samples: soil plug in auger prevented measurement.
	▽	SS		4			
19				8			
20				8			

Remarks: SS = 2-inch diameter split barrel sampler; SB = 3-inch diameter split barrel sampler. WL ATD = water level measured at time of drilling. Blow counts do not represent SPT results for 3-inch diameter sampler. Well details on page 2.

Tetra Tech, Inc
6100 219th Street SW Suite 550
Mountlake Terrace, WA 98043

LOG OF EXPLORATORY BORING

CLIENT/PROJECT NAME: Schnitzer Steel Ind./ Burgard RI PROJECT #: 11907-01
LOGGED BY: John Virgin
DRILLING CONTRACTOR: GeoTech Explorations
DRILLING METHOD: Hollow Stem Auger
HOLE DIA.: 8-inch

BORING NO.: MW-01
START DATE: 1/3/02
END DATE: 1/3/02
TOTAL DEPTH: 23 feet
SHEET 2 OF 2

FIELD LOCATION: NW dock area, to be surveyed per SAP

WATER LEVEL DATA			
DEPTH			
TIME			
DATE			
BORING DEPTH			

DEPTH IN FEET	WELL OR PIEZOMETER DETAILS	SAMPLING METHOD	SAMPLE NUMBER	BLOW COUNTS (per 6")	DEPTH SAMPLED/ RECOVERY	LITHOLOGIC COLUMN	LITHOLOGIC DESCRIPTION
20		SS		6			**(continued) 2.3 to 22.5: SILTY SAND (SM),** dark yellowish brown, very fine to medium, 20 percent non-plastic silt, damp, loose, no noticeable odor (FILL).
				8			
21				6			
		SB		4			
22				6			
				6			**22.5 to 23: SILTY CLAY (CH),** gray, high plasticity, 30 percent silt, 10 percent very fine sand, trace shell fragments, traces roots, soft, wet (ALLUVIUM).
23							Total depth drilled = 23 feet.
24							
25							

Well Construction Details:

0.25 to 12 feet: flush threaded 2-inch diameter schedule 40 PVC blank riser
12 to 22.4 feet: flush-threaded schedule 40 PVC with 0.010-inch machined slots; pre-pack well screen with 20/40 silica sand.

0 to 2 feet: concrete
2 to 10 feet: bentonite chips hydrated with potable water
10 to 22.5 feet: 10/20 silica sand
22.5 to 23 feet: slough.

Soil Screening Results (Photoionization Detector)

Background reading: 22-28 parts per million (ppm)

MW1-7	1000 ppm
MW1-12	420 ppm
MW1-18	265 ppm

100 ppm calibration standard (isobutene): 102 ppm

HAI
Hahn and Associates, Inc.
Environmental Consultants

Site ID:	MW106	Date(s): **5/16/12**	
Location:	**12005 N Burgard Way, Portland Oregon**		
Logged By:	**Corey Raspone**	Checked By: **Rob Ede**	
Driller:	**Major Drilling Environmental**	OWRD #:	**L108906**
Drilling Method:	**Rotosonic**	GS Elevation: **31.59 feet**	TOC: **34.45 feet**
Sampling Method:	**4-inch diameter 5-foot Length Core Barrel**	Northing: **716807.40**	Easting: **7619262.21**
Borehole Diam.:	**6 inches**	Total Depth:	**20.0 feet bgs**
Project Number:	**8001**		
Project Name:	**Schnitzer Steel Inc. - Burgard Way Property**		
Remarks:	IT Slip - South Shore (east). Horizontal coordinates are in Oregon State Plane (North). Vertical datum = NAVD88.		

Well Construction:

Blank Casing & Screen:	Schedule 40 PVC	0 to 10 Feet
	Pre-pack well screen (20/40 Silica Sand) (Stainless Wire Mesh Outer Screen, 0.01" Slot Inner Screen)	10 to 20 Feet
Annular Fill:	Concrete	0 to 1.5 Feet
	3/8" Bentonite Chips	1.5 to 8 Feet
	10/20 Silica Sand	8 to 20 Feet

Elevation (ft)	Depth (ft)	Sample Interval	Sample Number Prefix:	Recovery (ft) (core interval)	PID (ppm)	Lithology	USCS Code	Lithologic Description	Groundwater	Well Construction
30	1						SP	**(0.0 - 1.5 Feet):** SAND with trace of silt (<5%), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	2							**(1.5 - 3.0 Feet):** SAND with some silt (10%), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	3			(0 - 5) 3	0.0			**(3.0 - 5.0 Feet):** No Recovery		
	4									
	5						SM	**(5.0 - 6.5 Feet):** Silty SAND (25% silt), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	6				0.0					
25	7						SP	**(6.5 - 8.0 Feet)**SAND with some silt (10%), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	8			(5-10) 3	0.0			**(8.0 - 10.0 Feet):** No Recovery		
	9									
	10	X	MW106-120516-10-11		0.0		SP	**(10.0 - 14.0 Feet):** SAND with some silt (10%), brown, moist to 11.0 feet then wet to 14.0 feet, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.	▼ ▽	
	11									
20	12									
	13			(10-15) 5	0.0					
	14				0.0		SM	**(14.0 - 15.0 Feet):** Silty SAND (20% silt)) , brown with gray patches, wet, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	15						ML	**(15.0 - 20.0 Feet):** Sandy SILT (20% sand), gray with brown patches to 17.0 feet then brown to 20.0 feet, moist to wet, soft, low plasticity, cohesive. Sands are fine grained, poorly graded. No odor or discoloration present and no sheen observed during sheen testing.		
15	16									
	17			(15-20) 5	0.0					
	18									
	19									
	20							End of boring at 20.0 feet with groundwater encountered at 10.5 feet.		

NOTES: bgs = below ground surface
GS = ground surface
PID=photoionization detector
ppm = parts per million
TOC = top of casing

▽ First encountered groundwater (wet soils observed)

▼ Measured static groundwater level (May 16, 2012)

Report: HAI - MONITORING WELL W/PID; File: 8001.GPJ; 6/26/12

HAI
Hahn and Associates, Inc.
Environmental Consultants

Site ID:	MW107	Date(s): **5/16/12**	
Location:	**12005 N Burgard Way, Portland Oregon**		
Logged By:	**Corey Raspone**	Checked By: **Rob Ede**	
OWRD #:	**L108907**		
GS Elevation:	**31.82 feet**	TOC:	**34.73 feet**
Northing:	**716845.57**	Easting:	**7618778.05**
Borehole Diam.:	**6 inches**	Total Depth:	**20.0 feet bgs**
Project Number:	**8001**		
Project Name:	**Schnitzer Steel Inc. - Burgard Way Property**		
Remarks:	IT Slip - South Shore (west). Horizontal coordinates are in Oregon State Plane (North). Vertical datum = NAVD88.		

Driller: **Major Drilling Environmental**

Drilling Method: **Rotosonic**

Sampling Method: **4-inch diameter 5-foot Length Core Barrel**

Well Construction:

Blank Casing & Screen:	Schedule 40 PVC	0 to 10 Feet
	Pre-pack well screen (20/40 Silica Sand) (Stainless Wire Mesh Outer Screen, 0.01" Slot Inner Screen)	10 to 20 Feet
Annular Fill:	Concrete	0 to 1.5 Feet
	3/8" Bentonite Chips	1.5 to 8 Feet
	10/20 Silica Sand	8 to 20 Feet

Elevation (ft)	Depth (ft)	Sample Interval	Sample Number (Prefix:)	Recovery (ft) (core interval)	PID (ppm)	Lithology	USCS Code	Lithologic Description	Groundwater	Well Construction
30	1						SM	**(0.0 - 1.0 Feet):** SAND with some gravel (25%) and silt (10%), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
							SP			
	2				0.0			**(1.0 - 4.0 Feet):** SAND with trace of silt (5%), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	3			(0-5) 4						
	4				0.0			**(4.0 - 5.0 Feet):** No Recovery		
	5						SP	**(5.0 - 8.0 Feet):** SAND with trace of silt (5%), brown, damp, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
25	6									
	7									
	8			(5-10) 3	0.0			**(8.0 - 10.0 Feet):** No Recovery		
	9									
	10						SP	**(10.0 - 13.0 Feet):** SAND with trace of silt (5%), brown, moist becoming wet below 12.5 feet, medium grained, poorly graded, loose, non-cohesive. No odor or discolortion present and no sheen observed during sheen testing.		
	11		MW107-120516-11-12		0.0					
20	12								▽	
	13			(10-15) 5	0.0		ML	**(13.0 - 20.0 Feet):** SILT with trace of sand (20%), medium gray, moist to wet, soft, low plasticity, cohesive. Sands are fine grained, poorly graded. No odor or discolortion present and no sheen observed during sheen testing.		
	14									
	15									
15	16									
	17			(15-20) 5	0.0					
	18									
	19									
	20							End of boring at 20.0 feet bgs with groundwater encountered at 12.5 feet.		

NOTES: bgs = below ground surface
GS = ground surface
PID=photoionization detector
ppm = parts per million
TOC = top of casing

▽ First encountered groundwater (wet soils observed)

▼ Measured static groundwater level (May 16, 2012)

Report: HAI - MONITORING WELL W/PID; File: 8001.GPJ; 6/26/12

Tetra Tech, Inc
6100 219th Street SW Suite 550
Mountlake Terrace, WA 98043

LOG OF EXPLORATORY BORING

CLIENT/PROJECT NAME: Schnitzer Steel Ind./ Burgard RI PROJECT #: 11907-01
LOGGED BY: John Virgin
DRILLING CONTRACTOR: GeoTech Explorations
DRILLING METHOD: Geoprobe – direct push
HOLE DIA.: 1-inch

BORING NO.: PP-05
START DATE: 12/18/01
END DATE: 12/18/01
TOTAL DEPTH: 28 feet
SHEET 1 OF 2

WATER LEVEL DATA			
DEPTH	17.3		
TIME	14:20		
DATE	12/18/01		
BORING DEPTH	28 feet		

FIELD LOCATION: Former Northwest Oil tanks area.

DEPTH IN FEET	WELL OR PIEZOMETER DETAILS	SAMPLING METHOD	SAMPLE NUMBER	BLOW COUNTS (per 6")	DEPTH SAMPLED/ RECOVERY	LITHOLOGIC COLUMN	LITHOLOGIC DESCRIPTION
0		DP					**0 to 0.5 feet: ASPHALT.**
2			S-PP05-1				**0.5 to 2 feet: GRAVEL (GP),** black, medium, angular to sub-rounded, 15 percent medium sand, damp, no noticeable odor (FILL).
4		DP					**2 to 21 feet: SILTY SAND (SM),** brown, very fine to fine, 30 percent silt, 15 percent clay, damp, no noticeable odor (FILL).
6			S-PP05-6				
8		DP					
10							
12		DP					
14			S-PP05-13				
16		DP	S-PP05-17				
18							
20	▽	DP	S-PP05-21				WL ATD = 20.3 feet below ground surface (bgs).
22							**21 to 28 feet: SILTY SAND with CLAY (SM-OH),** gray, very fine to fine,30 percent silt, 30 percent high plasticity clay, 0.5 to 2-inch interbeds of silty, high plasticity clay below 22 feet bgs, wet at 20.3 feet, no noticeable odor (ALLUVIUM).
24		DP					
26							
28							Total depth drilled = 28 feet.
30							Soil screening results and water sample information on Page 2
32							
34							
36							
38							
40							

Remarks: DP = 1-inch diameter, 4-foot long drive sample with acrylate liner. WL ATD = water level measured at time of drilling.

Tetra Tech, Inc
6100 219th Street SW Suite 550
Mountlake Terrace, WA 98043

LOG OF EXPLORATORY BORING

CLIENT/PROJECT NAME: Schnitzer Steel Ind./ Burgard RI PROJECT #: 11907-01
LOGGED BY: John Virgin
DRILLING CONTRACTOR: GeoTech Explorations
DRILLING METHOD: Geoprobe – direct push
HOLE DIA.: 1-inch

BORING NO.: PP-05
START DATE: 12/18/01
END DATE: 12/18/01
TOTAL DEPTH: 28 feet
SHEET 2 OF 2

WATER LEVEL DATA			
DEPTH	17.3		
TIME	14:20		
DATE	12/18/01		
BORING DEPTH	28 feet		

FIELD LOCATION: Former Northwest Oil tanks area.

DEPTH IN FEET	WELL OR PIEZOMETER DETAILS	SAMPLING DATA: SAMPLING METHOD	SAMPLE NUMBER	BLOW COUNTS (per 6")	DEPTH SAMPLED/ RECOVERY	LITHOLOGIC COLUMN	LITHOLOGIC DESCRIPTION
0							
							Temporary well screen set from 24 to 28 feet bgs.
2							Groundwater purged using peristaltic pump with disposable tubing.
4							
6							
8							
10							
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							

Soil Screening Results (Photoionization Detector)

Background = 15 to 25 parts per million (ppm)

S-PP05-1	15 ppm
S-PP05-6	18 ppm
S-PP04-13	23 ppm
S-PP04-17	26 ppm
S-PP04-21	24 ppm

100 ppm standard (isobutene): 102 ppm

Water Sample Field Parameters:

Volume Purged:	Initial	1 gal	2 gal	3 gal
Temperature (°C)	17.5	15.7	15.5	15.1
pH	6.80	6.82	6.82	6.81
Conductivity (µmhos/cm)	460	440	435	430
Turbidity (NTU)	>range	934	721	672

Collected sample GW-PP05-011218 at 14:41 using peristaltic pump and disposable tubing.

Remarks: DP = 1-inch diameter, 4-foot long drive sample with acrylate liner. WL ATD = water level measured at time of drilling.

Tetra Tech, Inc
6100 219th Street SW Suite 550
Mountlake Terrace, WA 98043

LOG OF EXPLORATORY BORING

CLIENT/PROJECT NAME: Schnitzer Steel Ind./ Burgard RI
PROJECT #: 11907-01
LOGGED BY: John Virgin
DRILLING CONTRACTOR: GeoTech Explorations
DRILLING METHOD: Geoprobe – direct push
HOLE DIA.: 1.75-inch

BORING NO.: PP-07
START DATE: 4/15/03
END DATE: 4/15/03
TOTAL DEPTH: 30 feet
SHEET 1 OF 1

WATER LEVEL DATA			
DEPTH	16.36		
TIME	12:15		
DATE	04/15/03		
BORING DEPTH	30 feet		

FIELD LOCATION: Former Northwest Oil tanks area, northeast of MW-2. Approximately 100 feet west of west end retaining wall. 69 feet north of northernmost railroad track.

DEPTH IN FEET	WELL OR PIEZOMETER DETAILS	SAMPLING DATA: SAMPLING METHOD	SAMPLE NUMBER	BLOW COUNTS (per 6")	DEPTH SAMPLED/ RECOVERY	LITHOLOGIC COLUMN	LITHOLOGIC DESCRIPTION
0		DP					**0 to 0.5 feet: ASPHALT.**
							0.5 to 1 feet: SANDY GRAVEL (GW), light bluish gray, medium to fine, angular to sub-rounded, 40 percent medium sand, damp, no noticeable odor (FILL).
2			PP-07-4				
4		DP					**1 to 19 feet: SILTY SAND (SP),** dark brown, fine, 20 percent silt, 5 percent fine, rounded gravel, trace clay, damp (FILL).
6			PP-07-6				
8							
10		DP	PP-07-10				
12			PP-07-14				
14							
		DP					
16							WL ATD = 18.5 feet below ground surface (bgs).
18	▽		PP-09-18				
							19 to 30 feet: SILTY SAND (SP), greenish black alternating with dark brown, fine, 30 percent silt, 10 to 30 percent plastic clay, wet, no noticeable odor (ALLUVIUM).
20		DP					
22			PP-09-22				
24							
		DP					
26							
28							
30							Total depth drilled = 30 feet.
							Water Sample GW-PP-07-030415 collected at 12:20; temporary screen interval from 20-24 feet.
							Soil Screening Results (Photoionization Detector) PP-07-4 14 PP-07-6 33 PP-07-10 42 PP-07-14 30 PP-07-18 0 PP-07-22 0

Remarks: DP = 1.75-inch diameter, 5-foot long drive sample with acrylate liner. WL ATD = water level measured at time of drilling.

Basin 21 Storm Water Sampling and Analysis Data, Source Control Evaluation, Burgard Industrial Park, Portland, Oregon

Bridgewater Group, Inc., 2013

BRIDGEWATER GROUP, INC.

Basin 21 Storm Water Sampling and Analysis Data Source Control Evaluation Burgard Industrial Park Portland, Oregon

TO: Jim Orr/Oregon DEQ

CC: Mat Cusma/Schnitzer
Mark Bartee/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: March 1, 2013

This memorandum presents the results of the storm water sampling and analysis performed at Basin 21 at the Burgard Industrial Park (BIP) in Portland, Oregon (Figure 1, Figure 2). The storm water sampling and analysis was performed in general accordance with the May 1, 2012 *Basin 21 Storm Water and Storm Water Solids Sampling and Analysis Plan*. Some details of the May1, 2012 sampling plan were altered as follows:

- Smoke testing performed on September 13, 2012 concluded that the pipe entering from the northwest into Sample Point 5 (SP-5) manhole was a stub that did not connect to any drainage features. Thus, no storm water sample was collected at SP-5.
- Flow testing on September 5, 2012 and September 26, 2012 concluded that there was no lateral pipe entering from the northwest into manhole SP-6. Thus, only a single storm water sample was collected at SP-6, representing what is eventually discharged at Outfall 21.

The storm water data presented in this memorandum reflects these changes in the Basin 21 storm water sampling program. Figure 3 shows the currently inferred Basin 21 area based on these smoke and flow tests.

Basin 21 Description

Basin 21 consists of an approximately 18 acre area in the northeast corner of the BIP. Figure 3 shows the approximate boundaries of Basin 21. The Basin 21 boundaries are based on the drainage basins shown in the Storm Water Pollution Prevention and Control (SWPC) plans prepared by the site operators within Basin 21 and an August 11, 2011 City of Portland video survey of the western portion of the Basin 21 conveyance pipes.

There are four primary areas within Basin 21 where surface water runoff occurs (as opposed to infiltrating into the ground surface):

- Former Boydstun area
- Former Romar area
- Portland Container area

Figure 3 shows these Basin 21 areas.

The former Boydstun area is about 7.6 acres and is almost entirely paved. Storm water runoff is captured in catch basins and conveyed by gravity to a float-activated pump station located in the northeast corner of the area. The storm water is pumped from the pump station through buried pipes to a manhole near the south western corner of the area where it flows to the west and comingles with other Basin 21 runoff. A portion of the former Boydstun area is currently leased by SSI and used to park trucks, trailers and equipment. Boydstun formerly manufactured automobile hauling trailers on the site.

The former Romar area is outside the BIP but does contribute storm water runoff to the Basin 21 system. The area is about 6.2 acres and is mostly paved. Storm water runoff is captured in catch basins and conveyed by gravity to the southeast corner of the former Romar area where it comingles with the runoff from the former Boydstun area and flows south in a buried pipe. The building was used by Ro-Mar Transportation Systems until 2006 when RLR Investments acquired the property. The building is currently used by the trucking company R+L Carriers, Inc., an affiliate of RLR Investments.

Approximately 1/3 of Portland Container's property east of the railroad tracks drains to Basin 21. Storm water runoff from this approximate 4.2 acre, mostly unpaved area flows to a catch basin near the site office and is conveyed by a buried pipe to a small retention basin and then to a multi-stage, improvised storm water filter system. The treated water is discharged from the treatment system to a manhole where it comingles with the runoff flowing south from the junction of the former Boydstun and former Romar drainage systems. During heavy rainfall events, the storm water basin overflows and water flows directly to the manhole, bypassing the filter system.

The runoff from these areas combine and is discharged to the IT Slip at Outfall 21 as shown on Figure 3. Precipitation falling on the unpaved areas west and south of the former Boydstun area and the eastern portion of the Portland Container area (aside from areas around any unknown catch basins) infiltrates into the ground rather than flow into the Basin 21 storm water collection and conveyance system.

Basin 21 Storm Water Sampling and Analysis

Storm Water Sample Collection

Basin 21 storm water samples were collected on November 19, 2012 at four points shown on Figure 3. The four sample points were:

Sample Point 1 – Manhole at southwest edge of former Boydstun area where storm water exits the former Boydstun area. This sample location is representative of storm water runoff from the former Boydstun site.

Sample Point 2 - Manhole at southwest corner of former Romar area. This storm water location is representative of storm water runoff from the former Romar site that flows onto the BIP and is subsequently comingled with the other Basin 21 runoff.

Sample Point 3 – Filter treatment system discharge pipe just above a catch basin at western edge of Portland Container. This sample location is representative of storm water runoff from the western portion of the Portland Container site that is subsequently comingled with the other Basin 21 runoff.

Sample Point 6 – Manhole about 280 feet upgradient from outfall. This location is representative of storm water that is discharged to the slip at Outfall 21.

Table 1 presents the rainfall conditions preceding and during the storm water sampling event.

Storm Water Sample Analysis

Basin 21 storm water samples were analyzed for the following:

- PCB aroclors, homologs, and congeners
- Phthalates
- Dioxins/furans
- Butyltins
- Aluminum, antimony, arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc
- Polycyclic aromatic hydrocarbons (PAHs)
- Organochlorine pesticides
- Petroleum Hydrocarbons (gasoline, diesel, and heavy oil)
- Total suspended solids (TSS)
- Total organic carbon (TOC)

Table 2 presents the results of the Basin 21 storm water sample analyses. Copies of the analytical laboratory reports are provided in Appendix A. Review of the laboratory QA/QC results did not indicate any issues requiring corrective action.

Attachments:

Table 1 – Storm Water Sampling Event Rainfall Data, 11/19/2012 Sampling Event
Table 2 – Storm Water Sample Analytical Laboratory Results
Figure 1 – Site Location Map
Figure 2 – Site Plan, Burgard Industrial Park
Figure 3 – Basin 21 Storm Water Sample Locations
Appendix A – Analytical Laboratory Reports

Tables

Table 1
Storm Water Sampling Event Rainfall Data
11/19/2012 Sampling Event
Burgard Industrial Park Basin 21

Date	Daily Total	Hourly Rain Fall (0.01 inches)																							
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11/13/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/14/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/15/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/16/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/17/12	73	0	0	0	8	1	1	1	18	14	2	0	3	5	7	4	4	1	1	0	0	0	2	1	0
11/18/12	68	0	0	0	0	0	0	3	6	0	1	0	1	0	2	2	1	5	4	4	1	0	8	15	15
11/19/12	156	7	10	15	14	5	3	0	0	0	4	2	9	15	18	24	5	8	0	3	1	1	10	2	0

Data from Shipyard Rain Gage - 8900 N. Sever Road
Sampling Day
Sampling Hours

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
PAHs (ug/l)						
Acenaphthene	0.2		0.0094 U	0.037 U	0.039 U	0.094 U
Acenaphthylene	0.2		0.0094 U	0.037 U	0.039 U	0.094 U
Anthracene			0.0094 U	0.037 U	0.039 U	0.094 U
Benzo(a)anthracene	0.018		0.012 J	0.038 J	0.039 U	0.10 J
Benzo(a)pyrene	0.018		0.026 J	0.093 J	0.12 U	0.23 J
Benzo(b+k)fluoranthene	0.018		0.032	0.13	0.088 J	0.28
Benzo(g,h,i)perylene	0.2		0.017 J	0.074 J	0.077 U	0.23
Chrysene	0.018		0.018 J	0.084	0.039 U	0.19
Dibenzo(a,h)anthracene	0.018		0.0094 U	0.037 U	0.039 U	0.094 U
Fluoranthene	0.2		0.026	0.086	0.042 J	0.19 J
Fluorene	0.2		0.012 J	0.037 U	0.039 U	0.094 U
Indeno(1,2,3-cd)pyrene	0.018		0.012 J	0.037 U	0.039 U	0.11 J
Naphthalene	0.2		0.026 JB	0.075 U	0.077 U	0.19 U
Phenanthrene	0.2		0.030	0.052 J	0.039 U	0.094 U
Pyrene	0.2		0.026	0.12	0.076 J	0.29
Total Detected PAHs		1	0.25	0.67	0.21	1.6
PCBs (ug/l)						
Aroclor 1016	0.96		0.022 U	0.043 U	0.043 U	0.021 U
Aroclor 1221	0.034		0.022 U	0.043 U	0.043 U	0.021 U
Aroclor 1232	0.034		0.022 U	0.043 U	0.043 U	0.021 U
Aroclor 1242	0.034		0.022 U	0.043 U	0.043 U	0.021 J
Aroclor 1248	0.034		0.022 U	0.043 U	0.043 U	0.021 U
Aroclor 1254	0.034		0.022 U	0.043 U	0.043 U	0.059
Aroclor 1260	0.034		0.022 U	0.043 U	0.043 U	0.047
Total Detected PCB aroclors	0.000064		0.00	0.00	0.00	0.11
PCB Congeners (ng/l)						
2-MonoCB-(1)			0.0081 J	0.022 J	0.0041 U	0.023 J
3-MonoCB-(2)			0.0040 J	0.010 J	0.0013 U	0.0054 J
4-MonoCB-(3)			0.0071 J	0.017 J	0.0033 U	0.018 J
22'-DiCB-(4)			0.038 J	0.18	0.049 J	0.18
2,3-DiCB-(5)			0.014 U	0.018 J	0.016 U	0.017 U
2,3'-DiCB-(6)			0.017 U	0.060 J	0.026 J	0.097
2,4-DiCB-(7)			0.013 U	0.013 J	0.014 U	0.018 J
2,4'-DiCB-(8)			0.084 J	0.28	0.096 J	0.38
2,5-DiCB-(9)			0.013 U	0.021 U	0.014 U	0.027 U
2,6-DiCB-(10)			0.017 U	0.015 U	0.016 U	0.017 U
3,3'-DiCB-(11)			0.12	0.28	0.18	0.25
DiCB-(12)+(13)			0.012 U	0.031 U	0.014 U	0.050 U
3,5-DiCB-(14)			0.012 U	0.0033 U	0.014 U	0.015 U
4,4'-DiCB-(15)			0.078 J	0.25	0.14	0.50

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
22'3-TriCB-(16)			0.047 J	0.20	0.081 J	0.29
22'4-TriCB-(17)			0.042 J	0.20	0.084 J	0.34
TriCB-(18)+(30)			0.088 J	0.39	0.18 J	0.73
22'6-TriCB-(19)			0.016 J	0.062 J	0.033 J	0.14
TriCB-(20) + (28)			0.17 J	0.62	0.37	1.5
TriCB-(21)+(33)			0.10 J	0.39	0.16 J	0.57
234'-TriCB-(22)			0.065 J	0.26	0.13	0.47
235-TriCB-(23)			0.0035 U	0.0033 U	0.0035 U	0.0037 U
236-TriCB-(24)			0.0022 U	0.014 J	0.0042 U	0.0029 U
23'4-TriCB-(25)			0.012 J	0.044 J	0.025 J	0.099
TriCB-(26)+(29)			0.027 J	0.10 J	0.052 J	0.23
23'6-TriCB-(27)			0.0071 J	0.031 J	0.020 J	0.084 J
24'5-TriCB-(31)			0.13	0.52	0.25	0.87
24'6-TriCB-(32)			0.030 J	0.12	0.077 J	0.33
23'5'-TriCB-(34)			0.0038 U	0.0035 U	0.0038 U	0.0040 U
33'4-TriCB-(35)			0.0036 U	0.014 J	0.0096 J	0.029 J
33'5-TriCB-(36)			0.0030 U	0.0028 U	0.0030 U	0.0032 U
344'-TriCB-(37)			0.080 J	0.26	0.17	0.61
345-TriCB-(38)			0.0034 U	0.0032 U	0.0034 U	0.0037 U
34'5-TriCB-(39)			0.0032 U	0.0040 U	0.0032 U	0.0091 J
TetraCB-(40)+(41)+(71)			0.11 J	0.34	0.33	1.3
22'34'-TetraCB-(42)			0.056 J	0.18	0.17	0.71
22'35-TetraCB-(43)			0.0074 U	0.028 J	0.023 J	0.10
TetraCB-(44)+(47)+(65)			0.23 J	0.58	0.69	2.5
TetraCB-(45)+(51)			0.028 J	0.11 J	0.11 J	0.43
22'36'-TetraCB-(46)			0.011 J	0.040 J	0.041 J	0.18
22'45-TetraCB-(48)			0.031 J	0.11	0.087 J	0.34
TetraCB-(49)+TetraCB-(69)			0.12 J	0.30	0.32	1.4
TetraCB-(50)+(53)			0.024 J	0.073 J	0.077 J	0.37
22'55'-TetraCB-(52)			0.29	0.56	0.74	3.2
22'66'-TetraCB-(54)			0.0036 U	0.0023 U	0.0030 U	0.0039 U
233'4-TetraCB-(55)			0.0034 U	0.0048 U	0.0062 U	0.012 U
233'4'-Tetra CB(56)			0.072 J	0.18	0.21	0.68
233'5-TetraCB-(57)			0.0035 U	0.0048 U	0.0062 U	0.012 U
233'5'-TetraCB-(58)			0.0033 U	0.0046 U	0.0060 U	0.012 U
TetraCB-(59)+(62)+(75)			0.014 J	0.054 J	0.061 J	0.22 J
2344'-TetraCB -(60)			0.029 U	0.091 J	0.089 J	0.27
TetraCB-(61)+(70)+(74)+(76)			0.35 J	0.70	0.77	2.7
234'5-TetraCB-(63)			0.0048 J	0.015 J	0.012 J	0.039 J
234'6-TetraCB-(64)			0.090 J	0.27	0.30	1.1
23'44'-TetraCB-(66)			0.15	0.32	0.39	1.4
23'45-TetraCB-(67)			0.0050 J	0.013 J	0.010 J	0.034 J
23'45'-TetraCB-(68)			0.0031 U	0.0043 U	0.011 U	0.017 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
23'55'-TetraCB-(72)			0.0033 U	0.0046 U	0.0059 U	0.023 J
23'5'6-TetraCB-(73)			0.0037 U	0.0015 U	0.0029 U	0.0031 U
33'44'-TetraCB-(77)			0.032 J	0.054 J	0.073 J	0.24
33'45-TetraCB-(78)			0.0035 U	0.0049 U	0.0063 U	0.012 U
33'45'-TetraCB(79)			0.0059 U	0.0087 J	0.017 U	0.046 J
33'55'-TetraCB-(80)			0.0031 U	0.0044 U	0.0057 U	0.011 U
344'5-TetraCB-(81)			0.0038 U	0.0053 U	0.0069 U	0.013 U
22'33'4-PentaCB-(82)			0.067 J	0.088 J	0.20	0.68
PentaCB-(83)+(99)			0.27	0.32	0.87	2.8
22'33'6-PentaCB-(84)			0.15	0.20	0.52	1.6
PentaCB-(85)+(116)+(117)			0.088 J	0.12 J	0.28 J	0.85
PentaCB-(86)(87)(97)(109)(119)(125)			0.41 J	0.53 J	1.2	4.0
PentaCB-(88)+(91)			0.061 J	0.091 J	0.22	0.71
22'346'-PentaCB-(89)			0.0026 U	0.0080 J	0.016 J	0.057 J
PentaCB-(90)+(101)+(113)			0.51	0.64	1.6	5.1
22'355'-PentaCB-(92)			0.096	0.12	0.32	1.0
PentaCB-(93)+(98)+(100)+(102)			0.016 J	0.028 J	0.0602 J	0.20 J
22'356'-PentaCB-(94)			0.0026 U	0.0054 U	0.0098 U	0.024 J
22'35'6-PentaCB-(95)			0.37	0.53	1.4	4.4
22'366'-PentaCB-(96)			0.0019 J	0.0048 J	0.0095 J	0.030 J
22'45'6-PentaCB-(103)			0.0022 U	0.0046 U	0.0083 U	0.032 J
22'466'-PentaCB-(104)			0.00075 U	0.0011 U	0.00087 U	0.0014 U
233'44'-PentaCB-(105)			0.24	0.35	0.58	2.1
233'45-PentaCB-(106)			0.0042 U	0.0049 U	0.0035 U	0.0073 U
233'4'5-PentaCB-(107)			0.031 J	0.041 J	0.099	0.35
PentaCB-(108)+(124)			0.018 J	0.028 J	0.059 J	0.20
PentaCB-(110)+(115)			0.77	0.99	2.6	8.2
233'55'-PentaCB-(111)			0.0018 U	0.0037 U	0.0067 U	0.0027 U
233'56-PentaCB-(112)			0.0019 U	0.0039 U	0.0070 U	0.0028 U
2344'5-PentaCB-(114)			0.0101 J	0.016 J	0.022 J	0.080 J
23'44'5-PentaCB-(118)			0.56	0.74	1.4	5.5
23'455'-PentaCB-(120)			0.0017 U	0.0036 U	0.0065 U	0.0026 U
23'45'6-PentaCB-(121)			0.0018 U	0.0037 U	0.0067 U	0.0027 U
233'4'5'-PentaCB-(122)			0.0056 J	0.0092 J	0.011 U	0.065 J
23'44'5'-PentaCB-(123)			0.0049 U	0.014 J	0.025 J	0.092 J
33'44'5-PentaCB-(126)			0.0047 U	0.0054 U	0.013 U	0.025 J
33'455'-PentaCB-(127)			0.0042 U	0.0048 U	0.0034 U	0.0072 U
HexaCB-(128)+(166)			0.13 J	0.17 J	0.37	1.3
HexaCB-(129)+(138)+(163)			0.76	1.1	2.5	8.6
22'33'45'-HexaCB-(130)			0.047 J	0.064 J	0.15	0.52
22'33'46-HexaCB-(131)			0.010 U	0.016 J	0.037 J	0.13
22'33'46'-HexaCB-(132)			0.23	0.32	0.87	2.8
22'33'55'-HexaCB-(133)			0.0095 J	0.011 J	0.032 J	0.10

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
HexaCB-(134)+(143)			0.030 U	0.046 J	0.12 J	0.44
HexaCB-(135)+(151)			0.14 J	0.21	0.67	2.0
22'33'66'-HexaCB-(136)			0.062 J	0.088 J	0.27	0.75
22'344'5-HexaCB-(137)			0.039 J	0.049 J	0.11	0.42
HexaCB-(139)+(140)			0.013 J	0.015 J	0.043 J	0.15 J
22'3455'-HexaCB-(141)			0.11	0.16	0.39	1.3
22'3456-HexaCB-(142)			0.0058 U	0.0041 U	0.011 U	0.019 U
22'345'6-HexaCB-(144)			0.020 U	0.033 J	0.081 J	0.26
22'3466'-HexaCB-(145)			0.00086 U	0.0016 U	0.0017 U	0.0027 U
22'34'55'-HexaCB-(146)			0.085 J	0.12	0.32	1.1
HexaCB-(147)+(149)			0.38	0.60	1.7	5.4
22'34'56'-HexaCB-(148)			0.0011 U	0.0020 U	0.0021 U	0.0034 U
22'34'66'-HexaCB-(150)			0.00081 U	0.0015 U	0.0032 J	0.0071 U
22'3566'-HexaCB-(152)			0.00078 U	0.0015 U	0.0016 U	0.0033 U
HexaCB-(153)+(168)			0.45	0.62	1.7	5.6
22'44'56'-HexaCB-(154)			0.0038 U	0.0044 U	0.020 U	0.063 J
22'44'66'-HexaCB-(155)			0.0012 U	0.0023 U	0.0025 U	0.0038 U
HexaCB-(156)+(157)			0.10 J	0.14 J	0.28	0.93
233'44'6-HexaCB-(158)			0.076 J	0.11	0.23	0.83
233'455'-HexaCB-(159)			0.0048 U	0.0075 J	0.018 J	0.069 J
233'456-HexaCB-(160)			0.0043 U	0.0030 U	0.0078 U	0.014 U
233'45'6-HexaCB-(161)			0.0039 U	0.0028 U	0.0072 U	0.013 U
233'4'55'-HexaCB-(162)			0.0048 U	0.0057 U	0.011 U	0.030 J
233'4'5'6-HexaCB-(164)			0.050 J	0.070 J	0.175	0.50
233'55'6-HexaCB-(165)			0.0043 U	0.0030 U	0.0078 U	0.014 U
23'44'55'-HexaCB-(167)			0.034 J	0.046 J	0.11	0.34
33'44'55'-HexaCB-(169)			0.0050 U	0.0060 U	0.012 U	0.017 U
22'33'44'5-HeptaCB-(170)			0.13	0.21	0.60	1.8
HeptaCB-(171)+(173)			0.034 J	0.060 J	0.17 J	0.51
22'33'455'-HeptaCB-(172)			0.019 J	0.029 U	0.097 J	0.29
22'33'456'-HeptaCB-(174)			0.090 J	0.18	0.55	1.8
22'33'45'6-HeptaCB-(175)			0.0048 J	0.0074 U	0.021 J	0.059 J
22'33'466'-HeptaCB-(176)			0.012 J	0.018 J	0.066 J	0.19
22'33'45'6'-HeptaCB-(177)			0.055 J	0.092 J	0.28	0.93
22'33'55'6-HeptaCB-(178)			0.019 J	0.032 J	0.10	0.31
22'33'566'-HeptaCB-(179)			0.032 J	0.055 J	0.21	0.60
HeptaCB-(180)+(193)			0.21	0.37	1.2	3.8
22'344'56-HeptaCB-(181)			0.0051 U	0.0052 U	0.0079 U	0.012 U
22'344'56'-HeptaCB-(182)			0.0022 U	0.0013 U	0.0031 U	0.0054 U
22'344'5'6-HeptaCB-(183)			0.044 J	0.090 J	0.32	1.1
22'344'66'-HeptaCB-(184)			0.0016 U	0.00091 U	0.0022 U	0.0039 U
22'3455'6-HeptaCB-(185)			0.0054 U	0.015 J	0.054 J	0.13
22'34566'-HeptaCB-(186)			0.0017 U	0.00097 U	0.0023 U	0.0042 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
22'34'55'6-HeptaCB-(187)			0.11	0.19	0.62	1.8
22'34'566'-HeptaCB-(188)			0.0026 U	0.0015 U	0.0036 U	0.0064 U
233'44'55'-HeptaCB-(189)			0.011 U	0.015 U	0.028 J	0.069 J
233'44'56-HeptaCB-(190)			0.019 J	0.032 J	0.089 J	0.29
233'44'5'6-HeptaCB-(191)			0.0041 U	0.0074 U	0.021 J	0.068 J
233'455'6-HeptaCB-(192)			0.0043 U	0.0044 U	0.0067 U	0.010 U
22'33'44'55'-OctaCB-(194)			0.053 U	0.094 J	0.35	1.2
22'33'44'56-OctaCB-(195)			0.020 U	0.029 J	0.092 U	0.36
22'33'44'56'-OctaCB-(196)			0.030 J	0.046 J	0.19	0.54
22'33'44'66'OctaCB-(197)			0.0030 U	0.0032 U	0.020 J	0.033 J
OctaCB-(198)+(199)			0.079 J	0.14 J	0.43	1.3
22'33'4566'-OctaCB-(200)			0.0066 J	0.013 J	0.045 U	0.15
22'33'45'66'-OctaCB-(201)			0.011 J	0.016 J	0.060 J	0.18
22'33'55'66'-OctaCB-(202)			0.020 J	0.046 J	0.11	0.38
22'344'55'6-OctaCB-(203)			0.049 J	0.090 J	0.26	0.77
22'344'566'-OctaCB-(204)			0.0025 U	0.0025 U	0.0066 U	0.0084 U
233'44'55'6-OctaCB-(205)			0.0051 U	0.0049 U	0.010 U	0.065 U
22'33'44'55'6-NonaCB-(206)			0.066 J	0.14	0.28	0.88
22'33'44'566'-NonaCB-(207)			0.0083 U	0.015 J	0.038 J	0.11
22'33'455'66'-NonaCB-(208)			0.011 U	0.045 J	0.074 J	0.23
DecaCB-(209)			0.013 U	0.032 U	0.069 J	0.18
PCB Homologs (ng/l)						
Monochlorobiphenyl			0.019	0.048	0.0015 U	0.047
Dichlorobiphenyl			0.32	1.1	0.49	1.4
Trichlorobiphenyl			0.81	3.2	1.6	6.2
Tetrachlorobiphenyl			1.6	4.0	4.5	17
Pentachlorobiphenyl			3.7	4.9	12	38
Hexachlorobiphenyl			2.7	3.9	10	34
Heptachlorobiphenyl			0.77	1.3	4.4	14
Octachlorobiphenyl			0.20	0.47	1.4	4.9
Nonachlorobiphenyl			0.066	0.20	0.40	1.2
Decachlorobiphenyl			0.0033 U	0.0031 U	0.069	0.18
Total Detected PCBs (Method 1668	0.064	400	10	19	35	116
Phthalates (ug/l)						
Bis(2-ethylhexyl) phthalate	2.2	5	1.0 U	4.1 U	4.2 U	10 U
Butylbenzyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U
Dibutyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U
Diethyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U
Dimethyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U
Di-n-octyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
Pesticides (ug/l)						
2,4'-DDD	0.00031		0.019 U	0.047 U	0.019 U	0.047 U
2,4'-DDE	0.00022		0.019 U	0.070 J,	0.019 U	0.047 U
2,4'-DDT	0.2		0.019 U	0.047 U	0.019 U	0.047 U
4,4'-DDD	0.00031		0.019 U	0.047 U	0.019 U	0.047 U
4,4'-DDE	0.00022		0.019 U	0.047 U	0.019 U	0.047 U
4,4'-DDT	0.00022		0.019 U	0.047 U	0.019 U	0.047 U
Aldrin	0.00005		0.019 U	0.047 U	0.019 U	0.047 U
alpha-Endosulfan	0.051					
alpha-Hexachlorocyclohexane	0.0049		0.019 U	0.047 U	0.019 U	0.047 U
beta-Endosulfan	0.051					
beta-Hexachlorocyclohexane	0.017		0.019 U	0.047 U	0.019 U	0.047 U
cis-Chlordane	0.00081		0.019 U	0.047 U	0.019 U	0.047 U
cis-Nonachlor	0.19		0.019 U	0.047 U	0.019 U	0.047 U
delta-Hexachlorocyclohexane	0.052		0.019 U	0.047 U	0.019 U	0.047 U
Dieldrin	0.000054		0.019 U	0.047 U	0.019 U	0.047 U
Endosulfan sulfate	89		0.019 U	0.047 U	0.019 U	0.047 U
Endrin	0.036		0.019 U	0.047 U	0.019 U	0.047 U
Endrin aldehyde			0.019 U	0.047 U	0.019 U	0.047 U
Endrin ketone			0.019 U	0.047 U	0.019 U	0.047 U
gamma-Hexachlorocyclohexane	0.037		0.019 U	0.047 U	0.019 U	0.047 U
Heptachlor	0.000079		0.019 U	0.047 U	0.019 U	0.047 U
Heptachlor epoxide	0.000039		0.019 U	0.047 U	0.019 U	0.047 U
Hexachlorobenzene	0.00029		0.019 U	0.047 U	0.019 U	0.047 U
Hexachlorobutadiene	0.86		0.019 U	0.047 U	0.019 U	0.047 U
Hexachloroethane	3.3					
Methoxychlor	0.03		0.075 U	0.19 U	0.078 U	0.19 U
Mirex			0.019 U	0.047 U	0.019 U	0.047 U
Oxychlordane	0.19		0.019 U	0.047 U	0.019 U	0.047 U
Toxaphene	0.0002		0.19 U	0.47 U	0.19 U	0.47 U
trans-Chlordane	0.00081		0.019 U	0.047 U	0.019 U	0.047 U
trans-Nonachlor	0.19		0.019 U	0.047 U	0.019 U	0.047 U
Dioxins (pg/l)						
1,2,3,4,6,7,8-HeptaCDD			21 J	99	55	143
1,2,3,4,6,7,8-HeptaCDF			5.7 J	13 U	12 U	20 U
1,2,3,4,7,8,9-HeptaCDF			1.2 U	1.1 U	1.3 J	2.1 J
1,2,3,4,7,8-HexaCDD			1.1 U	1.3 J	1.1 U	2.3 J
1,2,3,4,7,8-HexaCDF			0.90 U	1.0 J	1.1 J	3.0 J
1,2,3,6,7,8-HexaCDD			1.1 J	4.0 J	2.1 J	6.0 J
1,2,3,6,7,8-HexaCDF			0.89 U	0.89 U	0.99 U	1.9 J
1,2,3,7,8,9-HexaCDD			1.1 J	3.1 J	2.0 J	4.8 J
1,2,3,7,8,9-HexaCDF			1.1 U	1.1 U	1.2 U	1.3 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
1,2,3,7,8-PentaCDD			0.95 U	1.1 U	1.1 U	1.3 J
1,2,3,7,8-PentaCDF			0.97 U	1.0 U	0.94 U	0.94 U
2,3,4,6,7,8-HexaCDF			0.98 U	0.98 U	1.1 U	1.6 J
2,3,4,7,8-PentaCDF			0.98 U	1.0 U	0.95 U	1.3 U
2,3,7,8-TetraCDD	0.0051		1.0 U	1.0 U	1.0 U	1.6 U
2,3,7,8-TetraCDF			0.92 U	0.91 U	0.99 J	2.6 J
OCDD			166	845	601	1370
OCDF			28 J	39 J	78 J	73 J
HeptaCDD homologs			37 J	372	108	380
HeptaCDF homologs			17 J	26 J	33 J	41 J
HexaCDD homologs			6.1 J	43 J	16 J	60
HexaCDF homologs			3.7 J	19 J	15 J	37 J
PentaCDD homologs			0.95 U	18 U	1.1 U	2.5 J
PentaCDF homologs			0.98 U	5.4 J	6.4 J	16 J
TetraCDD homologs			1.0 U	1.0 U	1.0 U	1.6 U
TetraCDF homologs			0.92 U	0.91 U	2.0 J	8.2 J
Total Dioxin TEQ	0.0051		2.0	3.7	2.9	6.6
Butyltins (ug/l)						
Butyltin ion			0.11 U	0.11 U	0.11 U	0.11 U
Dibutyltin ion			0.069 U	0.096 U	0.096 U	0.10 U
Tributyltin ion	0.072		0.043 U	0.043 U	0.043 U	0.043 U
Total Metals (ug/l)						
Aluminum			269	4520	3540	10900
Antimony	6		0.50 U	0.50 U	0.50 U	0.52 J
Arsenic	0.045	2	0.50 U	0.80 J	0.80 J	1.3 J
Cadmium	0.094	0.7	0.50 U	0.50 U	0.50 U	0.68 J
Chromium	100	7	2.1	23	28	128
Copper	2.7	60	3.4	13	27.3	41
Lead	0.54	50	4.3	12	8.6	29
Manganese	50		30	235	332	1390
Mercury	0.77	0.2	0.040 U	0.040 U	0.040 U	0.040 U
Nickel	16	8	0.82 J	3.0	2.6	7.1
Silver	0.12	0.1	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	36	500	37	92	74	211
Dissolved Metals (ug/l)						
Aluminum			25 U	53	84	427
Antimony	6		0.50 U	0.50 U	0.50 U	0.50 U
Arsenic	0.045	2	0.50 U	0.50 U	0.53 J	0.61 J
Cadmium	0.094	0.7	0.50 U	0.50 U	0.50 U	0.50 U
Chromium	100	7	0.50 U	2.0	0.94 J	3.2

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

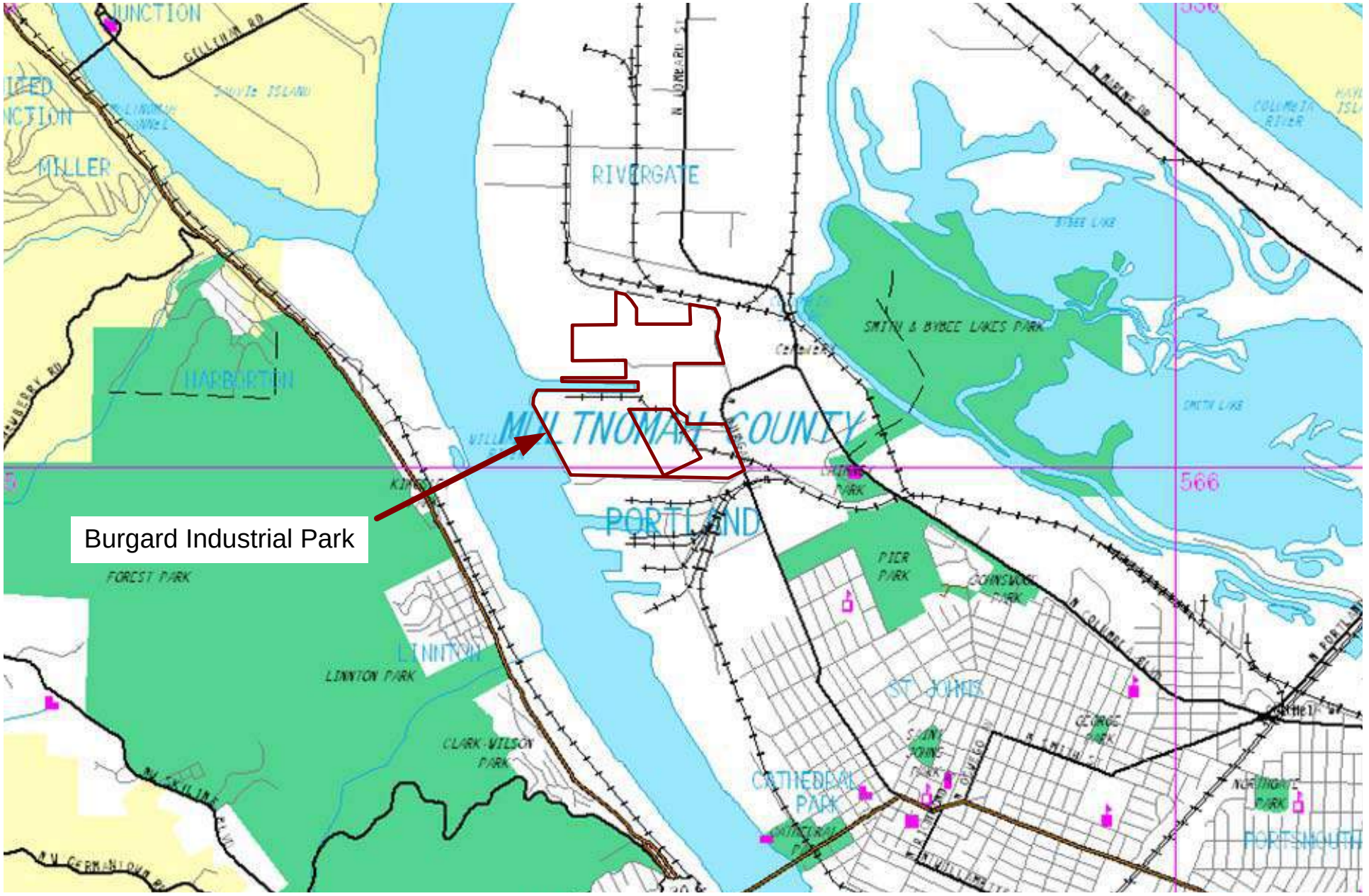
Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	Basin 21 SWP1 11/19/2012	Basin 21 SWP2 11/19/2012	Basin 21 SWP3 11/19/2012	Basin 21 SWP6 11/19/2012
Copper	2.7	60	1.3 J	2.0	6.5	3.7
Lead	0.54	50	0.50 U	0.50 U	0.5 U	1.1
Manganese	50		0.50 U	4.5	6.5	32
Mercury	0.77	0.2	0.04 U	0.04 U	0.040 U	0.040 U
Nickel	16	8	0.50 U	0.70 J	0.82 J	0.63 J
Silver	0.12	0.1	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	36	500	4.3	2.4 J	3.2 J	8.0
Pertroleum Hydrocarbons (mg/l)						
Gasoline			0.094 U	0.094 U	0.050 U	0.050 U
Diesel			0.094 U	0.15 J	0.34 J	0.67
Oil			0.22 J	1.0	2.9	8.6
TSS (mg/l)		60	9.0	262	74	520
TOC (mg/l)			4.5	9.9	7.8	17

U - Not detectet at noted detection limit
J- Estimated value
NA - Not analyzed
Blank cells indicate not analyzed

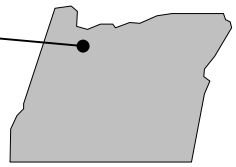
1 - Table 3-1 PH JSCS Guidance, 7/16/2007 revision
2 - October 2010, DEQ Guidance for Evaluating Stormwater Pathway at Upland Sites, Appendix E, Tool For Evaluating Stormwater Data

Detected concentration > 10 x SLV
Detected concentration > 100 x SLV
Detected concentration > 1000 x SLV

Figures



Portland, Oregon



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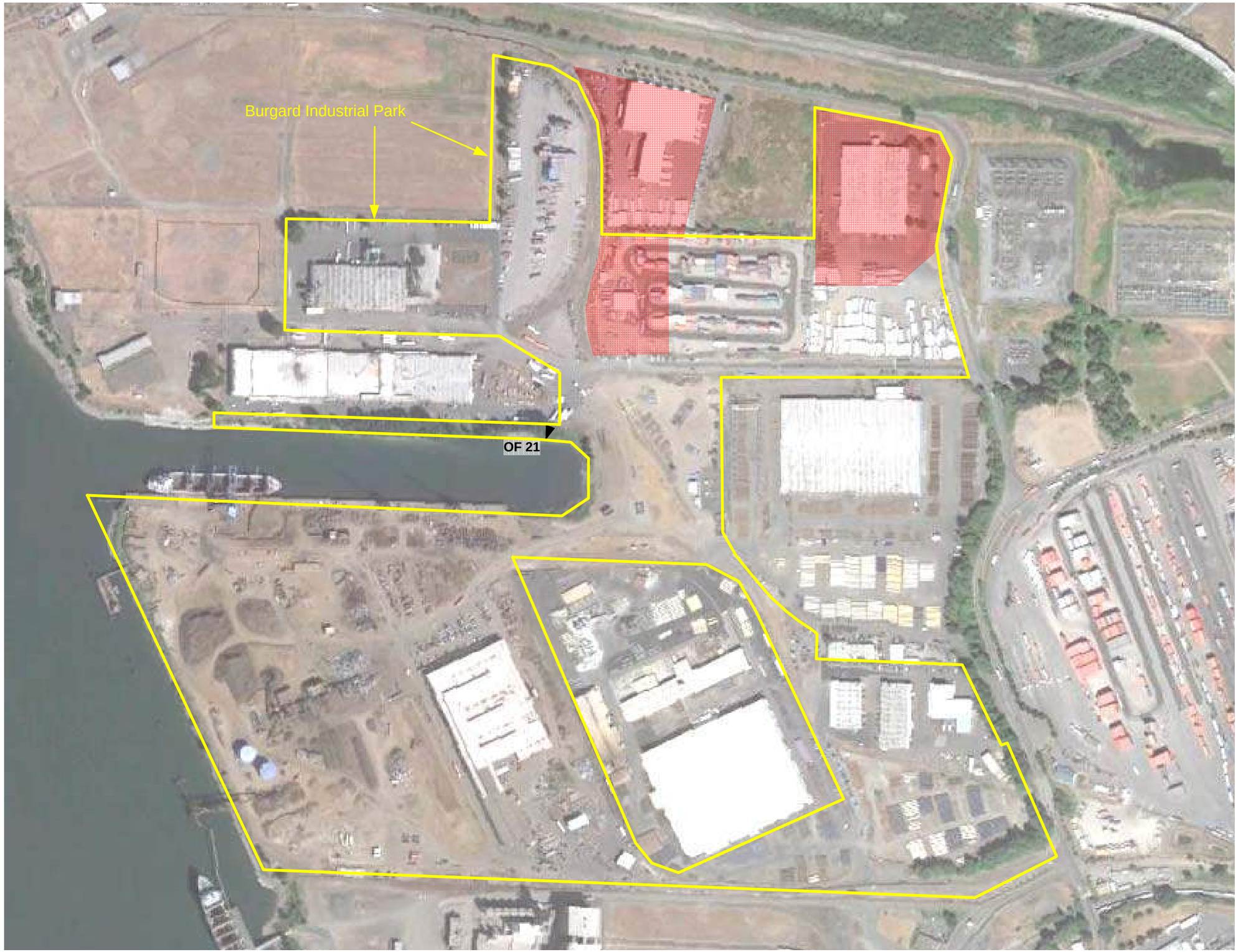
Approximate Scale

2700 feet

Figure 1
Site Location Map
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

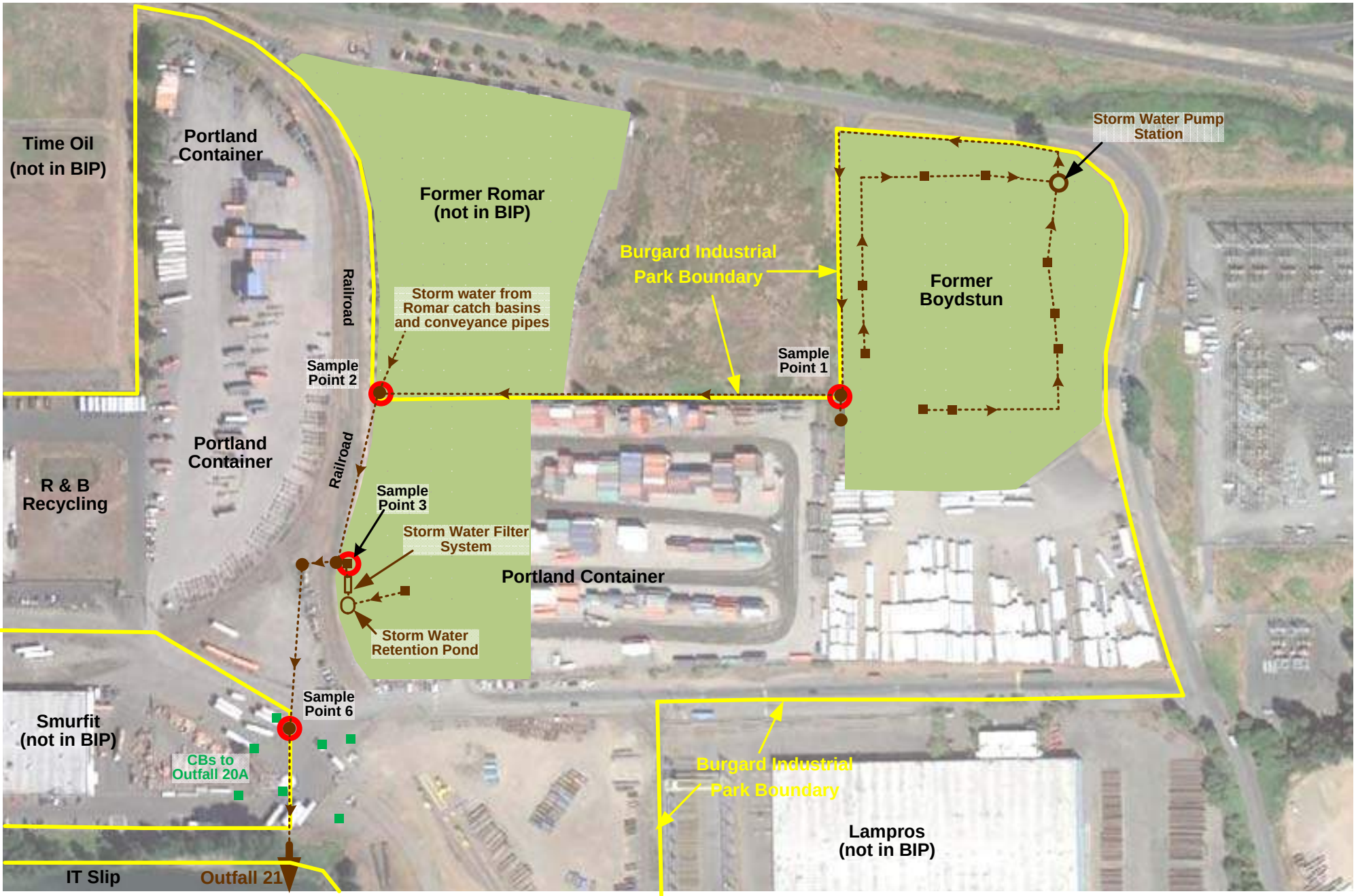


Basin 21

Base Photograph August 2012

Figure 2
Site Plan
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



Base photograph August 2012

N

Approximate Scale

250 feet

- Catch Basin
- Manhole
- Storm Water Basin 21
- Storm Water Sample Location

Figure 3
Basin 21 Storm Water Sample Locations
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

Appendix A – Analytical Laboratory Reports

Apex Labs

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Wednesday, December 19, 2012

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

RE: Schnitzer-Burgard / 8001-20

Enclosed are the results of analyses for work order A12K507, which was received by the laboratory on 11/20/2012 at 2:35:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

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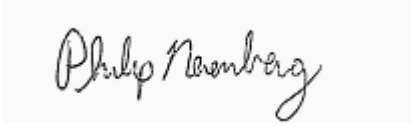

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B21-SWP1-20121119	A12K507-01	Water	11/19/12 13:40	11/20/12 14:35
B21-SWP2-20121119	A12K507-02	Water	11/19/12 14:20	11/20/12 14:35
B21-SWP3-20121119	A12K507-04	Water	11/19/12 15:20	11/20/12 14:35
B21-SWP6-20121119	A12K507-05	Water	11/19/12 16:00	11/20/12 14:35

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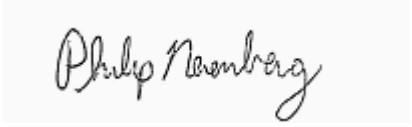

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ANALYTICAL CASE NARRATIVE

Work Order: A12K507

NWTPH-Gx in Water:

Appropriate containers (Headspace free 40 mL VOA Vials) were not received for the analysis of Gasoline by NWTPH-Gx for all 5 water samples submitted for this work order. Upon receipt in the laboratory, appropriate HCl preserved VOAs were filled with aliquots from supplied 1 Liter Amber bottles containing headspace. Results are possibly biased low due to the potential loss of volatile compounds into the headspace.

David Jack
Apex Laboratories
December 13, 2012

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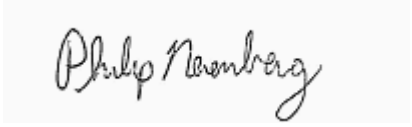

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification (HCID) Screen by NWTPH

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**		**Batch: 1211621**			
Gasoline Range Organics	ND	0.0935	0.0935	mg/L	1	11/27/12 19:25	NWTPH-HCID	
Diesel Range Organics	ND	0.234	0.234	"	"	"	"	
Oil Range Organics	ND	0.234	0.234	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**		**Batch: 1211621**			
Gasoline Range Organics	ND	0.0935	0.0935	mg/L	1	11/27/12 19:54	NWTPH-HCID	
Diesel Range Organics	ND	0.234	0.234	"	"	"	"	
Oil Range Organics	DET	0.234	0.234	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**		**Batch: 1211621**			
Gasoline Range Organics	ND	0.194	0.194	mg/L	2	11/27/12 20:51	NWTPH-HCID	
Diesel Range Organics	ND	0.485	0.485	"	"	"	"	
Oil Range Organics	DET	0.485	0.485	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211621**			
Gasoline Range Organics	ND	0.0935	0.0935	mg/L	1	11/27/12 21:19	NWTPH-HCID	
Diesel Range Organics	DET	0.234	0.234	"	"	"	"	F-15
Oil Range Organics	DET	0.234	0.234	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	

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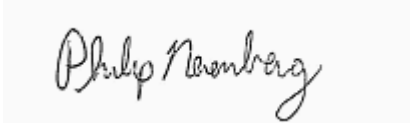

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**		**Batch: 1211621**			
Diesel	ND	0.0935	0.187	mg/L	1	11/27/12 19:25	NWTPH-Dx	
Oil	**0.221**	0.187	0.374	"	"	"	"	J
Surrogate: o-Terphenyl (Surr)			*Recovery: 101 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**		**Batch: 1211621**			
Diesel	**0.152**	0.0935	0.187	mg/L	1	11/27/12 19:54	NWTPH-Dx	J
Oil	**1.01**	0.187	0.374	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**		**Batch: 1211621**			
Diesel	**0.341**	0.194	0.388	mg/L	2	11/27/12 20:51	NWTPH-Dx	J
Oil	**2.93**	0.388	0.777	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211621**			
Diesel	**0.669**	0.0935	0.187	mg/L	1	11/27/12 21:19	NWTPH-Dx	F-15
Oil	**8.56**	0.187	0.374	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	

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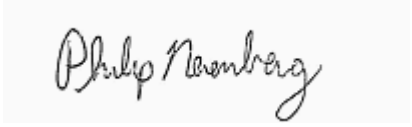

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ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**		**Batch: 1211569**			x
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/12 16:09	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 80 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*86 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**		**Batch: 1211569**			x
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/12 16:38	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 80 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*84 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**		**Batch: 1211569**			x
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/12 17:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 83 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*88 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211569**			x
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/12 17:36	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*89 %*	*Limits: 50-150 %*	"	"	"	

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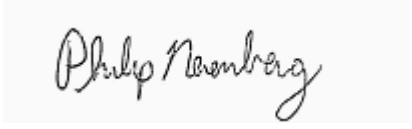

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**		**Batch: 1211588**			**C-07**
Aroclor 1016	ND	0.0215	0.0215	ug/L	1	11/27/12 12:56	EPA 8082A	
Aroclor 1221	ND	0.0215	0.0215	"	"	"	"	
Aroclor 1232	ND	0.0215	0.0215	"	"	"	"	
Aroclor 1242	ND	0.0215	0.0215	"	"	"	"	
Aroclor 1248	ND	0.0215	0.0215	"	"	"	"	
Aroclor 1254	ND	0.0215	0.0215	"	"	"	"	
Aroclor 1260	ND	0.0215	0.0215	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 40-120 %*	"	"	"	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**		**Batch: 1211588**			**C-07**
Aroclor 1016	ND	0.0426	0.0426	ug/L	1	11/27/12 13:21	EPA 8082A	
Aroclor 1221	ND	0.0426	0.0426	"	"	"	"	
Aroclor 1232	ND	0.0426	0.0426	"	"	"	"	
Aroclor 1242	ND	0.0426	0.0426	"	"	"	"	
Aroclor 1248	ND	0.0426	0.0426	"	"	"	"	
Aroclor 1254	ND	0.0426	0.0426	"	"	"	"	
Aroclor 1260	ND	0.0426	0.0426	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 81 %*	*Limits: 40-120 %*	"	"	"	
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**		**Batch: 1211588**			**C-07**
Aroclor 1016	ND	0.0430	0.0430	ug/L	1	11/27/12 13:39	EPA 8082A	
Aroclor 1221	ND	0.0430	0.0430	"	"	"	"	
Aroclor 1232	ND	0.0430	0.0430	"	"	"	"	
Aroclor 1242	ND	0.0430	0.0430	"	"	"	"	
Aroclor 1248	ND	0.0430	0.0430	"	"	"	"	
Aroclor 1254	ND	0.0430	0.0430	"	"	"	"	
Aroclor 1260	ND	0.0430	0.0430	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 70 %*	*Limits: 40-120 %*	"	"	"	
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211588**			**C-07**
Aroclor 1016	ND	0.0208	0.0417	ug/L	1	11/27/12 13:57	EPA 8082A	
Aroclor 1221	ND	0.0208	0.0417	"	"	"	"	
Aroclor 1232	ND	0.0208	0.0417	"	"	"	"	
Aroclor 1242	**0.0212**	0.0208	0.0417	"	"	"	"	J
Aroclor 1248	ND	0.0208	0.0417	"	"	"	"	
Aroclor 1254	**0.0587**	0.0208	0.0417	"	"	"	"	EST
Aroclor 1260	**0.0470**	0.0208	0.0417	"	"	"	"	EST

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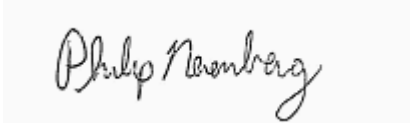

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211588**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 73 %*	*Limits: 40-120 %*	1	"	EPA 8082A	

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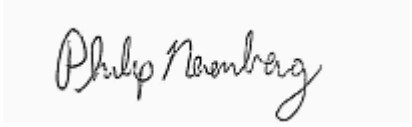

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**		**Batch: 1211558**			
Aldrin	ND	0.0187	0.0561	ug/L	2	11/30/12 16:24	EPA 8081B	
alpha-BHC	ND	0.0187	0.0561	"	"	"	"	
beta-BHC	ND	0.0187	0.0561	"	"	"	"	
delta-BHC	ND	0.0187	0.0561	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0187	0.0561	"	"	"	"	
cis-Chlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Chlordane	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
4,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Dieldrin	ND	0.0187	0.0561	"	"	"	"	
Endosulfan I	ND	0.0187	0.0561	"	"	"	"	
Endosulfan II	ND	0.0187	0.0561	"	"	"	"	
Endosulfan sulfate	ND	0.0187	0.0561	"	"	"	"	
Endrin	ND	0.0187	0.0561	"	"	"	"	
Endrin Aldehyde	ND	0.0187	0.0561	"	"	"	"	
Endrin ketone	ND	0.0187	0.0561	"	"	"	"	
Heptachlor	ND	0.0187	0.0561	"	"	"	"	
Heptachlor epoxide	ND	0.0187	0.0561	"	"	"	"	
Methoxychlor	ND	0.0748	0.150	"	"	"	"	
Chlordane (Technical)	ND	0.187	0.701	"	"	"	"	
Toxaphene (Total)	ND	0.187	1.87	"	"	"	"	
cis-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDD	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDE	ND	0.0187	0.0561	"	"	"	"	
2,4'-DDT	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobenzene	ND	0.0187	0.0561	"	"	"	"	
Hexachlorobutadiene	ND	0.0187	0.0561	"	"	"	"	
Mirex	ND	0.0187	0.0561	"	"	"	"	
Oxychlordane	ND	0.0187	0.0561	"	"	"	"	
trans-Nonachlor	ND	0.0187	0.0561	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 86 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*94 %*	*Limits: 55-130 %*	"	"	"	

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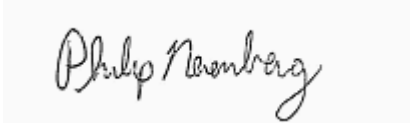

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ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**		**Batch: 1211558**			
Aldrin	ND	0.0467	0.140	ug/L	5	11/30/12 16:42	EPA 8081B	R-02
alpha-BHC	ND	0.0467	0.140	"	"	"	"	R-02
beta-BHC	ND	0.0467	0.140	"	"	"	"	R-02
delta-BHC	ND	0.0467	0.140	"	"	"	"	R-02
gamma-BHC (Lindane)	ND	0.0467	0.140	"	"	"	"	R-02
cis-Chlordane	ND	0.0467	0.140	"	"	"	"	R-02
trans-Chlordane	ND	0.0467	0.140	"	"	"	"	R-02
4,4'-DDD	ND	0.0467	0.140	"	"	"	"	R-02
4,4'-DDE	ND	0.0467	0.140	"	"	"	"	R-02
4,4'-DDT	ND	0.0467	0.140	"	"	"	"	R-02
Dieldrin	ND	0.0467	0.140	"	"	"	"	R-02
Endosulfan I	ND	0.0467	0.140	"	"	"	"	R-02
Endosulfan II	ND	0.0467	0.140	"	"	"	"	R-02
Endosulfan sulfate	ND	0.0467	0.140	"	"	"	"	R-02
Endrin	ND	0.0467	0.140	"	"	"	"	R-02
Endrin Aldehyde	ND	0.0467	0.140	"	"	"	"	R-02
Endrin ketone	ND	0.0467	0.140	"	"	"	"	R-02
Heptachlor	ND	0.0467	0.140	"	"	"	"	R-02
Heptachlor epoxide	ND	0.0467	0.140	"	"	"	"	R-02
Methoxychlor	ND	0.187	0.374	"	"	"	"	R-02
Chlordane (Technical)	ND	0.467	1.75	"	"	"	"	R-02
Toxaphene (Total)	ND	0.467	4.67	"	"	"	"	R-02
cis-Nonachlor	ND	0.0467	0.140	"	"	"	"	R-02
2,4'-DDD	ND	0.0467	0.140	"	"	"	"	R-02
2,4'-DDE	**0.0701**	0.0467	0.140	"	"	"	"	J, R-02
2,4'-DDT	ND	0.0467	0.140	"	"	"	"	R-02
Hexachlorobenzene	ND	0.0467	0.140	"	"	"	"	R-02
Hexachlorobutadiene	ND	0.0467	0.140	"	"	"	"	R-02
Mirex	ND	0.0467	0.140	"	"	"	"	R-02
Oxychlordane	ND	0.0467	0.140	"	"	"	"	R-02
trans-Nonachlor	ND	0.0467	0.140	"	"	"	"	R-02
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 92 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*91 %*	*Limits: 55-130 %*	"	"	"	

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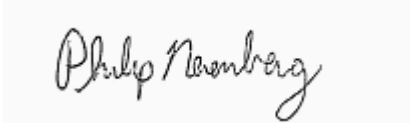

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**		**Batch: 1211558**			
Aldrin	ND	0.0194	0.0583	ug/L	2	11/30/12 17:00	EPA 8081B	
alpha-BHC	ND	0.0194	0.0583	"	"	"	"	
beta-BHC	ND	0.0194	0.0583	"	"	"	"	
delta-BHC	ND	0.0194	0.0583	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0194	0.0583	"	"	"	"	
cis-Chlordane	ND	0.0194	0.0583	"	"	"	"	
trans-Chlordane	ND	0.0194	0.0583	"	"	"	"	
4,4'-DDD	ND	0.0194	0.0583	"	"	"	"	
4,4'-DDE	ND	0.0194	0.0583	"	"	"	"	
4,4'-DDT	ND	0.0194	0.0583	"	"	"	"	
Dieldrin	ND	0.0194	0.0583	"	"	"	"	
Endosulfan I	ND	0.0194	0.0583	"	"	"	"	
Endosulfan II	ND	0.0194	0.0583	"	"	"	"	
Endosulfan sulfate	ND	0.0194	0.0583	"	"	"	"	
Endrin	ND	0.0194	0.0583	"	"	"	"	
Endrin Aldehyde	ND	0.0194	0.0583	"	"	"	"	
Endrin ketone	ND	0.0194	0.0583	"	"	"	"	
Heptachlor	ND	0.0194	0.0583	"	"	"	"	
Heptachlor epoxide	ND	0.0194	0.0583	"	"	"	"	
Methoxychlor	ND	0.0777	0.155	"	"	"	"	
Chlordane (Technical)	ND	0.194	0.728	"	"	"	"	
Toxaphene (Total)	ND	0.194	1.94	"	"	"	"	
cis-Nonachlor	ND	0.0194	0.0583	"	"	"	"	
2,4'-DDD	ND	0.0194	0.0583	"	"	"	"	
2,4'-DDE	ND	0.0194	0.0583	"	"	"	"	
2,4'-DDT	ND	0.0194	0.0583	"	"	"	"	
Hexachlorobenzene	ND	0.0194	0.0583	"	"	"	"	
Hexachlorobutadiene	ND	0.0194	0.0583	"	"	"	"	
Mirex	ND	0.0194	0.0583	"	"	"	"	
Oxychlordane	ND	0.0194	0.0583	"	"	"	"	
trans-Nonachlor	ND	0.0194	0.0583	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 79 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*92 %*	*Limits: 55-130 %*	"	"	"	

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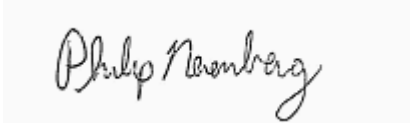

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211558**			
Aldrin	ND	0.0467	0.140	ug/L	5	11/30/12 17:17	EPA 8081B	R-02
alpha-BHC	ND	0.0467	0.140	"	"	"	"	R-02
beta-BHC	ND	0.0467	0.140	"	"	"	"	R-02
delta-BHC	ND	0.0467	0.140	"	"	"	"	R-02
gamma-BHC (Lindane)	ND	0.0467	0.140	"	"	"	"	R-02
cis-Chlordane	ND	0.0467	0.140	"	"	"	"	R-02
trans-Chlordane	ND	0.0467	0.140	"	"	"	"	R-02
4,4'-DDD	ND	0.0467	0.140	"	"	"	"	R-02
4,4'-DDE	ND	0.0467	0.140	"	"	"	"	R-02
4,4'-DDT	ND	0.0467	0.140	"	"	"	"	R-02
Dieldrin	ND	0.0467	0.140	"	"	"	"	R-02
Endosulfan I	ND	0.0467	0.140	"	"	"	"	R-02
Endosulfan II	ND	0.0467	0.140	"	"	"	"	R-02
Endosulfan sulfate	ND	0.0467	0.140	"	"	"	"	R-02
Endrin	ND	0.0467	0.140	"	"	"	"	R-02
Endrin Aldehyde	ND	0.0467	0.140	"	"	"	"	R-02
Endrin ketone	ND	0.0467	0.140	"	"	"	"	R-02
Heptachlor	ND	0.0467	0.140	"	"	"	"	R-02
Heptachlor epoxide	ND	0.0467	0.140	"	"	"	"	R-02
Methoxychlor	ND	0.187	0.374	"	"	"	"	R-02
Chlordane (Technical)	ND	0.467	1.75	"	"	"	"	R-02
Toxaphene (Total)	ND	0.467	4.67	"	"	"	"	R-02
cis-Nonachlor	ND	0.0467	0.140	"	"	"	"	R-02
2,4'-DDD	ND	0.0467	0.140	"	"	"	"	R-02
2,4'-DDE	ND	0.0467	0.140	"	"	"	"	R-02
2,4'-DDT	ND	0.0467	0.140	"	"	"	"	R-02
Hexachlorobenzene	ND	0.0467	0.140	"	"	"	"	R-02
Hexachlorobutadiene	ND	0.0467	0.140	"	"	"	"	R-02
Mirex	ND	0.0467	0.140	"	"	"	"	R-02
Oxychlordane	ND	0.0467	0.140	"	"	"	"	R-02
trans-Nonachlor	ND	0.0467	0.140	"	"	"	"	R-02
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 89 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*92 %*	*Limits: 55-130 %*	"	"	"	

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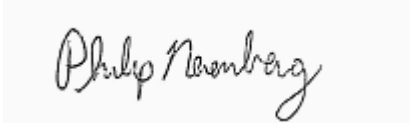

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01RE2)			**Matrix: Water**		**Batch: 1211589**			
Acenaphthene	ND	0.00935	0.0187	ug/L	1	11/27/12 19:23	EPA 8270D P/P	
Acenaphthylene	ND	0.00935	0.0187	"	"	"	"	
Anthracene	ND	0.00935	0.0187	"	"	"	"	
Benz(a)anthracene	**0.0121**	0.00935	0.0187	"	"	"	"	J
Benzo(a)pyrene	**0.0261**	0.0140	0.0280	"	"	"	"	J
Benzo(b)fluoranthene	**0.0316**	0.0140	0.0280	"	"	"	"	
Benzo(k)fluoranthene	**0.0147**	0.0140	0.0280	"	"	"	"	J
Benzo(g,h,i)perylene	**0.0174**	0.00935	0.0187	"	"	"	"	J
Chrysene	**0.0180**	0.00935	0.0187	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.00935	0.0187	"	"	"	"	
Fluoranthene	**0.0264**	0.00935	0.0187	"	"	"	"	
Fluorene	**0.0123**	0.00935	0.0187	"	"	"	"	J
Indeno(1,2,3-cd)pyrene	**0.0117**	0.00935	0.0187	"	"	"	"	J
1-Methylnaphthalene	ND	0.0187	0.0374	"	"	"	"	
2-Methylnaphthalene	ND	0.0187	0.0374	"	"	"	"	
Naphthalene	**0.0263**	0.0187	0.0374	"	"	"	"	J, B
Phenanthrene	**0.0295**	0.00935	0.0187	"	"	"	"	
Pyrene	**0.0260**	0.00935	0.0187	"	"	"	"	
Carbazole	ND	0.0140	0.0280	"	"	"	"	
Dibenzofuran	**0.0139**	0.00935	0.0187	"	"	"	"	J
Bis(2-ethylhexyl)phthalate	ND	1.03	2.06	"	"	"	"	
Butyl benzyl phthalate	ND	1.40	2.80	"	"	"	"	
Diethylphthalate	ND	1.40	2.80	"	"	"	"	
Dimethylphthalate	ND	1.40	2.80	"	"	"	"	
Di-n-butylphthalate	ND	1.40	2.80	"	"	"	"	
Di-n-octyl phthalate	ND	1.40	2.80	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery: 81 %*	*Limits: 35-120 %*	"	"	"		
2-Fluorobiphenyl (Surr)		*75 %*	*Limits: 30-120 %*	"	"	"		
p-Terphenyl-d14 (Surr)		*83 %*	*Limits: 50-125 %*	"	"	"		

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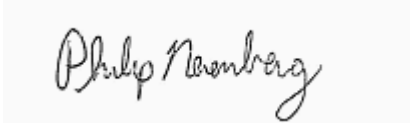

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP2-20121119 (A12K507-02RE2)			**Matrix: Water**		**Batch: 1211589**			
Acenaphthene	ND	0.0374	0.0748	ug/L	4	11/27/12 18:47	EPA 8270D P/P	
Acenaphthylene	ND	0.0374	0.0748	"	"	"	"	
Anthracene	ND	0.0374	0.0748	"	"	"	"	
Benz(a)anthracene	**0.0383**	0.0374	0.0748	"	"	"	"	J
Benzo(a)pyrene	**0.0932**	0.0561	0.112	"	"	"	"	J
Benzo(b)fluoranthene	**0.126**	0.0561	0.112	"	"	"	"	
Benzo(k)fluoranthene	ND	0.0561	0.112	"	"	"	"	
Benzo(g,h,i)perylene	**0.0743**	0.0374	0.0748	"	"	"	"	J
Chrysene	**0.0838**	0.0374	0.0748	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0374	0.0748	"	"	"	"	
Fluoranthene	**0.0855**	0.0374	0.0748	"	"	"	"	
Fluorene	ND	0.0374	0.0748	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0374	0.0748	"	"	"	"	
1-Methylnaphthalene	ND	0.0748	0.150	"	"	"	"	
2-Methylnaphthalene	ND	0.0748	0.150	"	"	"	"	
Naphthalene	ND	0.0748	0.150	"	"	"	"	
Phenanthrene	**0.0519**	0.0374	0.0748	"	"	"	"	J
Pyrene	**0.118**	0.0374	0.0748	"	"	"	"	
Carbazole	ND	0.0561	0.112	"	"	"	"	
Dibenzofuran	ND	0.0374	0.0748	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.11	8.22	"	"	"	"	
Butyl benzyl phthalate	ND	5.61	11.2	"	"	"	"	
Diethylphthalate	ND	5.61	11.2	"	"	"	"	
Dimethylphthalate	ND	5.61	11.2	"	"	"	"	
Di-n-butylphthalate	ND	5.61	11.2	"	"	"	"	
Di-n-octyl phthalate	ND	5.61	11.2	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 59 %*	*Limits: 35-120 %*	"	"	"	*Q-23*
2-Fluorobiphenyl (Surr)			*60 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*92 %*	*Limits: 50-125 %*	"	"	"	

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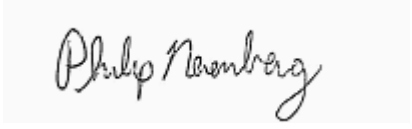

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20121119 (A12K507-04RE1)			**Matrix: Water**		**Batch: 1211589**			**R-04**
Acenaphthene	ND	0.0385	0.0769	ug/L	4	11/26/12 20:34	EPA 8270D P/P	
Acenaphthylene	ND	0.0385	0.0769	"	"	"	"	
Anthracene	ND	0.0385	0.0769	"	"	"	"	
Benz(a)anthracene	ND	0.0385	0.0769	"	"	"	"	
Benzo(a)pyrene	ND	0.115	0.115	"	"	"	"	
Benzo(b)fluoranthene	**0.0880**	0.0577	0.115	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.0577	0.115	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.0769	0.0769	"	"	"	"	
Chrysene	ND	0.0385	0.0769	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0385	0.0769	"	"	"	"	
Fluoranthene	**0.0417**	0.0385	0.0769	"	"	"	"	J
Fluorene	ND	0.0385	0.0769	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0385	0.0769	"	"	"	"	
1-Methylnaphthalene	ND	0.0769	0.154	"	"	"	"	
2-Methylnaphthalene	ND	0.0769	0.154	"	"	"	"	
Naphthalene	ND	0.0769	0.154	"	"	"	"	
Phenanthrene	ND	0.0385	0.0769	"	"	"	"	
Pyrene	**0.0755**	0.0385	0.0769	"	"	"	"	J
Carbazole	ND	0.0577	0.115	"	"	"	"	
Dibenzofuran	ND	0.0385	0.0769	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.23	8.46	"	"	"	"	
Butyl benzyl phthalate	ND	5.77	11.5	"	"	"	"	
Diethylphthalate	ND	5.77	11.5	"	"	"	"	
Dimethylphthalate	ND	5.77	11.5	"	"	"	"	
Di-n-butylphthalate	ND	5.77	11.5	"	"	"	"	
Di-n-octyl phthalate	ND	5.77	11.5	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 82 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*74 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 50-125 %*	"	"	"	

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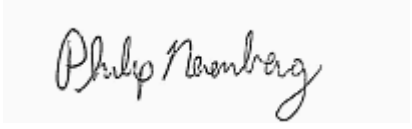

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**		**Batch: 1211589**			
Acenaphthene	ND	0.0935	0.187	ug/L	10	11/26/12 15:09	EPA 8270D P/P	
Acenaphthylene	ND	0.0935	0.187	"	"	"	"	
Anthracene	ND	0.0935	0.187	"	"	"	"	
Benz(a)anthracene	**0.102**	0.0935	0.187	"	"	"	"	J
Benzo(a)pyrene	**0.229**	0.140	0.280	"	"	"	"	J
Benzo(b)fluoranthene	**0.282**	0.140	0.280	"	"	"	"	
Benzo(k)fluoranthene	ND	0.140	0.280	"	"	"	"	
Benzo(g,h,i)perylene	**0.233**	0.0935	0.187	"	"	"	"	
Chrysene	**0.188**	0.0935	0.187	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0935	0.187	"	"	"	"	
Fluoranthene	**0.185**	0.0935	0.187	"	"	"	"	J
Fluorene	ND	0.0935	0.187	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**0.108**	0.0935	0.187	"	"	"	"	J
1-Methylnaphthalene	ND	0.187	0.374	"	"	"	"	
2-Methylnaphthalene	ND	0.187	0.374	"	"	"	"	
Naphthalene	ND	0.187	0.374	"	"	"	"	
Phenanthrene	ND	0.0935	0.187	"	"	"	"	
Pyrene	**0.287**	0.0935	0.187	"	"	"	"	
Carbazole	ND	0.140	0.280	"	"	"	"	
Dibenzofuran	ND	0.0935	0.187	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.3	20.6	"	"	"	"	
Butyl benzyl phthalate	ND	14.0	28.0	"	"	"	"	
Diethylphthalate	ND	14.0	28.0	"	"	"	"	
Dimethylphthalate	ND	14.0	28.0	"	"	"	"	
Di-n-butylphthalate	ND	14.0	28.0	"	"	"	"	
Di-n-octyl phthalate	ND	14.0	28.0	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 75 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*70 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*82 %*	*Limits: 50-125 %*	"	"	"	

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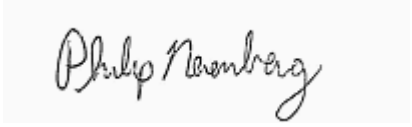

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**					
Batch: 1212041								
Aluminum	**269**	25.0	50.0	ug/L	1	12/06/12 12:00	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**2.08**	0.500	2.00	"	"	"	"	
Copper	**3.41**	1.00	2.00	"	"	"	"	
Lead	**4.31**	0.500	1.00	"	"	"	"	
Manganese	**30.4**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.822**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**36.7**	2.00	4.00	"	"	"	"	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**					
Batch: 1212041								
Aluminum	**4520**	25.0	50.0	ug/L	1	12/06/12 12:03	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.800**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**23.3**	0.500	2.00	"	"	"	"	
Copper	**12.7**	1.00	2.00	"	"	"	"	
Lead	**11.8**	0.500	1.00	"	"	"	"	
Manganese	**235**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**3.00**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**92.4**	2.00	4.00	"	"	"	"	
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**					
Batch: 1212041								
Aluminum	**3540**	25.0	50.0	ug/L	1	12/06/12 12:06	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.800**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**27.8**	0.500	2.00	"	"	"	"	
Copper	**27.3**	1.00	2.00	"	"	"	"	

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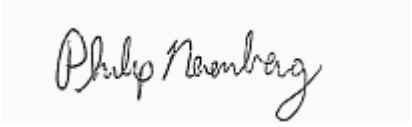

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**					
Lead	**8.60**	0.500	1.00	ug/L	1	"	EPA 6020A	
Manganese	**332**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**2.56**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**73.5**	2.00	4.00	"	"	"	"	
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**					
Batch: 1212041								
Aluminum	**10900**	25.0	50.0	ug/L	1	12/06/12 12:09	EPA 6020A	
Antimony	**0.522**	0.500	1.00	"	"	"	"	J
Arsenic	**1.34**	0.500	2.00	"	"	"	"	J
Cadmium	**0.678**	0.500	1.00	"	"	"	"	J
Chromium	**128**	0.500	2.00	"	"	"	"	
Copper	**40.6**	1.00	2.00	"	"	"	"	
Lead	**29.2**	0.500	1.00	"	"	"	"	
Manganese	**1390**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**7.07**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**211**	2.00	4.00	"	"	"	"	

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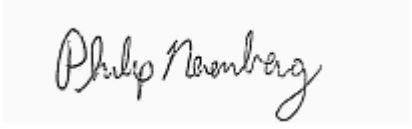

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**					
Batch: 1211669								
Aluminum	ND	25.0	50.0	ug/L	1	11/29/12 11:10	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	**1.34**	1.00	2.00	"	"	"	"	J
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	ND	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	ND	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**4.32**	2.00	4.00	"	"	"	"	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**					
Batch: 1211669								
Aluminum	**53.3**	25.0	50.0	ug/L	1	11/29/12 11:17	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	2.00	"	"	"	"	
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**2.04**	0.500	2.00	"	"	"	"	
Copper	**2.04**	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**4.48**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.700**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**2.39**	2.00	4.00	"	"	"	"	J
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**					
Batch: 1211669								
Aluminum	**84.4**	25.0	50.0	ug/L	1	11/29/12 11:20	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.533**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**0.944**	0.500	2.00	"	"	"	"	J
Copper	**6.50**	1.00	2.00	"	"	"	"	

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**					
Lead	ND	0.500	1.00	ug/L	1	"	EPA 6020A (Diss)	
Manganese	**6.46**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.822**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**3.21**	2.00	4.00	"	"	"	"	J
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**					
Batch: 1211669								
Aluminum	**427**	25.0	50.0	ug/L	1	11/29/12 11:26	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.611**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**3.19**	0.500	2.00	"	"	"	"	
Copper	**3.68**	1.00	2.00	"	"	"	"	
Lead	**1.09**	0.500	1.00	"	"	"	"	
Manganese	**31.5**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.633**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**7.99**	2.00	4.00	"	"	"	"	

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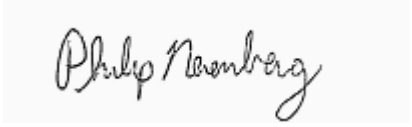

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20121119 (A12K507-01)			**Matrix: Water**					
Batch: 1211600								
Total Suspended Solids	**9.00**	5.00	5.00	mg/L	1	11/26/12 16:05	SM 2540 D	
Batch: 1212014								
Total Organic Carbon	**4.52**	1.11	2.22	"	"	12/03/12 14:07	SM 5310 B	
B21-SWP2-20121119 (A12K507-02)			**Matrix: Water**					
Batch: 1211600								
Total Suspended Solids	**262**	5.00	5.00	mg/L	1	11/26/12 16:05	SM 2540 D	
Batch: 1212014								
Total Organic Carbon	**9.84**	1.11	2.22	"	"	12/03/12 14:36	SM 5310 B	
B21-SWP3-20121119 (A12K507-04)			**Matrix: Water**					
Batch: 1211600								
Total Suspended Solids	**74.0**	5.00	5.00	mg/L	1	11/26/12 16:05	SM 2540 D	
Batch: 1212014								
Total Organic Carbon	**7.83**	1.11	2.22	"	"	12/03/12 14:52	SM 5310 B	
B21-SWP6-20121119 (A12K507-05)			**Matrix: Water**					
Batch: 1211600								
Total Suspended Solids	**520**	10.0	10.0	mg/L	1	11/26/12 16:05	SM 2540 D	
Batch: 1212014								
Total Organic Carbon	**16.9**	1.11	2.22	"	"	12/03/12 15:25	SM 5310 B	

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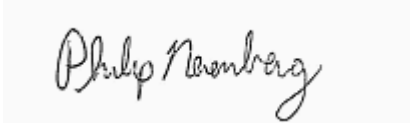

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification (HCID) Screen by NWTPH

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211621 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1211621-BLK1)						Prepared: 11/27/12 07:33 Analyzed: 11/27/12 17:59						
NWTPH-HCID												
Gasoline Range Organics	ND	0.0909	0.0909	mg/L	1	---	---	---	---	---	---	
Diesel Range Organics	ND	0.227	0.227	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	0.227	0.227	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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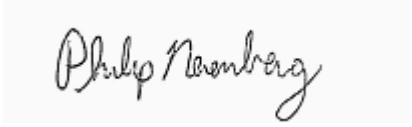

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211621 - EPA 3510C (Acid Extraction)									**Water**			
Blank (1211621-BLK1)					Prepared: 11/27/12 07:33 Analyzed: 11/27/12 17:59							
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	"	---	---	---	---	---	---	
Oil	ND	0.182	0.364	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 103 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS (1211621-BS1)					Prepared: 11/27/12 07:33 Analyzed: 11/27/12 18:27							
NWTPH-Dx												
Diesel	0.975	0.100	0.200	mg/L	1	1.25	---	78	70-130%	---	---	
Oil	1.28	0.200	0.400	"	"	"	---	102	"	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 101 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS Dup (1211621-BSD1)					Prepared: 11/27/12 07:33 Analyzed: 11/27/12 18:56							**Q-19**
NWTPH-Dx												
Diesel	1.03	0.100	0.200	mg/L	1	1.25	---	83	70-130%	6	20%	
Oil	1.30	0.200	0.400	"	"	"	---	104	"	1	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 106 %*	*Limits: 50-150 %*		*Dilution: 1x*						

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211569 - EPA 5030B									Water			
Blank (1211569-BLK1)					Prepared: 11/21/12 10:00 Analyzed: 11/21/12 12:46							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 83 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*87 %*		*50-150 %*				*"*			
LCS (1211569-BS2)					Prepared: 11/21/12 10:00 Analyzed: 11/21/12 12:17							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.371	0.0500	0.100	mg/L	1	0.500	---	74	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 83 %*		*Limits: 50-150 %*				*Dilution: 1x*			
1,4-Difluorobenzene (Sur)			*90 %*		*50-150 %*				*"*			

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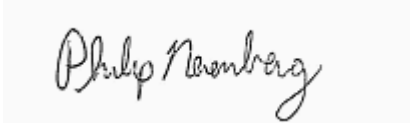

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211588 - EPA 3510C (Neutral pH)							**Water**					
Blank (1211588-BLK1)					Prepared: 11/26/12 07:16 Analyzed: 11/27/12 11:45							**C-07**
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 78 %*	*Limits: 40-120 %*		*Dilution: 1x*						
LCS (1211588-BS1)					Prepared: 11/26/12 07:16 Analyzed: 11/27/12 12:03							**C-07**
EPA 8082A												
Aroclor 1016	0.934	0.0100	0.0200	ug/L	1	1.25	---	75	40-140%	---	---	
Aroclor 1260	0.850	0.0100	0.0200	"	"	"	---	68	"	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 40-120 %*		*Dilution: 1x*						
LCS Dup (1211588-BSD1)					Prepared: 11/26/12 07:16 Analyzed: 11/27/12 12:21							**C-07, Q-19**
EPA 8082A												
Aroclor 1016	0.971	0.0100	0.0200	ug/L	1	1.25	---	78	40-140%	4	30%	
Aroclor 1260	0.910	0.0100	0.0200	"	"	"	---	73	"	7	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 89 %*	*Limits: 40-120 %*		*Dilution: 1x*						

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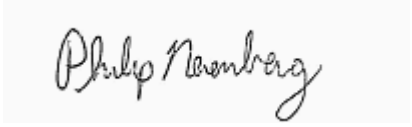

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211558 - EPA 3510C (Neutral pH)							**Water**					
Blank (1211558-BLK1)					Prepared: 11/21/12 08:11 Analyzed: 11/29/12 13:50							
EPA 8081B												
Aldrin	ND	0.0182	0.0545	ug/L	2	---	---	---	---	---	---	
alpha-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin ketone	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	Q-31
Heptachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.0727	0.145	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.182	0.682	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.182	1.82	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	Q-31
Hexachlorobenzene	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Mirex	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Oxychlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
trans-Nonachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	

Surr: 2,4,5,6-TCMX (Surr) *Recovery: 72 %* *Limits: 25-140 %* *Dilution: 2x*

Decachlorobiphenyl (Surr) *88 %* *55-130 %* *"*

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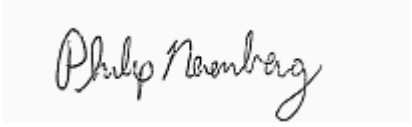

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211558 - EPA 3510C (Neutral pH)							**Water**					
LCS (1211558-BS1)					Prepared: 11/21/12 08:11 Analyzed: 11/29/12 14:07							
EPA 8081B												
Aldrin	1.61	0.0200	0.0600	ug/L	2	2.00	---	81	25-140%	---	---	
alpha-BHC	1.85	0.0200	0.0600	"	"	"	---	93	60-130%	---	---	
beta-BHC	1.86	0.0200	0.0600	"	"	"	---	93	65-125%	---	---	
delta-BHC	1.93	0.0200	0.0600	"	"	"	---	96	45-135%	---	---	
gamma-BHC (Lindane)	1.89	0.0200	0.0600	"	"	"	---	94	25-135%	---	---	
cis-Chlordane	1.77	0.0200	0.0600	"	"	"	---	88	65-125%	---	---	
trans-Chlordane	1.77	0.0200	0.0600	"	"	"	---	89	60-125%	---	---	
4,4'-DDD	1.76	0.0200	0.0600	"	"	"	---	88	25-150%	---	---	
4,4'-DDE	1.75	0.0200	0.0600	"	"	"	---	88	35-140%	---	---	
4,4'-DDT	1.71	0.0200	0.0600	"	"	"	---	86	45-140%	---	---	
Dieldrin	1.86	0.0200	0.0600	"	"	"	---	93	60-130%	---	---	
Endosulfan I	1.78	0.0200	0.0600	"	"	"	---	89	50-110%	---	---	
Endosulfan II	1.91	0.0200	0.0600	"	"	"	---	95	30-130%	---	---	
Endosulfan sulfate	1.86	0.0200	0.0600	"	"	"	---	93	55-135%	---	---	
Endrin	1.90	0.0200	0.0600	"	"	"	---	95	"	---	---	
Endrin Aldehyde	1.92	0.0200	0.0600	"	"	"	---	96	"	---	---	
Endrin ketone	1.63	0.0200	0.0600	"	"	"	---	82	75-125%	---	---	Q-31
Heptachlor	1.75	0.0200	0.0600	"	"	"	---	88	40-130%	---	---	Q-23
Heptachlor epoxide	1.81	0.0200	0.0600	"	"	"	---	90	60-130%	---	---	
Methoxychlor	1.73	0.0800	0.160	"	"	"	---	86	55-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 69 %*		*Limits: 25-140 %*				*Dilution: 2x*			
Decachlorobiphenyl (Surr)			*82 %*		*55-130 %*				*"*			
LCS (1211558-BS2)					Prepared: 11/21/12 08:12 Analyzed: 11/29/12 14:43							
EPA 8081B												
cis-Nonachlor	2.24	0.0200	0.0600	ug/L	2	2.50	---	89	50-150%	---	---	
2,4'-DDD	2.03	0.0200	0.0600	"	"	"	---	81	30-135%	---	---	
2,4'-DDE	2.12	0.0200	0.0600	"	"	"	---	85	50-140%	---	---	
2,4'-DDT	1.93	0.0200	0.0600	"	"	"	---	77	45-140%	---	---	Q-31
Hexachlorobenzene	1.97	0.0200	0.0600	"	"	"	---	79	50-150%	---	---	
Hexachlorobutadiene	1.18	0.0200	0.0600	"	"	"	---	47	"	---	---	Q-01
Mirex	1.91	0.0200	0.0600	"	"	"	---	77	"	---	---	
Oxychlordane	2.11	0.0200	0.0600	"	"	"	---	84	"	---	---	
trans-Nonachlor	2.06	0.0200	0.0600	"	"	"	---	82	"	---	---	

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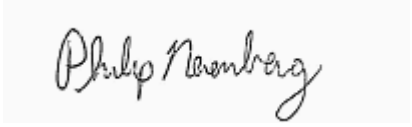

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211558 - EPA 3510C (Neutral pH)								**Water**				
LCS (1211558-BS2)					Prepared: 11/21/12 08:12 Analyzed: 11/29/12 14:43							
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 63 %*	*Limits: 25-140 %*				*Dilution: 2x*				
Decachlorobiphenyl (Surr)			*82 %*	*55-130 %*				*"*				
LCS Dup (1211558-BSD1)					Prepared: 11/21/12 08:11 Analyzed: 11/29/12 14:25							**Q-19**
EPA 8081B												
Aldrin	1.62	0.0200	0.0600	ug/L	2	2.00	---	81	25-140%	0.5	30%	
alpha-BHC	1.86	0.0200	0.0600	"	"	"	---	93	60-130%	0.6	30%	
beta-BHC	1.86	0.0200	0.0600	"	"	"	---	93	65-125%	0.1	30%	
delta-BHC	1.96	0.0200	0.0600	"	"	"	---	98	45-135%	2	30%	
gamma-BHC (Lindane)	1.90	0.0200	0.0600	"	"	"	---	95	25-135%	0.4	30%	
cis-Chlordane	1.80	0.0200	0.0600	"	"	"	---	90	65-125%	2	30%	
trans-Chlordane	1.79	0.0200	0.0600	"	"	"	---	90	60-125%	1	30%	
4,4'-DDD	1.82	0.0200	0.0600	"	"	"	---	91	25-150%	3	30%	
4,4'-DDE	1.81	0.0200	0.0600	"	"	"	---	91	35-140%	3	30%	
4,4'-DDT	1.79	0.0200	0.0600	"	"	"	---	90	45-140%	5	30%	
Dieldrin	1.90	0.0200	0.0600	"	"	"	---	95	60-130%	2	30%	
Endosulfan I	1.83	0.0200	0.0600	"	"	"	---	92	50-110%	3	30%	
Endosulfan II	1.97	0.0200	0.0600	"	"	"	---	99	30-130%	3	30%	
Endosulfan sulfate	1.95	0.0200	0.0600	"	"	"	---	98	55-135%	5	30%	
Endrin	1.93	0.0200	0.0600	"	"	"	---	97	"	2	30%	
Endrin Aldehyde	2.01	0.0200	0.0600	"	"	"	---	101	"	5	30%	
Endrin ketone	1.72	0.0200	0.0600	"	"	"	---	86	75-125%	5	30%	Q-31
Heptachlor	1.77	0.0200	0.0600	"	"	"	---	89	40-130%	1	30%	Q-23
Heptachlor epoxide	1.86	0.0200	0.0600	"	"	"	---	93	60-130%	3	30%	
Methoxychlor	1.85	0.0800	0.160	"	"	"	---	93	55-150%	7	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 66 %*	*Limits: 25-140 %*				*Dilution: 2x*				
Decachlorobiphenyl (Surr)			*81 %*	*55-130 %*				*"*				
LCS Dup (1211558-BSD2)					Prepared: 11/21/12 08:12 Analyzed: 11/29/12 15:01							**Q-19**
EPA 8081B												
cis-Nonachlor	2.33	0.0200	0.0600	ug/L	2	2.50	---	93	50-150%	4	30%	
2,4'-DDD	2.17	0.0200	0.0600	"	"	"	---	87	30-135%	7	30%	
2,4'-DDE	2.11	0.0200	0.0600	"	"	"	---	84	50-140%	0.7	30%	
2,4'-DDT	2.02	0.0200	0.0600	"	"	"	---	81	45-140%	4	30%	Q-31
Hexachlorobenzene	2.05	0.0200	0.0600	"	"	"	---	82	50-150%	4	30%	
Hexachlorobutadiene	1.33	0.0200	0.0600	"	"	"	---	53	"	12	30%	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211558 - EPA 3510C (Neutral pH)								**Water**				
LCS Dup (1211558-BSD2)					Prepared: 11/21/12 08:12		Analyzed: 11/29/12 15:01					**Q-19**
Mirex	1.99	0.0200	0.0600	ug/L	"	"	---	80	"	4	30%	
Oxychlordane	2.15	0.0200	0.0600	"	"	"	---	86	"	2	30%	
trans-Nonachlor	2.11	0.0200	0.0600	"	"	"	---	84	"	2	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 69 %*		*Limits: 25-140 %*			*Dilution: 2x*				
Decachlorobiphenyl (Surr)			*68 %*		*55-130 %*			*"*				

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211589 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1211589-BLK1)					Prepared: 11/26/12 07:18 Analyzed: 11/26/12 12:37							
EPA 8270D P/P												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	**0.0223**	0.0182	0.0364	"	"	---	---	---	---	---	---	B-02, J
Naphthalene	**0.0785**	0.0182	0.0364	"	"	---	---	---	---	---	---	B
Phenanthrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 87 %*	*Limits: 35-120 %*			*Dilution: 1x*					*Q-23*
2-Fluorobiphenyl (Surr)			*79 %*	*30-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*92 %*	*50-125 %*			*"*					
LCS (1211589-BS1)					Prepared: 11/26/12 07:18 Analyzed: 11/26/12 13:14							
EPA 8270D P/P												
Acenaphthene	2.98	0.0100	0.0200	ug/L	1	4.00	---	75	45-125%	---	---	

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Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211589 - EPA 3510C (Acid Extraction)							**Water**					
LCS (1211589-BS1)					Prepared: 11/26/12 07:18 Analyzed: 11/26/12 13:14							
Acenaphthylene	3.20	0.0100	0.0200	ug/L	"	"	---	80	50-125%	---	---	
Anthracene	3.40	0.0100	0.0200	"	"	"	---	85	55-125%	---	---	
Benz(a)anthracene	3.78	0.0100	0.0200	"	"	"	---	94	"	---	---	
Benzo(a)pyrene	3.91	0.0150	0.0300	"	"	"	---	98	"	---	---	
Benzo(b)fluoranthene	3.90	0.0150	0.0300	"	"	"	---	97	45-125%	---	---	
Benzo(k)fluoranthene	3.93	0.0150	0.0300	"	"	"	---	98	"	---	---	
Benzo(b+k)fluoranthene(s)	7.83	0.0300	0.0600	"	"	8.00	---	98	"	---	---	
Benzo(g,h,i)perylene	3.62	0.0100	0.0200	"	"	4.00	---	90	40-125%	---	---	
Chrysene	3.80	0.0100	0.0200	"	"	"	---	95	55-125%	---	---	
Dibenz(a,h)anthracene	4.06	0.0100	0.0200	"	"	"	---	102	40-125%	---	---	
Fluoranthene	3.69	0.0100	0.0200	"	"	"	---	92	55-125%	---	---	
Fluorene	3.06	0.0100	0.0200	"	"	"	---	76	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	3.92	0.0100	0.0200	"	"	"	---	98	45-125%	---	---	
1-Methylnaphthalene	2.65	0.0200	0.0400	"	"	"	---	66	45-120%	---	---	
2-Methylnaphthalene	2.69	0.0200	0.0400	"	"	"	---	67	"	---	---	B-02
Naphthalene	2.53	0.0200	0.0400	"	"	"	---	63	40-125%	---	---	B
Phenanthrene	3.32	0.0100	0.0200	"	"	"	---	83	50-125%	---	---	
Pyrene	3.61	0.0100	0.0200	"	"	"	---	90	"	---	---	
Carbazole	3.43	0.0150	0.0300	"	"	"	---	86	"	---	---	
Dibenzofuran	3.18	0.0100	0.0200	"	"	"	---	80	55-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.78	1.10	2.20	"	"	"	---	95	40-125%	---	---	
Butyl benzyl phthalate	4.34	1.50	3.00	"	"	"	---	109	45-125%	---	---	
Diethylphthalate	3.39	1.50	3.00	"	"	"	---	85	40-125%	---	---	
Dimethylphthalate	3.39	1.50	3.00	"	"	"	---	85	25-125%	---	---	
Di-n-butylphthalate	4.05	1.50	3.00	"	"	"	---	101	55-125%	---	---	
Di-n-octyl phthalate	3.90	1.50	3.00	"	"	"	---	98	35-125%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 82 %*		*Limits: 35-120 %*			*Dilution: 1x*				*Q-23*
2-Fluorobiphenyl (Surr)			*73 %*		*30-120 %*			*"*				
p-Terphenyl-d14 (Surr)			*93 %*		*50-125 %*			*"*				
LCS Dup (1211589-BSD1)					Prepared: 11/26/12 07:19 Analyzed: 11/26/12 13:52							**Q-19**
EPA 8270D P/P												
Acenaphthene	3.26	0.0100	0.0200	ug/L	1	4.00	---	81	45-125%	9	30%	
Acenaphthylene	3.46	0.0100	0.0200	"	"	"	---	86	50-125%	8	30%	
Anthracene	3.63	0.0100	0.0200	"	"	"	---	91	55-125%	7	30%	
Benz(a)anthracene	4.05	0.0100	0.0200	"	"	"	---	101	"	7	30%	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211589 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (1211589-BSD1)					Prepared: 11/26/12 07:19		Analyzed: 11/26/12 13:52					**Q-19**
Benzo(a)pyrene	4.20	0.0150	0.0300	ug/L	"	"	---	105	"	7	30%	
Benzo(b)fluoranthene	4.23	0.0150	0.0300	"	"	"	---	106	45-125%	8	30%	
Benzo(k)fluoranthene	4.22	0.0150	0.0300	"	"	"	---	106	"	7	30%	
Benzo(b+k)fluoranthene(s)	8.45	0.0300	0.0600	"	"	8.00	---	106	"	8	30%	
Benzo(g,h,i)perylene	3.87	0.0100	0.0200	"	"	4.00	---	97	40-125%	7	30%	
Chrysene	4.05	0.0100	0.0200	"	"	"	---	101	55-125%	7	30%	
Dibenz(a,h)anthracene	4.40	0.0100	0.0200	"	"	"	---	110	40-125%	8	30%	
Fluoranthene	3.97	0.0100	0.0200	"	"	"	---	99	55-125%	7	30%	
Fluorene	3.24	0.0100	0.0200	"	"	"	---	81	50-125%	6	30%	
Indeno(1,2,3-cd)pyrene	4.18	0.0100	0.0200	"	"	"	---	105	45-125%	6	30%	
1-Methylnaphthalene	3.07	0.0200	0.0400	"	"	"	---	77	45-120%	15	30%	
2-Methylnaphthalene	3.09	0.0200	0.0400	"	"	"	---	77	"	14	30%	B-02
Naphthalene	2.96	0.0200	0.0400	"	"	"	---	74	40-125%	15	30%	B
Phenanthrene	3.48	0.0100	0.0200	"	"	"	---	87	50-125%	5	30%	
Pyrene	3.87	0.0100	0.0200	"	"	"	---	97	"	7	30%	
Carbazole	3.64	0.0150	0.0300	"	"	"	---	91	"	6	30%	
Dibenzofuran	3.38	0.0100	0.0200	"	"	"	---	85	55-125%	6	30%	
Bis(2-ethylhexyl)phthalate	3.91	1.10	2.20	"	"	"	---	98	40-125%	3	30%	
Butyl benzyl phthalate	4.31	1.50	3.00	"	"	"	---	108	45-125%	0.7	30%	
Diethylphthalate	3.54	1.50	3.00	"	"	"	---	89	40-125%	4	30%	
Dimethylphthalate	3.62	1.50	3.00	"	"	"	---	90	25-125%	6	30%	
Di-n-butylphthalate	4.20	1.50	3.00	"	"	"	---	105	55-125%	4	30%	
Di-n-octyl phthalate	4.15	1.50	3.00	"	"	"	---	104	35-125%	6	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 86 %*		*Limits: 35-120 %*		*Dilution: 1x*					*Q-23*
2-Fluorobiphenyl (Surr)			*79 %*		*30-120 %*		*"*					
p-Terphenyl-d14 (Surr)			*99 %*		*50-125 %*		*"*					

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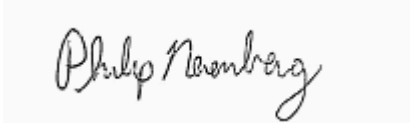

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1212041 - EPA 3015A							**Water**					
Blank (1212041-BLK1)					Prepared: 12/04/12 10:34 Analyzed: 12/06/12 11:54							
EPA 6020A												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1212041-BS1)					Prepared: 12/04/12 10:34 Analyzed: 12/06/12 11:57							
EPA 6020A												
Aluminum	5400	25.0	50.0	ug/L	1	5560	---	97	80-120%	---	---	
Antimony	27.4	0.500	1.00	"	"	27.8	---	99	"	---	---	
Arsenic	55.5	0.500	2.00	"	"	55.6	---	100	85-115%	---	---	
Cadmium	55.3	0.500	1.00	"	"	"	---	99	80-120%	---	---	
Chromium	54.4	0.500	2.00	"	"	"	---	98	"	---	---	
Copper	56.8	1.00	2.00	"	"	"	---	102	"	---	---	
Lead	56.8	0.500	1.00	"	"	"	---	102	"	---	---	
Manganese	54.5	0.500	1.00	"	"	"	---	98	"	---	---	
Mercury	1.12	0.0400	0.0800	"	"	1.11	---	101	"	---	---	
Nickel	56.5	0.500	2.00	"	"	55.6	---	102	"	---	---	
Silver	28.1	0.500	1.00	"	"	27.8	---	101	"	---	---	
Zinc	55.1	2.00	4.00	"	"	55.6	---	99	"	---	---	

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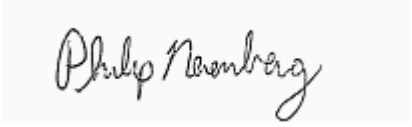

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211669 - EPA 3015A - Dissolved								Water				
Blank (1211669-BLK1)					Prepared: 11/28/12 11:10 Analyzed: 11/28/12 18:57							
EPA 6020A (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1211669-BS1)					Prepared: 11/28/12 11:10 Analyzed: 11/28/12 19:00							
EPA 6020A (Diss)												
Aluminum	5530	25.0	50.0	ug/L	1	5550	---	100	80-120%	---	---	
Antimony	26.2	0.500	1.00	"	"	27.8	---	94	"	---	---	
Arsenic	53.5	0.500	2.00	"	"	55.5	---	96	"	---	---	
Cadmium	54.9	0.500	1.00	"	"	"	---	99	"	---	---	
Chromium	54.0	0.500	2.00	"	"	"	---	97	"	---	---	
Copper	54.1	1.00	2.00	"	"	"	---	97	"	---	---	
Lead	56.8	0.500	1.00	"	"	"	---	102	"	---	---	
Manganese	53.3	0.500	1.00	"	"	"	---	96	"	---	---	
Mercury	1.06	0.0400	0.0800	"	"	1.11	---	96	"	---	---	Q-23
Nickel	54.5	0.500	2.00	"	"	55.5	---	98	"	---	---	
Silver	28.3	0.500	1.00	"	"	27.8	---	102	"	---	---	
Zinc	52.3	2.00	4.00	"	"	55.5	---	94	"	---	---	
Duplicate (1211669-DUP1)					Prepared: 11/28/12 11:10 Analyzed: 11/29/12 11:13							
QC Source Sample: B21-SWP1-20121119 (A12K507-01)												
EPA 6020A (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	ND	---	---	---	20%	
Antimony	ND	0.500	1.00	"	"	---	ND	---	---	---	20%	
Arsenic	ND	0.500	2.00	"	"	---	ND	---	---	---	20%	

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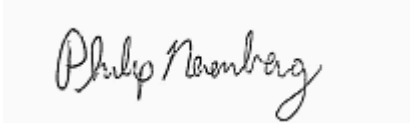

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211669 - EPA 3015A - Dissolved							**Water**					
Duplicate (1211669-DUP1)					Prepared: 11/28/12 11:10 Analyzed: 11/29/12 11:13							
QC Source Sample: B21-SWP1-20121119 (A12K507-01)												
Cadmium	ND	0.500	1.00	ug/L	"	---	ND	---	---	---	20%	
Chromium	ND	0.500	2.00	"	"	---	ND	---	---	---	20%	
Copper	ND	1.00	2.00	"	"	---	1.34	---	---	***	20%	
Lead	ND	0.500	1.00	"	"	---	ND	---	---	---	20%	
Manganese	ND	0.500	1.00	"	"	---	ND	---	---	---	20%	
Mercury	ND	0.0400	0.0800	"	"	---	ND	---	---	---	20%	
Nickel	ND	0.500	2.00	"	"	---	ND	---	---	---	20%	
Silver	ND	0.500	1.00	"	"	---	ND	---	---	---	20%	
Zinc	**4.42**	2.00	4.00	"	"	---	4.32	---	---	2	20%	
Matrix Spike (1211669-MS1)					Prepared: 11/28/12 11:10 Analyzed: 11/29/12 11:23							
QC Source Sample: B21-SWP3-20121119 (A12K507-04)												
EPA 6020A (Diss)												
Aluminum	5240	25.0	50.0	ug/L	1	5550	84.4	93	75-125%	---	---	
Antimony	27.2	0.500	1.00	"	"	27.8	ND	98	"	---	---	
Arsenic	54.2	0.500	2.00	"	"	55.5	0.533	97	"	---	---	
Cadmium	56.5	0.500	1.00	"	"	"	ND	102	"	---	---	
Chromium	54.5	0.500	2.00	"	"	"	0.944	97	"	---	---	
Copper	63.9	1.00	2.00	"	"	"	6.50	103	"	---	---	
Lead	58.1	0.500	1.00	"	"	"	ND	105	"	---	---	
Manganese	62.7	0.500	1.00	"	"	"	6.46	101	"	---	---	
Mercury	1.05	0.0400	0.0800	"	"	1.11	ND	94	"	---	---	
Nickel	57.0	0.500	2.00	"	"	55.5	0.822	101	"	---	---	
Silver	28.7	0.500	1.00	"	"	27.8	ND	104	"	---	---	
Zinc	56.3	2.00	4.00	"	"	55.5	3.21	96	"	---	---	

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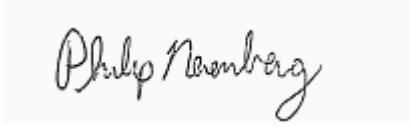

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1211600 - Total Suspended Solids									Water			
Blank (1211600-BLK1)					Prepared: 11/26/12 10:27		Analyzed: 11/26/12 16:05					
SM 2540 D												
Total Suspended Solids	ND	2.00	2.00	mg/L	1	---	---	---	---	---	---	
Reference (1211600-SRM1)					Prepared: 11/26/12 10:27		Analyzed: 11/26/12 16:05					
SM 2540 D												
Total Suspended Solids	100			mg/L	1	100		100	90-110%	---	---	

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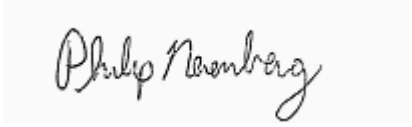

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1212014 - Method Prep: Aq									Water			
Blank (1212014-BLK1)					Prepared: 12/03/12 09:50		Analyzed: 12/03/12 10:55					
SM 5310 B												
Total Organic Carbon	ND	1.00	2.00	mg/L	1	---	---	---	---	---	---	
LCS (1212014-BS1)					Prepared: 12/03/12 09:50		Analyzed: 12/03/12 11:24					
SM 5310 B												
Total Organic Carbon	48.0	1.00	2.00	mg/L	1	50.0	---	96	90-110%	---	---	

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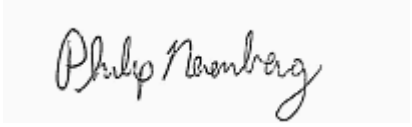

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification (HCID) Screen by NWTPH

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211621							
A12K507-01	Water	NWTPH-HCID	11/19/12 13:40	11/27/12 11:13	1070mL/5mL	1000mL/5mL	0.94
A12K507-02	Water	NWTPH-HCID	11/19/12 14:20	11/27/12 11:13	1070mL/5mL	1000mL/5mL	0.94
A12K507-04	Water	NWTPH-HCID	11/19/12 15:20	11/27/12 11:13	1030mL/5mL	1000mL/5mL	0.97
A12K507-05	Water	NWTPH-HCID	11/19/12 16:00	11/27/12 11:13	1070mL/5mL	1000mL/5mL	0.94

Diesel and Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211621							
A12K507-01	Water	NWTPH-Dx	11/19/12 13:40	11/27/12 11:13	1070mL/5mL	1000mL/5mL	0.94
A12K507-02	Water	NWTPH-Dx	11/19/12 14:20	11/27/12 11:13	1070mL/5mL	1000mL/5mL	0.94
A12K507-04	Water	NWTPH-Dx	11/19/12 15:20	11/27/12 11:13	1030mL/5mL	1000mL/5mL	0.97
A12K507-05	Water	NWTPH-Dx	11/19/12 16:00	11/27/12 11:13	1070mL/5mL	1000mL/5mL	0.94

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211569							
A12K507-01	Water	NWTPH-Gx (MS)	11/19/12 13:40	11/21/12 13:00	5mL/5mL	5mL/5mL	1.00
A12K507-02	Water	NWTPH-Gx (MS)	11/19/12 14:20	11/21/12 13:00	5mL/5mL	5mL/5mL	1.00
A12K507-04	Water	NWTPH-Gx (MS)	11/19/12 15:20	11/21/12 13:00	5mL/5mL	5mL/5mL	1.00
A12K507-05	Water	NWTPH-Gx (MS)	11/19/12 16:00	11/21/12 13:00	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211588							
A12K507-01	Water	EPA 8082A	11/19/12 13:40	11/26/12 16:47	930mL/1mL	1000mL/1mL	1.08
A12K507-02	Water	EPA 8082A	11/19/12 14:20	11/26/12 16:47	940mL/2mL	1000mL/1mL	2.13
A12K507-04	Water	EPA 8082A	11/19/12 15:20	11/26/12 16:47	930mL/2mL	1000mL/1mL	2.15
A12K507-05	Water	EPA 8082A	11/19/12 16:00	11/26/12 16:47	960mL/2mL	1000mL/1mL	2.08

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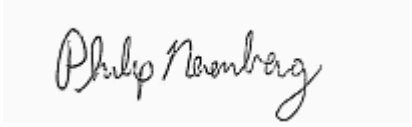

Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

SAMPLE PREPARATION INFORMATION

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211558							
A12K507-01	Water	EPA 8081B	11/19/12 13:40	11/21/12 16:07	1070mL/5mL	1000mL/5mL	0.94
A12K507-02	Water	EPA 8081B	11/19/12 14:20	11/21/12 16:07	1070mL/5mL	1000mL/5mL	0.94
A12K507-04	Water	EPA 8081B	11/19/12 15:20	11/21/12 16:07	1030mL/5mL	1000mL/5mL	0.97
A12K507-05	Water	EPA 8081B	11/19/12 16:00	11/21/12 16:07	1070mL/5mL	1000mL/5mL	0.94

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211589							
A12K507-01RE2	Water	EPA 8270D P/P	11/19/12 13:40	11/26/12 07:18	1070mL/1mL	1000mL/1mL	0.94
A12K507-02RE2	Water	EPA 8270D P/P	11/19/12 14:20	11/26/12 07:18	1070mL/1mL	1000mL/1mL	0.94
A12K507-04RE1	Water	EPA 8270D P/P	11/19/12 15:20	11/26/12 07:18	1040mL/1mL	1000mL/1mL	0.96
A12K507-05	Water	EPA 8270D P/P	11/19/12 16:00	11/26/12 07:18	1070mL/1mL	1000mL/1mL	0.94

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1212041							
A12K507-01	Water	EPA 6020A	11/19/12 13:40	12/04/12 10:34	45mL/50mL	45mL/50mL	1.00
A12K507-02	Water	EPA 6020A	11/19/12 14:20	12/04/12 10:34	45mL/50mL	45mL/50mL	1.00
A12K507-04	Water	EPA 6020A	11/19/12 15:20	12/04/12 10:34	45mL/50mL	45mL/50mL	1.00
A12K507-05	Water	EPA 6020A	11/19/12 16:00	12/04/12 10:34	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211669							
A12K507-01	Water	EPA 6020A (Diss)	11/19/12 13:40	11/28/12 11:10	45mL/50mL	45mL/50mL	1.00
A12K507-02	Water	EPA 6020A (Diss)	11/19/12 14:20	11/28/12 11:10	45mL/50mL	45mL/50mL	1.00
A12K507-04	Water	EPA 6020A (Diss)	11/19/12 15:20	11/28/12 11:10	45mL/50mL	45mL/50mL	1.00
A12K507-05	Water	EPA 6020A (Diss)	11/19/12 16:00	11/28/12 11:10	45mL/50mL	45mL/50mL	1.00

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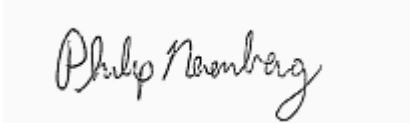

Philip Nerenberg, Lab Director

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Tigard, OR 97223
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503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1212014							
A12K507-01	Water	SM 5310 B	11/19/12 13:40	12/03/12 09:50	0.9mL/1mL	1mL/1mL	1.11
A12K507-02	Water	SM 5310 B	11/19/12 14:20	12/03/12 09:50	0.9mL/1mL	1mL/1mL	1.11
A12K507-04	Water	SM 5310 B	11/19/12 15:20	12/03/12 09:50	0.9mL/1mL	1mL/1mL	1.11
A12K507-05	Water	SM 5310 B	11/19/12 16:00	12/03/12 09:50	0.9mL/1mL	1mL/1mL	1.11

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1211600							
A12K507-01	Water	SM 2540 D	11/19/12 13:40	11/26/12 10:27	1N/A/1N/A	1N/A/1N/A	NA
A12K507-02	Water	SM 2540 D	11/19/12 14:20	11/26/12 10:27	1N/A/1N/A	1N/A/1N/A	NA
A12K507-04	Water	SM 2540 D	11/19/12 15:20	11/26/12 10:27	1N/A/1N/A	1N/A/1N/A	NA
A12K507-05	Water	SM 2540 D	11/19/12 16:00	11/26/12 10:27	1N/A/1N/A	1N/A/1N/A	NA

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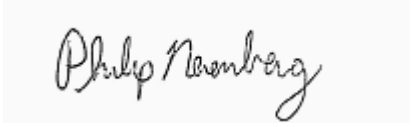

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

Notes and Definitions

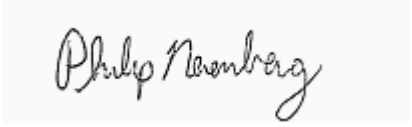
Qualifiers:

B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Multiple aroclors present
F-15	Results for diesel are biased high due to overlap from the reported oil result.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-01	Percent recovery and/or RPD is outside acceptance limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
Q-31	Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Data is likely biased low.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to dilution necessary for analysis.
X	See Case Narrative.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26

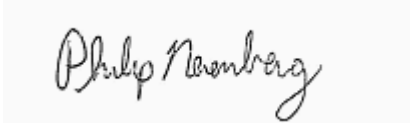
Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

***

Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



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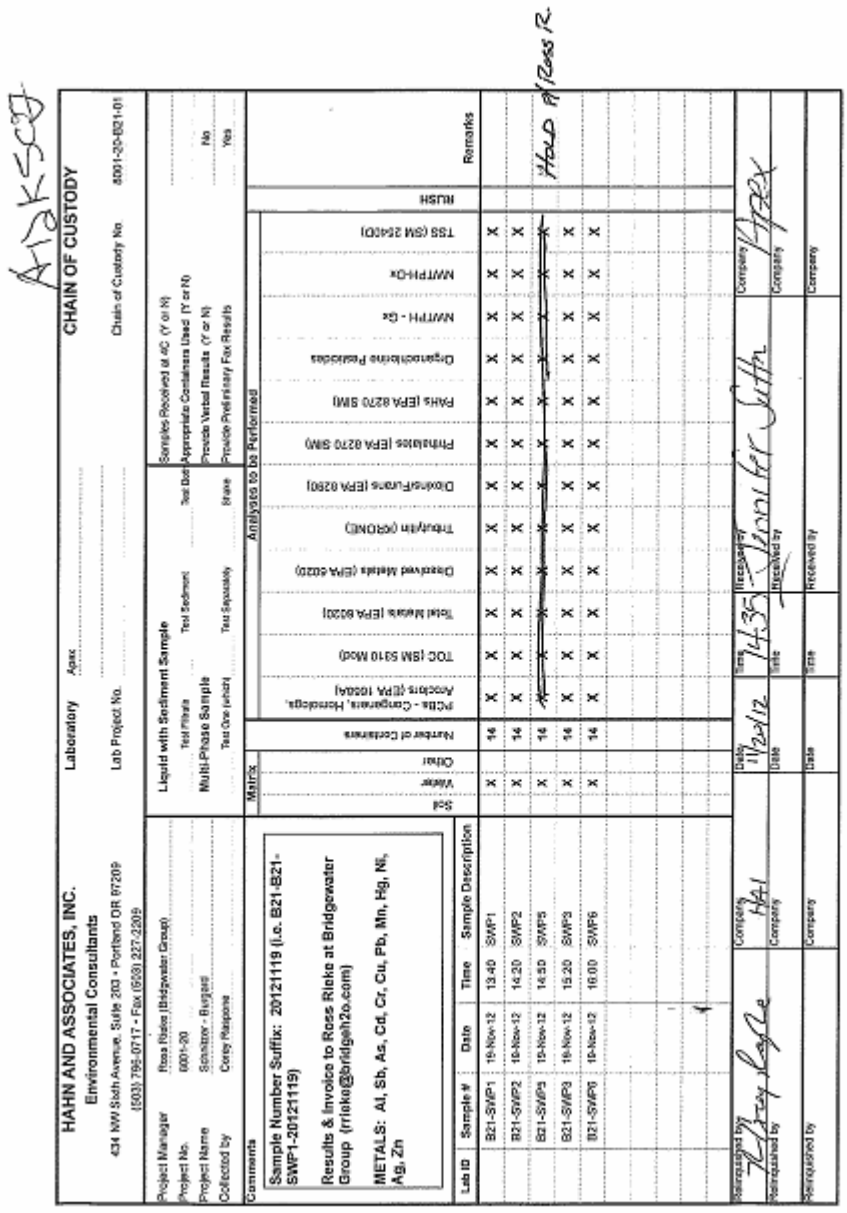
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/19/12 15:26



HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 795-0717 • Fax (503) 227-2209

Laboratory: Apex
Lab Project No.

CHAIN OF CUSTODY
Chain of Custody No. 8001-20-B21-01

Project Manager: Ross Rieke (Bridgewater Group)
Project No.: 8001-20
Project Name: Schnitzer - Burgard
Collected by: Corey Maypone

Liquid with Sediment Sample: Test Filtrate / Test Sediment / Test Both
Multi-Phase Sample: Test One (which) / Test Separately / Leave
Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N): No
Provide Preliminary Fax Results: Yes

Comments:
Sample Number Suffix: 20121119 (i.e. B21-B21-SWP1-20121119)
Results & invoice to Ross Rieke at Bridgewater Group (rrieke@bridgeh2o.com)
METALS: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Matrix: Soil / Water / Other

Lab ID	Sample #	Date	Time	Sample Description	Soil	Water	Other	Number of Containers	PCBs - Congeners, Horrochlor, Aroclors (EPA 1024A)	TOC (SM 5310 Mod)	Total Metals (EPA 6020)	Dissolved Metals (EPA 6020)	Tributyltin (GRGNED)	Dioxins/Furans (EPA 8290)	Phthalates (EPA 8270 SIM)	PAHs (EPA 8270 SIM)	Organochlorine Pesticides	NWTPH - Gx	NWTPH-Dx	TSS (SM 2540D)	RUSH	Remarks
	B21-SWP1	19-Nov-12	13:40	SWP1		X		14	X	X	X	X	X	X	X	X	X	X	X	X	X	
	B21-SWP2	19-Nov-12	14:20	SWP2		X		14	X	X	X	X	X	X	X	X	X	X	X	X	X	
	B21-SWP5	19-Nov-12	14:50	SWP5		X		14	X	X	X	X	X	X	X	X	X	X	X	X	X	
	B21-SWP3	19-Nov-12	15:20	SWP3		X		14	X	X	X	X	X	X	X	X	X	X	X	X	X	
	B21-SWP6	19-Nov-12	16:00	SWP6		X		14	X	X	X	X	X	X	X	X	X	X	X	X	X	

Relinquished by: Company HAI — Date 11/20/12 — Time 14:35 — Received by: Company Apex
Relinquished by: Company — Date — Time — Received by: Company
Relinquished by: Company — Date — Time — Received by: Company

Apex Laboratories

Philip Nerenberg

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Philip Nerenberg, Lab Director

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 6, 2012

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

RE: Client Project: A12K507
ARI Job No.: VT70

Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the sample from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this package will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: VT70

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

SUBCONTRACT ORDER

Apex Laboratories

A12K507

1617

VT70

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: B21-SWP1-20121119 **Water** **Sampled: 11/19/12 13:40** (A12K507-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/06/12 17:00	12/03/12 13:40	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Sample Name: B21-SWP2-20121119 **Water** **Sampled: 11/19/12 14:20** (A12K507-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/06/12 17:00	12/03/12 14:20	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

1/9 Unpres. ambers had HCl label, 1/9 Ambers

Sample Name: B21-SWP3-20121119 **Water** **Sampled: 11/19/12 15:20** (A12K507-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/06/12 17:00	12/03/12 15:20	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Sample Name: B21-SWP6-20121119 **Water** **Sampled: 11/19/12 16:00** (A12K507-05)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/06/12 17:00	12/03/12 16:00	Krone--ARI
Containers Supplied:			
(I)1 L Amber Glass - Non Preserved			
(J)1 L Amber Glass - Non Preserved			

Watch hold

~~Standard TAT~~

Released By	Date	Received By	Date
[signature]	11/21/12 1500		11 23 12 705
Released By	Date	Received By	Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex

Project Name: [illegible]

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: VT70

Tracking No: [illegible] NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	1.3	

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90877952

Cooler Accepted by: TB Date: 11-23-11 Time: 705

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

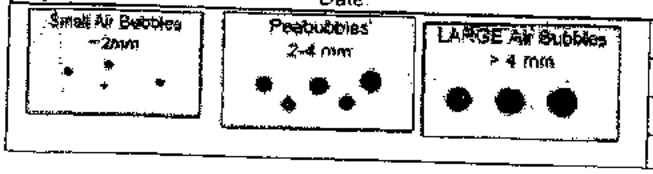
Samples Logged by: TB Date: 11-23-11 Time: 715

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative

Client: Apex Laboratories
Project: A12K507
ARI Job No.: VT70

Sample Receipt

Analytical Resources, Inc. (ARI) accepted four water samples on November 23, 2012 under ARI job VT70. The cooler temperature measured by IR thermometer following ARI SOP was 1.3°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COCs.

Tributyl Tin by Krone – 1988 SIM

The LCSD percent recovery of Butyltin fell outside the control limits low for **LCS-112312**. All other percent recoveries were within control limits. No further corrective action was taken.

There were no other irregularities with this analysis.

VT70 : 00004

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VT70
Client: Apex Labs
Project Event: N/A
Project Name: A12K507

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	B21-SWP1-20121119	VT70A	12-23473	Water	11/19/12 13:40	11/23/12 07:05
2.	B21-SWP2-20121119	VT70B	12-23474	Water	11/19/12 14:20	11/23/12 07:05
3.	B21-SWP3-20121119	VT70C	12-23475	Water	11/19/12 15:20	11/23/12 07:05
4.	B21-SWP6-20121119	VT70D	12-23476	Water	11/19/12 16:00	11/23/12 07:05

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP1-20121119**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: VT70A
LIMS ID: 12-23473
Matrix: Water
Data Release Authorized:
Reported: 01/04/13

QC Report No: VT70-Apex Labs
Project: A12K507
Event: NA
Date Sampled: 11/19/12
Date Received: 11/23/12

Date Extracted: 11/23/12
Date Analyzed: 11/28/12 14:06
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	71.1%
Tripentyl Tin Chloride	80.5%

VT70: 06R BC 1/4/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP2-20121119**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: VT70B
LIMS ID: 12-23474
Matrix: Water
Data Release Authorized:
Reported: 01/04/13

QC Report No: VT70-Apex Labs
Project: A12K507
Event: NA
Date Sampled: 11/19/12
Date Received: 11/23/12

Date Extracted: 11/23/12
Date Analyzed: 11/28/12 14:20
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	73.2%
Tripentyl Tin Chloride	74.5%

VT70:07R BC 1/4/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP3-20121119**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: VT70C
LIMS ID: 12-23475
Matrix: Water
Data Release Authorized:
Reported: 01/04/13

QC Report No: VT70-Apex Labs
Project: A12K507
Event: NA
Date Sampled: 11/19/12
Date Received: 11/23/12

Date Extracted: 11/23/12
Date Analyzed: 11/28/12 14:34
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	77.6%
Tripentyl Tin Chloride	81.4%

VT70:08R BL 1/4/13

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP6-20121119**
Extraction Method: SW3510C **SAMPLE**
Page 1 of 1

Lab Sample ID: VT70D
LIMS ID: 12-23476
Matrix: Water
Data Release Authorized:
Reported: 01/04/13

QC Report No: VT70-Apex Labs
Project: A12K507
Event: NA
Date Sampled: 11/19/12
Date Received: 11/23/12

Date Extracted: 11/23/12
Date Analyzed: 11/28/12 14:48
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	75.2%
Tripentyl Tin Chloride	78.8%

VT70:09R BC 1/4/13

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: VT70-Apex Labs
Project: A12K507
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-112312	70.1%	72.9%	0
LCS-112312	74.9%	76.3%	0
LCSD-112312	77.6%	77.5%	0
B21-SWP1-20121119	71.1%	80.5%	0
B21-SWP2-20121119	73.2%	74.5%	0
B21-SWP3-20121119	77.6%	81.4%	0
B21-SWP6-20121119	75.2%	78.8%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)	(30-160)

Prep Method: SW3510C
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 12-23473 to 12-23476

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS
Page 1 of 1

Sample ID: LCS-112312
LAB CONTROL SAMPLE

Lab Sample ID: LCS-112312
LIMS ID: 12-23473
Matrix: Water
Data Release Authorized:
Reported: 11/30/12

QC Report No: VT70-Apex Labs
Project: A12K507

Date Sampled: NA
Date Received: NA

Date Extracted LCS: 11/23/12

Date Analyzed LCS: 11/28/12 13:38
LCSD: 11/28/12 13:52
Instrument/Analyst LCS: NT12/VTS
LCSD: NT12/VTS

Sample Amount LCS: 100 mL
LCSD: 100 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	1.83	2.23	82.1%	1.96	2.23	87.9%	6.9%
Dibutyltin Ion	1.35	1.92	70.3%	1.38	1.92	71.9%	2.2%
Butyltin Ion	0.52	1.56	33.3%	0.42	1.56	26.9%	21.3%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	74.9%	77.6%
Tripentyl Tin Chloride	76.3%	77.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-112312**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-112312
LIMS ID: 12-23473
Matrix: Water
Data Release Authorized:
Reported: 01/04/13

QC Report No: VT70-Apex Labs
Project: A12K507
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 11/23/12
Date Analyzed: 11/28/12 13:24
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	70.1%
Tripentyl Tin Chloride	72.9%

VT70: 12R BC 1/4/13

Success Through Science®

Your Project #: A12K507
Your C.O.C. #: NA

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2012/12/13

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B2I7251
Received: 2012/11/28, 11:59

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Water (8290) (1)	4	2012/11/30	2012/12/04	BRL SOP-00406	EPA 8290 mod.
PCB Congeners in Water (1668A)	4	2012/12/03	2022/12/07	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager
Email: IVukovic@maxxam.ca
Phone# (905) 817-5700

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Total cover pages: 1

Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	19	1.00	1.00		3055866
1,2,3,7,8-Penta CDD	pg/L	0.95 U	0.95	47	1.00	0.950		3055866
1,2,3,4,7,8-Hexa CDD	pg/L	1.1 U	1.1	47	0.100	0.110		3055866
1,2,3,6,7,8-Hexa CDD	pg/L	1.1 J	1.0	47	0.100	0.110		3055866
1,2,3,7,8,9-Hexa CDD	pg/L	1.1 J	1.0	47	0.100	0.110		3055866
1,2,3,4,6,7,8-Hepta CDD	pg/L	20.5 J	0.94	47	0.0100	0.205		3055866
Octa CDD	pg/L	166	1.6	94	0.000300	0.0498		3055866
Total Tetra CDD	pg/L	1.0 U	1.0	19				3055866
Total Penta CDD	pg/L	0.95 U	0.95	47				3055866
Total Hexa CDD	pg/L	6.1 J	1.0	47				3055866
Total Hepta CDD	pg/L	36.5 J	0.94	47				3055866
2,3,7,8-Tetra CDF **	pg/L	0.92 U	0.92	19	0.100	0.0920		3055866
1,2,3,7,8-Penta CDF	pg/L	0.97 U	0.97	47	0.0300	0.0291		3055866
2,3,4,7,8-Penta CDF	pg/L	0.98 U	0.98	47	0.300	0.294		3055866
1,2,3,4,7,8-Hexa CDF	pg/L	0.90 U	0.90	47	0.100	0.0900		3055866
1,2,3,6,7,8-Hexa CDF	pg/L	0.89 U	0.89	47	0.100	0.0890		3055866
2,3,4,6,7,8-Hexa CDF	pg/L	0.98 U	0.98	47	0.100	0.0980		3055866
1,2,3,7,8,9-Hexa CDF	pg/L	1.1 U	1.1	47	0.100	0.110		3055866
1,2,3,4,6,7,8-Hepta CDF	pg/L	5.65 J	0.92	47	0.0100	0.0565		3055866
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.2 U	1.2	47	0.0100	0.0120		3055866
Octa CDF	pg/L	28.2 J	1.5	94	0.000300	0.00846		3055866
Total Tetra CDF	pg/L	0.92 U	0.92	19				3055866
Total Penta CDF	pg/L	0.98 U	0.98	47				3055866
Total Hexa CDF	pg/L	3.68 J	0.96	47				3055866
Total Hepta CDF	pg/L	17.3 J	1.0	47				3055866
TOTAL TOXIC EQUIVALENCY	pg/L					3.41		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	96						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	93						3055866
C13-123478 HexaCDF	%	87						3055866
C13-123678 HexaCDD *	%	89						3055866
C13-12378 PentaCDD	%	86						3055866
C13-12378 PentaCDF	%	76						3055866
C13-2378 TetraCDD	%	91						3055866
C13-2378 TetraCDF	%	85						3055866
C13-OCDD	%	95						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	19	1.00	1.00		3055866
1,2,3,7,8-Penta CDD	pg/L	1.1 U (1)	1.1	48	1.00	1.10		3055866
1,2,3,4,7,8-Hexa CDD	pg/L	1.3 J	1.1	48	0.100	0.130		3055866
1,2,3,6,7,8-Hexa CDD	pg/L	3.96 J	0.98	48	0.100	0.396		3055866
1,2,3,7,8,9-Hexa CDD	pg/L	3.1 J	1.0	48	0.100	0.310		3055866
1,2,3,4,6,7,8-Hepta CDD	pg/L	99	0.83	48	0.0100	0.990		3055866
Octa CDD	pg/L	845	1.8	96	0.000300	0.254		3055866
Total Tetra CDD	pg/L	1.0 U	1.0	19				3055866
Total Penta CDD	pg/L	18 U (1)	18	48				3055866
Total Hexa CDD	pg/L	43.4 J	1.0	48				3055866
Total Hepta CDD	pg/L	372	0.83	48				3055866
2,3,7,8-Tetra CDF **	pg/L	0.91 U	0.91	19	0.100	0.0910		3055866
1,2,3,7,8-Penta CDF	pg/L	1.0 U	1.0	48	0.0300	0.0300		3055866
2,3,4,7,8-Penta CDF	pg/L	1.0 U	1.0	48	0.300	0.300		3055866
1,2,3,4,7,8-Hexa CDF	pg/L	1.02 J	0.90	48	0.100	0.102		3055866
1,2,3,6,7,8-Hexa CDF	pg/L	0.89 U	0.89	48	0.100	0.0890		3055866
2,3,4,6,7,8-Hexa CDF	pg/L	0.98 U	0.98	48	0.100	0.0980		3055866
1,2,3,7,8,9-Hexa CDF	pg/L	1.1 U	1.1	48	0.100	0.110		3055866
1,2,3,4,6,7,8-Hepta CDF	pg/L	13 U (1)	13	48	0.0100	0.130		3055866
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.1 U	1.1	48	0.0100	0.0110		3055866
Octa CDF	pg/L	39.3 J	1.6	96	0.000300	0.0118		3055866
Total Tetra CDF	pg/L	0.91 U	0.91	19				3055866
Total Penta CDF	pg/L	5.4 J	1.0	48				3055866
Total Hexa CDF	pg/L	18.6 J	0.96	48				3055866
Total Hepta CDF	pg/L	25.6 J	0.99	48				3055866
TOTAL TOXIC EQUIVALENCY	pg/L					5.15		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	94						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	91						3055866
C13-123478 HexaCDF	%	84						3055866
C13-123678 HexaCDD *	%	86						3055866
C13-12378 PentaCDD	%	82						3055866
C13-12378 PentaCDF	%	76						3055866
C13-2378 TetraCDD	%	88						3055866
C13-2378 TetraCDF	%	85						3055866
C13-OCDD	%	96						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	19	1.00	1.00		3055866
1,2,3,7,8-Penta CDD	pg/L	1.1 U	1.1	48	1.00	1.10		3055866
1,2,3,4,7,8-Hexa CDD	pg/L	1.1 U	1.1	48	0.100	0.110		3055866
1,2,3,6,7,8-Hexa CDD	pg/L	2.1 J	1.0	48	0.100	0.210		3055866
1,2,3,7,8,9-Hexa CDD	pg/L	2.0 J	1.0	48	0.100	0.200		3055866
1,2,3,4,6,7,8-Hepta CDD	pg/L	55	0.90	48	0.0100	0.550		3055866
Octa CDD	pg/L	601	1.7	96	0.000300	0.180		3055866
Total Tetra CDD	pg/L	1.0 U	1.0	19				3055866
Total Penta CDD	pg/L	1.1 U	1.1	48				3055866
Total Hexa CDD	pg/L	15.9 J	1.1	48				3055866
Total Hepta CDD	pg/L	108	0.90	48				3055866
2,3,7,8-Tetra CDF **	pg/L	0.99 J	0.92	19	0.100	0.0990		3055866
1,2,3,7,8-Penta CDF	pg/L	0.94 U	0.94	48	0.0300	0.0282		3055866
2,3,4,7,8-Penta CDF	pg/L	0.95 U	0.95	48	0.300	0.285		3055866
1,2,3,4,7,8-Hexa CDF	pg/L	1.09 J	0.99	48	0.100	0.109		3055866
1,2,3,6,7,8-Hexa CDF	pg/L	0.99 U	0.99	48	0.100	0.0990		3055866
2,3,4,6,7,8-Hexa CDF	pg/L	1.1 U	1.1	48	0.100	0.110		3055866
1,2,3,7,8,9-Hexa CDF	pg/L	1.2 U	1.2	48	0.100	0.120		3055866
1,2,3,4,6,7,8-Hepta CDF	pg/L	12 U (1)	12	48	0.0100	0.120		3055866
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.3 J	1.2	48	0.0100	0.0130		3055866
Octa CDF	pg/L	77.8 J	1.3	96	0.000300	0.0233		3055866
Total Tetra CDF	pg/L	1.96 J	0.92	19				3055866
Total Penta CDF	pg/L	6.44 J	0.95	48				3055866
Total Hexa CDF	pg/L	14.6 J	1.1	48				3055866
Total Hepta CDF	pg/L	32.9 J	1.1	48				3055866
TOTAL TOXIC EQUIVALENCY	pg/L					4.36		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	94						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	87						3055866
C13-123478 HexaCDF	%	88						3055866
C13-123678 HexaCDD *	%	89						3055866
C13-12378 PentaCDD	%	86						3055866
C13-12378 PentaCDF	%	76						3055866
C13-2378 TetraCDD	%	92						3055866
C13-2378 TetraCDF	%	91						3055866
C13-OCDD	%	95						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7572						
Sampling Date		2012/11/19 16:00						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.6 U (1)	1.6	19	1.00	1.60		3055866
1,2,3,7,8-Penta CDD	pg/L	1.3 J	1.0	48	1.00	1.30		3055866
1,2,3,4,7,8-Hexa CDD	pg/L	2.30 J	0.95	48	0.100	0.230		3055866
1,2,3,6,7,8-Hexa CDD	pg/L	6.02 J	0.88	48	0.100	0.602		3055866
1,2,3,7,8,9-Hexa CDD	pg/L	4.82 J	0.90	48	0.100	0.482		3055866
1,2,3,4,6,7,8-Hepta CDD	pg/L	143	0.95	48	0.0100	1.43		3055866
Octa CDD	pg/L	1370	1.6	95	0.000300	0.411		3055866
Total Tetra CDD	pg/L	1.6 U (1)	1.6	19				3055866
Total Penta CDD	pg/L	2.5 J	1.0	48				3055866
Total Hexa CDD	pg/L	60	0.91	48				3055866
Total Hepta CDD	pg/L	380	0.95	48				3055866
2,3,7,8-Tetra CDF **	pg/L	2.58 J	0.98	19	0.100	0.258		3055866
1,2,3,7,8-Penta CDF	pg/L	0.94 U (1)	0.94	48	0.0300	0.0282		3055866
2,3,4,7,8-Penta CDF	pg/L	1.3 U (1)	1.3	48	0.300	0.390		3055866
1,2,3,4,7,8-Hexa CDF	pg/L	3.0 J	1.0	48	0.100	0.300		3055866
1,2,3,6,7,8-Hexa CDF	pg/L	1.9 J	1.0	48	0.100	0.190		3055866
2,3,4,6,7,8-Hexa CDF	pg/L	1.6 J	1.1	48	0.100	0.160		3055866
1,2,3,7,8,9-Hexa CDF	pg/L	1.3 U	1.3	48	0.100	0.130		3055866
1,2,3,4,6,7,8-Hepta CDF	pg/L	20 U (1)	20	48	0.0100	0.200		3055866
1,2,3,4,7,8,9-Hepta CDF	pg/L	2.1 J	1.2	48	0.0100	0.0210		3055866
Octa CDF	pg/L	73.1 J	1.6	95	0.000300	0.0219		3055866
Total Tetra CDF	pg/L	8.19 J	0.98	19				3055866
Total Penta CDF	pg/L	16.4 J	0.94	48				3055866
Total Hexa CDF	pg/L	37.1 J	1.1	48				3055866
Total Hepta CDF	pg/L	41.4 J	1.1	48				3055866
TOTAL TOXIC EQUIVALENCY	pg/L					7.75		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	94						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		PT7572						
Sampling Date		2012/11/19 16:00						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	88						3055866
C13-123478 HexaCDF	%	88						3055866
C13-123678 HexaCDD *	%	89						3055866
C13-12378 PentaCDD	%	89						3055866
C13-12378 PentaCDF	%	78						3055866
C13-2378 TetraCDD	%	93						3055866
C13-2378 TetraCDF	%	88						3055866
C13-OCDD	%	95						3055866

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0081 J	0.0036	0.095				3059711
3-MonoCB-(2)	ng/L	0.0040 J	0.0030	0.095				3059711
4-MonoCB-(3)	ng/L	0.0071 J	0.0036	0.095				3059711
22'-DiCB-(4)	ng/L	0.038 J	0.025	0.095				3059711
2,3-DiCB-(5)	ng/L	0.014 U	0.014	0.095				3059711
2,3'-DiCB-(6)	ng/L	0.017 U (1)	0.017	0.095				3059711
2,4-DiCB-(7)	ng/L	0.013 U	0.013	0.095				3059711
2,4'-DiCB-(8)	ng/L	0.084 J	0.011	0.095				3059711
2,5-DiCB-(9)	ng/L	0.013 U	0.013	0.095				3059711
2,6-DiCB-(10)	ng/L	0.017 U	0.017	0.095				3059711
3,3'-DiCB-(11)	ng/L	0.121	0.013	0.095				3059711
DiCB-(12)+(13)	ng/L	0.012 U	0.012	0.19				3059711
3,5-DiCB-(14)	ng/L	0.012 U	0.012	0.095				3059711
4,4'-DiCB-(15)	ng/L	0.078 J	0.017	0.095				3059711
22'3-TriCB-(16)	ng/L	0.0466 J	0.0031	0.095				3059711
22'4-TriCB-(17)	ng/L	0.0423 J	0.0029	0.095				3059711
TriCB-(18)+(30)	ng/L	0.0877 J	0.0023	0.19				3059711
22'6-TriCB-(19)	ng/L	0.0164 J	0.0032	0.095				3059711
TriCB-(20) + (28)	ng/L	0.166 J	0.0035	0.19				3059711
TriCB-(21)+(33)	ng/L	0.102 J	0.0035	0.19				3059711
234'-TriCB-(22)	ng/L	0.0653 J	0.0037	0.095				3059711
235-TriCB-(23)	ng/L	0.0035 U	0.0035	0.095				3059711
236-TriCB-(24)	ng/L	0.0022 U	0.0022	0.095				3059711
23'4-TriCB-(25)	ng/L	0.0116 J	0.0033	0.095				3059711
TriCB-(26)+(29)	ng/L	0.0273 J	0.0035	0.19				3059711
23'6-TriCB-(27)	ng/L	0.0071 J	0.0019	0.095				3059711
24'5-TriCB-(31)	ng/L	0.127	0.0033	0.095				3059711
24'6-TriCB-(32)	ng/L	0.0296 J	0.0018	0.095				3059711

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B2I7251
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0038 U	0.0038	0.095				3059711
33'4-TriCB-(35)	ng/L	0.0036 U	0.0036	0.095				3059711
33'5-TriCB-(36)	ng/L	0.0030 U	0.0030	0.095				3059711
344'-TriCB-(37)	ng/L	0.0800 J	0.0046	0.095				3059711
345-TriCB-(38)	ng/L	0.0034 U	0.0034	0.095				3059711
34'5-TriCB-(39)	ng/L	0.0032 U	0.0032	0.095				3059711
TetraCB-(40)+(41)+(71)	ng/L	0.106 J	0.0051	0.29				3059711
22'34'-TetraCB-(42)	ng/L	0.0559 J	0.0060	0.095				3059711
22'35-TetraCB-(43)	ng/L	0.0074 U	0.0074	0.095				3059711
TetraCB-(44)+(47)+(65)	ng/L	0.226 J	0.0049	0.29				3059711
TetraCB-(45)+(51)	ng/L	0.0281 J	0.0050	0.19				3059711
22'36'-TetraCB-(46)	ng/L	0.0112 J	0.0060	0.095				3059711
22'45-TetraCB-(48)	ng/L	0.0311 J	0.0049	0.095				3059711
TetraCB-(49)+TetraCB-(69)	ng/L	0.116 J	0.0045	0.19				3059711
TetraCB-(50)+(53)	ng/L	0.0242 J	0.0048	0.19				3059711
22'55'-TetraCB-(52)	ng/L	0.292	0.0045	0.095				3059711
22'66'-TetraCB-(54)	ng/L	0.0036 U	0.0036	0.095				3059711
233'4-TetraCB-(55)	ng/L	0.0034 U	0.0034	0.095				3059711
233'4'-Tetra CB(56)	ng/L	0.0721 J	0.0037	0.095				3059711
233'5-TetraCB-(57)	ng/L	0.0035 U	0.0035	0.095				3059711
233'5'-TetraCB-(58)	ng/L	0.0033 U	0.0033	0.095				3059711
TetraCB-(59)+(62)+(75)	ng/L	0.0144 J	0.0038	0.29				3059711
2344'-TetraCB -(60)	ng/L	0.029 U (1)	0.029	0.095				3059711
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.348 J	0.0036	0.38				3059711
234'5-TetraCB-(63)	ng/L	0.0048 J	0.0032	0.095				3059711
234'6-TetraCB-(64)	ng/L	0.0902 J	0.0041	0.095				3059711
23'44'-TetraCB-(66)	ng/L	0.145	0.0032	0.095				3059711
23'45-TetraCB-(67)	ng/L	0.0050 J	0.0033	0.095				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0031 U	0.0031	0.095				3059711
23'55'-TetraCB-(72)	ng/L	0.0033 U	0.0033	0.095				3059711
23'5'6-TetraCB-(73)	ng/L	0.0037 U	0.0037	0.095				3059711
33'44'-TetraCB-(77)	ng/L	0.0315 J	0.0037	0.095	0.000100	0.00000315		3059711
33'45-TetraCB-(78)	ng/L	0.0035 U	0.0035	0.095				3059711
33'45'-TetraCB(79)	ng/L	0.0059 U (1)	0.0059	0.095				3059711
33'55'-TetraCB-(80)	ng/L	0.0031 U	0.0031	0.095				3059711
344'5-TetraCB-(81)	ng/L	0.0038 U	0.0038	0.095	0.000300	0.00000114		3059711
22'33'4-PentaCB-(82)	ng/L	0.0673 J	0.0027	0.095				3059711
PentaCB-(83)+(99)	ng/L	0.27	0.0025	0.19				3059711
22'33'6-PentaCB-(84)	ng/L	0.146	0.0029	0.095				3059711
PentaCB-(85)+(116)+(117)	ng/L	0.0876 J	0.0021	0.29				3059711
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.410 J	0.0022	0.57				3059711
PentaCB-(88)+(91)	ng/L	0.0605 J	0.0025	0.19				3059711
22'346'-PentaCB-(89)	ng/L	0.0026 U	0.0026	0.095				3059711
PentaCB-(90)+(101)+(113)	ng/L	0.51	0.0020	0.29				3059711
22'355'-PentaCB-(92)	ng/L	0.096	0.0025	0.095				3059711
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0158 J	0.0026	0.38				3059711
22'356'-PentaCB-(94)	ng/L	0.0026 U	0.0026	0.095				3059711
22'35'6-PentaCB-(95)	ng/L	0.372	0.0023	0.095				3059711
22'366'-PentaCB-(96)	ng/L	0.00187 J	0.00057	0.095				3059711
22'45'6-PentaCB-(103)	ng/L	0.0022 U	0.0022	0.095				3059711
22'466'-PentaCB-(104)	ng/L	0.00075 U	0.00075	0.095				3059711
233'44'-PentaCB-(105)	ng/L	0.241	0.0047	0.095	0.0000300	0.00000723		3059711
233'45-PentaCB-(106)	ng/L	0.0042 U	0.0042	0.095				3059711
233'4'5-PentaCB-(107)	ng/L	0.0305 J	0.0041	0.095				3059711
PentaCB-(108)+(124)	ng/L	0.0179 J	0.0043	0.19				3059711
PentaCB-(110)+(115)	ng/L	0.77	0.0020	0.19				3059711

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.0018 U	0.0018	0.095				3059711
233'56-PentaCB-(112)	ng/L	0.0019 U	0.0019	0.095				3059711
2344'5-PentaCB-(114)	ng/L	0.0101 J	0.0044	0.095	0.0000300	0.000000303		3059711
23'44'5-PentaCB-(118)	ng/L	0.560	0.0047	0.095	0.0000300	0.0000168		3059711
23'455'-PentaCB-(120)	ng/L	0.0017 U	0.0017	0.095				3059711
23'45'6-PentaCB-(121)	ng/L	0.0018 U	0.0018	0.095				3059711
233'4'5'-PentaCB-(122)	ng/L	0.0056 J	0.0047	0.095				3059711
23'44'5'-PentaCB-(123)	ng/L	0.0049 U	0.0049	0.095	0.0000300	0.000000147		3059711
33'44'5-PentaCB-(126)	ng/L	0.0047 U	0.0047	0.095	0.100	0.000470		3059711
33'455'-PentaCB-(127)	ng/L	0.0042 U	0.0042	0.095				3059711
HexaCB-(128)+(166)	ng/L	0.126 J	0.0047	0.19				3059711
HexaCB-(129)+(138)+(163)	ng/L	0.76	0.0053	0.29				3059711
22'33'45'-HexaCB-(130)	ng/L	0.0468 J	0.0059	0.095				3059711
22'33'46-HexaCB-(131)	ng/L	0.010 U (1)	0.010	0.095				3059711
22'33'46'-HexaCB-(132)	ng/L	0.229	0.0057	0.095				3059711
22'33'55'-HexaCB-(133)	ng/L	0.0095 J	0.0055	0.095				3059711
HexaCB-(134)+(143)	ng/L	0.030 U (1)	0.030	0.19				3059711
HexaCB-(135)+(151)	ng/L	0.139 J	0.0011	0.19				3059711
22'33'66'-HexaCB-(136)	ng/L	0.0619 J	0.00084	0.095				3059711
22'344'5-HexaCB-(137)	ng/L	0.0387 J	0.0055	0.095				3059711
HexaCB-(139)+(140)	ng/L	0.0128 J	0.0052	0.19				3059711
22'3455'-HexaCB-(141)	ng/L	0.106	0.0053	0.095				3059711
22'3456-HexaCB-(142)	ng/L	0.0058 U	0.0058	0.095				3059711
22'345'6-HexaCB-(144)	ng/L	0.020 U (1)	0.020	0.095				3059711
22'3466'-HexaCB-(145)	ng/L	0.00086 U	0.00086	0.095				3059711
22'34'55'-HexaCB-(146)	ng/L	0.0845 J	0.0050	0.095				3059711
HexaCB-(147)+(149)	ng/L	0.38	0.0051	0.19				3059711
22'34'56'-HexaCB-(148)	ng/L	0.0011 U	0.0011	0.095				3059711

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.00081 U	0.00081	0.095				3059711
22'3566'-HexaCB-(152)	ng/L	0.00078 U	0.00078	0.095				3059711
HexaCB-(153)+(168)	ng/L	0.45	0.0042	0.19				3059711
22'44'56'-HexaCB-(154)	ng/L	0.0038 U (1)	0.0038	0.095				3059711
22'44'66'-HexaCB-(155)	ng/L	0.0012 U	0.0012	0.095				3059711
HexaCB-(156)+(157)	ng/L	0.102 J	0.0045	0.19	0.0000300	0.00000306		3059711
233'44'6-HexaCB-(158)	ng/L	0.0760 J	0.0039	0.095				3059711
233'455'-HexaCB-(159)	ng/L	0.0048 U	0.0048	0.095				3059711
233'456-HexaCB-(160)	ng/L	0.0043 U	0.0043	0.095				3059711
233'45'6-HexaCB-(161)	ng/L	0.0039 U	0.0039	0.095				3059711
233'4'55'-HexaCB-(162)	ng/L	0.0048 U	0.0048	0.095				3059711
233'4'5'6-HexaCB-(164)	ng/L	0.0502 J	0.0042	0.095				3059711
233'55'6-HexaCB-(165)	ng/L	0.0043 U	0.0043	0.095				3059711
23'44'55'-HexaCB-(167)	ng/L	0.0336 J	0.0049	0.095	0.0000300	0.00000101		3059711
33'44'55'-HexaCB-(169)	ng/L	0.0050 U	0.0050	0.095	0.0300	0.000150		3059711
22'33'44'5-HeptaCB-(170)	ng/L	0.127	0.0050	0.095				3059711
HeptaCB-(171)+(173)	ng/L	0.0341 J	0.0056	0.19				3059711
22'33'455'-HeptaCB-(172)	ng/L	0.0194 J	0.0055	0.095				3059711
22'33'456'-HeptaCB-(174)	ng/L	0.0900 J	0.0055	0.095				3059711
22'33'45'6-HeptaCB-(175)	ng/L	0.0048 J	0.0022	0.095				3059711
22'33'466'-HeptaCB-(176)	ng/L	0.0121 J	0.0017	0.095				3059711
22'33'45'6'-HeptaCB-(177)	ng/L	0.0545 J	0.0053	0.095				3059711
22'33'55'6-HeptaCB-(178)	ng/L	0.0191 J	0.0023	0.095				3059711
22'33'566'-HeptaCB-(179)	ng/L	0.0318 J	0.0016	0.095				3059711
HeptaCB-(180)+(193)	ng/L	0.21	0.0041	0.19				3059711
22'344'56-HeptaCB-(181)	ng/L	0.0051 U	0.0051	0.095				3059711
22'344'56'-HeptaCB-(182)	ng/L	0.0022 U	0.0022	0.095				3059711
22'344'5'6-HeptaCB-(183)	ng/L	0.0435 J	0.0046	0.095				3059711

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Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.0016 U	0.0016	0.095				3059711
22'3455'6-HeptaCB-(185)	ng/L	0.0054 U	0.0054	0.095				3059711
22'34566'-HeptaCB-(186)	ng/L	0.0017 U	0.0017	0.095				3059711
22'34'55'6-HeptaCB-(187)	ng/L	0.111	0.0020	0.095				3059711
22'34'566'-HeptaCB-(188)	ng/L	0.0026 U	0.0026	0.095				3059711
233'44'55'-HeptaCB-(189)	ng/L	0.011 U	0.011	0.095	0.0000300	0.000000330		3059711
233'44'56-HeptaCB-(190)	ng/L	0.0185 J	0.0042	0.095				3059711
233'44'5'6-HeptaCB-(191)	ng/L	0.0041 U	0.0041	0.095				3059711
233'455'6-HeptaCB-(192)	ng/L	0.0043 U	0.0043	0.095				3059711
22'33'44'55'-OctaCB-(194)	ng/L	0.053 U (1)	0.053	0.095				3059711
22'33'44'56-OctaCB-(195)	ng/L	0.020 U (1)	0.020	0.095				3059711
22'33'44'56'-OctaCB-(196)	ng/L	0.0303 J	0.0034	0.095				3059711
22'33'44'66'OctaCB-(197)	ng/L	0.0030 U (1)	0.0030	0.095				3059711
OctaCB-(198)+(199)	ng/L	0.0788 J	0.0035	0.19				3059711
22'33'4566'-OctaCB-(200)	ng/L	0.0066 J	0.0025	0.095				3059711
22'33'45'66'-OctaCB-(201)	ng/L	0.0108 J	0.0025	0.095				3059711
22'33'55'66'-OctaCB-(202)	ng/L	0.0201 J	0.0041	0.095				3059711
22'344'55'6-OctaCB-(203)	ng/L	0.0491 J	0.0031	0.095				3059711
22'344'566'-OctaCB-(204)	ng/L	0.0025 U	0.0025	0.095				3059711
233'44'55'6-OctaCB-(205)	ng/L	0.0051 U	0.0051	0.095				3059711
22'33'44'55'6-NonaCB-(206)	ng/L	0.066 J	0.010	0.095				3059711
22'33'44'566'-NonaCB-(207)	ng/L	0.0083 U	0.0083	0.095				3059711
22'33'455'66'-NonaCB-(208)	ng/L	0.011 U	0.011	0.095				3059711
DecaCB-(209)	ng/L	0.013 U (1)	0.013	0.095				3059711
Monochlorobiphenyl	ng/L	0.0192	0.0036	N/A				3059711
Dichlorobiphenyl	ng/L	0.322	0.025	N/A				3059711
Trichlorobiphenyl	ng/L	0.809	0.0046	N/A				3059711
Tetrachlorobiphenyl	ng/L	1.60	0.0074	N/A				3059711

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	3.66	0.0049	N/A				3059711
Hexachlorobiphenyl	ng/L	2.71	0.0066	N/A				3059711
Heptachlorobiphenyl	ng/L	0.773	0.011	N/A				3059711
Octachlorobiphenyl	ng/L	0.196	0.0068	N/A				3059711
Nonachlorobiphenyl	ng/L	0.066	0.011	N/A				3059711
Decachlorobiphenyl	ng/L	0.0033 U	0.0033	N/A				3059711
Total PCB	ng/L	10.2	N/A	N/A				3059711
TOTAL TOXIC EQUIVALENCY	ng/L					0.000653		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	119						3059711
C13-22'33'44'55'6-NonaCB-(206)	%	88						3059711
C13-22'33'44'5-HeptaCB-(170)	%	114						3059711
C13-22'33'455'66'-NonaCB-(208)	%	94						3059711
C13-22'33'55'66'-OctaCB-(202)	%	101						3059711
C13-22'33'55'6-HeptaCB-(178)	%	99						3059711
C13-22'344'55'-HeptaCB-(180)	%	117						3059711
C13-22'34'566'-HeptaCB-(188)	%	89						3059711
C13-22'44'66'-HexaCB-(155)	%	79						3059711
C13-22'466'-PentaCB-(104)	%	77						3059711
C13-22'66'-TetraCB-(54)	%	68						3059711
C13-22'6-TriCB-(19)	%	62						3059711
C13-22'-DiCB-(4)	%	45						3059711
C13-233'44'55'6-OctaCB-(205)	%	95						3059711
C13-233'44'55'-HeptaCB-(189)	%	105						3059711
C13-233'44'-PentaCB-(105)	%	118						3059711
C13-233'55'-PentaCB-(111)	%	108						3059711
C13-23'44'55'-HexaCB-(167)	%	102						3059711
C13-2344'5-PentaCB-(114)	%	122						3059711
C13-23'44'5-PentaCB-(118)	%	118						3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7569						
Sampling Date		2012/11/19 13:40						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	118						3059711
C13-2-MonoCB-(1)	%	55						3059711
C13-33'44'55'-HexaCB-(169)	%	96						3059711
C13-33'44'5-PentaCB-(126)	%	117						3059711
C13-33'44'-TetraCB-(77)	%	105						3059711
C13-344'5-TetraCB-(81)	%	106						3059711
C13-344'-TriCB-(37)	%	112						3059711
C13-44'-DiCB-(15)	%	93						3059711
C13-4-MonoCB-(3)	%	62						3059711
C13-DecaCB-(209)	%	72						3059711
C13-HexaCB-(156)+(157)	%	100						3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0217 J	0.00085	0.095				3059711
3-MonoCB-(2)	ng/L	0.0101 J	0.00072	0.095				3059711
4-MonoCB-(3)	ng/L	0.0166 J	0.00085	0.095				3059711
22'-DiCB-(4)	ng/L	0.176	0.021	0.095				3059711
2,3-DiCB-(5)	ng/L	0.0179 J	0.0037	0.095				3059711
2,3'-DiCB-(6)	ng/L	0.0600 J	0.0033	0.095				3059711
2,4-DiCB-(7)	ng/L	0.0128 J	0.0034	0.095				3059711
2,4'-DiCB-(8)	ng/L	0.279	0.0030	0.095				3059711
2,5-DiCB-(9)	ng/L	0.021 U (1)	0.021	0.095				3059711
2,6-DiCB-(10)	ng/L	0.015 U	0.015	0.095				3059711
3,3'-DiCB-(11)	ng/L	0.277	0.0034	0.095				3059711
DiCB-(12)+(13)	ng/L	0.031 U (1)	0.031	0.19				3059711
3,5-DiCB-(14)	ng/L	0.0033 U	0.0033	0.095				3059711
4,4'-DiCB-(15)	ng/L	0.246	0.0046	0.095				3059711
22'3-TriCB-(16)	ng/L	0.197	0.0026	0.095				3059711
22'4-TriCB-(17)	ng/L	0.195	0.0024	0.095				3059711
TriCB-(18)+(30)	ng/L	0.39	0.0019	0.19				3059711
22'6-TriCB-(19)	ng/L	0.0621 J	0.0027	0.095				3059711
TriCB-(20) + (28)	ng/L	0.62	0.0033	0.19				3059711
TriCB-(21)+(33)	ng/L	0.39	0.0033	0.19				3059711
234'-TriCB-(22)	ng/L	0.259	0.0034	0.095				3059711
235-TriCB-(23)	ng/L	0.0033 U	0.0033	0.095				3059711
236-TriCB-(24)	ng/L	0.0136 J	0.0019	0.095				3059711
23'4-TriCB-(25)	ng/L	0.0435 J	0.0031	0.095				3059711
TriCB-(26)+(29)	ng/L	0.104 J	0.0033	0.19				3059711
23'6-TriCB-(27)	ng/L	0.0308 J	0.0016	0.095				3059711
24'5-TriCB-(31)	ng/L	0.519	0.0030	0.095				3059711
24'6-TriCB-(32)	ng/L	0.120	0.0015	0.095				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0035 U	0.0035	0.095				3059711
33'4-TriCB-(35)	ng/L	0.0137 J	0.0033	0.095				3059711
33'5-TriCB-(36)	ng/L	0.0028 U	0.0028	0.095				3059711
344'-TriCB-(37)	ng/L	0.260	0.0043	0.095				3059711
345-TriCB-(38)	ng/L	0.0032 U	0.0032	0.095				3059711
34'5-TriCB-(39)	ng/L	0.0040 U (1)	0.0040	0.095				3059711
TetraCB-(40)+(41)+(71)	ng/L	0.34	0.0021	0.29				3059711
22'34'-TetraCB-(42)	ng/L	0.175	0.0025	0.095				3059711
22'35-TetraCB-(43)	ng/L	0.0276 J	0.0030	0.095				3059711
TetraCB-(44)+(47)+(65)	ng/L	0.58	0.0020	0.29				3059711
TetraCB-(45)+(51)	ng/L	0.106 J	0.0021	0.19				3059711
22'36'-TetraCB-(46)	ng/L	0.0395 J	0.0025	0.095				3059711
22'45-TetraCB-(48)	ng/L	0.113	0.0020	0.095				3059711
TetraCB-(49)+TetraCB-(69)	ng/L	0.30	0.0018	0.19				3059711
TetraCB-(50)+(53)	ng/L	0.0731 J	0.0020	0.19				3059711
22'55'-TetraCB-(52)	ng/L	0.561	0.0018	0.095				3059711
22'66'-TetraCB-(54)	ng/L	0.0023 U	0.0023	0.095				3059711
233'4-TetraCB-(55)	ng/L	0.0048 U	0.0048	0.095				3059711
233'4'-Tetra CB(56)	ng/L	0.184	0.0052	0.095				3059711
233'5-TetraCB-(57)	ng/L	0.0048 U	0.0048	0.095				3059711
233'5'-TetraCB-(58)	ng/L	0.0046 U	0.0046	0.095				3059711
TetraCB-(59)+(62)+(75)	ng/L	0.0537 J	0.0016	0.29				3059711
2344'-TetraCB -(60)	ng/L	0.0913 J	0.0048	0.095				3059711
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.70	0.0050	0.38				3059711
234'5-TetraCB-(63)	ng/L	0.0150 J	0.0045	0.095				3059711
234'6-TetraCB-(64)	ng/L	0.273	0.0017	0.095				3059711
23'44'-TetraCB-(66)	ng/L	0.316	0.0045	0.095				3059711
23'45-TetraCB-(67)	ng/L	0.0129 J	0.0045	0.095				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0043 U	0.0043	0.095				3059711
23'55'-TetraCB-(72)	ng/L	0.0046 U	0.0046	0.095				3059711
23'5'6-TetraCB-(73)	ng/L	0.0015 U	0.0015	0.095				3059711
33'44'-TetraCB-(77)	ng/L	0.0544 J	0.0051	0.095	0.000100	0.00000544		3059711
33'45-TetraCB-(78)	ng/L	0.0049 U	0.0049	0.095				3059711
33'45'-TetraCB(79)	ng/L	0.0087 J	0.0041	0.095				3059711
33'55'-TetraCB-(80)	ng/L	0.0044 U	0.0044	0.095				3059711
344'5-TetraCB-(81)	ng/L	0.0053 U	0.0053	0.095	0.000300	0.00000159		3059711
22'33'4-PentaCB-(82)	ng/L	0.0879 J	0.0057	0.095				3059711
PentaCB-(83)+(99)	ng/L	0.32	0.0052	0.19				3059711
22'33'6-PentaCB-(84)	ng/L	0.198	0.0060	0.095				3059711
PentaCB-(85)+(116)+(117)	ng/L	0.116 J	0.0043	0.29				3059711
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.534 J	0.0046	0.57				3059711
PentaCB-(88)+(91)	ng/L	0.0906 J	0.0051	0.19				3059711
22'346'-PentaCB-(89)	ng/L	0.0080 J	0.0054	0.095				3059711
PentaCB-(90)+(101)+(113)	ng/L	0.64	0.0042	0.29				3059711
22'355'-PentaCB-(92)	ng/L	0.120	0.0051	0.095				3059711
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0279 J	0.0053	0.38				3059711
22'356'-PentaCB-(94)	ng/L	0.0054 U	0.0054	0.095				3059711
22'35'6-PentaCB-(95)	ng/L	0.528	0.0048	0.095				3059711
22'366'-PentaCB-(96)	ng/L	0.00481 J	0.00087	0.095				3059711
22'45'6-PentaCB-(103)	ng/L	0.0046 U	0.0046	0.095				3059711
22'466'-PentaCB-(104)	ng/L	0.0011 U	0.0011	0.095				3059711
233'44'-PentaCB-(105)	ng/L	0.350	0.0055	0.095	0.0000300	0.0000105		3059711
233'45-PentaCB-(106)	ng/L	0.0049 U	0.0049	0.095				3059711
233'4'5-PentaCB-(107)	ng/L	0.0408 J	0.0047	0.095				3059711
PentaCB-(108)+(124)	ng/L	0.0281 J	0.0050	0.19				3059711
PentaCB-(110)+(115)	ng/L	0.99	0.0042	0.19				3059711
233'55'-PentaCB-(111)	ng/L	0.0037 U	0.0037	0.095				3059711

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/L	0.0039 U	0.0039	0.095				3059711
2344'5-PentaCB-(114)	ng/L	0.0158 J	0.0052	0.095	0.0000300	0.000000474		3059711
23'44'5-PentaCB-(118)	ng/L	0.742	0.0054	0.095	0.0000300	0.0000223		3059711
23'455'-PentaCB-(120)	ng/L	0.0036 U	0.0036	0.095				3059711
23'45'6-PentaCB-(121)	ng/L	0.0037 U	0.0037	0.095				3059711
233'4'5'-PentaCB-(122)	ng/L	0.0092 J	0.0055	0.095				3059711
23'44'5'-PentaCB-(123)	ng/L	0.0140 J	0.0057	0.095	0.0000300	0.000000420		3059711
33'44'5-PentaCB-(126)	ng/L	0.0054 U	0.0054	0.095	0.100	0.000540		3059711
33'455'-PentaCB-(127)	ng/L	0.0048 U	0.0048	0.095				3059711
HexaCB-(128)+(166)	ng/L	0.168 J	0.0033	0.19				3059711
HexaCB-(129)+(138)+(163)	ng/L	1.05	0.0038	0.29				3059711
22'33'45'-HexaCB-(130)	ng/L	0.0636 J	0.0042	0.095				3059711
22'33'46-HexaCB-(131)	ng/L	0.0159 J	0.0047	0.095				3059711
22'33'46'-HexaCB-(132)	ng/L	0.323	0.0041	0.095				3059711
22'33'55'-HexaCB-(133)	ng/L	0.0110 J	0.0039	0.095				3059711
HexaCB-(134)+(143)	ng/L	0.0459 J	0.0044	0.19				3059711
HexaCB-(135)+(151)	ng/L	0.21	0.0021	0.19				3059711
22'33'66'-HexaCB-(136)	ng/L	0.0880 J	0.0016	0.095				3059711
22'344'5-HexaCB-(137)	ng/L	0.0487 J	0.0039	0.095				3059711
HexaCB-(139)+(140)	ng/L	0.0145 J	0.0037	0.19				3059711
22'3455'-HexaCB-(141)	ng/L	0.162	0.0038	0.095				3059711
22'3456-HexaCB-(142)	ng/L	0.0041 U	0.0041	0.095				3059711
22'345'6-HexaCB-(144)	ng/L	0.0326 J	0.0020	0.095				3059711
22'3466'-HexaCB-(145)	ng/L	0.0016 U	0.0016	0.095				3059711
22'34'55'-HexaCB-(146)	ng/L	0.115	0.0036	0.095				3059711
HexaCB-(147)+(149)	ng/L	0.60	0.0036	0.19				3059711
22'34'56'-HexaCB-(148)	ng/L	0.0020 U	0.0020	0.095				3059711
22'34'66'-HexaCB-(150)	ng/L	0.0015 U	0.0015	0.095				3059711
22'3566'-HexaCB-(152)	ng/L	0.0015 U	0.0015	0.095				3059711

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/L	0.62	0.0030	0.19				3059711
22'44'56'-HexaCB-(154)	ng/L	0.0044 U (1)	0.0044	0.095				3059711
22'44'66'-HexaCB-(155)	ng/L	0.0023 U	0.0023	0.095				3059711
HexaCB-(156)+(157)	ng/L	0.143 J	0.0055	0.19	0.0000300	0.00000429		3059711
233'44'6-HexaCB-(158)	ng/L	0.105	0.0028	0.095				3059711
233'455'-HexaCB-(159)	ng/L	0.0075 J	0.0058	0.095				3059711
233'456-HexaCB-(160)	ng/L	0.0030 U	0.0030	0.095				3059711
233'45'6-HexaCB-(161)	ng/L	0.0028 U	0.0028	0.095				3059711
233'4'55'-HexaCB-(162)	ng/L	0.0057 U	0.0057	0.095				3059711
233'4'5'6-HexaCB-(164)	ng/L	0.0698 J	0.0030	0.095				3059711
233'55'6-HexaCB-(165)	ng/L	0.0030 U	0.0030	0.095				3059711
23'44'55'-HexaCB-(167)	ng/L	0.0464 J	0.0059	0.095	0.0000300	0.00000139		3059711
33'44'55'-HexaCB-(169)	ng/L	0.0060 U	0.0060	0.095	0.0300	0.000180		3059711
22'33'44'5-HeptaCB-(170)	ng/L	0.207	0.0051	0.095				3059711
HeptaCB-(171)+(173)	ng/L	0.0595 J	0.0057	0.19				3059711
22'33'455'-HeptaCB-(172)	ng/L	0.029 U (1)	0.029	0.095				3059711
22'33'456'-HeptaCB-(174)	ng/L	0.180	0.0056	0.095				3059711
22'33'45'6-HeptaCB-(175)	ng/L	0.0074 U (1)	0.0074	0.095				3059711
22'33'466'-HeptaCB-(176)	ng/L	0.0184 J	0.00098	0.095				3059711
22'33'45'6'-HeptaCB-(177)	ng/L	0.0920 J	0.0054	0.095				3059711
22'33'55'6-HeptaCB-(178)	ng/L	0.0319 J	0.0013	0.095				3059711
22'33'566'-HeptaCB-(179)	ng/L	0.0550 J	0.00094	0.095				3059711
HeptaCB-(180)+(193)	ng/L	0.37	0.0042	0.19				3059711
22'344'56-HeptaCB-(181)	ng/L	0.0052 U	0.0052	0.095				3059711
22'344'56'-HeptaCB-(182)	ng/L	0.0013 U	0.0013	0.095				3059711
22'344'5'6-HeptaCB-(183)	ng/L	0.0899 J	0.0047	0.095				3059711
22'344'66'-HeptaCB-(184)	ng/L	0.00091 U	0.00091	0.095				3059711
22'3455'6-HeptaCB-(185)	ng/L	0.0148 J	0.0055	0.095				3059711

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/L	0.00097 U	0.00097	0.095				3059711
22'34'55'6-HeptaCB-(187)	ng/L	0.185	0.0012	0.095				3059711
22'34'566'-HeptaCB-(188)	ng/L	0.0015 U	0.0015	0.095				3059711
233'44'55'-HeptaCB-(189)	ng/L	0.015 U	0.015	0.095	0.0000300	0.000000450		3059711
233'44'56-HeptaCB-(190)	ng/L	0.0318 J	0.0043	0.095				3059711
233'44'5'6-HeptaCB-(191)	ng/L	0.0074 U (1)	0.0074	0.095				3059711
233'455'6-HeptaCB-(192)	ng/L	0.0044 U	0.0044	0.095				3059711
22'33'44'55'-OctaCB-(194)	ng/L	0.0940 J	0.0061	0.095				3059711
22'33'44'56-OctaCB-(195)	ng/L	0.0293 J	0.0065	0.095				3059711
22'33'44'56'-OctaCB-(196)	ng/L	0.0460 J	0.0033	0.095				3059711
22'33'44'66'OctaCB-(197)	ng/L	0.0032 U (1)	0.0032	0.095				3059711
OctaCB-(198)+(199)	ng/L	0.138 J	0.0034	0.19				3059711
22'33'4566'-OctaCB-(200)	ng/L	0.0134 J	0.0024	0.095				3059711
22'33'45'66'-OctaCB-(201)	ng/L	0.0163 J	0.0024	0.095				3059711
22'33'55'66'-OctaCB-(202)	ng/L	0.0456 J	0.0040	0.095				3059711
22'344'55'6-OctaCB-(203)	ng/L	0.0903 J	0.0031	0.095				3059711
22'344'566'-OctaCB-(204)	ng/L	0.0025 U	0.0025	0.095				3059711
233'44'55'6-OctaCB-(205)	ng/L	0.0049 U	0.0049	0.095				3059711
22'33'44'55'6-NonaCB-(206)	ng/L	0.142	0.0085	0.095				3059711
22'33'44'566'-NonaCB-(207)	ng/L	0.0148 J	0.0067	0.095				3059711
22'33'455'66'-NonaCB-(208)	ng/L	0.0446 J	0.0087	0.095				3059711
DecaCB-(209)	ng/L	0.032 U (1)	0.032	0.095				3059711
Monochlorobiphenyl	ng/L	0.0484	0.00085	N/A				3059711
Dichlorobiphenyl	ng/L	1.07	0.021	N/A				3059711
Trichlorobiphenyl	ng/L	3.21	0.0043	N/A				3059711
Tetrachlorobiphenyl	ng/L	4.03	0.0053	N/A				3059711
Pentachlorobiphenyl	ng/L	4.86	0.0060	N/A				3059711
Hexachlorobiphenyl	ng/L	3.94	0.0060	N/A				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Heptachlorobiphenyl	ng/L	1.33	0.015	N/A				3059711
Octachlorobiphenyl	ng/L	0.473	0.0065	N/A				3059711
Nonachlorobiphenyl	ng/L	0.201	0.0087	N/A				3059711
Decachlorobiphenyl	ng/L	0.0031 U	0.0031	N/A				3059711
Total PCB	ng/L	19.2	N/A	N/A				3059711
TOTAL TOXIC EQUIVALENCY	ng/L					0.000767		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	114						3059711
C13-22'33'44'55'6-NonaCB-(206)	%	93						3059711
C13-22'33'44'5-HeptaCB-(170)	%	117						3059711
C13-22'33'455'66'-NonaCB-(208)	%	99						3059711
C13-22'33'55'66'-OctaCB-(202)	%	101						3059711
C13-22'33'55'6-HeptaCB-(178)	%	98						3059711
C13-22'344'55'-HeptaCB-(180)	%	121						3059711
C13-22'34'566'-HeptaCB-(188)	%	93						3059711
C13-22'44'66'-HexaCB-(155)	%	84						3059711
C13-22'466'-PentaCB-(104)	%	83						3059711
C13-22'66'-TetraCB-(54)	%	72						3059711
C13-22'6-TriCB-(19)	%	71						3059711
C13-22'-DiCB-(4)	%	54						3059711
C13-233'44'55'6-OctaCB-(205)	%	101						3059711
C13-233'44'55'-HeptaCB-(189)	%	110						3059711
C13-233'44'-PentaCB-(105)	%	124						3059711
C13-233'55'-PentaCB-(111)	%	106						3059711
C13-23'44'55'-HexaCB-(167)	%	108						3059711
C13-2344'5-PentaCB-(114)	%	125						3059711
C13-23'44'5-PentaCB-(118)	%	126						3059711
C13-2'344'5-PentaCB-(123)	%	122						3059711
C13-2-MonoCB-(1)	%	63						3059711

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Maxxam ID		PT7570						
Sampling Date		2012/11/19 14:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'55'-HexaCB-(169)	%	103						3059711
C13-33'44'5-PentaCB-(126)	%	122						3059711
C13-33'44'-TetraCB-(77)	%	107						3059711
C13-344'5-TetraCB-(81)	%	109						3059711
C13-344'-TriCB-(37)	%	112						3059711
C13-44'-DiCB-(15)	%	97						3059711
C13-4-MonoCB-(3)	%	71						3059711
C13-DecaCB-(209)	%	75						3059711
C13-HexaCB-(156)+(157)	%	107						3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0041 U (1)	0.0041	0.098				3059711
3-MonoCB-(2)	ng/L	0.0013 U (1)	0.0013	0.098				3059711
4-MonoCB-(3)	ng/L	0.0033 U (1)	0.0033	0.098				3059711
22'-DiCB-(4)	ng/L	0.049 J	0.023	0.098				3059711
2,3-DiCB-(5)	ng/L	0.016 U	0.016	0.098				3059711
2,3'-DiCB-(6)	ng/L	0.026 J	0.014	0.098				3059711
2,4-DiCB-(7)	ng/L	0.014 U	0.014	0.098				3059711
2,4'-DiCB-(8)	ng/L	0.096 J	0.013	0.098				3059711
2,5-DiCB-(9)	ng/L	0.014 U	0.014	0.098				3059711
2,6-DiCB-(10)	ng/L	0.016 U	0.016	0.098				3059711
3,3'-DiCB-(11)	ng/L	0.177	0.014	0.098				3059711
DiCB-(12)+(13)	ng/L	0.014 U	0.014	0.20				3059711
3,5-DiCB-(14)	ng/L	0.014 U	0.014	0.098				3059711
4,4'-DiCB-(15)	ng/L	0.137	0.019	0.098				3059711
22'3-TriCB-(16)	ng/L	0.0805 J	0.0027	0.098				3059711
22'4-TriCB-(17)	ng/L	0.0841 J	0.0025	0.098				3059711
TriCB-(18)+(30)	ng/L	0.179 J	0.0020	0.20				3059711
22'6-TriCB-(19)	ng/L	0.0327 J	0.0029	0.098				3059711
TriCB-(20) + (28)	ng/L	0.37	0.0035	0.20				3059711
TriCB-(21)+(33)	ng/L	0.164 J	0.0035	0.20				3059711
234'-TriCB-(22)	ng/L	0.134	0.0036	0.098				3059711
235-TriCB-(23)	ng/L	0.0035 U	0.0035	0.098				3059711
236-TriCB-(24)	ng/L	0.0042 U (1)	0.0042	0.098				3059711
23'4-TriCB-(25)	ng/L	0.0253 J	0.0033	0.098				3059711
TriCB-(26)+(29)	ng/L	0.0517 J	0.0035	0.20				3059711
23'6-TriCB-(27)	ng/L	0.0199 J	0.0017	0.098				3059711
24'5-TriCB-(31)	ng/L	0.250	0.0032	0.098				3059711
24'6-TriCB-(32)	ng/L	0.0769 J	0.0016	0.098				3059711

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COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0038 U	0.0038	0.098				3059711
33'4-TriCB-(35)	ng/L	0.0096 J	0.0036	0.098				3059711
33'5-TriCB-(36)	ng/L	0.0030 U	0.0030	0.098				3059711
344'-TriCB-(37)	ng/L	0.165	0.0046	0.098				3059711
345-TriCB-(38)	ng/L	0.0034 U	0.0034	0.098				3059711
34'5-TriCB-(39)	ng/L	0.0032 U	0.0032	0.098				3059711
TetraCB-(40)+(41)+(71)	ng/L	0.33	0.0040	0.29				3059711
22'34'-TetraCB-(42)	ng/L	0.174	0.0048	0.098				3059711
22'35-TetraCB-(43)	ng/L	0.0229 J	0.0058	0.098				3059711
TetraCB-(44)+(47)+(65)	ng/L	0.69	0.0039	0.29				3059711
TetraCB-(45)+(51)	ng/L	0.111 J	0.0040	0.20				3059711
22'36'-TetraCB-(46)	ng/L	0.0413 J	0.0048	0.098				3059711
22'45-TetraCB-(48)	ng/L	0.0866 J	0.0039	0.098				3059711
TetraCB-(49)+TetraCB-(69)	ng/L	0.32	0.0035	0.20				3059711
TetraCB-(50)+(53)	ng/L	0.0772 J	0.0038	0.20				3059711
22'55'-TetraCB-(52)	ng/L	0.741	0.0035	0.098				3059711
22'66'-TetraCB-(54)	ng/L	0.0030 U	0.0030	0.098				3059711
233'4-TetraCB-(55)	ng/L	0.0062 U	0.0062	0.098				3059711
233'4'-Tetra CB(56)	ng/L	0.205	0.0067	0.098				3059711
233'5-TetraCB-(57)	ng/L	0.0062 U	0.0062	0.098				3059711
233'5'-TetraCB-(58)	ng/L	0.0060 U	0.0060	0.098				3059711
TetraCB-(59)+(62)+(75)	ng/L	0.0609 J	0.0030	0.29				3059711
2344'-TetraCB -(60)	ng/L	0.0886 J	0.0063	0.098				3059711
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.77	0.0065	0.39				3059711
234'5-TetraCB-(63)	ng/L	0.0123 J	0.0059	0.098				3059711
234'6-TetraCB-(64)	ng/L	0.299	0.0033	0.098				3059711
23'44'-TetraCB-(66)	ng/L	0.393	0.0058	0.098				3059711
23'45-TetraCB-(67)	ng/L	0.0103 J	0.0059	0.098				3059711
23'45'-TetraCB-(68)	ng/L	0.011 U (1)	0.011	0.098				3059711

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/L	0.0059 U	0.0059	0.098				3059711
23'5'6-TetraCB-(73)	ng/L	0.0029 U	0.0029	0.098				3059711
33'44'-TetraCB-(77)	ng/L	0.0726 J	0.0066	0.098	0.000100	0.00000726		3059711
33'45-TetraCB-(78)	ng/L	0.0063 U	0.0063	0.098				3059711
33'45'-TetraCB(79)	ng/L	0.017 U (1)	0.017	0.098				3059711
33'55'-TetraCB-(80)	ng/L	0.0057 U	0.0057	0.098				3059711
344'5-TetraCB-(81)	ng/L	0.0069 U	0.0069	0.098	0.000300	0.00000207		3059711
22'33'4-PentaCB-(82)	ng/L	0.201	0.010	0.098				3059711
PentaCB-(83)+(99)	ng/L	0.87	0.0093	0.20				3059711
22'33'6-PentaCB-(84)	ng/L	0.521	0.011	0.098				3059711
PentaCB-(85)+(116)+(117)	ng/L	0.280 J	0.0078	0.29				3059711
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	1.19	0.0083	0.59				3059711
PentaCB-(88)+(91)	ng/L	0.22	0.0092	0.20				3059711
22'346'-PentaCB-(89)	ng/L	0.0155 J	0.0098	0.098				3059711
PentaCB-(90)+(101)+(113)	ng/L	1.58	0.0076	0.29				3059711
22'355'-PentaCB-(92)	ng/L	0.324	0.0093	0.098				3059711
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.0602 J	0.0097	0.39				3059711
22'356'-PentaCB-(94)	ng/L	0.0098 U	0.0098	0.098				3059711
22'35'6-PentaCB-(95)	ng/L	1.35	0.0088	0.098				3059711
22'366'-PentaCB-(96)	ng/L	0.00951 J	0.00066	0.098				3059711
22'45'6-PentaCB-(103)	ng/L	0.0083 U	0.0083	0.098				3059711
22'466'-PentaCB-(104)	ng/L	0.00087 U	0.00087	0.098				3059711
233'44'-PentaCB-(105)	ng/L	0.581	0.0039	0.098	0.0000300	0.0000174		3059711
233'45-PentaCB-(106)	ng/L	0.0035 U	0.0035	0.098				3059711
233'4'5-PentaCB-(107)	ng/L	0.099	0.0033	0.098				3059711
PentaCB-(108)+(124)	ng/L	0.0592 J	0.0035	0.20				3059711
PentaCB-(110)+(115)	ng/L	2.63	0.0076	0.20				3059711
233'55'-PentaCB-(111)	ng/L	0.0067 U	0.0067	0.098				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/L	0.0070 U	0.0070	0.098				3059711
2344'5-PentaCB-(114)	ng/L	0.0216 J	0.0037	0.098	0.0000300	0.000000648		3059711
23'44'5-PentaCB-(118)	ng/L	1.44	0.0039	0.098	0.0000300	0.0000432		3059711
23'455'-PentaCB-(120)	ng/L	0.0065 U	0.0065	0.098				3059711
23'45'6-PentaCB-(121)	ng/L	0.0067 U	0.0067	0.098				3059711
233'4'5'-PentaCB-(122)	ng/L	0.011 U (1)	0.011	0.098				3059711
23'44'5'-PentaCB-(123)	ng/L	0.0253 J	0.0040	0.098	0.0000300	0.000000759		3059711
33'44'5-PentaCB-(126)	ng/L	0.013 U (1)	0.013	0.098	0.100	0.00130		3059711
33'455'-PentaCB-(127)	ng/L	0.0034 U	0.0034	0.098				3059711
HexaCB-(128)+(166)	ng/L	0.37	0.0085	0.20				3059711
HexaCB-(129)+(138)+(163)	ng/L	2.54	0.0096	0.29				3059711
22'33'45'-HexaCB-(130)	ng/L	0.152	0.011	0.098				3059711
22'33'46-HexaCB-(131)	ng/L	0.037 J	0.012	0.098				3059711
22'33'46'-HexaCB-(132)	ng/L	0.870	0.010	0.098				3059711
22'33'55'-HexaCB-(133)	ng/L	0.0322 J	0.0099	0.098				3059711
HexaCB-(134)+(143)	ng/L	0.124 J	0.011	0.20				3059711
HexaCB-(135)+(151)	ng/L	0.67	0.0022	0.20				3059711
22'33'66'-HexaCB-(136)	ng/L	0.274	0.0017	0.098				3059711
22'344'5-HexaCB-(137)	ng/L	0.106	0.010	0.098				3059711
HexaCB-(139)+(140)	ng/L	0.0433 J	0.0094	0.20				3059711
22'3455'-HexaCB-(141)	ng/L	0.390	0.0097	0.098				3059711
22'3456-HexaCB-(142)	ng/L	0.011 U	0.011	0.098				3059711
22'345'6-HexaCB-(144)	ng/L	0.0807 J	0.0021	0.098				3059711
22'3466'-HexaCB-(145)	ng/L	0.0017 U	0.0017	0.098				3059711
22'34'55'-HexaCB-(146)	ng/L	0.319	0.0092	0.098				3059711
HexaCB-(147)+(149)	ng/L	1.68	0.0093	0.20				3059711
22'34'56'-HexaCB-(148)	ng/L	0.0021 U	0.0021	0.098				3059711
22'34'66'-HexaCB-(150)	ng/L	0.0032 J	0.0016	0.098				3059711

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Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/L	0.0016 U	0.0016	0.098				3059711
HexaCB-(153)+(168)	ng/L	1.70	0.0077	0.20				3059711
22'44'56'-HexaCB-(154)	ng/L	0.020 U (1)	0.020	0.098				3059711
22'44'66'-HexaCB-(155)	ng/L	0.0025 U	0.0025	0.098				3059711
HexaCB-(156)+(157)	ng/L	0.28	0.011	0.20	0.0000300	0.00000840		3059711
233'44'6-HexaCB-(158)	ng/L	0.232	0.0072	0.098				3059711
233'455'-HexaCB-(159)	ng/L	0.018 J	0.011	0.098				3059711
233'456-HexaCB-(160)	ng/L	0.0078 U	0.0078	0.098				3059711
233'45'6-HexaCB-(161)	ng/L	0.0072 U	0.0072	0.098				3059711
233'4'55'-HexaCB-(162)	ng/L	0.011 U	0.011	0.098				3059711
233'4'5'6-HexaCB-(164)	ng/L	0.175	0.0076	0.098				3059711
233'55'6-HexaCB-(165)	ng/L	0.0078 U	0.0078	0.098				3059711
23'44'55'-HexaCB-(167)	ng/L	0.113	0.011	0.098	0.0000300	0.00000339		3059711
33'44'55'-HexaCB-(169)	ng/L	0.012 U	0.012	0.098	0.0300	0.000360		3059711
22'33'44'5-HeptaCB-(170)	ng/L	0.598	0.0078	0.098				3059711
HeptaCB-(171)+(173)	ng/L	0.165 J	0.0087	0.20				3059711
22'33'455'-HeptaCB-(172)	ng/L	0.0973 J	0.0086	0.098				3059711
22'33'456'-HeptaCB-(174)	ng/L	0.553	0.0085	0.098				3059711
22'33'45'6-HeptaCB-(175)	ng/L	0.0211 J	0.0030	0.098				3059711
22'33'466'-HeptaCB-(176)	ng/L	0.0661 J	0.0024	0.098				3059711
22'33'45'6'-HeptaCB-(177)	ng/L	0.280	0.0082	0.098				3059711
22'33'55'6-HeptaCB-(178)	ng/L	0.100	0.0032	0.098				3059711
22'33'566'-HeptaCB-(179)	ng/L	0.205	0.0023	0.098				3059711
HeptaCB-(180)+(193)	ng/L	1.22	0.0064	0.20				3059711
22'344'56-HeptaCB-(181)	ng/L	0.0079 U	0.0079	0.098				3059711
22'344'56'-HeptaCB-(182)	ng/L	0.0031 U	0.0031	0.098				3059711
22'344'5'6-HeptaCB-(183)	ng/L	0.315	0.0071	0.098				3059711
22'344'66'-HeptaCB-(184)	ng/L	0.0022 U	0.0022	0.098				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3455'6-HeptaCB-(185)	ng/L	0.0539 J	0.0084	0.098				3059711
22'34566'-HeptaCB-(186)	ng/L	0.0023 U	0.0023	0.098				3059711
22'34'55'6-HeptaCB-(187)	ng/L	0.615	0.0029	0.098				3059711
22'34'566'-HeptaCB-(188)	ng/L	0.0036 U	0.0036	0.098				3059711
233'44'55'-HeptaCB-(189)	ng/L	0.028 J	0.025	0.098	0.0000300	0.000000840		3059711
233'44'56-HeptaCB-(190)	ng/L	0.0891 J	0.0066	0.098				3059711
233'44'5'6-HeptaCB-(191)	ng/L	0.0213 J	0.0063	0.098				3059711
233'455'6-HeptaCB-(192)	ng/L	0.0067 U	0.0067	0.098				3059711
22'33'44'55'-OctaCB-(194)	ng/L	0.351	0.013	0.098				3059711
22'33'44'56-OctaCB-(195)	ng/L	0.092 U (1)	0.092	0.098				3059711
22'33'44'56'-OctaCB-(196)	ng/L	0.185	0.0088	0.098				3059711
22'33'44'66'OctaCB-(197)	ng/L	0.0201 J	0.0067	0.098				3059711
OctaCB-(198)+(199)	ng/L	0.43	0.0089	0.20				3059711
22'33'4566'-OctaCB-(200)	ng/L	0.045 U (1)	0.045	0.098				3059711
22'33'45'66'-OctaCB-(201)	ng/L	0.0595 J	0.0064	0.098				3059711
22'33'55'66'-OctaCB-(202)	ng/L	0.113	0.011	0.098				3059711
22'344'55'6-OctaCB-(203)	ng/L	0.264	0.0081	0.098				3059711
22'344'566'-OctaCB-(204)	ng/L	0.0066 U	0.0066	0.098				3059711
233'44'55'6-OctaCB-(205)	ng/L	0.010 U	0.010	0.098				3059711
22'33'44'55'6-NonaCB-(206)	ng/L	0.283	0.014	0.098				3059711
22'33'44'566'-NonaCB-(207)	ng/L	0.038 J	0.011	0.098				3059711
22'33'455'66'-NonaCB-(208)	ng/L	0.074 J	0.014	0.098				3059711
DecaCB-(209)	ng/L	0.0694 J	0.0084	0.098				3059711
Monochlorobiphenyl	ng/L	0.0015 U	0.0015	N/A				3059711
Dichlorobiphenyl	ng/L	0.486	0.023	N/A				3059711
Trichlorobiphenyl	ng/L	1.64	0.0046	N/A				3059711
Tetrachlorobiphenyl	ng/L	4.51	0.0069	N/A				3059711
Pentachlorobiphenyl	ng/L	11.5	0.011	N/A				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Hexachlorobiphenyl	ng/L	10.2	0.012	N/A				3059711
Heptachlorobiphenyl	ng/L	4.43	0.025	N/A				3059711
Octachlorobiphenyl	ng/L	1.42	0.013	N/A				3059711
Nonachlorobiphenyl	ng/L	0.395	0.014	N/A				3059711
Decachlorobiphenyl	ng/L	0.0694	0.0084	N/A				3059711
Total PCB	ng/L	34.7	N/A	N/A				3059711
TOTAL TOXIC EQUIVALENCY	ng/L					0.00174		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	112						3059711
C13-22'33'44'55'6-NonaCB-(206)	%	87						3059711
C13-22'33'44'5-HeptaCB-(170)	%	114						3059711
C13-22'33'455'66'-NonaCB-(208)	%	100						3059711
C13-22'33'55'66'-OctaCB-(202)	%	103						3059711
C13-22'33'55'6-HeptaCB-(178)	%	92						3059711
C13-22'344'55'-HeptaCB-(180)	%	118						3059711
C13-22'34'566'-HeptaCB-(188)	%	100						3059711
C13-22'44'66'-HexaCB-(155)	%	109						3059711
C13-22'466'-PentaCB-(104)	%	80						3059711
C13-22'66'-TetraCB-(54)	%	66						3059711
C13-22'6-TriCB-(19)	%	67						3059711
C13-22'-DiCB-(4)	%	50						3059711
C13-233'44'55'6-OctaCB-(205)	%	92						3059711
C13-233'44'55'-HeptaCB-(189)	%	107						3059711
C13-233'44'-PentaCB-(105)	%	95						3059711
C13-233'55'-PentaCB-(111)	%	93						3059711
C13-23'44'55'-HexaCB-(167)	%	100						3059711
C13-2344'5-PentaCB-(114)	%	107						3059711
C13-23'44'5-PentaCB-(118)	%	106						3059711
C13-2'344'5-PentaCB-(123)	%	106						3059711

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Maxxam ID		PT7571						
Sampling Date		2012/11/19 15:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2-MonoCB-(1)	%	73						3059711
C13-33'44'55'-HexaCB-(169)	%	87						3059711
C13-33'44'5-PentaCB-(126)	%	83						3059711
C13-33'44'-TetraCB-(77)	%	92						3059711
C13-344'5-TetraCB-(81)	%	95						3059711
C13-344'-TriCB-(37)	%	109						3059711
C13-44'-DiCB-(15)	%	78						3059711
C13-4-MonoCB-(3)	%	71						3059711
C13-DecaCB-(209)	%	74						3059711
C13-HexaCB-(156)+(157)	%	97						3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7572						
Sampling Date		2012/11/19 16:00						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0230 J	0.0022	0.095				3059711
3-MonoCB-(2)	ng/L	0.0054 J	0.0018	0.095				3059711
4-MonoCB-(3)	ng/L	0.0183 J	0.0022	0.095				3059711
22'-DiCB-(4)	ng/L	0.175	0.024	0.095				3059711
2,3-DiCB-(5)	ng/L	0.017 U	0.017	0.095				3059711
2,3'-DiCB-(6)	ng/L	0.097	0.015	0.095				3059711
2,4-DiCB-(7)	ng/L	0.018 J	0.015	0.095				3059711
2,4'-DiCB-(8)	ng/L	0.378	0.014	0.095				3059711
2,5-DiCB-(9)	ng/L	0.027 U (1)	0.027	0.095				3059711
2,6-DiCB-(10)	ng/L	0.017 U	0.017	0.095				3059711
3,3'-DiCB-(11)	ng/L	0.247	0.015	0.095				3059711
DiCB-(12)+(13)	ng/L	0.050 U (1)	0.050	0.19				3059711
3,5-DiCB-(14)	ng/L	0.015 U	0.015	0.095				3059711
4,4'-DiCB-(15)	ng/L	0.500	0.021	0.095				3059711
22'3-TriCB-(16)	ng/L	0.293	0.0040	0.095				3059711
22'4-TriCB-(17)	ng/L	0.337	0.0037	0.095				3059711
TriCB-(18)+(30)	ng/L	0.73	0.0030	0.19				3059711
22'6-TriCB-(19)	ng/L	0.144	0.0042	0.095				3059711
TriCB-(20) + (28)	ng/L	1.45	0.0037	0.19				3059711
TriCB-(21)+(33)	ng/L	0.57	0.0038	0.19				3059711
234'-TriCB-(22)	ng/L	0.473	0.0039	0.095				3059711
235-TriCB-(23)	ng/L	0.0037 U	0.0037	0.095				3059711
236-TriCB-(24)	ng/L	0.0029 U	0.0029	0.095				3059711
23'4-TriCB-(25)	ng/L	0.099	0.0035	0.095				3059711
TriCB-(26)+(29)	ng/L	0.23	0.0038	0.19				3059711
23'6-TriCB-(27)	ng/L	0.0842 J	0.0025	0.095				3059711
24'5-TriCB-(31)	ng/L	0.867	0.0035	0.095				3059711
24'6-TriCB-(32)	ng/L	0.329	0.0024	0.095				3059711

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7572						
Sampling Date		2012/11/19 16:00						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0040 U	0.0040	0.095				3059711
33'4-TriCB-(35)	ng/L	0.0291 J	0.0038	0.095				3059711
33'5-TriCB-(36)	ng/L	0.0032 U	0.0032	0.095				3059711
344'-TriCB-(37)	ng/L	0.609	0.0049	0.095				3059711
345-TriCB-(38)	ng/L	0.0037 U	0.0037	0.095				3059711
34'5-TriCB-(39)	ng/L	0.0091 J	0.0035	0.095				3059711
TetraCB-(40)+(41)+(71)	ng/L	1.26	0.0043	0.29				3059711
22'34'-TetraCB-(42)	ng/L	0.705	0.0051	0.095				3059711
22'35-TetraCB-(43)	ng/L	0.100	0.0063	0.095				3059711
TetraCB-(44)+(47)+(65)	ng/L	2.49	0.0042	0.29				3059711
TetraCB-(45)+(51)	ng/L	0.43	0.0043	0.19				3059711
22'36'-TetraCB-(46)	ng/L	0.177	0.0051	0.095				3059711
22'45-TetraCB-(48)	ng/L	0.340	0.0042	0.095				3059711
TetraCB-(49)+TetraCB-(69)	ng/L	1.42	0.0038	0.19				3059711
TetraCB-(50)+(53)	ng/L	0.37	0.0041	0.19				3059711
22'55'-TetraCB-(52)	ng/L	3.16	0.0038	0.095				3059711
22'66'-TetraCB-(54)	ng/L	0.0039 U	0.0039	0.095				3059711
233'4-TetraCB-(55)	ng/L	0.012 U	0.012	0.095				3059711
233'4'-Tetra CB(56)	ng/L	0.684	0.013	0.095				3059711
233'5-TetraCB-(57)	ng/L	0.012 U	0.012	0.095				3059711
233'5'-TetraCB-(58)	ng/L	0.012 U	0.012	0.095				3059711
TetraCB-(59)+(62)+(75)	ng/L	0.218 J	0.0032	0.29				3059711
2344'-TetraCB -(60)	ng/L	0.265	0.012	0.095				3059711
TetraCB-(61)+(70)+(74)+(76)	ng/L	2.68	0.013	0.38				3059711
234'5-TetraCB-(63)	ng/L	0.039 J	0.011	0.095				3059711
234'6-TetraCB-(64)	ng/L	1.13	0.0035	0.095				3059711
23'44'-TetraCB-(66)	ng/L	1.44	0.011	0.095				3059711
23'45-TetraCB-(67)	ng/L	0.034 J	0.011	0.095				3059711
23'45'-TetraCB-(68)	ng/L	0.017 U (1)	0.017	0.095				3059711

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	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/L	0.023 J	0.011	0.095				3059711
23'5'6-TetraCB-(73)	ng/L	0.0031 U	0.0031	0.095				3059711
33'44'-TetraCB-(77)	ng/L	0.239	0.013	0.095	0.000100	0.0000239		3059711
33'45-TetraCB-(78)	ng/L	0.012 U	0.012	0.095				3059711
33'45'-TetraCB(79)	ng/L	0.046 J	0.010	0.095				3059711
33'55'-TetraCB-(80)	ng/L	0.011 U	0.011	0.095				3059711
344'5-TetraCB-(81)	ng/L	0.013 U	0.013	0.095	0.000300	0.00000390		3059711
22'33'4-PentaCB-(82)	ng/L	0.677	0.0041	0.095				3059711
PentaCB-(83)+(99)	ng/L	2.83	0.0038	0.19				3059711
22'33'6-PentaCB-(84)	ng/L	1.63	0.0044	0.095				3059711
PentaCB-(85)+(116)+(117)	ng/L	0.85	0.0031	0.29				3059711
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	3.97	0.0033	0.57				3059711
PentaCB-(88)+(91)	ng/L	0.71	0.0037	0.19				3059711
22'346'-PentaCB-(89)	ng/L	0.0566 J	0.0039	0.095				3059711
PentaCB-(90)+(101)+(113)	ng/L	5.09	0.0031	0.29				3059711
22'355'-PentaCB-(92)	ng/L	1.01	0.0037	0.095				3059711
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.202 J	0.0039	0.38				3059711
22'356'-PentaCB-(94)	ng/L	0.0239 J	0.0039	0.095				3059711
22'35'6-PentaCB-(95)	ng/L	4.36	0.0035	0.095				3059711
22'366'-PentaCB-(96)	ng/L	0.0296 J	0.0011	0.095				3059711
22'45'6-PentaCB-(103)	ng/L	0.0324 J	0.0033	0.095				3059711
22'466'-PentaCB-(104)	ng/L	0.0014 U	0.0014	0.095				3059711
233'44'-PentaCB-(105)	ng/L	2.12	0.0082	0.095	0.0000300	0.0000636		3059711
233'45-PentaCB-(106)	ng/L	0.0073 U	0.0073	0.095				3059711
233'4'5-PentaCB-(107)	ng/L	0.346	0.0070	0.095				3059711
PentaCB-(108)+(124)	ng/L	0.20	0.0074	0.19				3059711
PentaCB-(110)+(115)	ng/L	8.16	0.0031	0.19				3059711
233'55'-PentaCB-(111)	ng/L	0.0027 U	0.0027	0.095				3059711
233'56-PentaCB-(112)	ng/L	0.0028 U	0.0028	0.095				3059711

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COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5-PentaCB-(114)	ng/L	0.0802 J	0.0077	0.095	0.0000300	0.00000241		3059711
23'44'5-PentaCB-(118)	ng/L	5.48	0.0081	0.095	0.0000300	0.000164		3059711
23'455'-PentaCB-(120)	ng/L	0.0026 U	0.0026	0.095				3059711
23'45'6-PentaCB-(121)	ng/L	0.0027 U	0.0027	0.095				3059711
233'4'5'-PentaCB-(122)	ng/L	0.0645 J	0.0081	0.095				3059711
23'44'5'-PentaCB-(123)	ng/L	0.0924 J	0.0085	0.095	0.0000300	0.00000277		3059711
33'44'5-PentaCB-(126)	ng/L	0.0250 J	0.0081	0.095	0.100	0.00250		3059711
33'455'-PentaCB-(127)	ng/L	0.0072 U	0.0072	0.095				3059711
HexaCB-(128)+(166)	ng/L	1.27	0.015	0.19				3059711
HexaCB-(129)+(138)+(163)	ng/L	8.64	0.017	0.29				3059711
22'33'45'-HexaCB-(130)	ng/L	0.518	0.019	0.095				3059711
22'33'46-HexaCB-(131)	ng/L	0.125	0.021	0.095				3059711
22'33'46'-HexaCB-(132)	ng/L	2.75	0.019	0.095				3059711
22'33'55'-HexaCB-(133)	ng/L	0.100	0.018	0.095				3059711
HexaCB-(134)+(143)	ng/L	0.44	0.020	0.19				3059711
HexaCB-(135)+(151)	ng/L	1.97	0.0034	0.19				3059711
22'33'66'-HexaCB-(136)	ng/L	0.750	0.0026	0.095				3059711
22'344'5-HexaCB-(137)	ng/L	0.421	0.018	0.095				3059711
HexaCB-(139)+(140)	ng/L	0.147 J	0.017	0.19				3059711
22'3455'-HexaCB-(141)	ng/L	1.28	0.017	0.095				3059711
22'3456-HexaCB-(142)	ng/L	0.019 U	0.019	0.095				3059711
22'345'6-HexaCB-(144)	ng/L	0.262	0.0033	0.095				3059711
22'3466'-HexaCB-(145)	ng/L	0.0027 U	0.0027	0.095				3059711
22'34'55'-HexaCB-(146)	ng/L	1.07	0.016	0.095				3059711
HexaCB-(147)+(149)	ng/L	5.37	0.017	0.19				3059711
22'34'56'-HexaCB-(148)	ng/L	0.0034 U	0.0034	0.095				3059711
22'34'66'-HexaCB-(150)	ng/L	0.0071 U (1)	0.0071	0.095				3059711
22'3566'-HexaCB-(152)	ng/L	0.0033 U (1)	0.0033	0.095				3059711

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

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COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/L	5.60	0.014	0.19				3059711
22'44'56'-HexaCB-(154)	ng/L	0.0626 J	0.0030	0.095				3059711
22'44'66'-HexaCB-(155)	ng/L	0.0038 U	0.0038	0.095				3059711
HexaCB-(156)+(157)	ng/L	0.93	0.015	0.19	0.0000300	0.0000279		3059711
233'44'6-HexaCB-(158)	ng/L	0.828	0.013	0.095				3059711
233'455'-HexaCB-(159)	ng/L	0.069 J	0.016	0.095				3059711
233'456-HexaCB-(160)	ng/L	0.014 U	0.014	0.095				3059711
233'45'6-HexaCB-(161)	ng/L	0.013 U	0.013	0.095				3059711
233'4'55'-HexaCB-(162)	ng/L	0.030 J	0.016	0.095				3059711
233'4'5'6-HexaCB-(164)	ng/L	0.497	0.013	0.095				3059711
233'55'6-HexaCB-(165)	ng/L	0.014 U	0.014	0.095				3059711
23'44'55'-HexaCB-(167)	ng/L	0.339	0.016	0.095	0.0000300	0.0000102		3059711
33'44'55'-HexaCB-(169)	ng/L	0.017 U	0.017	0.095	0.0300	0.000510		3059711
22'33'44'5-HeptaCB-(170)	ng/L	1.82	0.012	0.095				3059711
HeptaCB-(171)+(173)	ng/L	0.51	0.013	0.19				3059711
22'33'455'-HeptaCB-(172)	ng/L	0.291	0.013	0.095				3059711
22'33'456'-HeptaCB-(174)	ng/L	1.83	0.013	0.095				3059711
22'33'45'6-HeptaCB-(175)	ng/L	0.0592 J	0.0054	0.095				3059711
22'33'466'-HeptaCB-(176)	ng/L	0.185	0.0042	0.095				3059711
22'33'45'6'-HeptaCB-(177)	ng/L	0.928	0.012	0.095				3059711
22'33'55'6-HeptaCB-(178)	ng/L	0.314	0.0057	0.095				3059711
22'33'566'-HeptaCB-(179)	ng/L	0.602	0.0040	0.095				3059711
HeptaCB-(180)+(193)	ng/L	3.83	0.0097	0.19				3059711
22'344'56-HeptaCB-(181)	ng/L	0.012 U	0.012	0.095				3059711
22'344'56'-HeptaCB-(182)	ng/L	0.0054 U	0.0054	0.095				3059711
22'344'5'6-HeptaCB-(183)	ng/L	1.06	0.011	0.095				3059711
22'344'66'-HeptaCB-(184)	ng/L	0.0039 U	0.0039	0.095				3059711
22'3455'6-HeptaCB-(185)	ng/L	0.128	0.013	0.095				3059711
22'34566'-HeptaCB-(186)	ng/L	0.0042 U	0.0042	0.095				3059711

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	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/L	1.76	0.0051	0.095				3059711
22'34'566'-HeptaCB-(188)	ng/L	0.0064 U	0.0064	0.095				3059711
233'44'55'-HeptaCB-(189)	ng/L	0.069 J	0.022	0.095	0.0000300	0.00000207		3059711
233'44'56-HeptaCB-(190)	ng/L	0.293	0.0099	0.095				3059711
233'44'5'6-HeptaCB-(191)	ng/L	0.0678 J	0.0095	0.095				3059711
233'455'6-HeptaCB-(192)	ng/L	0.010 U	0.010	0.095				3059711
22'33'44'55'-OctaCB-(194)	ng/L	1.16	0.020	0.095				3059711
22'33'44'56-OctaCB-(195)	ng/L	0.361	0.021	0.095				3059711
22'33'44'56'-OctaCB-(196)	ng/L	0.535	0.011	0.095				3059711
22'33'44'66'OctaCB-(197)	ng/L	0.0330 J	0.0086	0.095				3059711
OctaCB-(198)+(199)	ng/L	1.31	0.011	0.19				3059711
22'33'4566'-OctaCB-(200)	ng/L	0.145	0.0081	0.095				3059711
22'33'45'66'-OctaCB-(201)	ng/L	0.176	0.0081	0.095				3059711
22'33'55'66'-OctaCB-(202)	ng/L	0.378	0.013	0.095				3059711
22'344'55'6-OctaCB-(203)	ng/L	0.768	0.010	0.095				3059711
22'344'566'-OctaCB-(204)	ng/L	0.0084 U	0.0084	0.095				3059711
233'44'55'6-OctaCB-(205)	ng/L	0.065 U (1)	0.065	0.095				3059711
22'33'44'55'6-NonaCB-(206)	ng/L	0.878	0.032	0.095				3059711
22'33'44'566'-NonaCB-(207)	ng/L	0.105	0.025	0.095				3059711
22'33'455'66'-NonaCB-(208)	ng/L	0.232	0.033	0.095				3059711
DecaCB-(209)	ng/L	0.182	0.019	0.095				3059711
Monochlorobiphenyl	ng/L	0.0467	0.0022	N/A				3059711
Dichlorobiphenyl	ng/L	1.42	0.024	N/A				3059711
Trichlorobiphenyl	ng/L	6.24	0.0049	N/A				3059711
Tetrachlorobiphenyl	ng/L	17.3	0.013	N/A				3059711
Pentachlorobiphenyl	ng/L	38.0	0.0085	N/A				3059711
Hexachlorobiphenyl	ng/L	33.5	0.021	N/A				3059711
Heptachlorobiphenyl	ng/L	13.7	0.022	N/A				3059711

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	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Octachlorobiphenyl	ng/L	4.86	0.021	N/A				3059711
Nonachlorobiphenyl	ng/L	1.21	0.033	N/A				3059711
Decachlorobiphenyl	ng/L	0.182	0.019	N/A				3059711
Total PCB	ng/L	116	N/A	N/A				3059711
TOTAL TOXIC EQUIVALENCY	ng/L					0.00331		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	128						3059711
C13-22'33'44'55'6-NonaCB-(206)	%	82						3059711
C13-22'33'44'5-HeptaCB-(170)	%	114						3059711
C13-22'33'455'66'-NonaCB-(208)	%	87						3059711
C13-22'33'55'66'-OctaCB-(202)	%	96						3059711
C13-22'33'55'6-HeptaCB-(178)	%	92						3059711
C13-22'344'55'-HeptaCB-(180)	%	112						3059711
C13-22'34'566'-HeptaCB-(188)	%	87						3059711
C13-22'44'66'-HexaCB-(155)	%	86						3059711
C13-22'466'-PentaCB-(104)	%	86						3059711
C13-22'66'-TetraCB-(54)	%	70						3059711
C13-22'6-TriCB-(19)	%	63						3059711
C13-22'-DiCB-(4)	%	52						3059711
C13-233'44'55'6-OctaCB-(205)	%	91						3059711
C13-233'44'55'-HeptaCB-(189)	%	105						3059711
C13-233'44'-PentaCB-(105)	%	123						3059711
C13-233'55'-PentaCB-(111)	%	104						3059711
C13-23'44'55'-HexaCB-(167)	%	109						3059711
C13-2344'5-PentaCB-(114)	%	128						3059711
C13-23'44'5-PentaCB-(118)	%	123						3059711
C13-2'344'5-PentaCB-(123)	%	124						3059711
C13-2-MonoCB-(1)	%	78						3059711
C13-33'44'55'-HexaCB-(169)	%	97						3059711

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		PT7572						
Sampling Date		2012/11/19 16:00						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20121119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'5-PentaCB-(126)	%	116						3059711
C13-33'44'-TetraCB-(77)	%	87						3059711
C13-344'5-TetraCB-(81)	%	88						3059711
C13-344'-TriCB-(37)	%	108						3059711
C13-44'-DiCB-(15)	%	69						3059711
C13-4-MonoCB-(3)	%	78						3059711
C13-DecaCB-(209)	%	66						3059711
C13-HexaCB-(156)+(157)	%	105						3059711

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

Apex Laboratories
Client Project #: A12K507

Test Summary

Maxxam ID PT7569 **Collected** 2012/11/19
Sample ID B21-SWP1-20121119 **Shipped**
Matrix Water **Received** 2012/11/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	3055866	2012/11/30	2012/12/04	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3059711	2012/12/03	2022/12/07	Cathy Xu

Maxxam ID PT7570 **Collected** 2012/11/19
Sample ID B21-SWP2-20121119 **Shipped**
Matrix Water **Received** 2012/11/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	3055866	2012/11/30	2012/12/04	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3059711	2012/12/03	2022/12/07	Cathy Xu

Maxxam ID PT7571 **Collected** 2012/11/19
Sample ID B21-SWP3-20121119 **Shipped**
Matrix Water **Received** 2012/11/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	3055866	2012/11/30	2012/12/04	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3059711	2012/12/03	2022/12/07	Cathy Xu

Maxxam ID PT7572 **Collected** 2012/11/19
Sample ID B21-SWP6-20121119 **Shipped**
Matrix Water **Received** 2012/11/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290)	HRMS/MS	3055866	2012/11/30	2012/12/04	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3059711	2012/12/03	2022/12/07	Cathy Xu

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Maxxam Job #: B2I7251
Report Date: 2012/12/13

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Package 1	3.7°C
Package 2	4.2°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12K507
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB2I7251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3055866	KKS	Spiked Blank	C13-1234678 HeptaCDD	2012/12/04		94	%	40 - 135
			C13-1234678 HeptaCDF	2012/12/04		95	%	40 - 135
			C13-123478 HexaCDF	2012/12/04		86	%	40 - 135
			C13-123678 HexaCDD	2012/12/04		86	%	40 - 135
			C13-12378 PentaCDD	2012/12/04		79	%	40 - 135
			C13-12378 PentaCDF	2012/12/04		72	%	40 - 135
			C13-2378 TetraCDD	2012/12/04		87	%	40 - 135
			C13-2378 TetraCDF	2012/12/04		84	%	40 - 135
			C13-OCDD	2012/12/04		92	%	40 - 135
			2,3,7,8-Tetra CDD	2012/12/04		90	%	80 - 140
			1,2,3,7,8-Penta CDD	2012/12/04		100	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2012/12/04		94	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2012/12/04		97	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2012/12/04		97	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2012/12/04		87	%	80 - 140
			Octa CDD	2012/12/04		93	%	80 - 140
			2,3,7,8-Tetra CDF	2012/12/04		91	%	80 - 140
			1,2,3,7,8-Penta CDF	2012/12/04		107	%	80 - 140
			2,3,4,7,8-Penta CDF	2012/12/04		116	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2012/12/04		97	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2012/12/04		98	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2012/12/04		101	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2012/12/04		105	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2012/12/04		93	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2012/12/04		98	%	80 - 140
			Octa CDF	2012/12/04		104	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2012/12/04		96	%	40 - 135
			C13-1234678 HeptaCDF	2012/12/04		95	%	40 - 135
			C13-123478 HexaCDF	2012/12/04		82	%	40 - 135
			C13-123678 HexaCDD	2012/12/04		85	%	40 - 135
			C13-12378 PentaCDD	2012/12/04		79	%	40 - 135
			C13-12378 PentaCDF	2012/12/04		69	%	40 - 135
			C13-2378 TetraCDD	2012/12/04		84	%	40 - 135
			C13-2378 TetraCDF	2012/12/04		75	%	40 - 135
			C13-OCDD	2012/12/04		93	%	40 - 135
			2,3,7,8-Tetra CDD	2012/12/04	0.75 U, EDL=0.75		pg/L	
			1,2,3,7,8-Penta CDD	2012/12/04	1.1 U, EDL=1.1		pg/L	
			1,2,3,4,7,8-Hexa CDD	2012/12/04	0.93 U, EDL=0.93		pg/L	
			1,2,3,6,7,8-Hexa CDD	2012/12/04	0.86 U, EDL=0.86		pg/L	
			1,2,3,7,8,9-Hexa CDD	2012/12/04	0.87 U, EDL=0.87		pg/L	
			1,2,3,4,6,7,8-Hepta CDD	2012/12/04	1.2 U, EDL=1.2		pg/L	
			Octa CDD	2012/12/04	1.06 J, EDL=0.96		pg/L	
			Total Tetra CDD	2012/12/04	0.75 U, EDL=0.75		pg/L	
			Total Penta CDD	2012/12/04	1.1 U, EDL=1.1		pg/L	
			Total Hexa CDD	2012/12/04	0.89 U, EDL=0.89		pg/L	
			Total Hepta CDD	2012/12/04	1.2 U, EDL=1.2		pg/L	
			2,3,7,8-Tetra CDF	2012/12/04	0.75 U, EDL=0.75		pg/L	
			1,2,3,7,8-Penta CDF	2012/12/04	1.0 U, EDL=1.0		pg/L	
			2,3,4,7,8-Penta CDF	2012/12/04	1.0 U, EDL=1.0		pg/L	
			1,2,3,4,7,8-Hexa CDF	2012/12/04	0.75 U, EDL=0.75		pg/L	
			1,2,3,6,7,8-Hexa CDF	2012/12/04	0.74 U, EDL=0.74		pg/L	
			2,3,4,6,7,8-Hexa CDF	2012/12/04	0.82 U, EDL=0.82		pg/L	
			1,2,3,7,8,9-Hexa CDF	2012/12/04	0.92 U, EDL=0.92		pg/L	
			1,2,3,4,6,7,8-Hepta CDF	2012/12/04	0.98 U, EDL=0.98		pg/L	
			1,2,3,4,7,8,9-Hepta CDF	2012/12/04	1.3 U, EDL=1.3		pg/L	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12K507
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB2I7251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3055866	KKS	Method Blank	Octa CDF	2012/12/04	1.8 U, EDL=1.8		pg/L	
			Total Tetra CDF	2012/12/04	0.75 U, EDL=0.75		pg/L	
			Total Penta CDF	2012/12/04	1.0 U, EDL=1.0		pg/L	
			Total Hexa CDF	2012/12/04	0.80 U, EDL=0.80		pg/L	
			Total Hepta CDF	2012/12/04	1.1 U, EDL=1.1		pg/L	
3059711	CXU	Spiked Blank	C13-2,44'-TriCB-(28)	2022/12/07		98	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2022/12/07		88	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2022/12/07		106	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2022/12/07		94	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2022/12/07		99	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2022/12/07		98	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2022/12/07		112	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2022/12/07		88	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2022/12/07		74	%	30 - 140
			C13-22'466'-PentaCB-(104)	2022/12/07		70	%	30 - 140
			C13-22'66'-TetraCB-(54)	2022/12/07		61	%	30 - 140
			C13-22'6-TriCB-(19)	2022/12/07		54	%	30 - 140
			C13-22'-DiCB-(4)	2022/12/07		42	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2022/12/07		94	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2022/12/07		102	%	30 - 140
			C13-233'44'-PentaCB-(105)	2022/12/07		105	%	30 - 140
			C13-233'55'-PentaCB-(111)	2022/12/07		97	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2022/12/07		97	%	30 - 140
			C13-2344'5-PentaCB-(114)	2022/12/07		105	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2022/12/07		105	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2022/12/07		104	%	30 - 140
			C13-2-MonoCB-(1)	2022/12/07		52	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2022/12/07		89	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2022/12/07		105	%	30 - 140
			C13-33'44'-TetraCB-(77)	2022/12/07		95	%	30 - 140
			C13-344'5-TetraCB-(81)	2022/12/07		93	%	30 - 140
			C13-344'-TriCB-(37)	2022/12/07		97	%	30 - 140
			C13-44'-DiCB-(15)	2022/12/07		77	%	30 - 140
			C13-4-MonoCB-(3)	2022/12/07		55	%	15 - 140
			C13-DecaCB-(209)	2022/12/07		81	%	30 - 140
			C13-HexaCB-(156)+(157)	2022/12/07		93	%	30 - 140
			2-MonoCB-(1)	2022/12/07		110	%	50 - 150
			4-MonoCB-(3)	2022/12/07		110	%	50 - 150
			22'-DiCB-(4)	2022/12/07		108	%	50 - 150
			4,4'-DiCB-(15)	2022/12/07		104	%	50 - 150
			22'6-TriCB-(19)	2022/12/07		107	%	50 - 150
			235-TriCB-(23)	2022/12/07		81	%	50 - 150
			23'5'-TriCB-(34)	2022/12/07		93	%	50 - 150
			344'-TriCB-(37)	2022/12/07		109	%	50 - 150
			22'66'-TetraCB-(54)	2022/12/07		104	%	50 - 150
			33'44'-TetraCB-(77)	2022/12/07		106	%	50 - 150
			344'5-TetraCB-(81)	2022/12/07		107	%	50 - 150
			22'466'-PentaCB-(104)	2022/12/07		108	%	50 - 150
			233'44'-PentaCB-(105)	2022/12/07		106	%	50 - 150
			2344'5-PentaCB-(114)	2022/12/07		103	%	50 - 150
			23'44'5-PentaCB-(118)	2022/12/07		105	%	50 - 150
			23'44'5'-PentaCB-(123)	2022/12/07		104	%	50 - 150
			33'44'5-PentaCB-(126)	2022/12/07		102	%	50 - 150
			22'44'66'-HexaCB-(155)	2022/12/07		108	%	50 - 150
			HexaCB-(156)+(157)	2022/12/07		103	%	50 - 150

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Quality Assurance Report (Continued)

Maxxam Job Number: GB2I7251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3059711	CXU	Spiked Blank	23'44'55'-HexaCB-(167)	2022/12/07		104	%	50 - 150
			33'44'55'-HexaCB-(169)	2022/12/07		99	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2022/12/07		107	%	50 - 150
			HeptaCB-(180)+(193)	2022/12/07		86	%	50 - 150
			22'344'56'-HeptaCB-(182)	2022/12/07		94	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2022/12/07		92	%	50 - 150
			22'34'566'-HeptaCB-(188)	2022/12/07		99	%	50 - 150
			233'44'55'-HeptaCB-(189)	2022/12/07		97	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2022/12/07		109	%	50 - 150
			233'44'55'6-OctaCB-(205)	2022/12/07		104	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2022/12/07		97	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2022/12/07		97	%	50 - 150
			DecaCB-(209)	2022/12/07		101	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2022/12/07		107	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2022/12/07		95	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2022/12/07		109	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2022/12/07		96	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2022/12/07		94	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2022/12/07		99	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2022/12/07		110	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2022/12/07		96	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2022/12/07		86	%	30 - 140
			C13-22'466'-PentaCB-(104)	2022/12/07		77	%	30 - 140
			C13-22'66'-TetraCB-(54)	2022/12/07		66	%	30 - 140
			C13-22'6-TriCB-(19)	2022/12/07		58	%	30 - 140
			C13-22'-DiCB-(4)	2022/12/07		44	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2022/12/07		96	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2022/12/07		106	%	30 - 140
			C13-233'44'-PentaCB-(105)	2022/12/07		113	%	30 - 140
			C13-233'55'-PentaCB-(111)	2022/12/07		103	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2022/12/07		99	%	30 - 140
			C13-2344'5-PentaCB-(114)	2022/12/07		114	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2022/12/07		113	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2022/12/07		111	%	30 - 140
			C13-2-MonoCB-(1)	2022/12/07		53	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2022/12/07		97	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2022/12/07		107	%	30 - 140
			C13-33'44'-TetraCB-(77)	2022/12/07		100	%	30 - 140
			C13-344'5-TetraCB-(81)	2022/12/07		100	%	30 - 140
			C13-344'-TriCB-(37)	2022/12/07		104	%	30 - 140
			C13-44'-DiCB-(15)	2022/12/07		80	%	30 - 140
			C13-4-MonoCB-(3)	2022/12/07		56	%	15 - 140
			C13-DecaCB-(209)	2022/12/07		83	%	30 - 140
			C13-HexaCB-(156)+(157)	2022/12/07		99	%	30 - 140
			2-MonoCB-(1)	2022/12/07	0.0040 U, EDL=0.0040		ng/L	
			3-MonoCB-(2)	2022/12/07	0.0034 U, EDL=0.0034		ng/L	
			4-MonoCB-(3)	2022/12/07	0.0040 U, EDL=0.0040		ng/L	
			22'-DiCB-(4)	2022/12/07	0.018 U, EDL=0.018		ng/L	
			2,3-DiCB-(5)	2022/12/07	0.011 U, EDL=0.011		ng/L	
			2,3'-DiCB-(6)	2022/12/07	0.0098 U, EDL=0.0098		ng/L	
			2,4-DiCB-(7)	2022/12/07	0.010 U, EDL=0.010		ng/L	
			2,4'-DiCB-(8)	2022/12/07	0.0089 U, EDL=0.0089		ng/L	
			2,5-DiCB-(9)	2022/12/07	0.010 U, EDL=0.010		ng/L	
			2,6-DiCB-(10)	2022/12/07	0.013 U, EDL=0.013		ng/L	
			3,3'-DiCB-(11)	2022/12/07	0.051 U, EDL=0.051 (1)		ng/L	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A12K507
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB2I7251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3059711	CXU	Method Blank	DiCB-(12)+(13)	2022/12/07	0.010 U, EDL=0.010		ng/L	
			3,5-DiCB-(14)	2022/12/07	0.0098 U, EDL=0.0098		ng/L	
			4,4'-DiCB-(15)	2022/12/07	0.014 U, EDL=0.014		ng/L	
			22'3-TriCB-(16)	2022/12/07	0.0025 U, EDL=0.0025		ng/L	
			22'4-TriCB-(17)	2022/12/07	0.0025 J, EDL=0.0023		ng/L	
			TriCB-(18)+(30)	2022/12/07	0.0043 U, EDL=0.0043 (1)		ng/L	
			22'6-TriCB-(19)	2022/12/07	0.0026 U, EDL=0.0026		ng/L	
			TriCB-(20) + (28)	2022/12/07	0.0086 J, EDL=0.0022		ng/L	
			TriCB-(21)+(33)	2022/12/07	0.0054 J, EDL=0.0022		ng/L	
			234'-TriCB-(22)	2022/12/07	0.0026 U, EDL=0.0026 (1)		ng/L	
			235-TriCB-(23)	2022/12/07	0.0022 U, EDL=0.0022		ng/L	
			236-TriCB-(24)	2022/12/07	0.0018 U, EDL=0.0018		ng/L	
			23'4-TriCB-(25)	2022/12/07	0.0021 U, EDL=0.0021		ng/L	
			TriCB-(26)+(29)	2022/12/07	0.0022 U, EDL=0.0022		ng/L	
			23'6-TriCB-(27)	2022/12/07	0.0016 U, EDL=0.0016		ng/L	
			24'5-TriCB-(31)	2022/12/07	0.0077 J, EDL=0.0020		ng/L	
			24'6-TriCB-(32)	2022/12/07	0.0014 U, EDL=0.0014		ng/L	
			23'5'-TriCB-(34)	2022/12/07	0.0024 U, EDL=0.0024		ng/L	
			33'4-TriCB-(35)	2022/12/07	0.0022 U, EDL=0.0022		ng/L	
			33'5-TriCB-(36)	2022/12/07	0.0019 U, EDL=0.0019		ng/L	
			344'-TriCB-(37)	2022/12/07	0.0034 J, EDL=0.0029		ng/L	
			345-TriCB-(38)	2022/12/07	0.0021 U, EDL=0.0021		ng/L	
			34'5-TriCB-(39)	2022/12/07	0.0020 U, EDL=0.0020		ng/L	
			TetraCB-(40)+(41)+(71)	2022/12/07	0.0050 U, EDL=0.0050		ng/L	
			22'34'-TetraCB-(42)	2022/12/07	0.0059 U, EDL=0.0059		ng/L	
			22'35-TetraCB-(43)	2022/12/07	0.0072 U, EDL=0.0072		ng/L	
			TetraCB-(44)+(47)+(65)	2022/12/07	0.0085 J, EDL=0.0048		ng/L	
			TetraCB-(45)+(51)	2022/12/07	0.0049 U, EDL=0.0049		ng/L	
			22'36'-TetraCB-(46)	2022/12/07	0.0059 U, EDL=0.0059		ng/L	
			22'45-TetraCB-(48)	2022/12/07	0.0048 U, EDL=0.0048		ng/L	
			TetraCB-(49)+TetraCB-(69)	2022/12/07	0.0049 J, EDL=0.0044		ng/L	
			TetraCB-(50)+(53)	2022/12/07	0.0047 U, EDL=0.0047		ng/L	
			22'55'-TetraCB-(52)	2022/12/07	0.0103 J, EDL=0.0044		ng/L	
			22'66'-TetraCB-(54)	2022/12/07	0.0021 U, EDL=0.0021		ng/L	
			233'4-TetraCB-(55)	2022/12/07	0.0032 U, EDL=0.0032		ng/L	
			233'4'-Tetra CB(56)	2022/12/07	0.0035 U, EDL=0.0035		ng/L	
			233'5-TetraCB-(57)	2022/12/07	0.0032 U, EDL=0.0032		ng/L	
			233'5'-TetraCB-(58)	2022/12/07	0.0031 U, EDL=0.0031		ng/L	
			TetraCB-(59)+(62)+(75)	2022/12/07	0.0037 U, EDL=0.0037		ng/L	
			2344'-TetraCB -(60)	2022/12/07	0.0032 U, EDL=0.0032		ng/L	
			TetraCB-(61)+(70)+(74)+(76)	2022/12/07	0.0098 J, EDL=0.0033		ng/L	
			234'5-TetraCB-(63)	2022/12/07	0.0030 U, EDL=0.0030		ng/L	
			234'6-TetraCB-(64)	2022/12/07	0.0040 U, EDL=0.0040		ng/L	
			23'44'-TetraCB-(66)	2022/12/07	0.0038 U, EDL=0.0038 (1)		ng/L	
			23'45-TetraCB-(67)	2022/12/07	0.0030 U, EDL=0.0030		ng/L	
			23'45'-TetraCB-(68)	2022/12/07	0.0029 U, EDL=0.0029		ng/L	
			23'55'-TetraCB-(72)	2022/12/07	0.0031 U, EDL=0.0031		ng/L	
			23'5'6-TetraCB-(73)	2022/12/07	0.0036 U, EDL=0.0036		ng/L	
			33'44'-TetraCB-(77)	2022/12/07	0.0034 U, EDL=0.0034		ng/L	
			33'45-TetraCB-(78)	2022/12/07	0.0033 U, EDL=0.0033		ng/L	
			33'45'-TetraCB(79)	2022/12/07	0.0028 U, EDL=0.0028		ng/L	
			33'55'-TetraCB-(80)	2022/12/07	0.0029 U, EDL=0.0029		ng/L	
			344'5-TetraCB-(81)	2022/12/07	0.0036 U, EDL=0.0036		ng/L	
			22'33'4-PentaCB-(82)	2022/12/07	0.0029 U, EDL=0.0029		ng/L	
			PentaCB-(83)+(99)	2022/12/07	0.0029 J, EDL=0.0026		ng/L	

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Quality Assurance Report (Continued)

Maxxam Job Number: GB2I7251

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3059711	CXU	Method Blank	22'33'6-PentaCB-(84)	2022/12/07	0.0031 U,	EDL=0.0031	ng/L	
			PentaCB-(85)+(116)+(117)	2022/12/07	0.0022 U,	EDL=0.0022	ng/L	
			PentaCB-(86)(87)(97)(109)(119)(125)	2022/12/07	0.0023 U,	EDL=0.0023	ng/L	
			PentaCB-(88)+(91)	2022/12/07	0.0026 U,	EDL=0.0026	ng/L	
			22'346'-PentaCB-(89)	2022/12/07	0.0028 U,	EDL=0.0028	ng/L	
			PentaCB-(90)+(101)+(113)	2022/12/07	0.0126 J,	EDL=0.0022	ng/L	
			22'355'-PentaCB-(92)	2022/12/07	0.0027 J,	EDL=0.0026	ng/L	
			PentaCB-(93)+(98)+(100)+(102)	2022/12/07	0.0027 U,	EDL=0.0027	ng/L	
			22'356'-PentaCB-(94)	2022/12/07	0.0028 U,	EDL=0.0028	ng/L	
			22'35'6-PentaCB-(95)	2022/12/07	0.0115 J,	EDL=0.0025	ng/L	
			22'366'-PentaCB-(96)	2022/12/07	0.0012 U,	EDL=0.0012	ng/L	
			22'45'6-PentaCB-(103)	2022/12/07	0.0023 U,	EDL=0.0023	ng/L	
			22'466'-PentaCB-(104)	2022/12/07	0.0015 U,	EDL=0.0015	ng/L	
			233'44'-PentaCB-(105)	2022/12/07	0.0022 U,	EDL=0.0022	ng/L	
			233'45-PentaCB-(106)	2022/12/07	0.0020 U,	EDL=0.0020	ng/L	
			233'4'5-PentaCB-(107)	2022/12/07	0.0019 U,	EDL=0.0019	ng/L	
			PentaCB-(108)+(124)	2022/12/07	0.0020 U,	EDL=0.0020	ng/L	
			PentaCB-(110)+(115)	2022/12/07	0.0072 U,	EDL=0.0072 (1)	ng/L	
			233'55'-PentaCB-(111)	2022/12/07	0.0019 U,	EDL=0.0019	ng/L	
			233'56-PentaCB-(112)	2022/12/07	0.0020 U,	EDL=0.0020	ng/L	
			2344'5-PentaCB-(114)	2022/12/07	0.0021 U,	EDL=0.0021	ng/L	
			23'44'5-PentaCB-(118)	2022/12/07	0.0052 U,	EDL=0.0052 (1)	ng/L	
			23'455'-PentaCB-(120)	2022/12/07	0.0018 U,	EDL=0.0018	ng/L	
			23'45'6-PentaCB-(121)	2022/12/07	0.0019 U,	EDL=0.0019	ng/L	
			233'4'5'-PentaCB-(122)	2022/12/07	0.0022 U,	EDL=0.0022	ng/L	
			23'44'5'-PentaCB-(123)	2022/12/07	0.0023 U,	EDL=0.0023	ng/L	
			33'44'5-PentaCB-(126)	2022/12/07	0.0022 U,	EDL=0.0022	ng/L	
			33'455'-PentaCB-(127)	2022/12/07	0.0020 U,	EDL=0.0020	ng/L	
			HexaCB-(128)+(166)	2022/12/07	0.0037 U,	EDL=0.0037	ng/L	
			HexaCB-(129)+(138)+(163)	2022/12/07	0.0164 J,	EDL=0.0042	ng/L	
			22'33'45'-HexaCB-(130)	2022/12/07	0.0047 U,	EDL=0.0047	ng/L	
			22'33'46-HexaCB-(131)	2022/12/07	0.0052 U,	EDL=0.0052	ng/L	
			22'33'46'-HexaCB-(132)	2022/12/07	0.0055 J,	EDL=0.0045	ng/L	
			22'33'55'-HexaCB-(133)	2022/12/07	0.0043 U,	EDL=0.0043	ng/L	
			HexaCB-(134)+(143)	2022/12/07	0.0048 U,	EDL=0.0048	ng/L	
			HexaCB-(135)+(151)	2022/12/07	0.0084 J,	EDL=0.0017	ng/L	
			22'33'66'-HexaCB-(136)	2022/12/07	0.0024 J,	EDL=0.0013	ng/L	
			22'344'5-HexaCB-(137)	2022/12/07	0.0043 U,	EDL=0.0043	ng/L	
			HexaCB-(139)+(140)	2022/12/07	0.0041 U,	EDL=0.0041	ng/L	
			22'3455'-HexaCB-(141)	2022/12/07	0.0042 U,	EDL=0.0042	ng/L	
			22'3456-HexaCB-(142)	2022/12/07	0.0046 U,	EDL=0.0046	ng/L	
			22'345'6-HexaCB-(144)	2022/12/07	0.0016 U,	EDL=0.0016	ng/L	
			22'3466'-HexaCB-(145)	2022/12/07	0.0013 U,	EDL=0.0013	ng/L	
			22'34'55'-HexaCB-(146)	2022/12/07	0.0040 U,	EDL=0.0040	ng/L	
			HexaCB-(147)+(149)	2022/12/07	0.0149 J,	EDL=0.0040	ng/L	
			22'34'56'-HexaCB-(148)	2022/12/07	0.0016 U,	EDL=0.0016	ng/L	
			22'34'66'-HexaCB-(150)	2022/12/07	0.0012 U,	EDL=0.0012	ng/L	
			22'3566'-HexaCB-(152)	2022/12/07	0.0012 U,	EDL=0.0012	ng/L	
			HexaCB-(153)+(168)	2022/12/07	0.0149 J,	EDL=0.0033	ng/L	
			22'44'56'-HexaCB-(154)	2022/12/07	0.0015 U,	EDL=0.0015	ng/L	
			22'44'66'-HexaCB-(155)	2022/12/07	0.0019 U,	EDL=0.0019	ng/L	
			HexaCB-(156)+(157)	2022/12/07	0.0038 U,	EDL=0.0038	ng/L	
			233'44'6-HexaCB-(158)	2022/12/07	0.0031 U,	EDL=0.0031	ng/L	
			233'455'-HexaCB-(159)	2022/12/07	0.0039 U,	EDL=0.0039	ng/L	
			233'456-HexaCB-(160)	2022/12/07	0.0034 U,	EDL=0.0034	ng/L	

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3059711	CXU	Method Blank	233'45'6-HexaCB-(161)	2022/12/07	0.0031 U,	EDL=0.0031	ng/L	
			233'4'55'-HexaCB-(162)	2022/12/07	0.0039 U,	EDL=0.0039	ng/L	
			233'4'5'6-HexaCB-(164)	2022/12/07	0.0033 U,	EDL=0.0033	ng/L	
			233'55'6-HexaCB-(165)	2022/12/07	0.0034 U,	EDL=0.0034	ng/L	
			23'44'55'-HexaCB-(167)	2022/12/07	0.0040 U,	EDL=0.0040	ng/L	
			33'44'55'-HexaCB-(169)	2022/12/07	0.0041 U,	EDL=0.0041	ng/L	
			22'33'44'5-HeptaCB-(170)	2022/12/07	0.0069 U,	EDL=0.0069	ng/L	
			HeptaCB-(171)+(173)	2022/12/07	0.0076 U,	EDL=0.0076	ng/L	
			22'33'455'-HeptaCB-(172)	2022/12/07	0.0075 U,	EDL=0.0075	ng/L	
			22'33'456'-HeptaCB-(174)	2022/12/07	0.0075 U,	EDL=0.0075	ng/L	
			22'33'45'6-HeptaCB-(175)	2022/12/07	0.0020 U,	EDL=0.0020	ng/L	
			22'33'466'-HeptaCB-(176)	2022/12/07	0.0016 U,	EDL=0.0016	ng/L	
			22'33'45'6'-HeptaCB-(177)	2022/12/07	0.0073 U,	EDL=0.0073	ng/L	
			22'33'55'6-HeptaCB-(178)	2022/12/07	0.0021 U,	EDL=0.0021	ng/L	
			22'33'566'-HeptaCB-(179)	2022/12/07	0.0015 U,	EDL=0.0015	ng/L	
			HeptaCB-(180)+(193)	2022/12/07	0.0088 J,	EDL=0.0057	ng/L	
			22'344'56-HeptaCB-(181)	2022/12/07	0.0069 U,	EDL=0.0069	ng/L	
			22'344'56'-HeptaCB-(182)	2022/12/07	0.0020 U,	EDL=0.0020	ng/L	
			22'344'5'6-HeptaCB-(183)	2022/12/07	0.0063 U,	EDL=0.0063	ng/L	
			22'344'66'-HeptaCB-(184)	2022/12/07	0.0014 U,	EDL=0.0014	ng/L	
			22'3455'6-HeptaCB-(185)	2022/12/07	0.0074 U,	EDL=0.0074	ng/L	
			22'34566'-HeptaCB-(186)	2022/12/07	0.0016 U,	EDL=0.0016	ng/L	
			22'34'55'6-HeptaCB-(187)	2022/12/07	0.0042 U,	EDL=0.0042 (1)	ng/L	
			22'34'566'-HeptaCB-(188)	2022/12/07	0.0024 U,	EDL=0.0024	ng/L	
			233'44'55'-HeptaCB-(189)	2022/12/07	0.0041 U,	EDL=0.0041	ng/L	
			233'44'56-HeptaCB-(190)	2022/12/07	0.0058 U,	EDL=0.0058	ng/L	
			233'44'5'6-HeptaCB-(191)	2022/12/07	0.0056 U,	EDL=0.0056	ng/L	
			233'455'6-HeptaCB-(192)	2022/12/07	0.0059 U,	EDL=0.0059	ng/L	
			22'33'44'55'-OctaCB-(194)	2022/12/07	0.0041 U,	EDL=0.0041	ng/L	
			22'33'44'56-OctaCB-(195)	2022/12/07	0.0044 U,	EDL=0.0044	ng/L	
			22'33'44'56'-OctaCB-(196)	2022/12/07	0.0053 U,	EDL=0.0053	ng/L	
			22'33'44'66'OctaCB-(197)	2022/12/07	0.0040 U,	EDL=0.0040	ng/L	
			OctaCB-(198)+(199)	2022/12/07	0.0053 U,	EDL=0.0053	ng/L	
			22'33'4566'-OctaCB-(200)	2022/12/07	0.0038 U,	EDL=0.0038	ng/L	
			22'33'45'66'-OctaCB-(201)	2022/12/07	0.0038 U,	EDL=0.0038	ng/L	
			22'33'55'66'-OctaCB-(202)	2022/12/07	0.0063 U,	EDL=0.0063	ng/L	
			22'344'55'6-OctaCB-(203)	2022/12/07	0.0048 U,	EDL=0.0048	ng/L	
			22'344'566'-OctaCB-(204)	2022/12/07	0.0039 U,	EDL=0.0039	ng/L	
			233'44'55'6-OctaCB-(205)	2022/12/07	0.0033 U,	EDL=0.0033	ng/L	
			22'33'44'55'6-NonaCB-(206)	2022/12/07	0.016 U,	EDL=0.016	ng/L	
			22'33'44'566'-NonaCB-(207)	2022/12/07	0.013 U,	EDL=0.013	ng/L	
			22'33'455'66'-NonaCB-(208)	2022/12/07	0.016 U,	EDL=0.016	ng/L	
			DecaCB-(209)	2022/12/07	0.0071 U,	EDL=0.0071	ng/L	
			Monochlorobiphenyl	2022/12/07	0.0040 U,	EDL=0.0040	ng/L	
			Dichlorobiphenyl	2022/12/07	0.018 U,	EDL=0.018	ng/L	
			Trichlorobiphenyl	2022/12/07	0.0276,	EDL=0.0029	ng/L	
			Tetrachlorobiphenyl	2022/12/07	0.0335,	EDL=0.0072	ng/L	
			Pentachlorobiphenyl	2022/12/07	0.0297,	EDL=0.0031	ng/L	
			Hexachlorobiphenyl	2022/12/07	0.0625,	EDL=0.0052	ng/L	
			Heptachlorobiphenyl	2022/12/07	0.0088,	EDL=0.0076	ng/L	
			Octachlorobiphenyl	2022/12/07	0.0063 U,	EDL=0.0063	ng/L	
			Nonachlorobiphenyl	2022/12/07	0.016 U,	EDL=0.016	ng/L	
			Decachlorobiphenyl	2022/12/07	0.0071 U,	EDL=0.0071	ng/L	
			Total PCB	2022/12/07	0.162		ng/L	

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method

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Quality Assurance Report (Continued)

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accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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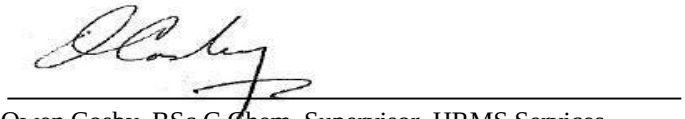
Validation Signature Page

Maxxam Job #: B2I7251

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Basin 21 Storm Water Sampling and Analysis Data
March 5, 2013 Sampling Event, Source Control Evaluation,
Burgard Industrial Park, Portland, Oregon
Bridgewater Group, Inc., 2013

BRIDGEWATER GROUP, INC.

Basin 21 Storm Water Sampling and Analysis Data
March 5, 2013 Sampling Event
Source Control Evaluation
Burgard Industrial Park
Portland, Oregon

TO: Jim Orr/Oregon DEQ

CC: Mat Cusma/Schnitzer
Mark Bartee/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: April 9, 2013

This memorandum presents the results of the March 5, 2013 storm water sampling and analysis performed at Basin 21 at the Burgard Industrial Park (BIP) in Portland, Oregon (Figure 1, Figure 2). The storm water sampling and analysis was performed in general accordance with the May 1, 2012 *Basin 21 Storm Water and Storm Water Solids Sampling and Analysis Plan*. Some details of the May 1, 2012 sampling plan were altered as follows:

- Smoke testing performed on September 13, 2012 concluded that the pipe entering from the northwest into Sample Point 5 (SP-5) manhole was a stub that did not connect to any drainage features. Thus, no storm water sample was collected at SP-5.
- Flow testing on September 5, 2012 and September 26, 2012 concluded that there was no lateral pipe entering from the northwest into manhole SP-6. Thus, only a single storm water sample was collected at SP-6, representing what is eventually discharged at Outfall 21.

The storm water data presented in this memorandum reflects these changes in the Basin 21 storm water sampling program. Figure 3 shows the currently inferred Basin 21 area based on these smoke and flow tests.

Basin 21 Description

Basin 21 consists of an approximately 18 acre area in the northeast corner of the BIP. Figure 3 shows the approximate boundaries of Basin 21. The Basin 21 boundaries are based on the drainage basins shown in the Storm Water Pollution Prevention and Control (SWPC) plans prepared by the site operators within Basin 21, 1994 City storm sewer as-built drawings, and an August 11, 2011 City of Portland video survey of the western portion of the Basin 21 conveyance pipes.

There are three primary areas within Basin 21 where surface water runoff occurs (as opposed to infiltrating into the ground surface):

- Former Boydstun area
- Former Romar area
- Portland Container area

Figure 3 shows these Basin 21 areas.

The former Boydstun area is about 7.6 acres and is almost entirely paved. Storm water runoff is captured in catch basins and conveyed by gravity to a float-activated pump station located in the northeast corner of the area. The storm water is pumped from the pump station through buried pipes to a manhole near the south western corner of the area where it flows to the west and comingles with other Basin 21 runoff. A portion of the former Boydstun area is currently leased by SSI and used to park trucks, trailers and equipment. Boydstun formerly manufactured automobile hauling trailers on the site.

The former Romar area is outside the BIP but does contribute storm water runoff to the Basin 21 system. The area is about 6.2 acres and is mostly paved. Storm water runoff is captured in catch basins and conveyed by gravity to the southeast corner of the former Romar area where it comingles with the runoff from the former Boydstun area and flows south in a buried pipe. The building was used by Ro-Mar Transportation Systems until 2006 when RLR Investments acquired the property. The building is currently used by the trucking company R+L Carriers, Inc., an affiliate of RLR Investments.

Approximately 1/3 of Portland Container's property east of the railroad tracks drains to Basin 21. Storm water runoff from this approximate 4.2 acre, mostly unpaved area flows to a catch basin near the site office and is conveyed by a buried pipe to a small retention basin and then to a multi-stage, improvised storm water filter system. The treated water is discharged from the treatment system to a manhole where it comingles with the runoff flowing south from the junction of the former Boydstun and former Romar drainage systems. During heavy rainfall events, the storm water basin overflows and water flows directly to the manhole, bypassing the filter system.

The runoff from these areas combine and is discharged to the IT Slip at Outfall 21 as shown on Figure 3. Precipitation falling on the unpaved areas west and south of the former Boydstun area and the eastern portion of the Portland Container area (aside from areas around any unknown catch basins) infiltrates into the ground rather than flow into the Basin 21 storm water collection and conveyance system.

Basin 21 Storm Water Sampling and Analysis

Storm Water Sample Collection

Basin 21 storm water samples were collected on March 5, 2013 at four points shown on Figure 3. The four sample points were:

Sample Point 1 – Manhole at southwest edge of former Boydstun area where storm water exits the former Boydstun area. This sample location is representative of storm water runoff from the former Boydstun site.

Sample Point 2 - Manhole at southwest corner of former Romar area. This storm water location is representative of storm water runoff from the former Romar site that flows onto the BIP and is subsequently comingled with the other Basin 21 runoff.

Sample Point 3 – Filter treatment system discharge pipe just above a catch basin at western edge of Portland Container. This sample location is representative of storm water runoff from the western portion of the Portland Container site that is subsequently comingled with the other Basin 21 runoff.

Sample Point 6 – Manhole about 280 feet upgradient from outfall. This location representative of storm water that is discharged to the slip at Outfall 21. Based on when discharge starting occurring from the Portland Container property (i.e., flow at SP-3) and the specific timing of the sample collection, SP-6 may not have included any contribution

from the Portland Container property during the March 5th sampling event (i.e. flow may not have been occurring at SP-3 when SP-6 was collected).

Table 1 presents the rainfall conditions preceding and during the storm water sampling event.

Storm Water Sample Analysis

Basin 21 storm water samples were analyzed for the following:

- PCB aroclors, homologs, and congeners
- Phthalates
- Dioxins/furans
- Butyltins
- Aluminum, antimony, arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc
- Polycyclic aromatic hydrocarbons (PAHs)
- Organochlorine pesticides
- Petroleum Hydrocarbons (gasoline, diesel, and heavy oil)
- Total suspended solids (TSS)
- Total organic carbon (TOC)

Table 2 presents the results of the Basin 21 storm water sample analyses. Copies of the analytical laboratory reports are provided in Appendix A. Review of the laboratory QA/QC results did not indicate any issues requiring corrective action.

Attachments:

Table 1 – Storm Water Sampling Event Rainfall Data, 3/5/2013 Sampling Event
Table 2 – Storm Water Sample Analytical Laboratory Results
Figure 1 – Site Location Map
Figure 2 – Site Plan, Burgard Industrial Park
Figure 3 – Basin 21 Storm Water Sample Locations
Appendix A – Analytical Laboratory Reports

Tables

Table 1
Storm Water Sampling Event Rainfall Data
3/5/2013 Sampling Event
Burgard Industrial Park Basin 21

Date	Daily Total	Hourly Rain Fall (0.01 inches)																						
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
2/22/13	69	0	0	0	0	0	0	0	0	0	5	12	15	12	17	0	4	0	0	0	0	0	2	2	0
2/23/13	6	0	0	0	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
2/24/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2/25/13	20	0	7	3	0	1	4	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
2/26/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2/27/13	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	3	6
2/28/13	16	3	2	4	3	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/1/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/2/13	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0
3/3/13	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3/4/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3/5/13	26	0	0	0	0	0	0	0	0	6	5	3	1	0	0	0	0	0	3	2	3	2	1	0	0

Data from Shipyard Rain Gage - 8900 N. Sever Road

Sampling Day

Sampling Hours

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012 SWP1	11/19/2012 SWP2	11/19/2012 SWP3	11/19/2012 SWP6	3/5/2013 SWP1	3/5/2013 SWP2	3/5/2013 SWP3	3/5/2013 SWP6
PAHs (ug/l)										
Acenaphthene	0.2		0.0094 U	0.037 U	0.039 U	0.094 U	0.052 J	0.075 J	0.052 U	0.046 J
Acenaphthylene	0.2		0.0094 U	0.037 U	0.039 U	0.094 U	0.040 U	0.042 U	0.052 U	0.039 U
Anthracene			0.0094 U	0.037 U	0.039 U	0.094 U	0.040 U	0.042 U	0.052 U	0.039 U
Benzo(a)anthracene	0.018		0.012 J	0.038 J	0.039 U	0.10 J	0.040 U	0.042 U	0.061 J	0.041 J
Benzo(a)pyrene	0.018		0.026 J	0.093 J	0.12 U	0.23 J	0.060 U	0.063 U	0.10 J	0.12 U
Benzo(b)fluoranthene	0.018						0.060 U	0.080 J	0.16	0.078 J
Benzo(b+k)fluoranthene	0.018		0.032	0.13	0.088 J	0.28				
Benzo(g,h,i)perylene	0.2		0.017 J	0.074 J	0.077 U	0.23	0.080 U	0.084 J	0.12	0.079
Benzo(k)fluoranthene	0.018						0.060 U	0.063 U	0.078 U	0.058 U
Chrysene	0.018		0.018 J	0.084	0.039 U	0.19	0.040 U	0.042 U	0.10	0.039 U
Dibenzo(a,h)anthracene	0.018		0.0094 U	0.037 U	0.039 U	0.094 U	0.040 U	0.042 U	0.052 U	0.039 U
Fluoranthene	0.2		0.026	0.086	0.042 J	0.19 J	0.040 U	0.074 J	0.11	0.072 J
Fluorene	0.2		0.012 J	0.037 U	0.039 U	0.094 U	0.040 U	0.042 U	0.052 U	0.039 U
Indeno(1,2,3-cd)pyrene	0.018		0.012 J	0.037 U	0.039 U	0.11 J	0.040 U	0.042 U	0.063 J	0.039 U
Naphthalene	0.2		0.026 JB	0.075 U	0.077 U	0.19 U	0.080 U	0.084 U	0.10 U	0.078 U
Phenanthrene	0.2		0.030	0.052 J	0.039 U	0.094 U	0.049 J	0.078 J	0.052 U	0.065 J
Pyrene	0.2		0.026	0.12	0.076 J	0.29	0.040 U	0.13	0.19	0.13
Total Detected PAHs		1	0.25	0.67	0.21	1.6	0.10	0.52	0.91	0.50
PCBs (ug/l)										
Aroclor 1016	0.96		0.022 U	0.043 U	0.043 U	0.021 U	0.010 U	0.020 U	0.019 U	0.020 U
Aroclor 1221	0.034		0.022 U	0.043 U	0.043 U	0.021 U	0.010 U	0.020 U	0.019 U	0.020 U
Aroclor 1232	0.034		0.022 U	0.043 U	0.043 U	0.021 U	0.010 U	0.020 U	0.019 U	0.020 U
Aroclor 1242	0.034		0.022 U	0.043 U	0.043 U	0.021 J	0.010 U	0.020 U	0.019 U	0.020 U
Aroclor 1248	0.034		0.022 U	0.043 U	0.043 U	0.021 U	0.010 U	0.020 U	0.019 U	0.020 U
Aroclor 1254	0.034		0.022 U	0.043 U	0.043 U	0.059	0.010 U	0.020 U	0.038 J	0.020 U
Aroclor 1260	0.034		0.022 U	0.043 U	0.043 U	0.047	0.0096 U	0.020 U	0.029 J	0.020 U
Total Detected PCB aroclors	0.000064		0.00	0.00	0.00	0.11	0.00	0.00	0.067	0.00
PCB Congeners (ng/l)										
2-MonoCB-(1)			0.0081 J	0.022 J	0.0041 U	0.023 J	0.010 J	0.0086 J	0.014 U	0.0078 U
3-MonoCB-(2)			0.0040 J	0.010 J	0.0013 U	0.0054 J	0.0055 J	0.0022 U	0.0062 U	0.0027 U
4-MonoCB-(3)			0.0071 J	0.017 J	0.0033 U	0.018 J	0.0083 U	0.0072 U	0.0058 U	0.0056 U
22'-DiCB-(4)			0.038 J	0.18	0.049 J	0.18	0.11	0.19	0.47	0.20
2,3-DiCB-(5)			0.014 U	0.018 J	0.016 U	0.017 U	0.011 U	0.018 U	0.021 U	0.017 U
2,3'-DiCB-(6)			0.017 U	0.060 J	0.026 J	0.097	0.041 U	0.050 U	0.22	0.047 U
2,4-DiCB-(7)			0.013 U	0.013 J	0.014 U	0.018 J	0.0089 U	0.015 U	0.038 J	0.014 U
2,4'-DiCB-(8)			0.084 J	0.28	0.096 J	0.38	0.15	0.20	0.79	0.18
2,5-DiCB-(9)			0.013 U	0.021 U	0.014 U	0.027 U	0.0118 J	0.016 U	0.074 J	0.014 U
2,6-DiCB-(10)			0.017 U	0.015 U	0.016 U	0.017 U	0.0039 U	0.0083 J	0.018 U	0.0062 U
3,3'-DiCB-(11)			0.12	0.28	0.18	0.25	0.060 U	0.24	0.35	0.24
DiCB-(12)+(13)			0.012 U	0.031 U	0.014 U	0.050 U	0.026 U	0.027 U	0.084 U	0.033 U
3,5-DiCB-(14)			0.012 U	0.0033 U	0.014 U	0.015 U	0.0087 U	0.014 U	0.017 U	0.013 U
4,4'-DiCB-(15)			0.078 J	0.25	0.14	0.50	0.11	0.23	0.79	0.25
22'3-TriCB-(16)			0.047 J	0.20	0.081 J	0.29	0.0033 U	0.0058 U	0.0060 U	0.0044 U
22'4-TriCB-(17)			0.042 J	0.20	0.084 J	0.34	0.11	0.24	0.65	0.25
TriCB-(18)+(30)			0.088 J	0.39	0.18 J	0.73	0.23	0.50	1.3	0.50
22'6-TriCB-(19)			0.016 J	0.062 J	0.033 J	0.14	0.034 J	0.070 J	0.26	0.077 J

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012				3/5/2013			
			SWP1	SWP2	SWP3	SWP6	SWP1	SWP2	SWP3	SWP6
TriCB-(20) + (28)			0.17 J	0.62	0.37	1.5	0.33	0.75	2.8	0.84
TriCB-(21)+(33)			0.10 J	0.39	0.16 J	0.57	0.20	0.44	1.2	0.48
234'-TriCB-(22)			0.065 J	0.26	0.13	0.47	0.14	0.29	0.90	0.34
235-TriCB-(23)			0.0035 U	0.0033 U	0.0035 U	0.0037 U	0.0031 U	0.0020 U	0.0066 U	0.0025 U
236-TriCB-(24)			0.0022 U	0.014 J	0.0042 U	0.0029 U	0.13	0.27	0.60	0.29
23'4-TriCB-(25)			0.012 J	0.044 J	0.025 J	0.099	0.024 U	0.057 J	0.20	0.062 J
TriCB-(26)+(29)			0.027 J	0.10 J	0.052 J	0.23	0.060 J	0.12 J	0.43	0.13 J
23'6-TriCB-(27)			0.0071 J	0.031 J	0.020 J	0.084 J	0.014 U	0.040 J	0.13 U	0.043 J
24'5-TriCB-(31)			0.13	0.52	0.25	0.87	0.27	0.62	1.8	0.67
24'6-TriCB-(32)			0.030 J	0.12	0.077 J	0.33	0.073 J	0.15	0.52	0.16
23'5'-TriCB-(34)			0.0038 U	0.0035 U	0.0038 U	0.0040 U	0.0029 U	0.0019 U	0.0062 U	0.0024 U
33'4-TriCB-(35)			0.0036 U	0.014 J	0.0096 J	0.029 J	0.0030 U	0.012 U	0.043 J	0.014 J
33'5-TriCB-(36)			0.0030 U	0.0028 U	0.0030 U	0.0032 U	0.0026 U	0.0016 U	0.0055 U	0.0021 U
344'-TriCB-(37)			0.080 J	0.26	0.17	0.61	0.12	0.23	0.79	0.25
345-TriCB-(38)			0.0034 U	0.0032 U	0.0034 U	0.0037 U	0.0030 U	0.0019 U	0.0063 U	0.0025 U
34'5-TriCB-(39)			0.0032 U	0.0040 U	0.0032 U	0.0091 J	0.0028 U	0.0018 U	0.012 J	0.0023 U
TetraCB-(40)+(41)+(71)			0.11 J	0.34	0.33	1.3	0.19 J	0.40	2.3	0.46
22'34'-TetraCB-(42)			0.056 J	0.18	0.17	0.71	0.10	0.21	1.3	0.25
22'35-TetraCB-(43)			0.0074 U	0.028 J	0.023 J	0.10	0.011 U	0.036 J	0.18	0.045 J
TetraCB-(44)+(47)+(65)			0.23 J	0.58	0.69	2.5	0.30 J	0.62	4.2	0.79
TetraCB-(45)+(51)			0.028 J	0.11 J	0.11 J	0.43	0.059 J	0.13 J	0.78	0.17 J
22'36'-TetraCB-(46)			0.011 J	0.040 J	0.041 J	0.18	0.022 J	0.043 U	0.30	0.063 J
22'45-TetraCB-(48)			0.031 J	0.11	0.087 J	0.34	0.059 J	0.14	0.66	0.17
TetraCB-(49)+TetraCB-(69)			0.12 J	0.30	0.32	1.4	0.15 J	0.33	2.5	0.40
TetraCB-(50)+(53)			0.024 J	0.073 J	0.077 J	0.37	0.039 J	0.088 J	0.63	0.11 J
22'55'-TetraCB-(52)			0.29	0.56	0.74	3.2	0.28	0.61	5.5	0.73
22'66'-TetraCB-(54)			0.0036 U	0.0023 U	0.0030 U	0.0039 U	0.0025 U	0.0029 U	0.0084 U	0.0026 U
233'4-TetraCB-(55)			0.0034 U	0.0048 U	0.0062 U	0.012 U	0.0018 U	0.0016 U	0.0051 U	0.0031 U
233'4'-Tetra CB(56)			0.072 J	0.18	0.21	0.68	0.10	0.17	1.2	0.21
233'5-TetraCB-(57)			0.0035 U	0.0048 U	0.0062 U	0.012 U	0.0019 U	0.0016 U	0.29	0.0032 U
233'5'-TetraCB-(58)			0.0033 U	0.0046 U	0.0060 U	0.012 U	0.0019 U	0.0017 U	0.0053 U	0.0033 U
TetraCB-(59)+(62)+(75)			0.014 J	0.054 J	0.061 J	0.22 J	0.026 J	0.058 J	0.40	0.072 J
2344'-TetraCB -(60)			0.029 U	0.091 J	0.089 J	0.27	0.052 J	0.083 J	0.48	0.11
TetraCB-(61)+(70)+(74)+(76)			0.35 J	0.70	0.77	2.7	0.38 J	0.68	5.0	0.82
234'5-TetraCB-(63)			0.0048 J	0.015 J	0.012 J	0.039 J	0.0069 J	0.011 J	0.069 J	0.016 J
234'6-TetraCB-(64)			0.090 J	0.27	0.30	1.1	0.14	0.30	2.0	0.36
23'44'-TetraCB-(66)			0.15	0.32	0.39	1.4	0.19	0.32	2.8	0.40
23'45-TetraCB-(67)			0.0050 J	0.013 J	0.010 J	0.034 J	0.0080 J	0.0099 U	0.088 J	0.019 J
23'45'-TetraCB-(68)			0.0031 U	0.0043 U	0.011 U	0.017 U	0.0017 U	0.0015 U	0.021 J	0.0071 J
23'55'-TetraCB-(72)			0.0033 U	0.0046 U	0.0059 U	0.023 J	0.0018 U	0.0016 U	0.032 J	0.0038 U
23'5'6-TetraCB-(73)			0.0037 U	0.0015 U	0.0029 U	0.0031 U	0.0017 U	0.0017 U	0.0024 U	0.00084 U
33'44'-TetraCB-(77)			0.032 J	0.054 J	0.073 J	0.24	0.0019 U	0.035 U	0.27	0.049 J
33'45-TetraCB-(78)			0.0035 U	0.0049 U	0.0063 U	0.012 U	0.0018 U	0.0016 U	0.0050 U	0.0031 U
33'45'-TetraCB(79)			0.0059 U	0.0087 J	0.017 U	0.046 J	0.0016 U	0.0014 U	0.18	0.0074 J
33'55'-TetraCB-(80)			0.0031 U	0.0044 U	0.0057 U	0.011 U	0.0017 U	0.0015 U	0.0048 U	0.0030 U
344'5-TetraCB-(81)			0.0038 U	0.0053 U	0.0069 U	0.013 U	0.021 U	0.0017 U	0.0054 U	0.0034 U
22'33'4-PentaCB-(82)			0.067 J	0.088 J	0.20	0.68	0.048 J	0.071 J	0.88	0.086 J
PentaCB-(83)+(99)			0.27	0.32	0.87	2.8	0.19 J	0.24	4.2	0.30
22'33'6-PentaCB-(84)			0.15	0.20	0.52	1.6	0.094 J	0.16	2.6	0.20

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012				3/5/2013			
			SWP1	SWP2	SWP3	SWP6	SWP1	SWP2	SWP3	SWP6
PentaCB-(85)+(116)+(117)			0.088 J	0.12 J	0.28 J	0.85	0.048 J	0.071 J	1.4	0.10 J
PentaCB-(86)(87)(97)(109)(119)(125)			0.41 J	0.53 J	1.2	4.0	0.28 J	0.40 J	5.6	0.48 J
PentaCB-(88)+(91)			0.061 J	0.091 J	0.22	0.71	0.046 J	0.0681 J	1.2	0.096 J
22'346'-PentaCB-(89)			0.0026 U	0.0080 J	0.016 J	0.057 J	0.0013 U	0.0059 U	0.086 J	0.0091 U
PentaCB-(90)+(101)+(113)			0.51	0.64	1.6	5.1	0.33	0.48	8.0	0.57
22'355'-PentaCB-(92)			0.096	0.12	0.32	1.0	0.059 J	0.082 J	1.7	0.11
PentaCB-(93)+(98)+(100)+(102)			0.016 J	0.028 J	0.0602 J	0.20 J	0.010 U	0.021 U	0.32 J	0.025 U
22'356'-PentaCB-(94)			0.0026 U	0.0054 U	0.0098 U	0.024 J	0.0013 U	0.0054 U	0.042 J	0.0030 U
22'35'6-PentaCB-(95)			0.37	0.53	1.4	4.4	0.23	0.39	7.0	0.51
22'366'-PentaCB-(96)			0.0019 J	0.0048 J	0.0095 J	0.030 J	0.0023 U	0.0037 U	0.043 J	0.0055 U
22'45'6-PentaCB-(103)			0.0022 U	0.0046 U	0.0083 U	0.032 J	0.0011 U	0.0043 U	0.056 J	0.0025 U
22'466'-PentaCB-(104)			0.00075 U	0.0011 U	0.00087 U	0.0014 U	0.0029 U	0.0045 U	0.0052 U	0.0045 U
233'44'-PentaCB-(105)			0.24	0.35	0.58	2.1	0.16	0.22	2.5	0.26
233'45-PentaCB-(106)			0.0042 U	0.0049 U	0.0035 U	0.0073 U	0.0079 J	0.0036 U	0.0072 U	0.0052 U
233'4'5-PentaCB-(107)			0.031 J	0.041 J	0.099	0.35	0.025 J	0.025 J	0.58	0.036 U
PentaCB-(108)+(124)			0.018 J	0.028 J	0.059 J	0.20	0.014 U	0.016 U	0.30	0.021 U
PentaCB-(110)+(115)			0.77	0.99	2.6	8.2	0.54	0.72	12	0.88
233'55'-PentaCB-(111)			0.0018 U	0.0037 U	0.0067 U	0.0027 U	0.00087 U	0.0036 U	0.0054 U	0.0021 U
233'56-PentaCB-(112)			0.0019 U	0.0039 U	0.0070 U	0.0028 U	0.00093 U	0.0038 U	0.0058 U	0.0022 U
2344'5-PentaCB-(114)			0.0101 J	0.016 J	0.022 J	0.080 J	0.0061 U	0.0094 U	0.102	0.012 J
23'44'5-PentaCB-(118)			0.56	0.74	1.4	5.5	0.36	0.47	6.7	0.55
23'455'-PentaCB-(120)			0.0017 U	0.0036 U	0.0065 U	0.0026 U	0.00083 U	0.0034 U	0.017 U	0.0020 U
23'45'6-PentaCB-(121)			0.0018 U	0.0037 U	0.0067 U	0.0027 U	0.00086 U	0.0036 U	0.0054 U	0.0021 U
233'4'5'-PentaCB-(122)			0.0056 J	0.0092 J	0.011 U	0.065 J	0.0047 U	0.0045 U	0.097 J	0.0044 U
23'44'5'-PentaCB-(123)			0.0049 U	0.014 J	0.025 J	0.092 J	0.0051 U	0.0062 U	0.051 U	0.0056 U
33'44'5-PentaCB-(126)			0.0047 U	0.0054 U	0.013 U	0.025 J	0.0043 U	0.0036 U	0.020 U	0.0052 U
33'455'-PentaCB-(127)			0.0042 U	0.0048 U	0.0034 U	0.0072 U	0.0042 U	0.0035 U	0.0070 U	0.0051 U
HexaCB-(128)+(166)			0.13 J	0.17 J	0.37	1.3	0.10 J	0.12 J	1.8	0.14 J
HexaCB-(129)+(138)+(163)			0.76	1.1	2.5	8.6	0.63	0.75	14	0.93
22'33'45'-HexaCB-(130)			0.047 J	0.064 J	0.15	0.52	0.034 J	0.045 J	0.79	0.047 U
22'33'46-HexaCB-(131)			0.010 U	0.016 J	0.037 J	0.13	0.0039 U	0.013 J	0.21	0.017 J
22'33'46'-HexaCB-(132)			0.23	0.32	0.87	2.8	0.19	0.23	4.8	0.30
22'33'55'-HexaCB-(133)			0.0095 J	0.011 J	0.032 J	0.10	0.0033 U	0.0082 U	0.16	0.0060 U
HexaCB-(134)+(143)			0.030 U	0.046 J	0.12 J	0.44	0.028 J	0.030 U	0.73	0.048 J
HexaCB-(135)+(151)			0.14 J	0.21	0.67	2.0	0.12 J	0.15 J	3.1	0.17 J
22'33'66'-HexaCB-(136)			0.062 J	0.088 J	0.27	0.75	0.049 J	0.061 J	1.3	0.080 J
22'344'5-HexaCB-(137)			0.039 J	0.049 J	0.11	0.42	0.035 J	0.040 J	0.72	0.050 J
HexaCB-(139)+(140)			0.013 J	0.015 J	0.043 J	0.15 J	0.0030 U	0.010 J	0.25	0.011 U
22'3455'-HexaCB-(141)			0.11	0.16	0.39	1.3	0.095 J	0.12	2.0	0.15
22'3456-HexaCB-(142)			0.0058 U	0.0041 U	0.011 U	0.019 U	0.0036 U	0.0035 U	0.041 U	0.0065 U
22'345'6-HexaCB-(144)			0.020 U	0.033 J	0.081 J	0.26	0.013 U	0.025 J	0.11 U	0.026 U
22'3466'-HexaCB-(145)			0.00086 U	0.0016 U	0.0017 U	0.0027 U	0.0015 U	0.0014 U	0.0018 U	0.0013 U
22'34'55'-HexaCB-(146)			0.085 J	0.12	0.32	1.1	0.079 J	0.082 J	1.7	0.11
HexaCB-(147)+(149)			0.38	0.60	1.7	5.4	0.35	0.43	10	0.58
22'34'56'-HexaCB-(148)			0.0011 U	0.0020 U	0.0021 U	0.0034 U	0.0020 U	0.0018 U	0.015 J	0.0017 U
22'34'66'-HexaCB-(150)			0.00081 U	0.0015 U	0.0032 J	0.0071 U	0.0014 U	0.0013 U	0.0076 U	0.0012 U
22'3566'-HexaCB-(152)			0.00078 U	0.0015 U	0.0016 U	0.0033 U	0.0015 U	0.0014 U	0.0070 J	0.0013 U
HexaCB-(153)+(168)			0.45	0.62	1.7	5.6	0.36	0.43	9.0	0.55
22'44'56'-HexaCB-(154)			0.0038 U	0.0044 U	0.020 U	0.063 J	0.0018 U	0.0017 U	0.083 J	0.0015 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012				3/5/2013			
			SWP1	SWP2	SWP3	SWP6	SWP1	SWP2	SWP3	SWP6
22'44'66'-HexaCB-(155)			0.0012 U	0.0023 U	0.0025 U	0.0038 U	0.0020 U	0.0019 U	0.0023 U	0.0017 U
HexaCB-(156)+(157)			0.10 J	0.14 J	0.28	0.93	0.070 J	0.077 J	1.2	0.092 J
233'44'6-HexaCB-(158)			0.076 J	0.11	0.23	0.83	0.059 J	0.071 J	1.2	0.091 J
233'455'-HexaCB-(159)			0.0048 U	0.0075 J	0.018 J	0.069 J	0.0031 U	0.0061 U	0.10 U	0.0050 U
233'456-HexaCB-(160)			0.0043 U	0.0030 U	0.0078 U	0.014 U	0.0023 U	0.0023 U	0.027 U	0.0043 U
233'45'6-HexaCB-(161)			0.0039 U	0.0028 U	0.0072 U	0.013 U	0.0023 U	0.0022 U	0.026 U	0.0041 U
233'4'55'-HexaCB-(162)			0.0048 U	0.0057 U	0.011 U	0.030 J	0.0031 U	0.0061 U	0.042 U	0.0049 U
233'4'5'6-HexaCB-(164)			0.050 J	0.070 J	0.175	0.50	0.036 J	0.047 J	0.74	0.053 J
233'55'6-HexaCB-(165)			0.0043 U	0.0030 U	0.0078 U	0.014 U	0.0026 U	0.0025 U	0.029 U	0.0047 U
23'44'55'-HexaCB-(167)			0.034 J	0.046 J	0.11	0.34	0.023 J	0.020 U	0.44	0.031 J
33'44'55'-HexaCB-(169)			0.0050 U	0.0060 U	0.012 U	0.017 U	0.0032 U	0.0063 U	0.020 U	0.0051 U
22'33'44'5-HeptaCB-(170)			0.13	0.21	0.60	1.8	0.10 J	0.12	2.7	0.16
HeptaCB-(171)+(173)			0.034 J	0.060 J	0.17 J	0.51	0.030 J	0.0365 J	0.73	0.043 J
22'33'455'-HeptaCB-(172)			0.019 J	0.029 U	0.097 J	0.29	0.015 U	0.017 J	0.41	0.025 U
22'33'456'-HeptaCB-(174)			0.090 J	0.18	0.55	1.8	0.086 J	0.11	2.9	0.15
22'33'45'6-HeptaCB-(175)			0.0048 J	0.0074 U	0.021 J	0.059 J	0.0038 U	0.0028 U	0.089 U	0.0047 J
22'33'466'-HeptaCB-(176)			0.012 J	0.018 J	0.066 J	0.19	0.011 J	0.013 J	0.33	0.016 J
22'33'45'6'-HeptaCB-(177)			0.055 J	0.092 J	0.28	0.93	0.049 J	0.057 J	1.5	0.076 J
22'33'55'6-HeptaCB-(178)			0.019 J	0.032 J	0.10	0.31	0.018 J	0.019 U	0.45	0.022 J
22'33'566'-HeptaCB-(179)			0.032 J	0.055 J	0.21	0.60	0.032 J	0.032 U	1.1	0.040 U
HeptaCB-(180)+(193)			0.21	0.37	1.2	3.8	0.19 J	0.22	5.7	0.28
22'344'56-HeptaCB-(181)			0.0051 U	0.0052 U	0.0079 U	0.012 U	0.0024 U	0.0027 U	0.015 U	0.0050 U
22'344'56'-HeptaCB-(182)			0.0022 U	0.0013 U	0.0031 U	0.0054 U	0.0012 U	0.0026 U	0.0028 U	0.0014 U
22'344'5'6-HeptaCB-(183)			0.044 J	0.090 J	0.32	1.1	0.045 J	0.060 J	1.8	0.087 J
22'344'66'-HeptaCB-(184)			0.0016 U	0.00091 U	0.0022 U	0.0039 U	0.00083 U	0.0019 U	0.0020 U	0.00098 U
22'3455'6-HeptaCB-(185)			0.0054 U	0.015 J	0.054 J	0.13	0.0059 U	0.0030 U	0.017 U	0.0055 U
22'34566'-HeptaCB-(186)			0.0017 U	0.00097 U	0.0023 U	0.0042 U	0.00089 U	0.0020 U	0.0021 U	0.0010 U
22'34'55'6-HeptaCB-(187)			0.11	0.19	0.62	1.8	0.10 J	0.10	2.7	0.13
22'34'566'-HeptaCB-(188)			0.0026 U	0.0015 U	0.0036 U	0.0064 U	0.0013 U	0.0028 U	0.0030 U	0.0015 U
233'44'55'-HeptaCB-(189)			0.011 U	0.015 U	0.028 J	0.069 J	0.0029 U	0.0044 U	0.11	0.0068 U
233'44'56-HeptaCB-(190)			0.019 J	0.032 J	0.089 J	0.29	0.013 U	0.017 J	0.32 U	0.026 J
233'44'5'6-HeptaCB-(191)			0.0041 U	0.0074 U	0.021 J	0.068 J	0.0039 J	0.0022 U	0.048 U	0.0058 U
233'455'6-HeptaCB-(192)			0.0043 U	0.0044 U	0.0067 U	0.010 U	0.0020 U	0.0023 U	0.013 U	0.0042 U
22'33'44'55'-OctaCB-(194)			0.053 U	0.094 J	0.35	1.2	0.044 J	0.046 J	1.8	0.064 U
22'33'44'56-OctaCB-(195)			0.020 U	0.029 J	0.092 U	0.36	0.016 J	0.019 J	0.57	0.028 J
22'33'44'56'-OctaCB-(196)			0.030 J	0.046 J	0.19	0.54	0.024 J	0.023 J	0.83	0.035 U
22'33'44'66'OctaCB-(197)			0.0030 U	0.0032 U	0.020 J	0.033 J	0.0012 U	0.0032 U	0.030 U	0.0054 U
OctaCB-(198)+(199)			0.079 J	0.14 J	0.43	1.3	0.060 J	0.059 J	2.1	0.089 J
22'33'4566'-OctaCB-(200)			0.0066 J	0.013 J	0.045 U	0.15	0.0071 J	0.0052 U	0.22	0.0081 J
22'33'45'66'-OctaCB-(201)			0.011 J	0.016 J	0.060 J	0.18	0.0073 U	0.0061 J	0.25	0.010 J
22'33'55'66'-OctaCB-(202)			0.020 J	0.046 J	0.11	0.38	0.013 U	0.016 J	0.53	0.024 J
22'344'55'6-OctaCB-(203)			0.049 J	0.090 J	0.26	0.77	0.037 J	0.030 U	1.2	0.052 J
22'344'566'-OctaCB-(204)			0.0025 U	0.0025 U	0.0066 U	0.0084 U	0.0010 U	0.0030 U	0.0063 U	0.0051 U
233'44'55'6-OctaCB-(205)			0.0051 U	0.0049 U	0.010 U	0.065 U	0.0018 U	0.0040 U	0.089 J	0.010 U
22'33'44'55'6-NonaCB-(206)			0.066 J	0.14	0.28	0.88	0.049 J	0.049 J	1.3	0.043 U
22'33'44'566'-NonaCB-(207)			0.0083 U	0.015 J	0.038 J	0.11	0.0049 U	0.0064 U	0.15	0.013 U
22'33'455'66'-NonaCB-(208)			0.011 U	0.045 J	0.074 J	0.23	0.010 J	0.012 U	0.33	0.018 U
DecaCB-(209)			0.013 U	0.032 U	0.069 J	0.18	0.010 U	0.012 U	0.20	0.013 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012 SWP1	11/19/2012 SWP2	11/19/2012 SWP3	11/19/2012 SWP6	3/5/2013 SWP1	3/5/2013 SWP2	3/5/2013 SWP3	3/5/2013 SWP6
PCB Homologs (ng/l)										
Monochlorobiphenyl			0.019	0.048	0.0015 U	0.047	0.016	0.0086	0.0062 U	0.0011 U
Dichlorobiphenyl			0.32	1.1	0.49	1.4	0.38	0.87	2.7	0.86
Trichlorobiphenyl			0.81	3.2	1.6	6.2	1.7	3.8	12	4.1
Tetrachlorobiphenyl			1.6	4.0	4.5	17	2.1	4.2	31	5.3
Pentachlorobiphenyl			3.7	4.9	12	38	2.4	3.38	55	4.2
Hexachlorobiphenyl			2.7	3.9	10	34	2.3	2.7	54	3.4
Heptachlorobiphenyl			0.77	1.3	4.4	14	0.7	0.74	20	1.0
Octachlorobiphenyl			0.20	0.47	1.4	4.9	0.19	0.17	7.5	0.21
Nonachlorobiphenyl			0.066	0.20	0.40	1.2	0.06	0.049	1.8	0.017 U
Decachlorobiphenyl			0.0033 U	0.0031 U	0.069	0.18	0.006 U	0.008 U	0.20	0.013 U
Total Detected PCBs (Method 1668)	0.064	400	10	19	35	116	9.8	16	184	19
Phthalates (ug/l)										
Bis(2-ethylhexyl) phthalate	2.2	5	1.0 U	4.1 U	4.2 U	10 U	4.4 U	4.6 U	5.7 U	4.3 U
Butylbenzyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U	6.0 U	6.3 U	7.8 U	5.8 U
Dibutyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U	6.0 U	6.3 U	7.8 U	5.8 U
Diethyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U	6.0 U	6.3 U	7.8 U	5.8 U
Dimethyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U	6.0 U	6.3 U	7.8 U	5.8 U
Di-n-octyl phthalate	3		1.4 U	5.6 U	5.8 U	14 U	6.0 U	6.3 U	7.8 U	5.8 U
Pesticides (ug/l)										
2,4'-DDD	0.00031		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
2,4'-DDE	0.00022		0.019 U	0.070 J,	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
2,4'-DDT	0.2		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
4,4'-DDD	0.00031		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
4,4'-DDE	0.00022		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
4,4'-DDT	0.00022		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Aldrin	0.00005		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
alpha-BHC	0.0049		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
beta-BHC	0.017		0.019 U	0.047 U	0.194 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Chlordane technical			0.187 U	0.047 U	0.019 U	0.467 U	0.198 U	0.204 U	0.215 U	0.198 U
cis-Chlordane	0.00081		0.019 U	0.467 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
cis-Nonachlor	0.19		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
delta-BHC	0.052		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Dieldrin	0.000054		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Endosulfan I	0.051		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.30	0.12	0.27
Endosulfan II	0.051		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Endosulfan sulfate	89		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Endrin	0.036		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Endrin aldehyde			0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Endrin ketone			0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
gamma-BHC (Lindane)	0.037		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Heptachlor	0.000079		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Heptachlor epoxide	0.000039		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Hexachlorobenzene	0.00029		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Hexachlorobutadiene	0.86		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Hexachloroethane	3.3									
Methoxychlor	0.03		0.075 U	0.19 U	0.078 U	0.19 U	0.079 U	0.082 U	0.086 U	0.079 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012 SWP1	11/19/2012 SWP2	11/19/2012 SWP3	11/19/2012 SWP6	3/5/2013 SWP1	3/5/2013 SWP2	3/5/2013 SWP3	3/5/2013 SWP6
Mirex			0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Oxychlordane	0.19		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Toxaphene	0.0002		0.19 U	0.47 U	0.19 U	0.47 U	0.20 U	0.20 U	0.22 U	0.20 U
trans-Chlordane	0.00081		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
trans-Nonachlor	0.19		0.019 U	0.047 U	0.019 U	0.047 U	0.020 U	0.020 U	0.022 U	0.020 U
Dioxins (pg/l)										
1,2,3,4,6,7,8-HeptaCDD			21 J	99	55	143	12 J	19 J	107	23 J
1,2,3,4,6,7,8-HeptaCDF			5.7 J	13 U	12 U	20 U	2.5 U	3.5 U	15 U	4.5 U
1,2,3,4,7,8,9-HeptaCDF			1.2 U	1.1 U	1.3 J	2.1 J	1.0 U	1.2 U	1.7 J	1.0 U
1,2,3,4,7,8-HexaCDD			1.1 U	1.3 J	1.1 U	2.3 J	1.0 U	1.1 U	1.3 J	1.0 U
1,2,3,4,7,8-HexaCDF			0.90 U	1.0 J	1.1 J	3.0 J	0.94 U	0.78 U	2.2 J	0.90 J
1,2,3,6,7,8-HexaCDD			1.1 J	4.0 J	2.1 J	6.0 J	0.82 U	1.0 J	4.2 J	1.1 J
1,2,3,6,7,8-HexaCDF			0.89 U	0.89 U	0.99 U	1.9 J	0.87 U	0.73 U	1.1 J	0.77 U
1,2,3,7,8,9-HexaCDD			1.1 J	3.1 J	2.0 J	4.8 J	1.2 J	1.1 J	3.7 J	1.2 J
1,2,3,7,8,9-HexaCDF			1.1 U	1.1 U	1.2 U	1.3 U	1.2 U	0.96 U	1.2 U	1.0 U
1,2,3,7,8-PentaCDD			0.95 U	1.1 U	1.1 U	1.3 J	1.0 U	1.0 U	0.99 U	0.89 U
1,2,3,7,8-PentaCDF			0.97 U	1.0 U	0.94 U	0.94 U	0.94 U	1.0 U	1.0 U	1.0 U
2,3,4,6,7,8-HexaCDF			0.98 U	0.98 U	1.1 U	1.6 J	1.0 U	0.86 U	1.1 U	0.91 U
2,3,4,7,8-PentaCDF			0.98 U	1.0 U	0.95 U	1.3 U	1.1 U	1.1 J	1.9 J	1.1 U
2,3,7,8-TetraCDD	0.0051		1.0 U	1.0 U	1.0 U	1.6 U	1.0 U	1.0 U	1.0 U	1.1 U
2,3,7,8-TetraCDF			0.92 U	0.91 U	0.99 J	2.6 J	1.0 U	0.89 U	1.8 J	1.0 U
OCDD			166	845	601	1370	54 J	122	1120	161
OCDF			28 J	39 J	78 J	73 J	5.5 J	10 J	47 J	11 J
HeptaCDD homologs			37 J	372	108	380	27 J	38 J	239	46 J
HeptaCDF homologs			17 J	26 J	33 J	41 J	2.0 J	4.9 J	28 J	6.1 J
HexaCDD homologs			6.1 J	43 J	16 J	60	6.6 J	7.7 J	41 J	8.5 J
HexaCDF homologs			3.7 J	19 J	15 J	37 J	1.2 J	3.7 J	27 J	5.3 J
PentaCDD homologs			0.95 U	18 U	1.1 U	2.5 J	1.0 U	1.0 U	1.3 U	0.89 U
PentaCDF homologs			0.98 U	5.4 J	6.4 J	16 J	1.1 U	2.2 J	19 J	1.1 U
TetraCDD homologs			1.0 U	1.0 U	1.0 U	1.6 U	1.0 U	1.0 U	1.0 U	1.1 U
TetraCDF homologs			0.92 U	0.91 U	2.0 J	8.2 J	2.1 J	0.89 U	8.1 J	1.0 U
Total Dioxin TEQ	0.0051		2.0	3.7	2.9	6.6	1.8	2.1	4.6	2.0
Butyltins (ug/l)										
Butyltin ion			0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Dibutyltin ion			0.069 U	0.096 U	0.096 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Tributyltin ion	0.072		0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U	0.043 U
Total Metals (ug/l)										
Aluminum			269	4520	3540	10900	155	4670	13800	5620
Antimony	6		0.50 U	0.50 U	0.50 U	0.52 J	0.50 U	0.50 U	1.3	0.51 J
Arsenic	0.045	2	0.50 U	0.80 J	0.80 J	1.3 J	1.4 J	0.87 J	2.1	1.0 J
Cadmium	0.094	0.7	0.50 U	0.50 U	0.50 U	0.68 J	0.50 U	0.50 U	1.6	0.54 J
Chromium	100	7	2.1	23	28	128	0.92 J	7.3	83	18
Copper	2.7	60	3.4	13	27.3	41	5.1	10	60	16
Lead	0.54	50	4.3	12	8.6	29	1.7	6.6	42	10
Manganese	50		30	235	332	1390	211	345	1090	459
Mercury	0.77	0.2	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.051 J	0.040 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 21

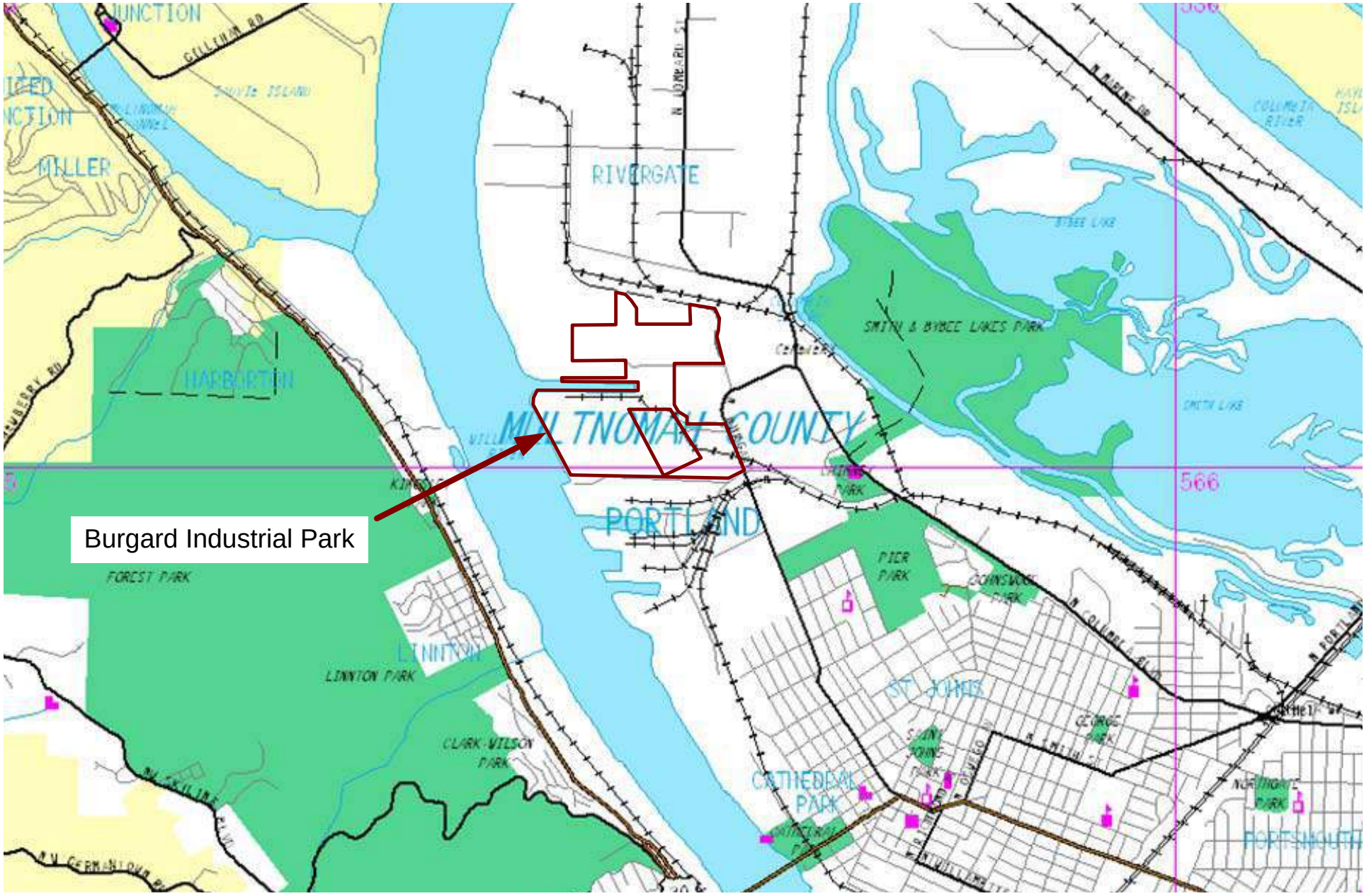
Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix D "Typical PH Values"[2]	11/19/2012 SWP1	11/19/2012 SWP2	11/19/2012 SWP3	11/19/2012 SWP6	3/5/2013 SWP1	3/5/2013 SWP2	3/5/2013 SWP3	3/5/2013 SWP6
Nickel	16	8	0.82 J	3.0	2.6	7.1	0.92 J	3.0	11	3.6
Silver	0.12	0.1	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	36	500	37	92	74	211	50	131	290	148
Dissolved Metals (ug/l)										
Aluminum			25 U	53	84	427	25 U	25 U	30 J	25 U
Antimony	6		0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	1.2	0.50 U
Arsenic	0.045	2	0.50 U	0.50 U	0.53 J	0.61 J	0.62 J	0.64 J	1.1 J	0.56 J
Cadmium	0.094	0.7	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.54 J	0.50 U
Chromium	100	7	0.50 U	2.0	0.94 J	3.2	0.50 U	0.50 U	1.4 J	0.50 U
Copper	2.7	60	1.3 J	2.0	6.5	3.7	3.3	2.3	12	3.2
Lead	0.54	50	0.50 U	0.50 U	0.5 U	1.1	0.50 U	0.50 U	0.50 U	0.50 U
Manganese	50		0.50 U	4.5	6.5	32	70	228	50	223
Mercury	0.77	0.2	0.04 U	0.04 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U	0.040 U
Nickel	16	8	0.50 U	0.70 J	0.82 J	0.63 J	0.50 U	0.82 J	3.3	1.1 J
Silver	0.12	0.1	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Zinc	36	500	4.3	2.4 J	3.2 J	8.0	32	50	32	36
Pertroleum Hydrocarbons (mg/l)										
Gasoline			0.094 U	0.094 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U
Diesel			0.094 U	0.15 J	0.34 J	0.67	0.10 U	0.11 U	0.10 U	0.10 U
Oil			0.22 J	1.0	2.9	8.6	0.56	0.68	8.8	0.87
TSS (mg/l)		60	9.0	262	74	520	12	105	245	152
TOC (mg/l)			4.5	9.9	7.8	17	4.2	5.9	5.4	5.2

U - Not detectet at noted detection limit
J- Estimated value
NA - Not analyzed
Blank cells indicate not analyzed

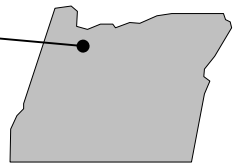
1 - Table 3-1 PH JSCS Guidance, 7/16/2007 revision
2 - October 2010, DEQ Guidance for Evaluating Stormwater Pathway at Upland Sites, Appendix E, Tool For Evaluating Stormwater Data

Detected concentration > 10 x SLV
Detected concentration > 100 x SLV
Detected concentration > 1000 x SLV

Figures



Portland, Oregon



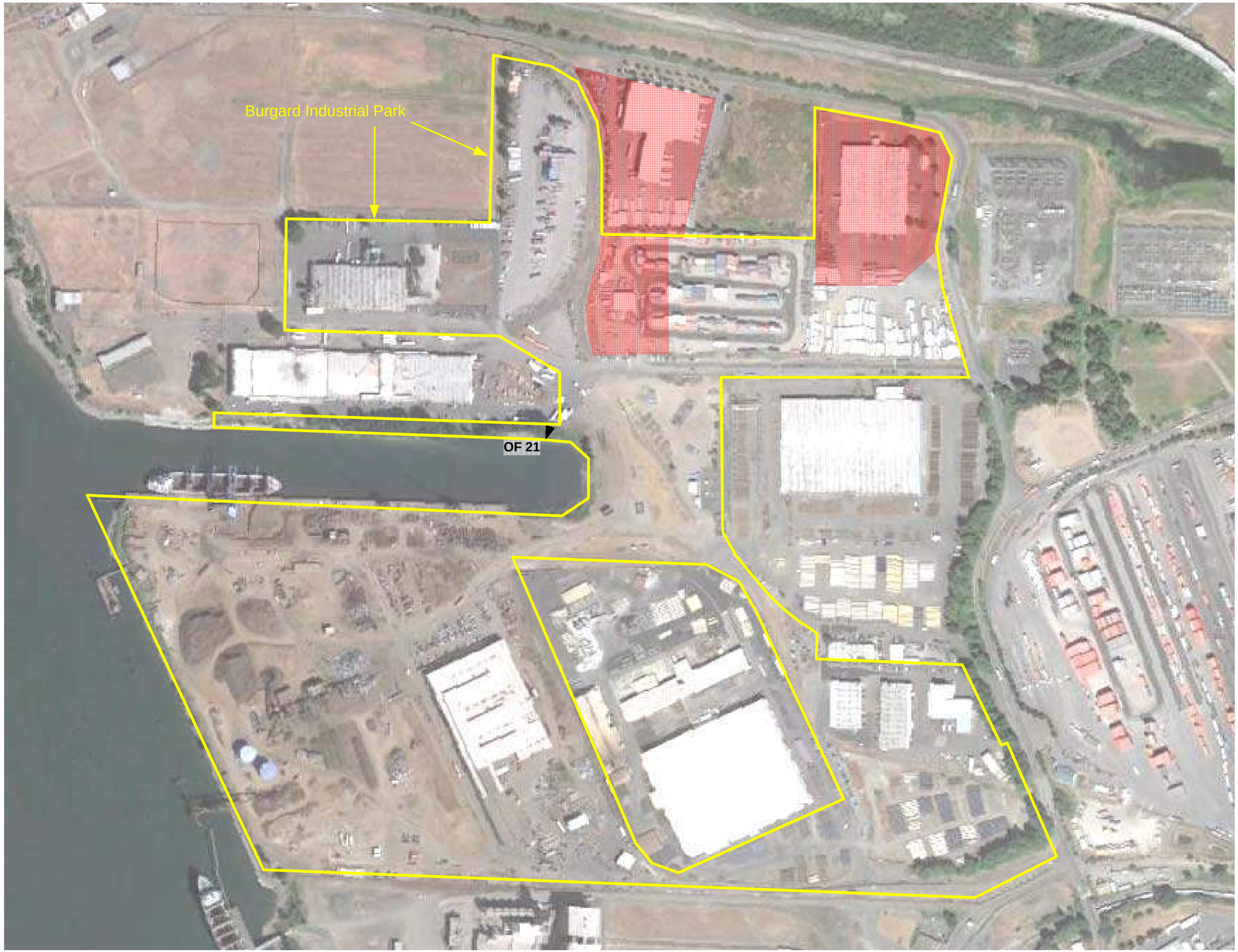
N

Approximate Scale

2700 feet

Figure 1
Site Location Map
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

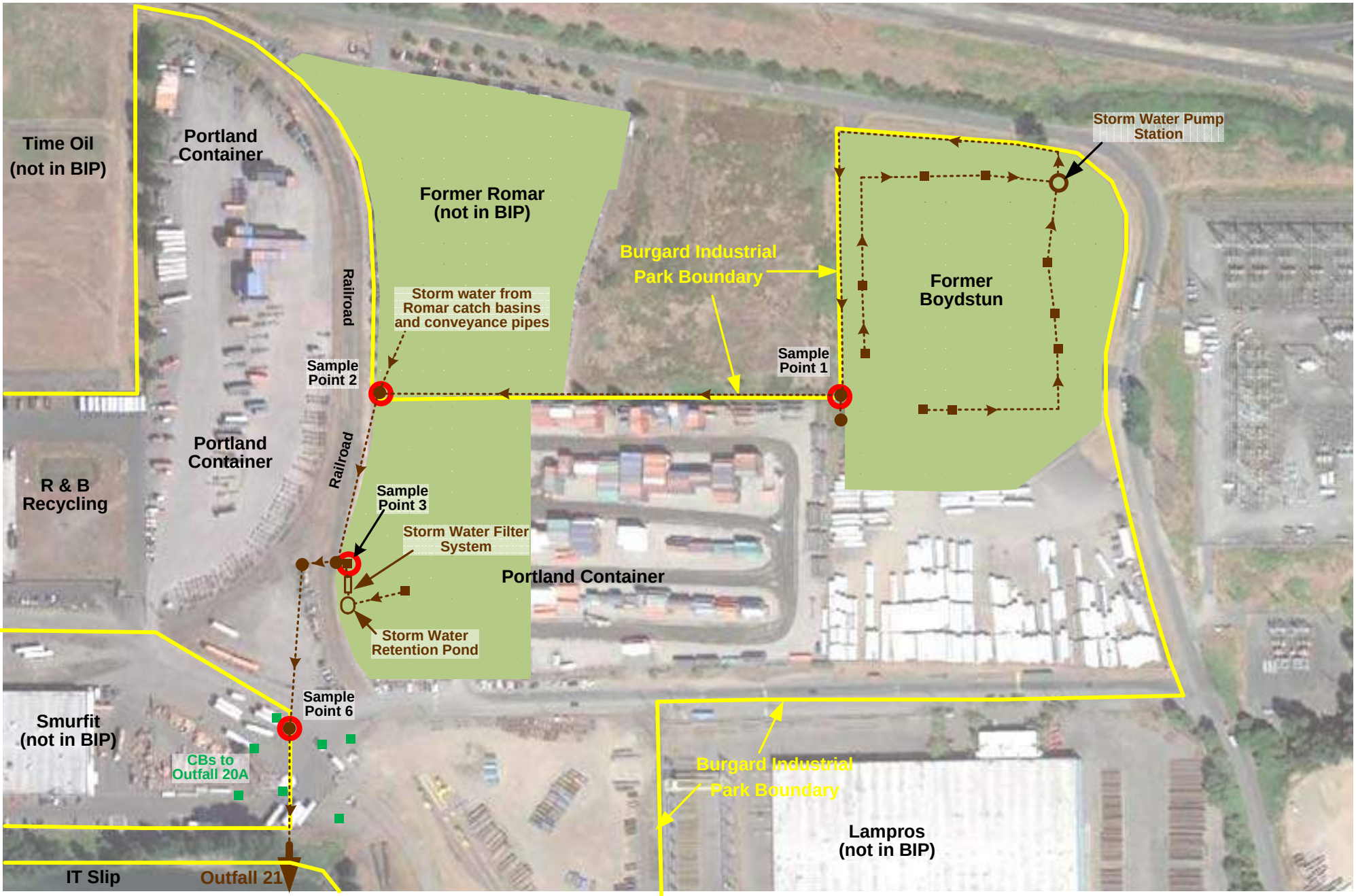


Basin 21

Base Photograph August 2012

Figure 2
Site Plan
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



Base photograph August 2012

N

Approximate Scale

250 feet

- Catch Basin
- Manhole
- Storm Water Basin 21
- Storm Water Sample Location

Figure 3
Basin 21 Storm Water Sample Locations
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

Appendix A – Analytical Laboratory Reports

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Thursday, March 21, 2013

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

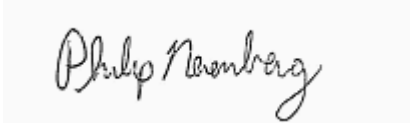
RE: Schnitzer-Burgard / 8001-20

Enclosed are the results of analyses for work order A13C101, which was received by the laboratory on 3/5/2013 at 3:10:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B21-SWP1-20130305	A13C101-01	Water	03/05/13 09:45	03/05/13 15:10
B21-SWP2-20130305	A13C101-02	Water	03/05/13 10:28	03/05/13 15:10
B21-SWP3-20130305	A13C101-03	Water	03/05/13 11:47	03/05/13 15:10
B21-SWP6-20130305	A13C101-04	Water	03/05/13 11:02	03/05/13 15:10

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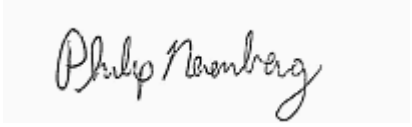

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503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01)			**Matrix: Water**		**Batch: 1303170**			
Diesel	ND	0.0990	0.198	mg/L	1	03/07/13 23:15	NWTPH-Dx	
Oil	**0.557**	0.198	0.396	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP2-20130305 (A13C101-02)			**Matrix: Water**		**Batch: 1303170**			
Diesel	ND	0.110	0.220	mg/L	1	03/07/13 23:45	NWTPH-Dx	
Oil	**0.680**	0.220	0.440	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 87 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**		**Batch: 1303170**			
Diesel	ND	0.101	0.202	mg/L	1	03/08/13 00:47	NWTPH-Dx	
Oil	**8.80**	0.202	0.404	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 83 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**		**Batch: 1303170**			
Diesel	ND	0.100	0.200	mg/L	1	03/08/13 01:48	NWTPH-Dx	
Oil	**0.874**	0.200	0.400	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	

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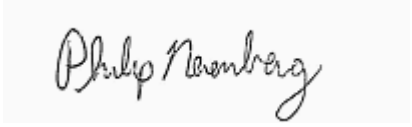

Philip Nerenberg, Lab Director

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503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01)			**Matrix: Water**		**Batch: 1303110**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/06/13 16:57	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 82 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*103 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP2-20130305 (A13C101-02)			**Matrix: Water**		**Batch: 1303110**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/06/13 17:23	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 82 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*103 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**		**Batch: 1303110**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/06/13 17:50	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 84 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*106 %*	*Limits: 50-150 %*	"	"	"	
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**		**Batch: 1303110**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	03/06/13 18:17	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	

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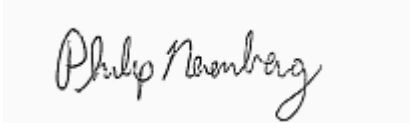

Philip Nerenberg, Lab Director

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503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01)			**Matrix: Water**		**Batch: 1303147**			**C-07**
Aroclor 1016	ND	0.00962	0.0192	ug/L	1	03/08/13 12:03	EPA 8082A	
Aroclor 1221	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1232	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1242	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1248	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1254	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1260	ND	0.00962	0.0192	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 68 %*	*Limits: 40-135 %*	"	"	"	
B21-SWP2-20130305 (A13C101-02)			**Matrix: Water**		**Batch: 1303147**			**C-07**
Aroclor 1016	ND	0.0204	0.0408	ug/L	1	03/08/13 12:21	EPA 8082A	
Aroclor 1221	ND	0.0204	0.0408	"	"	"	"	
Aroclor 1232	ND	0.0204	0.0408	"	"	"	"	
Aroclor 1242	ND	0.0204	0.0408	"	"	"	"	
Aroclor 1248	ND	0.0204	0.0408	"	"	"	"	
Aroclor 1254	ND	0.0204	0.0408	"	"	"	"	
Aroclor 1260	ND	0.0204	0.0408	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 57 %*	*Limits: 40-135 %*	"	"	"	
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**		**Batch: 1303147**			**C-07**
Aroclor 1016	ND	0.0187	0.0374	ug/L	1	03/08/13 12:38	EPA 8082A	
Aroclor 1221	ND	0.0187	0.0374	"	"	"	"	
Aroclor 1232	ND	0.0187	0.0374	"	"	"	"	
Aroclor 1242	ND	0.0187	0.0374	"	"	"	"	
Aroclor 1248	ND	0.0187	0.0374	"	"	"	"	
Aroclor 1254	**0.0382**	0.0187	0.0374	"	"	"	"	EST
Aroclor 1260	**0.0287**	0.0187	0.0374	"	"	"	"	J
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 42 %*	*Limits: 40-135 %*	"	"	"	
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**		**Batch: 1303147**			**C-07**
Aroclor 1016	ND	0.0198	0.0396	ug/L	1	03/08/13 12:56	EPA 8082A	
Aroclor 1221	ND	0.0198	0.0396	"	"	"	"	
Aroclor 1232	ND	0.0198	0.0396	"	"	"	"	
Aroclor 1242	ND	0.0198	0.0396	"	"	"	"	
Aroclor 1248	ND	0.0198	0.0396	"	"	"	"	
Aroclor 1254	ND	0.0198	0.0396	"	"	"	"	
Aroclor 1260	ND	0.0198	0.0396	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

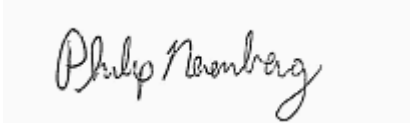
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**		**Batch: 1303147**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 62 %*	*Limits: 40-135 %*	1	"	EPA 8082A	

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01RE1)			**Matrix: Water**		**Batch: 1303300**			**C-05**
Aldrin	ND	0.0198	0.0594	ug/L	1	03/14/13 15:25	EPA 8081B	
alpha-BHC	ND	0.0198	0.0594	"	"	"	"	
beta-BHC	ND	0.0198	0.0594	"	"	"	"	
delta-BHC	ND	0.0198	0.0594	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0198	0.0594	"	"	"	"	
cis-Chlordane	ND	0.0198	0.0594	"	"	"	"	
trans-Chlordane	ND	0.0198	0.0594	"	"	"	"	
4,4'-DDD	ND	0.0198	0.0594	"	"	"	"	
4,4'-DDE	ND	0.0198	0.0594	"	"	"	"	
4,4'-DDT	ND	0.0198	0.0594	"	"	"	"	
Dieldrin	ND	0.0198	0.0594	"	"	"	"	
Endosulfan I	ND	0.0198	0.0594	"	"	"	"	
Endosulfan II	ND	0.0198	0.0594	"	"	"	"	
Endosulfan sulfate	ND	0.0198	0.0594	"	"	"	"	
Endrin	ND	0.0198	0.0594	"	"	"	"	
Endrin Aldehyde	ND	0.0198	0.0594	"	"	"	"	
Endrin ketone	ND	0.0198	0.0594	"	"	"	"	
Heptachlor	ND	0.0198	0.0594	"	"	"	"	
Heptachlor epoxide	ND	0.0198	0.0594	"	"	"	"	
Methoxychlor	ND	0.0792	0.158	"	"	"	"	
Chlordane (Technical)	ND	0.198	0.743	"	"	"	"	
Toxaphene (Total)	ND	0.198	1.98	"	"	"	"	
cis-Nonachlor	ND	0.0198	0.0594	"	"	"	"	
2,4'-DDD	ND	0.0198	0.0594	"	"	"	"	
2,4'-DDE	ND	0.0198	0.0594	"	"	"	"	
2,4'-DDT	ND	0.0198	0.0594	"	"	"	"	
Hexachlorobenzene	ND	0.0198	0.0594	"	"	"	"	
Hexachlorobutadiene	ND	0.0198	0.0594	"	"	"	"	
Mirex	ND	0.0198	0.0594	"	"	"	"	
Oxychlordane	ND	0.0198	0.0594	"	"	"	"	
trans-Nonachlor	ND	0.0198	0.0594	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*91 %*	*Limits: 30-135 %*	"	"	"	

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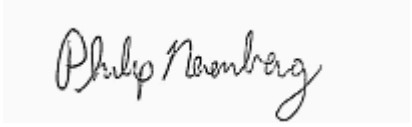

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP2-20130305 (A13C101-02RE1)			**Matrix: Water**		**Batch: 1303300**			**C-05**
Aldrin	ND	0.0204	0.0612	ug/L	1	03/14/13 15:43	EPA 8081B	
alpha-BHC	ND	0.0204	0.0612	"	"	"	"	
beta-BHC	ND	0.0204	0.0612	"	"	"	"	
delta-BHC	ND	0.0204	0.0612	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0204	0.0612	"	"	"	"	
cis-Chlordane	ND	0.0204	0.0612	"	"	"	"	
trans-Chlordane	ND	0.0204	0.0612	"	"	"	"	
4,4'-DDD	ND	0.0204	0.0612	"	"	"	"	
4,4'-DDE	ND	0.0204	0.0612	"	"	"	"	
4,4'-DDT	ND	0.0204	0.0612	"	"	"	"	
Dieldrin	ND	0.0204	0.0612	"	"	"	"	
Endosulfan I	**0.299**	0.0204	0.0612	"	"	"	"	
Endosulfan II	ND	0.0204	0.0612	"	"	"	"	
Endosulfan sulfate	ND	0.0204	0.0612	"	"	"	"	
Endrin	ND	0.0204	0.0612	"	"	"	"	
Endrin Aldehyde	ND	0.0204	0.0612	"	"	"	"	
Endrin ketone	ND	0.0204	0.0612	"	"	"	"	
Heptachlor	ND	0.0204	0.0612	"	"	"	"	
Heptachlor epoxide	ND	0.0204	0.0612	"	"	"	"	
Methoxychlor	ND	0.0816	0.163	"	"	"	"	
Chlordane (Technical)	ND	0.204	0.765	"	"	"	"	
Toxaphene (Total)	ND	0.204	2.04	"	"	"	"	
cis-Nonachlor	ND	0.0204	0.0612	"	"	"	"	
2,4'-DDD	ND	0.0204	0.0612	"	"	"	"	
2,4'-DDE	ND	0.0204	0.0612	"	"	"	"	
2,4'-DDT	ND	0.0204	0.0612	"	"	"	"	
Hexachlorobenzene	ND	0.0204	0.0612	"	"	"	"	
Hexachlorobutadiene	ND	0.0204	0.0612	"	"	"	"	
Mirex	ND	0.0204	0.0612	"	"	"	"	
Oxychlordane	ND	0.0204	0.0612	"	"	"	"	
trans-Nonachlor	ND	0.0204	0.0612	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*75 %*	*Limits: 30-135 %*	"	"	"	

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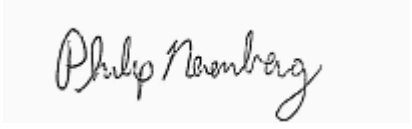

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20130305 (A13C101-03RE1)			**Matrix: Water**		**Batch: 1303300**			**C-05**
Aldrin	ND	0.0215	0.0645	ug/L	1	03/14/13 16:01	EPA 8081B	
alpha-BHC	ND	0.0215	0.0645	"	"	"	"	
beta-BHC	ND	0.0215	0.0645	"	"	"	"	
delta-BHC	ND	0.0215	0.0645	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0215	0.0645	"	"	"	"	
cis-Chlordane	ND	0.0215	0.0645	"	"	"	"	
trans-Chlordane	ND	0.0215	0.0645	"	"	"	"	
4,4'-DDD	ND	0.0215	0.0645	"	"	"	"	
4,4'-DDE	ND	0.0215	0.0645	"	"	"	"	
4,4'-DDT	ND	0.0215	0.0645	"	"	"	"	
Dieldrin	ND	0.0215	0.0645	"	"	"	"	
Endosulfan I	**0.121**	0.0215	0.0645	"	"	"	"	
Endosulfan II	ND	0.0215	0.0645	"	"	"	"	
Endosulfan sulfate	ND	0.0215	0.0645	"	"	"	"	
Endrin	ND	0.0215	0.0645	"	"	"	"	
Endrin Aldehyde	ND	0.0215	0.0645	"	"	"	"	
Endrin ketone	ND	0.0215	0.0645	"	"	"	"	
Heptachlor	ND	0.0215	0.0645	"	"	"	"	
Heptachlor epoxide	ND	0.0215	0.0645	"	"	"	"	
Methoxychlor	ND	0.0860	0.172	"	"	"	"	
Chlordane (Technical)	ND	0.215	0.806	"	"	"	"	
Toxaphene (Total)	ND	0.215	2.15	"	"	"	"	
cis-Nonachlor	ND	0.0215	0.0645	"	"	"	"	
2,4'-DDD	ND	0.0215	0.0645	"	"	"	"	
2,4'-DDE	ND	0.0215	0.0645	"	"	"	"	
2,4'-DDT	ND	0.0215	0.0645	"	"	"	"	
Hexachlorobenzene	ND	0.0215	0.0645	"	"	"	"	
Hexachlorobutadiene	ND	0.0215	0.0645	"	"	"	"	
Mirex	ND	0.0215	0.0645	"	"	"	"	
Oxychlordane	ND	0.0215	0.0645	"	"	"	"	
trans-Nonachlor	ND	0.0215	0.0645	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 58 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*66 %*	*Limits: 30-135 %*	"	"	"	

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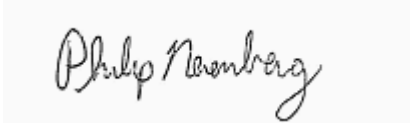

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP6-20130305 (A13C101-04RE1)			**Matrix: Water**		**Batch: 1303300**			**C-05**
Aldrin	ND	0.0198	0.0594	ug/L	1	03/14/13 16:19	EPA 8081B	
alpha-BHC	ND	0.0198	0.0594	"	"	"	"	
beta-BHC	ND	0.0198	0.0594	"	"	"	"	
delta-BHC	ND	0.0198	0.0594	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0198	0.0594	"	"	"	"	
cis-Chlordane	ND	0.0198	0.0594	"	"	"	"	
trans-Chlordane	ND	0.0198	0.0594	"	"	"	"	
4,4'-DDD	ND	0.0198	0.0594	"	"	"	"	
4,4'-DDE	ND	0.0198	0.0594	"	"	"	"	
4,4'-DDT	ND	0.0198	0.0594	"	"	"	"	
Dieldrin	ND	0.0198	0.0594	"	"	"	"	
Endosulfan I	**0.269**	0.0198	0.0594	"	"	"	"	
Endosulfan II	ND	0.0198	0.0594	"	"	"	"	
Endosulfan sulfate	ND	0.0198	0.0594	"	"	"	"	
Endrin	ND	0.0198	0.0594	"	"	"	"	
Endrin Aldehyde	ND	0.0198	0.0594	"	"	"	"	
Endrin ketone	ND	0.0198	0.0594	"	"	"	"	
Heptachlor	ND	0.0198	0.0594	"	"	"	"	
Heptachlor epoxide	ND	0.0198	0.0594	"	"	"	"	
Methoxychlor	ND	0.0792	0.158	"	"	"	"	
Chlordane (Technical)	ND	0.198	0.743	"	"	"	"	
Toxaphene (Total)	ND	0.198	1.98	"	"	"	"	
cis-Nonachlor	ND	0.0198	0.0594	"	"	"	"	
2,4'-DDD	ND	0.0198	0.0594	"	"	"	"	
2,4'-DDE	ND	0.0198	0.0594	"	"	"	"	
2,4'-DDT	ND	0.0198	0.0594	"	"	"	"	
Hexachlorobenzene	ND	0.0198	0.0594	"	"	"	"	
Hexachlorobutadiene	ND	0.0198	0.0594	"	"	"	"	
Mirex	ND	0.0198	0.0594	"	"	"	"	
Oxychlordane	ND	0.0198	0.0594	"	"	"	"	
trans-Nonachlor	ND	0.0198	0.0594	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 87 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*86 %*	*Limits: 30-135 %*	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01RE2)			**Matrix: Water**		**Batch: 1303243**			**R-04**
Acenaphthene	**0.0516**	0.0400	0.0800	ug/L	4	03/12/13 17:56	EPA 8270D P/P	J
Acenaphthylene	ND	0.0400	0.0800	"	"	"	"	
Anthracene	ND	0.0400	0.0800	"	"	"	"	
Benz(a)anthracene	ND	0.0400	0.0800	"	"	"	"	
Benzo(a)pyrene	ND	0.0600	0.120	"	"	"	"	
Benzo(b)fluoranthene	ND	0.0600	0.120	"	"	"	"	
Benzo(k)fluoranthene	ND	0.0600	0.120	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.0800	0.0800	"	"	"	"	
Chrysene	ND	0.0400	0.0800	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0400	0.0800	"	"	"	"	
Fluoranthene	ND	0.0400	0.0800	"	"	"	"	
Fluorene	ND	0.0400	0.0800	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0400	0.0800	"	"	"	"	
Naphthalene	ND	0.0800	0.160	"	"	"	"	
Phenanthrene	**0.0485**	0.0400	0.0800	"	"	"	"	J
Pyrene	ND	0.0400	0.0800	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.40	8.80	"	"	"	"	
Butyl benzyl phthalate	ND	6.00	12.0	"	"	"	"	
Diethylphthalate	ND	6.00	12.0	"	"	"	"	
Dimethylphthalate	ND	6.00	12.0	"	"	"	"	
Di-n-butylphthalate	ND	6.00	12.0	"	"	"	"	
Di-n-octyl phthalate	ND	6.00	12.0	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 88 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*89 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*101 %*	*Limits: 50-125 %*	"	"	"	

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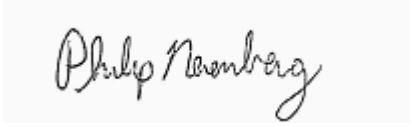

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP2-20130305 (A13C101-02RE2)			**Matrix: Water**		**Batch: 1303243**			
Acenaphthene	**0.0751**	0.0421	0.0842	ug/L	4	03/12/13 18:31	EPA 8270D P/P	J
Acenaphthylene	ND	0.0421	0.0842	"	"	"	"	
Anthracene	ND	0.0421	0.0842	"	"	"	"	
Benz(a)anthracene	ND	0.0421	0.0842	"	"	"	"	
Benzo(a)pyrene	ND	0.0632	0.126	"	"	"	"	
Benzo(b)fluoranthene	**0.0797**	0.0632	0.126	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.0632	0.126	"	"	"	"	
Benzo(g,h,i)perylene	**0.0840**	0.0421	0.0842	"	"	"	"	J
Chrysene	ND	0.0421	0.0842	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0421	0.0842	"	"	"	"	
Fluoranthene	**0.0742**	0.0421	0.0842	"	"	"	"	J
Fluorene	ND	0.0421	0.0842	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0421	0.0842	"	"	"	"	
Naphthalene	ND	0.0842	0.168	"	"	"	"	
Phenanthrene	**0.0784**	0.0421	0.0842	"	"	"	"	J
Pyrene	**0.126**	0.0421	0.0842	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.63	9.26	"	"	"	"	
Butyl benzyl phthalate	ND	6.32	12.6	"	"	"	"	
Diethylphthalate	ND	6.32	12.6	"	"	"	"	
Dimethylphthalate	ND	6.32	12.6	"	"	"	"	
Di-n-butylphthalate	ND	6.32	12.6	"	"	"	"	
Di-n-octyl phthalate	ND	6.32	12.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 79 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*84 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*101 %*	*Limits: 50-125 %*	"	"	"	

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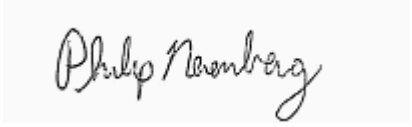

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20130305 (A13C101-03RE2)			**Matrix: Water**		**Batch: 1303243**			
Acenaphthene	ND	0.0521	0.104	ug/L	5	03/12/13 19:42	EPA 8270D P/P	
Acenaphthylene	ND	0.0521	0.104	"	"	"	"	
Anthracene	ND	0.0521	0.104	"	"	"	"	
Benz(a)anthracene	**0.0608**	0.0521	0.104	"	"	"	"	J
Benzo(a)pyrene	**0.102**	0.0781	0.156	"	"	"	"	J
Benzo(b)fluoranthene	**0.162**	0.0781	0.156	"	"	"	"	
Benzo(k)fluoranthene	ND	0.0781	0.156	"	"	"	"	
Benzo(g,h,i)perylene	**0.122**	0.0521	0.104	"	"	"	"	
Chrysene	**0.104**	0.0521	0.104	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0521	0.104	"	"	"	"	
Fluoranthene	**0.106**	0.0521	0.104	"	"	"	"	
Fluorene	ND	0.0521	0.104	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**0.0629**	0.0521	0.104	"	"	"	"	J
Naphthalene	ND	0.104	0.208	"	"	"	"	
Phenanthrene	ND	0.0521	0.104	"	"	"	"	
Pyrene	**0.187**	0.0521	0.104	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	5.73	11.5	"	"	"	"	
Butyl benzyl phthalate	ND	7.81	15.6	"	"	"	"	
Diethylphthalate	ND	7.81	15.6	"	"	"	"	
Dimethylphthalate	ND	7.81	15.6	"	"	"	"	
Di-n-butylphthalate	ND	7.81	15.6	"	"	"	"	
Di-n-octyl phthalate	ND	7.81	15.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 83 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*83 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*91 %*	*Limits: 50-125 %*	"	"	"	

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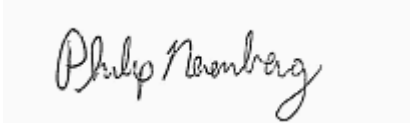

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP6-20130305 (A13C101-04RE2)			**Matrix: Water**		**Batch: 1303243**			
Acenaphthene	**0.0460**	0.0388	0.0777	ug/L	4	03/12/13 19:07	EPA 8270D P/P	J
Acenaphthylene	ND	0.0388	0.0777	"	"	"	"	
Anthracene	ND	0.0388	0.0777	"	"	"	"	
Benz(a)anthracene	**0.0405**	0.0388	0.0777	"	"	"	"	J
Benzo(a)pyrene	ND	0.117	0.117	"	"	"	"	
Benzo(b)fluoranthene	**0.0777**	0.0583	0.117	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.0583	0.117	"	"	"	"	
Benzo(g,h,i)perylene	**0.0788**	0.0388	0.0777	"	"	"	"	
Chrysene	ND	0.0388	0.0777	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0388	0.0777	"	"	"	"	
Fluoranthene	**0.0716**	0.0388	0.0777	"	"	"	"	J
Fluorene	ND	0.0388	0.0777	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0388	0.0777	"	"	"	"	
Naphthalene	ND	0.0777	0.155	"	"	"	"	
Phenanthrene	**0.0647**	0.0388	0.0777	"	"	"	"	J
Pyrene	**0.125**	0.0388	0.0777	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.27	8.54	"	"	"	"	
Butyl benzyl phthalate	ND	5.83	11.7	"	"	"	"	
Diethylphthalate	ND	5.83	11.7	"	"	"	"	
Dimethylphthalate	ND	5.83	11.7	"	"	"	"	
Di-n-butylphthalate	ND	5.83	11.7	"	"	"	"	
Di-n-octyl phthalate	ND	5.83	11.7	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 87 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*85 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 50-125 %*	"	"	"	

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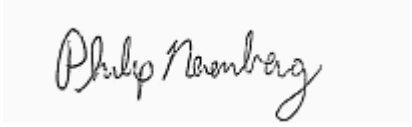

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01)			**Matrix: Water**					
Batch: 1303399								
Aluminum	**155**	25.0	50.0	ug/L	1	03/18/13 17:08	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**1.43**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**0.922**	0.500	2.00	"	"	"	"	J
Copper	**5.06**	1.00	2.00	"	"	"	"	
Lead	**1.70**	0.500	1.00	"	"	"	"	
Manganese	**211**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.922**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**50.0**	2.00	4.00	"	"	"	"	
B21-SWP2-20130305 (A13C101-02)			**Matrix: Water**					
Batch: 1303399								
Aluminum	**4670**	25.0	50.0	ug/L	1	03/18/13 17:15	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.867**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	**7.31**	0.500	2.00	"	"	"	"	
Copper	**9.92**	1.00	2.00	"	"	"	"	
Lead	**6.60**	0.500	1.00	"	"	"	"	
Manganese	**345**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**2.96**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**131**	2.00	4.00	"	"	"	"	
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**					
Batch: 1303399								
Aluminum	**13800**	25.0	50.0	ug/L	1	03/18/13 17:58	EPA 6020A	
Antimony	**1.31**	0.500	1.00	"	"	"	"	
Arsenic	**2.06**	0.500	2.00	"	"	"	"	
Cadmium	**1.59**	0.500	1.00	"	"	"	"	
Chromium	**83.3**	0.500	2.00	"	"	"	"	
Copper	**59.8**	1.00	2.00	"	"	"	"	
Lead	**41.6**	0.500	1.00	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**					
Manganese	**1090**	0.500	1.00	ug/L	1	"	EPA 6020A	
Mercury	**0.0506**	0.0400	0.0800	"	"	"	"	J
Nickel	**11.4**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**290**	2.00	4.00	"	"	"	"	
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**					
Batch: 1303399								
Aluminum	**5620**	25.0	50.0	ug/L	1	03/18/13 18:01	EPA 6020A	
Antimony	**0.511**	0.500	1.00	"	"	"	"	J
Arsenic	**1.02**	0.500	2.00	"	"	"	"	J
Cadmium	**0.544**	0.500	1.00	"	"	"	"	J
Chromium	**17.8**	0.500	2.00	"	"	"	"	
Copper	**16.1**	1.00	2.00	"	"	"	"	
Lead	**10.0**	0.500	1.00	"	"	"	"	
Manganese	**459**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**3.60**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**148**	2.00	4.00	"	"	"	"	

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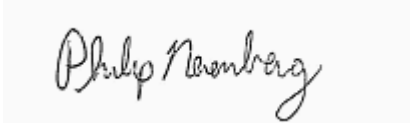

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01)			**Matrix: Water**					
Batch: 1303154								
Aluminum	ND	25.0	50.0	ug/L	1	03/13/13 17:29	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.622**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	**3.34**	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**70.1**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	ND	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**31.8**	2.00	4.00	"	"	"	"	
B21-SWP2-20130305 (A13C101-02)			**Matrix: Water**					
Batch: 1303154								
Aluminum	ND	25.0	50.0	ug/L	1	03/13/13 17:32	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.644**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	**2.31**	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**228**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.822**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**49.6**	2.00	4.00	"	"	"	"	
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**					
Batch: 1303154								
Aluminum	**30.4**	25.0	50.0	ug/L	1	03/13/13 17:35	EPA 6020A (Diss)	J
Antimony	**1.17**	0.500	1.00	"	"	"	"	
Arsenic	**1.11**	0.500	2.00	"	"	"	"	J
Cadmium	**0.544**	0.500	1.00	"	"	"	"	J
Chromium	**1.43**	0.500	2.00	"	"	"	"	J
Copper	**12.3**	1.00	2.00	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**					
Lead	ND	0.500	1.00	ug/L	1	"	EPA 6020A (Diss)	
Manganese	**50.4**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**3.27**	0.500	2.00	"	"	"	"	
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**31.9**	2.00	4.00	"	"	"	"	
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**					
Batch: 1303154								
Aluminum	ND	25.0	50.0	ug/L	1	03/13/13 17:38	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	**0.556**	0.500	2.00	"	"	"	"	J
Cadmium	ND	0.500	1.00	"	"	"	"	
Chromium	ND	0.500	2.00	"	"	"	"	
Copper	**3.24**	1.00	2.00	"	"	"	"	
Lead	ND	0.500	1.00	"	"	"	"	
Manganese	**223**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**1.13**	0.500	2.00	"	"	"	"	J
Silver	ND	0.500	1.00	"	"	"	"	
Zinc	**35.8**	2.00	4.00	"	"	"	"	

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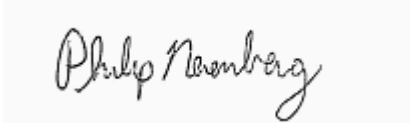

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B21-SWP1-20130305 (A13C101-01)			**Matrix: Water**					
Batch: 1303122								
Total Organic Carbon	**4.21**	1.00	1.00	mg/L	1	03/06/13 14:58	SM 5310 B	
Batch: 1303155								
Total Suspended Solids	**12.0**	5.00	5.00	"	"	03/07/13 16:56	SM 2540 D	
B21-SWP2-20130305 (A13C101-02)			**Matrix: Water**					
Batch: 1303122								
Total Organic Carbon	**5.86**	1.00	1.00	mg/L	1	03/06/13 16:09	SM 5310 B	
Batch: 1303155								
Total Suspended Solids	**105**	5.00	5.00	"	"	03/07/13 16:56	SM 2540 D	
B21-SWP3-20130305 (A13C101-03)			**Matrix: Water**					
Batch: 1303122								
Total Organic Carbon	**5.42**	1.00	1.00	mg/L	1	03/06/13 16:33	SM 5310 B	
Batch: 1303155								
Total Suspended Solids	**245**	5.00	5.00	"	"	03/07/13 16:56	SM 2540 D	
B21-SWP6-20130305 (A13C101-04)			**Matrix: Water**					
Batch: 1303122								
Total Organic Carbon	**5.22**	1.00	1.00	mg/L	1	03/06/13 16:57	SM 5310 B	
Batch: 1303155								
Total Suspended Solids	**152**	5.00	5.00	"	"	03/07/13 16:56	SM 2540 D	

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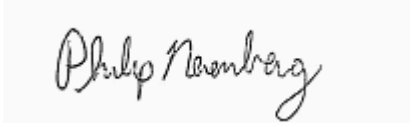

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303170 - EPA 3510C (Acid Extraction)									**Water**			
Blank (1303170-BLK1)					Prepared: 03/07/13 12:25 Analyzed: 03/07/13 20:09							
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	0.182	0.364	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 79 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS (1303170-BS1)					Prepared: 03/07/13 12:25 Analyzed: 03/07/13 20:40							
NWTPH-Dx												
Diesel	1.08	0.100	0.200	mg/L	1	1.25	---	86	70-130%	---	---	
Oil	1.22	0.200	0.400	"	"	"	---	98	"	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS Dup (1303170-BSD1)					Prepared: 03/07/13 12:25 Analyzed: 03/07/13 21:11							**Q-19**
NWTPH-Dx												
Diesel	1.07	0.100	0.200	mg/L	1	1.25	---	85	70-130%	1	20%	
Oil	1.20	0.200	0.400	"	"	"	---	96	"	2	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*		*Dilution: 1x*						

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303110 - EPA 5030B									**Water**			
Blank (1303110-BLK1)					Prepared: 03/06/13 15:14 Analyzed: 03/06/13 16:30							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 82 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*102 %*	*50-150 %*			*"*					
LCS (1303110-BS2)					Prepared: 03/06/13 15:14 Analyzed: 03/06/13 16:03							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.509	0.0500	0.100	mg/L	1	0.500	---	102	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 85 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*103 %*	*50-150 %*			*"*					
Duplicate (1303110-DUP1)					Prepared: 03/06/13 15:14 Analyzed: 03/06/13 18:43							
QC Source Sample: B21-SWP6-20130305 (A13C101-04)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 80 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*102 %*	*50-150 %*			*"*					

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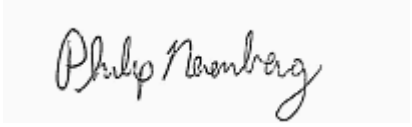

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303147 - EPA 3510C (Neutral pH)							**Water**					
Blank (1303147-BLK1)					Prepared: 03/07/13 08:21	Analyzed: 03/08/13 10:51						**C-07**
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 63 %*	*Limits: 40-135 %*		*Dilution: 1x*						
LCS (1303147-BS1)					Prepared: 03/07/13 08:21	Analyzed: 03/08/13 11:09						**C-07**
EPA 8082A												
Aroclor 1016	0.818	0.0100	0.0200	ug/L	1	1.25	---	65	40-140%	---	---	
Aroclor 1260	0.800	0.0100	0.0200	"	"	"	---	64	"	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 60 %*	*Limits: 40-135 %*		*Dilution: 1x*						
LCS Dup (1303147-BSD1)					Prepared: 03/07/13 08:22	Analyzed: 03/08/13 11:27						**C-07, Q-19**
EPA 8082A												
Aroclor 1016	0.804	0.0100	0.0200	ug/L	1	1.25	---	64	40-140%	2	30%	
Aroclor 1260	0.776	0.0100	0.0200	"	"	"	---	62	"	3	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 63 %*	*Limits: 40-135 %*		*Dilution: 1x*						

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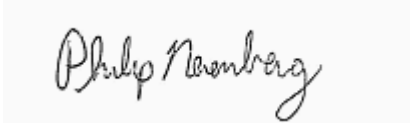

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303300 - EPA 3510C (Neutral pH)							**Water**					
Blank (1303300-BLK1)					Prepared: 03/12/13 12:18 Analyzed: 03/14/13 13:56							**C-05**
EPA 8081B												
Aldrin	ND	0.0182	0.0545	ug/L	1	---	---	---	---	---	---	
alpha-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Endrin ketone	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Heptachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.0727	0.145	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.182	0.682	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.182	1.82	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Mirex	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	
Oxychlordane	ND	0.0182	0.0545	"	"	---	---	---	---	---	---	

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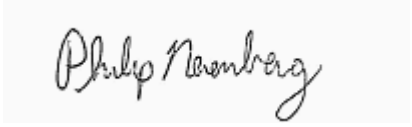

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303300 - EPA 3510C (Neutral pH)								**Water**				
Blank (1303300-BLK1)					Prepared: 03/12/13 12:18 Analyzed: 03/14/13 13:56							**C-05**
trans-Nonachlor	ND	0.0182	0.0545	ug/L	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 86 %*		*Limits: 25-140 %*				*Dilution: 1x*			
Decachlorobiphenyl (Surr)			*85 %*		*30-135 %*				*"*			
LCS (1303300-BS1)					Prepared: 03/12/13 12:18 Analyzed: 03/14/13 14:14							**C-05**
EPA 8081B												
Aldrin	0.384	0.0200	0.0600	ug/L	1	0.500	---	77	25-140%	---	---	
alpha-BHC	0.428	0.0200	0.0600	"	"	"	---	86	60-130%	---	---	
beta-BHC	0.435	0.0200	0.0600	"	"	"	---	87	65-125%	---	---	
delta-BHC	0.408	0.0200	0.0600	"	"	"	---	82	45-135%	---	---	
gamma-BHC (Lindane)	0.440	0.0200	0.0600	"	"	"	---	88	25-135%	---	---	
cis-Chlordane	0.416	0.0200	0.0600	"	"	"	---	83	65-125%	---	---	
trans-Chlordane	0.421	0.0200	0.0600	"	"	"	---	84	60-125%	---	---	
4,4'-DDD	0.439	0.0200	0.0600	"	"	"	---	88	25-150%	---	---	
4,4'-DDE	0.410	0.0200	0.0600	"	"	"	---	82	35-140%	---	---	
4,4'-DDT	0.549	0.0200	0.0600	"	"	"	---	110	45-140%	---	---	
Dieldrin	0.433	0.0200	0.0600	"	"	"	---	87	60-130%	---	---	
Endosulfan I	0.439	0.0200	0.0600	"	"	"	---	88	50-110%	---	---	
Endosulfan II	0.458	0.0200	0.0600	"	"	"	---	92	30-130%	---	---	
Endosulfan sulfate	0.477	0.0200	0.0600	"	"	"	---	95	55-135%	---	---	
Endrin	0.492	0.0200	0.0600	"	"	"	---	98	"	---	---	
Endrin Aldehyde	0.447	0.0200	0.0600	"	"	"	---	89	"	---	---	
Endrin ketone	0.480	0.0200	0.0600	"	"	"	---	96	75-125%	---	---	
Heptachlor	0.442	0.0200	0.0600	"	"	"	---	88	40-130%	---	---	
Heptachlor epoxide	0.436	0.0200	0.0600	"	"	"	---	87	60-130%	---	---	
Methoxychlor	0.536	0.0800	0.160	"	"	"	---	107	55-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 79 %*		*Limits: 25-140 %*				*Dilution: 1x*			
Decachlorobiphenyl (Surr)			*73 %*		*30-135 %*				*"*			
LCS (1303300-BS2)					Prepared: 03/12/13 12:18 Analyzed: 03/14/13 14:49							**C-05**
EPA 8081B												
cis-Nonachlor	0.492	0.0200	0.0600	ug/L	1	0.500	---	98	50-150%	---	---	

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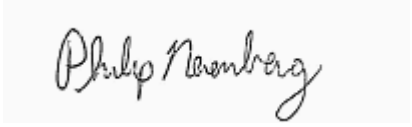

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303300 - EPA 3510C (Neutral pH)							**Water**					
LCS (1303300-BS2)					Prepared: 03/12/13 12:18 Analyzed: 03/14/13 14:49							**C-05**
2,4'-DDD	0.502	0.0200	0.0600	ug/L	"	"	---	100	30-135%	---	---	
2,4'-DDE	0.469	0.0200	0.0600	"	"	"	---	94	50-140%	---	---	
2,4'-DDT	0.585	0.0200	0.0600	"	"	"	---	117	45-140%	---	---	
Hexachlorobenzene	0.450	0.0200	0.0600	"	"	"	---	90	50-150%	---	---	
Hexachlorobutadiene	0.256	0.0200	0.0600	"	"	"	---	51	"	---	---	
Mirex	0.480	0.0200	0.0600	"	"	"	---	96	"	---	---	
Oxychlordane	0.474	0.0200	0.0600	"	"	"	---	95	"	---	---	
trans-Nonachlor	0.475	0.0200	0.0600	"	"	"	---	95	"	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 77 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*77 %*	*30-135 %*			*"*					
LCS Dup (1303300-BSD1)					Prepared: 03/12/13 12:18 Analyzed: 03/14/13 14:32							**C-05, Q-19**
EPA 8081B												
Aldrin	0.416	0.0200	0.0600	ug/L	1	0.500	---	83	25-140%	8	30%	
alpha-BHC	0.449	0.0200	0.0600	"	"	"	---	90	60-130%	5	30%	
beta-BHC	0.454	0.0200	0.0600	"	"	"	---	91	65-125%	4	30%	
delta-BHC	0.430	0.0200	0.0600	"	"	"	---	86	45-135%	5	30%	
gamma-BHC (Lindane)	0.457	0.0200	0.0600	"	"	"	---	91	25-135%	4	30%	
cis-Chlordane	0.444	0.0200	0.0600	"	"	"	---	89	65-125%	7	30%	
trans-Chlordane	0.446	0.0200	0.0600	"	"	"	---	89	60-125%	6	30%	
4,4'-DDD	0.467	0.0200	0.0600	"	"	"	---	93	25-150%	6	30%	
4,4'-DDE	0.438	0.0200	0.0600	"	"	"	---	88	35-140%	7	30%	
4,4'-DDT	0.572	0.0200	0.0600	"	"	"	---	114	45-140%	4	30%	
Dieldrin	0.460	0.0200	0.0600	"	"	"	---	92	60-130%	6	30%	
Endosulfan I	0.473	0.0200	0.0600	"	"	"	---	95	50-110%	7	30%	
Endosulfan II	0.482	0.0200	0.0600	"	"	"	---	96	30-130%	5	30%	
Endosulfan sulfate	0.493	0.0200	0.0600	"	"	"	---	99	55-135%	3	30%	
Endrin	0.506	0.0200	0.0600	"	"	"	---	101	"	3	30%	
Endrin Aldehyde	0.467	0.0200	0.0600	"	"	"	---	93	"	4	30%	
Endrin ketone	0.515	0.0200	0.0600	"	"	"	---	103	75-125%	7	30%	
Heptachlor	0.468	0.0200	0.0600	"	"	"	---	94	40-130%	6	30%	
Heptachlor epoxide	0.463	0.0200	0.0600	"	"	"	---	93	60-130%	6	30%	

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Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303300 - EPA 3510C (Neutral pH)							**Water**					
LCS Dup (1303300-BSD1)					Prepared: 03/12/13 12:18		Analyzed: 03/14/13 14:32					**C-05, Q-19**
Methoxychlor	0.566	0.0800	0.160	"	"	"	---	113	55-150%	5	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 82 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*79 %*	*30-135 %*			*"*					
LCS Dup (1303300-BSD2)					Prepared: 03/12/13 12:18		Analyzed: 03/14/13 15:07					**C-05, Q-19**
EPA 8081B												
cis-Nonachlor	0.534	0.0200	0.0600	ug/L	1	0.500	---	107	50-150%	8	30%	
2,4'-DDD	0.542	0.0200	0.0600	"	"	"	---	108	30-135%	8	30%	
2,4'-DDE	0.515	0.0200	0.0600	"	"	"	---	103	50-140%	9	30%	
2,4'-DDT	0.622	0.0200	0.0600	"	"	"	---	124	45-140%	6	30%	
Hexachlorobenzene	0.494	0.0200	0.0600	"	"	"	---	99	50-150%	9	30%	
Hexachlorobutadiene	0.322	0.0200	0.0600	"	"	"	---	64	"	23	30%	
Mirex	0.517	0.0200	0.0600	"	"	"	---	103	"	7	30%	
Oxychlordane	0.509	0.0200	0.0600	"	"	"	---	102	"	7	30%	
trans-Nonachlor	0.517	0.0200	0.0600	"	"	"	---	103	"	8	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 90 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*85 %*	*30-135 %*			*"*					

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303243 - EPA 3510C (Acid Extraction)							**Water**					
Blank (1303243-BLK2)					Prepared: 03/11/13 12:23 Analyzed: 03/11/13 19:18							
EPA 8270D P/P												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 85 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*76 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*98 %*	*50-125 %*	*"*

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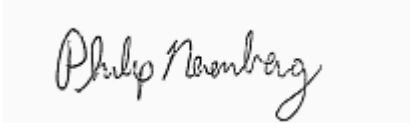

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303243 - EPA 3510C (Acid Extraction)							**Water**					
LCS (1303243-BS2)					Prepared: 03/11/13 12:23 Analyzed: 03/11/13 19:54							
EPA 8270D P/P												
Acenaphthene	3.59	0.0100	0.0200	ug/L	1	4.00	---	90	45-125%	---	---	
Acenaphthylene	3.75	0.0100	0.0200	"	"	"	---	94	50-125%	---	---	
Anthracene	4.06	0.0100	0.0200	"	"	"	---	102	55-125%	---	---	
Benz(a)anthracene	4.21	0.0100	0.0200	"	"	"	---	105	"	---	---	
Benzo(a)pyrene	4.17	0.0150	0.0300	"	"	"	---	104	"	---	---	
Benzo(b)fluoranthene	4.16	0.0150	0.0300	"	"	"	---	104	45-125%	---	---	
Benzo(k)fluoranthene	4.24	0.0150	0.0300	"	"	"	---	106	"	---	---	
Benzo(b+k)fluoranthene(s)	8.37	0.0300	0.0600	"	"	8.00	---	105	"	---	---	
Benzo(g,h,i)perylene	4.29	0.0100	0.0200	"	"	4.00	---	107	40-125%	---	---	
Chrysene	4.21	0.0100	0.0200	"	"	"	---	105	55-125%	---	---	
Dibenz(a,h)anthracene	4.33	0.0100	0.0200	"	"	"	---	108	40-125%	---	---	
Fluoranthene	4.28	0.0100	0.0200	"	"	"	---	107	55-125%	---	---	
Fluorene	3.86	0.0100	0.0200	"	"	"	---	96	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	4.16	0.0100	0.0200	"	"	"	---	104	45-125%	---	---	
1-Methylnaphthalene	3.43	0.0200	0.0400	"	"	"	---	86	45-120%	---	---	
2-Methylnaphthalene	3.44	0.0200	0.0400	"	"	"	---	86	"	---	---	
Naphthalene	3.27	0.0200	0.0400	"	"	"	---	82	40-125%	---	---	
Phenanthrene	3.82	0.0100	0.0200	"	"	"	---	95	50-125%	---	---	
Pyrene	4.17	0.0100	0.0200	"	"	"	---	104	"	---	---	
Carbazole	3.65	0.0150	0.0300	"	"	"	---	91	"	---	---	
Dibenzofuran	3.71	0.0100	0.0200	"	"	"	---	93	55-125%	---	---	
Bis(2-ethylhexyl)phthalate	4.34	1.10	2.20	"	"	"	---	109	40-125%	---	---	
Butyl benzyl phthalate	4.36	1.50	3.00	"	"	"	---	109	45-125%	---	---	
Diethylphthalate	4.16	1.50	3.00	"	"	"	---	104	40-125%	---	---	
Dimethylphthalate	4.09	1.50	3.00	"	"	"	---	102	25-125%	---	---	
Di-n-butylphthalate	4.58	1.50	3.00	"	"	"	---	114	55-125%	---	---	
Di-n-octyl phthalate	4.51	1.50	3.00	"	"	"	---	113	35-125%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 96 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*88 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*105 %*	*50-125 %*	*"*

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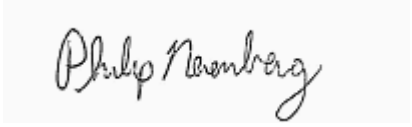

Philip Nerenberg, Lab Director

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503-718-2323 Phone
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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303243 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (1303243-BSD2)					Prepared: 03/11/13 12:23 Analyzed: 03/11/13 20:31							**Q-19**
EPA 8270D P/P												
Acenaphthene	3.40	0.0100	0.0200	ug/L	1	4.00	---	85	45-125%	6	30%	
Acenaphthylene	3.57	0.0100	0.0200	"	"	"	---	89	50-125%	5	30%	
Anthracene	3.84	0.0100	0.0200	"	"	"	---	96	55-125%	6	30%	
Benz(a)anthracene	4.00	0.0100	0.0200	"	"	"	---	100	"	5	30%	
Benzo(a)pyrene	4.00	0.0150	0.0300	"	"	"	---	100	"	4	30%	
Benzo(b)fluoranthene	3.94	0.0150	0.0300	"	"	"	---	99	45-125%	5	30%	
Benzo(k)fluoranthene	4.05	0.0150	0.0300	"	"	"	---	101	"	5	30%	
Benzo(b+k)fluoranthene(s)	7.96	0.0300	0.0600	"	"	8.00	---	99	"	5	30%	
Benzo(g,h,i)perylene	4.02	0.0100	0.0200	"	"	4.00	---	100	40-125%	7	30%	
Chrysene	3.99	0.0100	0.0200	"	"	"	---	100	55-125%	5	30%	
Dibenz(a,h)anthracene	4.08	0.0100	0.0200	"	"	"	---	102	40-125%	6	30%	
Fluoranthene	4.04	0.0100	0.0200	"	"	"	---	101	55-125%	6	30%	
Fluorene	3.72	0.0100	0.0200	"	"	"	---	93	50-125%	4	30%	
Indeno(1,2,3-cd)pyrene	3.95	0.0100	0.0200	"	"	"	---	99	45-125%	5	30%	
1-Methylnaphthalene	3.05	0.0200	0.0400	"	"	"	---	76	45-120%	12	30%	
2-Methylnaphthalene	3.01	0.0200	0.0400	"	"	"	---	75	"	13	30%	
Naphthalene	2.88	0.0200	0.0400	"	"	"	---	72	40-125%	13	30%	
Phenanthrene	3.65	0.0100	0.0200	"	"	"	---	91	50-125%	5	30%	
Pyrene	3.98	0.0100	0.0200	"	"	"	---	99	"	5	30%	
Carbazole	3.60	0.0150	0.0300	"	"	"	---	90	"	1	30%	
Dibenzofuran	3.54	0.0100	0.0200	"	"	"	---	88	55-125%	5	30%	
Bis(2-ethylhexyl)phthalate	4.16	1.10	2.20	"	"	"	---	104	40-125%	4	30%	
Butyl benzyl phthalate	4.15	1.50	3.00	"	"	"	---	104	45-125%	5	30%	
Diethylphthalate	4.04	1.50	3.00	"	"	"	---	101	40-125%	3	30%	
Dimethylphthalate	3.98	1.50	3.00	"	"	"	---	99	25-125%	3	30%	
Di-n-butylphthalate	4.37	1.50	3.00	"	"	"	---	109	55-125%	5	30%	
Di-n-octyl phthalate	4.33	1.50	3.00	"	"	"	---	108	35-125%	4	30%	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 92 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*84 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*99 %*	*50-125 %*	*"*

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303399 - EPA 3015A							**Water**					
Blank (1303399-BLK1)					Prepared: 03/15/13 11:48 Analyzed: 03/18/13 15:47							
EPA 6020A												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1303399-BS1)					Prepared: 03/15/13 11:48 Analyzed: 03/18/13 15:50							
EPA 6020A												
Aluminum	5550	25.0	50.0	ug/L	1	5560	---	100	80-120%	---	---	
Antimony	27.2	0.500	1.00	"	"	27.8	---	98	"	---	---	
Arsenic	53.1	0.500	2.00	"	"	55.6	---	96	85-115%	---	---	
Cadmium	55.4	0.500	1.00	"	"	"	---	100	80-120%	---	---	
Chromium	54.4	0.500	2.00	"	"	"	---	98	"	---	---	
Copper	53.7	1.00	2.00	"	"	"	---	97	"	---	---	
Lead	55.1	0.500	1.00	"	"	"	---	99	"	---	---	
Manganese	56.4	0.500	1.00	"	"	"	---	102	"	---	---	
Mercury	1.11	0.0400	0.0800	"	"	1.11	---	100	"	---	---	
Nickel	54.2	0.500	2.00	"	"	55.6	---	98	"	---	---	
Silver	28.3	0.500	1.00	"	"	27.8	---	102	"	---	---	
Zinc	57.1	2.00	4.00	"	"	55.6	---	103	"	---	---	
Matrix Spike (1303399-MS1)					Prepared: 03/15/13 11:48 Analyzed: 03/18/13 17:11							
QC Source Sample: B21-SWP1-20130305 (A13C101-01)												
EPA 6020A												

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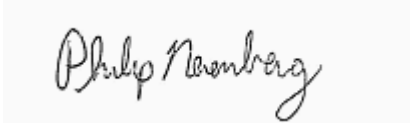

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303399 - EPA 3015A							**Water**					
Matrix Spike (1303399-MS1)					Prepared: 03/15/13 11:48		Analyzed: 03/18/13 17:11					
QC Source Sample: B21-SWP1-20130305 (A13C101-01)												
Aluminum	5840	25.0	50.0	ug/L	1	5560	155	102	75-125%	---	---	
Antimony	26.7	0.500	1.00	"	"	27.8	ND	96	"	---	---	
Arsenic	55.4	0.500	2.00	"	"	55.6	1.43	97	70-130%	---	---	
Cadmium	56.6	0.500	1.00	"	"	"	ND	102	75-125%	---	---	
Chromium	55.9	0.500	2.00	"	"	"	0.922	99	"	---	---	
Copper	59.0	1.00	2.00	"	"	"	5.06	97	"	---	---	
Lead	57.3	0.500	1.00	"	"	"	1.70	100	"	---	---	
Manganese	269	0.500	1.00	"	"	"	211	103	"	---	---	
Mercury	1.12	0.0400	0.0800	"	"	1.11	ND	101	"	---	---	
Nickel	55.3	0.500	2.00	"	"	55.6	0.922	98	"	---	---	
Silver	28.3	0.500	1.00	"	"	27.8	ND	102	"	---	---	
Zinc	105	2.00	4.00	"	"	55.6	50.0	99	"	---	---	
Post Spike (1303399-PS1)					Prepared: 03/18/13 17:34		Analyzed: 03/18/13 17:36					
Manganese	1740			ug/L	10	476	1210	111	80-120%		---	

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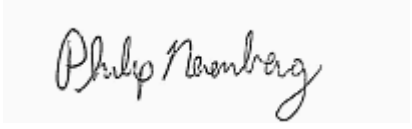

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303154 - EPA 3015A - Dissolved								**Water**				
Blank (1303154-BLK1)						Prepared: 03/07/13 10:19		Analyzed: 03/13/13 17:16				
EPA 6020A (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Copper	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Lead	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	2.00	"	"	---	---	---	---	---	---	
Silver	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (1303154-BS1)						Prepared: 03/07/13 10:19		Analyzed: 03/13/13 17:19				
EPA 6020A (Diss)												
Aluminum	5050	25.0	50.0	ug/L	1	5560	---	91	80-120%	---	---	
Antimony	27.4	0.500	1.00	"	"	27.8	---	99	"	---	---	
Arsenic	53.8	0.500	2.00	"	"	55.6	---	97	"	---	---	
Cadmium	56.1	0.500	1.00	"	"	"	---	101	"	---	---	
Chromium	54.2	0.500	2.00	"	"	"	---	98	"	---	---	
Copper	53.9	1.00	2.00	"	"	"	---	97	"	---	---	
Lead	56.6	0.500	1.00	"	"	"	---	102	"	---	---	
Manganese	56.6	0.500	1.00	"	"	"	---	102	"	---	---	
Mercury	1.08	0.0400	0.0800	"	"	1.11	---	97	"	---	---	
Nickel	53.8	0.500	2.00	"	"	55.6	---	97	"	---	---	
Silver	28.4	0.500	1.00	"	"	27.8	---	102	"	---	---	
Zinc	55.2	2.00	4.00	"	"	55.6	---	99	"	---	---	
Matrix Spike (1303154-MS1)						Prepared: 03/07/13 10:19		Analyzed: 03/13/13 17:47				
QC Source Sample: B21-SWP6-20130305 (A13C101-04)												
EPA 6020A (Diss)												

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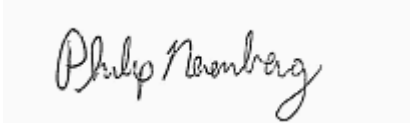

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303154 - EPA 3015A - Dissolved							**Water**					
Matrix Spike (1303154-MS1)					Prepared: 03/07/13 10:19 Analyzed: 03/13/13 17:47							
QC Source Sample: B21-SWP6-20130305 (A13C101-04)												
Aluminum	5040	25.0	50.0	ug/L	1	5560	ND	91	75-125%	---	---	
Antimony	27.1	0.500	1.00	"	"	27.8	ND	98	"	---	---	
Arsenic	53.9	0.500	2.00	"	"	55.6	0.556	96	"	---	---	
Cadmium	55.7	0.500	1.00	"	"	"	ND	100	"	---	---	
Chromium	53.6	0.500	2.00	"	"	"	ND	96	"	---	---	
Copper	55.7	1.00	2.00	"	"	"	3.24	94	"	---	---	
Lead	55.3	0.500	1.00	"	"	"	ND	99	"	---	---	
Manganese	270	0.500	1.00	"	"	"	223	86	"	---	---	
Mercury	1.08	0.0400	0.0800	"	"	1.11	ND	97	"	---	---	
Nickel	54.4	0.500	2.00	"	"	55.6	1.13	96	"	---	---	
Silver	27.9	0.500	1.00	"	"	27.8	ND	101	"	---	---	
Zinc	88.0	2.00	4.00	"	"	55.6	35.8	94	"	---	---	

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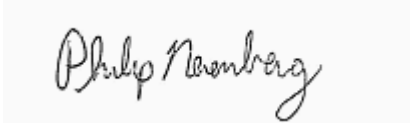

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303122 - Method Prep: Aq							**Water**					
Blank (1303122-BLK1)					Prepared: 03/06/13 12:01		Analyzed: 03/06/13 14:12					
SM 5310 B												
Total Organic Carbon	ND	1.00	1.00	mg/L	1	---	---	---	---	---	---	
LCS (1303122-BS1)					Prepared: 03/06/13 12:01		Analyzed: 03/06/13 14:35					
SM 5310 B												
Total Organic Carbon	9.36	1.00	1.00	mg/L	1	10.0	---	94	85-115%	---	---	
Duplicate (1303122-DUP1)					Prepared: 03/06/13 12:01		Analyzed: 03/06/13 15:21					
QC Source Sample: B21-SWP1-20130305 (A13C101-01)												
SM 5310 B												
Total Organic Carbon	**4.38**	1.00	1.00	mg/L	1	---	4.21	---	---	4	20%	
Matrix Spike (1303122-MS1)					Prepared: 03/06/13 12:01		Analyzed: 03/06/13 15:45					
QC Source Sample: B21-SWP1-20130305 (A13C101-01)												
SM 5310 B												
Total Organic Carbon	14.1	1.01	1.01	mg/L	1	10.1	4.21	98	75-125%	---	---	

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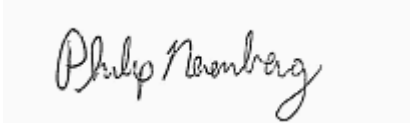

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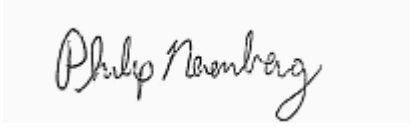
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1303155 - Total Suspended Solids									Water			
Blank (1303155-BLK1)					Prepared: 03/07/13 11:15		Analyzed: 03/07/13 16:56					
SM 2540 D												
Total Suspended Solids	ND	2.00	2.00	mg/L	1	---	---	---	---	---	---	
Reference (1303155-SRM1)					Prepared: 03/07/13 11:15		Analyzed: 03/07/13 16:56					
SM 2540 D												
Total Suspended Solids	94.0			mg/L	1	100		94	90-110%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

SAMPLE PREPARATION INFORMATION

Diesel and Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303170							
A13C101-01	Water	NWTPH-Dx	03/05/13 09:45	03/07/13 12:25	1010mL/5mL	1000mL/5mL	0.99
A13C101-02	Water	NWTPH-Dx	03/05/13 10:28	03/07/13 12:25	910mL/5mL	1000mL/5mL	1.10
A13C101-03	Water	NWTPH-Dx	03/05/13 11:47	03/07/13 12:25	990mL/5mL	1000mL/5mL	1.01
A13C101-04	Water	NWTPH-Dx	03/05/13 11:02	03/07/13 12:25	1000mL/5mL	1000mL/5mL	1.00

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303110							
A13C101-01	Water	NWTPH-Gx (MS)	03/05/13 09:45	03/06/13 15:14	5mL/5mL	5mL/5mL	1.00
A13C101-02	Water	NWTPH-Gx (MS)	03/05/13 10:28	03/06/13 15:14	5mL/5mL	5mL/5mL	1.00
A13C101-03	Water	NWTPH-Gx (MS)	03/05/13 11:47	03/06/13 15:14	5mL/5mL	5mL/5mL	1.00
A13C101-04	Water	NWTPH-Gx (MS)	03/05/13 11:02	03/06/13 15:14	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303147							
A13C101-01	Water	EPA 8082A	03/05/13 09:45	03/07/13 08:21	1040mL/1mL	1000mL/1mL	0.96
A13C101-02	Water	EPA 8082A	03/05/13 10:28	03/07/13 08:21	980mL/2mL	1000mL/1mL	2.04
A13C101-03	Water	EPA 8082A	03/05/13 11:47	03/07/13 08:21	1070mL/2mL	1000mL/1mL	1.87
A13C101-04	Water	EPA 8082A	03/05/13 11:02	03/07/13 08:21	1010mL/2mL	1000mL/1mL	1.98

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303300							
A13C101-01RE1	Water	EPA 8081B	03/05/13 09:45	03/12/13 12:18	1010mL/10mL	1000mL/5mL	1.98
A13C101-02RE1	Water	EPA 8081B	03/05/13 10:28	03/12/13 12:18	980mL/10mL	1000mL/5mL	2.04
A13C101-03RE1	Water	EPA 8081B	03/05/13 11:47	03/12/13 12:18	930mL/10mL	1000mL/5mL	2.15
A13C101-04RE1	Water	EPA 8081B	03/05/13 11:02	03/12/13 12:18	1010mL/10mL	1000mL/5mL	1.98

Apex Laboratories

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303243							
A13C101-01RE2	Water	EPA 8270D P/P	03/05/13 09:45	03/11/13 12:23	1000mL/1mL	1000mL/1mL	1.00
A13C101-02RE2	Water	EPA 8270D P/P	03/05/13 10:28	03/11/13 12:23	950mL/1mL	1000mL/1mL	1.05
A13C101-03RE2	Water	EPA 8270D P/P	03/05/13 11:47	03/11/13 12:23	960mL/1mL	1000mL/1mL	1.04
A13C101-04RE2	Water	EPA 8270D P/P	03/05/13 11:02	03/11/13 12:23	1030mL/1mL	1000mL/1mL	0.97

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303399							
A13C101-01	Water	EPA 6020A	03/05/13 09:45	03/15/13 11:48	45mL/50mL	45mL/50mL	1.00
A13C101-02	Water	EPA 6020A	03/05/13 10:28	03/15/13 11:48	45mL/50mL	45mL/50mL	1.00
A13C101-03	Water	EPA 6020A	03/05/13 11:47	03/15/13 11:48	45mL/50mL	45mL/50mL	1.00
A13C101-04	Water	EPA 6020A	03/05/13 11:02	03/15/13 11:48	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303154							
A13C101-01	Water	EPA 6020A (Diss)	03/05/13 09:45	03/07/13 10:19	45mL/50mL	45mL/50mL	1.00
A13C101-02	Water	EPA 6020A (Diss)	03/05/13 10:28	03/07/13 10:19	45mL/50mL	45mL/50mL	1.00
A13C101-03	Water	EPA 6020A (Diss)	03/05/13 11:47	03/07/13 10:19	45mL/50mL	45mL/50mL	1.00
A13C101-04	Water	EPA 6020A (Diss)	03/05/13 11:02	03/07/13 10:19	45mL/50mL	45mL/50mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 1303122							
A13C101-01	Water	SM 5310 B	03/05/13 09:45	03/06/13 12:01	40mL/40mL	40mL/40mL	1.00
A13C101-02	Water	SM 5310 B	03/05/13 10:28	03/06/13 12:01	40mL/40mL	40mL/40mL	1.00
A13C101-03	Water	SM 5310 B	03/05/13 11:47	03/06/13 12:01	40mL/40mL	40mL/40mL	1.00
A13C101-04	Water	SM 5310 B	03/05/13 11:02	03/06/13 12:01	40mL/40mL	40mL/40mL	1.00

Prep: Total Suspended Solids

Sample	Default	RL Prep

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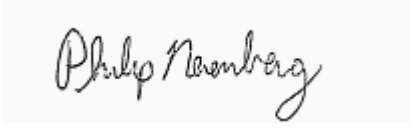

Philip Nerenberg, Lab Director

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503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 1303155							
A13C101-01	Water	SM 2540 D	03/05/13 09:45	03/07/13 11:15	1N/A/1N/A	1N/A/1N/A	NA
A13C101-02	Water	SM 2540 D	03/05/13 10:28	03/07/13 11:15	1N/A/1N/A	1N/A/1N/A	NA
A13C101-03	Water	SM 2540 D	03/05/13 11:47	03/07/13 11:15	1N/A/1N/A	1N/A/1N/A	NA
A13C101-04	Water	SM 2540 D	03/05/13 11:02	03/07/13 11:15	1N/A/1N/A	1N/A/1N/A	NA

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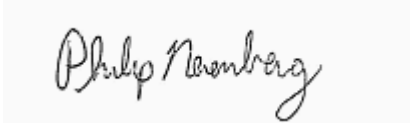

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

Notes and Definitions

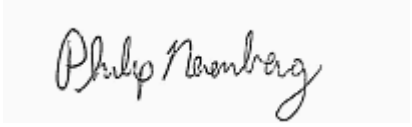
Qualifiers:

C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Multiple aroclors present
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
R-04	Reporting levels elevated due to dilution necessary for analysis.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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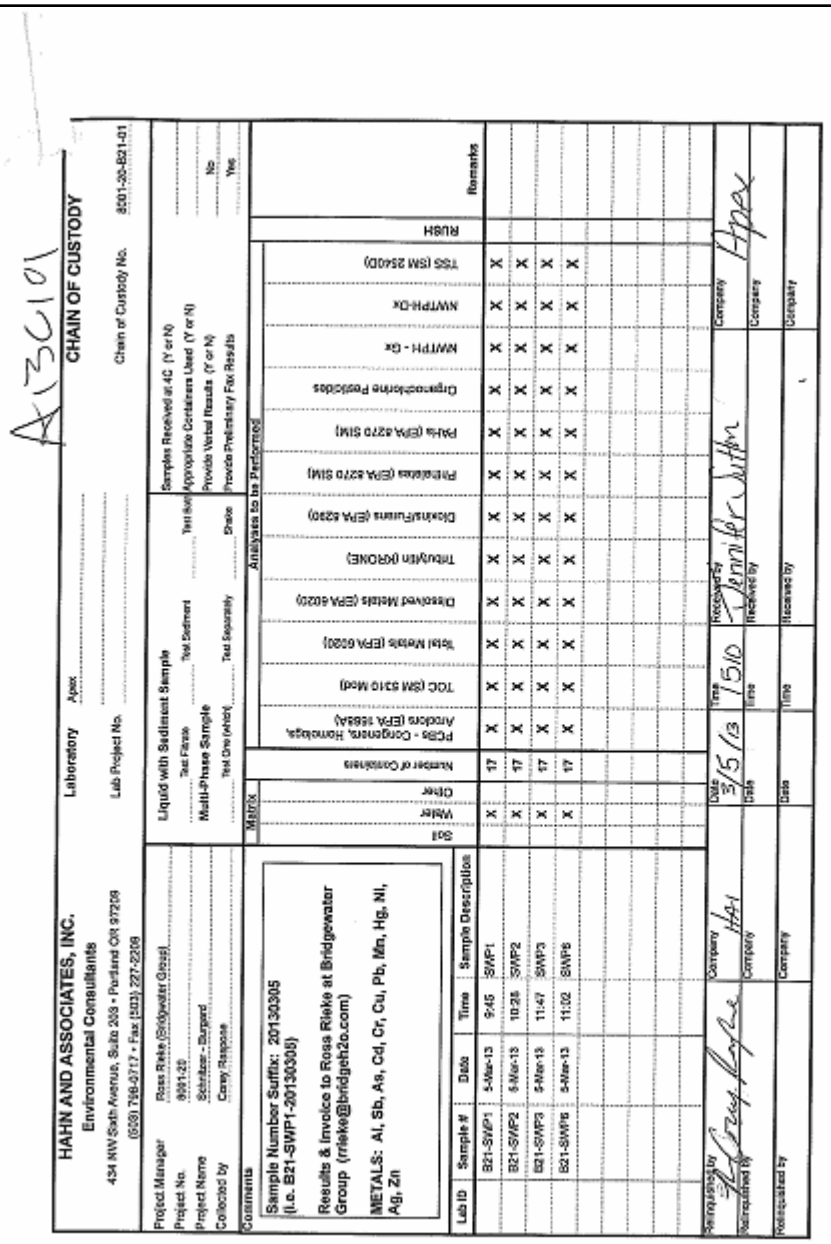
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	03/21/13 23:49

A13C101



HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 798-0717 • Fax (503) 227-2208

Laboratory: Apex
Lab Project No.:

CHAIN OF CUSTODY
Chain of Custody No. 8001-20-B21-01

Project Manager: Ross Rieke (Bridgewater Group)
Project No.: 8001-20
Project Name: Schnitzer - Burgard
Collected by: Corey Raspone

Liquid with Sediment Sample — Test Filtrate / Test Sediment / Test Soil
Multi-Phase Sample — Test Ore (which) / Test Separately / Shake

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N) — No
Provide Preliminary Fax Results — Yes

Comments
Sample Number Suffix: 20130305 (i.e. B21-SWP1-20130305)
Results & Invoice to Ross Rieke at Bridgewater Group (rrieke@bridgeh2o.com)
METALS: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Analyses to be Performed

Lab ID	Sample #	Date	Time	Sample Description	Soil	Water	Other	Number of Containers	PCBs - Congeners, Homologs, Aroclors (EPA 1668A)	TOC (SM 5310 Mod)	Total Metals (EPA 6020)	Dissolved Metals (EPA 6020)	Tributyltin (KRONE)	Dioxins/Furans (EPA 8290)	Phthalates (EPA 8270 SIM)	PAHs (EPA 8270 SIM)	Organochlorine Pesticides	NWTPH - Gx	NWTPH-Dx	TSS (SM 2540D)	RUSH	Remarks
	B21-SWP1	5-Mar-13	9:45	SWP1		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B21-SWP2	5-Mar-13	10:28	SWP2		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B21-SWP3	5-Mar-13	11:47	SWP3		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B21-SWP6	5-Mar-13	11:02	SWP6		X		17	X	X	X	X	X	X	X	X	X	X	X	X		

Relinquished by: [signature] — Company: HAI — Date: 3/5/13 — Time: 1510 — Received by: Jennifer Sutton — Company: Apex
Relinquished by: — Company: — Date: — Time: — Received by: — Company:
Relinquished by: — Company: — Date: — Time: — Received by: — Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

March 13, 2013

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A13C101
ARI Job No.: WG53

Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: WG53

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

3-6-13 KH

SUBCONTRACT ORDER

Apex Laboratories

A13C101

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: B21-SWP1-20130305 **Water** **Sampled: 03/05/13 09:45** (A13C101-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/19/13 17:00	03/19/13 09:45	Krone--ARI
Containers Supplied:			
(D)1 L Amber Glass - Non Preserved			
(E)1 L Amber Glass - Non Preserved			

Sample Name: B21-SWP2-20130305 **Water** **Sampled: 03/05/13 10:28** (A13C101-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/19/13 17:00	03/19/13 10:28	Krone--ARI
Containers Supplied:			
(D)1 L Amber Glass - Non Preserved			
(E)1 L Amber Glass - Non Preserved			

Sample Name: B21-SWP3-20130305 **Water** **Sampled: 03/05/13 11:47** (A13C101-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/19/13 17:00	03/19/13 11:47	Krone--ARI
Containers Supplied:			
(D)1 L Amber Glass - Non Preserved			
(E)1 L Amber Glass - Non Preserved			

Sample Name: B21-SWP6-20130305 **Water** **Sampled: 03/05/13 11:02** (A13C101-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	03/19/13 17:00	03/19/13 11:02	Krone--ARI
Containers Supplied:			
(D)1 L Amber Glass - Non Preserved			
(E)1 L Amber Glass - Non Preserved			

Std TAT

Released By: [signature] Date: 3/6/13 1235 — Received By: UPS (Shipper) Date:

Released By: UPS (Shipper) Date: — Received By: [signature] Date: 3/7/13 1030

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: APEX Project Name: A13C101

COC No(s): _____ (NA) Delivered by Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No. WG53 Tracking No. 1ZX472015796368541 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 4.0

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877752

Cooler Accepted by: JM Date: 3/7/13 Time: 1030

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

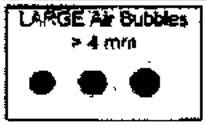
Samples Logged by: JM Date: 3/7/13 Time: 1620

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
		

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative

Client: Apex Laboratories
Project: A13C101
ARI Job No.: WG53

Sample Receipt

Analytical Resources, Inc. (ARI) accepted four water samples on March 7, 2013 under ARI job WG53. The cooler temperature measured by IR thermometer following ARI SOP was 4.0° C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COC.

Butyl Tins by Krone – 1988 SIM

The LCSD percent recovery of Butyltin fell outside control limits low for **LCS-031113**. No corrective action was taken.

There were no other irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WG53
Client: Apex Labs
Project Event: N/A
Project Name: A13C101

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	B21-SWP1-20130305	WG53A	13-4570	Water	03/05/13 09:45	03/07/13 10:30
2.	B21-SWP2-20130305	WG53B	13-4571	Water	03/05/13 10:28	03/07/13 10:30
3.	B21-SWP3-20130305	WG53C	13-4572	Water	03/05/13 11:47	03/07/13 10:30
4.	B21-SWP6-20130305	WG53D	13-4573	Water	03/05/13 11:02	03/07/13 10:30

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP1-20130305**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: WG53A
LIMS ID: 13-4570
Matrix: Water
Data Release Authorized: MW
Reported: 03/13/13

QC Report No: WG53-Apex Labs
Project: A13C101
Event: NA
Date Sampled: 03/05/13
Date Received: 03/07/13

Date Extracted: 03/11/13
Date Analyzed: 03/12/13 13:21
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	65.3%
Tripentyl Tin Chloride	69.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP2-20130305**
Extraction Method: SW3510C **SAMPLE**
Page 1 of 1

Lab Sample ID: WG53B
LIMS ID: 13-4571
Matrix: Water
Data Release Authorized: MW
Reported: 03/13/13

QC Report No: WG53-Apex Labs
Project: A13C101
Event: NA
Date Sampled: 03/05/13
Date Received: 03/07/13

Date Extracted: 03/11/13
Date Analyzed: 03/12/13 13:35
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	52.9%
Tripentyl Tin Chloride	55.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP3-20130305**
Extraction Method: SW3510C **SAMPLE**
Page 1 of 1

Lab Sample ID: WG53C
LIMS ID: 13-4572
Matrix: Water
Data Release Authorized: MW
Reported: 03/13/13

QC Report No: WG53-Apex Labs
Project: A13C101
Event: NA
Date Sampled: 03/05/13
Date Received: 03/07/13

Date Extracted: 03/11/13
Date Analyzed: 03/12/13 13:49
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	64.0%
Tripentyl Tin Chloride	68.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B21-SWP6-20130305**
Extraction Method: SW3510C **SAMPLE**
Page 1 of 1

Lab Sample ID: WG53D
LIMS ID: 13-4573
Matrix: Water
Data Release Authorized: MW
Reported: 03/13/13

QC Report No: WG53-Apex Labs
Project: A13C101
Event: NA
Date Sampled: 03/05/13
Date Received: 03/07/13

Date Extracted: 03/11/13
Date Analyzed: 03/12/13 14:03
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	67.6%
Tripentyl Tin Chloride	75.4%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: WG53-Apex Labs
Project: A13C101
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-031113	63.1%	69.2%	0
LCS-031113	55.1%	58.1%	0
LCSD-031113	58.4%	59.5%	0
B21-SWP1-20130305	65.3%	69.9%	0
B21-SWP2-20130305	52.9%	55.8%	0
B21-SWP3-20130305	64.0%	68.7%	0
B21-SWP6-20130305	67.6%	75.4%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)	(30-160)

Prep Method: SW3510C
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 13-4570 to 13-4573

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-031113**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-031113 QC Report No: WG53-Apex Labs
LIMS ID: 13-4570 Project: A13C101
Matrix: Water
Data Release Authorized: Date Sampled: NA
Reported: 03/13/13 Date Received: NA

Date Extracted LCS: 03/11/13 Sample Amount LCS: 100 mL
LCSD: 100 mL
Date Analyzed LCS: 03/12/13 12:54 Final Extract Volume LCS: 0.50 mL
LCSD: 03/12/13 13:08 LCSD: 0.50 mL
Instrument/Analyst LCS: NT12/VTS Dilution Factor LCS: 1.00
LCSD: NT12/VTS LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	1.41	2.23	63.2%	1.46	2.23	65.5%	3.5%
Dibutyltin Ion	1.10	1.92	57.3%	1.16	1.92	60.4%	5.3%
Butyltin Ion	0.56	1.56	35.9%	0.38	1.56	24.4%	38.3%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	55.1%	58.4%
Tripentyl Tin Chloride	58.1%	59.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-031113**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-031113
LIMS ID: 13-4570
Matrix: Water
Data Release Authorized: MW
Reported: 03/13/13

QC Report No: WG53-Apex Labs
Project: A13C101
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 03/11/13
Date Analyzed: 03/12/13 12:40
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	63.1%
Tripentyl Tin Chloride	69.2%

Success Through Science®

Your Project #: A13C101
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2013/03/28

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B333934
Received: 2013/03/07, 12:10

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Water (8290A) (1)	4	2013/03/18	2013/03/23	BRL SOP-00406	EPA 8290A mod.
PCB Congeners in Water (1668A)	4	2013/03/18	2013/03/26	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager
Email: IVukovic@maxxam.ca
Phone# (905) 817-5700

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Total cover pages: 1

Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	19	1.00	1.00		3160395
1,2,3,7,8-Penta CDD	pg/L	1.0 U	1.0	49	1.00	1.00		3160395
1,2,3,4,7,8-Hexa CDD	pg/L	1.0 U	1.0	49	0.100	0.100		3160395
1,2,3,6,7,8-Hexa CDD	pg/L	0.82 U	0.82	49	0.100	0.0820		3160395
1,2,3,7,8,9-Hexa CDD	pg/L	1.22 J	0.88	49	0.100	0.122		3160395
1,2,3,4,6,7,8-Hepta CDD	pg/L	12.2 J	1.0	49	0.0100	0.122		3160395
Octa CDD	pg/L	54.2 J	1.2	97	0.000300	0.0163		3160395
Total Tetra CDD	pg/L	1.0 U	1.0	19				3160395
Total Penta CDD	pg/L	1.0 U	1.0	49				3160395
Total Hexa CDD	pg/L	6.58 J	0.90	49				3160395
Total Hepta CDD	pg/L	27.1 J	1.0	49				3160395
2,3,7,8-Tetra CDF **	pg/L	1.0 U	1.0	19	0.100	0.100		3160395
1,2,3,7,8-Penta CDF	pg/L	0.94 U	0.94	49	0.0300	0.0282		3160395
2,3,4,7,8-Penta CDF	pg/L	1.1 U (1)	1.1	49	0.300	0.330		3160395
1,2,3,4,7,8-Hexa CDF	pg/L	0.94 U	0.94	49	0.100	0.0940		3160395
1,2,3,6,7,8-Hexa CDF	pg/L	0.87 U	0.87	49	0.100	0.0870		3160395
2,3,4,6,7,8-Hexa CDF	pg/L	1.0 U	1.0	49	0.100	0.100		3160395
1,2,3,7,8,9-Hexa CDF	pg/L	1.2 U	1.2	49	0.100	0.120		3160395
1,2,3,4,6,7,8-Hepta CDF	pg/L	2.5 U (1)	2.5	49	0.0100	0.0250		3160395
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.0 U	1.0	49	0.0100	0.0100		3160395
Octa CDF	pg/L	5.5 J	1.3	97	0.000300	0.00165		3160395
Total Tetra CDF	pg/L	2.1 J	1.0	19				3160395
Total Penta CDF	pg/L	1.1 U (1)	1.1	49				3160395
Total Hexa CDF	pg/L	1.22 J	0.98	49				3160395
Total Hepta CDF	pg/L	1.97 J	0.87	49				3160395
TOTAL TOXIC EQUIVALENCY	pg/L					3.34		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	77						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			**TOXIC EQUIVALENCY**		**# of**	
	Units	**B21-SWP1-20130305**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-1234678 HeptaCDF **	%	79						3160395
C13-123478 HexaCDF	%	77						3160395
C13-123678 HexaCDD *	%	80						3160395
C13-12378 PentaCDD	%	73						3160395
C13-12378 PentaCDF	%	67						3160395
C13-2378 TetraCDD	%	76						3160395
C13-2378 TetraCDF	%	78						3160395
C13-OCDD	%	81						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	20	1.00	1.00		3160395
1,2,3,7,8-Penta CDD	pg/L	1.0 U	1.0	50	1.00	1.00		3160395
1,2,3,4,7,8-Hexa CDD	pg/L	1.1 U	1.1	50	0.100	0.110		3160395
1,2,3,6,7,8-Hexa CDD	pg/L	1.00 J	0.90	50	0.100	0.100		3160395
1,2,3,7,8,9-Hexa CDD	pg/L	1.13 J	0.98	50	0.100	0.113		3160395
1,2,3,4,6,7,8-Hepta CDD	pg/L	18.7 J	0.95	50	0.0100	0.187		3160395
Octa CDD	pg/L	122	1.5	99	0.000300	0.0366		3160395
Total Tetra CDD	pg/L	1.0 U	1.0	20				3160395
Total Penta CDD	pg/L	1.0 U	1.0	50				3160395
Total Hexa CDD	pg/L	7.65 J	0.99	50				3160395
Total Hepta CDD	pg/L	38.3 J	0.95	50				3160395
2,3,7,8-Tetra CDF **	pg/L	0.89 U	0.89	20	0.100	0.0890		3160395
1,2,3,7,8-Penta CDF	pg/L	1.0 U	1.0	50	0.0300	0.0300		3160395
2,3,4,7,8-Penta CDF	pg/L	1.1 J	1.0	50	0.300	0.330		3160395
1,2,3,4,7,8-Hexa CDF	pg/L	0.78 U	0.78	50	0.100	0.0780		3160395
1,2,3,6,7,8-Hexa CDF	pg/L	0.73 U	0.73	50	0.100	0.0730		3160395
2,3,4,6,7,8-Hexa CDF	pg/L	0.86 U	0.86	50	0.100	0.0860		3160395
1,2,3,7,8,9-Hexa CDF	pg/L	0.96 U	0.96	50	0.100	0.0960		3160395
1,2,3,4,6,7,8-Hepta CDF	pg/L	3.5 U (1)	3.5	50	0.0100	0.0350		3160395
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.2 U	1.2	50	0.0100	0.0120		3160395
Octa CDF	pg/L	9.9 J	1.2	99	0.000300	0.00297		3160395
Total Tetra CDF	pg/L	0.89 U	0.89	20				3160395
Total Penta CDF	pg/L	2.2 J	1.0	50				3160395
Total Hexa CDF	pg/L	3.70 J	0.82	50				3160395
Total Hepta CDF	pg/L	4.9 J	1.0	50				3160395
TOTAL TOXIC EQUIVALENCY	pg/L					3.38		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	94						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	92						3160395
C13-123478 HexaCDF	%	88						3160395
C13-123678 HexaCDD *	%	90						3160395
C13-12378 PentaCDD	%	89						3160395
C13-12378 PentaCDF	%	82						3160395
C13-2378 TetraCDD	%	86						3160395
C13-2378 TetraCDF	%	95						3160395
C13-OCDD	%	95						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	20	1.00	1.00		3160395
1,2,3,7,8-Penta CDD	pg/L	0.99 U	0.99	50	1.00	0.990		3160395
1,2,3,4,7,8-Hexa CDD	pg/L	1.3 J	1.1	50	0.100	0.130		3160395
1,2,3,6,7,8-Hexa CDD	pg/L	4.15 J	0.89	50	0.100	0.415		3160395
1,2,3,7,8,9-Hexa CDD	pg/L	3.73 J	0.96	50	0.100	0.373		3160395
1,2,3,4,6,7,8-Hepta CDD	pg/L	107	0.94	50	0.0100	1.07		3160395
Octa CDD	pg/L	1120	1.4	99	0.000300	0.336		3160395
Total Tetra CDD	pg/L	1.0 U	1.0	20				3160395
Total Penta CDD	pg/L	1.3 U (1)	1.3	50				3160395
Total Hexa CDD	pg/L	41.0 J	0.98	50				3160395
Total Hepta CDD	pg/L	239	0.94	50				3160395
2,3,7,8-Tetra CDF **	pg/L	1.82 J	0.89	20	0.100	0.182		3160395
1,2,3,7,8-Penta CDF	pg/L	1.0 U	1.0	50	0.0300	0.0300		3160395
2,3,4,7,8-Penta CDF	pg/L	1.9 J	1.0	50	0.300	0.570		3160395
1,2,3,4,7,8-Hexa CDF	pg/L	2.16 J	0.96	50	0.100	0.216		3160395
1,2,3,6,7,8-Hexa CDF	pg/L	1.12 J	0.89	50	0.100	0.112		3160395
2,3,4,6,7,8-Hexa CDF	pg/L	1.1 U	1.1	50	0.100	0.110		3160395
1,2,3,7,8,9-Hexa CDF	pg/L	1.2 U	1.2	50	0.100	0.120		3160395
1,2,3,4,6,7,8-Hepta CDF	pg/L	15 U (1)	15	50	0.0100	0.150		3160395
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.7 J	1.2	50	0.0100	0.0170		3160395
Octa CDF	pg/L	47.0 J	1.4	99	0.000300	0.0141		3160395
Total Tetra CDF	pg/L	8.06 J	0.89	20				3160395
Total Penta CDF	pg/L	18.5 J	1.0	50				3160395
Total Hexa CDF	pg/L	26.9 J	1.0	50				3160395
Total Hepta CDF	pg/L	28.2 J	1.1	50				3160395
TOTAL TOXIC EQUIVALENCY	pg/L					5.84		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	84						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			**TOXIC EQUIVALENCY**		**# of**	
	Units	**B21-SWP3-20130305**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
C13-1234678 HeptaCDF **	%	76						3160395
C13-123478 HexaCDF	%	80						3160395
C13-123678 HexaCDD *	%	80						3160395
C13-12378 PentaCDD	%	78						3160395
C13-12378 PentaCDF	%	69						3160395
C13-2378 TetraCDD	%	80						3160395
C13-2378 TetraCDF	%	83						3160395
C13-OCDD	%	77						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.1 U	1.1	20	1.00	1.10		3160395
1,2,3,7,8-Penta CDD	pg/L	0.89 U	0.89	50	1.00	0.890		3160395
1,2,3,4,7,8-Hexa CDD	pg/L	1.0 U	1.0	50	0.100	0.100		3160395
1,2,3,6,7,8-Hexa CDD	pg/L	1.11 J	0.82	50	0.100	0.111		3160395
1,2,3,7,8,9-Hexa CDD	pg/L	1.15 J	0.88	50	0.100	0.115		3160395
1,2,3,4,6,7,8-Hepta CDD	pg/L	22.6 J	1.0	50	0.0100	0.226		3160395
Octa CDD	pg/L	161	1.1	99	0.000300	0.0483		3160395
Total Tetra CDD	pg/L	1.1 U	1.1	20				3160395
Total Penta CDD	pg/L	0.89 U	0.89	50				3160395
Total Hexa CDD	pg/L	8.46 J	0.90	50				3160395
Total Hepta CDD	pg/L	45.5 J	1.0	50				3160395
2,3,7,8-Tetra CDF **	pg/L	1.0 U	1.0	20	0.100	0.100		3160395
1,2,3,7,8-Penta CDF	pg/L	1.0 U	1.0	50	0.0300	0.0300		3160395
2,3,4,7,8-Penta CDF	pg/L	1.1 U (1)	1.1	50	0.300	0.330		3160395
1,2,3,4,7,8-Hexa CDF	pg/L	0.90 J	0.83	50	0.100	0.0900		3160395
1,2,3,6,7,8-Hexa CDF	pg/L	0.77 U	0.77	50	0.100	0.0770		3160395
2,3,4,6,7,8-Hexa CDF	pg/L	0.91 U	0.91	50	0.100	0.0910		3160395
1,2,3,7,8,9-Hexa CDF	pg/L	1.0 U	1.0	50	0.100	0.100		3160395
1,2,3,4,6,7,8-Hepta CDF	pg/L	4.5 U (1)	4.5	50	0.0100	0.0450		3160395
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.0 U	1.0	50	0.0100	0.0100		3160395
Octa CDF	pg/L	11.3 J	1.1	99	0.000300	0.00339		3160395
Total Tetra CDF	pg/L	1.0 U	1.0	20				3160395
Total Penta CDF	pg/L	1.1 U (1)	1.1	50				3160395
Total Hexa CDF	pg/L	5.29 J	0.87	50				3160395
Total Hepta CDF	pg/L	6.13 J	0.91	50				3160395
TOTAL TOXIC EQUIVALENCY	pg/L					3.47		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	87						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	81						3160395
C13-123478 HexaCDF	%	80						3160395
C13-123678 HexaCDD *	%	82						3160395
C13-12378 PentaCDD	%	77						3160395
C13-12378 PentaCDF	%	73						3160395
C13-2378 TetraCDD	%	77						3160395
C13-2378 TetraCDF	%	80						3160395
C13-OCDD	%	90						3160395

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0101 J	0.0018	0.099				3160503
3-MonoCB-(2)	ng/L	0.0055 J	0.0019	0.099				3160503
4-MonoCB-(3)	ng/L	0.0083 U (1)	0.0083	0.099				3160503
22'-DiCB-(4)	ng/L	0.105	0.0048	0.099				3160503
2,3-DiCB-(5)	ng/L	0.011 U	0.011	0.099				3160503
2,3'-DiCB-(6)	ng/L	0.041 U (1)	0.041	0.099				3160503
2,4-DiCB-(7)	ng/L	0.0089 U	0.0089	0.099				3160503
2,4'-DiCB-(8)	ng/L	0.151	0.0070	0.099				3160503
2,5-DiCB-(9)	ng/L	0.0118 J	0.0086	0.099				3160503
2,6-DiCB-(10)	ng/L	0.0039 U	0.0039	0.099				3160503
3,3'-DiCB-(11)	ng/L	0.060 U (1)	0.060	0.099				3160503
DiCB-(12)+(13)	ng/L	0.026 U (1)	0.026	0.20				3160503
3,5-DiCB-(14)	ng/L	0.0087 U	0.0087	0.099				3160503
4,4'-DiCB-(15)	ng/L	0.112	0.010	0.099				3160503
22'3-TriCB-(16)	ng/L	0.0033 U	0.0033	0.099				3160503
22'4-TriCB-(17)	ng/L	0.108	0.0044	0.099				3160503
TriCB-(18)+(30)	ng/L	0.23	0.0035	0.20				3160503
22'6-TriCB-(19)	ng/L	0.0341 J	0.0045	0.099				3160503
TriCB-(20) + (28)	ng/L	0.33	0.0030	0.20				3160503
TriCB-(21)+(33)	ng/L	0.20	0.0029	0.20				3160503
234'-TriCB-(22)	ng/L	0.137	0.0030	0.099				3160503
235-TriCB-(23)	ng/L	0.0031 U	0.0031	0.099				3160503
236-TriCB-(24)	ng/L	0.134	0.0048	0.099				3160503
23'4-TriCB-(25)	ng/L	0.024 U (1)	0.024	0.099				3160503
TriCB-(26)+(29)	ng/L	0.0596 J	0.0029	0.20				3160503
23'6-TriCB-(27)	ng/L	0.014 U (1)	0.014	0.099				3160503
24'5-TriCB-(31)	ng/L	0.270	0.0028	0.099				3160503
24'6-TriCB-(32)	ng/L	0.0730 J	0.0027	0.099				3160503

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0029 U	0.0029	0.099				3160503
33'4-TriCB-(35)	ng/L	0.0030 U	0.0030	0.099				3160503
33'5-TriCB-(36)	ng/L	0.0026 U	0.0026	0.099				3160503
344'-TriCB-(37)	ng/L	0.115	0.0035	0.099				3160503
345-TriCB-(38)	ng/L	0.0030 U	0.0030	0.099				3160503
34'5-TriCB-(39)	ng/L	0.0028 U	0.0028	0.099				3160503
TetraCB-(40)+(41)+(71)	ng/L	0.187 J	0.0025	0.30				3160503
22'34'-TetraCB-(42)	ng/L	0.101	0.0032	0.099				3160503
22'35-TetraCB-(43)	ng/L	0.011 U (1)	0.011	0.099				3160503
TetraCB-(44)+(47)+(65)	ng/L	0.296 J	0.0024	0.30				3160503
TetraCB-(45)+(51)	ng/L	0.0589 J	0.0025	0.20				3160503
22'36'-TetraCB-(46)	ng/L	0.0216 J	0.0030	0.099				3160503
22'45-TetraCB-(48)	ng/L	0.0592 J	0.0024	0.099				3160503
TetraCB-(49)+TetraCB-(69)	ng/L	0.151 J	0.0022	0.20				3160503
TetraCB-(50)+(53)	ng/L	0.0394 J	0.0024	0.20				3160503
22'55'-TetraCB-(52)	ng/L	0.281	0.0023	0.099				3160503
22'66'-TetraCB-(54)	ng/L	0.0025 U	0.0025	0.099				3160503
233'4-TetraCB-(55)	ng/L	0.0018 U	0.0018	0.099				3160503
233'4'-Tetra CB(56)	ng/L	0.104	0.0021	0.099				3160503
233'5-TetraCB-(57)	ng/L	0.0019 U	0.0019	0.099				3160503
233'5'-TetraCB-(58)	ng/L	0.0019 U	0.0019	0.099				3160503
TetraCB-(59)+(62)+(75)	ng/L	0.0258 J	0.0018	0.30				3160503
2344'-TetraCB -(60)	ng/L	0.0520 J	0.0019	0.099				3160503
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.381 J	0.0019	0.40				3160503
234'5-TetraCB-(63)	ng/L	0.0069 J	0.0018	0.099				3160503
234'6-TetraCB-(64)	ng/L	0.143	0.0020	0.099				3160503
23'44'-TetraCB-(66)	ng/L	0.193	0.0019	0.099				3160503
23'45-TetraCB-(67)	ng/L	0.0080 J	0.0017	0.099				3160503

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0017 U	0.0017	0.099				3160503
23'55'-TetraCB-(72)	ng/L	0.0018 U	0.0018	0.099				3160503
23'5'6-TetraCB-(73)	ng/L	0.0017 U	0.0017	0.099				3160503
33'44'-TetraCB-(77)	ng/L	0.0019 U	0.0019	0.099	0.000100	0.000000190		3160503
33'45-TetraCB-(78)	ng/L	0.0018 U	0.0018	0.099				3160503
33'45'-TetraCB(79)	ng/L	0.0016 U	0.0016	0.099				3160503
33'55'-TetraCB-(80)	ng/L	0.0017 U	0.0017	0.099				3160503
344'5-TetraCB-(81)	ng/L	0.021 U (1)	0.021	0.099	0.000300	0.00000630		3160503
22'33'4-PentaCB-(82)	ng/L	0.0479 J	0.0014	0.099				3160503
PentaCB-(83)+(99)	ng/L	0.185 J	0.0012	0.20				3160503
22'33'6-PentaCB-(84)	ng/L	0.0941 J	0.0014	0.099				3160503
PentaCB-(85)+(116)+(117)	ng/L	0.0476 J	0.00096	0.30				3160503
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.284 J	0.0011	0.59				3160503
PentaCB-(88)+(91)	ng/L	0.0461 J	0.0012	0.20				3160503
22'346'-PentaCB-(89)	ng/L	0.0013 U	0.0013	0.099				3160503
PentaCB-(90)+(101)+(113)	ng/L	0.33	0.0010	0.30				3160503
22'355'-PentaCB-(92)	ng/L	0.0589 J	0.0012	0.099				3160503
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.010 U (1)	0.010	0.40				3160503
22'356'-PentaCB-(94)	ng/L	0.0013 U	0.0013	0.099				3160503
22'35'6-PentaCB-(95)	ng/L	0.232	0.0011	0.099				3160503
22'366'-PentaCB-(96)	ng/L	0.0023 U	0.0023	0.099				3160503
22'45'6-PentaCB-(103)	ng/L	0.0011 U	0.0011	0.099				3160503
22'466'-PentaCB-(104)	ng/L	0.0029 U	0.0029	0.099				3160503
233'44'-PentaCB-(105)	ng/L	0.164	0.0044	0.099	0.0000300	0.00000492		3160503
233'45-PentaCB-(106)	ng/L	0.0079 J	0.0044	0.099				3160503
233'4'5-PentaCB-(107)	ng/L	0.0249 J	0.0042	0.099				3160503
PentaCB-(108)+(124)	ng/L	0.014 U (1)	0.014	0.20				3160503
PentaCB-(110)+(115)	ng/L	0.54	0.0010	0.20				3160503

RDL = Reportable Detection Limit
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QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.00087 U	0.00087	0.099				3160503
233'56-PentaCB-(112)	ng/L	0.00093 U	0.00093	0.099				3160503
2344'5-PentaCB-(114)	ng/L	0.0061 U	0.0061	0.099	0.0000300	0.000000183		3160503
23'44'5-PentaCB-(118)	ng/L	0.357	0.0044	0.099	0.0000300	0.0000107		3160503
23'455'-PentaCB-(120)	ng/L	0.00083 U	0.00083	0.099				3160503
23'45'6-PentaCB-(121)	ng/L	0.00086 U	0.00086	0.099				3160503
233'4'5'-PentaCB-(122)	ng/L	0.0047 U	0.0047	0.099				3160503
23'44'5'-PentaCB-(123)	ng/L	0.0051 U	0.0051	0.099	0.0000300	0.000000153		3160503
33'44'5-PentaCB-(126)	ng/L	0.0043 U	0.0043	0.099	0.100	0.000430		3160503
33'455'-PentaCB-(127)	ng/L	0.0042 U	0.0042	0.099				3160503
HexaCB-(128)+(166)	ng/L	0.0997 J	0.0027	0.20				3160503
HexaCB-(129)+(138)+(163)	ng/L	0.63	0.0032	0.30				3160503
22'33'45'-HexaCB-(130)	ng/L	0.0339 J	0.0035	0.099				3160503
22'33'46-HexaCB-(131)	ng/L	0.0039 U	0.0039	0.099				3160503
22'33'46'-HexaCB-(132)	ng/L	0.189	0.0035	0.099				3160503
22'33'55'-HexaCB-(133)	ng/L	0.0033 U	0.0033	0.099				3160503
HexaCB-(134)+(143)	ng/L	0.0277 J	0.0036	0.20				3160503
HexaCB-(135)+(151)	ng/L	0.115 J	0.0021	0.20				3160503
22'33'66'-HexaCB-(136)	ng/L	0.0488 J	0.0015	0.099				3160503
22'344'5-HexaCB-(137)	ng/L	0.0347 J	0.0037	0.099				3160503
HexaCB-(139)+(140)	ng/L	0.0030 U	0.0030	0.20				3160503
22'3455'-HexaCB-(141)	ng/L	0.0946 J	0.0032	0.099				3160503
22'3456-HexaCB-(142)	ng/L	0.0036 U	0.0036	0.099				3160503
22'345'6-HexaCB-(144)	ng/L	0.013 U (1)	0.013	0.099				3160503
22'3466'-HexaCB-(145)	ng/L	0.0015 U	0.0015	0.099				3160503
22'34'55'-HexaCB-(146)	ng/L	0.0794 J	0.0031	0.099				3160503
HexaCB-(147)+(149)	ng/L	0.35	0.0031	0.20				3160503
22'34'56'-HexaCB-(148)	ng/L	0.0020 U	0.0020	0.099				3160503

RDL = Reportable Detection Limit
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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0014 U	0.0014	0.099				3160503
22'3566'-HexaCB-(152)	ng/L	0.0015 U	0.0015	0.099				3160503
HexaCB-(153)+(168)	ng/L	0.36	0.0025	0.20				3160503
22'44'56'-HexaCB-(154)	ng/L	0.0018 U	0.0018	0.099				3160503
22'44'66'-HexaCB-(155)	ng/L	0.0020 U	0.0020	0.099				3160503
HexaCB-(156)+(157)	ng/L	0.0703 J	0.0029	0.20	0.0000300	0.00000211		3160503
233'44'6-HexaCB-(158)	ng/L	0.0588 J	0.0023	0.099				3160503
233'455'-HexaCB-(159)	ng/L	0.0031 U	0.0031	0.099				3160503
233'456-HexaCB-(160)	ng/L	0.0023 U	0.0023	0.099				3160503
233'45'6-HexaCB-(161)	ng/L	0.0023 U	0.0023	0.099				3160503
233'4'55'-HexaCB-(162)	ng/L	0.0031 U	0.0031	0.099				3160503
233'4'5'6-HexaCB-(164)	ng/L	0.0363 J	0.0022	0.099				3160503
233'55'6-HexaCB-(165)	ng/L	0.0026 U	0.0026	0.099				3160503
23'44'55'-HexaCB-(167)	ng/L	0.0226 J	0.0031	0.099	0.0000300	0.000000678		3160503
33'44'55'-HexaCB-(169)	ng/L	0.0032 U	0.0032	0.099	0.0300	0.0000960		3160503
22'33'44'5-HeptaCB-(170)	ng/L	0.0988 J	0.0023	0.099				3160503
HeptaCB-(171)+(173)	ng/L	0.0300 J	0.0026	0.20				3160503
22'33'455'-HeptaCB-(172)	ng/L	0.015 U (1)	0.015	0.099				3160503
22'33'456'-HeptaCB-(174)	ng/L	0.0861 J	0.0025	0.099				3160503
22'33'45'6-HeptaCB-(175)	ng/L	0.0038 U (1)	0.0038	0.099				3160503
22'33'466'-HeptaCB-(176)	ng/L	0.0114 J	0.00088	0.099				3160503
22'33'45'6'-HeptaCB-(177)	ng/L	0.0492 J	0.0025	0.099				3160503
22'33'55'6-HeptaCB-(178)	ng/L	0.0181 J	0.0012	0.099				3160503
22'33'566'-HeptaCB-(179)	ng/L	0.0318 J	0.00086	0.099				3160503
HeptaCB-(180)+(193)	ng/L	0.185 J	0.0020	0.20				3160503
22'344'56-HeptaCB-(181)	ng/L	0.0024 U	0.0024	0.099				3160503
22'344'56'-HeptaCB-(182)	ng/L	0.0012 U	0.0012	0.099				3160503
22'344'5'6-HeptaCB-(183)	ng/L	0.0453 J	0.0021	0.099				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.00083 U	0.00083	0.099				3160503
22'3455'6-HeptaCB-(185)	ng/L	0.0059 U (1)	0.0059	0.099				3160503
22'34566'-HeptaCB-(186)	ng/L	0.00089 U	0.00089	0.099				3160503
22'34'55'6-HeptaCB-(187)	ng/L	0.0952 J	0.0011	0.099				3160503
22'34'566'-HeptaCB-(188)	ng/L	0.0013 U	0.0013	0.099				3160503
233'44'55'-HeptaCB-(189)	ng/L	0.0029 U	0.0029	0.099	0.0000300	0.0000000870		3160503
233'44'56-HeptaCB-(190)	ng/L	0.013 U (1)	0.013	0.099				3160503
233'44'5'6-HeptaCB-(191)	ng/L	0.0039 J	0.0019	0.099				3160503
233'455'6-HeptaCB-(192)	ng/L	0.0020 U	0.0020	0.099				3160503
22'33'44'55'-OctaCB-(194)	ng/L	0.0435 J	0.0024	0.099				3160503
22'33'44'56-OctaCB-(195)	ng/L	0.0155 J	0.0025	0.099				3160503
22'33'44'56'-OctaCB-(196)	ng/L	0.0243 J	0.0013	0.099				3160503
22'33'44'66'OctaCB-(197)	ng/L	0.0012 U (1)	0.0012	0.099				3160503
OctaCB-(198)+(199)	ng/L	0.0600 J	0.0014	0.20				3160503
22'33'4566'-OctaCB-(200)	ng/L	0.00711 J	0.00091	0.099				3160503
22'33'45'66'-OctaCB-(201)	ng/L	0.0073 U (1)	0.0073	0.099				3160503
22'33'55'66'-OctaCB-(202)	ng/L	0.013 U (1)	0.013	0.099				3160503
22'344'55'6-OctaCB-(203)	ng/L	0.0374 J	0.0012	0.099				3160503
22'344'566'-OctaCB-(204)	ng/L	0.0010 U	0.0010	0.099				3160503
233'44'55'6-OctaCB-(205)	ng/L	0.0018 U	0.0018	0.099				3160503
22'33'44'55'6-NonaCB-(206)	ng/L	0.0490 J	0.0062	0.099				3160503
22'33'44'566'-NonaCB-(207)	ng/L	0.0049 U	0.0049	0.099				3160503
22'33'455'66'-NonaCB-(208)	ng/L	0.0100 J	0.0063	0.099				3160503
DecaCB-(209)	ng/L	0.010 U (1)	0.010	0.099				3160503
Monochlorobiphenyl	ng/L	0.0156	0.0019	N/A				3160503
Dichlorobiphenyl	ng/L	0.380	0.011	N/A				3160503
Trichlorobiphenyl	ng/L	1.69	0.0048	N/A				3160503
Tetrachlorobiphenyl	ng/L	2.11	0.0039	N/A				3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	2.42	0.0047	N/A				3160503
Hexachlorobiphenyl	ng/L	2.25	0.0039	N/A				3160503
Heptachlorobiphenyl	ng/L	0.655	0.0030	N/A				3160503
Octachlorobiphenyl	ng/L	0.188	0.0025	N/A				3160503
Nonachlorobiphenyl	ng/L	0.0590	0.0063	N/A				3160503
Decachlorobiphenyl	ng/L	0.0055 U	0.0055	N/A				3160503
Total PCB	ng/L	9.77	N/A	N/A				3160503
TOTAL TOXIC EQUIVALENCY	ng/L					0.000551		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	88						3160503
C13-22'33'44'55'6-NonaCB-(206)	%	103						3160503
C13-22'33'44'5-HeptaCB-(170)	%	106						3160503
C13-22'33'455'66'-NonaCB-(208)	%	110						3160503
C13-22'33'55'66'-OctaCB-(202)	%	106						3160503
C13-22'33'55'6-HeptaCB-(178)	%	116						3160503
C13-22'344'55'-HeptaCB-(180)	%	106						3160503
C13-22'34'566'-HeptaCB-(188)	%	99						3160503
C13-22'44'66'-HexaCB-(155)	%	98						3160503
C13-22'466'-PentaCB-(104)	%	88						3160503
C13-22'66'-TetraCB-(54)	%	82						3160503
C13-22'6-TriCB-(19)	%	95						3160503
C13-22'-DiCB-(4)	%	89						3160503
C13-233'44'55'6-OctaCB-(205)	%	101						3160503
C13-233'44'55'-HeptaCB-(189)	%	92						3160503
C13-233'44'-PentaCB-(105)	%	97						3160503
C13-233'55'-PentaCB-(111)	%	114						3160503
C13-23'44'55'-HexaCB-(167)	%	99						3160503
C13-2344'5-PentaCB-(114)	%	93						3160503
C13-23'44'5-PentaCB-(118)	%	95						3160503

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Maxxam ID		QT7506						
Sampling Date		2013/03/05 09:45						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP1-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	95						3160503
C13-2-MonoCB-(1)	%	75						3160503
C13-33'44'55'-HexaCB-(169)	%	73						3160503
C13-33'44'5-PentaCB-(126)	%	87						3160503
C13-33'44'-TetraCB-(77)	%	90						3160503
C13-344'5-TetraCB-(81)	%	92						3160503
C13-344'-TriCB-(37)	%	80						3160503
C13-44'-DiCB-(15)	%	89						3160503
C13-4-MonoCB-(3)	%	80						3160503
C13-DecaCB-(209)	%	102						3160503
C13-HexaCB-(156)+(157)	%	99						3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0086 J	0.0024	0.10				3160503
3-MonoCB-(2)	ng/L	0.0022 U (1)	0.0022	0.10				3160503
4-MonoCB-(3)	ng/L	0.0072 U (1)	0.0072	0.10				3160503
22'-DiCB-(4)	ng/L	0.19	0.0080	0.10				3160503
2,3-DiCB-(5)	ng/L	0.018 U	0.018	0.10				3160503
2,3'-DiCB-(6)	ng/L	0.050 U (1)	0.050	0.10				3160503
2,4-DiCB-(7)	ng/L	0.015 U	0.015	0.10				3160503
2,4'-DiCB-(8)	ng/L	0.20	0.011	0.10				3160503
2,5-DiCB-(9)	ng/L	0.016 U (1)	0.016	0.10				3160503
2,6-DiCB-(10)	ng/L	0.0083 J	0.0054	0.10				3160503
3,3'-DiCB-(11)	ng/L	0.24	0.015	0.10				3160503
DiCB-(12)+(13)	ng/L	0.027 U (1)	0.027	0.21				3160503
3,5-DiCB-(14)	ng/L	0.014 U	0.014	0.10				3160503
4,4'-DiCB-(15)	ng/L	0.23	0.017	0.10				3160503
22'3-TriCB-(16)	ng/L	0.0058 U	0.0058	0.10				3160503
22'4-TriCB-(17)	ng/L	0.24	0.0077	0.10				3160503
TriCB-(18)+(30)	ng/L	0.50	0.0060	0.21				3160503
22'6-TriCB-(19)	ng/L	0.0703 J	0.0079	0.10				3160503
TriCB-(20) + (28)	ng/L	0.75	0.0019	0.21				3160503
TriCB-(21)+(33)	ng/L	0.44	0.0018	0.21				3160503
234'-TriCB-(22)	ng/L	0.29	0.0019	0.10				3160503
235-TriCB-(23)	ng/L	0.0020 U	0.0020	0.10				3160503
236-TriCB-(24)	ng/L	0.27	0.0083	0.10				3160503
23'4-TriCB-(25)	ng/L	0.0570 J	0.0018	0.10				3160503
TriCB-(26)+(29)	ng/L	0.118 J	0.0018	0.21				3160503
23'6-TriCB-(27)	ng/L	0.0395 J	0.0052	0.10				3160503
24'5-TriCB-(31)	ng/L	0.62	0.0017	0.10				3160503
24'6-TriCB-(32)	ng/L	0.15	0.0048	0.10				3160503

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0019 U	0.0019	0.10				3160503
33'4-TriCB-(35)	ng/L	0.012 U (1)	0.012	0.10				3160503
33'5-TriCB-(36)	ng/L	0.0016 U	0.0016	0.10				3160503
344'-TriCB-(37)	ng/L	0.23	0.0022	0.10				3160503
345-TriCB-(38)	ng/L	0.0019 U	0.0019	0.10				3160503
34'5-TriCB-(39)	ng/L	0.0018 U	0.0018	0.10				3160503
TetraCB-(40)+(41)+(71)	ng/L	0.40	0.0025	0.31				3160503
22'34'-TetraCB-(42)	ng/L	0.21	0.0032	0.10				3160503
22'35-TetraCB-(43)	ng/L	0.0356 J	0.0038	0.10				3160503
TetraCB-(44)+(47)+(65)	ng/L	0.62	0.0024	0.31				3160503
TetraCB-(45)+(51)	ng/L	0.129 J	0.0025	0.21				3160503
22'36'-TetraCB-(46)	ng/L	0.043 U (1)	0.043	0.10				3160503
22'45-TetraCB-(48)	ng/L	0.14	0.0024	0.10				3160503
TetraCB-(49)+TetraCB-(69)	ng/L	0.33	0.0022	0.21				3160503
TetraCB-(50)+(53)	ng/L	0.0876 J	0.0024	0.21				3160503
22'55'-TetraCB-(52)	ng/L	0.61	0.0023	0.10				3160503
22'66'-TetraCB-(54)	ng/L	0.0029 U	0.0029	0.10				3160503
233'4-TetraCB-(55)	ng/L	0.0016 U	0.0016	0.10				3160503
233'4'-Tetra CB(56)	ng/L	0.17	0.0018	0.10				3160503
233'5-TetraCB-(57)	ng/L	0.0016 U	0.0016	0.10				3160503
233'5'-TetraCB-(58)	ng/L	0.0017 U	0.0017	0.10				3160503
TetraCB-(59)+(62)+(75)	ng/L	0.0575 J	0.0018	0.31				3160503
2344'-TetraCB -(60)	ng/L	0.0825 J	0.0016	0.10				3160503
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.68	0.0017	0.42				3160503
234'5-TetraCB-(63)	ng/L	0.0110 J	0.0016	0.10				3160503
234'6-TetraCB-(64)	ng/L	0.30	0.0020	0.10				3160503
23'44'-TetraCB-(66)	ng/L	0.32	0.0016	0.10				3160503
23'45-TetraCB-(67)	ng/L	0.0099 U (1)	0.0099	0.10				3160503

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0015 U	0.0015	0.10				3160503
23'55'-TetraCB-(72)	ng/L	0.0016 U	0.0016	0.10				3160503
23'5'6-TetraCB-(73)	ng/L	0.0017 U	0.0017	0.10				3160503
33'44'-TetraCB-(77)	ng/L	0.035 U (1)	0.035	0.10	0.000100	0.00000350		3160503
33'45-TetraCB-(78)	ng/L	0.0016 U	0.0016	0.10				3160503
33'45'-TetraCB(79)	ng/L	0.0014 U	0.0014	0.10				3160503
33'55'-TetraCB-(80)	ng/L	0.0015 U	0.0015	0.10				3160503
344'5-TetraCB-(81)	ng/L	0.0017 U	0.0017	0.10	0.000300	0.000000510		3160503
22'33'4-PentaCB-(82)	ng/L	0.0705 J	0.0056	0.10				3160503
PentaCB-(83)+(99)	ng/L	0.24	0.0049	0.21				3160503
22'33'6-PentaCB-(84)	ng/L	0.16	0.0059	0.10				3160503
PentaCB-(85)+(116)+(117)	ng/L	0.0709 J	0.0040	0.31				3160503
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.396 J	0.0044	0.63				3160503
PentaCB-(88)+(91)	ng/L	0.0681 J	0.0049	0.21				3160503
22'346'-PentaCB-(89)	ng/L	0.0059 U	0.0059	0.10				3160503
PentaCB-(90)+(101)+(113)	ng/L	0.48	0.0042	0.31				3160503
22'355'-PentaCB-(92)	ng/L	0.0824 J	0.0050	0.10				3160503
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.021 U (1)	0.021	0.42				3160503
22'356'-PentaCB-(94)	ng/L	0.0054 U	0.0054	0.10				3160503
22'35'6-PentaCB-(95)	ng/L	0.39	0.0047	0.10				3160503
22'366'-PentaCB-(96)	ng/L	0.0037 U	0.0037	0.10				3160503
22'45'6-PentaCB-(103)	ng/L	0.0043 U	0.0043	0.10				3160503
22'466'-PentaCB-(104)	ng/L	0.0045 U	0.0045	0.10				3160503
233'44'-PentaCB-(105)	ng/L	0.22	0.0037	0.10	0.0000300	0.00000660		3160503
233'45-PentaCB-(106)	ng/L	0.0036 U	0.0036	0.10				3160503
233'4'5-PentaCB-(107)	ng/L	0.0245 J	0.0035	0.10				3160503
PentaCB-(108)+(124)	ng/L	0.016 U (1)	0.016	0.21				3160503
PentaCB-(110)+(115)	ng/L	0.72	0.0042	0.21				3160503

RDL = Reportable Detection Limit
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The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'55'-PentaCB-(111)	ng/L	0.0036 U	0.0036	0.10				3160503
233'56-PentaCB-(112)	ng/L	0.0038 U	0.0038	0.10				3160503
2344'5-PentaCB-(114)	ng/L	0.0094 U (1)	0.0094	0.10	0.0000300	0.000000282		3160503
23'44'5-PentaCB-(118)	ng/L	0.47	0.0037	0.10	0.0000300	0.0000141		3160503
23'455'-PentaCB-(120)	ng/L	0.0034 U	0.0034	0.10				3160503
23'45'6-PentaCB-(121)	ng/L	0.0036 U	0.0036	0.10				3160503
233'4'5'-PentaCB-(122)	ng/L	0.0045 U (1)	0.0045	0.10				3160503
23'44'5'-PentaCB-(123)	ng/L	0.0062 U (1)	0.0062	0.10	0.0000300	0.000000186		3160503
33'44'5-PentaCB-(126)	ng/L	0.0036 U	0.0036	0.10	0.100	0.000360		3160503
33'455'-PentaCB-(127)	ng/L	0.0035 U	0.0035	0.10				3160503
HexaCB-(128)+(166)	ng/L	0.115 J	0.0027	0.21				3160503
HexaCB-(129)+(138)+(163)	ng/L	0.75	0.0031	0.31				3160503
22'33'45'-HexaCB-(130)	ng/L	0.0452 J	0.0034	0.10				3160503
22'33'46-HexaCB-(131)	ng/L	0.0134 J	0.0038	0.10				3160503
22'33'46'-HexaCB-(132)	ng/L	0.23	0.0034	0.10				3160503
22'33'55'-HexaCB-(133)	ng/L	0.0082 U (1)	0.0082	0.10				3160503
HexaCB-(134)+(143)	ng/L	0.030 U (1)	0.030	0.21				3160503
HexaCB-(135)+(151)	ng/L	0.147 J	0.0019	0.21				3160503
22'33'66'-HexaCB-(136)	ng/L	0.0611 J	0.0014	0.10				3160503
22'344'5-HexaCB-(137)	ng/L	0.0403 J	0.0036	0.10				3160503
HexaCB-(139)+(140)	ng/L	0.0097 J	0.0030	0.21				3160503
22'3455'-HexaCB-(141)	ng/L	0.12	0.0031	0.10				3160503
22'3456-HexaCB-(142)	ng/L	0.0035 U	0.0035	0.10				3160503
22'345'6-HexaCB-(144)	ng/L	0.0246 J	0.0018	0.10				3160503
22'3466'-HexaCB-(145)	ng/L	0.0014 U	0.0014	0.10				3160503
22'34'55'-HexaCB-(146)	ng/L	0.0823 J	0.0031	0.10				3160503
HexaCB-(147)+(149)	ng/L	0.43	0.0030	0.21				3160503
22'34'56'-HexaCB-(148)	ng/L	0.0018 U	0.0018	0.10				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'66'-HexaCB-(150)	ng/L	0.0013 U	0.0013	0.10				3160503
22'3566'-HexaCB-(152)	ng/L	0.0014 U	0.0014	0.10				3160503
HexaCB-(153)+(168)	ng/L	0.43	0.0024	0.21				3160503
22'44'56'-HexaCB-(154)	ng/L	0.0017 U	0.0017	0.10				3160503
22'44'66'-HexaCB-(155)	ng/L	0.0019 U	0.0019	0.10				3160503
HexaCB-(156)+(157)	ng/L	0.0770 J	0.0057	0.21	0.0000300	0.00000231		3160503
233'44'6-HexaCB-(158)	ng/L	0.0711 J	0.0022	0.10				3160503
233'455'-HexaCB-(159)	ng/L	0.0061 U	0.0061	0.10				3160503
233'456-HexaCB-(160)	ng/L	0.0023 U	0.0023	0.10				3160503
233'45'6-HexaCB-(161)	ng/L	0.0022 U	0.0022	0.10				3160503
233'4'55'-HexaCB-(162)	ng/L	0.0061 U	0.0061	0.10				3160503
233'4'5'6-HexaCB-(164)	ng/L	0.0468 J	0.0022	0.10				3160503
233'55'6-HexaCB-(165)	ng/L	0.0025 U	0.0025	0.10				3160503
23'44'55'-HexaCB-(167)	ng/L	0.020 U (1)	0.020	0.10	0.0000300	0.000000600		3160503
33'44'55'-HexaCB-(169)	ng/L	0.0063 U	0.0063	0.10	0.0300	0.000189		3160503
22'33'44'5-HeptaCB-(170)	ng/L	0.12	0.0026	0.10				3160503
HeptaCB-(171)+(173)	ng/L	0.0365 J	0.0030	0.21				3160503
22'33'455'-HeptaCB-(172)	ng/L	0.0174 J	0.0030	0.10				3160503
22'33'456'-HeptaCB-(174)	ng/L	0.11	0.0029	0.10				3160503
22'33'45'6-HeptaCB-(175)	ng/L	0.0028 U (1)	0.0028	0.10				3160503
22'33'466'-HeptaCB-(176)	ng/L	0.0134 J	0.0020	0.10				3160503
22'33'45'6'-HeptaCB-(177)	ng/L	0.0573 J	0.0030	0.10				3160503
22'33'55'6-HeptaCB-(178)	ng/L	0.019 U (1)	0.019	0.10				3160503
22'33'566'-HeptaCB-(179)	ng/L	0.032 U (1)	0.032	0.10				3160503
HeptaCB-(180)+(193)	ng/L	0.22	0.0023	0.21				3160503
22'344'56-HeptaCB-(181)	ng/L	0.0027 U	0.0027	0.10				3160503
22'344'56'-HeptaCB-(182)	ng/L	0.0026 U	0.0026	0.10				3160503
22'344'5'6-HeptaCB-(183)	ng/L	0.0601 J	0.0024	0.10				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

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Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'344'66'-HeptaCB-(184)	ng/L	0.0019 U	0.0019	0.10				3160503
22'3455'6-HeptaCB-(185)	ng/L	0.0030 U	0.0030	0.10				3160503
22'34566'-HeptaCB-(186)	ng/L	0.0020 U	0.0020	0.10				3160503
22'34'55'6-HeptaCB-(187)	ng/L	0.10	0.0024	0.10				3160503
22'34'566'-HeptaCB-(188)	ng/L	0.0028 U	0.0028	0.10				3160503
233'44'55'-HeptaCB-(189)	ng/L	0.0044 U	0.0044	0.10	0.0000300	0.000000132		3160503
233'44'56-HeptaCB-(190)	ng/L	0.0166 J	0.0021	0.10				3160503
233'44'5'6-HeptaCB-(191)	ng/L	0.0022 U	0.0022	0.10				3160503
233'455'6-HeptaCB-(192)	ng/L	0.0023 U	0.0023	0.10				3160503
22'33'44'55'-OctaCB-(194)	ng/L	0.0462 J	0.0052	0.10				3160503
22'33'44'56-OctaCB-(195)	ng/L	0.0188 J	0.0055	0.10				3160503
22'33'44'56'-OctaCB-(196)	ng/L	0.0227 J	0.0040	0.10				3160503
22'33'44'66'OctaCB-(197)	ng/L	0.0032 U	0.0032	0.10				3160503
OctaCB-(198)+(199)	ng/L	0.0592 J	0.0040	0.21				3160503
22'33'4566'-OctaCB-(200)	ng/L	0.0052 U (1)	0.0052	0.10				3160503
22'33'45'66'-OctaCB-(201)	ng/L	0.0061 J	0.0029	0.10				3160503
22'33'55'66'-OctaCB-(202)	ng/L	0.0156 J	0.0043	0.10				3160503
22'344'55'6-OctaCB-(203)	ng/L	0.030 U (1)	0.030	0.10				3160503
22'344'566'-OctaCB-(204)	ng/L	0.0030 U	0.0030	0.10				3160503
233'44'55'6-OctaCB-(205)	ng/L	0.0040 U	0.0040	0.10				3160503
22'33'44'55'6-NonaCB-(206)	ng/L	0.0487 J	0.0082	0.10				3160503
22'33'44'566'-NonaCB-(207)	ng/L	0.0064 U	0.0064	0.10				3160503
22'33'455'66'-NonaCB-(208)	ng/L	0.012 U (1)	0.012	0.10				3160503
DecaCB-(209)	ng/L	0.012 U (1)	0.012	0.10				3160503
Monochlorobiphenyl	ng/L	0.0086	0.0026	N/A				3160503
Dichlorobiphenyl	ng/L	0.866	0.018	N/A				3160503
Trichlorobiphenyl	ng/L	3.77	0.0083	N/A				3160503
Tetrachlorobiphenyl	ng/L	4.17	0.0038	N/A				3160503

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Pentachlorobiphenyl	ng/L	3.38	0.0059	N/A				3160503
Hexachlorobiphenyl	ng/L	2.70	0.0063	N/A				3160503
Heptachlorobiphenyl	ng/L	0.739	0.0044	N/A				3160503
Octachlorobiphenyl	ng/L	0.169	0.0055	N/A				3160503
Nonachlorobiphenyl	ng/L	0.0487	0.0084	N/A				3160503
Decachlorobiphenyl	ng/L	0.0079 U	0.0079	N/A				3160503
Total PCB	ng/L	15.8	N/A	N/A				3160503
TOTAL TOXIC EQUIVALENCY	ng/L					0.000577		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	91						3160503
C13-22'33'44'55'6-NonaCB-(206)	%	105						3160503
C13-22'33'44'5-HeptaCB-(170)	%	108						3160503
C13-22'33'455'66'-NonaCB-(208)	%	108						3160503
C13-22'33'55'66'-OctaCB-(202)	%	109						3160503
C13-22'33'55'6-HeptaCB-(178)	%	110						3160503
C13-22'344'55'-HeptaCB-(180)	%	107						3160503
C13-22'34'566'-HeptaCB-(188)	%	103						3160503
C13-22'44'66'-HexaCB-(155)	%	105						3160503
C13-22'466'-PentaCB-(104)	%	91						3160503
C13-22'66'-TetraCB-(54)	%	80						3160503
C13-22'6-TriCB-(19)	%	101						3160503
C13-22'-DiCB-(4)	%	92						3160503
C13-233'44'55'6-OctaCB-(205)	%	102						3160503
C13-233'44'55'-HeptaCB-(189)	%	95						3160503
C13-233'44'-PentaCB-(105)	%	99						3160503
C13-233'55'-PentaCB-(111)	%	111						3160503
C13-23'44'55'-HexaCB-(167)	%	100						3160503
C13-2344'5-PentaCB-(114)	%	96						3160503
C13-23'44'5-PentaCB-(118)	%	97						3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7507						
Sampling Date		2013/03/05 10:28						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP2-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2'344'5-PentaCB-(123)	%	96						3160503
C13-2-MonoCB-(1)	%	78						3160503
C13-33'44'55'-HexaCB-(169)	%	73						3160503
C13-33'44'5-PentaCB-(126)	%	90						3160503
C13-33'44'-TetraCB-(77)	%	96						3160503
C13-344'5-TetraCB-(81)	%	96						3160503
C13-344'-TriCB-(37)	%	88						3160503
C13-44'-DiCB-(15)	%	95						3160503
C13-4-MonoCB-(3)	%	84						3160503
C13-DecaCB-(209)	%	98						3160503
C13-HexaCB-(156)+(157)	%	101						3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.014 U (1)	0.014	0.097				3160503
3-MonoCB-(2)	ng/L	0.0062 U	0.0062	0.097				3160503
4-MonoCB-(3)	ng/L	0.0058 U	0.0058	0.097				3160503
22'-DiCB-(4)	ng/L	0.470	0.0061	0.097				3160503
2,3-DiCB-(5)	ng/L	0.021 U	0.021	0.097				3160503
2,3'-DiCB-(6)	ng/L	0.219	0.016	0.097				3160503
2,4-DiCB-(7)	ng/L	0.038 J	0.017	0.097				3160503
2,4'-DiCB-(8)	ng/L	0.794	0.013	0.097				3160503
2,5-DiCB-(9)	ng/L	0.074 J	0.016	0.097				3160503
2,6-DiCB-(10)	ng/L	0.018 U (1)	0.018	0.097				3160503
3,3'-DiCB-(11)	ng/L	0.354	0.018	0.097				3160503
DiCB-(12)+(13)	ng/L	0.084 U (1)	0.084	0.19				3160503
3,5-DiCB-(14)	ng/L	0.017 U	0.017	0.097				3160503
4,4'-DiCB-(15)	ng/L	0.788	0.019	0.097				3160503
22'3-TriCB-(16)	ng/L	0.0060 U	0.0060	0.097				3160503
22'4-TriCB-(17)	ng/L	0.646	0.0080	0.097				3160503
TriCB-(18)+(30)	ng/L	1.34	0.0062	0.19				3160503
22'6-TriCB-(19)	ng/L	0.255	0.0081	0.097				3160503
TriCB-(20) + (28)	ng/L	2.81	0.0063	0.19				3160503
TriCB-(21)+(33)	ng/L	1.19	0.0061	0.19				3160503
234'-TriCB-(22)	ng/L	0.902	0.0063	0.097				3160503
235-TriCB-(23)	ng/L	0.0066 U	0.0066	0.097				3160503
236-TriCB-(24)	ng/L	0.599	0.0086	0.097				3160503
23'4-TriCB-(25)	ng/L	0.195	0.0061	0.097				3160503
TriCB-(26)+(29)	ng/L	0.43	0.0062	0.19				3160503
23'6-TriCB-(27)	ng/L	0.13 U (1)	0.13	0.097				3160503
24'5-TriCB-(31)	ng/L	1.84	0.0058	0.097				3160503
24'6-TriCB-(32)	ng/L	0.523	0.0050	0.097				3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0062 U	0.0062	0.097				3160503
33'4-TriCB-(35)	ng/L	0.0428 J	0.0063	0.097				3160503
33'5-TriCB-(36)	ng/L	0.0055 U	0.0055	0.097				3160503
344'-TriCB-(37)	ng/L	0.785	0.0074	0.097				3160503
345-TriCB-(38)	ng/L	0.0063 U	0.0063	0.097				3160503
34'5-TriCB-(39)	ng/L	0.0119 J	0.0058	0.097				3160503
TetraCB-(40)+(41)+(71)	ng/L	2.26	0.0035	0.29				3160503
22'34'-TetraCB-(42)	ng/L	1.33	0.0045	0.097				3160503
22'35-TetraCB-(43)	ng/L	0.181	0.0054	0.097				3160503
TetraCB-(44)+(47)+(65)	ng/L	4.21	0.0034	0.29				3160503
TetraCB-(45)+(51)	ng/L	0.78	0.0035	0.19				3160503
22'36'-TetraCB-(46)	ng/L	0.303	0.0043	0.097				3160503
22'45-TetraCB-(48)	ng/L	0.660	0.0034	0.097				3160503
TetraCB-(49)+TetraCB-(69)	ng/L	2.47	0.0031	0.19				3160503
TetraCB-(50)+(53)	ng/L	0.63	0.0034	0.19				3160503
22'55'-TetraCB-(52)	ng/L	5.53	0.0033	0.097				3160503
22'66'-TetraCB-(54)	ng/L	0.0084 U (1)	0.0084	0.097				3160503
233'4-TetraCB-(55)	ng/L	0.0051 U	0.0051	0.097				3160503
233'4'-Tetra CB(56)	ng/L	1.23	0.0057	0.097				3160503
233'5-TetraCB-(57)	ng/L	0.291	0.0052	0.097				3160503
233'5'-TetraCB-(58)	ng/L	0.0053 U	0.0053	0.097				3160503
TetraCB-(59)+(62)+(75)	ng/L	0.40	0.0026	0.29				3160503
2344'-TetraCB -(60)	ng/L	0.476	0.0052	0.097				3160503
TetraCB-(61)+(70)+(74)+(76)	ng/L	4.95	0.0054	0.39				3160503
234'5-TetraCB-(63)	ng/L	0.0690 J	0.0049	0.097				3160503
234'6-TetraCB-(64)	ng/L	1.98	0.0029	0.097				3160503
23'44'-TetraCB-(66)	ng/L	2.77	0.0051	0.097				3160503
23'45-TetraCB-(67)	ng/L	0.0876 J	0.0048	0.097				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.0213 J	0.0047	0.097				3160503
23'55'-TetraCB-(72)	ng/L	0.0324 J	0.0050	0.097				3160503
23'5'6-TetraCB-(73)	ng/L	0.0024 U	0.0024	0.097				3160503
33'44'-TetraCB-(77)	ng/L	0.267	0.0053	0.097	0.000100	0.0000267		3160503
33'45-TetraCB-(78)	ng/L	0.0050 U	0.0050	0.097				3160503
33'45'-TetraCB(79)	ng/L	0.178	0.0045	0.097				3160503
33'55'-TetraCB-(80)	ng/L	0.0048 U	0.0048	0.097				3160503
344'5-TetraCB-(81)	ng/L	0.0054 U	0.0054	0.097	0.000300	0.00000162		3160503
22'33'4-PentaCB-(82)	ng/L	0.882	0.0085	0.097				3160503
PentaCB-(83)+(99)	ng/L	4.22	0.0074	0.19				3160503
22'33'6-PentaCB-(84)	ng/L	2.64	0.0090	0.097				3160503
PentaCB-(85)+(116)+(117)	ng/L	1.35	0.0060	0.29				3160503
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	5.61	0.0066	0.58				3160503
PentaCB-(88)+(91)	ng/L	1.18	0.0075	0.19				3160503
22'346'-PentaCB-(89)	ng/L	0.0862 J	0.0080	0.097				3160503
PentaCB-(90)+(101)+(113)	ng/L	8.01	0.0064	0.29				3160503
22'355'-PentaCB-(92)	ng/L	1.65	0.0076	0.097				3160503
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.324 J	0.0078	0.39				3160503
22'356'-PentaCB-(94)	ng/L	0.0423 J	0.0081	0.097				3160503
22'35'6-PentaCB-(95)	ng/L	6.95	0.0071	0.097				3160503
22'366'-PentaCB-(96)	ng/L	0.0425 J	0.0043	0.097				3160503
22'45'6-PentaCB-(103)	ng/L	0.0564 J	0.0066	0.097				3160503
22'466'-PentaCB-(104)	ng/L	0.0052 U	0.0052	0.097				3160503
233'44'-PentaCB-(105)	ng/L	2.53	0.0073	0.097	0.0000300	0.0000759		3160503
233'45-PentaCB-(106)	ng/L	0.0072 U	0.0072	0.097				3160503
233'4'5-PentaCB-(107)	ng/L	0.579	0.0070	0.097				3160503
PentaCB-(108)+(124)	ng/L	0.30	0.0073	0.19				3160503
PentaCB-(110)+(115)	ng/L	11.8	0.0063	0.19				3160503
233'55'-PentaCB-(111)	ng/L	0.0054 U	0.0054	0.097				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/L	0.0058 U	0.0058	0.097				3160503
2344'5-PentaCB-(114)	ng/L	0.102	0.0069	0.097	0.0000300	0.00000306		3160503
23'44'5-PentaCB-(118)	ng/L	6.68	0.0073	0.097	0.0000300	0.000200		3160503
23'455'-PentaCB-(120)	ng/L	0.017 U (1)	0.017	0.097				3160503
23'45'6-PentaCB-(121)	ng/L	0.0054 U	0.0054	0.097				3160503
233'4'5'-PentaCB-(122)	ng/L	0.0968 J	0.0078	0.097				3160503
23'44'5'-PentaCB-(123)	ng/L	0.051 U (1)	0.051	0.097	0.0000300	0.00000153		3160503
33'44'5-PentaCB-(126)	ng/L	0.020 U (1)	0.020	0.097	0.100	0.00200		3160503
33'455'-PentaCB-(127)	ng/L	0.0070 U	0.0070	0.097				3160503
HexaCB-(128)+(166)	ng/L	1.81	0.031	0.19				3160503
HexaCB-(129)+(138)+(163)	ng/L	13.8	0.037	0.29				3160503
22'33'45'-HexaCB-(130)	ng/L	0.794	0.040	0.097				3160503
22'33'46-HexaCB-(131)	ng/L	0.212	0.045	0.097				3160503
22'33'46'-HexaCB-(132)	ng/L	4.84	0.040	0.097				3160503
22'33'55'-HexaCB-(133)	ng/L	0.159	0.038	0.097				3160503
HexaCB-(134)+(143)	ng/L	0.73	0.042	0.19				3160503
HexaCB-(135)+(151)	ng/L	3.11	0.0024	0.19				3160503
22'33'66'-HexaCB-(136)	ng/L	1.26	0.0018	0.097				3160503
22'344'5-HexaCB-(137)	ng/L	0.719	0.042	0.097				3160503
HexaCB-(139)+(140)	ng/L	0.25	0.035	0.19				3160503
22'3455'-HexaCB-(141)	ng/L	1.98	0.037	0.097				3160503
22'3456-HexaCB-(142)	ng/L	0.041 U	0.041	0.097				3160503
22'345'6-HexaCB-(144)	ng/L	0.11 U (1)	0.11	0.097				3160503
22'3466'-HexaCB-(145)	ng/L	0.0018 U	0.0018	0.097				3160503
22'34'55'-HexaCB-(146)	ng/L	1.73	0.036	0.097				3160503
HexaCB-(147)+(149)	ng/L	10.3	0.035	0.19				3160503
22'34'56'-HexaCB-(148)	ng/L	0.0150 J	0.0023	0.097				3160503
22'34'66'-HexaCB-(150)	ng/L	0.0076 U (1)	0.0076	0.097				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/L	0.0070 J	0.0018	0.097				3160503
HexaCB-(153)+(168)	ng/L	8.99	0.028	0.19				3160503
22'44'56'-HexaCB-(154)	ng/L	0.0833 J	0.0021	0.097				3160503
22'44'66'-HexaCB-(155)	ng/L	0.0023 U	0.0023	0.097				3160503
HexaCB-(156)+(157)	ng/L	1.21	0.018	0.19	0.0000300	0.0000363		3160503
233'44'6-HexaCB-(158)	ng/L	1.20	0.026	0.097				3160503
233'455'-HexaCB-(159)	ng/L	0.10 U (1)	0.10	0.097				3160503
233'456-HexaCB-(160)	ng/L	0.027 U	0.027	0.097				3160503
233'45'6-HexaCB-(161)	ng/L	0.026 U	0.026	0.097				3160503
233'4'55'-HexaCB-(162)	ng/L	0.042 U (1)	0.042	0.097				3160503
233'4'5'6-HexaCB-(164)	ng/L	0.740	0.026	0.097				3160503
233'55'6-HexaCB-(165)	ng/L	0.029 U	0.029	0.097				3160503
23'44'55'-HexaCB-(167)	ng/L	0.436	0.019	0.097	0.0000300	0.0000131		3160503
33'44'55'-HexaCB-(169)	ng/L	0.020 U	0.020	0.097	0.0300	0.000600		3160503
22'33'44'5-HeptaCB-(170)	ng/L	2.65	0.015	0.097				3160503
HeptaCB-(171)+(173)	ng/L	0.73	0.017	0.19				3160503
22'33'455'-HeptaCB-(172)	ng/L	0.405	0.017	0.097				3160503
22'33'456'-HeptaCB-(174)	ng/L	2.88	0.016	0.097				3160503
22'33'45'6-HeptaCB-(175)	ng/L	0.089 U	0.089	0.097				3160503
22'33'466'-HeptaCB-(176)	ng/L	0.332	0.0021	0.097				3160503
22'33'45'6'-HeptaCB-(177)	ng/L	1.45	0.016	0.097				3160503
22'33'55'6-HeptaCB-(178)	ng/L	0.447	0.0028	0.097				3160503
22'33'566'-HeptaCB-(179)	ng/L	1.05	0.0021	0.097				3160503
HeptaCB-(180)+(193)	ng/L	5.65	0.013	0.19				3160503
22'344'56-HeptaCB-(181)	ng/L	0.015 U	0.015	0.097				3160503
22'344'56'-HeptaCB-(182)	ng/L	0.0028 U	0.0028	0.097				3160503
22'344'5'6-HeptaCB-(183)	ng/L	1.75	0.013	0.097				3160503
22'344'66'-HeptaCB-(184)	ng/L	0.0020 U	0.0020	0.097				3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3455'6-HeptaCB-(185)	ng/L	0.017 U	0.017	0.097				3160503
22'34566'-HeptaCB-(186)	ng/L	0.0021 U	0.0021	0.097				3160503
22'34'55'6-HeptaCB-(187)	ng/L	2.71	0.0025	0.097				3160503
22'34'566'-HeptaCB-(188)	ng/L	0.0030 U	0.0030	0.097				3160503
233'44'55'-HeptaCB-(189)	ng/L	0.105	0.017	0.097	0.0000300	0.00000315		3160503
233'44'56-HeptaCB-(190)	ng/L	0.32 U (1)	0.32	0.097				3160503
233'44'5'6-HeptaCB-(191)	ng/L	0.048 U (1)	0.048	0.097				3160503
233'455'6-HeptaCB-(192)	ng/L	0.013 U	0.013	0.097				3160503
22'33'44'55'-OctaCB-(194)	ng/L	1.82	0.024	0.097				3160503
22'33'44'56-OctaCB-(195)	ng/L	0.570	0.025	0.097				3160503
22'33'44'56'-OctaCB-(196)	ng/L	0.834	0.0084	0.097				3160503
22'33'44'66'OctaCB-(197)	ng/L	0.030 U (1)	0.030	0.097				3160503
OctaCB-(198)+(199)	ng/L	2.05	0.0085	0.19				3160503
22'33'4566'-OctaCB-(200)	ng/L	0.218	0.0057	0.097				3160503
22'33'45'66'-OctaCB-(201)	ng/L	0.254	0.0061	0.097				3160503
22'33'55'66'-OctaCB-(202)	ng/L	0.534	0.0091	0.097				3160503
22'344'55'6-OctaCB-(203)	ng/L	1.16	0.0077	0.097				3160503
22'344'566'-OctaCB-(204)	ng/L	0.0063 U	0.0063	0.097				3160503
233'44'55'6-OctaCB-(205)	ng/L	0.089 J	0.018	0.097				3160503
22'33'44'55'6-NonaCB-(206)	ng/L	1.30	0.023	0.097				3160503
22'33'44'566'-NonaCB-(207)	ng/L	0.151	0.018	0.097				3160503
22'33'455'66'-NonaCB-(208)	ng/L	0.326	0.024	0.097				3160503
DecaCB-(209)	ng/L	0.204	0.020	0.097				3160503
Monochlorobiphenyl	ng/L	0.0062 U	0.0062	N/A				3160503
Dichlorobiphenyl	ng/L	2.74	0.021	N/A				3160503
Trichlorobiphenyl	ng/L	11.6	0.0086	N/A				3160503
Tetrachlorobiphenyl	ng/L	31.1	0.0057	N/A				3160503
Pentachlorobiphenyl	ng/L	55.1	0.0090	N/A				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Hexachlorobiphenyl	ng/L	54.3	0.045	N/A				3160503
Heptachlorobiphenyl	ng/L	20.2	0.017	N/A				3160503
Octachlorobiphenyl	ng/L	7.53	0.025	N/A				3160503
Nonachlorobiphenyl	ng/L	1.77	0.024	N/A				3160503
Decachlorobiphenyl	ng/L	0.204	0.020	N/A				3160503
Total PCB	ng/L	184	N/A	N/A				3160503
TOTAL TOXIC EQUIVALENCY	ng/L					0.00296		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	113						3160503
C13-22'33'44'55'6-NonaCB-(206)	%	103						3160503
C13-22'33'44'5-HeptaCB-(170)	%	109						3160503
C13-22'33'455'66'-NonaCB-(208)	%	97						3160503
C13-22'33'55'66'-OctaCB-(202)	%	105						3160503
C13-22'33'55'6-HeptaCB-(178)	%	89						3160503
C13-22'344'55'-HeptaCB-(180)	%	117						3160503
C13-22'34'566'-HeptaCB-(188)	%	98						3160503
C13-22'44'66'-HexaCB-(155)	%	127						3160503
C13-22'466'-PentaCB-(104)	%	82						3160503
C13-22'66'-TetraCB-(54)	%	61						3160503
C13-22'6-TriCB-(19)	%	86						3160503
C13-22'-DiCB-(4)	%	75						3160503
C13-233'44'55'6-OctaCB-(205)	%	98						3160503
C13-233'44'55'-HeptaCB-(189)	%	108						3160503
C13-233'44'-PentaCB-(105)	%	92						3160503
C13-233'55'-PentaCB-(111)	%	95						3160503
C13-23'44'55'-HexaCB-(167)	%	108						3160503
C13-2344'5-PentaCB-(114)	%	98						3160503
C13-23'44'5-PentaCB-(118)	%	99						3160503
C13-2'344'5-PentaCB-(123)	%	100						3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7508						
Sampling Date		2013/03/05 11:47						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP3-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2-MonoCB-(1)	%	106						3160503
C13-33'44'55'-HexaCB-(169)	%	70						3160503
C13-33'44'5-PentaCB-(126)	%	71						3160503
C13-33'44'-TetraCB-(77)	%	84						3160503
C13-344'5-TetraCB-(81)	%	90						3160503
C13-344'-TriCB-(37)	%	111						3160503
C13-44'-DiCB-(15)	%	77						3160503
C13-4-MonoCB-(3)	%	103						3160503
C13-DecaCB-(209)	%	90						3160503
C13-HexaCB-(156)+(157)	%	105						3160503

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.0078 U (1)	0.0078	0.098				3160503
3-MonoCB-(2)	ng/L	0.0027 U (1)	0.0027	0.098				3160503
4-MonoCB-(3)	ng/L	0.0056 U (1)	0.0056	0.098				3160503
22'-DiCB-(4)	ng/L	0.195	0.0037	0.098				3160503
2,3-DiCB-(5)	ng/L	0.017 U	0.017	0.098				3160503
2,3'-DiCB-(6)	ng/L	0.047 U (1)	0.047	0.098				3160503
2,4-DiCB-(7)	ng/L	0.014 U	0.014	0.098				3160503
2,4'-DiCB-(8)	ng/L	0.182	0.011	0.098				3160503
2,5-DiCB-(9)	ng/L	0.014 U (1)	0.014	0.098				3160503
2,6-DiCB-(10)	ng/L	0.0062 U (1)	0.0062	0.098				3160503
3,3'-DiCB-(11)	ng/L	0.235	0.014	0.098				3160503
DiCB-(12)+(13)	ng/L	0.033 U (1)	0.033	0.20				3160503
3,5-DiCB-(14)	ng/L	0.013 U	0.013	0.098				3160503
4,4'-DiCB-(15)	ng/L	0.250	0.016	0.098				3160503
22'3-TriCB-(16)	ng/L	0.0044 U	0.0044	0.098				3160503
22'4-TriCB-(17)	ng/L	0.251	0.0058	0.098				3160503
TriCB-(18)+(30)	ng/L	0.50	0.0045	0.20				3160503
22'6-TriCB-(19)	ng/L	0.0774 J	0.0059	0.098				3160503
TriCB-(20) + (28)	ng/L	0.84	0.0024	0.20				3160503
TriCB-(21)+(33)	ng/L	0.48	0.0024	0.20				3160503
234'-TriCB-(22)	ng/L	0.338	0.0024	0.098				3160503
235-TriCB-(23)	ng/L	0.0025 U	0.0025	0.098				3160503
236-TriCB-(24)	ng/L	0.289	0.0063	0.098				3160503
23'4-TriCB-(25)	ng/L	0.0615 J	0.0024	0.098				3160503
TriCB-(26)+(29)	ng/L	0.132 J	0.0024	0.20				3160503
23'6-TriCB-(27)	ng/L	0.0429 J	0.0039	0.098				3160503
24'5-TriCB-(31)	ng/L	0.672	0.0022	0.098				3160503
24'6-TriCB-(32)	ng/L	0.163	0.0036	0.098				3160503

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.0024 U	0.0024	0.098				3160503
33'4-TriCB-(35)	ng/L	0.0139 J	0.0024	0.098				3160503
33'5-TriCB-(36)	ng/L	0.0021 U	0.0021	0.098				3160503
344'-TriCB-(37)	ng/L	0.254	0.0029	0.098				3160503
345-TriCB-(38)	ng/L	0.0025 U	0.0025	0.098				3160503
34'5-TriCB-(39)	ng/L	0.0023 U	0.0023	0.098				3160503
TetraCB-(40)+(41)+(71)	ng/L	0.46	0.0012	0.29				3160503
22'34'-TetraCB-(42)	ng/L	0.252	0.0016	0.098				3160503
22'35-TetraCB-(43)	ng/L	0.0446 J	0.0019	0.098				3160503
TetraCB-(44)+(47)+(65)	ng/L	0.79	0.0012	0.29				3160503
TetraCB-(45)+(51)	ng/L	0.165 J	0.0012	0.20				3160503
22'36'-TetraCB-(46)	ng/L	0.0626 J	0.0015	0.098				3160503
22'45-TetraCB-(48)	ng/L	0.170	0.0012	0.098				3160503
TetraCB-(49)+TetraCB-(69)	ng/L	0.40	0.0011	0.20				3160503
TetraCB-(50)+(53)	ng/L	0.114 J	0.0012	0.20				3160503
22'55'-TetraCB-(52)	ng/L	0.732	0.0011	0.098				3160503
22'66'-TetraCB-(54)	ng/L	0.0026 U	0.0026	0.098				3160503
233'4-TetraCB-(55)	ng/L	0.0031 U	0.0031	0.098				3160503
233'4'-Tetra CB(56)	ng/L	0.210	0.0036	0.098				3160503
233'5-TetraCB-(57)	ng/L	0.0032 U	0.0032	0.098				3160503
233'5'-TetraCB-(58)	ng/L	0.0033 U	0.0033	0.098				3160503
TetraCB-(59)+(62)+(75)	ng/L	0.0718 J	0.00089	0.29				3160503
2344'-TetraCB -(60)	ng/L	0.111	0.0032	0.098				3160503
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.82	0.0033	0.39				3160503
234'5-TetraCB-(63)	ng/L	0.0159 J	0.0031	0.098				3160503
234'6-TetraCB-(64)	ng/L	0.358	0.00099	0.098				3160503
23'44'-TetraCB-(66)	ng/L	0.403	0.0032	0.098				3160503
23'45-TetraCB-(67)	ng/L	0.0193 J	0.0030	0.098				3160503
23'45'-TetraCB-(68)	ng/L	0.0071 J	0.0029	0.098				3160503

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/L	0.0038 U	0.0038	0.098				3160503
23'5'6-TetraCB-(73)	ng/L	0.00084 U	0.00084	0.098				3160503
33'44'-TetraCB-(77)	ng/L	0.0485 J	0.0033	0.098	0.000100	0.00000485		3160503
33'45-TetraCB-(78)	ng/L	0.0031 U	0.0031	0.098				3160503
33'45'-TetraCB(79)	ng/L	0.0074 J	0.0028	0.098				3160503
33'55'-TetraCB-(80)	ng/L	0.0030 U	0.0030	0.098				3160503
344'5-TetraCB-(81)	ng/L	0.0034 U	0.0034	0.098	0.000300	0.00000102		3160503
22'33'4-PentaCB-(82)	ng/L	0.0859 J	0.0033	0.098				3160503
PentaCB-(83)+(99)	ng/L	0.30	0.0029	0.20				3160503
22'33'6-PentaCB-(84)	ng/L	0.199	0.0035	0.098				3160503
PentaCB-(85)+(116)+(117)	ng/L	0.0986 J	0.0023	0.29				3160503
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.481 J	0.0025	0.59				3160503
PentaCB-(88)+(91)	ng/L	0.0960 J	0.0029	0.20				3160503
22'346'-PentaCB-(89)	ng/L	0.0091 U (1)	0.0091	0.098				3160503
PentaCB-(90)+(101)+(113)	ng/L	0.57	0.0025	0.29				3160503
22'355'-PentaCB-(92)	ng/L	0.106	0.0029	0.098				3160503
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.025 U (1)	0.025	0.39				3160503
22'356'-PentaCB-(94)	ng/L	0.0030 U	0.0030	0.098				3160503
22'35'6-PentaCB-(95)	ng/L	0.513	0.0027	0.098				3160503
22'366'-PentaCB-(96)	ng/L	0.0055 U (1)	0.0055	0.098				3160503
22'45'6-PentaCB-(103)	ng/L	0.0025 U	0.0025	0.098				3160503
22'466'-PentaCB-(104)	ng/L	0.0045 U	0.0045	0.098				3160503
233'44'-PentaCB-(105)	ng/L	0.259	0.0053	0.098	0.0000300	0.00000777		3160503
233'45-PentaCB-(106)	ng/L	0.0052 U	0.0052	0.098				3160503
233'4'5-PentaCB-(107)	ng/L	0.036 U (1)	0.036	0.098				3160503
PentaCB-(108)+(124)	ng/L	0.021 U (1)	0.021	0.20				3160503
PentaCB-(110)+(115)	ng/L	0.88	0.0024	0.20				3160503
233'55'-PentaCB-(111)	ng/L	0.0021 U	0.0021	0.098				3160503

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/L	0.0022 U	0.0022	0.098				3160503
2344'5-PentaCB-(114)	ng/L	0.0121 J	0.0050	0.098	0.0000300	0.000000363		3160503
23'44'5-PentaCB-(118)	ng/L	0.552	0.0053	0.098	0.0000300	0.0000166		3160503
23'455'-PentaCB-(120)	ng/L	0.0020 U	0.0020	0.098				3160503
23'45'6-PentaCB-(121)	ng/L	0.0021 U	0.0021	0.098				3160503
233'4'5'-PentaCB-(122)	ng/L	0.0044 U (1)	0.0044	0.098				3160503
23'44'5'-PentaCB-(123)	ng/L	0.0056 U	0.0056	0.098	0.0000300	0.000000168		3160503
33'44'5-PentaCB-(126)	ng/L	0.0052 U	0.0052	0.098	0.100	0.000520		3160503
33'455'-PentaCB-(127)	ng/L	0.0051 U	0.0051	0.098				3160503
HexaCB-(128)+(166)	ng/L	0.139 J	0.0050	0.20				3160503
HexaCB-(129)+(138)+(163)	ng/L	0.93	0.0058	0.29				3160503
22'33'45'-HexaCB-(130)	ng/L	0.047 U (1)	0.047	0.098				3160503
22'33'46-HexaCB-(131)	ng/L	0.0173 J	0.0071	0.098				3160503
22'33'46'-HexaCB-(132)	ng/L	0.296	0.0064	0.098				3160503
22'33'55'-HexaCB-(133)	ng/L	0.0060 U	0.0060	0.098				3160503
HexaCB-(134)+(143)	ng/L	0.0475 J	0.0067	0.20				3160503
HexaCB-(135)+(151)	ng/L	0.174 J	0.0017	0.20				3160503
22'33'66'-HexaCB-(136)	ng/L	0.0804 J	0.0013	0.098				3160503
22'344'5-HexaCB-(137)	ng/L	0.0503 J	0.0067	0.098				3160503
HexaCB-(139)+(140)	ng/L	0.011 U (1)	0.011	0.20				3160503
22'3455'-HexaCB-(141)	ng/L	0.148	0.0059	0.098				3160503
22'3456-HexaCB-(142)	ng/L	0.0065 U	0.0065	0.098				3160503
22'345'6-HexaCB-(144)	ng/L	0.026 U (1)	0.026	0.098				3160503
22'3466'-HexaCB-(145)	ng/L	0.0013 U	0.0013	0.098				3160503
22'34'55'-HexaCB-(146)	ng/L	0.106	0.0058	0.098				3160503
HexaCB-(147)+(149)	ng/L	0.58	0.0056	0.20				3160503
22'34'56'-HexaCB-(148)	ng/L	0.0017 U	0.0017	0.098				3160503
22'34'66'-HexaCB-(150)	ng/L	0.0012 U	0.0012	0.098				3160503

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Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3566'-HexaCB-(152)	ng/L	0.0013 U	0.0013	0.098				3160503
HexaCB-(153)+(168)	ng/L	0.55	0.0045	0.20				3160503
22'44'56'-HexaCB-(154)	ng/L	0.0015 U	0.0015	0.098				3160503
22'44'66'-HexaCB-(155)	ng/L	0.0017 U	0.0017	0.098				3160503
HexaCB-(156)+(157)	ng/L	0.0920 J	0.0046	0.20	0.0000300	0.00000276		3160503
233'44'6-HexaCB-(158)	ng/L	0.0912 J	0.0041	0.098				3160503
233'455'-HexaCB-(159)	ng/L	0.0050 U	0.0050	0.098				3160503
233'456-HexaCB-(160)	ng/L	0.0043 U	0.0043	0.098				3160503
233'45'6-HexaCB-(161)	ng/L	0.0041 U	0.0041	0.098				3160503
233'4'55'-HexaCB-(162)	ng/L	0.0049 U	0.0049	0.098				3160503
233'4'5'6-HexaCB-(164)	ng/L	0.0531 J	0.0041	0.098				3160503
233'55'6-HexaCB-(165)	ng/L	0.0047 U	0.0047	0.098				3160503
23'44'55'-HexaCB-(167)	ng/L	0.0307 J	0.0049	0.098	0.0000300	0.000000921		3160503
33'44'55'-HexaCB-(169)	ng/L	0.0051 U	0.0051	0.098	0.0300	0.000153		3160503
22'33'44'5-HeptaCB-(170)	ng/L	0.155	0.0048	0.098				3160503
HeptaCB-(171)+(173)	ng/L	0.0434 J	0.0055	0.20				3160503
22'33'455'-HeptaCB-(172)	ng/L	0.025 U (1)	0.025	0.098				3160503
22'33'456'-HeptaCB-(174)	ng/L	0.145	0.0052	0.098				3160503
22'33'45'6-HeptaCB-(175)	ng/L	0.0047 J	0.0014	0.098				3160503
22'33'466'-HeptaCB-(176)	ng/L	0.0162 J	0.0010	0.098				3160503
22'33'45'6'-HeptaCB-(177)	ng/L	0.0758 J	0.0054	0.098				3160503
22'33'55'6-HeptaCB-(178)	ng/L	0.0220 J	0.0014	0.098				3160503
22'33'566'-HeptaCB-(179)	ng/L	0.040 U (1)	0.040	0.098				3160503
HeptaCB-(180)+(193)	ng/L	0.28	0.0043	0.20				3160503
22'344'56-HeptaCB-(181)	ng/L	0.0050 U	0.0050	0.098				3160503
22'344'56'-HeptaCB-(182)	ng/L	0.0014 U	0.0014	0.098				3160503
22'344'5'6-HeptaCB-(183)	ng/L	0.0870 J	0.0044	0.098				3160503
22'344'66'-HeptaCB-(184)	ng/L	0.00098 U	0.00098	0.098				3160503

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Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3455'6-HeptaCB-(185)	ng/L	0.0055 U	0.0055	0.098				3160503
22'34566'-HeptaCB-(186)	ng/L	0.0010 U	0.0010	0.098				3160503
22'34'55'6-HeptaCB-(187)	ng/L	0.125	0.0012	0.098				3160503
22'34'566'-HeptaCB-(188)	ng/L	0.0015 U	0.0015	0.098				3160503
233'44'55'-HeptaCB-(189)	ng/L	0.0068 U	0.0068	0.098	0.0000300	0.000000204		3160503
233'44'56-HeptaCB-(190)	ng/L	0.0261 J	0.0038	0.098				3160503
233'44'5'6-HeptaCB-(191)	ng/L	0.0058 U (1)	0.0058	0.098				3160503
233'455'6-HeptaCB-(192)	ng/L	0.0042 U	0.0042	0.098				3160503
22'33'44'55'-OctaCB-(194)	ng/L	0.064 U (1)	0.064	0.098				3160503
22'33'44'56-OctaCB-(195)	ng/L	0.028 J	0.014	0.098				3160503
22'33'44'56'-OctaCB-(196)	ng/L	0.035 U (1)	0.035	0.098				3160503
22'33'44'66'OctaCB-(197)	ng/L	0.0054 U	0.0054	0.098				3160503
OctaCB-(198)+(199)	ng/L	0.0891 J	0.0069	0.20				3160503
22'33'4566'-OctaCB-(200)	ng/L	0.0081 J	0.0046	0.098				3160503
22'33'45'66'-OctaCB-(201)	ng/L	0.0100 J	0.0050	0.098				3160503
22'33'55'66'-OctaCB-(202)	ng/L	0.0240 J	0.0074	0.098				3160503
22'344'55'6-OctaCB-(203)	ng/L	0.0522 J	0.0063	0.098				3160503
22'344'566'-OctaCB-(204)	ng/L	0.0051 U	0.0051	0.098				3160503
233'44'55'6-OctaCB-(205)	ng/L	0.010 U	0.010	0.098				3160503
22'33'44'55'6-NonaCB-(206)	ng/L	0.043 U (1)	0.043	0.098				3160503
22'33'44'566'-NonaCB-(207)	ng/L	0.013 U	0.013	0.098				3160503
22'33'455'66'-NonaCB-(208)	ng/L	0.018 U (1)	0.018	0.098				3160503
DecaCB-(209)	ng/L	0.013 U	0.013	0.098				3160503
Monochlorobiphenyl	ng/L	0.0011 U	0.0011	N/A				3160503
Dichlorobiphenyl	ng/L	0.862	0.017	N/A				3160503
Trichlorobiphenyl	ng/L	4.12	0.0063	N/A				3160503
Tetrachlorobiphenyl	ng/L	5.27	0.0036	N/A				3160503
Pentachlorobiphenyl	ng/L	4.16	0.0056	N/A				3160503

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COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Hexachlorobiphenyl	ng/L	3.39	0.0072	N/A				3160503
Heptachlorobiphenyl	ng/L	0.976	0.0068	N/A				3160503
Octachlorobiphenyl	ng/L	0.211	0.014	N/A				3160503
Nonachlorobiphenyl	ng/L	0.017 U	0.017	N/A				3160503
Decachlorobiphenyl	ng/L	0.013 U	0.013	N/A				3160503
Total PCB	ng/L	19.0	N/A	N/A				3160503
TOTAL TOXIC EQUIVALENCY	ng/L					0.000708		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	95						3160503
C13-22'33'44'55'6-NonaCB-(206)	%	104						3160503
C13-22'33'44'5-HeptaCB-(170)	%	112						3160503
C13-22'33'455'66'-NonaCB-(208)	%	104						3160503
C13-22'33'55'66'-OctaCB-(202)	%	108						3160503
C13-22'33'55'6-HeptaCB-(178)	%	96						3160503
C13-22'344'55'-HeptaCB-(180)	%	117						3160503
C13-22'34'566'-HeptaCB-(188)	%	94						3160503
C13-22'44'66'-HexaCB-(155)	%	104						3160503
C13-22'466'-PentaCB-(104)	%	77						3160503
C13-22'66'-TetraCB-(54)	%	68						3160503
C13-22'6-TriCB-(19)	%	95						3160503
C13-22'-DiCB-(4)	%	84						3160503
C13-233'44'55'6-OctaCB-(205)	%	104						3160503
C13-233'44'55'-HeptaCB-(189)	%	103						3160503
C13-233'44'-PentaCB-(105)	%	101						3160503
C13-233'55'-PentaCB-(111)	%	105						3160503
C13-23'44'55'-HexaCB-(167)	%	108						3160503
C13-2344'5-PentaCB-(114)	%	101						3160503
C13-23'44'5-PentaCB-(118)	%	100						3160503
C13-2'344'5-PentaCB-(123)	%	101						3160503

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		QT7509						
Sampling Date		2013/03/05 11:02						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B21-SWP6-20130305	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-2-MonoCB-(1)	%	85						3160503
C13-33'44'55'-HexaCB-(169)	%	82						3160503
C13-33'44'5-PentaCB-(126)	%	93						3160503
C13-33'44'-TetraCB-(77)	%	96						3160503
C13-344'5-TetraCB-(81)	%	96						3160503
C13-344'-TriCB-(37)	%	92						3160503
C13-44'-DiCB-(15)	%	97						3160503
C13-4-MonoCB-(3)	%	86						3160503
C13-DecaCB-(209)	%	86						3160503
C13-HexaCB-(156)+(157)	%	107						3160503

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B333934
Report Date: 2013/03/28

Apex Laboratories
Client Project #: A13C101

Test Summary

Maxxam ID QT7506 **Collected** 2013/03/05
Sample ID B21-SWP1-20130305 **Shipped**
Matrix Water **Received** 2013/03/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3160395	2013/03/18	2013/03/23	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3160503	2013/03/18	2013/03/26	Cathy Xu

Maxxam ID QT7507 **Collected** 2013/03/05
Sample ID B21-SWP2-20130305 **Shipped**
Matrix Water **Received** 2013/03/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3160395	2013/03/18	2013/03/23	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3160503	2013/03/18	2013/03/26	Cathy Xu

Maxxam ID QT7508 **Collected** 2013/03/05
Sample ID B21-SWP3-20130305 **Shipped**
Matrix Water **Received** 2013/03/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3160395	2013/03/18	2013/03/23	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3160503	2013/03/18	2013/03/26	Cathy Xu

Maxxam ID QT7509 **Collected** 2013/03/05
Sample ID B21-SWP6-20130305 **Shipped**
Matrix Water **Received** 2013/03/07

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3160395	2013/03/18	2013/03/23	Kay Shaw
PCB Congeners in Water (1668A)	HRMS/MS	3160503	2013/03/18	2013/03/26	Cathy Xu

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Maxxam Job #: B333934
Report Date: 2013/03/28

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Package 1	4.1°C
Package 2	5.0°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A13C101
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB333934

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3160395	KKS	Spiked Blank	C13-1234678 HeptaCDD	2013/03/23		86	%	40 - 135
			C13-1234678 HeptaCDF	2013/03/23		90	%	40 - 135
			C13-123478 HexaCDF	2013/03/23		85	%	40 - 135
			C13-123678 HexaCDD	2013/03/23		90	%	40 - 135
			C13-12378 PentaCDD	2013/03/23		80	%	40 - 135
			C13-12378 PentaCDF	2013/03/23		75	%	40 - 135
			C13-2378 TetraCDD	2013/03/23		83	%	40 - 135
			C13-2378 TetraCDF	2013/03/23		90	%	40 - 135
			C13-OCDD	2013/03/23		92	%	40 - 135
			2,3,7,8-Tetra CDD	2013/03/23		104	%	80 - 140
			1,2,3,7,8-Penta CDD	2013/03/23		90	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2013/03/23		91	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2013/03/23		89	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2013/03/23		90	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2013/03/23		81	%	80 - 140
			Octa CDD	2013/03/23		84	%	80 - 140
			2,3,7,8-Tetra CDF	2013/03/23		82	%	80 - 140
			1,2,3,7,8-Penta CDF	2013/03/23		84	%	80 - 140
			2,3,4,7,8-Penta CDF	2013/03/23		92	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2013/03/23		88	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2013/03/23		82	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2013/03/23		90	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2013/03/23		93	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2013/03/23		81	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2013/03/23		84	%	80 - 140
			Octa CDF	2013/03/23		84	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2013/03/23		88	%	40 - 135
			C13-1234678 HeptaCDF	2013/03/23		90	%	40 - 135
			C13-123478 HexaCDF	2013/03/23		84	%	40 - 135
			C13-123678 HexaCDD	2013/03/23		87	%	40 - 135
			C13-12378 PentaCDD	2013/03/23		81	%	40 - 135
			C13-12378 PentaCDF	2013/03/23		73	%	40 - 135
			C13-2378 TetraCDD	2013/03/23		80	%	40 - 135
			C13-2378 TetraCDF	2013/03/23		86	%	40 - 135
			C13-OCDD	2013/03/23		91	%	40 - 135
			2,3,7,8-Tetra CDD	2013/03/23	1.1 U, EDL=1.1		pg/L	
			1,2,3,7,8-Penta CDD	2013/03/23	1.0 U, EDL=1.0		pg/L	
			1,2,3,4,7,8-Hexa CDD	2013/03/23	1.0 U, EDL=1.0		pg/L	
			1,2,3,6,7,8-Hexa CDD	2013/03/23	0.82 U, EDL=0.82		pg/L	
			1,2,3,7,8,9-Hexa CDD	2013/03/23	0.88 U, EDL=0.88		pg/L	
			1,2,3,4,6,7,8-Hepta CDD	2013/03/23	1.1 U, EDL=1.1		pg/L	
			Octa CDD	2013/03/23	3.2 J, EDL=1.2		pg/L	
			Total Tetra CDD	2013/03/23	1.1 U, EDL=1.1		pg/L	
			Total Penta CDD	2013/03/23	1.0 U, EDL=1.0		pg/L	
			Total Hexa CDD	2013/03/23	0.90 U, EDL=0.90		pg/L	
			Total Hepta CDD	2013/03/23	1.1 U, EDL=1.1		pg/L	
			2,3,7,8-Tetra CDF	2013/03/23	1.0 U, EDL=1.0		pg/L	
			1,2,3,7,8-Penta CDF	2013/03/23	1.0 U, EDL=1.0		pg/L	
			2,3,4,7,8-Penta CDF	2013/03/23	1.4 U, EDL=1.4 (1)		pg/L	
			1,2,3,4,7,8-Hexa CDF	2013/03/23	0.85 U, EDL=0.85		pg/L	
			1,2,3,6,7,8-Hexa CDF	2013/03/23	0.79 U, EDL=0.79		pg/L	
			2,3,4,6,7,8-Hexa CDF	2013/03/23	0.94 U, EDL=0.94		pg/L	
			1,2,3,7,8,9-Hexa CDF	2013/03/23	1.0 U, EDL=1.0		pg/L	
			1,2,3,4,6,7,8-Hepta CDF	2013/03/23	0.73 U, EDL=0.73		pg/L	
			1,2,3,4,7,8,9-Hepta CDF	2013/03/23	0.94 U, EDL=0.94		pg/L	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A13C101
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Quality Assurance Report (Continued)

Maxxam Job Number: GB333934

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3160395	KKS	Method Blank	Octa CDF	2013/03/23	3.0 J, EDL=1.3		pg/L	
			Total Tetra CDF	2013/03/23	1.3 U, EDL=1.3 (1)		pg/L	
			Total Penta CDF	2013/03/23	1.4 U, EDL=1.4 (1)		pg/L	
			Total Hexa CDF	2013/03/23	0.90 U, EDL=0.90		pg/L	
			Total Hepta CDF	2013/03/23	0.82 U, EDL=0.82		pg/L	
3160503	CXU	Spiked Blank	C13-2,44'-TriCB-(28)	2013/03/26		80	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2013/03/26		113	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2013/03/26		102	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2013/03/26		112	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2013/03/26		104	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2013/03/26		124	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2013/03/26		101	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2013/03/26		109	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2013/03/26		106	%	30 - 140
			C13-22'466'-PentaCB-(104)	2013/03/26		90	%	30 - 140
			C13-22'66'-TetraCB-(54)	2013/03/26		83	%	30 - 140
			C13-22'6-TriCB-(19)	2013/03/26		90	%	30 - 140
			C13-22'-DiCB-(4)	2013/03/26		81	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2013/03/26		100	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2013/03/26		94	%	30 - 140
			C13-233'44'-PentaCB-(105)	2013/03/26		93	%	30 - 140
			C13-233'55'-PentaCB-(111)	2013/03/26		107	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2013/03/26		101	%	30 - 140
			C13-2344'5-PentaCB-(114)	2013/03/26		89	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2013/03/26		90	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2013/03/26		89	%	30 - 140
			C13-2-MonoCB-(1)	2013/03/26		74	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2013/03/26		90	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2013/03/26		89	%	30 - 140
			C13-33'44'-TetraCB-(77)	2013/03/26		88	%	30 - 140
			C13-344'5-TetraCB-(81)	2013/03/26		90	%	30 - 140
			C13-344'-TriCB-(37)	2013/03/26		78	%	30 - 140
			C13-44'-DiCB-(15)	2013/03/26		84	%	30 - 140
			C13-4-MonoCB-(3)	2013/03/26		77	%	15 - 140
			C13-DecaCB-(209)	2013/03/26		113	%	30 - 140
			C13-HexaCB-(156)+(157)	2013/03/26		106	%	30 - 140
			2-MonoCB-(1)	2013/03/26		88	%	50 - 150
			4-MonoCB-(3)	2013/03/26		86	%	50 - 150
			22'-DiCB-(4)	2013/03/26		99	%	50 - 150
			4,4'-DiCB-(15)	2013/03/26		84	%	50 - 150
			22'6-TriCB-(19)	2013/03/26		92	%	50 - 150
			235-TriCB-(23)	2013/03/26		86	%	50 - 150
			23'5'-TriCB-(34)	2013/03/26		86	%	50 - 150
			344'-TriCB-(37)	2013/03/26		91	%	50 - 150
			22'66'-TetraCB-(54)	2013/03/26		95	%	50 - 150
			33'44'-TetraCB-(77)	2013/03/26		93	%	50 - 150
			344'5-TetraCB-(81)	2013/03/26		89	%	50 - 150
			22'466'-PentaCB-(104)	2013/03/26		95	%	50 - 150
			233'44'-PentaCB-(105)	2013/03/26		94	%	50 - 150
			2344'5-PentaCB-(114)	2013/03/26		90	%	50 - 150
			23'44'5-PentaCB-(118)	2013/03/26		100	%	50 - 150
			23'44'5'-PentaCB-(123)	2013/03/26		94	%	50 - 150
			33'44'5-PentaCB-(126)	2013/03/26		90	%	50 - 150
			22'44'66'-HexaCB-(155)	2013/03/26		97	%	50 - 150
			HexaCB-(156)+(157)	2013/03/26		92	%	50 - 150

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Attention: Philip Nerenberg
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Quality Assurance Report (Continued)

Maxxam Job Number: GB333934

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3160503	CXU	Spiked Blank	23'44'55'-HexaCB-(167)	2013/03/26		92	%	50 - 150
			33'44'55'-HexaCB-(169)	2013/03/26		92	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2013/03/26		95	%	50 - 150
			HeptaCB-(180)+(193)	2013/03/26		87	%	50 - 150
			22'344'56'-HeptaCB-(182)	2013/03/26		89	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2013/03/26		87	%	50 - 150
			22'34'566'-HeptaCB-(188)	2013/03/26		97	%	50 - 150
			233'44'55'-HeptaCB-(189)	2013/03/26		89	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2013/03/26		98	%	50 - 150
			233'44'55'6-OctaCB-(205)	2013/03/26		96	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2013/03/26		96	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2013/03/26		94	%	50 - 150
			DecaCB-(209)	2013/03/26		93	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2013/03/26		79	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2013/03/26		94	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2013/03/26		82	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2013/03/26		91	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2013/03/26		85	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2013/03/26		125	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2013/03/26		81	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2013/03/26		90	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2013/03/26		87	%	30 - 140
			C13-22'466'-PentaCB-(104)	2013/03/26		75	%	30 - 140
			C13-22'66'-TetraCB-(54)	2013/03/26		67	%	30 - 140
			C13-22'6-TriCB-(19)	2013/03/26		75	%	30 - 140
			C13-22'-DiCB-(4)	2013/03/26		73	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2013/03/26		84	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2013/03/26		77	%	30 - 140
			C13-233'44'-PentaCB-(105)	2013/03/26		75	%	30 - 140
			C13-233'55'-PentaCB-(111)	2013/03/26		107	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2013/03/26		82	%	30 - 140
			C13-2344'5-PentaCB-(114)	2013/03/26		74	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2013/03/26		74	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2013/03/26		73	%	30 - 140
			C13-2-MonoCB-(1)	2013/03/26		63	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2013/03/26		74	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2013/03/26		73	%	30 - 140
			C13-33'44'-TetraCB-(77)	2013/03/26		71	%	30 - 140
			C13-344'5-TetraCB-(81)	2013/03/26		72	%	30 - 140
			C13-344'-TriCB-(37)	2013/03/26		63	%	30 - 140
			C13-44'-DiCB-(15)	2013/03/26		67	%	30 - 140
			C13-4-MonoCB-(3)	2013/03/26		64	%	15 - 140
			C13-DecaCB-(209)	2013/03/26		92	%	30 - 140
			C13-HexaCB-(156)+(157)	2013/03/26		82	%	30 - 140
			2-MonoCB-(1)	2013/03/26	0.0028 U, EDL=0.0028		ng/L	
			3-MonoCB-(2)	2013/03/26	0.0030 U, EDL=0.0030		ng/L	
			4-MonoCB-(3)	2013/03/26	0.0028 U, EDL=0.0028		ng/L	
			22'-DiCB-(4)	2013/03/26	0.0056 U, EDL=0.0056		ng/L	
			2,3-DiCB-(5)	2013/03/26	0.025 U, EDL=0.025		ng/L	
			2,3'-DiCB-(6)	2013/03/26	0.019 U, EDL=0.019		ng/L	
			2,4-DiCB-(7)	2013/03/26	0.020 U, EDL=0.020		ng/L	
			2,4'-DiCB-(8)	2013/03/26	0.015 U, EDL=0.015		ng/L	
			2,5-DiCB-(9)	2013/03/26	0.019 U, EDL=0.019		ng/L	
			2,6-DiCB-(10)	2013/03/26	0.0038 U, EDL=0.0038		ng/L	
			3,3'-DiCB-(11)	2013/03/26	0.076 U, EDL=0.076 (1)		ng/L	

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Attention: Philip Nerenberg
Client Project #: A13C101
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Quality Assurance Report (Continued)

Maxxam Job Number: GB333934

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3160503	CXU	Method Blank	DiCB-(12)+(13)	2013/03/26	0.020 U, EDL=0.020		ng/L	
			3,5-DiCB-(14)	2013/03/26	0.019 U, EDL=0.019		ng/L	
			4,4'-DiCB-(15)	2013/03/26	0.023 U, EDL=0.023		ng/L	
			22'3-TriCB-(16)	2013/03/26	0.0058 U, EDL=0.0058		ng/L	
			22'4-TriCB-(17)	2013/03/26	0.0077 U, EDL=0.0077		ng/L	
			TriCB-(18)+(30)	2013/03/26	0.0064 U, EDL=0.0064 (1)		ng/L	
			22'6-TriCB-(19)	2013/03/26	0.0078 U, EDL=0.0078		ng/L	
			TriCB-(20) + (28)	2013/03/26	0.0132 J, EDL=0.0020		ng/L	
			TriCB-(21)+(33)	2013/03/26	0.0056 U, EDL=0.0056 (1)		ng/L	
			234'-TriCB-(22)	2013/03/26	0.0034 U, EDL=0.0034 (1)		ng/L	
			235-TriCB-(23)	2013/03/26	0.0021 U, EDL=0.0021		ng/L	
			236-TriCB-(24)	2013/03/26	0.0083 U, EDL=0.0083		ng/L	
			23'4-TriCB-(25)	2013/03/26	0.0020 U, EDL=0.0020		ng/L	
			TriCB-(26)+(29)	2013/03/26	0.0020 U, EDL=0.0020		ng/L	
			23'6-TriCB-(27)	2013/03/26	0.0052 U, EDL=0.0052		ng/L	
			24'5-TriCB-(31)	2013/03/26	0.011 U, EDL=0.011 (1)		ng/L	
			24'6-TriCB-(32)	2013/03/26	0.0048 U, EDL=0.0048		ng/L	
			23'5'-TriCB-(34)	2013/03/26	0.0020 U, EDL=0.0020		ng/L	
			33'4-TriCB-(35)	2013/03/26	0.0020 U, EDL=0.0020		ng/L	
			33'5-TriCB-(36)	2013/03/26	0.0018 U, EDL=0.0018		ng/L	
			344'-TriCB-(37)	2013/03/26	0.0052 U, EDL=0.0052 (1)		ng/L	
			345-TriCB-(38)	2013/03/26	0.0020 U, EDL=0.0020		ng/L	
			34'5-TriCB-(39)	2013/03/26	0.0019 U, EDL=0.0019		ng/L	
			TetraCB-(40)+(41)+(71)	2013/03/26	0.0047 U, EDL=0.0047 (1)		ng/L	
			22'34'-TetraCB-(42)	2013/03/26	0.0070 U, EDL=0.0070		ng/L	
			22'35-TetraCB-(43)	2013/03/26	0.0085 U, EDL=0.0085		ng/L	
			TetraCB-(44)+(47)+(65)	2013/03/26	0.018 U, EDL=0.018 (1)		ng/L	
			TetraCB-(45)+(51)	2013/03/26	0.0055 U, EDL=0.0055		ng/L	
			22'36'-TetraCB-(46)	2013/03/26	0.0066 U, EDL=0.0066		ng/L	
			22'45-TetraCB-(48)	2013/03/26	0.0053 U, EDL=0.0053		ng/L	
			TetraCB-(49)+TetraCB-(69)	2013/03/26	0.0086 U, EDL=0.0086 (1)		ng/L	
			TetraCB-(50)+(53)	2013/03/26	0.0053 U, EDL=0.0053		ng/L	
			22'55'-TetraCB-(52)	2013/03/26	0.031 U, EDL=0.031 (1)		ng/L	
			22'66'-TetraCB-(54)	2013/03/26	0.0022 U, EDL=0.0022		ng/L	
			233'4-TetraCB-(55)	2013/03/26	0.0029 U, EDL=0.0029		ng/L	
			233'4'-Tetra CB(56)	2013/03/26	0.0032 U, EDL=0.0032		ng/L	
			233'5-TetraCB-(57)	2013/03/26	0.0030 U, EDL=0.0030		ng/L	
			233'5'-TetraCB-(58)	2013/03/26	0.0030 U, EDL=0.0030		ng/L	
			TetraCB-(59)+(62)+(75)	2013/03/26	0.0040 U, EDL=0.0040		ng/L	
			2344'-TetraCB -(60)	2013/03/26	0.0029 U, EDL=0.0029		ng/L	
			TetraCB-(61)+(70)+(74)+(76)	2013/03/26	0.0339 J, EDL=0.0030		ng/L	
			234'5-TetraCB-(63)	2013/03/26	0.0028 U, EDL=0.0028		ng/L	
			234'6-TetraCB-(64)	2013/03/26	0.0065 U, EDL=0.0065 (1)		ng/L	
			23'44'-TetraCB-(66)	2013/03/26	0.0075 J, EDL=0.0029		ng/L	
			23'45-TetraCB-(67)	2013/03/26	0.0027 U, EDL=0.0027		ng/L	
			23'45'-TetraCB-(68)	2013/03/26	0.0026 U, EDL=0.0026		ng/L	
			23'55'-TetraCB-(72)	2013/03/26	0.0028 U, EDL=0.0028		ng/L	
			23'5'6-TetraCB-(73)	2013/03/26	0.0038 U, EDL=0.0038		ng/L	
			33'44'-TetraCB-(77)	2013/03/26	0.0030 U, EDL=0.0030		ng/L	
			33'45-TetraCB-(78)	2013/03/26	0.0029 U, EDL=0.0029		ng/L	
			33'45'-TetraCB(79)	2013/03/26	0.0026 U, EDL=0.0026		ng/L	
			33'55'-TetraCB-(80)	2013/03/26	0.0027 U, EDL=0.0027		ng/L	
			344'5-TetraCB-(81)	2013/03/26	0.0031 U, EDL=0.0031		ng/L	
			22'33'4-PentaCB-(82)	2013/03/26	0.0066 U, EDL=0.0066 (1)		ng/L	
			PentaCB-(83)+(99)	2013/03/26	0.021 U, EDL=0.021 (1)		ng/L	

Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A13C101
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB333934

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3160503	CXU	Method Blank	22'33'6-PentaCB-(84)	2013/03/26	0.0147 J, EDL=0.0064		ng/L	
			PentaCB-(85)+(116)+(117)	2013/03/26	0.0043 U, EDL=0.0043		ng/L	
			PentaCB-(86)(87)(97)(109)(119)(125)	2013/03/26	0.0516 J, EDL=0.0047		ng/L	
			PentaCB-(88)+(91)	2013/03/26	0.0054 U, EDL=0.0054 (1)		ng/L	
			22'346'-PentaCB-(89)	2013/03/26	0.0057 U, EDL=0.0057		ng/L	
			PentaCB-(90)+(101)+(113)	2013/03/26	0.0787 J, EDL=0.0046		ng/L	
			22'355'-PentaCB-(92)	2013/03/26	0.0133 J, EDL=0.0055		ng/L	
			PentaCB-(93)+(98)+(100)+(102)	2013/03/26	0.0056 U, EDL=0.0056		ng/L	
			22'356'-PentaCB-(94)	2013/03/26	0.0058 U, EDL=0.0058		ng/L	
			22'35'6-PentaCB-(95)	2013/03/26	0.053 U, EDL=0.053 (1)		ng/L	
			22'366'-PentaCB-(96)	2013/03/26	0.0032 U, EDL=0.0032		ng/L	
			22'45'6-PentaCB-(103)	2013/03/26	0.0047 U, EDL=0.0047		ng/L	
			22'466'-PentaCB-(104)	2013/03/26	0.0039 U, EDL=0.0039		ng/L	
			233'44'-PentaCB-(105)	2013/03/26	0.0211 J, EDL=0.0040		ng/L	
			233'45-PentaCB-(106)	2013/03/26	0.0040 U, EDL=0.0040		ng/L	
			233'4'5-PentaCB-(107)	2013/03/26	0.0039 U, EDL=0.0039		ng/L	
			PentaCB-(108)+(124)	2013/03/26	0.0040 U, EDL=0.0040		ng/L	
			PentaCB-(110)+(115)	2013/03/26	0.0774 J, EDL=0.0045		ng/L	
			233'55'-PentaCB-(111)	2013/03/26	0.0039 U, EDL=0.0039		ng/L	
			233'56-PentaCB-(112)	2013/03/26	0.0042 U, EDL=0.0042		ng/L	
			2344'5-PentaCB-(114)	2013/03/26	0.0038 U, EDL=0.0038		ng/L	
			23'44'5-PentaCB-(118)	2013/03/26	0.0552 J, EDL=0.0041		ng/L	
			23'455'-PentaCB-(120)	2013/03/26	0.0037 U, EDL=0.0037		ng/L	
			23'45'6-PentaCB-(121)	2013/03/26	0.0039 U, EDL=0.0039		ng/L	
			233'4'5'-PentaCB-(122)	2013/03/26	0.0043 U, EDL=0.0043		ng/L	
			23'44'5'-PentaCB-(123)	2013/03/26	0.0043 U, EDL=0.0043		ng/L	
			33'44'5-PentaCB-(126)	2013/03/26	0.0040 U, EDL=0.0040		ng/L	
			33'455'-PentaCB-(127)	2013/03/26	0.0039 U, EDL=0.0039		ng/L	
			HexaCB-(128)+(166)	2013/03/26	0.0170 J, EDL=0.0051		ng/L	
			HexaCB-(129)+(138)+(163)	2013/03/26	0.11 U, EDL=0.11 (1)		ng/L	
			22'33'45'-HexaCB-(130)	2013/03/26	0.0065 U, EDL=0.0065 (1)		ng/L	
			22'33'46-HexaCB-(131)	2013/03/26	0.0073 U, EDL=0.0073		ng/L	
			22'33'46'-HexaCB-(132)	2013/03/26	0.0370 J, EDL=0.0065		ng/L	
			22'33'55'-HexaCB-(133)	2013/03/26	0.0061 U, EDL=0.0061		ng/L	
			HexaCB-(134)+(143)	2013/03/26	0.0068 U, EDL=0.0068		ng/L	
			HexaCB-(135)+(151)	2013/03/26	0.0402 J, EDL=0.0033		ng/L	
			22'33'66'-HexaCB-(136)	2013/03/26	0.018 U, EDL=0.018 (1)		ng/L	
			22'344'5-HexaCB-(137)	2013/03/26	0.0069 U, EDL=0.0069		ng/L	
			HexaCB-(139)+(140)	2013/03/26	0.0057 U, EDL=0.0057		ng/L	
			22'3455'-HexaCB-(141)	2013/03/26	0.0230 J, EDL=0.0060		ng/L	
			22'3456-HexaCB-(142)	2013/03/26	0.0066 U, EDL=0.0066		ng/L	
			22'345'6-HexaCB-(144)	2013/03/26	0.0032 U, EDL=0.0032		ng/L	
			22'3466'-HexaCB-(145)	2013/03/26	0.0024 U, EDL=0.0024		ng/L	
			22'34'55'-HexaCB-(146)	2013/03/26	0.016 U, EDL=0.016 (1)		ng/L	
			HexaCB-(147)+(149)	2013/03/26	0.0735 J, EDL=0.0057		ng/L	
			22'34'56'-HexaCB-(148)	2013/03/26	0.0032 U, EDL=0.0032		ng/L	
			22'34'66'-HexaCB-(150)	2013/03/26	0.0023 U, EDL=0.0023		ng/L	
			22'3566'-HexaCB-(152)	2013/03/26	0.0024 U, EDL=0.0024		ng/L	
			HexaCB-(153)+(168)	2013/03/26	0.082 U, EDL=0.082 (1)		ng/L	
			22'44'56'-HexaCB-(154)	2013/03/26	0.0028 U, EDL=0.0028		ng/L	
			22'44'66'-HexaCB-(155)	2013/03/26	0.0032 U, EDL=0.0032		ng/L	
			HexaCB-(156)+(157)	2013/03/26	0.012 U, EDL=0.012 (1)		ng/L	
			233'44'6-HexaCB-(158)	2013/03/26	0.011 U, EDL=0.011 (1)		ng/L	
			233'455'-HexaCB-(159)	2013/03/26	0.0028 U, EDL=0.0028		ng/L	
			233'456-HexaCB-(160)	2013/03/26	0.0044 U, EDL=0.0044		ng/L	

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A13C101
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB333934

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3160503	CXU	Method Blank	233'45'6-HexaCB-(161)	2013/03/26	0.0042 U,	EDL=0.0042	ng/L	
			233'4'55'-HexaCB-(162)	2013/03/26	0.0028 U,	EDL=0.0028	ng/L	
			233'4'5'6-HexaCB-(164)	2013/03/26	0.0092 J,	EDL=0.0042	ng/L	
			233'55'6-HexaCB-(165)	2013/03/26	0.0048 U,	EDL=0.0048	ng/L	
			23'44'55'-HexaCB-(167)	2013/03/26	0.0051 U,	EDL=0.0051 (1)	ng/L	
			33'44'55'-HexaCB-(169)	2013/03/26	0.0029 U,	EDL=0.0029	ng/L	
			22'33'44'5-HeptaCB-(170)	2013/03/26	0.0320 J,	EDL=0.0037	ng/L	
			HeptaCB-(171)+(173)	2013/03/26	0.0028 U,	EDL=0.0028 (1)	ng/L	
			22'33'455'-HeptaCB-(172)	2013/03/26	0.0042 U,	EDL=0.0042	ng/L	
			22'33'456'-HeptaCB-(174)	2013/03/26	0.0279 J,	EDL=0.0040	ng/L	
			22'33'45'6-HeptaCB-(175)	2013/03/26	0.0015 U,	EDL=0.0015	ng/L	
			22'33'466'-HeptaCB-(176)	2013/03/26	0.0045 U,	EDL=0.0045 (1)	ng/L	
			22'33'45'6'-HeptaCB-(177)	2013/03/26	0.0179 J,	EDL=0.0041	ng/L	
			22'33'55'6-HeptaCB-(178)	2013/03/26	0.0016 U,	EDL=0.0016	ng/L	
			22'33'566'-HeptaCB-(179)	2013/03/26	0.0128 J,	EDL=0.0012	ng/L	
			HeptaCB-(180)+(193)	2013/03/26	0.0499 J,	EDL=0.0032	ng/L	
			22'344'56-HeptaCB-(181)	2013/03/26	0.0038 U,	EDL=0.0038	ng/L	
			22'344'56'-HeptaCB-(182)	2013/03/26	0.0016 U,	EDL=0.0016	ng/L	
			22'344'5'6-HeptaCB-(183)	2013/03/26	0.0167 J,	EDL=0.0033	ng/L	
			22'344'66'-HeptaCB-(184)	2013/03/26	0.0011 U,	EDL=0.0011	ng/L	
			22'3455'6-HeptaCB-(185)	2013/03/26	0.0042 U,	EDL=0.0042	ng/L	
			22'34566'-HeptaCB-(186)	2013/03/26	0.0012 U,	EDL=0.0012	ng/L	
			22'34'55'6-HeptaCB-(187)	2013/03/26	0.025 U,	EDL=0.025 (1)	ng/L	
			22'34'566'-HeptaCB-(188)	2013/03/26	0.0017 U,	EDL=0.0017	ng/L	
			233'44'55'-HeptaCB-(189)	2013/03/26	0.0025 U,	EDL=0.0025	ng/L	
			233'44'56-HeptaCB-(190)	2013/03/26	0.0029 U,	EDL=0.0029	ng/L	
			233'44'5'6-HeptaCB-(191)	2013/03/26	0.0031 U,	EDL=0.0031	ng/L	
			233'455'6-HeptaCB-(192)	2013/03/26	0.0032 U,	EDL=0.0032	ng/L	
			22'33'44'55'-OctaCB-(194)	2013/03/26	0.0055 U,	EDL=0.0055 (1)	ng/L	
			22'33'44'56-OctaCB-(195)	2013/03/26	0.0055 U,	EDL=0.0055	ng/L	
			22'33'44'56'-OctaCB-(196)	2013/03/26	0.0052 U,	EDL=0.0052	ng/L	
			22'33'44'66'OctaCB-(197)	2013/03/26	0.0041 U,	EDL=0.0041	ng/L	
			OctaCB-(198)+(199)	2013/03/26	0.0115 J,	EDL=0.0052	ng/L	
			22'33'4566'-OctaCB-(200)	2013/03/26	0.0035 U,	EDL=0.0035	ng/L	
			22'33'45'66'-OctaCB-(201)	2013/03/26	0.0038 U,	EDL=0.0038	ng/L	
			22'33'55'66'-OctaCB-(202)	2013/03/26	0.0056 U,	EDL=0.0056	ng/L	
			22'344'55'6-OctaCB-(203)	2013/03/26	0.0048 U,	EDL=0.0048	ng/L	
			22'344'566'-OctaCB-(204)	2013/03/26	0.0039 U,	EDL=0.0039	ng/L	
			233'44'55'6-OctaCB-(205)	2013/03/26	0.0039 U,	EDL=0.0039	ng/L	
			22'33'44'55'6-NonaCB-(206)	2013/03/26	0.0095 U,	EDL=0.0095	ng/L	
			22'33'44'566'-NonaCB-(207)	2013/03/26	0.0075 U,	EDL=0.0075	ng/L	
			22'33'455'66'-NonaCB-(208)	2013/03/26	0.0097 U,	EDL=0.0097	ng/L	
			DecaCB-(209)	2013/03/26	0.0082 U,	EDL=0.0082	ng/L	
			Monochlorobiphenyl	2013/03/26	0.0030 U,	EDL=0.0030	ng/L	
			Dichlorobiphenyl	2013/03/26	0.025 U,	EDL=0.025	ng/L	
			Trichlorobiphenyl	2013/03/26	0.0132,	EDL=0.0083	ng/L	
			Tetrachlorobiphenyl	2013/03/26	0.0414,	EDL=0.0085	ng/L	
			Pentachlorobiphenyl	2013/03/26	0.312,	EDL=0.0064	ng/L	
			Hexachlorobiphenyl	2013/03/26	0.200,	EDL=0.0073	ng/L	
			Heptachlorobiphenyl	2013/03/26	0.157,	EDL=0.0042	ng/L	
			Octachlorobiphenyl	2013/03/26	0.0115,	EDL=0.0056	ng/L	
			Nonachlorobiphenyl	2013/03/26	0.0097 U,	EDL=0.0097	ng/L	
			Decachlorobiphenyl	2013/03/26	0.0082 U,	EDL=0.0082	ng/L	
			Total PCB	2013/03/26	0.735		ng/L	

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method

Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A13C101
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB333934

accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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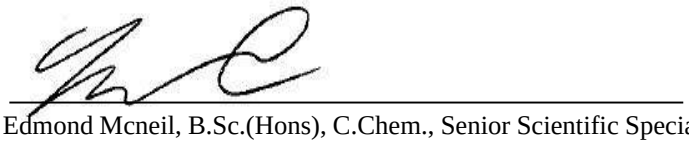
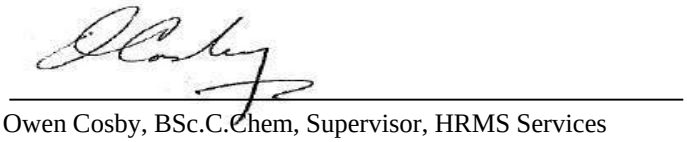
Validation Signature Page

Maxxam Job #: B333934

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Edmond Mcneil, B.Sc.(Hons), C.Chem., Senior Scientific Specialist, HRMS Services



Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Basin 22 Storm Water and Manhole Solids Sampling and Analysis Data
October/November Sampling Events, Source Control Evaluation,
Burgard Industrial Park, Portland, Oregon
Bridgewater Group, Inc., 2014

BRIDGEWATER GROUP, INC.

Basin 22 Storm Water and Manhole Solids Sampling and Analysis Data October/November Sampling Events Source Control Evaluation Burgard Industrial Park Portland, Oregon

TO: Jim Orr/Oregon DEQ

CC: Mat Cusma/Schnitzer
Mark Bartee/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: January 26, 2014

This memorandum presents the results of the November 18, 2013 storm water and manhole solids sampling and analysis performed at Basin 22 at the Burgard Industrial Park (BIP) in Portland, Oregon (Figure 1, Figure 2). The storm water sampling and analysis were performed in general accordance with the March 1, 2012 *Source Control Evaluation, Basin 22 Sampling and Analysis Plan,* as revised by a March 20, 2013 email from Bridgewater Group to DEQ and approved by DEQ in an October 7, 2013 email.

Basin 22 Description

Basin 22 consists of an approximately 14 acre area in the northwest corner of the BIP. Figure 3 shows the approximate boundaries of Basin 22. The Basin 22 boundaries are estimated from observations of the site during wet weather conditions, the locations of catch basins, storm water system assessments on adjacent properties, storm water plan drawings, and the general topography of the basin. About ½ of Basin 22 is outside the boundaries of the BIP on the RockTenn property.

As shown on Figure 3, a series of catch basins drains almost the entire northern portion of Basin 22 to a storm water pump station which pumps the storm water into a storm water detention pond. If the water level in the pond nears the top of the pond, water is manually discharged by opening a valve allowing discharge to a manhole located near the southern edge of the BIP. Building roof drains also discharge to the manhole. Discharge from the manhole joins with runoff from the southern portion of Basin 22 (the RockTenn property outside of the BIP) and is discharged out Outfall 22 to the IT Slip.

The southern boundary of Basin 22 is the top of bank along the northern edge of the IT Slip. The narrow strip of land south of this boundary is part of the BIP and consists of the heavily vegetated and/or armored slope of the bank. This slope does not receive any runoff from Basin 22 (or any other portion of the Burgard uplands) and any precipitation falling on this slope infiltrates down through the vegetation and armor, and does not become part of the Basin 22 discharge. Surface and near-surface soils in this bank area have been assessed through separate sampling activities.

The relevant (northern) portion of Basin 22 consists of approximately 8.3 acres and includes a 72,000 sq. ft. building occupied by two business entities. The western portion of the building is

occupied by Wilbur-Ellis Co., operating a dry-bulk (animal feed and organic fertilizer) packaging, ingredient blending, and transloading facility. These activities are conducted inside the building or under cover. The eastern portion of the building is occupied by RB Recycling, Inc., operating a tire shredding and rubber processing facility. The majority of this facility's storage and packaging operations are conducted inside the building. The stormwater drainage from areas directly beneath outside processing and conveying equipment is either recycled as process cooling water or is discharged to the sanitary sewer. All operations in this basin occur on paved areas.

Basin 22 Storm Water Sampling and Analysis

Storm Water Sample Collection

A Basin 22 storm water sample was collected on November 18, 2013 at the Basin 22 outfall on the north shore of the IT Slip. Table 1 presents the rainfall conditions preceding, and during, the storm water sampling event. Access to the onsite storm water pond was not available during the October/November sampling events and the storm water pond sample (SP-2) will be collected during future sampling events.

Storm Water Sample Analysis

The Basin 22 storm water sample was analyzed for the following:

- PCB aroclors, homologs, and congeners;
- Phthalates;
- Dioxins/furans;
- Butyltins;
- Aluminum, antimony, arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc;
- Polycyclic aromatic hydrocarbons (PAHs);
- Organochlorine pesticides;
- Petroleum Hydrocarbons (gasoline, diesel, and heavy oil);
- Total suspended solids (TSS); and
- Total organic carbon (TOC).

Table 2 presents the results of the Basin 22 storm water sample analyses. Copies of the analytical laboratory reports are provided in Appendix A. Review of the laboratory QA/QC results did not indicate any issues requiring corrective action.

Basin 22 Manhole Solids Sampling and Analysis

A manhole solids sample was collected on October 29, 2013 from the bottom of the manhole near the southeast corner of the Wilbur-Ellis and RB Recycling property (Figure 3). The manhole solids sample was analyzed for the following:

- PCB aroclors, congeners, and homologs;
- Phthalates;

- Dioxins/furans;
- Butyltins;
- Aluminum, antimony, arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc;
- Polycyclic aromatic hydrocarbons (PAHs);
- Organochlorine pesticides;
- Petroleum hydrocarbons (gasoline, diesel, and heavy oil fractions); and
- Total organic carbon.

Table 3 presents the results of the catch basin solids laboratory analyses. Copies of the analytical laboratory reports are provided in Appendix A. Review of the laboratory QA/QC results did not indicate any issues requiring corrective action.

Attachments:

Table 1 – Storm Water Sampling Event Rainfall Data, 11/18/2013 Sampling Event
Table 2 – Storm Water Sample Analytical Laboratory Results
Table 3 – Manhole Solids Sample Analytical Laboratory Results
Figure 1 – Site Location Map
Figure 2 – Burgard Industrial Park Site Plan
Figure 3 – Basin 22 Sample Locations
Appendix A – Analytical Laboratory Reports

Tables

Table 1
Storm Water Sampling Event Rainfall Data
11/18/2013 Sampling Event
Burgard Industrial Park Basin 22

Date	Daily Total	Hourly Rain Fall (0.01 inches)																							
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11/5/13	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11/6/13	38	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	6	4	5	2	1	4	7	1	3
11/7/13	40	0	1	0	2	0	2	1	0	19	12	0	0	0	0	0	0	1	0	0	2	0	0	0	0
11/8/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/9/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/10/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/11/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/12/13	19	0	0	2	4	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/13/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/14/13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
11/15/13	10	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0	0	3	0	0	1	0	0
11/16/13	10	2	0	0	0	0	0	1	0	4	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11/17/13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11/18/13	34	0	0	0	0	0	0	0	0	0	0	4	9	2	0	4	1	0	5	7	1	1	0	0	0

Data from Shipyard Rain Gage - 8900 N. Sever Road
Sampling Day
Sampling Hours

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-1 11/18/2013
PAHs (ug/l)			
Acenaphthene	0.2		0.042 U
Acenaphthylene	0.2		0.078 J
Anthracene			0.042 U
Benzo(a)anthracene	0.018		0.042 U
Benzo(a)pyrene	0.018		0.048 J
Benzo(b+k)fluoranthene	0.018		0.042 U
Benzo(g,h,i)perylene	0.2		0.042 U
Chrysene	0.018		0.042 U
Dibenzo(a,h)anthracene	0.018		0.042 U
Fluoranthene	0.2		0.042 U
Fluorene	0.2		0.042 U
Indeno(1,2,3-cd)pyrene	0.018		0.042 U
Naphthalene	0.2		0.083 U
Phenanthrene	0.2		0.042 U
Pyrene	0.2		0.042 U
Total Detected PAHs		1	0.13
PCBs (ug/l)			
Aroclor 1016	0.96		0.010 U
Aroclor 1221	0.034		0.010 U
Aroclor 1232	0.034		0.019 U
Aroclor 1242	0.034		0.010 U
Aroclor 1248	0.034		0.010 U
Aroclor 1254	0.034		0.010 U
Aroclor 1260	0.034		0.010 U
Total Detected PCB aroclors	0.000064		0.000
PCB Congeners (ng/l)			
2-MonoCB-(1)			0.035 J
3-MonoCB-(2)			0.016 U
4-MonoCB-(3)			0.018 U
22'-DiCB-(4)			0.22
2,3-DiCB-(5)			0.015 U
2,3'-DiCB-(6)			0.042 J
2,4-DiCB-(7)			0.013 U
2,4'-DiCB-(8)			0.20
2,5-DiCB-(9)			0.013 U
2,6-DiCB-(10)			0.015 U
3,3'-DiCB-(11)			0.44
DiCB-(12)+(13)			0.013 U
3,5-DiCB-(14)			0.013 U
4,4'-DiCB-(15)			0.12
22'3-TriCB-(16)			0.16
22'4-TriCB-(17)			0.13
TriCB-(18)+(30)			0.27
22'6-TriCB-(19)			0.051 J
TriCB-(20) + (28)			0.39
TriCB-(21)+(33)			0.26
234'-TriCB-(22)			0.17
235-TriCB-(23)			0.015 U
236-TriCB-(24)			0.015 U
23'4-TriCB-(25)			0.03 J
TriCB-(26)+(29)			0.0680 J
23'6-TriCB-(27)			0.021 J
24'5-TriCB-(31)			0.34
24'6-TriCB-(32)			0.081 J

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-1 11/18/2013
23'5'-TriCB-(34)			0.014 U
33'4-TriCB-(35)			0.013 U
33'5-TriCB-(36)			0.012 U
344'-TriCB-(37)			0.12
345-TriCB-(38)			0.014 U
34'5-TriCB-(39)			0.013 U
TetraCB-(40)+(41)+(71)			0.16 J
22'34'-TetraCB-(42)			0.079 J
22'35-TetraCB-(43)			0.033 U
TetraCB-(44)+(47)+(65)			0.25 J
TetraCB-(45)+(51)			0.050 J
22'36'-TetraCB-(46)			0.025 U
22'45-TetraCB-(48)			0.055 J
TetraCB-(49)+TetraCB-(69)			0.13 J
TetraCB-(50)+(53)			0.032 J
22'55'-TetraCB-(52)			0.22
22'66'-TetraCB-(54)			0.0094 U
233'4-TetraCB-(55)			0.015 U
233'4'-Tetra CB(56)			0.10
233'5-TetraCB-(57)			0.014 U
233'5'-TetraCB-(58)			0.014 U
TetraCB-(59)+(62)+(75)			0.025 J
2344'-TetraCB -(60)			0.053 J
TetraCB-(61)+(70)+(74)+(76)			0.32 J
234'5-TetraCB-(63)			0.013 U
234'6-TetraCB-(64)			0.13
23'44'-TetraCB-(66)			0.14
23'45-TetraCB-(67)			0.014 U
23'45'-TetraCB-(68)			0.013 U
23'55'-TetraCB-(72)			0.014 U
23'5'6-TetraCB-(73)			0.014 U
33'44'-TetraCB-(77)			0.024 J
33'45-TetraCB-(78)			0.015 U
33'45'-TetraCB(79)			0.013 U
33'55'-TetraCB-(80)			0.013 U
344'5-TetraCB-(81)			0.018 U
22'33'4-PentaCB-(82)			0.037 J
PentaCB-(83)+(99)			0.11 J
22'33'6-PentaCB-(84)			0.061 U
PentaCB-(85)+(116)+(117)			0.036 J
PentaCB-(86)(87)(97)(109)(119)(125)			0.17 J
PentaCB-(88)+(91)			0.030 J
22'346'-PentaCB-(89)			0.020 U
PentaCB-(90)+(101)+(113)			0.20 J
22'355'-PentaCB-(92)			0.038 J
PentaCB-(93)+(98)+(100)+(102)			0.019 U
22'356'-PentaCB-(94)			0.020 U
22'35'6-PentaCB-(95)			0.16
22'366'-PentaCB-(96)			0.010 U
22'45'6-PentaCB-(103)			0.017 U
22'466'-PentaCB-(104)			0.0087 U
233'44'-PentaCB-(105)			0.12
233'45-PentaCB-(106)			0.016 U
233'4'5-PentaCB-(107)			0.015 U
PentaCB-(108)+(124)			0.015 U
PentaCB-(110)+(115)			0.34
233'55'-PentaCB-(111)			0.013 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-1 11/18/2013
233'56-PentaCB-(112)			0.014 U
2344'5-PentaCB-(114)			0.018 U
23'44'5-PentaCB-(118)			0.24
23'455'-PentaCB-(120)			0.013 U
23'45'6-PentaCB-(121)			0.014 U
233'4'5'-PentaCB-(122)			0.017 U
23'44'5'-PentaCB-(123)			0.019 U
33'44'5-PentaCB-(126)			0.018 U
33'455'-PentaCB-(127)			0.016 U
HexaCB-(128)+(166)			0.06 U
HexaCB-(129)+(138)+(163)			0.40
22'33'45'-HexaCB-(130)			0.034 U
22'33'46-HexaCB-(131)			0.039 U
22'33'46'-HexaCB-(132)			0.12
22'33'55'-HexaCB-(133)			0.032 U
HexaCB-(134)+(143)			0.035 U
HexaCB-(135)+(151)			0.08 J
22'33'66'-HexaCB-(136)			0.031 J
22'344'5-HexaCB-(137)			0.034 U
HexaCB-(139)+(140)			0.029 U
22'3455'-HexaCB-(141)			0.06 J
22'3456-HexaCB-(142)			0.034 U
22'345'6-HexaCB-(144)			0.030 U
22'3466'-HexaCB-(145)			0.023 U
22'34'55'-HexaCB-(146)			0.037 J
HexaCB-(147)+(149)			0.20
22'34'56'-HexaCB-(148)			0.030 U
22'34'66'-HexaCB-(150)			0.021 U
22'3566'-HexaCB-(152)			0.023 U
HexaCB-(153)+(168)			0.22
22'44'56'-HexaCB-(154)			0.027 U
22'44'66'-HexaCB-(155)			0.023 U
HexaCB-(156)+(157)			0.045 J
233'44'6-HexaCB-(158)			0.036 U
233'455'-HexaCB-(159)			0.018 U
233'456-HexaCB-(160)			0.023 U
233'45'6-HexaCB-(161)			0.023 U
233'4'55'-HexaCB-(162)			0.018 U
233'4'5'6-HexaCB-(164)			0.024 J
233'55'6-HexaCB-(165)			0.025 U
23'44'55'-HexaCB-(167)			0.020 U
33'44'55'-HexaCB-(169)			0.021 U
22'33'44'5-HeptaCB-(170)			0.08 J
HeptaCB-(171)+(173)			0.028 U
22'33'455'-HeptaCB-(172)			0.028 U
22'33'456'-HeptaCB-(174)			0.061 J
22'33'45'6-HeptaCB-(175)			0.024 U
22'33'466'-HeptaCB-(176)			0.018 U
22'33'45'6'-HeptaCB-(177)			0.033 J
22'33'55'6-HeptaCB-(178)			0.025 U
22'33'566'-HeptaCB-(179)			0.018 U
HeptaCB-(180)+(193)			0.16 J
22'344'56-HeptaCB-(181)			0.026 U
22'344'56'-HeptaCB-(182)			0.025 U
22'344'5'6-HeptaCB-(183)			0.035 J
22'344'66'-HeptaCB-(184)			0.017 U
22'3455'6-HeptaCB-(185)			0.030 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-1 11/18/2013
22'34566'-HeptaCB-(186)			0.018 U
22'34'55'6-HeptaCB-(187)			0.07 J
22'34'566'-HeptaCB-(188)			0.021 U
233'44'55'-HeptaCB-(189)			0.013 U
233'44'56-HeptaCB-(190)			0.022 U
233'44'5'6-HeptaCB-(191)			0.020 U
233'455'6-HeptaCB-(192)			0.021 U
22'33'44'55'-OctaCB-(194)			0.039 J
22'33'44'56-OctaCB-(195)			0.023 U
22'33'44'56'-OctaCB-(196)			0.020 U
22'33'44'66'OctaCB-(197)			0.014 U
OctaCB-(198)+(199)			0.048 J
22'33'4566'-OctaCB-(200)			0.013 U
22'33'45'66'-OctaCB-(201)			0.013 U
22'33'55'66'-OctaCB-(202)			0.018 U
22'344'55'6-OctaCB-(203)			0.026 J
22'344'566'-OctaCB-(204)			0.014 U
233'44'55'6-OctaCB-(205)			0.019 U
22'33'44'55'6-NonaCB-(206)			0.026 U
22'33'44'566'-NonaCB-(207)			0.020 U
22'33'455'66'-NonaCB-(208)			0.024 U
DecaCB-(209)			0.016 U
PCB Homologs (ng/l)			
Monochlorobiphenyl			0.035
Dichlorobiphenyl			1.0
Trichlorobiphenyl			2.1
Tetrachlorobiphenyl			1.8
Pentachlorobiphenyl			1.5
Hexachlorobiphenyl			1.2
Heptachlorobiphenyl			0.44
Octachlorobiphenyl			0.11
Nonachlorobiphenyl			0.026 U
Decachlorobiphenyl			0.016 U
Total Detected PCBs (Method 1668	0.064	400	8.2
Phthalates (ug/l)			
Bis(2-ethylhexyl) phthalate	2.2	5	4.6 U
Butylbenzyl phthalate	3		6.3 U
Dibutyl phthalate	3		6.3 U
Diethyl phthalate	3		6.3 U
Dimethyl phthalate	3		6.3 U
Di-n-octyl phthalate	3		6.3 U
Pesticides (ug/l)			
2,4'-DDD	0.00031		0.010 U
2,4'-DDE	0.00022		0.010 U
2,4'-DDT	0.2		0.010 U
4,4'-DDD	0.00031		0.010 U
4,4'-DDE	0.00022		0.010 U
4,4'-DDT	0.00022		0.010 U
Aldrin	0.00005		0.010 U
alpha-BHC	0.0049		0.010 U
beta-BHC	0.017		0.010 U
cis-Chlordane	0.00081		0.010 U
cis-Nonachlor	0.19		0.010 U
Chlordane Technical			0.38 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-1 11/18/2013
delta-BHC	0.052		0.010 U
Dieldrin	0.000054		0.010 U
Endosulfan I	0.051		0.010 U
Endosulfan II	0.051		0.010 U
Endosulfan sulfate	89		0.0101 U
Endrin	0.036		0.010 U
Endrin aldehyde			0.01 U
Endrin ketone			0.010 U
gamma-BHC	0.037		0.010 U
Heptachlor	0.000079		0.010 U
Heptachlor epoxide	0.000039		0.010 U
Hexachlorobenzene	0.00029		0.030 U
Hexachlorobutadiene	0.86		0.010 U
Hexachloroethane	3.3		
Methoxychlor	0.03		0.030 U
Mirex	NC		0.010 U
Oxychlordane	0.19		0.010 U
Toxaphene	0.0002		0.38 U
trans-Chlordane	0.00081		0.010 U
trans-Nonachlor	0.19		0.010 U
Dioxins (pg/l)			
1,2,3,4,6,7,8-HeptaCDD			34
1,2,3,4,6,7,8-HeptaCDF			19 U
1,2,3,4,7,8,9-HeptaCDF			1.3 U
1,2,3,4,7,8-HexaCDD			1.0 U
1,2,3,4,7,8-HexaCDF			1.1 U
1,2,3,6,7,8-HexaCDD			1.1 U
1,2,3,6,7,8-HexaCDF			1.0 J
1,2,3,7,8,9-HexaCDD			1.2 U
1,2,3,7,8,9-HexaCDF			1.4 U
1,2,3,7,8-PentaCDD			1.5 U
1,2,3,7,8-PentaCDF			1.3 U
2,3,4,6,7,8-HexaCDF			1.1 U
2,3,4,7,8-PentaCDF			1.4 U
2,3,7,8-TetraCDD	0.0051		1.2 U
2,3,7,8-TetraCDF			1.0 U
OCDD			256
OCDF			34
HeptaCDD homologs			64
HeptaCDF homologs			26
HexaCDD homologs			7.5 J
HexaCDF homologs			18
PentaCDD homologs			1.5 U
PentaCDF homologs			1.4 U
TetraCDD homologs			1.2 U
TetraCDF homologs			1.0 U
Total Dioxin TEQ	0.0051		2.6
Butyltins (ug/l)			
Butyltin ion			0.20 U
Dibutyltin ion			0.29 U
Tributyltin ion	0.072		0.19 U
Total Metals (ug/l)			
Aluminum			322
Antimony	6		0.50 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-1 11/18/2013
Arsenic	0.045	2	0.50 U
Cadmium	0.094	0.7	0.96 J
Chromium	100	7	2 J
Copper	2.7	60	6.5
Lead	0.54	50	2.34
Manganese	50		28
Mercury	0.77	0.2	0.040 U
Nickel	16	8	1.0
Silver	0.12	0.1	0.10 U
Zinc	36	500	80
Dissolved Metals (ug/l)			
Aluminum			28 J
Antimony	6		0.50 U
Arsenic	0.045	2	0.50 U
Cadmium	0.094	0.7	0.10 J
Chromium	100	7	0.50 U
Copper	2.7	60	5.1
Lead	0.54	50	0.36
Manganese	50		17
Mercury	0.77	0.2	0.040 U
Nickel	16	8	0.74 J
Silver	0.12	0.1	0.10 U
Zinc	36	500	68
Pertroleum Hydrocarbons (mg/l)			
Gasoline			0.050 U
Diesel			0.10 U
Oil			0.52
TSS (mg/l)		60	5.0 U
TOC (mg/l)			8.5

U - Not detectet at noted detection limit
J- Estimated value

1 - Table 3-1 PH JSCS Guidance, 7/16/2007 revision
2 - October 2010, DEQ Guidance for Evaluating Stormwater Pathway at Upland Sites, Appendix E, Tool For Evaluating Stormwater Data

Detected concentration > 10 x SLV
Detected concentration > 100 x SLV
Detected concentration > 1000 x SLV

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
PAHs (ug/kg)				
2-Methylnaphthalene	200			412 U
Acenaphthene	300			206 U
Acenaphthylene	200			206 U
Anthracene	845			206 U
Benzo(a)anthracene	1050			425
Benzo(a)pyrene	1450			682
Benzo(b+k)fluoranthene	13000			1084
Benzo(g,h,i)perylene	300			646
Chrysene	1290			583
Dibenzo(a,h)anthracene	1300			206 U
Fluoranthene	2230			965
Fluorene	536			206 U
Indeno(1,2,3-cd)pyrene	100			393 J
Naphthalene	561			412 U
Phenanthrene	1170			505
Pyrene	1520			1160
Total PAHs (BaP TEQ)		162		891
Total Detected PAHs			15000	6443
PCBs (ug/kg)				
Aroclor 1016	530			5.3 U
Aroclor 1221				5.3 U
Aroclor 1232				5.3 U
Aroclor 1242				5.3 U
Aroclor 1248	1500			5.3 U
Aroclor 1254	300			11
Aroclor 1260	200			9.4 J
Total Detected PCB Aroclors		17	150	20
PCB Congeners (pg/g)				
CL1-PCB-1				0.0048 J
CL1-PCB-2				0.0019 U
CL1-PCB-3				0.0047 J
CL2-PCB-4				0.0443
CL2-PCB-5				0.0021 U
CL2-PCB-6				0.023
CL2-PCB-7				0.0039 J
CL2-PCB-8				0.083
CL2-PCB-9				0.0064 J
CL2-PCB-10				0.0019 J
CL2-PCB-11				0.045
CL2-PCB-12/13				0.016 J
CL2-PCB-14				0.0017 U
CL2-PCB-15				0.18
CL3-PCB-16				0.12
CL3-PCB-17				0.14

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
CL3-PCB-19				0.041
CL3-PCB-21/33				0.32
CL3-PCB-22				0.22
CL3-PCB-23				0.0019 U
CL3-PCB-24				0.0050 J
CL3-PCB-25				0.042
CL3-PCB-26/29				0.086
CL3-PCB-27				0.031
CL3-PCB-28/20				0.61
CL3-PCB-30/18				0.30
CL3-PCB-31				0.47
CL3-PCB-32				0.11
CL3-PCB-34				0.0019 U
CL3-PCB-35				0.011
CL3-PCB-36				0.0017 U
CL3-PCB-37				0.19
CL3-PCB-38				0.0019 U
CL3-PCB-39				0.0018 U
CL4-PCB-41/40/71				0.31
CL4-PCB-42				0.18
CL4-PCB-43				0.026
CL4-PCB-44/47/65				0.67
CL4-PCB-45/51				0.12
CL4-PCB-46				0.049
CL4-PCB-48				0.097
CL4-PCB-50/53				0.097
CL4-PCB-52				1.2
CL4-PCB-54				0.0019 U
CL4-PCB-55				0.0019 U
CL4-PCB-56				0.15
CL4-PCB-57				0.0018 U
CL4-PCB-58				0.0018 U
CL4-PCB-59/62/75				0.057
CL4-PCB-60				0.064
CL4-PCB-61/70/74/76				0.92
CL4-PCB-63				0.012
CL4-PCB-64				0.32
CL4-PCB-66				0.29
CL4-PCB-67				0.011
CL4-PCB-68				0.0016 U
CL4-PCB-69/49				0.36
CL4-PCB-72				0.0018 U
CL4-PCB-73				0.0015 U
CL4-PCB-77	52			0.039
CL4-PCB-78				0.0018 U
CL4-PCB-79				0.029
CL4-PCB-80				0.0016 U

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
CL4-PCB-81	17			0.0020 U
CL5-PCB-82				0.17
CL5-PCB-83/99				0.72
CL5-PCB-84				0.49
CL5-PCB-88/91				0.20
CL5-PCB-89				0.013
CL5-PCB-113/90/101				1.6
CL5-PCB-92				0.27
CL5-PCB-93/98/11/102				0.050
CL5-PCB-94				0.0070 J
CL5-PCB-95				1.5
CL5-PCB-96				0.0097
CL5-PCB-103				0.0066 J
CL5-PCB-104				0.0016 U
CL5-PCB-105	170			0.56
CL5-PCB-106				0.0017 U
CL5-PCB-107/124				0.078
CL5-PCB-108/119/86/97/125/87				1.0
CL5-PCB-109				0.051
CL5-PCB-110/115				2.3
CL5-PCB-111				0.0017 U
CL5-PCB-112				0.0018 U
CL5-PCB-114	170			0.028
CL5-PCB-117/116/85				0.16
CL5-PCB-118	120			1.4
CL5-PCB-120				0.0016 U
CL5-PCB-121				0.0018 U
CL5-PCB-122				0.016
CL5-PCB-123	210			0.018
CL5-PCB-126	0.05			0.0041 J
CL5-PCB-127				0.0017 U
CL6-PCB-128/166				0.41
CL6-PCB-129/138/163				3.0
CL6-PCB-130				0.16
CL6-PCB-131				0.039
CL6-PCB-132				0.95
CL6-PCB-133				0.028
CL6-PCB-134/143				0.13
CL6-PCB-151/135				0.68
CL6-PCB-136				0.30
CL6-PCB-137				0.14
CL6-PCB-139/140				0.039
CL6-PCB-141				0.49
CL6-PCB-142				0.0027 U
CL6-PCB-144				0.097
CL6-PCB-145				0.0019 U
CL6-PCB-146				0.30

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
CL6-PCB-147/149				1.9
CL6-PCB-148				0.0024 U
CL6-PCB-150				0.0019 U
CL6-PCB-152				0.0018 U
CL6-PCB-153/168				1.8
CL6-PCB-154				0.012
CL6-PCB-155				0.0021 U
CL6-PCB-156/157	210			0.27
CL6-PCB-158				0.27
CL6-PCB-159				0.017
CL6-PCB-160				0.0019 U
CL6-PCB-161				0.0018 U
CL6-PCB-162				0.0054 U
CL6-PCB-164				0.18
CL6-PCB-165				0.0019 U
CL6-PCB-167	210			0.086
CL6-PCB-169	0.21			0.0026 U
CL7-PCB-170				0.46
CL7-PCB-171/173				0.15
CL7-PCB-172				0.076
CL7-PCB-174				0.50
CL7-PCB-175				0.020
CL7-PCB-176				0.057
CL7-PCB-177				0.27
CL7-PCB-178				0.080
CL7-PCB-179				0.18
CL7-PCB-180/193				1.1
CL7-PCB-181				0.0017 U
CL7-PCB-182				0.0027 U
CL7-PCB-183				0.30
CL7-PCB-184				0.0018 U
CL7-PCB-185				0.0016 U
CL7-PCB-186				0.0020 U
CL7-PCB-187				0.50
CL7-PCB-188				0.0024 U
CL7-PCB-189	1200			0.018
CL7-PCB-190				0.087
CL7-PCB-191				0.018
CL7-PCB-192				0.0015 U
CL8-PCB-194				0.15
CL8-PCB-195				0.067
CL8-PCB-196				0.089
CL8-PCB-197				0.0071 J
CL8-PCB-198/199				0.18
CL8-PCB-200				0.019
CL8-PCB-201				0.022
CL8-PCB-202				0.036

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
CL8-PCB-203				0.11
CL8-PCB-204				0.0017 U
CL8-PCB-205				0.0091 J
CL9-PCB-206				0.11
CL9-PCB-207				0.011
CL9-PCB-208				0.033
CL10-PCB-209				0.12
PCB Homologs (ug/kg)				
Monochlorobiphenyl				0.0095
Dichlorobiphenyl				0.41
Trichlorobiphenyl				2.7
Tetrachlorobiphenyl				5.0
Pentachlorobiphenyl				11
Hexachlorobiphenyl				11
Heptachlorobiphenyl				3.8
Octachlorobiphenyl				0.69
Nonachlorobiphenyl				0.16
Decachlorobiphenyl				0.12
Total Detected PCBs (Method 1618)	0.39	17	150	35
Phthalates (ug/kg)				
Bis(2-ethylhexyl) phthalate	330		30000	2060 U
Butylbenzyl phthalate				2060 U
Diethyl phthalate	600			2060 U
Dimethyl phthalate				2060 U
Dibutyl phthalate				2060 U
Di-n-octyl phthalate	60			4120 U
Pesticides (ug/kg)				
2,4'-DDD	0.33	28		2.0 U
2,4'-DDE	0.33	31.3		2.0 U
2,4'-DDT	0.33	62.9		2.0 U
4,4'-DDD	0.33	28		2.0 U
4,4'-DDE	0.33	31.3		2.0 U
4,4'-DDT	0.33	62.9		5.9 U
Aldrin	40	0.84		2.0 U
alpha-Hexachlorocyclohexane				2.0 U
beta-Hexachlorocyclohexane				2.0 U
Chlordane Technical				59 U
cis-Chlordane	0.37	1.87		2.0 U
cis-Nonachlor				2.0 U
delta-Hexachlorocyclohexane	4.99	2.35		2.0 U
Dieldrin	0.0081	21.5		2.0 U
alpha-Endosulfan				2.0 U
beta-Endosulfan				2.0 U
Endosulfan sulfate				2.0 U

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
Endrin	207			2.0 U
Endrin aldehyde				2.0 U
Endrin ketone		8.5		2.0 U
gamma-Hexachlorocyclohexane		1.38		2.0 U
Heptachlor	10			2.0 U
Heptachlor epoxide	16			2.0 U
Hexachlorobenzene	19			4.9 U
Hexachlorobutadiene	600			2.0 U
Methoxychlor				5.9 U
Mirex				2.0 U
Oxychlordane				2.0 U
Toxaphene				59 U
trans-Chlordane	0.37			2.0 U
trans-Nonachlor				2.0 U
Dioxins (pg/g)				
1,2,3,4,6,7,8-HeptaCDD	690			55
1,2,3,4,6,7,8-HeptaCDF	690			19
1,2,3,4,7,8,9-HeptaCDF	690			1.1 J
1,2,3,4,7,8-HexaCDD				1.0 U
1,2,3,4,7,8-HexaCDF	2.7			0.82 U
1,2,3,6,7,8-HexaCDD				2.4 U
1,2,3,6,7,8-HexaCDF	2.7			0.68 J
1,2,3,7,8,9-HexaCDD				2.4 J
1,2,3,7,8,9-HexaCDF	2.7			0.12 U
1,2,3,7,8-PentaCDD	2.6			0.74 J
1,2,3,7,8-PentaCDF	2.6			0.21 J
2,3,4,6,7,8-HexaCDF	2.7			0.56 J
2,3,4,7,8-PentaCDF	0.030	1.06		0.41 U
2,3,7,8-TetraCDD	0.0091			0.23 U
2,3,7,8-TetraCDF	0.77			0.44 J
OCDD	23000			438
OCDF	23000			58
Total Hepta CDD				142
Total Hepta CDF				48
Total Hexa CDD				17
Total Hexa CDF				18
Total Penta CDD				1.5 J
Total Penta CDF				5.2
Total Tetra CDD				0.44 U
Total Tetra CDF				0.66 J
Total TEQ	0.091			2.4
Butyltins (ug/kg)				
Butyltin ion				6.1
Dibutyltin ion				3.0 J
Tributyltin ion	2.3			3.8 U

Table 3
Manhole Solids Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 22

Chemical	Portland Harbor JSCS SLV[1]	Portland Harbor PRG SLV[2]	DEQ Appendix E "Typical PH Values"[3]	SWSP-MH
Metals (mg/kg)				
Aluminum				4730
Antimony	64			0.58 U
Arsenic	7	17	10	1.6
Cadmium	1	3.51	2	0.33
Chromium	111	90	130	9.3
Copper	149	149	500	26
Lead	17	91.3	300	22
Manganese	1100			204
Mercury	0.07	0.041	0.35	0.047 U
Nickel	48.6	36	60	12
Silver	5	1.72	0.7	0.12 U
Zinc	459	315	1000	154
Total Petroluem Hydrcarbons (mg/kg)				
Gasoline				3.0 U
Diesel				105 U
Oil				868

U - Not detected at noted detection limit

J - Estimated value

1 - Table 3-1 PH JSCS Guidance, 7/16/2007 revision

2 - April 21, 2010 EPA letter to Lower Willamette Group and attached tables dated March 24, 2010

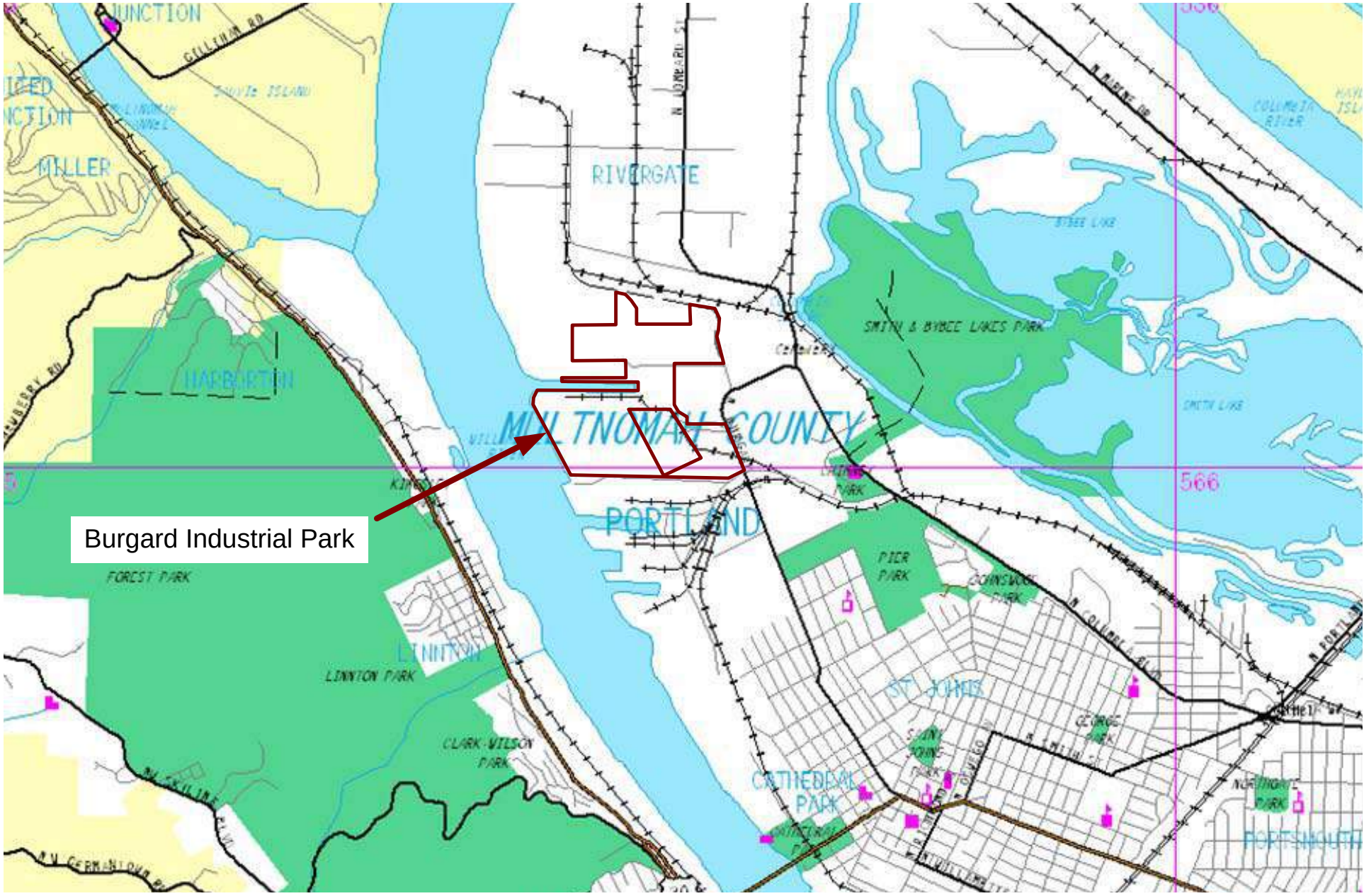
3 - October 2010, DEQ Guidance for Evaluating Stormwater Pathway at Upland Sites, Appendix E, Tool For Evaluating Stormwater Data

Detected concentration > 10 x Highest SLV

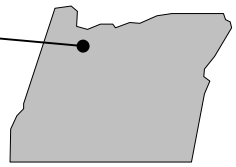
Detected concentration > 100 x Highest SLV

Detected concentration > 1000 x Highest SLV

Figures



Portland, Oregon



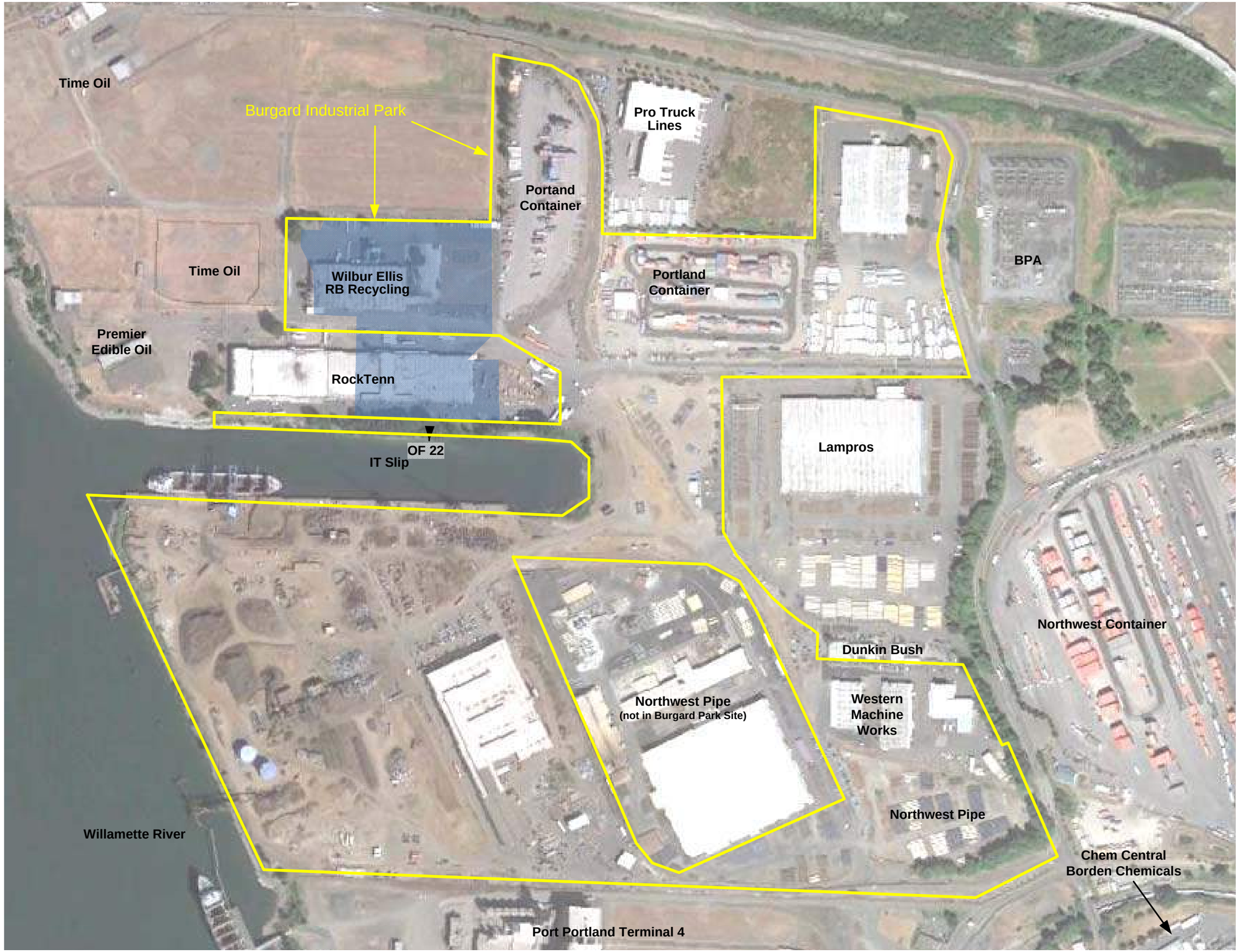
N

Approximate Scale

2700 feet

Figure 1
Site Location Map
Burgard Industrial Park

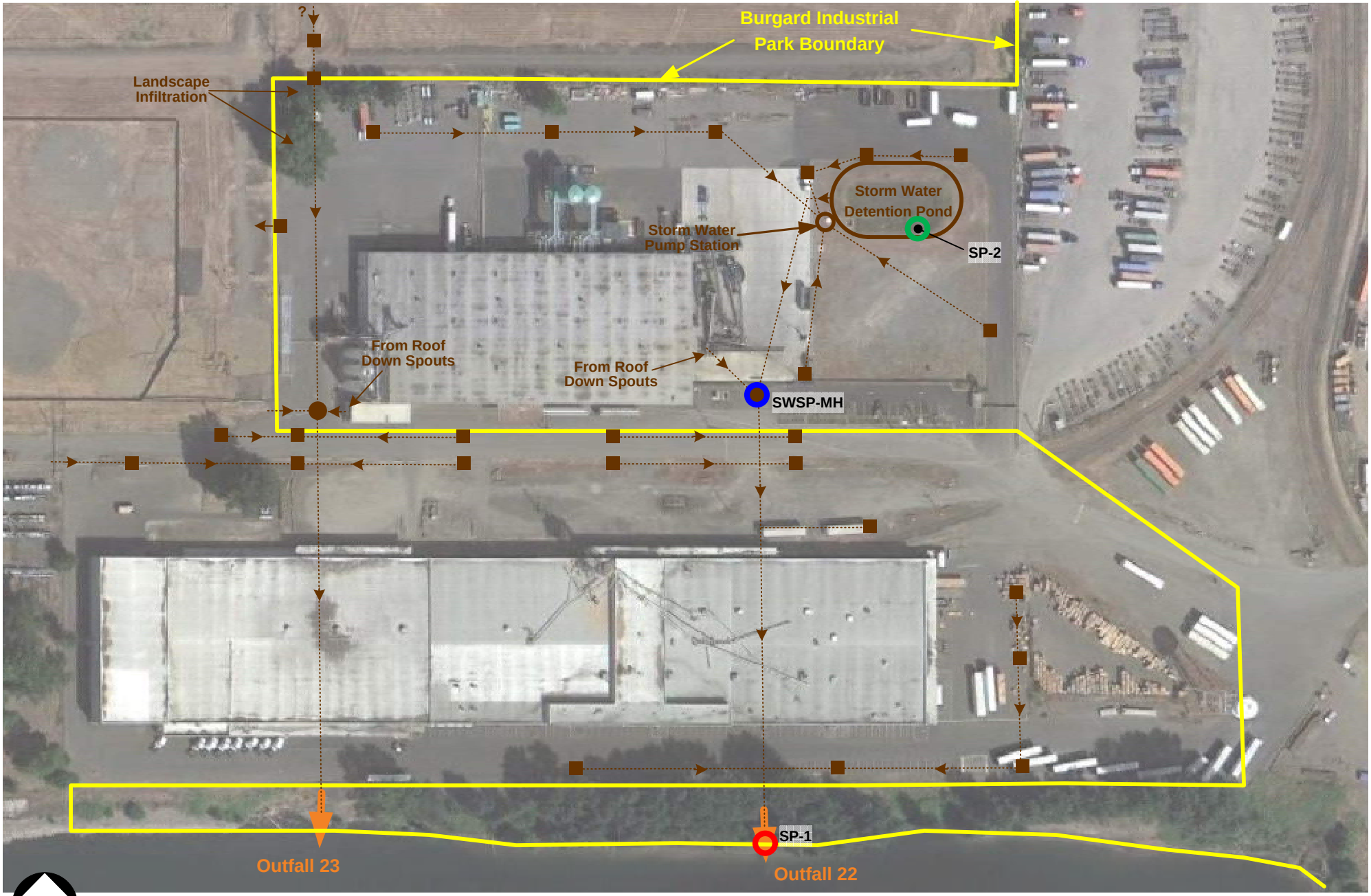
BRIDGEWATER GROUP, INC.



Base Photograph August 2012

Figure 2
Burgard Industrial Park Site Plan
Portland, Oregon

BRIDGEWATER GROUP, INC.



N

Approximate Scale

160 feet

Base photograph August 2011

- Catch Basin
- Manhole
- Manhole Solids Sample Location
- Storm Water Sample Location
- Future Pond Water Sample Location

Figure 3
Basin 22 Sample Locations
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

Appendix A – Analytical Laboratory Reports

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Tuesday, December 24, 2013

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

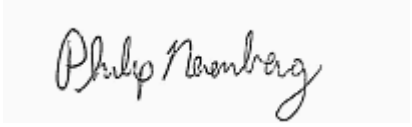
RE: Schnitzer-Burgard / 8001-20

Enclosed are the results of analyses for work order A3K0592, which was received by the laboratory on 11/19/2013 at 3:30:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B22-SP1-20131118	A3K0592-01	Water	11/18/13 13:20	11/19/13 15:30
B20-SP-20A-1-20131118	A3K0592-02	Water	11/18/13 14:30	11/19/13 15:30
B18-SP1-20131118	A3K0592-03	Water	11/18/13 15:10	11/19/13 15:30
B19-SP-19-1-20131119	A3K0592-04	Water	11/19/13 09:45	11/19/13 15:30

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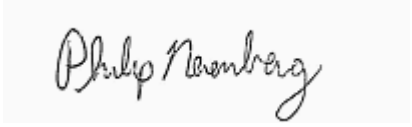

Philip Nerenberg, Lab Director

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503-718-2323 Phone
503-718-0333 Fax

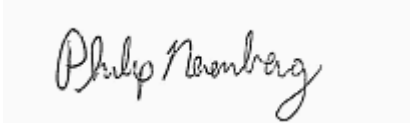
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.0990	0.198	mg/L	1	11/24/13 20:59	NWTPH-Dx	
Oil	**0.517**	0.198	0.396	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.102	0.204	mg/L	1	11/24/13 22:30	NWTPH-Dx	
Oil	**1.54**	0.204	0.408	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 91 %*	*Limits: 50-150 %*	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.485	0.971	mg/L	5	11/24/13 23:07	NWTPH-Dx	
Oil	**2.97**	0.971	1.94	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*	"	"	"	*S-05*
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.472	0.943	mg/L	5	11/24/13 23:43	NWTPH-Dx	
Oil	**2.28**	0.943	1.89	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 97 %*	*Limits: 50-150 %*	"	"	"	*S-05*

Apex Laboratories



Philip Nerenberg, Lab Director

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503-718-2323 Phone
503-718-0333 Fax

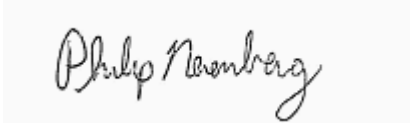
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 12:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 13:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 13:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*104 %*	*Limits: 50-150 %*	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 13:59	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.00962	0.0192	ug/L	1	12/05/13 10:56	EPA 8082A	
Aroclor 1221	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1232	ND	0.0192	0.0192	"	"	"	"	
Aroclor 1242	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1248	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1254	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1260	ND	0.00962	0.0192	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 71 %*	*Limits: 40-135 %*	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.00980	0.0196	ug/L	1	12/05/13 11:14	EPA 8082A	
Aroclor 1221	ND	0.00980	0.0196	"	"	"	"	
Aroclor 1232	ND	0.00980	0.0196	"	"	"	"	
Aroclor 1242	**0.0212**	0.00980	0.0196	"	"	"	"	P-10
Aroclor 1248	ND	0.00980	0.0196	"	"	"	"	
Aroclor 1254	**0.0379**	0.00980	0.0196	"	"	"	"	P-10
Aroclor 1260	**0.0233**	0.00980	0.0196	"	"	"	"	P-10
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 63 %*	*Limits: 40-135 %*	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.0194	0.0388	ug/L	1	12/05/13 11:32	EPA 8082A	
Aroclor 1221	ND	0.0194	0.0388	"	"	"	"	
Aroclor 1232	ND	0.0194	0.0388	"	"	"	"	
Aroclor 1242	**0.0303**	0.0194	0.0388	"	"	"	"	J
Aroclor 1248	ND	0.0194	0.0388	"	"	"	"	
Aroclor 1254	**0.0395**	0.0194	0.0388	"	"	"	"	P-10
Aroclor 1260	**0.0204**	0.0194	0.0388	"	"	"	"	J
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 59 %*	*Limits: 40-135 %*	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.0190	0.0381	ug/L	1	12/05/13 11:50	EPA 8082A	
Aroclor 1221	ND	0.0190	0.0381	"	"	"	"	
Aroclor 1232	ND	0.0190	0.0381	"	"	"	"	
Aroclor 1242	**0.181**	0.0190	0.0381	"	"	"	"	P-10
Aroclor 1248	ND	0.0190	0.0381	"	"	"	"	
Aroclor 1254	**0.316**	0.0190	0.0381	"	"	"	"	P-10
Aroclor 1260	**0.162**	0.0190	0.0381	"	"	"	"	P-10

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 53 %*	*Limits: 40-135 %*	1	"	EPA 8082A	

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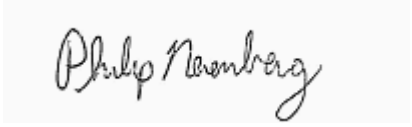

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.0101	0.0202	ug/L	1	11/27/13 13:32	EPA 8081B	
alpha-BHC	ND	0.0101	0.0202	"	"	"	"	
beta-BHC	ND	0.0101	0.0202	"	"	"	"	
delta-BHC	ND	0.0101	0.0202	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0101	0.0202	"	"	"	"	
cis-Chlordane	ND	0.0101	0.0202	"	"	"	"	
trans-Chlordane	ND	0.0101	0.0202	"	"	"	"	
4,4'-DDD	ND	0.0101	0.0202	"	"	"	"	
4,4'-DDE	ND	0.0101	0.0202	"	"	"	"	
4,4'-DDT	ND	0.0101	0.0202	"	"	"	"	
Dieldrin	ND	0.0101	0.0202	"	"	"	"	
Endosulfan I	ND	0.0101	0.0202	"	"	"	"	
Endosulfan II	ND	0.0101	0.0202	"	"	"	"	
Endosulfan sulfate	ND	0.0101	0.0202	"	"	"	"	
Endrin	ND	0.0101	0.0202	"	"	"	"	
Endrin Aldehyde	ND	0.0101	0.0202	"	"	"	"	
Endrin ketone	ND	0.0101	0.0202	"	"	"	"	
Heptachlor	ND	0.0101	0.0202	"	"	"	"	
Heptachlor epoxide	ND	0.0101	0.0202	"	"	"	"	
Methoxychlor	ND	0.0303	0.0606	"	"	"	"	
Chlordane (Technical)	ND	0.380	0.758	"	"	"	"	
Toxaphene (Total)	ND	0.380	0.758	"	"	"	"	
cis-Nonachlor	ND	0.0101	0.0202	"	"	"	"	
2,4'-DDD	ND	0.0101	0.0202	"	"	"	"	
2,4'-DDE	ND	0.0101	0.0202	"	"	"	"	
2,4'-DDT	ND	0.0101	0.0202	"	"	"	"	
Hexachlorobenzene	ND	0.0303	0.0606	"	"	"	"	
Hexachlorobutadiene	ND	0.0101	0.0202	"	"	"	"	
Mirex	ND	0.0101	0.0202	"	"	"	"	
Oxychlordane	ND	0.0101	0.0202	"	"	"	"	
trans-Nonachlor	ND	0.0101	0.0202	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*87 %*	*Limits: 30-135 %*	"	"	"	

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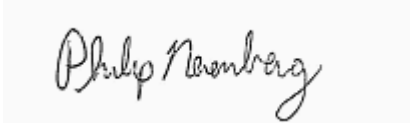

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B20-SP-20A-1-20131118 (A3K0592-02RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.00952	0.0190	ug/L	1	11/27/13 13:50	EPA 8081B	
alpha-BHC	ND	0.00952	0.0190	"	"	"	"	
beta-BHC	ND	0.00952	0.0190	"	"	"	"	
delta-BHC	ND	0.00952	0.0190	"	"	"	"	
gamma-BHC (Lindane)	ND	0.00952	0.0190	"	"	"	"	
cis-Chlordane	ND	0.00952	0.0190	"	"	"	"	
trans-Chlordane	ND	0.00952	0.0190	"	"	"	"	
4,4'-DDD	ND	0.00952	0.0190	"	"	"	"	
4,4'-DDE	ND	0.00952	0.0190	"	"	"	"	
4,4'-DDT	ND	0.00952	0.0190	"	"	"	"	
Dieldrin	ND	0.00952	0.0190	"	"	"	"	
Endosulfan I	ND	0.0286	0.0286	"	"	"	"	R-02
Endosulfan II	ND	0.00952	0.0190	"	"	"	"	
Endosulfan sulfate	ND	0.00952	0.0190	"	"	"	"	
Endrin	ND	0.00952	0.0190	"	"	"	"	
Endrin Aldehyde	ND	0.00952	0.0190	"	"	"	"	
Endrin ketone	ND	0.00952	0.0190	"	"	"	"	
Heptachlor	ND	0.0190	0.0190	"	"	"	"	
Heptachlor epoxide	ND	0.00952	0.0190	"	"	"	"	
Methoxychlor	ND	0.0286	0.0571	"	"	"	"	
Chlordane (Technical)	ND	0.358	0.714	"	"	"	"	
Toxaphene (Total)	ND	0.358	0.714	"	"	"	"	
cis-Nonachlor	ND	0.00952	0.0190	"	"	"	"	
2,4'-DDD	ND	0.00952	0.0190	"	"	"	"	
2,4'-DDE	ND	0.00952	0.0190	"	"	"	"	
2,4'-DDT	ND	0.0190	0.0190	"	"	"	"	
Hexachlorobenzene	ND	0.0286	0.0571	"	"	"	"	
Hexachlorobutadiene	ND	0.00952	0.0190	"	"	"	"	
Mirex	ND	0.00952	0.0190	"	"	"	"	
Oxychlordane	ND	0.00952	0.0190	"	"	"	"	
trans-Nonachlor	ND	0.00952	0.0190	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 75 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*86 %*	*Limits: 30-135 %*	"	"	"	

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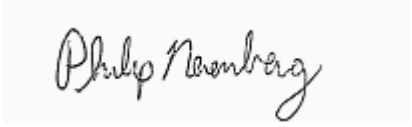

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.00971	0.0194	ug/L	1	11/27/13 14:08	EPA 8081B	
alpha-BHC	ND	0.00971	0.0194	"	"	"	"	
beta-BHC	ND	0.00971	0.0194	"	"	"	"	
delta-BHC	ND	0.00971	0.0194	"	"	"	"	
gamma-BHC (Lindane)	ND	0.00971	0.0194	"	"	"	"	
cis-Chlordane	ND	0.00971	0.0194	"	"	"	"	
trans-Chlordane	ND	0.00971	0.0194	"	"	"	"	
4,4'-DDD	ND	0.00971	0.0194	"	"	"	"	
4,4'-DDE	ND	0.00971	0.0194	"	"	"	"	
4,4'-DDT	ND	0.00971	0.0194	"	"	"	"	
Dieldrin	ND	0.00971	0.0194	"	"	"	"	
Endosulfan I	ND	0.0777	0.0777	"	"	"	"	R-02
Endosulfan II	ND	0.00971	0.0194	"	"	"	"	
Endosulfan sulfate	ND	0.00971	0.0194	"	"	"	"	
Endrin	ND	0.00971	0.0194	"	"	"	"	
Endrin Aldehyde	ND	0.00971	0.0194	"	"	"	"	
Endrin ketone	ND	0.00971	0.0194	"	"	"	"	
Heptachlor	ND	0.00971	0.0194	"	"	"	"	
Heptachlor epoxide	ND	0.00971	0.0194	"	"	"	"	
Methoxychlor	ND	0.0291	0.0583	"	"	"	"	
Chlordane (Technical)	ND	0.365	0.728	"	"	"	"	
Toxaphene (Total)	ND	0.365	0.728	"	"	"	"	
cis-Nonachlor	ND	0.00971	0.0194	"	"	"	"	
2,4'-DDD	ND	0.00971	0.0194	"	"	"	"	
2,4'-DDE	ND	0.00971	0.0194	"	"	"	"	
2,4'-DDT	ND	0.00971	0.0194	"	"	"	"	
Hexachlorobenzene	ND	0.0291	0.0583	"	"	"	"	
Hexachlorobutadiene	ND	0.00971	0.0194	"	"	"	"	
Mirex	ND	0.00971	0.0194	"	"	"	"	
Oxychlordane	ND	0.00971	0.0194	"	"	"	"	
trans-Nonachlor	ND	0.00971	0.0194	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 73 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*75 %*	*Limits: 30-135 %*	"	"	"	

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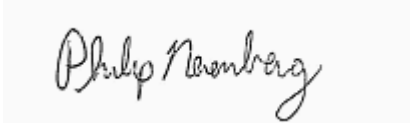

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B19-SP-19-1-20131119 (A3K0592-04RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.00943	0.0189	ug/L	1	11/27/13 14:26	EPA 8081B	
alpha-BHC	ND	0.00943	0.0189	"	"	"	"	
beta-BHC	ND	0.00943	0.0189	"	"	"	"	
delta-BHC	ND	0.00943	0.0189	"	"	"	"	
gamma-BHC (Lindane)	ND	0.00943	0.0189	"	"	"	"	
cis-Chlordane	ND	0.00943	0.0189	"	"	"	"	
trans-Chlordane	ND	0.00943	0.0189	"	"	"	"	
4,4'-DDD	**0.0627**	0.00943	0.0189	"	"	"	"	
4,4'-DDE	**0.0558**	0.00943	0.0189	"	"	"	"	
4,4'-DDT	**0.123**	0.00943	0.0189	"	"	"	"	
Dieldrin	ND	0.00943	0.0189	"	"	"	"	
Endosulfan I	ND	0.0943	0.0943	"	"	"	"	R-02
Endosulfan II	ND	0.00943	0.0189	"	"	"	"	
Endosulfan sulfate	ND	0.00943	0.0189	"	"	"	"	
Endrin	ND	0.00943	0.0189	"	"	"	"	
Endrin Aldehyde	ND	0.00943	0.0189	"	"	"	"	
Endrin ketone	ND	0.00943	0.0189	"	"	"	"	
Heptachlor	ND	0.00943	0.0189	"	"	"	"	
Heptachlor epoxide	ND	0.00943	0.0189	"	"	"	"	
Methoxychlor	ND	0.0283	0.0566	"	"	"	"	
Chlordane (Technical)	ND	0.355	0.708	"	"	"	"	
Toxaphene (Total)	ND	0.355	0.708	"	"	"	"	
cis-Nonachlor	ND	0.0377	0.0377	"	"	"	"	R-02
2,4'-DDD	ND	0.0226	0.0226	"	"	"	"	R-02
2,4'-DDE	ND	0.0189	0.0189	"	"	"	"	
2,4'-DDT	ND	0.0226	0.0226	"	"	"	"	R-02
Hexachlorobenzene	ND	0.0283	0.0566	"	"	"	"	
Hexachlorobutadiene	ND	0.00943	0.0189	"	"	"	"	
Mirex	ND	0.00943	0.0189	"	"	"	"	
Oxychlordane	ND	0.00943	0.0189	"	"	"	"	
trans-Nonachlor	ND	0.00943	0.0189	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*85 %*	*Limits: 30-135 %*	"	"	"	

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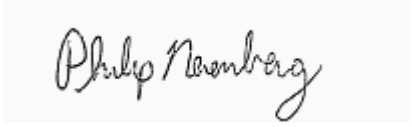

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01RE1)			**Matrix: Water**		**Batch: 3110696**			**R-04**
Acenaphthene	ND	0.0417	0.0833	ug/L	4	11/27/13 15:54	EPA 8270D P/P	
Acenaphthylene	**0.0775**	0.0417	0.0833	"	"	"	"	J
Anthracene	ND	0.0417	0.0833	"	"	"	"	
Benz(a)anthracene	ND	0.0417	0.0833	"	"	"	"	
Benzo(a)pyrene	**0.0484**	0.0417	0.0833	"	"	"	"	J
Benzo(b)fluoranthene	ND	0.0417	0.0833	"	"	"	"	
Benzo(k)fluoranthene	ND	0.0417	0.0833	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.0417	0.0833	"	"	"	"	
Chrysene	ND	0.0417	0.0833	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0417	0.0833	"	"	"	"	
Fluoranthene	ND	0.0417	0.0833	"	"	"	"	
Fluorene	ND	0.0417	0.0833	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0417	0.0833	"	"	"	"	
1-Methylnaphthalene	ND	0.0833	0.167	"	"	"	"	
2-Methylnaphthalene	ND	0.0833	0.167	"	"	"	"	
Naphthalene	ND	0.0833	0.167	"	"	"	"	
Phenanthrene	ND	0.0417	0.0833	"	"	"	"	
Pyrene	ND	0.0417	0.0833	"	"	"	"	
Carbazole	ND	0.0625	0.125	"	"	"	"	
Dibenzofuran	ND	0.0417	0.0833	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.58	9.17	"	"	"	"	
Butyl benzyl phthalate	ND	6.25	12.5	"	"	"	"	
Diethylphthalate	ND	6.25	12.5	"	"	"	"	
Dimethylphthalate	ND	6.25	12.5	"	"	"	"	
Di-n-butylphthalate	ND	6.25	12.5	"	"	"	"	
Di-n-octyl phthalate	ND	6.25	12.5	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 48 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*51 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*78 %*	*Limits: 50-125 %*	"	"	"	

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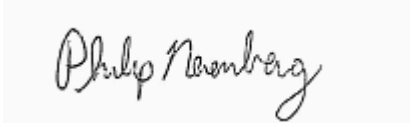

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B20-SP-20A-1-20131118 (A3K0592-02RE1)			**Matrix: Water**		**Batch: 3110696**			**R-04**
Acenaphthene	ND	0.0952	0.190	ug/L	10	11/27/13 16:31	EPA 8270D P/P	
Acenaphthylene	ND	0.0952	0.190	"	"	"	"	
Anthracene	ND	0.0952	0.190	"	"	"	"	
Benz(a)anthracene	ND	0.0952	0.190	"	"	"	"	
Benzo(a)pyrene	**0.155**	0.0952	0.190	"	"	"	"	J
Benzo(b)fluoranthene	**0.136**	0.0952	0.190	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.0952	0.190	"	"	"	"	
Benzo(g,h,i)perylene	**0.0964**	0.0952	0.190	"	"	"	"	J
Chrysene	**0.125**	0.0952	0.190	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.0952	0.190	"	"	"	"	
Fluoranthene	**0.137**	0.0952	0.190	"	"	"	"	J
Fluorene	ND	0.0952	0.190	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0952	0.190	"	"	"	"	
1-Methylnaphthalene	ND	0.190	0.381	"	"	"	"	
2-Methylnaphthalene	ND	0.190	0.381	"	"	"	"	
Naphthalene	ND	0.190	0.381	"	"	"	"	
Phenanthrene	ND	0.0952	0.190	"	"	"	"	
Pyrene	**0.171**	0.0952	0.190	"	"	"	"	J
Carbazole	ND	0.143	0.286	"	"	"	"	
Dibenzofuran	ND	0.0952	0.190	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.5	21.0	"	"	"	"	
Butyl benzyl phthalate	ND	14.3	28.6	"	"	"	"	
Diethylphthalate	ND	14.3	28.6	"	"	"	"	
Dimethylphthalate	ND	14.3	28.6	"	"	"	"	
Di-n-butylphthalate	ND	14.3	28.6	"	"	"	"	
Di-n-octyl phthalate	ND	14.3	28.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 44 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*55 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*70 %*	*Limits: 50-125 %*	"	"	"	

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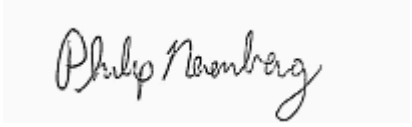

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03RE1)			**Matrix: Water**		**Batch: 3110696**			
Acenaphthene	ND	0.198	0.396	ug/L	4	11/27/13 17:07	EPA 8270D P/P	
Acenaphthylene	ND	0.198	0.396	"	"	"	"	
Anthracene	ND	0.198	0.396	"	"	"	"	
Benz(a)anthracene	ND	0.198	0.396	"	"	"	"	
Benzo(a)pyrene	**0.305**	0.198	0.396	"	"	"	"	J
Benzo(b)fluoranthene	**0.237**	0.198	0.396	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.198	0.396	"	"	"	"	
Benzo(g,h,i)perylene	**0.235**	0.198	0.396	"	"	"	"	J
Chrysene	**0.286**	0.198	0.396	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.198	0.396	"	"	"	"	
Fluoranthene	**0.303**	0.198	0.396	"	"	"	"	J
Fluorene	ND	0.198	0.396	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.198	0.396	"	"	"	"	
1-Methylnaphthalene	ND	0.396	0.792	"	"	"	"	
2-Methylnaphthalene	ND	0.396	0.792	"	"	"	"	
Naphthalene	ND	0.396	0.792	"	"	"	"	
Phenanthrene	ND	0.198	0.396	"	"	"	"	
Pyrene	**0.424**	0.198	0.396	"	"	"	"	
Carbazole	ND	0.297	0.594	"	"	"	"	
Dibenzofuran	ND	0.198	0.396	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	21.8	43.6	"	"	"	"	
Butyl benzyl phthalate	ND	29.7	59.4	"	"	"	"	
Diethylphthalate	ND	29.7	59.4	"	"	"	"	
Dimethylphthalate	ND	29.7	59.4	"	"	"	"	
Di-n-butylphthalate	ND	29.7	59.4	"	"	"	"	
Di-n-octyl phthalate	ND	29.7	59.4	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 74 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*65 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*84 %*	*Limits: 50-125 %*	"	"	"	

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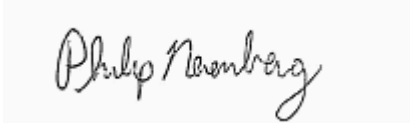

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B19-SP-19-1-20131119 (A3K0592-04RE1)			**Matrix: Water**		**Batch: 3110696**			
Acenaphthene	ND	0.0755	0.151	ug/L	4	11/27/13 17:44	EPA 8270D P/P	
Acenaphthylene	ND	0.0755	0.151	"	"	"	"	
Anthracene	**0.0958**	0.0755	0.151	"	"	"	"	J
Benz(a)anthracene	**0.362**	0.0755	0.151	"	"	"	"	
Benzo(a)pyrene	**0.471**	0.0755	0.151	"	"	"	"	
Benzo(b)fluoranthene	**0.974**	0.0755	0.151	"	"	"	"	
Benzo(k)fluoranthene	**0.293**	0.0755	0.151	"	"	"	"	
Benzo(g,h,i)perylene	**0.543**	0.0755	0.151	"	"	"	"	
Chrysene	**0.777**	0.0755	0.151	"	"	"	"	
Dibenz(a,h)anthracene	**0.114**	0.0755	0.151	"	"	"	"	J
Fluoranthene	**0.760**	0.0755	0.151	"	"	"	"	
Fluorene	ND	0.0755	0.151	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**0.432**	0.0755	0.151	"	"	"	"	
1-Methylnaphthalene	ND	0.151	0.302	"	"	"	"	
2-Methylnaphthalene	ND	0.151	0.302	"	"	"	"	
Naphthalene	ND	0.151	0.302	"	"	"	"	
Phenanthrene	**0.214**	0.0755	0.151	"	"	"	"	
Pyrene	**0.843**	0.0755	0.151	"	"	"	"	
Carbazole	ND	0.113	0.226	"	"	"	"	
Dibenzofuran	ND	0.0755	0.151	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**14.4**	8.30	16.6	"	"	"	"	J
Butyl benzyl phthalate	ND	11.3	22.6	"	"	"	"	
Diethylphthalate	ND	11.3	22.6	"	"	"	"	
Dimethylphthalate	ND	11.3	22.6	"	"	"	"	
Di-n-butylphthalate	ND	11.3	22.6	"	"	"	"	
Di-n-octyl phthalate	ND	11.3	22.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 57 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*55 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*85 %*	*Limits: 50-125 %*	"	"	"	

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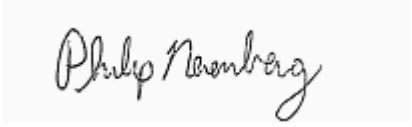

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**					
Batch: 3120396								
Aluminum	**322**	25.0	50.0	ug/L	1	12/18/13 18:37	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.956**	0.0400	1.00	"	"	"	"	J
Chromium	**1.96**	0.500	2.00	"	"	"	"	J
Copper	**6.52**	0.500	1.00	"	"	"	"	
Lead	**2.34**	0.100	0.200	"	"	"	"	
Manganese	**27.6**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**1.03**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**79.7**	2.00	4.00	"	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**					
Batch: 3120464								
Aluminum	**1880**	25.0	50.0	ug/L	1	12/19/13 16:35	EPA 6020A	
Antimony	**1.20**	0.500	1.00	"	"	"	"	
Arsenic	**1.03**	0.500	1.00	"	"	"	"	
Cadmium	**0.422**	0.0400	0.200	"	"	"	"	
Chromium	**18.3**	0.500	1.00	"	"	12/21/13 15:14	"	
Copper	**25.0**	0.500	1.00	"	"	12/19/13 16:35	"	
Lead	**23.8**	0.100	0.200	"	"	"	"	
Manganese	**222**	0.500	1.00	"	"	12/21/13 15:14	"	
Mercury	ND	0.0400	0.0800	"	"	12/19/13 16:35	"	H-01
Nickel	**3.71**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**159**	2.00	4.00	"	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Batch: 3120396								
Aluminum	**7340**	25.0	50.0	ug/L	1	12/18/13 18:39	EPA 6020A	
Antimony	**0.867**	0.500	1.00	"	"	"	"	J
Arsenic	**1.18**	0.500	1.00	"	"	"	"	
Cadmium	**0.511**	0.0400	1.00	"	"	"	"	J
Chromium	**41.0**	0.500	2.00	"	"	"	"	
Copper	**43.2**	0.500	1.00	"	"	"	"	
Lead	**32.0**	0.100	0.200	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Manganese	**581**	0.500	1.00	ug/L	1	"	EPA 6020A	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**13.0**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**346**	2.00	4.00	"	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**					
Batch: 3120396								
Aluminum	**3830**	25.0	50.0	ug/L	1	12/18/13 18:42	EPA 6020A	
Antimony	**4.31**	0.500	1.00	"	"	"	"	
Arsenic	**2.34**	0.500	1.00	"	"	"	"	
Cadmium	**1.71**	0.0400	1.00	"	"	"	"	
Chromium	**25.3**	0.500	2.00	"	"	"	"	
Copper	**94.4**	0.500	1.00	"	"	"	"	
Lead	**173**	0.100	0.200	"	"	"	"	
Manganese	**416**	0.500	1.00	"	"	"	"	
Mercury	**0.217**	0.0400	0.0800	"	"	"	"	H-01
Nickel	**12.2**	0.500	1.00	"	"	"	"	
Silver	**0.178**	0.100	0.200	"	"	"	"	J
Zinc	**569**	2.00	4.00	"	"	"	"	

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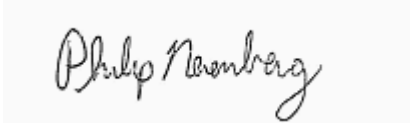

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**27.6**	25.0	50.0	ug/L	1	12/17/13 19:23	EPA 6020A (Diss)	J
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.100**	0.0400	0.200	"	"	"	"	J
Chromium	ND	0.500	1.00	"	"	"	"	
Copper	**5.12**	0.500	1.00	"	"	"	"	
Lead	**0.356**	0.100	0.200	"	"	"	"	Q-23
Manganese	**17.3**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**0.744**	0.500	1.00	"	"	"	"	J
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**68.2**	2.00	4.00	"	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**78.7**	25.0	50.0	ug/L	1	12/17/13 19:31	EPA 6020A (Diss)	
Antimony	**0.722**	0.500	1.00	"	"	"	"	J
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.122**	0.0400	0.200	"	"	"	"	J
Chromium	**1.18**	0.500	1.00	"	"	"	"	
Copper	**9.80**	0.500	1.00	"	"	"	"	
Lead	**0.678**	0.100	0.200	"	"	"	"	Q-23
Manganese	**55.6**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**1.61**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**51.7**	2.00	4.00	"	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**71.4**	25.0	50.0	ug/L	1	12/17/13 19:34	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.0444**	0.0400	0.200	"	"	"	"	J
Chromium	**0.522**	0.500	1.00	"	"	"	"	J
Copper	**6.66**	0.500	1.00	"	"	"	"	

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Lead	**0.289**	0.100	0.200	ug/L	1	"	EPA 6020A (Diss)	Q-23
Manganese	**41.6**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**1.27**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**36.5**	2.00	4.00	"	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**76.2**	25.0	50.0	ug/L	1	12/17/13 19:37	EPA 6020A (Diss)	
Antimony	**1.80**	0.500	1.00	"	"	"	"	Q-23
Arsenic	**0.700**	0.500	1.00	"	"	"	"	J
Cadmium	**0.0444**	0.0400	0.200	"	"	"	"	J
Chromium	**1.26**	0.500	1.00	"	"	"	"	
Copper	**6.22**	0.500	1.00	"	"	"	"	
Lead	**1.67**	0.100	0.200	"	"	"	"	Q-23
Manganese	**12.9**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.644**	0.500	1.00	"	"	"	"	J
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**10.3**	2.00	4.00	"	"	"	"	

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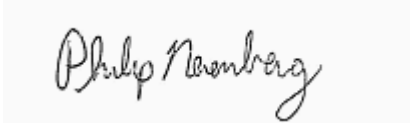

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**					
Batch: 3110625								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	11/25/13 16:16	SM 2540 D	
Batch: 3110705								
Total Organic Carbon	**8.48**	1.00	1.00	"	"	11/27/13 23:35	SM 5310 B	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**					
Batch: 3110625								
Total Suspended Solids	**49.0**	5.00	5.00	mg/L	1	11/25/13 16:16	SM 2540 D	
Batch: 3110705								
Total Organic Carbon	**14.7**	1.00	1.00	"	"	11/28/13 06:24	SM 5310 B	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Batch: 3110625								
Total Suspended Solids	**300**	10.0	10.0	mg/L	1	11/25/13 16:16	SM 2540 D	
Batch: 3110705								
Total Organic Carbon	**5.50**	1.00	1.00	"	"	11/27/13 22:03	SM 5310 B	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**					
Batch: 3110705								
Total Organic Carbon	**4.24**	1.00	1.00	mg/L	1	11/27/13 22:27	SM 5310 B	
Batch: 3110750								
Total Suspended Solids	**60.0**	5.00	5.00	"	"	11/27/13 10:58	SM 2540 D	

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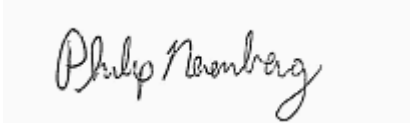

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110690 - EPA 3510C (Acid Extraction)									**Water**			
Blank (3110690-BLK1)					Prepared: 11/23/13 12:57 Analyzed: 11/24/13 15:49							
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	0.182	0.364	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS (3110690-BS1)					Prepared: 11/23/13 12:57 Analyzed: 11/24/13 16:07							
NWTPH-Dx												
Diesel	0.950	0.100	0.200	mg/L	1	1.25	---	76	58-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 91 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS Dup (3110690-BSD1)					Prepared: 11/23/13 12:57 Analyzed: 11/24/13 16:26							**Q-19**
NWTPH-Dx												
Diesel	1.05	0.100	0.200	mg/L	1	1.25	---	84	58-115%	10	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*		*Dilution: 1x*						

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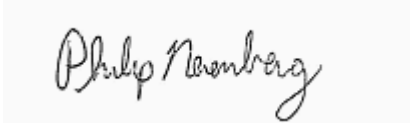

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110613 - EPA 5030B									**Water**			
Blank (3110613-BLK1)					Prepared: 11/21/13 09:00 Analyzed: 11/21/13 11:48							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 103 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*			*"*					
LCS (3110613-BS2)					Prepared: 11/21/13 09:00 Analyzed: 11/21/13 11:21							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.598	0.0500	0.100	mg/L	1	0.500	---	120	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*			*"*					
Duplicate (3110613-DUP1)					Prepared: 11/21/13 10:00 Analyzed: 11/21/13 12:40							
QC Source Sample: B22-SP1-20131118 (A3K0592-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*			*"*					

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120081 - EPA 3510C (Neutral pH)							**Water**					
Blank (3120081-BLK1)					Prepared: 12/04/13 08:19 Analyzed: 12/05/13 08:41							**C-07**
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 74 %*	*Limits: 40-135 %*		*Dilution: 1x*						
LCS (3120081-BS1)					Prepared: 12/04/13 08:19 Analyzed: 12/05/13 09:08							**C-07**
EPA 8082A												
Aroclor 1016	0.943	0.0100	0.0200	ug/L	1	1.25	---	75	40-140%	---	---	
Aroclor 1260	0.830	0.0100	0.0200	"	"	"	---	66	"	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 67 %*	*Limits: 40-135 %*		*Dilution: 1x*						
LCS Dup (3120081-BSD1)					Prepared: 12/04/13 08:19 Analyzed: 12/05/13 09:26							**C-07, Q-19**
EPA 8082A												
Aroclor 1016	0.956	0.0100	0.0200	ug/L	1	1.25	---	76	40-140%	1	30%	
Aroclor 1260	0.837	0.0100	0.0200	"	"	"	---	67	"	0.8	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 62 %*	*Limits: 40-135 %*		*Dilution: 1x*						

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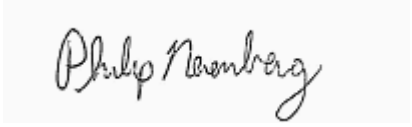

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
Blank (3110743-BLK1)					Prepared: 11/25/13 14:31 Analyzed: 11/27/13 12:04							**C-05**
EPA 8081B												
Aldrin	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
alpha-BHC	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endrin	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endrin ketone	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Heptachlor	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.342	0.682	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.342	0.682	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Mirex	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Oxychlordane	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	

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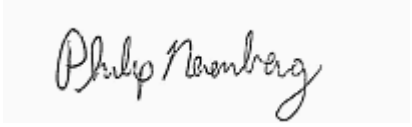

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)								**Water**				
Blank (3110743-BLK1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:04					**C-05**
trans-Nonachlor	ND	0.00909	0.0182	ug/L	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 69 %*	*Limits: 25-140 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*92 %*	*30-135 %*				*"*				
LCS (3110743-BS1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:21					**C-05**
EPA 8081B												
Aldrin	0.367	0.0100	0.0200	ug/L	1	0.500	---	73	25-140%	---	---	
alpha-BHC	0.421	0.0100	0.0200	"	"	"	---	84	60-130%	---	---	
beta-BHC	0.402	0.0100	0.0200	"	"	"	---	80	65-125%	---	---	
delta-BHC	0.448	0.0100	0.0200	"	"	"	---	90	45-135%	---	---	
gamma-BHC (Lindane)	0.428	0.0100	0.0200	"	"	"	---	86	25-135%	---	---	
cis-Chlordane	0.419	0.0100	0.0200	"	"	"	---	84	65-125%	---	---	
trans-Chlordane	0.420	0.0100	0.0200	"	"	"	---	84	60-125%	---	---	
4,4'-DDD	0.476	0.0100	0.0200	"	"	"	---	95	25-150%	---	---	
4,4'-DDE	0.432	0.0100	0.0200	"	"	"	---	86	35-140%	---	---	
4,4'-DDT	0.530	0.0100	0.0200	"	"	"	---	106	45-140%	---	---	
Dieldrin	0.456	0.0100	0.0200	"	"	"	---	91	60-130%	---	---	
Endosulfan I	0.421	0.0100	0.0200	"	"	"	---	84	50-110%	---	---	
Endosulfan II	0.465	0.0100	0.0200	"	"	"	---	93	30-130%	---	---	
Endosulfan sulfate	0.443	0.0100	0.0200	"	"	"	---	89	55-135%	---	---	
Endrin	0.480	0.0100	0.0200	"	"	"	---	96	"	---	---	
Endrin Aldehyde	0.414	0.0100	0.0200	"	"	"	---	83	"	---	---	
Endrin ketone	0.448	0.0100	0.0200	"	"	"	---	90	75-125%	---	---	
Heptachlor	0.404	0.0100	0.0200	"	"	"	---	81	40-130%	---	---	
Heptachlor epoxide	0.421	0.0100	0.0200	"	"	"	---	84	60-130%	---	---	
Methoxychlor	0.540	0.0300	0.0600	"	"	"	---	108	55-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 67 %*	*Limits: 25-140 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*77 %*	*30-135 %*				*"*				
LCS (3110743-BS2)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:57					**C-05**
EPA 8081B												
cis-Nonachlor	0.416	0.0100	0.0200	ug/L	1	0.500	---	83	25-120%	---	---	

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
LCS (3110743-BS2)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:57					**C-05**
2,4'-DDD	0.401	0.0100	0.0200	ug/L	"	"	---	80	30-135%	---	---	
2,4'-DDE	0.394	0.0100	0.0200	"	"	"	---	79	50-140%	---	---	
2,4'-DDT	0.466	0.0100	0.0200	"	"	"	---	93	45-140%	---	---	
Hexachlorobenzene	0.352	0.0300	0.0600	"	"	"	---	70	25-120%	---	---	
Hexachlorobutadiene	0.224	0.0100	0.0200	"	"	"	---	45	"	---	---	
Mirex	0.364	0.0100	0.0200	"	"	"	---	73	"	---	---	
Oxychlordane	0.402	0.0100	0.0200	"	"	"	---	80	"	---	---	
trans-Nonachlor	0.395	0.0100	0.0200	"	"	"	---	79	"	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 76 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*85 %*	*30-135 %*			*"*					
LCS Dup (3110743-BSD1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:39					**C-05, Q-19**
EPA 8081B												
Aldrin	0.399	0.0100	0.0200	ug/L	1	0.500	---	80	25-140%	8	30%	
alpha-BHC	0.449	0.0100	0.0200	"	"	"	---	90	60-130%	6	30%	
beta-BHC	0.433	0.0100	0.0200	"	"	"	---	87	65-125%	7	30%	
delta-BHC	0.477	0.0100	0.0200	"	"	"	---	95	45-135%	6	30%	
gamma-BHC (Lindane)	0.443	0.0100	0.0200	"	"	"	---	89	25-135%	4	30%	
cis-Chlordane	0.457	0.0100	0.0200	"	"	"	---	91	65-125%	9	30%	
trans-Chlordane	0.450	0.0100	0.0200	"	"	"	---	90	60-125%	7	30%	
4,4'-DDD	0.530	0.0100	0.0200	"	"	"	---	106	25-150%	11	30%	
4,4'-DDE	0.482	0.0100	0.0200	"	"	"	---	96	35-140%	11	30%	
4,4'-DDT	0.584	0.0100	0.0200	"	"	"	---	117	45-140%	10	30%	
Dieldrin	0.482	0.0100	0.0200	"	"	"	---	96	60-130%	6	30%	
Endosulfan I	0.457	0.0100	0.0200	"	"	"	---	91	50-110%	8	30%	
Endosulfan II	0.516	0.0100	0.0200	"	"	"	---	103	30-130%	10	30%	
Endosulfan sulfate	0.499	0.0100	0.0200	"	"	"	---	100	55-135%	12	30%	
Endrin	0.526	0.0100	0.0200	"	"	"	---	105	"	9	30%	
Endrin Aldehyde	0.464	0.0100	0.0200	"	"	"	---	93	"	11	30%	
Endrin ketone	0.490	0.0100	0.0200	"	"	"	---	98	75-125%	9	30%	
Heptachlor	0.432	0.0100	0.0200	"	"	"	---	86	40-130%	7	30%	
Heptachlor epoxide	0.458	0.0100	0.0200	"	"	"	---	92	60-130%	8	30%	

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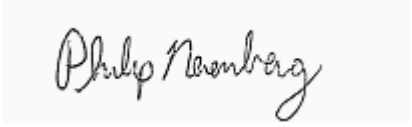

Philip Nerenberg, Lab Director

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Tigard, OR 97223
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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
LCS Dup (3110743-BSD1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:39					**C-05, Q-19**
Methoxychlor	0.614	0.0300	0.0600	"	"	"	---	123	55-150%	13	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 68 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*82 %*	*30-135 %*			*"*					
LCS Dup (3110743-BSD2)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 13:15					**C-05, Q-19**
EPA 8081B												
cis-Nonachlor	0.449	0.0100	0.0200	ug/L	1	0.500	---	90	25-120%	8	30%	
2,4'-DDD	0.465	0.0100	0.0200	"	"	"	---	93	30-135%	15	30%	
2,4'-DDE	0.441	0.0100	0.0200	"	"	"	---	88	50-140%	11	30%	
2,4'-DDT	0.518	0.0100	0.0200	"	"	"	---	104	45-140%	11	30%	
Hexachlorobenzene	0.384	0.0300	0.0600	"	"	"	---	77	25-120%	9	30%	
Hexachlorobutadiene	0.205	0.0100	0.0200	"	"	"	---	41	"	9	30%	
Mirex	0.396	0.0100	0.0200	"	"	"	---	79	"	8	30%	
Oxychlordane	0.431	0.0100	0.0200	"	"	"	---	86	"	7	30%	
trans-Nonachlor	0.428	0.0100	0.0200	"	"	"	---	86	"	8	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 77 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*91 %*	*30-135 %*			*"*					

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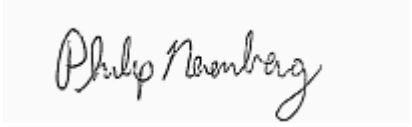

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110696 - EPA 3510C (Acid Extraction)							**Water**					
Blank (3110696-BLK2)					Prepared: 11/25/13 07:08 Analyzed: 11/26/13 17:11							
EPA 8270D P/P												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 78 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*70 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*87 %*	*50-125 %*	*"*

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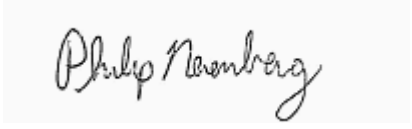

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110696 - EPA 3510C (Acid Extraction)							**Water**					
LCS (3110696-BS2)					Prepared: 11/25/13 07:08 Analyzed: 11/26/13 17:47							
EPA 8270D P/P												
Acenaphthene	2.97	0.0100	0.0200	ug/L	1	4.00	---	74	45-125%	---	---	
Acenaphthylene	3.03	0.0100	0.0200	"	"	"	---	76	50-125%	---	---	
Anthracene	3.23	0.0100	0.0200	"	"	"	---	81	55-125%	---	---	
Benz(a)anthracene	3.80	0.0100	0.0200	"	"	"	---	95	"	---	---	
Benzo(a)pyrene	3.27	0.0150	0.0300	"	"	"	---	82	"	---	---	
Benzo(b)fluoranthene	3.57	0.0150	0.0300	"	"	"	---	89	45-125%	---	---	
Benzo(k)fluoranthene	3.47	0.0150	0.0300	"	"	"	---	87	"	---	---	
Benzo(b+k)fluoranthene(s)	7.00	0.0300	0.0600	"	"	8.00	---	87	"	---	---	
Benzo(g,h,i)perylene	3.40	0.0100	0.0200	"	"	4.00	---	85	40-125%	---	---	
Chrysene	3.79	0.0100	0.0200	"	"	"	---	95	55-125%	---	---	
Dibenz(a,h)anthracene	4.03	0.0100	0.0200	"	"	"	---	101	40-125%	---	---	
Fluoranthene	3.45	0.0100	0.0200	"	"	"	---	86	55-125%	---	---	
Fluorene	3.04	0.0100	0.0200	"	"	"	---	76	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	3.58	0.0100	0.0200	"	"	"	---	89	45-125%	---	---	
1-Methylnaphthalene	2.70	0.0200	0.0400	"	"	"	---	68	45-120%	---	---	
2-Methylnaphthalene	2.73	0.0200	0.0400	"	"	"	---	68	"	---	---	
Naphthalene	2.54	0.0200	0.0400	"	"	"	---	63	40-125%	---	---	
Phenanthrene	3.28	0.0100	0.0200	"	"	"	---	82	50-125%	---	---	
Pyrene	3.43	0.0100	0.0200	"	"	"	---	86	"	---	---	
Carbazole	3.80	0.0150	0.0300	"	"	"	---	95	"	---	---	
Dibenzofuran	3.07	0.0100	0.0200	"	"	"	---	77	55-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.53	1.10	2.20	"	"	"	---	88	40-125%	---	---	
Butyl benzyl phthalate	3.78	1.50	3.00	"	"	"	---	94	45-125%	---	---	
Diethylphthalate	3.38	1.50	3.00	"	"	"	---	84	40-125%	---	---	
Dimethylphthalate	3.42	1.50	3.00	"	"	"	---	85	25-125%	---	---	
Di-n-butylphthalate	3.40	1.50	3.00	"	"	"	---	85	55-125%	---	---	
Di-n-octyl phthalate	3.53	1.50	3.00	"	"	"	---	88	35-125%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 82 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*72 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*86 %*	*50-125 %*	*"*

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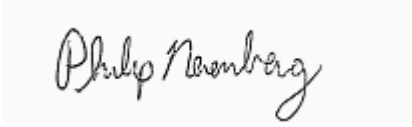

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110696 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (3110696-BSD2)					Prepared: 11/25/13 07:08 Analyzed: 11/26/13 18:24							**Q-19**
EPA 8270D P/P												
Acenaphthene	2.75	0.0100	0.0200	ug/L	1	4.00	---	69	45-125%	8	30%	
Acenaphthylene	2.79	0.0100	0.0200	"	"	"	---	70	50-125%	8	30%	
Anthracene	3.17	0.0100	0.0200	"	"	"	---	79	55-125%	2	30%	
Benz(a)anthracene	3.86	0.0100	0.0200	"	"	"	---	97	"	2	30%	
Benzo(a)pyrene	3.33	0.0150	0.0300	"	"	"	---	83	"	2	30%	
Benzo(b)fluoranthene	3.62	0.0150	0.0300	"	"	"	---	90	45-125%	1	30%	
Benzo(k)fluoranthene	3.51	0.0150	0.0300	"	"	"	---	88	"	1	30%	
Benzo(b+k)fluoranthene(s)	7.09	0.0300	0.0600	"	"	8.00	---	89	"	1	30%	
Benzo(g,h,i)perylene	3.53	0.0100	0.0200	"	"	4.00	---	88	40-125%	4	30%	
Chrysene	3.88	0.0100	0.0200	"	"	"	---	97	55-125%	2	30%	
Dibenz(a,h)anthracene	4.19	0.0100	0.0200	"	"	"	---	105	40-125%	4	30%	
Fluoranthene	3.51	0.0100	0.0200	"	"	"	---	88	55-125%	2	30%	
Fluorene	2.89	0.0100	0.0200	"	"	"	---	72	50-125%	5	30%	
Indeno(1,2,3-cd)pyrene	3.65	0.0100	0.0200	"	"	"	---	91	45-125%	2	30%	
1-Methylnaphthalene	2.52	0.0200	0.0400	"	"	"	---	63	45-120%	7	30%	
2-Methylnaphthalene	2.59	0.0200	0.0400	"	"	"	---	65	"	5	30%	
Naphthalene	2.34	0.0200	0.0400	"	"	"	---	59	40-125%	8	30%	
Phenanthrene	3.25	0.0100	0.0200	"	"	"	---	81	50-125%	1	30%	
Pyrene	3.51	0.0100	0.0200	"	"	"	---	88	"	3	30%	
Carbazole	3.99	0.0150	0.0300	"	"	"	---	100	"	5	30%	
Dibenzofuran	2.84	0.0100	0.0200	"	"	"	---	71	55-125%	8	30%	
Bis(2-ethylhexyl)phthalate	3.58	1.10	2.20	"	"	"	---	90	40-125%	1	30%	
Butyl benzyl phthalate	3.81	1.50	3.00	"	"	"	---	95	45-125%	1	30%	
Diethylphthalate	3.31	1.50	3.00	"	"	"	---	83	40-125%	2	30%	
Dimethylphthalate	3.22	1.50	3.00	"	"	"	---	80	25-125%	6	30%	
Di-n-butylphthalate	3.49	1.50	3.00	"	"	"	---	87	55-125%	3	30%	
Di-n-octyl phthalate	3.55	1.50	3.00	"	"	"	---	89	35-125%	0.7	30%	

Surr: Nitrobenzene-d5 (Surr) *Recovery: 64 %* *Limits: 35-120 %* *Dilution: 1x*
2-Fluorobiphenyl (Surr) *62 %* *30-120 %* *"*
p-Terphenyl-d14 (Surr) *85 %* *50-125 %* *"*

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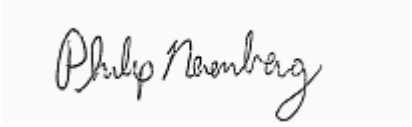

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120396 - EPA 3015A							**Water**					
Blank (3120396-BLK1)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 17:28							
EPA 6020A												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.0400	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (3120396-BS1)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 17:25							
EPA 6020A												
Aluminum	5630	25.0	50.0	ug/L	1	5560	---	101	80-120%	---	---	
Antimony	33.3	0.500	1.00	"	"	34.7	---	96	"	---	---	
Arsenic	52.1	0.500	1.00	"	"	55.6	---	94	"	---	---	
Cadmium	52.8	0.0400	0.200	"	"	"	---	95	"	---	---	
Chromium	57.0	0.500	1.00	"	"	"	---	103	"	---	---	B-02
Copper	53.0	0.500	1.00	"	"	"	---	95	"	---	---	
Lead	55.8	0.100	0.200	"	"	"	---	100	"	---	---	
Manganese	59.5	0.500	1.00	"	"	"	---	107	"	---	---	
Mercury	1.09	0.0400	0.0800	"	"	1.11	---	98	"	---	---	
Nickel	54.0	0.500	1.00	"	"	55.6	---	97	"	---	---	
Silver	33.5	0.100	0.200	"	"	34.7	---	97	"	---	---	
Zinc	53.6	2.00	4.00	"	"	55.6	---	96	"	---	---	
Matrix Spike (3120396-MS2)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 18:45							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
EPA 6020A												

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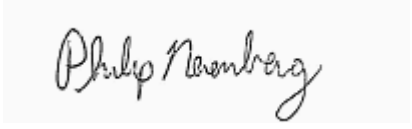

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120396 - EPA 3015A							**Water**					
Matrix Spike (3120396-MS2)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 18:45							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
Aluminum	9450	25.0	50.0	ug/L	1	5560	3830	101	75-125%	---	---	
Antimony	31.9	0.500	1.00	"	"	34.7	4.31	79	"	---	---	
Arsenic	50.9	0.500	1.00	"	"	55.6	2.34	87	"	---	---	
Cadmium	53.4	0.0400	1.00	"	"	"	1.71	93	"	---	---	
Chromium	77.5	0.500	2.00	"	"	"	25.3	94	"	---	---	
Copper	142	0.500	1.00	"	"	"	94.4	86	"	---	---	
Lead	221	0.100	0.200	"	"	"	173	87	"	---	---	
Manganese	468	0.500	1.00	"	"	"	416	93	"	---	---	
Mercury	1.22	0.0400	0.0800	"	"	1.11	0.217	90	"	---	---	H-01
Nickel	62.0	0.500	1.00	"	"	55.6	12.2	90	"	---	---	
Silver	32.7	0.100	0.200	"	"	34.7	0.178	94	"	---	---	
Zinc	613	2.00	4.00	"	"	55.6	569	79	"	---	---	

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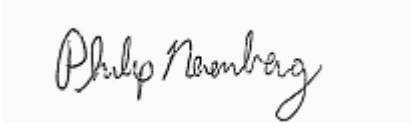

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120464 - EPA 3015A							**Water**					
Blank (3120464-BLK1)					Prepared: 12/18/13 13:34 Analyzed: 12/19/13 15:20							
EPA 6020A												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.0400	0.200	"	"	---	---	---	---	---	---	
Copper	**0.967**	0.500	1.00	"	"	---	---	---	---	---	---	B-02, J
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
Blank (3120464-BLK2)					Prepared: 12/18/13 13:34 Analyzed: 12/20/13 13:32							
EPA 6020A												
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	Q-16
EPA 6020A												
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
LCS (3120464-BS1)					Prepared: 12/18/13 13:34 Analyzed: 12/19/13 15:23							
EPA 6020A												
Aluminum	5730	25.0	50.0	ug/L	1	5560	---	103	80-120%	---	---	
Antimony	33.1	0.500	1.00	"	"	34.7	---	95	"	---	---	
Arsenic	54.8	0.500	1.00	"	"	55.6	---	99	85-115%	---	---	
Cadmium	53.5	0.0400	0.200	"	"	"	---	96	80-120%	---	---	
Copper	54.4	0.500	1.00	"	"	"	---	98	"	---	---	B-02
Lead	55.8	0.100	0.200	"	"	"	---	100	"	---	---	
Mercury	1.07	0.0400	0.0800	"	"	1.11	---	96	"	---	---	
Nickel	54.3	0.500	1.00	"	"	55.6	---	98	"	---	---	
Silver	32.8	0.100	0.200	"	"	34.7	---	95	"	---	---	
Zinc	54.0	2.00	4.00	"	"	55.6	---	97	"	---	---	
LCS (3120464-BS2)					Prepared: 12/18/13 13:34 Analyzed: 12/21/13 14:37							

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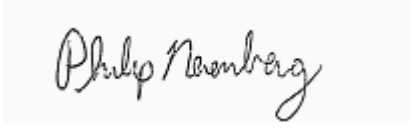

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120464 - EPA 3015A							**Water**					
LCS (3120464-BS2)					Prepared: 12/18/13 13:34 Analyzed: 12/21/13 14:37							
EPA 6020A												
Chromium	58.7	0.500	1.00	ug/L	1	55.6	---	106	80-120%	---	---	Q-16
Manganese	58.7	0.500	1.00	"	"	"	---	106	"	---	---	Q-16

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120388 - EPA 3015A - Dissolved								**Water**				
Blank (3120388-BLK1)						Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:17						
EPA 6020A (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.0400	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (3120388-BS1)						Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:20						
EPA 6020A (Diss)												
Aluminum	5830	25.0	50.0	ug/L	1	5560	---	105	80-120%	---	---	
Antimony	34.1	0.500	1.00	"	"	34.7	---	98	"	---	---	
Arsenic	51.8	0.500	1.00	"	"	55.6	---	93	"	---	---	
Cadmium	51.8	0.0400	0.200	"	"	"	---	93	"	---	---	
Chromium	54.3	0.500	1.00	"	"	"	---	98	"	---	---	
Copper	53.7	0.500	1.00	"	"	"	---	97	"	---	---	
Lead	56.3	0.100	0.200	"	"	"	---	101	"	---	---	Q-23
Manganese	53.7	0.500	1.00	"	"	"	---	97	"	---	---	
Mercury	1.14	0.0400	0.0800	"	"	1.11	---	103	"	---	---	Q-23
Nickel	54.6	0.500	1.00	"	"	55.6	---	98	"	---	---	
Silver	32.6	0.100	0.200	"	"	34.7	---	94	"	---	---	
Zinc	49.9	2.00	4.00	"	"	55.6	---	90	"	---	---	
Duplicate (3120388-DUP1)						Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:40						
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
EPA 6020A (Diss)												

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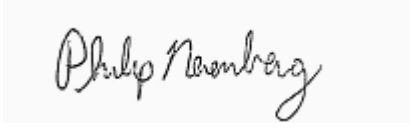

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120388 - EPA 3015A - Dissolved							**Water**					
Duplicate (3120388-DUP1)					Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:40							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
Aluminum	**76.2**	25.0	50.0	ug/L	1	---	76.2	---	---	0.01	20%	
Antimony	**1.82**	0.500	1.00	"	"	---	1.80	---	---	1	20%	Q-23
Arsenic	**0.789**	0.500	1.00	"	"	---	0.700	---	---	12	20%	J
Cadmium	ND	0.0400	0.200	"	"	---	0.0444	---	---	***	20%	
Chromium	**1.27**	0.500	1.00	"	"	---	1.26	---	---	0.9	20%	
Copper	**6.12**	0.500	1.00	"	"	---	6.22	---	---	2	20%	
Lead	**1.62**	0.100	0.200	"	"	---	1.67	---	---	3	20%	Q-23
Manganese	**12.0**	0.500	1.00	"	"	---	12.9	---	---	7	20%	
Mercury	ND	0.0400	0.0800	"	"	---	ND	---	---	---	20%	
Nickel	**0.633**	0.500	1.00	"	"	---	0.644	---	---	2	20%	J
Silver	ND	0.100	0.200	"	"	---	ND	---	---	---	20%	
Zinc	**10.7**	2.00	4.00	"	"	---	10.3	---	---	4	20%	
Matrix Spike (3120388-MS1)					Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:43							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
EPA 6020A (Diss)												
Aluminum	5860	25.0	50.0	ug/L	1	5560	76.2	104	75-125%	---	---	
Antimony	34.2	0.500	1.00	"	"	34.7	1.80	93	"	---	---	Q-23
Arsenic	51.8	0.500	1.00	"	"	55.6	0.700	92	"	---	---	
Cadmium	52.7	0.0400	0.200	"	"	"	0.0444	95	"	---	---	
Chromium	55.6	0.500	1.00	"	"	"	1.26	98	"	---	---	
Copper	58.7	0.500	1.00	"	"	"	6.22	94	"	---	---	
Lead	57.0	0.100	0.200	"	"	"	1.67	100	"	---	---	Q-23
Manganese	68.7	0.500	1.00	"	"	"	12.9	100	"	---	---	
Mercury	1.13	0.0400	0.0800	"	"	1.11	ND	102	"	---	---	Q-23
Nickel	54.5	0.500	1.00	"	"	55.6	0.644	97	"	---	---	
Silver	32.6	0.100	0.200	"	"	34.7	ND	94	"	---	---	
Zinc	59.9	2.00	4.00	"	"	55.6	10.3	89	"	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110625 - Total Suspended Solids									Water			
Blank (3110625-BLK1)					Prepared: 11/21/13 12:05		Analyzed: 11/25/13 16:16					
SM 2540 D												
Total Suspended Solids	ND	2.00	2.00	mg/L	1	---	---	---	---	---	---	
Reference (3110625-SRM1)					Prepared: 11/21/13 12:05		Analyzed: 11/25/13 16:16					
SM 2540 D												
Total Suspended Solids	97.0			mg/L	1	100		97	90-110%	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110705 - Method Prep: Aq							**Water**					
Blank (3110705-BLK1)					Prepared: 11/25/13 08:50		Analyzed: 11/27/13 17:01					
SM 5310 B												
Total Organic Carbon	ND	1.00	1.00	mg/L	1	---	---	---	---	---	---	
LCS (3110705-BS1)					Prepared: 11/25/13 08:50		Analyzed: 11/27/13 17:26					
SM 5310 B												
Total Organic Carbon	9.57	1.00	1.00	mg/L	1	10.0	---	96	85-115%	---	---	
Duplicate (3110705-DUP1)					Prepared: 11/25/13 08:50		Analyzed: 11/27/13 23:59					
QC Source Sample: B22-SP1-20131118 (A3K0592-01)												
SM 5310 B												
Total Organic Carbon	**8.99**	1.00	1.00	mg/L	1	---	8.48	---	---	6	20%	
Matrix Spike (3110705-MS1)					Prepared: 11/25/13 08:50		Analyzed: 11/28/13 05:58					
QC Source Sample: B22-SP1-20131118 (A3K0592-01)												
SM 5310 B												
Total Organic Carbon	17.6	1.01	1.01	mg/L	1	10.0	8.48	91	75-125%	---	---	

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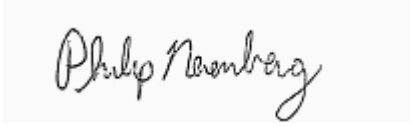

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110750 - Total Suspended Solids									Water			
Blank (3110750-BLK1)					Prepared: 11/26/13 14:41		Analyzed: 11/27/13 10:58					
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Reference (3110750-SRM1)					Prepared: 11/26/13 14:41		Analyzed: 11/27/13 10:58					
SM 2540 D												
Total Suspended Solids	99.0			mg/L	1	100		99	90-110%	---	---	

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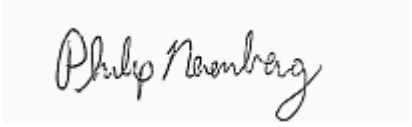

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

SAMPLE PREPARATION INFORMATION

Diesel and Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110690							
A3K0592-01	Water	NWTPH-Dx	11/18/13 13:20	11/23/13 12:57	1010mL/5mL	1000mL/5mL	0.99
A3K0592-02	Water	NWTPH-Dx	11/18/13 14:30	11/23/13 12:57	980mL/5mL	1000mL/5mL	1.02
A3K0592-03	Water	NWTPH-Dx	11/18/13 15:10	11/23/13 12:57	1030mL/5mL	1000mL/5mL	0.97
A3K0592-04	Water	NWTPH-Dx	11/19/13 09:45	11/23/13 12:57	1060mL/5mL	1000mL/5mL	0.94

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110613							
A3K0592-01	Water	NWTPH-Gx (MS)	11/18/13 13:20	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00
A3K0592-02	Water	NWTPH-Gx (MS)	11/18/13 14:30	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00
A3K0592-03	Water	NWTPH-Gx (MS)	11/18/13 15:10	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00
A3K0592-04	Water	NWTPH-Gx (MS)	11/19/13 09:45	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3120081							
A3K0592-01	Water	EPA 8082A	11/18/13 13:20	12/04/13 08:19	1040mL/1mL	1000mL/1mL	0.96
A3K0592-02	Water	EPA 8082A	11/18/13 14:30	12/04/13 08:19	1020mL/1mL	1000mL/1mL	0.98
A3K0592-03	Water	EPA 8082A	11/18/13 15:10	12/04/13 08:19	1030mL/2mL	1000mL/1mL	1.94
A3K0592-04	Water	EPA 8082A	11/19/13 09:45	12/04/13 08:19	1050mL/2mL	1000mL/1mL	1.90

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3510C (Neutral pH)/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110743							
A3K0592-01RE1	Water	EPA 8081B	11/18/13 13:20	11/25/13 14:31	990mL/10mL	1000mL/5mL	2.02
A3K0592-02RE1	Water	EPA 8081B	11/18/13 14:30	11/25/13 14:31	1050mL/10mL	1000mL/5mL	1.90
A3K0592-03RE1	Water	EPA 8081B	11/18/13 15:10	11/25/13 14:31	1030mL/10mL	1000mL/5mL	1.94
A3K0592-04RE1	Water	EPA 8081B	11/19/13 09:45	11/25/13 14:31	1060mL/10mL	1000mL/5mL	1.89

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110696							
A3K0592-01RE1	Water	EPA 8270D P/P	11/18/13 13:20	11/25/13 07:08	960mL/1mL	1000mL/1mL	1.04
A3K0592-02RE1	Water	EPA 8270D P/P	11/18/13 14:30	11/25/13 07:08	1050mL/1mL	1000mL/1mL	0.95
A3K0592-03RE1	Water	EPA 8270D P/P	11/18/13 15:10	11/25/13 07:08	1010mL/5mL	1000mL/1mL	4.95
A3K0592-04RE1	Water	EPA 8270D P/P	11/19/13 09:45	11/25/13 07:08	1060mL/2mL	1000mL/1mL	1.89

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3120396							
A3K0592-01	Water	EPA 6020A	11/18/13 13:20	12/16/13 11:00	45mL/50mL	45mL/50mL	1.00
A3K0592-03	Water	EPA 6020A	11/18/13 15:10	12/16/13 11:00	45mL/50mL	45mL/50mL	1.00
A3K0592-04	Water	EPA 6020A	11/19/13 09:45	12/16/13 11:00	45mL/50mL	45mL/50mL	1.00
Batch: 3120464							
A3K0592-02	Water	EPA 6020A	11/18/13 14:30	12/18/13 13:34	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

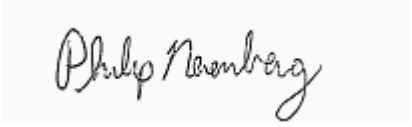
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3120388							
A3K0592-01	Water	EPA 6020A (Diss)	11/18/13 13:20	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00
A3K0592-02	Water	EPA 6020A (Diss)	11/18/13 14:30	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00
A3K0592-03	Water	EPA 6020A (Diss)	11/18/13 15:10	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00
A3K0592-04	Water	EPA 6020A (Diss)	11/19/13 09:45	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110705							
A3K0592-01	Water	SM 5310 B	11/18/13 13:20	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00
A3K0592-02	Water	SM 5310 B	11/18/13 14:30	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00
A3K0592-03	Water	SM 5310 B	11/18/13 15:10	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00
A3K0592-04	Water	SM 5310 B	11/19/13 09:45	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00

Apex Laboratories



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Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

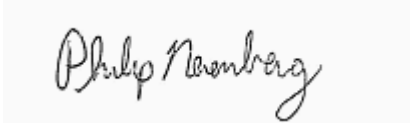
SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110625							
A3K0592-01	Water	SM 2540 D	11/18/13 13:20	11/21/13 12:05	1N/A/1N/A	1N/A/1N/A	NA
A3K0592-02	Water	SM 2540 D	11/18/13 14:30	11/21/13 12:05	1N/A/1N/A	1N/A/1N/A	NA
A3K0592-03	Water	SM 2540 D	11/18/13 15:10	11/21/13 12:05	1N/A/1N/A	1N/A/1N/A	NA
Batch: 3110750							
A3K0592-04	Water	SM 2540 D	11/19/13 09:45	11/26/13 14:41	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories



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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

Notes and Definitions

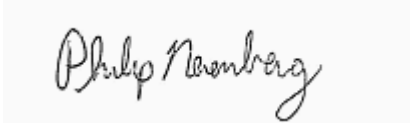
Qualifiers:

B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
H-01	This sample was analyzed outside the recommended holding time.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
P-10	Result estimated due to the presence of multiple aroclors and/or matrix interference.
Q-16	Reanalysis of an original Batch QC sample.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to dilution necessary for analysis.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Apex Laboratories



Philip Nerenberg, Lab Director

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Tigard, OR 97223
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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

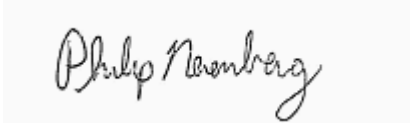
Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

***

Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



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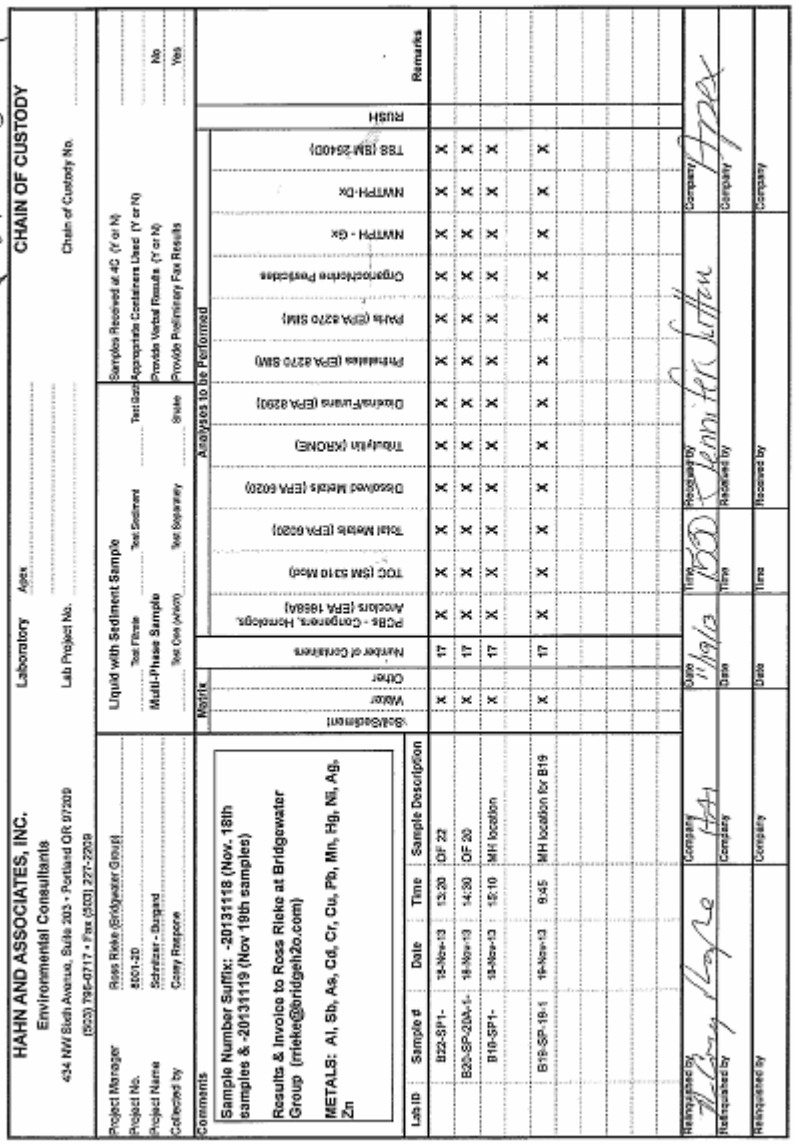

CHAIN OF CUSTODY

HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 - Portland OR 97209
(503) 795-0717 • Fax (503) 221-2009

Laboratory: Apex
Lab Project No.:
Chain of Custody No.:

Project Manager: Ross Rieke (Bridgewater Group)
Project No.: 8001-20
Project Name: Schnitzer - Burgard
Collected by: Corey Rasgorra

Liquid with Sediment Sample — Test Filtrate / Test Sediment
Multi-Phase Sample — Test Core (w/soil) / Test Supernatant
Solubility Test — Test Bioassay

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N): No
Provide Preliminary Fax Results: Yes

Comments:
Sample Number Suffix: -20131118 (Nov. 18th samples & -20131119 (Nov 18th samples)
Results & Invoice to Ross Rieke at Bridgewater Group (rrieke@bridgeh2o.com)
METALS: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Solid/Sediment	Water	Other	Number of Containers	PCBs - (Congeners, Homologs, Aroclors (EPA 1668A)	TOC (SM 5310 Mod)	Total Metals (EPA 6020)	Dissolved Metals (EPA 6020)	Thallium (ARONE)	Dioxins/Furans (EPA 8290)	Phthalates (EPA 8270 SIM)	PAHs (EPA 8270 SIM)	Organochlorine Pesticides	NWTPH - Gx	NWTPH-Dx	TSS (SM 2540D)	RUSH	Remarks
	B22-SP1-	18-Nov-13	13:20	DF 22		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B20-SP-20A-1-	18-Nov-13	14:30	DF 20		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B16-SP1-	18-Nov-13	15:10	MH location		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B19-SP-18-1	18-Nov-13	9:45	MH location for B19		X		17	X	X	X	X	X	X	X	X	X	X	X	X		

Relinquished by: Company: HAH — Date: 11/19/13 — Time: 1000 — Received by: Penny Lee Litten — Company: Apex
Relinquished by: Company: — Date: — Time: — Received by: — Company:
Relinquished by: Company: — Date: — Time: — Received by: — Company:

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 26, 2013

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A3K0592
ARI Job No.: XP36

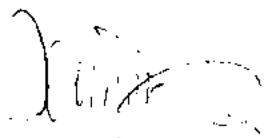
Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: XP36

Enclosures

11-21-13 KH

SUBCONTRACT ORDER

Apex Laboratories

A3K0592

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

OF 22, 1 unpres amber reads B22-SWSP-MH,

Sample Name: B22-SP1-20131118 **Water** **Sampled: 11/18/13 13:20** (A3K0592-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/02/13 13:20	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

OF 20

Sample Name: B20-SP-20A-1-20131118 **Water** **Sampled: 11/18/13 14:30** (A3K0592-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/02/13 14:30	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

MH location

Sample Name: B18-SP1-20131118 **Water** **Sampled: 11/18/13 15:10** (A3K0592-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/02/13 15:10	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

MH location for B19

Sample Name: B19-SP-19-1-20131119 **Water** **Sampled: 11/19/13 09:45** (A3K0592-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/03/13 09:45	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Std TAT

Released By	Date	Received By	Date
	11-21-13 15:12	UPS (Shipper)	
UPS (Shipper)			
Released By	Date	Received By	Date
			11-22-13 1150

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex

COC No(s): _____ NA

Assigned ARI Job No. XP36

Project Name: _____

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: 1Z x47 20R 17709 4216 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		5.1
Time: 1150		
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90677955

Cooler Accepted by: TS Date: 11-22-13 Time: 1150

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time _____ Equipment: _____ Split by: _____

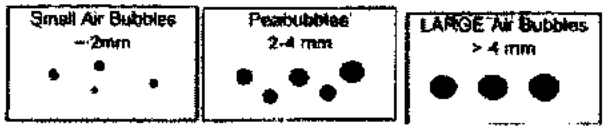
Samples Logged by: TS Date: 11-22-13 Time: 1221

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Case Narrative

Client: Apex Laboratories
Project: A3K0592
ARI Job No.: XP36

Sample Receipt

Analytical Resources, Inc. (ARI) accepted four water samples on November 22, 2013 under ARI job XP36. The cooler temperature measured by IR thermometer following ARI SOP was 5.1°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COC.

Butyltins by Krone 1988 SIM

All sample volumes were submitted in one-liter amber glass bottles therefore the extraction required bottle rinse could not be performed.

The LCS and LCSD percent recoveries of Butyltin fell outside advisory control limits low for **LCS-112313**. All other percent recoveries were within control limits. No corrective action was taken.

There were no other irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: XP36
Client: Apex Labs
Project Event: A3K0592
Project Name: N/A

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	B22-SP1-20131118	XP36A	13-26074	Water	11/18/13 13:20	11/22/13 11:50
2.	B20-SP-20A-1-20131118	XP36B	13-26075	Water	11/18/13 14:30	11/22/13 11:50
3.	B18-SP1-20131118	XP36C	13-26076	Water	11/18/13 15:10	11/22/13 11:50
4.	B19-SP-19-1-20131119	XP36D	13-26077	Water	11/19/13 09:45	11/22/13 11:50

XP36 : 0005

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B22-SP1-20131118**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36A
LIMS ID: 13-26074
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/18/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 09:43
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	54.6%
Tripentyl Tin Chloride	57.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B20-SP-20A-1-20131118**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36B
LIMS ID: 13-26075
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/18/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 09:57
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	42.0%
Tripentyl Tin Chloride	47.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B18-SP1-20131118**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36C
LIMS ID: 13-26076
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/18/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 10:41
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	50.7%
Tripentyl Tin Chloride	57.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B19-SP-19-1-20131119**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36D
LIMS ID: 13-26077
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/19/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 10:55
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	60.7%
Tripentyl Tin Chloride	70.8%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-112313	66.0%	76.1%	0
LCS-112313	57.7%	66.2%	0
LCSD-112313	45.8%	51.8%	0
B22-SP1-20131118	54.6%	57.8%	0
B20-SP-20A-1-20131118	42.0%	47.6%	0
B18-SP1-20131118	50.7%	57.4%	0
B19-SP-19-1-20131119	60.7%	70.8%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)	(30-160)

Prep Method: SW3510C
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 13-26074 to 13-26077

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: LCS-112313
LAB CONTROL SAMPLE

Lab Sample ID: LCS-112313
LIMS ID: 13-26074
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592

Date Sampled: NA
Date Received: NA

Date Extracted LCS: 11/23/13

Date Analyzed LCS: 11/26/13 09:16
LCSD: 11/26/13 09:29
Instrument/Analyst LCS: NT12/VTS
LCSD: NT12/VTS

Sample Amount LCS: 100 mL
LCSD: 100 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	1.61	2.23	72.2%	1.28	2.23	57.4%	22.8%
Dibutyltin Ion	1.12	1.92	58.3%	0.92	1.92	47.9%	19.6%
Butyltin Ion	0.45	1.56	28.8%	0.29	1.56	18.6%	43.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	57.7%	45.8%
Tripentyl Tin Chloride	66.2%	51.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-112313**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-112313
LIMS ID: 13-26074
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 09:02
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	66.0%
Tripentyl Tin Chloride	76.1%

Maxxam

Success Through Science®

Your Project #: A3K0592
Your C.O.C. #: NA

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2013/12/27
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3K2315
Received: 2013/11/22, 11:45

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Water (8290A) (1)	1	2013/12/02	2013/12/03	BRL SOP-00406	EPA 8290A mod.
Dioxins/Furans in Water (8290A) (1)	3	2013/12/02	2013/12/04	BRL SOP-00406	EPA 8290A mod.
PCB Congeners in Water (1668A)	4	2013/11/29	2013/12/04	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager
Email: IVukovic@maxxam.ca
Phone# (905) 817-5700

==========

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Total cover pages: 1

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.2 U	1.2	2.2	1.00	1.20		3444979
1,2,3,7,8-Penta CDD	pg/L	1.5 U	1.5	11	1.00	1.50		3444979
1,2,3,4,7,8-Hexa CDD	pg/L	1.0 U	1.0	11	0.100	0.100		3444979
1,2,3,6,7,8-Hexa CDD	pg/L	1.1 U (1)	1.1	11	0.100	0.110		3444979
1,2,3,7,8,9-Hexa CDD	pg/L	1.2 U (1)	1.2	11	0.100	0.120		3444979
1,2,3,4,6,7,8-Hepta CDD	pg/L	34	1.0	11	0.0100	0.340		3444979
Octa CDD	pg/L	256	1.1	22	0.000300	0.0768		3444979
Total Tetra CDD	pg/L	1.2 U	1.2	2.2				3444979
Total Penta CDD	pg/L	1.5 U	1.5	11				3444979
Total Hexa CDD	pg/L	7.49 J	0.88	11				3444979
Total Hepta CDD	pg/L	64	1.0	11				3444979
2,3,7,8-Tetra CDF **	pg/L	0.99 U	0.99	2.2	0.100	0.0990		3444979
1,2,3,7,8-Penta CDF	pg/L	1.3 U	1.3	11	0.0300	0.0390		3444979
2,3,4,7,8-Penta CDF	pg/L	1.4 U	1.4	11	0.300	0.420		3444979
1,2,3,4,7,8-Hexa CDF	pg/L	1.1 U	1.1	11	0.100	0.110		3444979
1,2,3,6,7,8-Hexa CDF	pg/L	1.02 J	0.89	11	0.100	0.102		3444979
2,3,4,6,7,8-Hexa CDF	pg/L	1.1 U	1.1	11	0.100	0.110		3444979
1,2,3,7,8,9-Hexa CDF	pg/L	1.4 U	1.4	11	0.100	0.140		3444979
1,2,3,4,6,7,8-Hepta CDF	pg/L	19 U (1)	19	11	0.0100	0.190		3444979
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.3 U (1)	1.3	11	0.0100	0.0130		3444979
Octa CDF	pg/L	34	1.4	22	0.000300	0.0102		3444979
Total Tetra CDF	pg/L	0.99 U	0.99	2.2				3444979
Total Penta CDF	pg/L	1.4 U	1.4	11				3444979
Total Hexa CDF	pg/L	18	1.1	11				3444979
Total Hepta CDF	pg/L	26	0.99	11				3444979
TOTAL TOXIC EQUIVALENCY	pg/L					4.68		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	125						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	102						3444979
C13-123478 HexaCDF	%	107						3444979
C13-123678 HexaCDD *	%	107						3444979
C13-12378 PentaCDD	%	135						3444979
C13-12378 PentaCDF	%	123						3444979
C13-2378 TetraCDD	%	71						3444979
C13-2378 TetraCDF	%	76						3444979
C13-OCDD	%	123						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	**B20-SP-20A-1-20131118**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
2,3,7,8-Tetra CDD *	pg/L	1.2 U	1.2	2.2	1.00	1.20		3444979
1,2,3,7,8-Penta CDD	pg/L	1.2 U	1.2	11	1.00	1.20		3444979
1,2,3,4,7,8-Hexa CDD	pg/L	2.9 U (1)	2.9	11	0.100	0.290		3444979
1,2,3,6,7,8-Hexa CDD	pg/L	6.4 J	1.1	11	0.100	0.640		3444979
1,2,3,7,8,9-Hexa CDD	pg/L	5.0 J	1.3	11	0.100	0.500		3444979
1,2,3,4,6,7,8-Hepta CDD	pg/L	137	1.2	11	0.0100	1.37		3444979
Octa CDD	pg/L	1100	1.6	22	0.000300	0.330		3444979
Total Tetra CDD	pg/L	1.2 U	1.2	2.2				3444979
Total Penta CDD	pg/L	1.2 U	1.2	11				3444979
Total Hexa CDD	pg/L	55	1.2	11				3444979
Total Hepta CDD	pg/L	328	1.2	11				3444979
2,3,7,8-Tetra CDF **	pg/L	2.0 J	1.3	2.2	0.100	0.200		3444979
1,2,3,7,8-Penta CDF	pg/L	1.4 U	1.4	11	0.0300	0.0420		3444979
2,3,4,7,8-Penta CDF	pg/L	1.4 U	1.4	11	0.300	0.420		3444979
1,2,3,4,7,8-Hexa CDF	pg/L	2.6 U (1)	2.6	11	0.100	0.260		3444979
1,2,3,6,7,8-Hexa CDF	pg/L	1.61 J	0.74	11	0.100	0.161		3444979
2,3,4,6,7,8-Hexa CDF	pg/L	1.81 J	0.91	11	0.100	0.181		3444979
1,2,3,7,8,9-Hexa CDF	pg/L	1.1 U	1.1	11	0.100	0.110		3444979
1,2,3,4,6,7,8-Hepta CDF	pg/L	28 U (1)	28	11	0.0100	0.280		3444979
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.5 U (1)	1.5	11	0.0100	0.0150		3444979
Octa CDF	pg/L	44	1.4	22	0.000300	0.0132		3444979
Total Tetra CDF	pg/L	4.7	1.3	2.2				3444979
Total Penta CDF	pg/L	12	1.4	11				3444979
Total Hexa CDF	pg/L	42	0.90	11				3444979
Total Hepta CDF	pg/L	43	1.0	11				3444979
TOTAL TOXIC EQUIVALENCY	pg/L					7.21		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	118						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	99						3444979
C13-123478 HexaCDF	%	104						3444979
C13-123678 HexaCDD *	%	104						3444979
C13-12378 PentaCDD	%	130						3444979
C13-12378 PentaCDF	%	118						3444979
C13-2378 TetraCDD	%	80						3444979
C13-2378 TetraCDF	%	80						3444979
C13-OCDD	%	117						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.0 U	1.0	2.2	1.00	1.00		3444979
1,2,3,7,8-Penta CDD	pg/L	1.3 U	1.3	11	1.00	1.30		3444979
1,2,3,4,7,8-Hexa CDD	pg/L	3.2 J	1.3	11	0.100	0.320		3444979
1,2,3,6,7,8-Hexa CDD	pg/L	6.90 J	0.92	11	0.100	0.690		3444979
1,2,3,7,8,9-Hexa CDD	pg/L	7.3 J	1.1	11	0.100	0.730		3444979
1,2,3,4,6,7,8-Hepta CDD	pg/L	165	0.92	11	0.0100	1.65		3444979
Octa CDD	pg/L	1290	1.3	22	0.000300	0.387		3444979
Total Tetra CDD	pg/L	1.0 U	1.0	2.2				3444979
Total Penta CDD	pg/L	1.7 J	1.3	11				3444979
Total Hexa CDD	pg/L	44	1.1	11				3444979
Total Hepta CDD	pg/L	347	0.92	11				3444979
2,3,7,8-Tetra CDF **	pg/L	1.3 U (1)	1.3	2.2	0.100	0.130		3444979
1,2,3,7,8-Penta CDF	pg/L	1.6 U	1.6	11	0.0300	0.0480		3444979
2,3,4,7,8-Penta CDF	pg/L	1.7 U	1.7	11	0.300	0.510		3444979
1,2,3,4,7,8-Hexa CDF	pg/L	3.3 J	1.2	11	0.100	0.330		3444979
1,2,3,6,7,8-Hexa CDF	pg/L	1.98 J	0.97	11	0.100	0.198		3444979
2,3,4,6,7,8-Hexa CDF	pg/L	1.5 J	1.2	11	0.100	0.150		3444979
1,2,3,7,8,9-Hexa CDF	pg/L	1.5 U	1.5	11	0.100	0.150		3444979
1,2,3,4,6,7,8-Hepta CDF	pg/L	48 U (1)	48	11	0.0100	0.480		3444979
1,2,3,4,7,8,9-Hepta CDF	pg/L	3.8 J	1.4	11	0.0100	0.0380		3444979
Octa CDF	pg/L	128	1.2	22	0.000300	0.0384		3444979
Total Tetra CDF	pg/L	1.6 U (1)	1.6	2.2				3444979
Total Penta CDF	pg/L	6.7 J	1.6	11				3444979
Total Hexa CDF	pg/L	57	1.2	11				3444979
Total Hepta CDF	pg/L	91	1.2	11				3444979
TOTAL TOXIC EQUIVALENCY	pg/L					8.15		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	118						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	97						3444979
C13-123478 HexaCDF	%	104						3444979
C13-123678 HexaCDD *	%	106						3444979
C13-12378 PentaCDD	%	130						3444979
C13-12378 PentaCDF	%	127						3444979
C13-2378 TetraCDD	%	84						3444979
C13-2378 TetraCDF	%	88						3444979
C13-OCDD	%	114						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.3 U	1.3	2.2	1.00	1.30		3444979
1,2,3,7,8-Penta CDD	pg/L	3.6 U (1)	3.6	11	1.00	3.60		3444979
1,2,3,4,7,8-Hexa CDD	pg/L	9.3 J	1.5	11	0.100	0.930		3444979
1,2,3,6,7,8-Hexa CDD	pg/L	25	1.1	11	0.100	2.50		3444979
1,2,3,7,8,9-Hexa CDD	pg/L	23	1.2	11	0.100	2.30		3444979
1,2,3,4,6,7,8-Hepta CDD	pg/L	639	1.1	11	0.0100	6.39		3444979
Octa CDD	pg/L	6830	1.5	22	0.000300	2.05		3444979
Total Tetra CDD	pg/L	2.0 U (1)	2.0	2.2				3444979
Total Penta CDD	pg/L	12 U (1)	12	11				3444979
Total Hexa CDD	pg/L	245	1.2	11				3444979
Total Hepta CDD	pg/L	1620	1.1	11				3444979
2,3,7,8-Tetra CDF **	pg/L	10.8	1.3	2.2	0.100	1.08		3444979
1,2,3,7,8-Penta CDF	pg/L	2.6 J	1.3	11	0.0300	0.0780		3444979
2,3,4,7,8-Penta CDF	pg/L	5.7 U (1)	5.7	11	0.300	1.71		3444979
1,2,3,4,7,8-Hexa CDF	pg/L	13	1.0	11	0.100	1.30		3444979
1,2,3,6,7,8-Hexa CDF	pg/L	5.72 J	0.87	11	0.100	0.572		3444979
2,3,4,6,7,8-Hexa CDF	pg/L	5.7 J	1.1	11	0.100	0.570		3444979
1,2,3,7,8,9-Hexa CDF	pg/L	1.3 U	1.3	11	0.100	0.130		3444979
1,2,3,4,6,7,8-Hepta CDF	pg/L	110 U (1)	110	11	0.0100	1.10		3444979
1,2,3,4,7,8,9-Hepta CDF	pg/L	9.82 J	0.97	11	0.0100	0.0982		3444979
Octa CDF	pg/L	217	1.3	22	0.000300	0.0651		3444979
Total Tetra CDF	pg/L	65.6	1.3	2.2				3444979
Total Penta CDF	pg/L	70	1.3	11				3444979
Total Hexa CDF	pg/L	193	1.1	11				3444979
Total Hepta CDF	pg/L	214	0.81	11				3444979
TOTAL TOXIC EQUIVALENCY	pg/L					25.8		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	121						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	100						3444979
C13-123478 HexaCDF	%	100						3444979
C13-123678 HexaCDD *	%	103						3444979
C13-12378 PentaCDD	%	130						3444979
C13-12378 PentaCDF	%	127						3444979
C13-2378 TetraCDD	%	84						3444979
C13-2378 TetraCDF	%	88						3444979
C13-OCDD	%	123						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.035 J	0.019	0.095				3445740
3-MonoCB-(2)	ng/L	0.016 U	0.016	0.095				3445740
4-MonoCB-(3)	ng/L	0.018 U	0.018	0.095				3445740
22'-DiCB-(4)	ng/L	0.224	0.018	0.095				3445740
2,3-DiCB-(5)	ng/L	0.015 U	0.015	0.095				3445740
2,3'-DiCB-(6)	ng/L	0.042 J	0.013	0.095				3445740
2,4-DiCB-(7)	ng/L	0.013 U	0.013	0.095				3445740
2,4'-DiCB-(8)	ng/L	0.199	0.012	0.095				3445740
2,5-DiCB-(9)	ng/L	0.013 U	0.013	0.095				3445740
2,6-DiCB-(10)	ng/L	0.015 U	0.015	0.095				3445740
3,3'-DiCB-(11)	ng/L	0.436	0.013	0.095				3445740
DiCB-(12)+(13)	ng/L	0.013 U	0.013	0.19				3445740
3,5-DiCB-(14)	ng/L	0.013 U	0.013	0.095				3445740
4,4'-DiCB-(15)	ng/L	0.118	0.022	0.095				3445740
22'3-TriCB-(16)	ng/L	0.156	0.024	0.095				3445740
22'4-TriCB-(17)	ng/L	0.132	0.021	0.095				3445740
TriCB-(18)+(30)	ng/L	0.27	0.016	0.19				3445740
22'6-TriCB-(19)	ng/L	0.051 J	0.019	0.095				3445740
TriCB-(20) + (28)	ng/L	0.39	0.014	0.19				3445740
TriCB-(21)+(33)	ng/L	0.26	0.014	0.19				3445740
234'-TriCB-(22)	ng/L	0.166	0.014	0.095				3445740
235-TriCB-(23)	ng/L	0.015 U	0.015	0.095				3445740
236-TriCB-(24)	ng/L	0.015 U	0.015	0.095				3445740
23'4-TriCB-(25)	ng/L	0.031 J	0.014	0.095				3445740
TriCB-(26)+(29)	ng/L	0.068 J	0.014	0.19				3445740
23'6-TriCB-(27)	ng/L	0.021 J	0.014	0.095				3445740
24'5-TriCB-(31)	ng/L	0.341	0.013	0.095				3445740
24'6-TriCB-(32)	ng/L	0.081 J	0.013	0.095				3445740
23'5'-TriCB-(34)	ng/L	0.014 U	0.014	0.095				3445740

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/L	0.013 U	0.013	0.095				3445740
33'5-TriCB-(36)	ng/L	0.012 U	0.012	0.095				3445740
344'-TriCB-(37)	ng/L	0.120	0.017	0.095				3445740
345-TriCB-(38)	ng/L	0.014 U	0.014	0.095				3445740
34'5-TriCB-(39)	ng/L	0.013 U	0.013	0.095				3445740
TetraCB-(40)+(41)+(71)	ng/L	0.163 J	0.020	0.29				3445740
22'34'-TetraCB-(42)	ng/L	0.079 J	0.024	0.095				3445740
22'35-TetraCB-(43)	ng/L	0.033 U	0.033	0.095				3445740
TetraCB-(44)+(47)+(65)	ng/L	0.245 J	0.020	0.29				3445740
TetraCB-(45)+(51)	ng/L	0.050 J	0.020	0.19				3445740
22'36'-TetraCB-(46)	ng/L	0.025 U	0.025	0.095				3445740
22'45-TetraCB-(48)	ng/L	0.055 J	0.020	0.095				3445740
TetraCB-(49)+TetraCB-(69)	ng/L	0.128 J	0.018	0.19				3445740
TetraCB-(50)+(53)	ng/L	0.032 J	0.020	0.19				3445740
22'55'-TetraCB-(52)	ng/L	0.223	0.018	0.095				3445740
22'66'-TetraCB-(54)	ng/L	0.0094 U	0.0094	0.095				3445740
233'4-TetraCB-(55)	ng/L	0.015 U	0.015	0.095				3445740
233'4'-Tetra CB(56)	ng/L	0.096	0.016	0.095				3445740
233'5-TetraCB-(57)	ng/L	0.014 U	0.014	0.095				3445740
233'5'-TetraCB-(58)	ng/L	0.014 U	0.014	0.095				3445740
TetraCB-(59)+(62)+(75)	ng/L	0.025 J	0.016	0.29				3445740
2344'-TetraCB -(60)	ng/L	0.053 J	0.015	0.095				3445740
TetraCB-(61)+(70)+(74)+(76)	ng/L	0.321 J	0.015	0.38				3445740
234'5-TetraCB-(63)	ng/L	0.013 U	0.013	0.095				3445740
234'6-TetraCB-(64)	ng/L	0.129	0.017	0.095				3445740
23'44'-TetraCB-(66)	ng/L	0.142	0.014	0.095				3445740
23'45-TetraCB-(67)	ng/L	0.014 U	0.014	0.095				3445740
23'45'-TetraCB-(68)	ng/L	0.013 U	0.013	0.095				3445740
23'55'-TetraCB-(72)	ng/L	0.014 U	0.014	0.095				3445740

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/L	0.014 U	0.014	0.095				3445740
33'44'-TetraCB-(77)	ng/L	0.024 J	0.017	0.095	0.000100	0.00000240		3445740
33'45-TetraCB-(78)	ng/L	0.015 U	0.015	0.095				3445740
33'45'-TetraCB(79)	ng/L	0.013 U	0.013	0.095				3445740
33'55'-TetraCB-(80)	ng/L	0.013 U	0.013	0.095				3445740
344'5-TetraCB-(81)	ng/L	0.018 U	0.018	0.095	0.000300	0.00000540		3445740
22'33'4-PentaCB-(82)	ng/L	0.037 J	0.021	0.095				3445740
PentaCB-(83)+(99)	ng/L	0.108 J	0.019	0.19				3445740
22'33'6-PentaCB-(84)	ng/L	0.061 U (1)	0.061	0.095				3445740
PentaCB-(85)+(116)+(117)	ng/L	0.036 J	0.015	0.29				3445740
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	0.166 J	0.016	0.57				3445740
PentaCB-(88)+(91)	ng/L	0.030 J	0.018	0.19				3445740
22'346'-PentaCB-(89)	ng/L	0.020 U	0.020	0.095				3445740
PentaCB-(90)+(101)+(113)	ng/L	0.203 J	0.016	0.29				3445740
22'355'-PentaCB-(92)	ng/L	0.038 J	0.019	0.095				3445740
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.019 U	0.019	0.38				3445740
22'356'-PentaCB-(94)	ng/L	0.020 U	0.020	0.095				3445740
22'35'6-PentaCB-(95)	ng/L	0.164	0.018	0.095				3445740
22'366'-PentaCB-(96)	ng/L	0.010 U	0.010	0.095				3445740
22'45'6-PentaCB-(103)	ng/L	0.017 U	0.017	0.095				3445740
22'466'-PentaCB-(104)	ng/L	0.0087 U	0.0087	0.095				3445740
233'44'-PentaCB-(105)	ng/L	0.119	0.018	0.095	0.0000300	0.00000357		3445740
233'45-PentaCB-(106)	ng/L	0.016 U	0.016	0.095				3445740
233'4'5-PentaCB-(107)	ng/L	0.015 U	0.015	0.095				3445740
PentaCB-(108)+(124)	ng/L	0.015 U	0.015	0.19				3445740
PentaCB-(110)+(115)	ng/L	0.34	0.016	0.19				3445740
233'55'-PentaCB-(111)	ng/L	0.013 U	0.013	0.095				3445740
233'56-PentaCB-(112)	ng/L	0.014 U	0.014	0.095				3445740

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5-PentaCB-(114)	ng/L	0.018 U	0.018	0.095	0.0000300	0.000000540		3445740
23'44'5-PentaCB-(118)	ng/L	0.244	0.018	0.095	0.0000300	0.00000732		3445740
23'455'-PentaCB-(120)	ng/L	0.013 U	0.013	0.095				3445740
23'45'6-PentaCB-(121)	ng/L	0.014 U	0.014	0.095				3445740
233'4'5'-PentaCB-(122)	ng/L	0.017 U	0.017	0.095				3445740
23'44'5'-PentaCB-(123)	ng/L	0.019 U	0.019	0.095	0.0000300	0.000000570		3445740
33'44'5-PentaCB-(126)	ng/L	0.018 U	0.018	0.095	0.100	0.00180		3445740
33'455'-PentaCB-(127)	ng/L	0.016 U	0.016	0.095				3445740
HexaCB-(128)+(166)	ng/L	0.055 U (1)	0.055	0.19				3445740
HexaCB-(129)+(138)+(163)	ng/L	0.40	0.030	0.29				3445740
22'33'45'-HexaCB-(130)	ng/L	0.034 U	0.034	0.095				3445740
22'33'46-HexaCB-(131)	ng/L	0.039 U	0.039	0.095				3445740
22'33'46'-HexaCB-(132)	ng/L	0.115	0.033	0.095				3445740
22'33'55'-HexaCB-(133)	ng/L	0.032 U	0.032	0.095				3445740
HexaCB-(134)+(143)	ng/L	0.035 U	0.035	0.19				3445740
HexaCB-(135)+(151)	ng/L	0.075 J	0.030	0.19				3445740
22'33'66'-HexaCB-(136)	ng/L	0.031 J	0.023	0.095				3445740
22'344'5-HexaCB-(137)	ng/L	0.034 U	0.034	0.095				3445740
HexaCB-(139)+(140)	ng/L	0.029 U	0.029	0.19				3445740
22'3455'-HexaCB-(141)	ng/L	0.060 J	0.031	0.095				3445740
22'3456-HexaCB-(142)	ng/L	0.034 U	0.034	0.095				3445740
22'345'6-HexaCB-(144)	ng/L	0.030 U	0.030	0.095				3445740
22'3466'-HexaCB-(145)	ng/L	0.023 U	0.023	0.095				3445740
22'34'55'-HexaCB-(146)	ng/L	0.037 J	0.029	0.095				3445740
HexaCB-(147)+(149)	ng/L	0.20	0.028	0.19				3445740
22'34'56'-HexaCB-(148)	ng/L	0.030 U	0.030	0.095				3445740
22'34'66'-HexaCB-(150)	ng/L	0.021 U	0.021	0.095				3445740
22'3566'-HexaCB-(152)	ng/L	0.023 U	0.023	0.095				3445740

RDL = Reportable Detection Limit
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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/L	0.22	0.024	0.19				3445740
22'44'56'-HexaCB-(154)	ng/L	0.027 U	0.027	0.095				3445740
22'44'66'-HexaCB-(155)	ng/L	0.023 U	0.023	0.095				3445740
HexaCB-(156)+(157)	ng/L	0.045 J	0.019	0.19	0.0000300	0.00000135		3445740
233'44'6-HexaCB-(158)	ng/L	0.036 U (1)	0.036	0.095				3445740
233'455'-HexaCB-(159)	ng/L	0.018 U	0.018	0.095				3445740
233'456-HexaCB-(160)	ng/L	0.023 U	0.023	0.095				3445740
233'45'6-HexaCB-(161)	ng/L	0.023 U	0.023	0.095				3445740
233'4'55'-HexaCB-(162)	ng/L	0.018 U	0.018	0.095				3445740
233'4'5'6-HexaCB-(164)	ng/L	0.024 J	0.022	0.095				3445740
233'55'6-HexaCB-(165)	ng/L	0.025 U	0.025	0.095				3445740
23'44'55'-HexaCB-(167)	ng/L	0.020 U	0.020	0.095	0.0000300	0.000000600		3445740
33'44'55'-HexaCB-(169)	ng/L	0.021 U	0.021	0.095	0.0300	0.000630		3445740
22'33'44'5-HeptaCB-(170)	ng/L	0.075 J	0.023	0.095				3445740
HeptaCB-(171)+(173)	ng/L	0.028 U	0.028	0.19				3445740
22'33'455'-HeptaCB-(172)	ng/L	0.028 U	0.028	0.095				3445740
22'33'456'-HeptaCB-(174)	ng/L	0.061 J	0.026	0.095				3445740
22'33'45'6-HeptaCB-(175)	ng/L	0.024 U	0.024	0.095				3445740
22'33'466'-HeptaCB-(176)	ng/L	0.018 U	0.018	0.095				3445740
22'33'45'6'-HeptaCB-(177)	ng/L	0.033 J	0.028	0.095				3445740
22'33'55'6-HeptaCB-(178)	ng/L	0.025 U	0.025	0.095				3445740
22'33'566'-HeptaCB-(179)	ng/L	0.018 U	0.018	0.095				3445740
HeptaCB-(180)+(193)	ng/L	0.160 J	0.022	0.19				3445740
22'344'56-HeptaCB-(181)	ng/L	0.026 U	0.026	0.095				3445740
22'344'56'-HeptaCB-(182)	ng/L	0.025 U	0.025	0.095				3445740
22'344'5'6-HeptaCB-(183)	ng/L	0.035 J	0.022	0.095				3445740
22'344'66'-HeptaCB-(184)	ng/L	0.017 U	0.017	0.095				3445740
22'3455'6-HeptaCB-(185)	ng/L	0.030 U	0.030	0.095				3445740

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Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34566'-HeptaCB-(186)	ng/L	0.018 U	0.018	0.095				3445740
22'34'55'6-HeptaCB-(187)	ng/L	0.073 J	0.023	0.095				3445740
22'34'566'-HeptaCB-(188)	ng/L	0.021 U	0.021	0.095				3445740
233'44'55'-HeptaCB-(189)	ng/L	0.013 U	0.013	0.095	0.0000300	0.000000390		3445740
233'44'56-HeptaCB-(190)	ng/L	0.022 U	0.022	0.095				3445740
233'44'5'6-HeptaCB-(191)	ng/L	0.020 U	0.020	0.095				3445740
233'455'6-HeptaCB-(192)	ng/L	0.021 U	0.021	0.095				3445740
22'33'44'55'-OctaCB-(194)	ng/L	0.039 J	0.023	0.095				3445740
22'33'44'56-OctaCB-(195)	ng/L	0.023 U	0.023	0.095				3445740
22'33'44'56'-OctaCB-(196)	ng/L	0.020 U	0.020	0.095				3445740
22'33'44'66'OctaCB-(197)	ng/L	0.014 U	0.014	0.095				3445740
OctaCB-(198)+(199)	ng/L	0.048 J	0.019	0.19				3445740
22'33'4566'-OctaCB-(200)	ng/L	0.013 U	0.013	0.095				3445740
22'33'45'66'-OctaCB-(201)	ng/L	0.013 U	0.013	0.095				3445740
22'33'55'66'-OctaCB-(202)	ng/L	0.018 U	0.018	0.095				3445740
22'344'55'6-OctaCB-(203)	ng/L	0.026 J	0.018	0.095				3445740
22'344'566'-OctaCB-(204)	ng/L	0.014 U	0.014	0.095				3445740
233'44'55'6-OctaCB-(205)	ng/L	0.019 U	0.019	0.095				3445740
22'33'44'55'6-NonaCB-(206)	ng/L	0.026 U	0.026	0.095				3445740
22'33'44'566'-NonaCB-(207)	ng/L	0.020 U	0.020	0.095				3445740
22'33'455'66'-NonaCB-(208)	ng/L	0.024 U	0.024	0.095				3445740
DecaCB-(209)	ng/L	0.016 U	0.016	0.095				3445740
Monochlorobiphenyl	ng/L	0.035	0.019	N/A			1	3445740
Dichlorobiphenyl	ng/L	1.02	0.022	N/A			5	3445740
Trichlorobiphenyl	ng/L	2.09	0.024	N/A			13	3445740
Tetrachlorobiphenyl	ng/L	1.76	0.033	N/A			15	3445740
Pentachlorobiphenyl	ng/L	1.49	0.023	N/A			11	3445740
Hexachlorobiphenyl	ng/L	1.20	0.039	N/A			10	3445740
Heptachlorobiphenyl	ng/L	0.436	0.030	N/A			6	3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Octachlorobiphenyl	ng/L	0.113	0.023	N/A			3	3445740
Nonachlorobiphenyl	ng/L	0.026 U	0.026	N/A			0	3445740
Decachlorobiphenyl	ng/L	0.016 U	0.016	N/A			0	3445740
Total PCB	ng/L	8.15	N/A	N/A				3445740
TOTAL TOXIC EQUIVALENCY	ng/L					0.00245		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	92						3445740
C13-22'33'44'55'6-NonaCB-(206)	%	94						3445740
C13-22'33'44'5-HeptaCB-(170)	%	101						3445740
C13-22'33'455'66'-NonaCB-(208)	%	96						3445740
C13-22'33'55'66'-OctaCB-(202)	%	94						3445740
C13-22'33'55'6-HeptaCB-(178)	%	105						3445740
C13-22'344'55'-HeptaCB-(180)	%	102						3445740
C13-22'34'566'-HeptaCB-(188)	%	85						3445740
C13-22'44'66'-HexaCB-(155)	%	80						3445740
C13-22'466'-PentaCB-(104)	%	71						3445740
C13-22'66'-TetraCB-(54)	%	66						3445740
C13-22'6-TriCB-(19)	%	52						3445740
C13-22'-DiCB-(4)	%	33						3445740
C13-233'44'55'6-OctaCB-(205)	%	100						3445740
C13-233'44'55'-HeptaCB-(189)	%	108						3445740
C13-233'44'-PentaCB-(105)	%	99						3445740
C13-233'55'-PentaCB-(111)	%	97						3445740
C13-23'44'55'-HexaCB-(167)	%	99						3445740
C13-2344'5-PentaCB-(114)	%	97						3445740
C13-23'44'5-PentaCB-(118)	%	98						3445740
C13-2'344'5-PentaCB-(123)	%	98						3445740
C13-2-MonoCB-(1)	%	26						3445740
C13-33'44'55'-HexaCB-(169)	%	52						3445740

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'5-PentaCB-(126)	%	92						3445740
C13-33'44'-TetraCB-(77)	%	113						3445740
C13-344'5-TetraCB-(81)	%	112						3445740
C13-344'-TriCB-(37)	%	98						3445740
C13-44'-DiCB-(15)	%	79						3445740
C13-4-MonoCB-(3)	%	36						3445740
C13-DecaCB-(209)	%	84						3445740
C13-HexaCB-(156)+(157)	%	98						3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.033 U (1)	0.033	0.098				3445740
3-MonoCB-(2)	ng/L	0.016 U	0.016	0.098				3445740
4-MonoCB-(3)	ng/L	0.024 J	0.018	0.098				3445740
22'-DiCB-(4)	ng/L	0.330	0.018	0.098				3445740
2,3-DiCB-(5)	ng/L	0.017 U	0.017	0.098				3445740
2,3'-DiCB-(6)	ng/L	0.111	0.015	0.098				3445740
2,4-DiCB-(7)	ng/L	0.015 U	0.015	0.098				3445740
2,4'-DiCB-(8)	ng/L	0.541	0.014	0.098				3445740
2,5-DiCB-(9)	ng/L	0.028 J	0.015	0.098				3445740
2,6-DiCB-(10)	ng/L	0.015 U	0.015	0.098				3445740
3,3'-DiCB-(11)	ng/L	0.503	0.015	0.098				3445740
DiCB-(12)+(13)	ng/L	0.063 U (1)	0.063	0.20				3445740
3,5-DiCB-(14)	ng/L	0.015 U	0.015	0.098				3445740
4,4'-DiCB-(15)	ng/L	0.658	0.025	0.098				3445740
22'3-TriCB-(16)	ng/L	0.576	0.033	0.098				3445740
22'4-TriCB-(17)	ng/L	0.521	0.029	0.098				3445740
TriCB-(18)+(30)	ng/L	1.05	0.023	0.20				3445740
22'6-TriCB-(19)	ng/L	0.137	0.026	0.098				3445740
TriCB-(20) + (28)	ng/L	2.50	0.019	0.20				3445740
TriCB-(21)+(33)	ng/L	1.42	0.019	0.20				3445740
234'-TriCB-(22)	ng/L	0.969	0.020	0.098				3445740
235-TriCB-(23)	ng/L	0.020 U	0.020	0.098				3445740
236-TriCB-(24)	ng/L	0.029 J	0.021	0.098				3445740
23'4-TriCB-(25)	ng/L	0.180	0.020	0.098				3445740
TriCB-(26)+(29)	ng/L	0.36	0.019	0.20				3445740
23'6-TriCB-(27)	ng/L	0.096 J	0.020	0.098				3445740
24'5-TriCB-(31)	ng/L	1.92	0.018	0.098				3445740
24'6-TriCB-(32)	ng/L	0.383	0.018	0.098				3445740

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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B3K2315
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Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.020 U	0.020	0.098				3445740
33'4-TriCB-(35)	ng/L	0.047 J	0.019	0.098				3445740
33'5-TriCB-(36)	ng/L	0.016 U	0.016	0.098				3445740
344'-TriCB-(37)	ng/L	0.936	0.023	0.098				3445740
345-TriCB-(38)	ng/L	0.019 U	0.019	0.098				3445740
34'5-TriCB-(39)	ng/L	0.017 U	0.017	0.098				3445740
TetraCB-(40)+(41)+(71)	ng/L	1.31	0.023	0.29				3445740
22'34'-TetraCB-(42)	ng/L	0.667	0.028	0.098				3445740
22'35-TetraCB-(43)	ng/L	0.095 J	0.038	0.098				3445740
TetraCB-(44)+(47)+(65)	ng/L	2.24	0.023	0.29				3445740
TetraCB-(45)+(51)	ng/L	0.33	0.023	0.20				3445740
22'36'-TetraCB-(46)	ng/L	0.134	0.029	0.098				3445740
22'45-TetraCB-(48)	ng/L	0.394	0.023	0.098				3445740
TetraCB-(49)+TetraCB-(69)	ng/L	1.12	0.021	0.20				3445740
TetraCB-(50)+(53)	ng/L	0.23	0.023	0.20				3445740
22'55'-TetraCB-(52)	ng/L	2.17	0.021	0.098				3445740
22'66'-TetraCB-(54)	ng/L	0.016 U	0.016	0.098				3445740
233'4-TetraCB-(55)	ng/L	0.018 U (1)	0.018	0.098				3445740
233'4'-Tetra CB(56)	ng/L	0.831	0.020	0.098				3445740
233'5-TetraCB-(57)	ng/L	0.018 U	0.018	0.098				3445740
233'5'-TetraCB-(58)	ng/L	0.018 U	0.018	0.098				3445740
TetraCB-(59)+(62)+(75)	ng/L	0.198 J	0.018	0.29				3445740
2344'-TetraCB -(60)	ng/L	0.352	0.018	0.098				3445740
TetraCB-(61)+(70)+(74)+(76)	ng/L	3.01	0.018	0.39				3445740
234'5-TetraCB-(63)	ng/L	0.048 J	0.017	0.098				3445740
234'6-TetraCB-(64)	ng/L	1.06	0.020	0.098				3445740
23'44'-TetraCB-(66)	ng/L	1.51	0.017	0.098				3445740
23'45-TetraCB-(67)	ng/L	0.053 J	0.017	0.098				3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'45'-TetraCB-(68)	ng/L	0.016 U	0.016	0.098				3445740
23'55'-TetraCB-(72)	ng/L	0.017 U	0.017	0.098				3445740
23'5'6-TetraCB-(73)	ng/L	0.016 U	0.016	0.098				3445740
33'44'-TetraCB-(77)	ng/L	0.244	0.021	0.098	0.000100	0.0000244		3445740
33'45-TetraCB-(78)	ng/L	0.018 U	0.018	0.098				3445740
33'45'-TetraCB(79)	ng/L	0.030 J	0.016	0.098				3445740
33'55'-TetraCB-(80)	ng/L	0.016 U	0.016	0.098				3445740
344'5-TetraCB-(81)	ng/L	0.022 U	0.022	0.098	0.000300	0.00000660		3445740
22'33'4-PentaCB-(82)	ng/L	0.507	0.023	0.098				3445740
PentaCB-(83)+(99)	ng/L	1.66	0.020	0.20				3445740
22'33'6-PentaCB-(84)	ng/L	0.897	0.024	0.098				3445740
PentaCB-(85)+(116)+(117)	ng/L	0.52	0.016	0.29				3445740
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	2.62	0.017	0.59				3445740
PentaCB-(88)+(91)	ng/L	0.39	0.020	0.20				3445740
22'346'-PentaCB-(89)	ng/L	0.036 J	0.021	0.098				3445740
PentaCB-(90)+(101)+(113)	ng/L	3.33	0.017	0.29				3445740
22'355'-PentaCB-(92)	ng/L	0.554	0.020	0.098				3445740
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.115 J	0.021	0.39				3445740
22'356'-PentaCB-(94)	ng/L	0.021 U	0.021	0.098				3445740
22'35'6-PentaCB-(95)	ng/L	2.33	0.019	0.098				3445740
22'366'-PentaCB-(96)	ng/L	0.019 U	0.019	0.098				3445740
22'45'6-PentaCB-(103)	ng/L	0.018 U	0.018	0.098				3445740
22'466'-PentaCB-(104)	ng/L	0.016 U	0.016	0.098				3445740
233'44'-PentaCB-(105)	ng/L	1.76	0.023	0.098	0.0000300	0.0000528		3445740
233'45-PentaCB-(106)	ng/L	0.020 U	0.020	0.098				3445740
233'4'5-PentaCB-(107)	ng/L	0.208	0.018	0.098				3445740
PentaCB-(108)+(124)	ng/L	0.144 J	0.019	0.20				3445740
PentaCB-(110)+(115)	ng/L	5.75	0.017	0.20				3445740
233'55'-PentaCB-(111)	ng/L	0.014 U	0.014	0.098				3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/L	0.015 U	0.015	0.098				3445740
2344'5-PentaCB-(114)	ng/L	0.074 J	0.022	0.098	0.0000300	0.00000222		3445740
23'44'5-PentaCB-(118)	ng/L	3.98	0.022	0.098	0.0000300	0.000119		3445740
23'455'-PentaCB-(120)	ng/L	0.014 U	0.014	0.098				3445740
23'45'6-PentaCB-(121)	ng/L	0.014 U	0.014	0.098				3445740
233'4'5'-PentaCB-(122)	ng/L	0.054 J	0.022	0.098				3445740
23'44'5'-PentaCB-(123)	ng/L	0.071 J	0.024	0.098	0.0000300	0.00000213		3445740
33'44'5-PentaCB-(126)	ng/L	0.025 J	0.022	0.098	0.100	0.00250		3445740
33'455'-PentaCB-(127)	ng/L	0.020 U	0.020	0.098				3445740
HexaCB-(128)+(166)	ng/L	0.97	0.016	0.20				3445740
HexaCB-(129)+(138)+(163)	ng/L	6.63	0.019	0.29				3445740
22'33'45'-HexaCB-(130)	ng/L	0.325	0.021	0.098				3445740
22'33'46-HexaCB-(131)	ng/L	0.081 J	0.024	0.098				3445740
22'33'46'-HexaCB-(132)	ng/L	1.82	0.021	0.098				3445740
22'33'55'-HexaCB-(133)	ng/L	0.054 J	0.020	0.098				3445740
HexaCB-(134)+(143)	ng/L	0.26	0.022	0.20				3445740
HexaCB-(135)+(151)	ng/L	1.14	0.025	0.20				3445740
22'33'66'-HexaCB-(136)	ng/L	0.433	0.019	0.098				3445740
22'344'5-HexaCB-(137)	ng/L	0.307	0.021	0.098				3445740
HexaCB-(139)+(140)	ng/L	0.083 J	0.018	0.20				3445740
22'3455'-HexaCB-(141)	ng/L	0.965	0.019	0.098				3445740
22'3456-HexaCB-(142)	ng/L	0.021 U	0.021	0.098				3445740
22'345'6-HexaCB-(144)	ng/L	0.191	0.025	0.098				3445740
22'3466'-HexaCB-(145)	ng/L	0.020 U	0.020	0.098				3445740
22'34'55'-HexaCB-(146)	ng/L	0.598	0.018	0.098				3445740
HexaCB-(147)+(149)	ng/L	3.26	0.017	0.20				3445740
22'34'56'-HexaCB-(148)	ng/L	0.025 U	0.025	0.098				3445740
22'34'66'-HexaCB-(150)	ng/L	0.018 U	0.018	0.098				3445740
22'3566'-HexaCB-(152)	ng/L	0.019 U	0.019	0.098				3445740

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Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/L	3.77	0.015	0.20				3445740
22'44'56'-HexaCB-(154)	ng/L	0.029 J	0.022	0.098				3445740
22'44'66'-HexaCB-(155)	ng/L	0.020 U	0.020	0.098				3445740
HexaCB-(156)+(157)	ng/L	0.68	0.021	0.20	0.0000300	0.0000204		3445740
233'44'6-HexaCB-(158)	ng/L	0.604	0.014	0.098				3445740
233'455'-HexaCB-(159)	ng/L	0.035 J	0.020	0.098				3445740
233'456-HexaCB-(160)	ng/L	0.015 U	0.015	0.098				3445740
233'45'6-HexaCB-(161)	ng/L	0.014 U	0.014	0.098				3445740
233'4'55'-HexaCB-(162)	ng/L	0.024 J	0.020	0.098				3445740
233'4'5'6-HexaCB-(164)	ng/L	0.346	0.014	0.098				3445740
233'55'6-HexaCB-(165)	ng/L	0.015 U	0.015	0.098				3445740
23'44'55'-HexaCB-(167)	ng/L	0.233	0.022	0.098	0.0000300	0.00000699		3445740
33'44'55'-HexaCB-(169)	ng/L	0.023 U	0.023	0.098	0.0300	0.000690		3445740
22'33'44'5-HeptaCB-(170)	ng/L	0.979	0.018	0.098				3445740
HeptaCB-(171)+(173)	ng/L	0.28	0.021	0.20				3445740
22'33'455'-HeptaCB-(172)	ng/L	0.181	0.022	0.098				3445740
22'33'456'-HeptaCB-(174)	ng/L	0.934	0.020	0.098				3445740
22'33'45'6-HeptaCB-(175)	ng/L	0.035 J	0.018	0.098				3445740
22'33'466'-HeptaCB-(176)	ng/L	0.102	0.014	0.098				3445740
22'33'45'6'-HeptaCB-(177)	ng/L	0.522	0.022	0.098				3445740
22'33'55'6-HeptaCB-(178)	ng/L	0.180	0.019	0.098				3445740
22'33'566'-HeptaCB-(179)	ng/L	0.318	0.014	0.098				3445740
HeptaCB-(180)+(193)	ng/L	2.48	0.017	0.20				3445740
22'344'56-HeptaCB-(181)	ng/L	0.020 U	0.020	0.098				3445740
22'344'56'-HeptaCB-(182)	ng/L	0.019 U	0.019	0.098				3445740
22'344'5'6-HeptaCB-(183)	ng/L	0.495	0.017	0.098				3445740
22'344'66'-HeptaCB-(184)	ng/L	0.013 U	0.013	0.098				3445740
22'3455'6-HeptaCB-(185)	ng/L	0.083 J	0.023	0.098				3445740
22'34566'-HeptaCB-(186)	ng/L	0.014 U	0.014	0.098				3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/L	1.13	0.017	0.098				3445740
22'34'566'-HeptaCB-(188)	ng/L	0.016 U	0.016	0.098				3445740
233'44'55'-HeptaCB-(189)	ng/L	0.042 U (1)	0.042	0.098	0.0000300	0.00000126		3445740
233'44'56-HeptaCB-(190)	ng/L	0.209	0.017	0.098				3445740
233'44'5'6-HeptaCB-(191)	ng/L	0.039 J	0.016	0.098				3445740
233'455'6-HeptaCB-(192)	ng/L	0.017 U	0.017	0.098				3445740
22'33'44'55'-OctaCB-(194)	ng/L	0.630	0.021	0.098				3445740
22'33'44'56-OctaCB-(195)	ng/L	0.184	0.022	0.098				3445740
22'33'44'56'-OctaCB-(196)	ng/L	0.327	0.024	0.098				3445740
22'33'44'66'OctaCB-(197)	ng/L	0.018 U	0.018	0.098				3445740
OctaCB-(198)+(199)	ng/L	0.80	0.024	0.20				3445740
22'33'4566'-OctaCB-(200)	ng/L	0.072 J	0.016	0.098				3445740
22'33'45'66'-OctaCB-(201)	ng/L	0.074 U (1)	0.074	0.098				3445740
22'33'55'66'-OctaCB-(202)	ng/L	0.180	0.022	0.098				3445740
22'344'55'6-OctaCB-(203)	ng/L	0.500	0.023	0.098				3445740
22'344'566'-OctaCB-(204)	ng/L	0.017 U	0.017	0.098				3445740
233'44'55'6-OctaCB-(205)	ng/L	0.026 U (1)	0.026	0.098				3445740
22'33'44'55'6-NonaCB-(206)	ng/L	0.592	0.022	0.098				3445740
22'33'44'566'-NonaCB-(207)	ng/L	0.063 J	0.016	0.098				3445740
22'33'455'66'-NonaCB-(208)	ng/L	0.141	0.019	0.098				3445740
DecaCB-(209)	ng/L	0.142	0.023	0.098				3445740
Monochlorobiphenyl	ng/L	0.024	0.019	N/A			1	3445740
Dichlorobiphenyl	ng/L	2.17	0.025	N/A			6	3445740
Trichlorobiphenyl	ng/L	11.1	0.033	N/A			15	3445740
Tetrachlorobiphenyl	ng/L	16.0	0.038	N/A			20	3445740
Pentachlorobiphenyl	ng/L	25.0	0.024	N/A			20	3445740
Hexachlorobiphenyl	ng/L	22.8	0.025	N/A			23	3445740
Heptachlorobiphenyl	ng/L	7.97	0.023	N/A			15	3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	**B20-SP-20A-1-20131118**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Octachlorobiphenyl	ng/L	2.69	0.024	N/A			7	3445740
Nonachlorobiphenyl	ng/L	0.796	0.022	N/A			3	3445740
Decachlorobiphenyl	ng/L	0.142	0.023	N/A			1	3445740
Total PCB	ng/L	88.8	N/A	N/A				3445740
TOTAL TOXIC EQUIVALENCY	ng/L					0.00343		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	101						3445740
C13-22'33'44'55'6-NonaCB-(206)	%	94						3445740
C13-22'33'44'5-HeptaCB-(170)	%	104						3445740
C13-22'33'455'66'-NonaCB-(208)	%	93						3445740
C13-22'33'55'66'-OctaCB-(202)	%	94						3445740
C13-22'33'55'6-HeptaCB-(178)	%	105						3445740
C13-22'344'55'-HeptaCB-(180)	%	103						3445740
C13-22'34'566'-HeptaCB-(188)	%	88						3445740
C13-22'44'66'-HexaCB-(155)	%	83						3445740
C13-22'466'-PentaCB-(104)	%	81						3445740
C13-22'66'-TetraCB-(54)	%	77						3445740
C13-22'6-TriCB-(19)	%	66						3445740
C13-22'-DiCB-(4)	%	49						3445740
C13-233'44'55'6-OctaCB-(205)	%	101						3445740
C13-233'44'55'-HeptaCB-(189)	%	109						3445740
C13-233'44'-PentaCB-(105)	%	103						3445740
C13-233'55'-PentaCB-(111)	%	95						3445740
C13-23'44'55'-HexaCB-(167)	%	99						3445740
C13-2344'5-PentaCB-(114)	%	99						3445740
C13-23'44'5-PentaCB-(118)	%	103						3445740
C13-2'344'5-PentaCB-(123)	%	101						3445740
C13-2-MonoCB-(1)	%	45						3445740
C13-33'44'55'-HexaCB-(169)	%	63						3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'5-PentaCB-(126)	%	102						3445740
C13-33'44'-TetraCB-(77)	%	116						3445740
C13-344'5-TetraCB-(81)	%	114						3445740
C13-344'-TriCB-(37)	%	107						3445740
C13-44'-DiCB-(15)	%	95						3445740
C13-4-MonoCB-(3)	%	57						3445740
C13-DecaCB-(209)	%	81						3445740
C13-HexaCB-(156)+(157)	%	99						3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.020 J	0.016	0.10				3445740
3-MonoCB-(2)	ng/L	0.014 U	0.014	0.10				3445740
4-MonoCB-(3)	ng/L	0.017 J	0.015	0.10				3445740
22'-DiCB-(4)	ng/L	0.16	0.018	0.10				3445740
2,3-DiCB-(5)	ng/L	0.020 U	0.020	0.10				3445740
2,3'-DiCB-(6)	ng/L	0.077 J	0.017	0.10				3445740
2,4-DiCB-(7)	ng/L	0.017 U	0.017	0.10				3445740
2,4'-DiCB-(8)	ng/L	0.34	0.016	0.10				3445740
2,5-DiCB-(9)	ng/L	0.020 U (1)	0.020	0.10				3445740
2,6-DiCB-(10)	ng/L	0.015 U	0.015	0.10				3445740
3,3'-DiCB-(11)	ng/L	0.25	0.017	0.10				3445740
DiCB-(12)+(13)	ng/L	0.044 U (1)	0.044	0.20				3445740
3,5-DiCB-(14)	ng/L	0.017 U	0.017	0.10				3445740
4,4'-DiCB-(15)	ng/L	0.39	0.029	0.10				3445740
22'3-TriCB-(16)	ng/L	0.41	0.023	0.10				3445740
22'4-TriCB-(17)	ng/L	0.38	0.020	0.10				3445740
TriCB-(18)+(30)	ng/L	0.74	0.016	0.20				3445740
22'6-TriCB-(19)	ng/L	0.087 J	0.018	0.10				3445740
TriCB-(20) + (28)	ng/L	1.79	0.018	0.20				3445740
TriCB-(21)+(33)	ng/L	1.04	0.019	0.20				3445740
234'-TriCB-(22)	ng/L	0.72	0.019	0.10				3445740
235-TriCB-(23)	ng/L	0.019 U	0.019	0.10				3445740
236-TriCB-(24)	ng/L	0.020 J	0.015	0.10				3445740
23'4-TriCB-(25)	ng/L	0.13	0.019	0.10				3445740
TriCB-(26)+(29)	ng/L	0.26	0.018	0.20				3445740
23'6-TriCB-(27)	ng/L	0.063 J	0.014	0.10				3445740
24'5-TriCB-(31)	ng/L	1.41	0.017	0.10				3445740
24'6-TriCB-(32)	ng/L	0.28	0.013	0.10				3445740

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Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'-TriCB-(34)	ng/L	0.019 U	0.019	0.10				3445740
33'4-TriCB-(35)	ng/L	0.029 J	0.018	0.10				3445740
33'5-TriCB-(36)	ng/L	0.015 U	0.015	0.10				3445740
344'-TriCB-(37)	ng/L	0.64	0.022	0.10				3445740
345-TriCB-(38)	ng/L	0.018 U	0.018	0.10				3445740
34'5-TriCB-(39)	ng/L	0.016 U	0.016	0.10				3445740
TetraCB-(40)+(41)+(71)	ng/L	0.96	0.022	0.30				3445740
22'34'-TetraCB-(42)	ng/L	0.48	0.026	0.10				3445740
22'35-TetraCB-(43)	ng/L	0.080 J	0.036	0.10				3445740
TetraCB-(44)+(47)+(65)	ng/L	1.56	0.022	0.30				3445740
TetraCB-(45)+(51)	ng/L	0.25	0.022	0.20				3445740
22'36'-TetraCB-(46)	ng/L	0.091 J	0.027	0.10				3445740
22'45-TetraCB-(48)	ng/L	0.28	0.022	0.10				3445740
TetraCB-(49)+TetraCB-(69)	ng/L	0.79	0.020	0.20				3445740
TetraCB-(50)+(53)	ng/L	0.165 J	0.022	0.20				3445740
22'55'-TetraCB-(52)	ng/L	1.40	0.020	0.10				3445740
22'66'-TetraCB-(54)	ng/L	0.017 U	0.017	0.10				3445740
233'4-TetraCB-(55)	ng/L	0.020 U	0.020	0.10				3445740
233'4'-Tetra CB(56)	ng/L	0.53	0.022	0.10				3445740
233'5-TetraCB-(57)	ng/L	0.020 U	0.020	0.10				3445740
233'5'-TetraCB-(58)	ng/L	0.020 U	0.020	0.10				3445740
TetraCB-(59)+(62)+(75)	ng/L	0.143 J	0.017	0.30				3445740
2344'-TetraCB -(60)	ng/L	0.25	0.020	0.10				3445740
TetraCB-(61)+(70)+(74)+(76)	ng/L	2.01	0.020	0.40				3445740
234'5-TetraCB-(63)	ng/L	0.034 J	0.019	0.10				3445740
234'6-TetraCB-(64)	ng/L	0.81	0.019	0.10				3445740
23'44'-TetraCB-(66)	ng/L	0.96	0.019	0.10				3445740
23'45-TetraCB-(67)	ng/L	0.037 J	0.019	0.10				3445740
23'45'-TetraCB-(68)	ng/L	0.018 U	0.018	0.10				3445740

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COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/L	0.019 U	0.019	0.10				3445740
23'5'6-TetraCB-(73)	ng/L	0.015 U	0.015	0.10				3445740
33'44'-TetraCB-(77)	ng/L	0.14	0.024	0.10	0.000100	0.0000140		3445740
33'45-TetraCB-(78)	ng/L	0.020 U	0.020	0.10				3445740
33'45'-TetraCB(79)	ng/L	0.018 U	0.018	0.10				3445740
33'55'-TetraCB-(80)	ng/L	0.018 U	0.018	0.10				3445740
344'5-TetraCB-(81)	ng/L	0.024 U	0.024	0.10	0.000300	0.00000720		3445740
22'33'4-PentaCB-(82)	ng/L	0.26	0.027	0.10				3445740
PentaCB-(83)+(99)	ng/L	0.82	0.024	0.20				3445740
22'33'6-PentaCB-(84)	ng/L	0.49	0.029	0.10				3445740
PentaCB-(85)+(116)+(117)	ng/L	0.254 J	0.019	0.30				3445740
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	1.30	0.021	0.60				3445740
PentaCB-(88)+(91)	ng/L	0.22	0.024	0.20				3445740
22'346'-PentaCB-(89)	ng/L	0.026 U	0.026	0.10				3445740
PentaCB-(90)+(101)+(113)	ng/L	1.71	0.021	0.30				3445740
22'355'-PentaCB-(92)	ng/L	0.27	0.024	0.10				3445740
PentaCB-(93)+(98)+(100)+(102)	ng/L	0.071 J	0.025	0.40				3445740
22'356'-PentaCB-(94)	ng/L	0.026 U	0.026	0.10				3445740
22'35'6-PentaCB-(95)	ng/L	1.32	0.023	0.10				3445740
22'366'-PentaCB-(96)	ng/L	0.019 U	0.019	0.10				3445740
22'45'6-PentaCB-(103)	ng/L	0.021 U	0.021	0.10				3445740
22'466'-PentaCB-(104)	ng/L	0.017 U	0.017	0.10				3445740
233'44'-PentaCB-(105)	ng/L	0.84	0.020	0.10	0.0000300	0.0000252		3445740
233'45-PentaCB-(106)	ng/L	0.018 U	0.018	0.10				3445740
233'4'5-PentaCB-(107)	ng/L	0.12	0.017	0.10				3445740
PentaCB-(108)+(124)	ng/L	0.069 J	0.018	0.20				3445740
PentaCB-(110)+(115)	ng/L	2.79	0.021	0.20				3445740
233'55'-PentaCB-(111)	ng/L	0.017 U	0.017	0.10				3445740
233'56-PentaCB-(112)	ng/L	0.018 U	0.018	0.10				3445740

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2344'5-PentaCB-(114)	ng/L	0.044 J	0.020	0.10	0.0000300	0.00000132		3445740
23'44'5-PentaCB-(118)	ng/L	1.92	0.020	0.10	0.0000300	0.0000576		3445740
23'455'-PentaCB-(120)	ng/L	0.017 U	0.017	0.10				3445740
23'45'6-PentaCB-(121)	ng/L	0.017 U	0.017	0.10				3445740
233'4'5'-PentaCB-(122)	ng/L	0.023 U (1)	0.023	0.10				3445740
23'44'5'-PentaCB-(123)	ng/L	0.026 J	0.022	0.10	0.0000300	0.000000780		3445740
33'44'5-PentaCB-(126)	ng/L	0.020 U	0.020	0.10	0.100	0.00200		3445740
33'455'-PentaCB-(127)	ng/L	0.018 U	0.018	0.10				3445740
HexaCB-(128)+(166)	ng/L	0.45	0.016	0.20				3445740
HexaCB-(129)+(138)+(163)	ng/L	3.30	0.018	0.30				3445740
22'33'45'-HexaCB-(130)	ng/L	0.17	0.021	0.10				3445740
22'33'46-HexaCB-(131)	ng/L	0.041 J	0.024	0.10				3445740
22'33'46'-HexaCB-(132)	ng/L	0.93	0.020	0.10				3445740
22'33'55'-HexaCB-(133)	ng/L	0.031 J	0.019	0.10				3445740
HexaCB-(134)+(143)	ng/L	0.135 J	0.022	0.20				3445740
HexaCB-(135)+(151)	ng/L	0.66	0.030	0.20				3445740
22'33'66'-HexaCB-(136)	ng/L	0.27	0.022	0.10				3445740
22'344'5-HexaCB-(137)	ng/L	0.14	0.020	0.10				3445740
HexaCB-(139)+(140)	ng/L	0.041 J	0.017	0.20				3445740
22'3455'-HexaCB-(141)	ng/L	0.53	0.019	0.10				3445740
22'3456-HexaCB-(142)	ng/L	0.021 U	0.021	0.10				3445740
22'345'6-HexaCB-(144)	ng/L	0.11	0.030	0.10				3445740
22'3466'-HexaCB-(145)	ng/L	0.023 U	0.023	0.10				3445740
22'34'55'-HexaCB-(146)	ng/L	0.33	0.018	0.10				3445740
HexaCB-(147)+(149)	ng/L	1.79	0.017	0.20				3445740
22'34'56'-HexaCB-(148)	ng/L	0.030 U	0.030	0.10				3445740
22'34'66'-HexaCB-(150)	ng/L	0.021 U	0.021	0.10				3445740
22'3566'-HexaCB-(152)	ng/L	0.023 U	0.023	0.10				3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/L	1.96	0.014	0.20				3445740
22'44'56'-HexaCB-(154)	ng/L	0.026 U	0.026	0.10				3445740
22'44'66'-HexaCB-(155)	ng/L	0.023 U	0.023	0.10				3445740
HexaCB-(156)+(157)	ng/L	0.35	0.016	0.20	0.0000300	0.0000105		3445740
233'44'6-HexaCB-(158)	ng/L	0.30	0.014	0.10				3445740
233'455'-HexaCB-(159)	ng/L	0.022 J	0.015	0.10				3445740
233'456-HexaCB-(160)	ng/L	0.014 U	0.014	0.10				3445740
233'45'6-HexaCB-(161)	ng/L	0.014 U	0.014	0.10				3445740
233'4'55'-HexaCB-(162)	ng/L	0.015 U	0.015	0.10				3445740
233'4'5'6-HexaCB-(164)	ng/L	0.18	0.014	0.10				3445740
233'55'6-HexaCB-(165)	ng/L	0.015 U	0.015	0.10				3445740
23'44'55'-HexaCB-(167)	ng/L	0.11	0.017	0.10	0.0000300	0.00000330		3445740
33'44'55'-HexaCB-(169)	ng/L	0.017 U	0.017	0.10	0.0300	0.000510		3445740
22'33'44'5-HeptaCB-(170)	ng/L	0.56	0.022	0.10				3445740
HeptaCB-(171)+(173)	ng/L	0.160 J	0.026	0.20				3445740
22'33'455'-HeptaCB-(172)	ng/L	0.093 J	0.027	0.10				3445740
22'33'456'-HeptaCB-(174)	ng/L	0.52	0.025	0.10				3445740
22'33'45'6-HeptaCB-(175)	ng/L	0.019 J	0.013	0.10				3445740
22'33'466'-HeptaCB-(176)	ng/L	0.059 J	0.010	0.10				3445740
22'33'45'6'-HeptaCB-(177)	ng/L	0.30	0.027	0.10				3445740
22'33'55'6-HeptaCB-(178)	ng/L	0.089 J	0.014	0.10				3445740
22'33'566'-HeptaCB-(179)	ng/L	0.19	0.0098	0.10				3445740
HeptaCB-(180)+(193)	ng/L	1.27	0.021	0.20				3445740
22'344'56-HeptaCB-(181)	ng/L	0.025 U	0.025	0.10				3445740
22'344'56'-HeptaCB-(182)	ng/L	0.014 U	0.014	0.10				3445740
22'344'5'6-HeptaCB-(183)	ng/L	0.26	0.021	0.10				3445740
22'344'66'-HeptaCB-(184)	ng/L	0.0094 U	0.0094	0.10				3445740
22'3455'6-HeptaCB-(185)	ng/L	0.046 J	0.028	0.10				3445740
22'34566'-HeptaCB-(186)	ng/L	0.010 U	0.010	0.10				3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/L	0.56	0.013	0.10				3445740
22'34'566'-HeptaCB-(188)	ng/L	0.012 U	0.012	0.10				3445740
233'44'55'-HeptaCB-(189)	ng/L	0.026 J	0.021	0.10	0.0000300	0.000000780		3445740
233'44'56-HeptaCB-(190)	ng/L	0.10	0.021	0.10				3445740
233'44'5'6-HeptaCB-(191)	ng/L	0.020 U	0.020	0.10				3445740
233'455'6-HeptaCB-(192)	ng/L	0.021 U	0.021	0.10				3445740
22'33'44'55'-OctaCB-(194)	ng/L	0.28	0.021	0.10				3445740
22'33'44'56-OctaCB-(195)	ng/L	0.096 J	0.021	0.10				3445740
22'33'44'56'-OctaCB-(196)	ng/L	0.15	0.024	0.10				3445740
22'33'44'66'OctaCB-(197)	ng/L	0.017 U	0.017	0.10				3445740
OctaCB-(198)+(199)	ng/L	0.34	0.023	0.20				3445740
22'33'4566'-OctaCB-(200)	ng/L	0.033 J	0.016	0.10				3445740
22'33'45'66'-OctaCB-(201)	ng/L	0.040 J	0.016	0.10				3445740
22'33'55'66'-OctaCB-(202)	ng/L	0.059 U (1)	0.059	0.10				3445740
22'344'55'6-OctaCB-(203)	ng/L	0.21	0.022	0.10				3445740
22'344'566'-OctaCB-(204)	ng/L	0.017 U	0.017	0.10				3445740
233'44'55'6-OctaCB-(205)	ng/L	0.017 U	0.017	0.10				3445740
22'33'44'55'6-NonaCB-(206)	ng/L	0.21	0.027	0.10				3445740
22'33'44'566'-NonaCB-(207)	ng/L	0.020 U	0.020	0.10				3445740
22'33'455'66'-NonaCB-(208)	ng/L	0.071 J	0.024	0.10				3445740
DecaCB-(209)	ng/L	0.087 J	0.024	0.10				3445740
Monochlorobiphenyl	ng/L	0.037	0.016	N/A			2	3445740
Dichlorobiphenyl	ng/L	1.22	0.029	N/A			5	3445740
Trichlorobiphenyl	ng/L	8.00	0.023	N/A			15	3445740
Tetrachlorobiphenyl	ng/L	11.0	0.036	N/A			19	3445740
Pentachlorobiphenyl	ng/L	12.5	0.029	N/A			17	3445740
Hexachlorobiphenyl	ng/L	11.8	0.030	N/A			21	3445740
Heptachlorobiphenyl	ng/L	4.24	0.028	N/A			15	3445740

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Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Octachlorobiphenyl	ng/L	1.16	0.024	N/A			7	3445740
Nonachlorobiphenyl	ng/L	0.277	0.027	N/A			2	3445740
Decachlorobiphenyl	ng/L	0.087	0.024	N/A			1	3445740
Total PCB	ng/L	50.4	N/A	N/A				3445740
TOTAL TOXIC EQUIVALENCY	ng/L					0.00263		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	103						3445740
C13-22'33'44'55'6-NonaCB-(206)	%	95						3445740
C13-22'33'44'5-HeptaCB-(170)	%	104						3445740
C13-22'33'455'66'-NonaCB-(208)	%	96						3445740
C13-22'33'55'66'-OctaCB-(202)	%	95						3445740
C13-22'33'55'6-HeptaCB-(178)	%	106						3445740
C13-22'344'55'-HeptaCB-(180)	%	107						3445740
C13-22'34'566'-HeptaCB-(188)	%	90						3445740
C13-22'44'66'-HexaCB-(155)	%	85						3445740
C13-22'466'-PentaCB-(104)	%	82						3445740
C13-22'66'-TetraCB-(54)	%	79						3445740
C13-22'6-TriCB-(19)	%	69						3445740
C13-22'-DiCB-(4)	%	50						3445740
C13-233'44'55'6-OctaCB-(205)	%	99						3445740
C13-233'44'55'-HeptaCB-(189)	%	110						3445740
C13-233'44'-PentaCB-(105)	%	105						3445740
C13-233'55'-PentaCB-(111)	%	97						3445740
C13-23'44'55'-HexaCB-(167)	%	102						3445740
C13-2344'5-PentaCB-(114)	%	103						3445740
C13-23'44'5-PentaCB-(118)	%	103						3445740
C13-2'344'5-PentaCB-(123)	%	105						3445740
C13-2-MonoCB-(1)	%	46						3445740
C13-33'44'55'-HexaCB-(169)	%	61						3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0789						
Sampling Date		2013/11/18 15:10						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B18-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'5-PentaCB-(126)	%	103						3445740
C13-33'44'-TetraCB-(77)	%	117						3445740
C13-344'5-TetraCB-(81)	%	117						3445740
C13-344'-TriCB-(37)	%	110						3445740
C13-44'-DiCB-(15)	%	98						3445740
C13-4-MonoCB-(3)	%	58						3445740
C13-DecaCB-(209)	%	79						3445740
C13-HexaCB-(156)+(157)	%	100						3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/L	0.087 J	0.011	0.095				3445740
3-MonoCB-(2)	ng/L	0.0190 J	0.0090	0.095				3445740
4-MonoCB-(3)	ng/L	0.0768 J	0.0099	0.095				3445740
22'-DiCB-(4)	ng/L	1.42	0.022	0.095				3445740
2,3-DiCB-(5)	ng/L	0.063 J	0.016	0.095				3445740
2,3'-DiCB-(6)	ng/L	0.645	0.014	0.095				3445740
2,4-DiCB-(7)	ng/L	0.095	0.014	0.095				3445740
2,4'-DiCB-(8)	ng/L	3.01	0.013	0.095				3445740
2,5-DiCB-(9)	ng/L	0.149	0.014	0.095				3445740
2,6-DiCB-(10)	ng/L	0.051 J	0.018	0.095				3445740
3,3'-DiCB-(11)	ng/L	0.544	0.014	0.095				3445740
DiCB-(12)+(13)	ng/L	0.50	0.014	0.19				3445740
3,5-DiCB-(14)	ng/L	0.014 U	0.014	0.095				3445740
4,4'-DiCB-(15)	ng/L	6.88	0.023	0.095				3445740
22'3-TriCB-(16)	ng/L	5.18	0.030	0.095				3445740
22'4-TriCB-(17)	ng/L	4.74	0.027	0.095				3445740
TriCB-(18)+(30)	ng/L	9.15	0.021	0.19				3445740
22'6-TriCB-(19)	ng/L	1.19	0.024	0.095				3445740
TriCB-(20) + (28)	ng/L	25.2	0.016	0.19				3445740
TriCB-(21)+(33)	ng/L	12.5	0.016	0.19				3445740
234'-TriCB-(22)	ng/L	9.67	0.016	0.095				3445740
235-TriCB-(23)	ng/L	0.017 J	0.017	0.095				3445740
236-TriCB-(24)	ng/L	0.233	0.019	0.095				3445740
23'4-TriCB-(25)	ng/L	1.81	0.016	0.095				3445740
TriCB-(26)+(29)	ng/L	3.68	0.016	0.19				3445740
23'6-TriCB-(27)	ng/L	0.972	0.018	0.095				3445740
24'5-TriCB-(31)	ng/L	17.6	0.015	0.095				3445740
24'6-TriCB-(32)	ng/L	4.07	0.016	0.095				3445740
23'5'-TriCB-(34)	ng/L	0.055 J	0.016	0.095				3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/L	0.513	0.016	0.095				3445740
33'5-TriCB-(36)	ng/L	0.013 U	0.013	0.095				3445740
344'-TriCB-(37)	ng/L	9.32	0.019	0.095				3445740
345-TriCB-(38)	ng/L	0.016 U	0.016	0.095				3445740
34'5-TriCB-(39)	ng/L	0.111	0.014	0.095				3445740
TetraCB-(40)+(41)+(71)	ng/L	15.2	0.019	0.29				3445740
22'34'-TetraCB-(42)	ng/L	7.62	0.023	0.095				3445740
22'35-TetraCB-(43)	ng/L	1.15	0.031	0.095				3445740
TetraCB-(44)+(47)+(65)	ng/L	25.0	0.019	0.29				3445740
TetraCB-(45)+(51)	ng/L	3.86	0.019	0.19				3445740
22'36'-TetraCB-(46)	ng/L	1.50	0.023	0.095				3445740
22'45-TetraCB-(48)	ng/L	4.38	0.019	0.095				3445740
TetraCB-(49)+TetraCB-(69)	ng/L	13.0	0.017	0.19				3445740
TetraCB-(50)+(53)	ng/L	2.67	0.019	0.19				3445740
22'55'-TetraCB-(52)	ng/L	23.7	0.017	0.095				3445740
22'66'-TetraCB-(54)	ng/L	0.032 U (1)	0.032	0.095				3445740
233'4-TetraCB-(55)	ng/L	0.186	0.015	0.095				3445740
233'4'-Tetra CB(56)	ng/L	7.82	0.017	0.095				3445740
233'5-TetraCB-(57)	ng/L	0.066 J	0.015	0.095				3445740
233'5'-TetraCB-(58)	ng/L	0.015 U	0.015	0.095				3445740
TetraCB-(59)+(62)+(75)	ng/L	2.35	0.015	0.29				3445740
2344'-TetraCB -(60)	ng/L	3.42	0.015	0.095				3445740
TetraCB-(61)+(70)+(74)+(76)	ng/L	29.9	0.016	0.38				3445740
234'5-TetraCB-(63)	ng/L	0.504	0.014	0.095				3445740
234'6-TetraCB-(64)	ng/L	12.1	0.016	0.095				3445740
23'44'-TetraCB-(66)	ng/L	14.6	0.015	0.095				3445740
23'45-TetraCB-(67)	ng/L	0.595	0.014	0.095				3445740
23'45'-TetraCB-(68)	ng/L	0.045 J	0.014	0.095				3445740

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Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'55'-TetraCB-(72)	ng/L	0.092 J	0.015	0.095				3445740
23'5'6-TetraCB-(73)	ng/L	0.013 U	0.013	0.095				3445740
33'44'-TetraCB-(77)	ng/L	1.94	0.018	0.095	0.000100	0.000194		3445740
33'45-TetraCB-(78)	ng/L	0.015 U	0.015	0.095				3445740
33'45'-TetraCB(79)	ng/L	0.217	0.014	0.095				3445740
33'55'-TetraCB-(80)	ng/L	0.014 U	0.014	0.095				3445740
344'5-TetraCB-(81)	ng/L	0.052 U (1)	0.052	0.095	0.000300	0.0000156		3445740
22'33'4-PentaCB-(82)	ng/L	4.70	0.025	0.095				3445740
PentaCB-(83)+(99)	ng/L	16.0	0.022	0.19				3445740
22'33'6-PentaCB-(84)	ng/L	9.60	0.026	0.095				3445740
PentaCB-(85)+(116)+(117)	ng/L	5.46	0.017	0.29				3445740
PentaCB-(86)(87)(97)(109)(119)(125)	ng/L	25.3	0.019	0.57				3445740
PentaCB-(88)+(91)	ng/L	3.96	0.021	0.19				3445740
22'346'-PentaCB-(89)	ng/L	0.348	0.023	0.095				3445740
PentaCB-(90)+(101)+(113)	ng/L	31.7	0.019	0.29				3445740
22'355'-PentaCB-(92)	ng/L	5.34	0.022	0.095				3445740
PentaCB-(93)+(98)+(100)+(102)	ng/L	1.14	0.022	0.38				3445740
22'356'-PentaCB-(94)	ng/L	0.126	0.023	0.095				3445740
22'35'6-PentaCB-(95)	ng/L	24.1	0.021	0.095				3445740
22'366'-PentaCB-(96)	ng/L	0.207	0.018	0.095				3445740
22'45'6-PentaCB-(103)	ng/L	0.116	0.019	0.095				3445740
22'466'-PentaCB-(104)	ng/L	0.015 U	0.015	0.095				3445740
233'44'-PentaCB-(105)	ng/L	15.7	0.019	0.095	0.0000300	0.000471		3445740
233'45-PentaCB-(106)	ng/L	0.016 U	0.016	0.095				3445740
233'4'5-PentaCB-(107)	ng/L	1.97	0.015	0.095				3445740
PentaCB-(108)+(124)	ng/L	1.28	0.016	0.19				3445740
PentaCB-(110)+(115)	ng/L	50.9	0.019	0.19				3445740
233'55'-PentaCB-(111)	ng/L	0.015 U	0.015	0.095				3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'56-PentaCB-(112)	ng/L	0.016 U	0.016	0.095				3445740
2344'5-PentaCB-(114)	ng/L	0.691	0.018	0.095	0.0000300	0.0000207		3445740
23'44'5-PentaCB-(118)	ng/L	35.4	0.019	0.095	0.0000300	0.00106		3445740
23'455'-PentaCB-(120)	ng/L	0.034 J	0.015	0.095				3445740
23'45'6-PentaCB-(121)	ng/L	0.016 U	0.016	0.095				3445740
233'4'5'-PentaCB-(122)	ng/L	0.432	0.018	0.095				3445740
23'44'5'-PentaCB-(123)	ng/L	0.535	0.020	0.095	0.0000300	0.0000161		3445740
33'44'5-PentaCB-(126)	ng/L	0.131	0.018	0.095	0.100	0.0131		3445740
33'455'-PentaCB-(127)	ng/L	0.049 J	0.016	0.095				3445740
HexaCB-(128)+(166)	ng/L	8.38	0.019	0.19				3445740
HexaCB-(129)+(138)+(163)	ng/L	53.7	0.021	0.29				3445740
22'33'45'-HexaCB-(130)	ng/L	2.87	0.024	0.095				3445740
22'33'46-HexaCB-(131)	ng/L	0.691	0.028	0.095				3445740
22'33'46'-HexaCB-(132)	ng/L	16.3	0.024	0.095				3445740
22'33'55'-HexaCB-(133)	ng/L	0.421	0.022	0.095				3445740
HexaCB-(134)+(143)	ng/L	2.33	0.025	0.19				3445740
HexaCB-(135)+(151)	ng/L	10.1	0.027	0.19				3445740
22'33'66'-HexaCB-(136)	ng/L	4.04	0.021	0.095				3445740
22'344'5-HexaCB-(137)	ng/L	2.96	0.024	0.095				3445740
HexaCB-(139)+(140)	ng/L	0.68	0.020	0.19				3445740
22'3455'-HexaCB-(141)	ng/L	7.97	0.022	0.095				3445740
22'3456-HexaCB-(142)	ng/L	0.024 U	0.024	0.095				3445740
22'345'6-HexaCB-(144)	ng/L	1.59	0.027	0.095				3445740
22'3466'-HexaCB-(145)	ng/L	0.021 U	0.021	0.095				3445740
22'34'55'-HexaCB-(146)	ng/L	5.02	0.020	0.095				3445740
HexaCB-(147)+(149)	ng/L	28.3	0.020	0.19				3445740
22'34'56'-HexaCB-(148)	ng/L	0.027 U	0.027	0.095				3445740
22'34'66'-HexaCB-(150)	ng/L	0.032 J	0.019	0.095				3445740
22'3566'-HexaCB-(152)	ng/L	0.026 U	0.026	0.095				3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
HexaCB-(153)+(168)	ng/L	30.5	0.017	0.19				3445740
22'44'56'-HexaCB-(154)	ng/L	0.240	0.024	0.095				3445740
22'44'66'-HexaCB-(155)	ng/L	0.021 U	0.021	0.095				3445740
HexaCB-(156)+(157)	ng/L	6.07	0.018	0.19	0.0000300	0.000182		3445740
233'44'6-HexaCB-(158)	ng/L	5.21	0.016	0.095				3445740
233'455'-HexaCB-(159)	ng/L	0.263	0.017	0.095				3445740
233'456-HexaCB-(160)	ng/L	0.017 U	0.017	0.095				3445740
233'45'6-HexaCB-(161)	ng/L	0.016 U	0.016	0.095				3445740
233'4'55'-HexaCB-(162)	ng/L	0.152	0.017	0.095				3445740
233'4'5'6-HexaCB-(164)	ng/L	2.83	0.016	0.095				3445740
233'55'6-HexaCB-(165)	ng/L	0.018 U	0.018	0.095				3445740
23'44'55'-HexaCB-(167)	ng/L	1.80	0.019	0.095	0.0000300	0.0000540		3445740
33'44'55'-HexaCB-(169)	ng/L	0.019 U	0.019	0.095	0.0300	0.000570		3445740
22'33'44'5-HeptaCB-(170)	ng/L	7.30	0.025	0.095				3445740
HeptaCB-(171)+(173)	ng/L	2.07	0.030	0.19				3445740
22'33'455'-HeptaCB-(172)	ng/L	1.17	0.031	0.095				3445740
22'33'456'-HeptaCB-(174)	ng/L	7.56	0.029	0.095				3445740
22'33'45'6-HeptaCB-(175)	ng/L	0.313	0.023	0.095				3445740
22'33'466'-HeptaCB-(176)	ng/L	0.773	0.017	0.095				3445740
22'33'45'6'-HeptaCB-(177)	ng/L	3.89	0.031	0.095				3445740
22'33'55'6-HeptaCB-(178)	ng/L	1.33	0.024	0.095				3445740
22'33'566'-HeptaCB-(179)	ng/L	2.67	0.017	0.095				3445740
HeptaCB-(180)+(193)	ng/L	19.3	0.024	0.19				3445740
22'344'56-HeptaCB-(181)	ng/L	0.095	0.028	0.095				3445740
22'344'56'-HeptaCB-(182)	ng/L	0.047 J	0.024	0.095				3445740
22'344'5'6-HeptaCB-(183)	ng/L	4.36	0.023	0.095				3445740
22'344'66'-HeptaCB-(184)	ng/L	0.016 U	0.016	0.095				3445740
22'3455'6-HeptaCB-(185)	ng/L	0.032 U	0.032	0.095				3445740
22'34566'-HeptaCB-(186)	ng/L	0.017 U	0.017	0.095				3445740

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Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'55'6-HeptaCB-(187)	ng/L	9.71	0.022	0.095				3445740
22'34'566'-HeptaCB-(188)	ng/L	0.020 U	0.020	0.095				3445740
233'44'55'-HeptaCB-(189)	ng/L	0.313	0.023	0.095	0.0000300	0.00000939		3445740
233'44'56-HeptaCB-(190)	ng/L	1.41	0.024	0.095				3445740
233'44'5'6-HeptaCB-(191)	ng/L	0.258	0.022	0.095				3445740
233'455'6-HeptaCB-(192)	ng/L	0.023 U	0.023	0.095				3445740
22'33'44'55'-OctaCB-(194)	ng/L	6.18	0.024	0.095				3445740
22'33'44'56-OctaCB-(195)	ng/L	1.46	0.024	0.095				3445740
22'33'44'56'-OctaCB-(196)	ng/L	2.86	0.023	0.095				3445740
22'33'44'66'OctaCB-(197)	ng/L	0.158	0.017	0.095				3445740
OctaCB-(198)+(199)	ng/L	8.44	0.023	0.19				3445740
22'33'4566'-OctaCB-(200)	ng/L	0.685	0.015	0.095				3445740
22'33'45'66'-OctaCB-(201)	ng/L	0.827	0.016	0.095				3445740
22'33'55'66'-OctaCB-(202)	ng/L	1.88	0.021	0.095				3445740
22'344'55'6-OctaCB-(203)	ng/L	5.75	0.021	0.095				3445740
22'344'566'-OctaCB-(204)	ng/L	0.016 U	0.016	0.095				3445740
233'44'55'6-OctaCB-(205)	ng/L	0.210	0.020	0.095				3445740
22'33'44'55'6-NonaCB-(206)	ng/L	7.72	0.028	0.095				3445740
22'33'44'566'-NonaCB-(207)	ng/L	0.685	0.021	0.095				3445740
22'33'455'66'-NonaCB-(208)	ng/L	1.63	0.025	0.095				3445740
DecaCB-(209)	ng/L	1.59	0.025	0.095				3445740
Monochlorobiphenyl	ng/L	0.183	0.011	N/A			3	3445740
Dichlorobiphenyl	ng/L	13.4	0.023	N/A			10	3445740
Trichlorobiphenyl	ng/L	106	0.030	N/A			18	3445740
Tetrachlorobiphenyl	ng/L	172	0.031	N/A			24	3445740
Pentachlorobiphenyl	ng/L	235	0.026	N/A			25	3445740
Hexachlorobiphenyl	ng/L	192	0.028	N/A			24	3445740
Heptachlorobiphenyl	ng/L	62.6	0.032	N/A			17	3445740
Octachlorobiphenyl	ng/L	28.4	0.024	N/A			10	3445740

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
Nonachlorobiphenyl	ng/L	10.0	0.028	N/A			3	3445740
Decachlorobiphenyl	ng/L	1.59	0.025	N/A			1	3445740
Total PCB	ng/L	822	N/A	N/A				3445740
TOTAL TOXIC EQUIVALENCY	ng/L					0.0157		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	113						3445740
C13-22'33'44'55'6-NonaCB-(206)	%	95						3445740
C13-22'33'44'5-HeptaCB-(170)	%	108						3445740
C13-22'33'455'66'-NonaCB-(208)	%	102						3445740
C13-22'33'55'66'-OctaCB-(202)	%	98						3445740
C13-22'33'55'6-HeptaCB-(178)	%	112						3445740
C13-22'344'55'-HeptaCB-(180)	%	108						3445740
C13-22'34'566'-HeptaCB-(188)	%	92						3445740
C13-22'44'66'-HexaCB-(155)	%	88						3445740
C13-22'466'-PentaCB-(104)	%	87						3445740
C13-22'66'-TetraCB-(54)	%	84						3445740
C13-22'6-TriCB-(19)	%	78						3445740
C13-22'-DiCB-(4)	%	58						3445740
C13-233'44'55'6-OctaCB-(205)	%	103						3445740
C13-233'44'55'-HeptaCB-(189)	%	113						3445740
C13-233'44'-PentaCB-(105)	%	105						3445740
C13-233'55'-PentaCB-(111)	%	103						3445740
C13-23'44'55'-HexaCB-(167)	%	104						3445740
C13-2344'5-PentaCB-(114)	%	101						3445740
C13-23'44'5-PentaCB-(118)	%	105						3445740
C13-2'344'5-PentaCB-(123)	%	106						3445740
C13-2-MonoCB-(1)	%	54						3445740
C13-33'44'55'-HexaCB-(169)	%	63						3445740
C13-33'44'5-PentaCB-(126)	%	102						3445740

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SEMI-VOLATILE ORGANICS BY HRMS (WATER)

Maxxam ID		UA0790						
Sampling Date		2013/11/18 09:45						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B19-SP-19-1-20131119	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-33'44'-TetraCB-(77)	%	121						3445740
C13-344'5-TetraCB-(81)	%	118						3445740
C13-344'-TriCB-(37)	%	113						3445740
C13-44'-DiCB-(15)	%	105						3445740
C13-4-MonoCB-(3)	%	69						3445740
C13-DecaCB-(209)	%	83						3445740
C13-HexaCB-(156)+(157)	%	102						3445740

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Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

Test Summary

Maxxam ID UA0787 **Collected** 2013/11/18
Sample ID B22-SP1-20131118 **Shipped**
Matrix Water **Received** 2013/11/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3444979	2013/12/02	2013/12/03	Owen Cosby
PCB Congeners in Water (1668A)	HRMS/MS	3445740	2013/11/29	2013/12/04	Cathy Xu

Maxxam ID UA0788 **Collected** 2013/11/18
Sample ID B20-SP-20A-1-20131118 **Shipped**
Matrix Water **Received** 2013/11/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3444979	2013/12/02	2013/12/04	Owen Cosby
PCB Congeners in Water (1668A)	HRMS/MS	3445740	2013/11/29	2013/12/04	Cathy Xu

Maxxam ID UA0789 **Collected** 2013/11/18
Sample ID B18-SP1-20131118 **Shipped**
Matrix Water **Received** 2013/11/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3444979	2013/12/02	2013/12/04	Owen Cosby
PCB Congeners in Water (1668A)	HRMS/MS	3445740	2013/11/29	2013/12/04	Cathy Xu

Maxxam ID UA0790 **Collected** 2013/11/18
Sample ID B19-SP-19-1-20131119 **Shipped**
Matrix Water **Received** 2013/11/22

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Water (8290A)	HRMS/MS	3444979	2013/12/02	2013/12/04	Owen Cosby
PCB Congeners in Water (1668A)	HRMS/MS	3445740	2013/11/29	2013/12/04	Cathy Xu

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Package 1	5.7°C
Package 2	5.4°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised report (2013/12/27): Homologs reported as per client's request.

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A3K0592
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB3K2315

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3444979	OBC	Spiked Blank	C13-1234678 HeptaCDD	2013/12/03		113	%	40 - 135
			C13-1234678 HeptaCDF	2013/12/03		93	%	40 - 135
			C13-123478 HexaCDF	2013/12/03		94	%	40 - 135
			C13-123678 HexaCDD	2013/12/03		102	%	40 - 135
			C13-12378 PentaCDD	2013/12/03		125	%	40 - 135
			C13-12378 PentaCDF	2013/12/03		108	%	40 - 135
			C13-2378 TetraCDD	2013/12/03		63	%	40 - 135
			C13-2378 TetraCDF	2013/12/03		66	%	40 - 135
			C13-OCDD	2013/12/03		105	%	40 - 135
			2,3,7,8-Tetra CDD	2013/12/03		83	%	80 - 140
			1,2,3,7,8-Penta CDD	2013/12/03		83	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2013/12/03		81	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2013/12/03		82	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2013/12/03		84	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDD	2013/12/03		81	%	80 - 140
			Octa CDD	2013/12/03		84	%	80 - 140
			2,3,7,8-Tetra CDF	2013/12/03		82	%	80 - 140
			1,2,3,7,8-Penta CDF	2013/12/03		80	%	80 - 140
			2,3,4,7,8-Penta CDF	2013/12/03		86	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2013/12/03		85	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2013/12/03		84	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2013/12/03		85	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2013/12/03		81	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2013/12/03		83	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2013/12/03		81	%	80 - 140
			Octa CDF	2013/12/03		80	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2013/12/03		118	%	40 - 135
			C13-1234678 HeptaCDF	2013/12/03		99	%	40 - 135
			C13-123478 HexaCDF	2013/12/03		100	%	40 - 135
			C13-123678 HexaCDD	2013/12/03		109	%	40 - 135
			C13-12378 PentaCDD	2013/12/03		122	%	40 - 135
			C13-12378 PentaCDF	2013/12/03		112	%	40 - 135
			C13-2378 TetraCDD	2013/12/03		66	%	40 - 135
			C13-2378 TetraCDF	2013/12/03		68	%	40 - 135
			C13-OCDD	2013/12/03		115	%	40 - 135
			2,3,7,8-Tetra CDD	2013/12/03	2.1 U, EDL=2.1		pg/L	
			1,2,3,7,8-Penta CDD	2013/12/03	2.2 U, EDL=2.2		pg/L	
			1,2,3,4,7,8-Hexa CDD	2013/12/03	1.4 U, EDL=1.4		pg/L	
			1,2,3,6,7,8-Hexa CDD	2013/12/03	1.0 U, EDL=1.0		pg/L	
			1,2,3,7,8,9-Hexa CDD	2013/12/03	1.2 U, EDL=1.2		pg/L	
			1,2,3,4,6,7,8-Hepta CDD	2013/12/03	1.4 U, EDL=1.4 (1)		pg/L	
			Octa CDD	2013/12/03	2.4 J, EDL=1.1		pg/L	
			Total Tetra CDD	2013/12/03	2.1 U, EDL=2.1		pg/L	
			Total Penta CDD	2013/12/03	2.2 U, EDL=2.2		pg/L	
			Total Hexa CDD	2013/12/03	2.9 U, EDL=2.9 (1)		pg/L	
			Total Hepta CDD	2013/12/03	1.4 U, EDL=1.4 (1)		pg/L	
			2,3,7,8-Tetra CDF	2013/12/03	1.2 U, EDL=1.2		pg/L	
			1,2,3,7,8-Penta CDF	2013/12/03	1.3 U, EDL=1.3		pg/L	
			2,3,4,7,8-Penta CDF	2013/12/03	1.4 U, EDL=1.4		pg/L	
			1,2,3,4,7,8-Hexa CDF	2013/12/03	0.98 U, EDL=0.98		pg/L	
			1,2,3,6,7,8-Hexa CDF	2013/12/03	0.82 U, EDL=0.82		pg/L	
			2,3,4,6,7,8-Hexa CDF	2013/12/03	1.0 U, EDL=1.0		pg/L	
			1,2,3,7,8,9-Hexa CDF	2013/12/03	1.3 U, EDL=1.3		pg/L	
			1,2,3,4,6,7,8-Hepta CDF	2013/12/03	0.96 U, EDL=0.96		pg/L	
			1,2,3,4,7,8,9-Hepta CDF	2013/12/03	1.3 U, EDL=1.3		pg/L	

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Apex Laboratories
Attention: Philip Nerenberg
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Quality Assurance Report (Continued)

Maxxam Job Number: GB3K2315

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3444979	OBC	Method Blank	Octa CDF	2013/12/03	1.1 U, EDL=1.1		pg/L	
			Total Tetra CDF	2013/12/03	1.2 U, EDL=1.2		pg/L	
			Total Penta CDF	2013/12/03	1.4 U, EDL=1.4		pg/L	
			Total Hexa CDF	2013/12/03	0.99 U, EDL=0.99		pg/L	
			Total Hepta CDF	2013/12/03	1.1 U, EDL=1.1		pg/L	
3445740	CXU	Spiked Blank	C13-2,44'-TriCB-(28)	2013/12/04		68	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2013/12/04		101	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2013/12/04		102	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2013/12/04		101	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2013/12/04		91	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2013/12/04		98	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2013/12/04		102	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2013/12/04		82	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2013/12/04		67	%	30 - 140
			C13-22'466'-PentaCB-(104)	2013/12/04		59	%	30 - 140
			C13-22'66'-TetraCB-(54)	2013/12/04		48	%	30 - 140
			C13-22'6-TriCB-(19)	2013/12/04		41	%	30 - 140
			C13-22'-DiCB-(4)	2013/12/04		26 (2)	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2013/12/04		103	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2013/12/04		111	%	30 - 140
			C13-233'44'-PentaCB-(105)	2013/12/04		97	%	30 - 140
			C13-233'55'-PentaCB-(111)	2013/12/04		82	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2013/12/04		96	%	30 - 140
			C13-2344'5-PentaCB-(114)	2013/12/04		93	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2013/12/04		96	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2013/12/04		91	%	30 - 140
			C13-2-MonoCB-(1)	2013/12/04		25	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2013/12/04		67	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2013/12/04		100	%	30 - 140
			C13-33'44'-TetraCB-(77)	2013/12/04		103	%	30 - 140
			C13-344'5-TetraCB-(81)	2013/12/04		102	%	30 - 140
			C13-344'-TriCB-(37)	2013/12/04		82	%	30 - 140
			C13-44'-DiCB-(15)	2013/12/04		60	%	30 - 140
			C13-4-MonoCB-(3)	2013/12/04		30	%	15 - 140
			C13-DecaCB-(209)	2013/12/04		91	%	30 - 140
			C13-HexaCB-(156)+(157)	2013/12/04		101	%	30 - 140
			2-MonoCB-(1)	2013/12/04		109	%	50 - 150
			4-MonoCB-(3)	2013/12/04		96	%	50 - 150
			22'-DiCB-(4)	2013/12/04		102	%	50 - 150
			4,4'-DiCB-(15)	2013/12/04		90	%	50 - 150
			22'6-TriCB-(19)	2013/12/04		96	%	50 - 150
			235-TriCB-(23)	2013/12/04		92	%	50 - 150
			23'5'-TriCB-(34)	2013/12/04		85	%	50 - 150
			344'-TriCB-(37)	2013/12/04		88	%	50 - 150
			22'66'-TetraCB-(54)	2013/12/04		95	%	50 - 150
			33'44'-TetraCB-(77)	2013/12/04		91	%	50 - 150
			344'5-TetraCB-(81)	2013/12/04		88	%	50 - 150
			22'466'-PentaCB-(104)	2013/12/04		95	%	50 - 150
			233'44'-PentaCB-(105)	2013/12/04		89	%	50 - 150
			2344'5-PentaCB-(114)	2013/12/04		89	%	50 - 150
			23'44'5-PentaCB-(118)	2013/12/04		89	%	50 - 150
			23'44'5'-PentaCB-(123)	2013/12/04		99	%	50 - 150
			33'44'5-PentaCB-(126)	2013/12/04		85	%	50 - 150
			22'44'66'-HexaCB-(155)	2013/12/04		95	%	50 - 150
			HexaCB-(156)+(157)	2013/12/04		91	%	50 - 150

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Quality Assurance Report (Continued)

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QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3445740	CXU	Spiked Blank	23'44'55'-HexaCB-(167)	2013/12/04		93	%	50 - 150
			33'44'55'-HexaCB-(169)	2013/12/04		95	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2013/12/04		97	%	50 - 150
			HeptaCB-(180)+(193)	2013/12/04		90	%	50 - 150
			22'344'56'-HeptaCB-(182)	2013/12/04		88	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2013/12/04		81	%	50 - 150
			22'34'566'-HeptaCB-(188)	2013/12/04		93	%	50 - 150
			233'44'55'-HeptaCB-(189)	2013/12/04		90	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2013/12/04		98	%	50 - 150
			233'44'55'6-OctaCB-(205)	2013/12/04		100	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2013/12/04		97	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2013/12/04		97	%	50 - 150
			DecaCB-(209)	2013/12/04		100	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2013/12/04		58	%	40 - 125
			C13-22'33'44'55'6-NonaCB-(206)	2013/12/04		93	%	30 - 140
			C13-22'33'44'5-HeptaCB-(170)	2013/12/04		95	%	30 - 140
			C13-22'33'455'66'-NonaCB-(208)	2013/12/04		93	%	30 - 140
			C13-22'33'55'66'-OctaCB-(202)	2013/12/04		88	%	30 - 140
			C13-22'33'55'6-HeptaCB-(178)	2013/12/04		97	%	40 - 125
			C13-22'344'55'-HeptaCB-(180)	2013/12/04		97	%	30 - 140
			C13-22'34'566'-HeptaCB-(188)	2013/12/04		80	%	30 - 140
			C13-22'44'66'-HexaCB-(155)	2013/12/04		67	%	30 - 140
			C13-22'466'-PentaCB-(104)	2013/12/04		52	%	30 - 140
			C13-22'66'-TetraCB-(54)	2013/12/04		39	%	30 - 140
			C13-22'6-TriCB-(19)	2013/12/04		32	%	30 - 140
			C13-22'-DiCB-(4)	2013/12/04		20 (3)	%	30 - 140
			C13-233'44'55'6-OctaCB-(205)	2013/12/04		94	%	30 - 140
			C13-233'44'55'-HeptaCB-(189)	2013/12/04		100	%	30 - 140
			C13-233'44'-PentaCB-(105)	2013/12/04		95	%	30 - 140
			C13-233'55'-PentaCB-(111)	2013/12/04		82	%	40 - 125
			C13-23'44'55'-HexaCB-(167)	2013/12/04		92	%	30 - 140
			C13-2344'5-PentaCB-(114)	2013/12/04		88	%	30 - 140
			C13-23'44'5-PentaCB-(118)	2013/12/04		92	%	30 - 140
			C13-2'344'5-PentaCB-(123)	2013/12/04		91	%	30 - 140
			C13-2-MonoCB-(1)	2013/12/04		19	%	15 - 140
			C13-33'44'55'-HexaCB-(169)	2013/12/04		60	%	30 - 140
			C13-33'44'5-PentaCB-(126)	2013/12/04		93	%	30 - 140
			C13-33'44'-TetraCB-(77)	2013/12/04		100	%	30 - 140
			C13-344'5-TetraCB-(81)	2013/12/04		97	%	30 - 140
			C13-344'-TriCB-(37)	2013/12/04		73	%	30 - 140
			C13-44'-DiCB-(15)	2013/12/04		48	%	30 - 140
			C13-4-MonoCB-(3)	2013/12/04		22	%	15 - 140
			C13-DecaCB-(209)	2013/12/04		83	%	30 - 140
			C13-HexaCB-(156)+(157)	2013/12/04		92	%	30 - 140
			2-MonoCB-(1)	2013/12/04	0.021 U, EDL=0.021		ng/L	
			3-MonoCB-(2)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			4-MonoCB-(3)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			22'-DiCB-(4)	2013/12/04	0.025 U, EDL=0.025		ng/L	
			2,3-DiCB-(5)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			2,3'-DiCB-(6)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			2,4-DiCB-(7)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			2,4'-DiCB-(8)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			2,5-DiCB-(9)	2013/12/04	0.017 U, EDL=0.017		ng/L	
			2,6-DiCB-(10)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			3,3'-DiCB-(11)	2013/12/04	0.058 U, EDL=0.058 (1)		ng/L	

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3445740	CXU	Method Blank	DiCB-(12)+(13)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			3,5-DiCB-(14)	2013/12/04	0.017 U, EDL=0.017		ng/L	
			4,4'-DiCB-(15)	2013/12/04	0.030 U, EDL=0.030		ng/L	
			22'3-TriCB-(16)	2013/12/04	0.051 U, EDL=0.051		ng/L	
			22'4-TriCB-(17)	2013/12/04	0.045 U, EDL=0.045		ng/L	
			TriCB-(18)+(30)	2013/12/04	0.035 U, EDL=0.035		ng/L	
			22'6-TriCB-(19)	2013/12/04	0.040 U, EDL=0.040		ng/L	
			TriCB-(20) + (28)	2013/12/04	0.019 U, EDL=0.019		ng/L	
			TriCB-(21)+(33)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			234'-TriCB-(22)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			235-TriCB-(23)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			236-TriCB-(24)	2013/12/04	0.032 U, EDL=0.032		ng/L	
			23'4-TriCB-(25)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			TriCB-(26)+(29)	2013/12/04	0.019 U, EDL=0.019		ng/L	
			23'6-TriCB-(27)	2013/12/04	0.030 U, EDL=0.030		ng/L	
			24'5-TriCB-(31)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			24'6-TriCB-(32)	2013/12/04	0.028 U, EDL=0.028		ng/L	
			23'5'-TriCB-(34)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			33'4-TriCB-(35)	2013/12/04	0.019 U, EDL=0.019		ng/L	
			33'5-TriCB-(36)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			344'-TriCB-(37)	2013/12/04	0.023 U, EDL=0.023		ng/L	
			345-TriCB-(38)	2013/12/04	0.019 U, EDL=0.019		ng/L	
			34'5-TriCB-(39)	2013/12/04	0.017 U, EDL=0.017		ng/L	
			TetraCB-(40)+(41)+(71)	2013/12/04	0.022 U, EDL=0.022		ng/L	
			22'34'-TetraCB-(42)	2013/12/04	0.026 U, EDL=0.026		ng/L	
			22'35-TetraCB-(43)	2013/12/04	0.036 U, EDL=0.036		ng/L	
			TetraCB-(44)+(47)+(65)	2013/12/04	0.022 U, EDL=0.022		ng/L	
			TetraCB-(45)+(51)	2013/12/04	0.022 U, EDL=0.022		ng/L	
			22'36'-TetraCB-(46)	2013/12/04	0.027 U, EDL=0.027		ng/L	
			22'45-TetraCB-(48)	2013/12/04	0.022 U, EDL=0.022		ng/L	
			TetraCB-(49)+TetraCB-(69)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			TetraCB-(50)+(53)	2013/12/04	0.022 U, EDL=0.022		ng/L	
			22'55'-TetraCB-(52)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			22'66'-TetraCB-(54)	2013/12/04	0.026 U, EDL=0.026		ng/L	
			233'4-TetraCB-(55)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			233'4'-Tetra CB(56)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			233'5-TetraCB-(57)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			233'5'-TetraCB-(58)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			TetraCB-(59)+(62)+(75)	2013/12/04	0.017 U, EDL=0.017		ng/L	
			2344'-TetraCB -(60)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			TetraCB-(61)+(70)+(74)+(76)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			234'5-TetraCB-(63)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			234'6-TetraCB-(64)	2013/12/04	0.019 U, EDL=0.019		ng/L	
			23'44'-TetraCB-(66)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			23'45-TetraCB-(67)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			23'45'-TetraCB-(68)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			23'55'-TetraCB-(72)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			23'5'6-TetraCB-(73)	2013/12/04	0.015 U, EDL=0.015		ng/L	
			33'44'-TetraCB-(77)	2013/12/04	0.015 U, EDL=0.015		ng/L	
			33'45-TetraCB-(78)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			33'45'-TetraCB(79)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			33'55'-TetraCB-(80)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			344'5-TetraCB-(81)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			22'33'4-PentaCB-(82)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			PentaCB-(83)+(99)	2013/12/04	0.010 U, EDL=0.010		ng/L	

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Maxxam Job Number: GB3K2315

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3445740	CXU	Method Blank	22'33'6-PentaCB-(84)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			PentaCB-(85)+(116)+(117)	2013/12/04	0.0080 U, EDL=0.0080		ng/L	
			PentaCB-(86)(87)(97)(109)(119)(125)	2013/12/04	0.0088 U, EDL=0.0088		ng/L	
			PentaCB-(88)+(91)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			22'346'-PentaCB-(89)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			PentaCB-(90)+(101)+(113)	2013/12/04	0.0089 U, EDL=0.0089		ng/L	
			22'355'-PentaCB-(92)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			PentaCB-(93)+(98)+(100)+(102)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			22'356'-PentaCB-(94)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			22'35'6-PentaCB-(95)	2013/12/04	0.0099 U, EDL=0.0099		ng/L	
			22'366'-PentaCB-(96)	2013/12/04	0.0092 U, EDL=0.0092		ng/L	
			22'45'6-PentaCB-(103)	2013/12/04	0.0090 U, EDL=0.0090		ng/L	
			22'466'-PentaCB-(104)	2013/12/04	0.0080 U, EDL=0.0080		ng/L	
			233'44'-PentaCB-(105)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			233'45-PentaCB-(106)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			233'4'5-PentaCB-(107)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			PentaCB-(108)+(124)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			PentaCB-(110)+(115)	2013/12/04	0.0088 U, EDL=0.0088		ng/L	
			233'55'-PentaCB-(111)	2013/12/04	0.0072 U, EDL=0.0072		ng/L	
			233'56-PentaCB-(112)	2013/12/04	0.0078 U, EDL=0.0078		ng/L	
			2344'5-PentaCB-(114)	2013/12/04	0.015 U, EDL=0.015		ng/L	
			23'44'5-PentaCB-(118)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			23'455'-PentaCB-(120)	2013/12/04	0.0071 U, EDL=0.0071		ng/L	
			23'45'6-PentaCB-(121)	2013/12/04	0.0074 U, EDL=0.0074		ng/L	
			233'4'5'-PentaCB-(122)	2013/12/04	0.015 U, EDL=0.015		ng/L	
			23'44'5'-PentaCB-(123)	2013/12/04	0.017 U, EDL=0.017		ng/L	
			33'44'5-PentaCB-(126)	2013/12/04	0.015 U, EDL=0.015		ng/L	
			33'455'-PentaCB-(127)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			HexaCB-(128)+(166)	2013/12/04	0.029 U, EDL=0.029		ng/L	
			HexaCB-(129)+(138)+(163)	2013/12/04	0.033 U, EDL=0.033		ng/L	
			22'33'45'-HexaCB-(130)	2013/12/04	0.037 U, EDL=0.037		ng/L	
			22'33'46-HexaCB-(131)	2013/12/04	0.042 U, EDL=0.042		ng/L	
			22'33'46'-HexaCB-(132)	2013/12/04	0.036 U, EDL=0.036		ng/L	
			22'33'55'-HexaCB-(133)	2013/12/04	0.034 U, EDL=0.034		ng/L	
			HexaCB-(134)+(143)	2013/12/04	0.038 U, EDL=0.038		ng/L	
			HexaCB-(135)+(151)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'33'66'-HexaCB-(136)	2013/12/04	0.0098 U, EDL=0.0098		ng/L	
			22'344'5-HexaCB-(137)	2013/12/04	0.036 U, EDL=0.036		ng/L	
			HexaCB-(139)+(140)	2013/12/04	0.031 U, EDL=0.031		ng/L	
			22'3455'-HexaCB-(141)	2013/12/04	0.034 U, EDL=0.034		ng/L	
			22'3456-HexaCB-(142)	2013/12/04	0.037 U, EDL=0.037		ng/L	
			22'345'6-HexaCB-(144)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'3466'-HexaCB-(145)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			22'34'55'-HexaCB-(146)	2013/12/04	0.031 U, EDL=0.031		ng/L	
			HexaCB-(147)+(149)	2013/12/04	0.031 U, EDL=0.031		ng/L	
			22'34'56'-HexaCB-(148)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'34'66'-HexaCB-(150)	2013/12/04	0.0092 U, EDL=0.0092		ng/L	
			22'3566'-HexaCB-(152)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			HexaCB-(153)+(168)	2013/12/04	0.026 U, EDL=0.026		ng/L	
			22'44'56'-HexaCB-(154)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			22'44'66'-HexaCB-(155)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			HexaCB-(156)+(157)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			233'44'6-HexaCB-(158)	2013/12/04	0.024 U, EDL=0.024		ng/L	
			233'455'-HexaCB-(159)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			233'456-HexaCB-(160)	2013/12/04	0.025 U, EDL=0.025		ng/L	

Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A3K0592
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB3K2315

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3445740	CXU	Method Blank	233'45'6-HexaCB-(161)	2013/12/04	0.025 U, EDL=0.025		ng/L	
			233'4'55'-HexaCB-(162)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			233'4'5'6-HexaCB-(164)	2013/12/04	0.024 U, EDL=0.024		ng/L	
			233'55'6-HexaCB-(165)	2013/12/04	0.027 U, EDL=0.027		ng/L	
			23'44'55'-HexaCB-(167)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			33'44'55'-HexaCB-(169)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'33'44'5-HeptaCB-(170)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			HeptaCB-(171)+(173)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			22'33'455'-HeptaCB-(172)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'33'456'-HeptaCB-(174)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			22'33'45'6-HeptaCB-(175)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			22'33'466'-HeptaCB-(176)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			22'33'45'6'-HeptaCB-(177)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'33'55'6-HeptaCB-(178)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			22'33'566'-HeptaCB-(179)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			HeptaCB-(180)+(193)	2013/12/04	0.0099 U, EDL=0.0099		ng/L	
			22'344'56-HeptaCB-(181)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			22'344'56'-HeptaCB-(182)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			22'344'5'6-HeptaCB-(183)	2013/12/04	0.0097 U, EDL=0.0097		ng/L	
			22'344'66'-HeptaCB-(184)	2013/12/04	0.0096 U, EDL=0.0096		ng/L	
			22'3455'6-HeptaCB-(185)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'34566'-HeptaCB-(186)	2013/12/04	0.010 U, EDL=0.010		ng/L	
			22'34'55'6-HeptaCB-(187)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			22'34'566'-HeptaCB-(188)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			233'44'55'-HeptaCB-(189)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			233'44'56-HeptaCB-(190)	2013/12/04	0.0098 U, EDL=0.0098		ng/L	
			233'44'5'6-HeptaCB-(191)	2013/12/04	0.0091 U, EDL=0.0091		ng/L	
			233'455'6-HeptaCB-(192)	2013/12/04	0.0096 U, EDL=0.0096		ng/L	
			22'33'44'55'-OctaCB-(194)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			22'33'44'56-OctaCB-(195)	2013/12/04	0.014 U, EDL=0.014		ng/L	
			22'33'44'56'-OctaCB-(196)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			22'33'44'66'OctaCB-(197)	2013/12/04	0.013 U, EDL=0.013		ng/L	
			OctaCB-(198)+(199)	2013/12/04	0.018 U, EDL=0.018		ng/L	
			22'33'4566'-OctaCB-(200)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			22'33'45'66'-OctaCB-(201)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			22'33'55'66'-OctaCB-(202)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			22'344'55'6-OctaCB-(203)	2013/12/04	0.017 U, EDL=0.017		ng/L	
			22'344'566'-OctaCB-(204)	2013/12/04	0.012 U, EDL=0.012		ng/L	
			233'44'55'6-OctaCB-(205)	2013/12/04	0.011 U, EDL=0.011		ng/L	
			22'33'44'55'6-NonaCB-(206)	2013/12/04	0.022 U, EDL=0.022		ng/L	
			22'33'44'566'-NonaCB-(207)	2013/12/04	0.016 U, EDL=0.016		ng/L	
			22'33'455'66'-NonaCB-(208)	2013/12/04	0.020 U, EDL=0.020		ng/L	
			DecaCB-(209)	2013/12/04	0.019 U, EDL=0.019		ng/L	
			Monochlorobiphenyl	2013/12/04	0.021 U, EDL=0.021		ng/L	
			Dichlorobiphenyl	2013/12/04	0.030 U, EDL=0.030		ng/L	
			Trichlorobiphenyl	2013/12/04	0.051 U, EDL=0.051		ng/L	
			Tetrachlorobiphenyl	2013/12/04	0.036 U, EDL=0.036		ng/L	
			Pentachlorobiphenyl	2013/12/04	0.017 U, EDL=0.017		ng/L	
			Hexachlorobiphenyl	2013/12/04	0.042 U, EDL=0.042		ng/L	
			Heptachlorobiphenyl	2013/12/04	0.018 U, EDL=0.018		ng/L	
			Octachlorobiphenyl	2013/12/04	0.018 U, EDL=0.018		ng/L	
			Nonachlorobiphenyl	2013/12/04	0.022 U, EDL=0.022		ng/L	
			Decachlorobiphenyl	2013/12/04	0.0030 U, EDL=0.0030		ng/L	
			Total PCB	2013/12/04	0		ng/L	

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A3K0592
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB3K2315

accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(2) Result is within method acceptable criteria(25-150% recovery).
(3) Result is lower than method acceptable criteria(25-150% recovery) in blank,
Minimal impact on data

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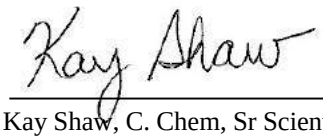
Validation Signature Page

Maxxam Job #: B3K2315

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Kay Shaw, C. Chem, Sr Scientific Specialist, HRMS Services

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, November 22, 2013

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

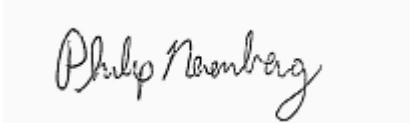
RE: Schnitzer-Burgard / 8001-20

Enclosed are the results of analyses for work order A3K0014, which was received by the laboratory on 10/30/2013 at 10:50:00AM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

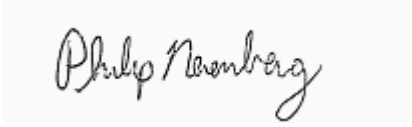
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B22-SWSP-MH-020131029	A3K0014-01	Soil	10/29/13 11:00	10/30/13 10:50

Apex Laboratories



Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

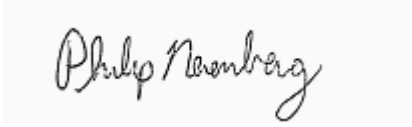
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01RE1)			**Matrix: Soil**		**Batch: 3110125**			
Diesel	ND	105	210	mg/kg dry	10	11/06/13 11:59	NWTPH-Dx	
Oil	**868**	210	420	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	*S-05*

Apex Laboratories



Philip Nerenberg, Lab Director

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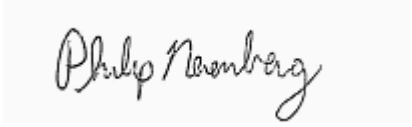
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01)			**Matrix: Soil**		**Batch: 3110047**			**V-16**
Gasoline Range Organics	ND	3.04	6.08	mg/kg dry	50	11/03/13 18:18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 94 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*94 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01)			**Matrix: Soil**		**Batch: 3110375**			**C-07**
Aroclor 1016	ND	5.27	10.5	ug/kg dry	1	11/13/13 20:09	EPA 8082A	
Aroclor 1221	ND	5.27	10.5	"	"	"	"	
Aroclor 1232	ND	5.27	10.5	"	"	"	"	
Aroclor 1242	ND	5.27	10.5	"	"	"	"	
Aroclor 1248	ND	5.27	10.5	"	"	"	"	
Aroclor 1254	**10.9**	5.27	10.5	"	"	"	"	
Aroclor 1260	**9.40**	5.27	10.5	"	"	"	"	J
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 95 %*	*Limits: 60-125 %*	"	"	"	

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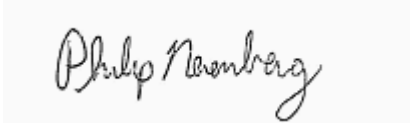

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01RE2)			**Matrix: Soil**		**Batch: 3110347**			**C-05, R-04**
Aldrin	ND	1.97	3.93	ug/kg dry	2	11/19/13 11:40	EPA 8081B	
alpha-BHC	ND	1.97	3.93	"	"	"	"	
beta-BHC	ND	1.97	3.93	"	"	"	"	
delta-BHC	ND	1.97	3.93	"	"	"	"	
gamma-BHC (Lindane)	ND	1.97	3.93	"	"	"	"	
cis-Chlordane	ND	1.97	3.93	"	"	"	"	
trans-Chlordane	ND	1.97	3.93	"	"	"	"	
4,4'-DDD	ND	1.97	3.93	"	"	"	"	
4,4'-DDE	ND	1.97	3.93	"	"	"	"	
4,4'-DDT	ND	5.90	5.90	"	"	"	"	R-02
Dieldrin	ND	1.97	3.93	"	"	"	"	
Endosulfan I	ND	1.97	3.93	"	"	"	"	
Endosulfan II	ND	1.97	3.93	"	"	"	"	
Endosulfan sulfate	ND	1.97	3.93	"	"	"	"	
Endrin	ND	1.97	3.93	"	"	"	"	
Endrin Aldehyde	ND	1.97	3.93	"	"	"	"	
Endrin ketone	ND	1.97	3.93	"	"	"	"	
Heptachlor	ND	1.97	3.93	"	"	"	"	
Heptachlor epoxide	ND	1.97	3.93	"	"	"	"	
Methoxychlor	ND	5.90	11.8	"	"	"	"	
Chlordane (Technical)	ND	59.0	118	"	"	"	"	
Toxaphene (Total)	ND	59.0	118	"	"	"	"	
cis-Nonachlor	ND	1.97	3.93	"	"	"	"	
2,4'-DDD	ND	1.97	3.93	"	"	"	"	
2,4'-DDE	ND	1.97	3.93	"	"	"	"	
2,4'-DDT	ND	1.97	3.93	"	"	"	"	
Hexachlorobenzene	ND	4.92	9.83	"	"	"	"	
Hexachlorobutadiene	ND	1.97	3.93	"	"	"	"	
Mirex	ND	1.97	3.93	"	"	"	"	
Oxychlordane	ND	1.97	3.93	"	"	"	"	
trans-Nonachlor	ND	1.97	3.93	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 93 %*	*Limits: 50-125 %*	"	"	"	
Decachlorobiphenyl (Surr)			*86 %*	*Limits: 55-130 %*	"	"	"	

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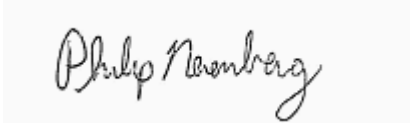

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01)			**Matrix: Soil**		**Batch: 3110193**			
Acenaphthene	ND	206	412	ug/kg dry	40	11/08/13 23:11	EPA 8270D P/P	
Acenaphthylene	ND	206	412	"	"	"	"	
Anthracene	ND	206	412	"	"	"	"	
Benz(a)anthracene	**425**	206	412	"	"	"	"	
Benzo(a)pyrene	**682**	309	618	"	"	"	"	
Benzo(b)fluoranthene	**690**	309	618	"	"	"	"	
Benzo(k)fluoranthene	**394**	309	618	"	"	"	"	J
Benzo(g,h,i)perylene	**646**	206	412	"	"	"	"	
Chrysene	**583**	206	412	"	"	"	"	
Dibenz(a,h)anthracene	ND	206	412	"	"	"	"	
Fluoranthene	**965**	206	412	"	"	"	"	
Fluorene	ND	206	412	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**393**	206	412	"	"	"	"	J
1-Methylnaphthalene	ND	412	823	"	"	"	"	
2-Methylnaphthalene	ND	412	823	"	"	"	"	
Naphthalene	ND	412	823	"	"	"	"	
Phenanthrene	**505**	206	412	"	"	"	"	
Pyrene	**1160**	206	412	"	"	"	"	
Carbazole	ND	309	618	"	"	"	"	
Dibenzofuran	ND	206	412	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	2060	4120	"	"	"	"	
Butyl benzyl phthalate	ND	2060	4120	"	"	"	"	
Diethylphthalate	ND	2060	4120	"	"	"	"	
Dimethylphthalate	ND	2060	4120	"	"	"	"	
Di-n-butylphthalate	ND	2060	4120	"	"	"	"	
Di-n-octyl phthalate	ND	4120	8230	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 85 %*	*Limits: 35-120 %*	"	"	"	*S-05*
2-Fluorobiphenyl (Surr)			*69 %*	*Limits: 45-120 %*	"	"	"	*S-05*
p-Terphenyl-d14 (Surr)			*80 %*	*Limits: 30-125 %*	"	"	"	*S-05*

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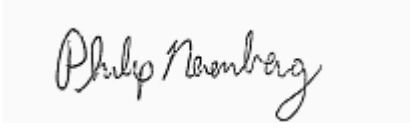

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01)			**Matrix: Soil**					
Batch: 3110205								
Aluminum	**4730**	29.1	58.1	mg/kg dry	10	11/07/13 16:24	EPA 6020A	
Antimony	ND	0.581	1.16	"	"	"	"	
Arsenic	**1.63**	0.291	1.16	"	"	"	"	
Cadmium	**0.325**	0.116	0.232	"	"	"	"	
Chromium	**9.26**	0.581	1.16	"	"	"	"	
Copper	**26.2**	0.581	1.16	"	"	"	"	
Lead	**22.1**	0.116	0.232	"	"	"	"	
Manganese	**204**	0.581	1.16	"	"	"	"	
Mercury	ND	0.0465	0.0930	"	"	"	"	
Nickel	**12.2**	0.581	1.16	"	"	"	"	
Silver	ND	0.116	0.232	"	"	"	"	
Zinc	**154**	2.32	4.65	"	"	"	"	

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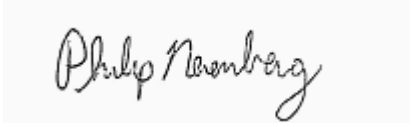

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01)			**Matrix: Soil**					
Batch: 3110120								
Total Organic Carbon	**3800**	---	200	mg/kg	1	11/11/13 17:30	SM 5310B MOD	

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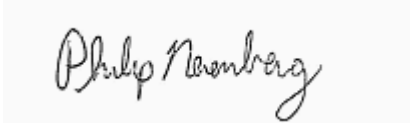

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SWSP-MH-020131029 (A3K0014-01)			**Matrix: Soil**		**Batch: 3110090**			
% Solids	**82.9**	---	1.00	% by Weight	1	11/05/13 11:12	EPA 8000C	

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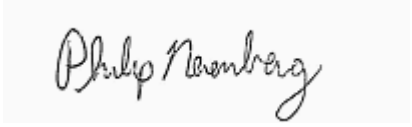

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110125 - EPA 3546 (Fuels)							**Soil**					
Blank (3110125-BLK1)					Prepared: 11/05/13 15:37 Analyzed: 11/05/13 23:21							
NWTPH-Dx												
Diesel	ND	7.14	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	14.3	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (3110125-BS1)					Prepared: 11/05/13 15:37 Analyzed: 11/05/13 23:45							
NWTPH-Dx												
Diesel	117	10.0	25.0	mg/kg wet	1	125	---	94	76-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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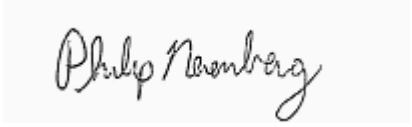

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110047 - EPA 5035A							**Soil**					
Blank (3110047-BLK1)					Prepared: 11/03/13 09:00 Analyzed: 11/03/13 12:37							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	1.67	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*91 %*	*50-150 %*			*"*					
LCS (3110047-BS2)					Prepared: 11/03/13 09:00 Analyzed: 11/03/13 12:09							
NWTPH-Gx (MS)												
Gasoline Range Organics	20.4	2.50	5.00	mg/kg wet	50	25.0	---	82	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*90 %*	*50-150 %*			*"*					

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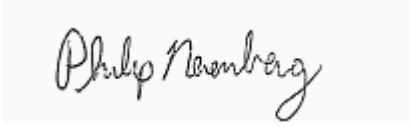

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110375 - EPA 3546							**Sediment**					
Blank (3110375-BLK1)					Prepared: 11/13/13 09:57 Analyzed: 11/13/13 17:45							**C-07**
EPA 8082A												
Aroclor 1016	ND	1.67	3.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 102 %*	*Limits: 60-125 %*			*Dilution: 1x*					
LCS (3110375-BS1)					Prepared: 11/13/13 09:57 Analyzed: 11/13/13 18:03							**C-07**
EPA 8082A												
Aroclor 1016	218	2.00	4.00	ug/kg wet	1	250	---	87	40-140%	---	---	
Aroclor 1260	206	2.00	4.00	"	"	"	---	83	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 104 %*	*Limits: 60-125 %*			*Dilution: 1x*					
Matrix Spike (3110375-MS1)					Prepared: 11/13/13 09:57 Analyzed: 11/13/13 20:46							**C-07**
QC Source Sample: B22-SWSP-MH-020131029 (A3K0014-01)												
EPA 8082A												
Aroclor 1016	231	5.23	10.5	ug/kg dry	1	261	ND	88	40-140%	---	---	
Aroclor 1260	210	5.23	10.5	"	"	"	9.40	77	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 92 %*	*Limits: 60-125 %*			*Dilution: 1x*					

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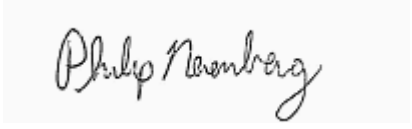

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110347 - EPA 3546/3640A (GPC)							**Soil**					
Blank (3110347-BLK1)					Prepared: 11/12/13 14:52 Analyzed: 11/13/13 10:56							**C-05**
EPA 8081B												
Aldrin	ND	0.312	0.625	ug/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	0.312	0.625	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.312	0.625	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.312	0.625	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.312	0.625	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.312	0.625	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.312	0.625	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.312	0.625	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.312	0.625	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Endrin	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Endrin ketone	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Heptachlor	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.938	1.88	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	9.38	18.8	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	9.38	18.8	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	0.312	0.625	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	0.312	0.625	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	0.312	0.625	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.781	1.56	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Mirex	ND	0.312	0.625	"	"	---	---	---	---	---	---	
Oxychlordane	ND	0.312	0.625	"	"	---	---	---	---	---	---	

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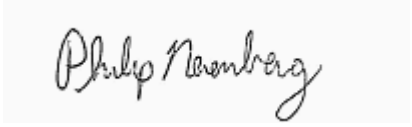

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110347 - EPA 3546/3640A (GPC)							**Soil**					
Blank (3110347-BLK1)					Prepared: 11/12/13 14:52 Analyzed: 11/13/13 10:56							**C-05**
trans-Nonachlor	ND	0.312	0.625	ug/kg wet	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 75 %*	*Limits: 50-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*95 %*	*55-130 %*			*"*					
LCS (3110347-BS1)					Prepared: 11/12/13 14:52 Analyzed: 11/13/13 11:13							**C-05, Q-18**
EPA 8081B												
Aldrin	9.90	0.333	0.667	ug/kg wet	1	16.7	---	59	45-140%	---	---	
alpha-BHC	9.99	0.333	0.667	"	"	"	---	60	60-125%	---	---	
beta-BHC	10.6	0.333	0.667	"	"	"	---	63	"	---	---	
delta-BHC	12.2	0.333	0.667	"	"	"	---	73	55-130%	---	---	
gamma-BHC (Lindane)	10.3	0.333	0.667	"	"	"	---	62	60-125%	---	---	
cis-Chlordane	12.0	0.333	0.667	"	"	"	---	72	60-120%	---	---	
trans-Chlordane	12.1	0.333	0.667	"	"	"	---	73	65-125%	---	---	
4,4'-DDD	14.8	0.333	0.667	"	"	"	---	89	30-135%	---	---	
4,4'-DDE	13.2	0.333	0.667	"	"	"	---	79	70-125%	---	---	
4,4'-DDT	17.2	0.333	0.667	"	"	"	---	103	45-140%	---	---	
Dieldrin	13.9	0.333	0.667	"	"	"	---	84	65-125%	---	---	
Endosulfan I	12.6	0.333	0.667	"	"	"	---	76	15-135%	---	---	
Endosulfan II	15.0	0.333	0.667	"	"	"	---	90	35-140%	---	---	
Endosulfan sulfate	15.3	0.333	0.667	"	"	"	---	92	60-135%	---	---	
Endrin	15.2	0.333	0.667	"	"	"	---	91	"	---	---	
Endrin Aldehyde	12.6	0.333	0.667	"	"	"	---	76	30-145%	---	---	
Endrin ketone	14.4	0.333	0.667	"	"	"	---	86	65-135%	---	---	
Heptachlor	10.6	0.333	0.667	"	"	"	---	63	50-140%	---	---	
Heptachlor epoxide	11.7	0.333	0.667	"	"	"	---	70	65-130%	---	---	
Methoxychlor	18.2	1.00	2.00	"	"	"	---	109	55-145%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 58 %*	*Limits: 50-125 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*96 %*	*55-130 %*			*"*					
LCS (3110347-BS2)					Prepared: 11/12/13 14:52 Analyzed: 11/13/13 11:31							**C-05, Q-18**
EPA 8081B												
cis-Nonachlor	16.3	0.333	0.667	ug/kg wet	1	16.7	---	98	50-150%	---	---	

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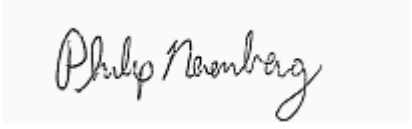

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110347 - EPA 3546/3640A (GPC)							**Soil**					
LCS (3110347-BS2)					Prepared: 11/12/13 14:52 Analyzed: 11/13/13 11:31							**C-05, Q-18**
2,4'-DDD	16.0	0.333	0.667	ug/kg wet	"	"	---	96	30-135%	---	---	
2,4'-DDE	15.9	0.333	0.667	"	"	"	---	95	50-140%	---	---	
2,4'-DDT	18.5	0.333	0.667	"	"	"	---	111	45-140%	---	---	
Hexachlorobenzene	13.7	0.833	1.67	"	"	"	---	82	50-150%	---	---	
Hexachlorobutadiene	12.5	0.333	0.667	"	"	"	---	75	"	---	---	
Mirex	15.2	0.333	0.667	"	"	"	---	91	"	---	---	
Oxychlordane	15.5	0.333	0.667	"	"	"	---	93	"	---	---	
trans-Nonachlor	15.4	0.333	0.667	"	"	"	---	93	"	---	---	
Surr: 2,4,5,6-TCMX (Surr)				*Recovery: 82 %*	*Limits: 50-125 %*		*Dilution: 1x*					
Decachlorobiphenyl (Surr)				*102 %*	*55-130 %*		*"*					

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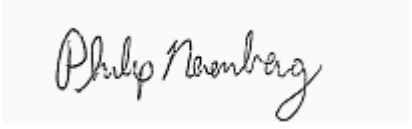

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110193 - EPA 3546							**Soil**					
Blank (3110193-BLK1)					Prepared: 11/07/13 08:43 Analyzed: 11/07/13 20:10							
EPA 8270D P/P												
Acenaphthene	ND	1.67	3.33	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Anthracene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	5.00	10.0	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Chrysene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Fluoranthene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Fluorene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Naphthalene	ND	3.33	6.67	"	"	---	---	---	---	---	---	
Phenanthrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Pyrene	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Carbazole	ND	2.50	5.00	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	1.67	3.33	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	16.7	33.3	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	33.3	66.7	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 89 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*83 %*	*45-120 %*	*"*
p-Terphenyl-d14 (Surr)	*91 %*	*30-125 %*	*"*

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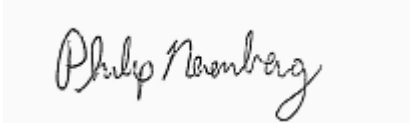

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110193 - EPA 3546							**Soil**					
LCS (3110193-BS1)					Prepared: 11/07/13 08:43 Analyzed: 11/07/13 20:46							
EPA 8270D P/P												
Acenaphthene	802	2.00	4.00	ug/kg wet	1	800	---	100	45-120%	---	---	
Acenaphthylene	804	2.00	4.00	"	"	"	---	101	"	---	---	
Anthracene	817	2.00	4.00	"	"	"	---	102	55-120%	---	---	
Benz(a)anthracene	872	2.00	4.00	"	"	"	---	109	50-120%	---	---	
Benzo(a)pyrene	888	3.00	6.00	"	"	"	---	111	"	---	---	
Benzo(b)fluoranthene	895	3.00	6.00	"	"	"	---	112	45-120%	---	---	
Benzo(k)fluoranthene	840	3.00	6.00	"	"	"	---	105	45-125%	---	---	
Benzo(b+k)fluoranthene(s)	1720	6.00	12.0	"	"	1600	---	108	"	---	---	
Benzo(g,h,i)perylene	773	2.00	4.00	"	"	800	---	97	40-125%	---	---	
Chrysene	832	2.00	4.00	"	"	"	---	104	55-120%	---	---	
Dibenz(a,h)anthracene	818	2.00	4.00	"	"	"	---	102	40-125%	---	---	
Fluoranthene	876	2.00	4.00	"	"	"	---	109	55-120%	---	---	
Fluorene	810	2.00	4.00	"	"	"	---	101	50-120%	---	---	
Indeno(1,2,3-cd)pyrene	814	2.00	4.00	"	"	"	---	102	40-120%	---	---	
1-Methylnaphthalene	817	4.00	8.00	"	"	"	---	102	45-120%	---	---	
2-Methylnaphthalene	842	4.00	8.00	"	"	"	---	105	"	---	---	
Naphthalene	769	4.00	8.00	"	"	"	---	96	40-120%	---	---	
Phenanthrene	784	2.00	4.00	"	"	"	---	98	50-120%	---	---	
Pyrene	879	2.00	4.00	"	"	"	---	110	45-120%	---	---	
Carbazole	825	3.00	6.00	"	"	"	---	103	"	---	---	
Dibenzofuran	768	2.00	4.00	"	"	"	---	96	50-120%	---	---	
Bis(2-ethylhexyl)phthalate	886	20.0	40.0	"	"	"	---	111	45-125%	---	---	
Butyl benzyl phthalate	900	20.0	40.0	"	"	"	---	113	50-125%	---	---	
Diethylphthalate	923	20.0	40.0	"	"	"	---	115	50-120%	---	---	
Dimethylphthalate	828	20.0	40.0	"	"	"	---	103	"	---	---	
Di-n-butylphthalate	905	20.0	40.0	"	"	"	---	113	55-120%	---	---	
Di-n-octyl phthalate	994	40.0	80.0	"	"	"	---	124	40-130%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 103 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*94 %*	*45-120 %*	*"*
p-Terphenyl-d14 (Surr)	*92 %*	*30-125 %*	*"*

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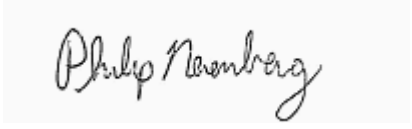

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110205 - EPA 3051A							Soil					
Blank (3110205-BLK1)					Prepared: 11/07/13 10:49 Analyzed: 11/07/13 17:27							
EPA 6020A												
Aluminum	ND	25.0	50.0	mg/kg wet	10	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.250	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (3110205-BS1)					Prepared: 11/07/13 10:49 Analyzed: 11/07/13 15:26							
EPA 6020A												
Aluminum	5040	25.0	50.0	mg/kg wet	10	5000	---	101	80-120%	---	---	
Antimony	26.1	0.500	1.00	"	"	25.0	---	104	"	---	---	
Arsenic	53.3	0.250	1.00	"	"	50.0	---	107	"	---	---	
Cadmium	53.1	0.100	0.200	"	"	"	---	106	"	---	---	
Chromium	49.2	0.500	1.00	"	"	"	---	98	"	---	---	
Copper	50.8	0.500	1.00	"	"	"	---	102	"	---	---	
Lead	51.0	0.100	0.200	"	"	"	---	102	"	---	---	
Manganese	52.6	0.500	1.00	"	"	"	---	105	"	---	---	
Mercury	1.07	0.0400	0.0800	"	"	1.00	---	107	"	---	---	
Nickel	49.3	0.500	1.00	"	"	50.0	---	99	"	---	---	
Silver	25.5	0.100	0.200	"	"	25.0	---	102	"	---	---	
LCS (3110205-BS2)					Prepared: 11/07/13 10:49 Analyzed: 11/08/13 16:22							
EPA 6020A												
Zinc	55.5	2.00	4.00	mg/kg wet	10	50.0	---	111	80-120%	---	---	Q-16

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110205 - EPA 3051A							**Soil**					
Post Spike (3110205-PS1)					Prepared: 11/10/13 10:23		Analyzed: 11/10/13 12:54					
Aluminum	106000			ug/L	10	38500	63600	110	80-120%		---	
Lead	2470			"	"	1920	619	96	"		---	
Manganese	6750			"	"	"	4870	98	"		---	
Post Spike (3110205-PS2)					Prepared: 11/10/13 10:25		Analyzed: 11/10/13 13:06					
Aluminum	99000			ug/L	10	38500	51300	124	80-120%		---	PS-02
Manganese	5000			"	"	1920	3050	102	"		---	
Zinc	2540			"	"	"	382	112	"		---	

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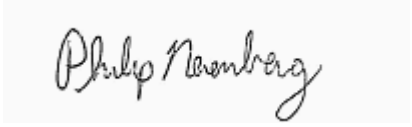

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110120 - Method Prep: Non-Aq							Soil					
Blank (3110120-BLK1)					Prepared: 11/05/13 14:08		Analyzed: 11/08/13 17:00					
SM 5310B MOD												
Total Organic Carbon	ND	---	200	mg/kg	1	---	---	---	---	---	---	
LCS (3110120-BS1)					Prepared: 11/05/13 14:08		Analyzed: 11/08/13 17:00					
SM 5310B MOD												
Total Organic Carbon	9100	---		mg/kg	1	10000	---	91	85-115%	---	---	

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110090 - Total Solids (Dry Weight)												**Soil**

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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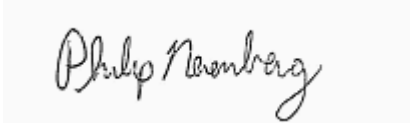

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

SAMPLE PREPARATION INFORMATION

Diesel and Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110125							
A3K0014-01RE1	Soil	NWTPH-Dx	10/29/13 11:00	11/05/13 15:37	11.49g/5mL	10g/5mL	0.87

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110047							
A3K0014-01	Soil	NWTPH-Gx (MS)	10/29/13 11:00	11/01/13 14:20	11.942g/10mL	10g/10mL	0.84

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110375							
A3K0014-01	Soil	EPA 8082A	10/29/13 11:00	11/13/13 09:57	11.44g/5mL	10g/2mL	2.19

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110347							
A3K0014-01RE2	Soil	EPA 8081B	10/29/13 11:00	11/12/13 14:52	12.27g/10mL	10g/5mL	1.63

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Prep: EPA 3546

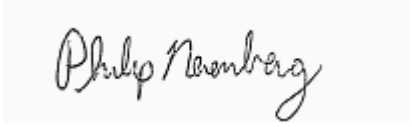
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110193							
A3K0014-01	Soil	EPA 8270D P/P	10/29/13 11:00	11/07/13 08:44	11.72g/5mL	10g/2mL	2.13

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110205							
A3K0014-01	Soil	EPA 6020A	10/29/13 11:00	11/07/13 10:49	0.519g/50mL	0.5g/50mL	0.96

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: Method Prep: Non-Aq

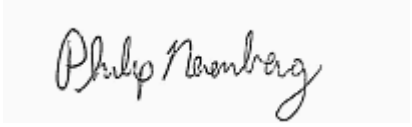
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110120							
A3K0014-01	Soil	SM 5310B MOD	10/29/13 11:00	11/05/13 14:08	5g/5g	5g/5g	NA

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110090							
A3K0014-01	Soil	EPA 8000C	10/29/13 11:00	11/04/13 17:02	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories



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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

Notes and Definitions

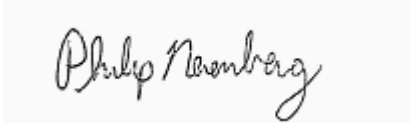
Qualifiers:

C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
Q-16	Reanalysis of an original Batch QC sample.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to dilution necessary for analysis.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
V-16	Sample aliquot was subsampled from the sample container in the laboratory . The subsampled aliquot was not preserved within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

Apex Laboratories



Philip Nerenberg, Lab Director

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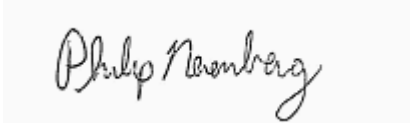
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05

--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories



Philip Nerenberg, Lab Director

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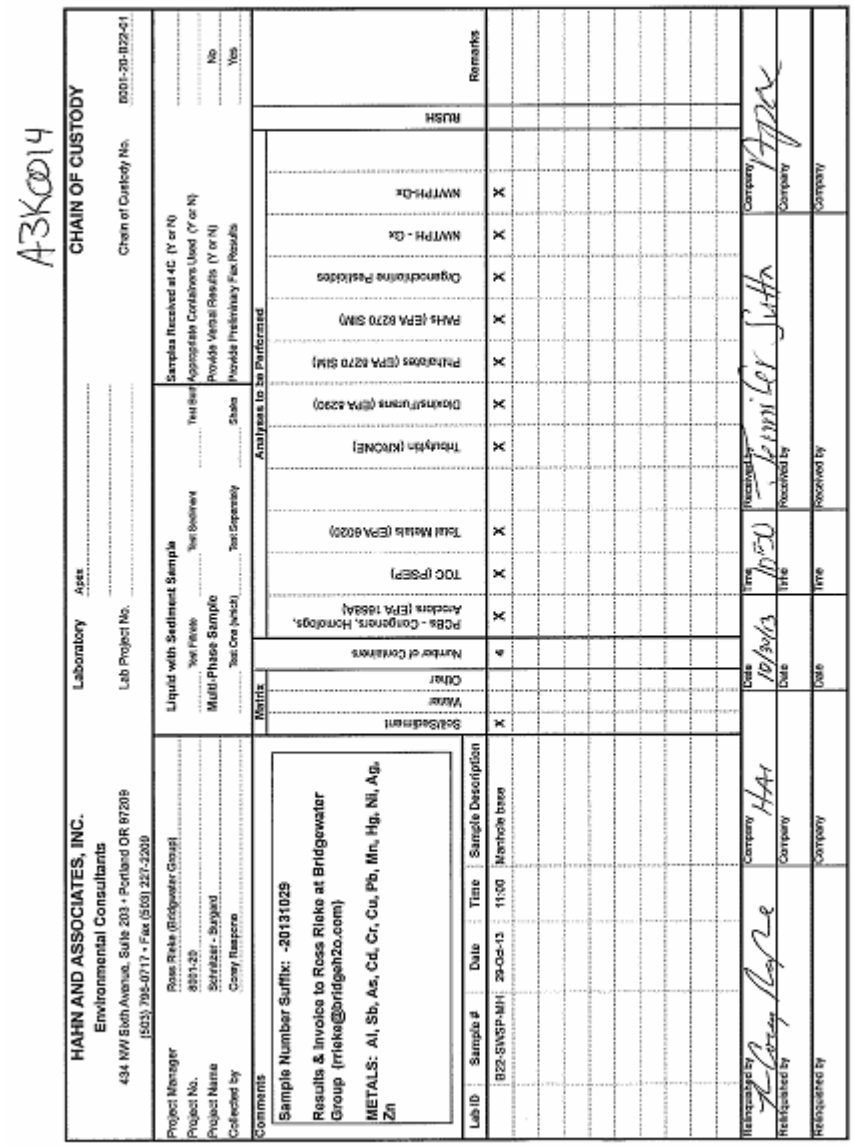
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	11/22/13 10:05



A3K0014

HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 • Portland OR 97209
(503) 795-0717 • Fax (503) 221-2039

CHAIN OF CUSTODY

Laboratory: Apex
Lab Project No.:
Chain of Custody No.: 8001-20-B22-41

Project Manager: Ross Rieke (Bridgewater Group)
Project No.: 8001-20
Project Name: Schnitzer - Burgard
Collected by: Corey Rasperie

Liquid with Sediment Sample — Test Filtrate / Test Sediment
Multi-Phase Sample — Test Separately / Shake
Test One (which)

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N) — No
Provide Preliminary Fax Results — Yes

Comments

Sample Number Suffix: -20131029

Results & Invoice to Ross Rieke at Bridgewater Group (rrieke@bridgeh2o.com)

METALS: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Sediment	Water	Other	Number of Containers	Analyses to be Performed: PCBs - Congeners, Homologs, Aroclors (EPA 1668A)	TOC (PSEP)	Total Metals (EPA 6020)	Triclopyr (KRONE)	Dioxins/Furans (EPA 8290)	Phthalates (EPA 8270 SIM)	PAHs (EPA 8270 SIM)	Organochlorine Pesticides	NWTPH - Dx	NWTPH-Dx	RUSH	Remarks
	B22-SWSP-MH	29-Oct-13	11:00	Manhole base	X			4	X	X	X	X	X	X	X	X	X	X		

Relinquished by: [signature] Company: HAH Date: 10/30/13 Time: 10:00 Received by: [signature] Company: APEX
Relinquished by: Company: Date: Time: Received by: Company:
Relinquished by: Company: Date: Time: Received by: Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 13, 2013

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A3K0014
ARI Job No.: XN31

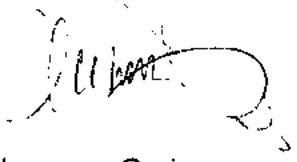
Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: XN31

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

11-4-13 KH

SUBCONTRACT ORDER

Apex Laboratories

A3K0014

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

Sample Name: B22-SWSP-MH-020131029 **Soil** **Sampled: 10/29/13 11:00** (A3K0014-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	11/13/13 17:00	11/12/13 11:00	Krone--ARI
Containers Supplied:			
(A)4 oz Glass Jar			

Standard Turn

11/7/13 1410 — UPS (Shipper)
Released By — Date — Received By — Date

UPS (Shipper) — 11/8/13 1030
Released By — Date — Received By — Date

XN31 00002

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: APEX Project Name: A3K004

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No.: XN31 Tracking No: 1ZX47 20R139686 439 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 2.5

Time: 1045

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90877952

Cooler Accepted by: JM Date: 11/8/13 Time: 1030

Complete custody forms and attach all shipping documents

Log-In Phase:

TS

Was a temperature blank included in the cooler?		(YES)	NO
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other: _____		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO TS
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

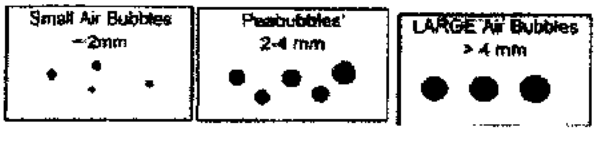
Samples Logged by: TS Date: 11/8/13 Time: 1312

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Case Narrative

Client: Apex Laboratories
Project: A3K0014
ARI Job No.: XN31

Sample Receipt

Analytical Resources, Inc. (ARI) accepted one soil sample on November 8, 2013 under ARI job XN31. The cooler temperature measured by IR thermometer following ARI SOP was 2.5°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The sample was analyzed for parameters as requested on the COC.

Butyltins by Krone 1988 SIM

There were no irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: XN31
Client: Apex Labs
Project Event: A3K0014
Project Name: N/A

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	B22-SWSP-MH-020131029	XN31A	13-24670	Soil	10/29/13 11:00	11/08/13 10:30

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B22-SWSP-MH-020131029**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: XN31A
LIMS ID: 13-24670
Matrix: Soil
Data Release Authorized:
Reported: 11/13/13

QC Report No: XN31-Apex Labs
Project: A3K0014
Event: NA
Date Sampled: 10/29/13
Date Received: 11/08/13

Date Extracted: 11/11/13
Date Analyzed: 11/13/13 09:32
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.06 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes
Moisture: 15.6%

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	1.0	3.8	< 3.8	U
14488-53-0	**Dibutyltin Ion**	**3.8**	**5.7**	**3.0**	**J**
78763-54-9	**Butyltin Ion**	**2.3**	**4.0**	**6.1**	

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	68.2%
Tripentyl Tin Chloride	78.2%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: XN31-Apex Labs
Project: A3K0014
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-111113	67.6%	82.5%	0
LCS-111113	71.8%	84.9%	0
LCSD-111113	69.9%	82.6%	0
B22-SWSP-MH-020131029	68.2%	78.2%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(28-106)	(32-104)
(TPNT) = Tripentyl Tin Chloride	(35-130)	(25-140)

Prep Method: SW3546
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 13-24670 to 13-24670

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: LCS-111113**
Page 1 of 1 **LAB CONTROL SAMPLE**

Lab Sample ID: LCS-111113 QC Report No: XN31-Apex Labs
LIMS ID: 13-24670 Project: A3K0014
Matrix: Soil
Data Release Authorized: MW Date Sampled: NA
Reported: 11/13/13 Date Received: NA

Date Extracted LCS: 11/11/13 Sample Amount LCS: 5.00 g-dry-wt
LCSD: 5.00 g-dry-wt
Date Analyzed LCS: 11/13/13 09:04 Final Extract Volume LCS: 0.50 mL
LCSD: 11/13/13 09:18 LCSD: 0.50 mL
Instrument/Analyst LCS: NT12/VTS Dilution Factor LCS: 1.00
LCSD: NT12/VTS LCSD: 1.00
Silica Gel Cleanup: No Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	40.2	44.6	90.1%	39.7	44.6	89.0%	1.3%
Dibutyltin Ion	31.1	38.4	81.0%	31.5	38.4	82.0%	1.3%
Butyltin Ion	23.3	31.2	74.7%	22.6	31.2	72.4%	3.1%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	71.8%	69.9%
Tripentyl Tin Chloride	84.9%	82.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-111113**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-111113
LIMS ID: 13-24670
Matrix: Soil
Data Release Authorized: MW
Reported: 11/13/13

QC Report No: XN31-Apex Labs
Project: A3K0014
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 11/11/13
Date Analyzed: 11/13/13 08:50
Instrument/Analyst: NT12/VTS
Silica Gel Cleanup: No

Sample Amount: 5.00 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	LOD	LOQ	Result	Q
36643-28-4	Tributyltin Ion	1.0	3.9	< 3.9	U
14488-53-0	Dibutyltin Ion	3.8	5.8	< 5.8	U
78763-54-9	Butyltin Ion	2.3	4.1	< 4.1	U

Reported in µg/kg (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	67.6%
Tripentyl Tin Chloride	82.5%

Maxxam

Success Through Science®

Your Project #: A3K0014
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2013/12/31
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3J0865
Received: 2013/11/06, 11:35

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Soil (8290A) (1)	1	2013/11/12	2013/11/17	BRL SOP-00406	EPA 8290A mod.
Moisture	1	N/A	2013/11/06	CAM SOP-00445	R.Carter,1993
PCB Congeners in Soil (1668A) (2)	1	2013/12/04	2013/12/08	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.
(2) Soils are reported on a dry weight basis unless otherwise specified.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager
Email: IVukovic@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Your Project #: A3K0014
Your C.O.C. #: na

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2013/12/31
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

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Total cover pages: 2

Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

RESULTS OF ANALYSES OF SOIL

Maxxam ID		TT9622		
Sampling Date		2013/10/29 11:00		
COC Number		na		
	Units	**B22-SWSP-MH-020131029**	**RDL**	**QC Batch**
Moisture	%	17	1.0	3413680

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/g	0.23 U	0.23	1.9	1.00	0.230		3424985
1,2,3,7,8-Penta CDD	pg/g	0.74 J	0.20	4.9	1.00	0.740		3424985
1,2,3,4,7,8-Hexa CDD	pg/g	1.0 U (1)	1.0	4.9	0.100	0.100		3424985
1,2,3,6,7,8-Hexa CDD	pg/g	2.4 U (1)	2.4	4.9	0.100	0.240		3424985
1,2,3,7,8,9-Hexa CDD	pg/g	2.40 J	0.13	4.9	0.100	0.240		3424985
1,2,3,4,6,7,8-Hepta CDD	pg/g	54.6	0.081	4.9	0.0100	0.546		3424985
Octa CDD	pg/g	438	0.11	9.7	0.000300	0.131		3424985
Total Tetra CDD	pg/g	0.44 U (1)	0.44	1.9				3424985
Total Penta CDD	pg/g	1.52 J	0.20	4.9				3424985
Total Hexa CDD	pg/g	17.1	0.13	4.9				3424985
Total Hepta CDD	pg/g	142	0.081	4.9				3424985
2,3,7,8-Tetra CDF **	pg/g	0.44 J	0.16	1.9	0.100	0.0440		3424985
1,2,3,7,8-Penta CDF	pg/g	0.21 J	0.19	4.9	0.0300	0.00630		3424985
2,3,4,7,8-Penta CDF	pg/g	0.41 U (1)	0.41	4.9	0.300	0.123		3424985
1,2,3,4,7,8-Hexa CDF	pg/g	0.82 U (1)	0.82	4.9	0.100	0.0820		3424985
1,2,3,6,7,8-Hexa CDF	pg/g	0.676 J	0.096	4.9	0.100	0.0676		3424985
2,3,4,6,7,8-Hexa CDF	pg/g	0.56 J	0.10	4.9	0.100	0.0560		3424985
1,2,3,7,8,9-Hexa CDF	pg/g	0.12 U	0.12	4.9	0.100	0.0120		3424985
1,2,3,4,6,7,8-Hepta CDF	pg/g	18.5	0.073	4.9	0.0100	0.185		3424985
1,2,3,4,7,8,9-Hepta CDF	pg/g	1.08 J	0.096	4.9	0.0100	0.0108		3424985
Octa CDF	pg/g	58.3	0.14	9.7	0.000300	0.0175		3424985
Total Tetra CDF	pg/g	0.66 J	0.16	1.9				3424985
Total Penta CDF	pg/g	5.2	0.19	4.9				3424985
Total Hexa CDF	pg/g	17.7	0.10	4.9				3424985
Total Hepta CDF	pg/g	48.2	0.083	4.9				3424985
TOTAL TOXIC EQUIVALENCY	pg/g					2.83		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	93						3424985

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

DIOXINS AND FURANS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	100						3424985
C13-123478 HexaCDF	%	84						3424985
C13-123678 HexaCDD *	%	71						3424985
C13-12378 PentaCDD	%	73						3424985
C13-12378 PentaCDF	%	78						3424985
C13-2378 TetraCDD	%	63						3424985
C13-2378 TetraCDF	%	88						3424985
C13-OCDD	%	101						3424985

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Report Date: 2013/12/31

Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2-MonoCB-(1)	ng/g	0.0048 J	0.0023	0.0095				3450671
3-MonoCB-(2)	ng/g	0.0019 U	0.0019	0.0095				3450671
4-MonoCB-(3)	ng/g	0.0047 J	0.0021	0.0095				3450671
22'-DiCB-(4)	ng/g	0.0443	0.0020	0.0095				3450671
2,3-DiCB-(5)	ng/g	0.0021 U	0.0021	0.0095				3450671
2,3'-DiCB-(6)	ng/g	0.0230	0.0018	0.0095				3450671
2,4-DiCB-(7)	ng/g	0.0039 J	0.0017	0.0095				3450671
2,4'-DiCB-(8)	ng/g	0.0830	0.0015	0.0095				3450671
2,5-DiCB-(9)	ng/g	0.0064 J	0.0018	0.0095				3450671
2,6-DiCB-(10)	ng/g	0.0019 J	0.0015	0.0095				3450671
3,3'-DiCB-(11)	ng/g	0.0449	0.0018	0.0095				3450671
DiCB-(12)+(13)	ng/g	0.0157 J	0.0018	0.019				3450671
3,5-DiCB-(14)	ng/g	0.0017 U	0.0017	0.0095				3450671
4,4'-DiCB-(15)	ng/g	0.182	0.0029	0.0095				3450671
22'3-TriCB-(16)	ng/g	0.121	0.0022	0.0095				3450671
22'4-TriCB-(17)	ng/g	0.137	0.0022	0.0095				3450671
TriCB-(18)+(30)	ng/g	0.302	0.0017	0.019				3450671
22'6-TriCB-(19)	ng/g	0.0413	0.0020	0.0095				3450671
TriCB-(20) + (28)	ng/g	0.610	0.0019	0.019				3450671
TriCB-(21)+(33)	ng/g	0.319	0.0019	0.019				3450671
234'-TriCB-(22)	ng/g	0.217	0.0019	0.0095				3450671
235-TriCB-(23)	ng/g	0.0019 U	0.0019	0.0095				3450671
236-TriCB-(24)	ng/g	0.0050 J	0.0017	0.0095				3450671
23'4-TriCB-(25)	ng/g	0.0423	0.0018	0.0095				3450671
TriCB-(26)+(29)	ng/g	0.086	0.0019	0.019				3450671
23'6-TriCB-(27)	ng/g	0.0305	0.0015	0.0095				3450671
24'5-TriCB-(31)	ng/g	0.470	0.0017	0.0095				3450671
24'6-TriCB-(32)	ng/g	0.112	0.0014	0.0095				3450671
23'5'-TriCB-(34)	ng/g	0.0019 U	0.0019	0.0095				3450671

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
33'4-TriCB-(35)	ng/g	0.0112	0.0019	0.0095				3450671
33'5-TriCB-(36)	ng/g	0.0017 U	0.0017	0.0095				3450671
344'-TriCB-(37)	ng/g	0.193	0.0022	0.0095				3450671
345-TriCB-(38)	ng/g	0.0019 U	0.0019	0.0095				3450671
34'5-TriCB-(39)	ng/g	0.0018 U	0.0018	0.0095				3450671
TetraCB-(40)+(41)+(71)	ng/g	0.308	0.0022	0.029				3450671
22'34'-TetraCB-(42)	ng/g	0.176	0.0028	0.0095				3450671
22'35-TetraCB-(43)	ng/g	0.0255	0.0032	0.0095				3450671
TetraCB-(44)+(47)+(65)	ng/g	0.668	0.0021	0.029				3450671
TetraCB-(45)+(51)	ng/g	0.118	0.0022	0.019				3450671
22'36'-TetraCB-(46)	ng/g	0.0485	0.0028	0.0095				3450671
22'45-TetraCB-(48)	ng/g	0.0971	0.0021	0.0095				3450671
TetraCB-(49)+TetraCB-(69)	ng/g	0.363	0.0020	0.019				3450671
TetraCB-(50)+(53)	ng/g	0.097	0.0021	0.019				3450671
22'55'-TetraCB-(52)	ng/g	1.16	0.0022	0.0095				3450671
22'66'-TetraCB-(54)	ng/g	0.0019 U	0.0019	0.0095				3450671
233'4-TetraCB-(55)	ng/g	0.0019 U	0.0019	0.0095				3450671
233'4'-Tetra CB(56)	ng/g	0.151	0.0020	0.0095				3450671
233'5-TetraCB-(57)	ng/g	0.0018 U	0.0018	0.0095				3450671
233'5'-TetraCB-(58)	ng/g	0.0018 U	0.0018	0.0095				3450671
TetraCB-(59)+(62)+(75)	ng/g	0.057	0.0016	0.029				3450671
2344'-TetraCB -(60)	ng/g	0.0643	0.0018	0.0095				3450671
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.921	0.0018	0.038				3450671
234'5-TetraCB-(63)	ng/g	0.0118	0.0017	0.0095				3450671
234'6-TetraCB-(64)	ng/g	0.321	0.0018	0.0095				3450671
23'44'-TetraCB-(66)	ng/g	0.290	0.0016	0.0095				3450671
23'45-TetraCB-(67)	ng/g	0.0114	0.0016	0.0095				3450671
23'45'-TetraCB-(68)	ng/g	0.0016 U	0.0016	0.0095				3450671
23'55'-TetraCB-(72)	ng/g	0.0018 U (1)	0.0018	0.0095				3450671

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Maxxam Job #: B3J0865
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Apex Laboratories
Client Project #: A3K0014

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'5'6-TetraCB-(73)	ng/g	0.0015 U	0.0015	0.0095				3450671
33'44'-TetraCB-(77)	ng/g	0.0385	0.0020	0.0095	0.000100	0.00000385		3450671
33'45-TetraCB-(78)	ng/g	0.0018 U	0.0018	0.0095				3450671
33'45'-TetraCB(79)	ng/g	0.0294	0.0016	0.0095				3450671
33'55'-TetraCB-(80)	ng/g	0.0016 U	0.0016	0.0095				3450671
344'5-TetraCB-(81)	ng/g	0.0020 U	0.0020	0.0095	0.000300	0.000000600		3450671
22'33'4-PentaCB-(82)	ng/g	0.165	0.0027	0.0095				3450671
PentaCB-(83)+(99)	ng/g	0.722	0.0026	0.019				3450671
22'33'6-PentaCB-(84)	ng/g	0.487	0.0030	0.0095				3450671
PentaCB-(85)+(116)+(117)	ng/g	0.162	0.0020	0.029				3450671
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	1.04	0.0021	0.057				3450671
PentaCB-(88)+(91)	ng/g	0.197	0.0025	0.019				3450671
22'346'-PentaCB-(89)	ng/g	0.0133	0.0026	0.0095				3450671
PentaCB-(90)+(101)+(113)	ng/g	1.61	0.0021	0.029				3450671
22'355'-PentaCB-(92)	ng/g	0.271	0.0025	0.0095				3450671
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.050	0.0026	0.038				3450671
22'356'-PentaCB-(94)	ng/g	0.0070 J	0.0027	0.0095				3450671
22'35'6-PentaCB-(95)	ng/g	1.52	0.0024	0.0095				3450671
22'366'-PentaCB-(96)	ng/g	0.0097	0.0017	0.0095				3450671
22'45'6-PentaCB-(103)	ng/g	0.0066 J	0.0022	0.0095				3450671
22'466'-PentaCB-(104)	ng/g	0.0016 U	0.0016	0.0095				3450671
233'44'-PentaCB-(105)	ng/g	0.560	0.0019	0.0095	0.0000300	0.0000168		3450671
233'45-PentaCB-(106)	ng/g	0.0017 U	0.0017	0.10				3450671
233'4'5-PentaCB-(107)	ng/g	0.0784	0.0017	0.0095				3450671
PentaCB-(108)+(124)	ng/g	0.051	0.0017	0.019				3450671
PentaCB-(110)+(115)	ng/g	2.27	0.0020	0.019				3450671
233'55'-PentaCB-(111)	ng/g	0.0017 U	0.0017	0.0095				3450671
233'56-PentaCB-(112)	ng/g	0.0018 U	0.0018	0.0095				3450671
2344'5-PentaCB-(114)	ng/g	0.0279	0.0019	0.0095	0.0000300	0.000000837		3450671

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'5-PentaCB-(118)	ng/g	1.40	0.0019	0.0095	0.0000300	0.0000420		3450671
23'455'-PentaCB-(120)	ng/g	0.0016 U	0.0016	0.0095				3450671
23'45'6-PentaCB-(121)	ng/g	0.0018 U	0.0018	0.0095				3450671
233'4'5'-PentaCB-(122)	ng/g	0.0156	0.0019	0.0095				3450671
23'44'5'-PentaCB-(123)	ng/g	0.0175	0.0021	0.0095	0.0000300	0.000000525		3450671
33'44'5-PentaCB-(126)	ng/g	0.0041 J	0.0019	0.0095	0.100	0.000410		3450671
33'455'-PentaCB-(127)	ng/g	0.0017 U	0.0017	0.0095				3450671
HexaCB-(128)+(166)	ng/g	0.405	0.0021	0.019				3450671
HexaCB-(129)+(138)+(163)	ng/g	2.99	0.0023	0.029				3450671
22'33'45'-HexaCB-(130)	ng/g	0.156	0.0027	0.0095				3450671
22'33'46-HexaCB-(131)	ng/g	0.0393	0.0029	0.0095				3450671
22'33'46'-HexaCB-(132)	ng/g	0.953	0.0026	0.0095				3450671
22'33'55'-HexaCB-(133)	ng/g	0.0282	0.0025	0.0095				3450671
HexaCB-(134)+(143)	ng/g	0.125	0.0027	0.019				3450671
HexaCB-(135)+(151)	ng/g	0.678	0.0024	0.019				3450671
22'33'66'-HexaCB-(136)	ng/g	0.301	0.0019	0.0095				3450671
22'344'5-HexaCB-(137)	ng/g	0.135	0.0024	0.0095				3450671
HexaCB-(139)+(140)	ng/g	0.039	0.0023	0.019				3450671
22'3455'-HexaCB-(141)	ng/g	0.485	0.0026	0.0095				3450671
22'3456-HexaCB-(142)	ng/g	0.0027 U	0.0027	0.0095				3450671
22'345'6-HexaCB-(144)	ng/g	0.0968	0.0023	0.0095				3450671
22'3466'-HexaCB-(145)	ng/g	0.0019 U	0.0019	0.0095				3450671
22'34'55'-HexaCB-(146)	ng/g	0.300	0.0022	0.0095				3450671
HexaCB-(147)+(149)	ng/g	1.88	0.0021	0.019				3450671
22'34'56'-HexaCB-(148)	ng/g	0.0024 U	0.0024	0.0095				3450671
22'34'66'-HexaCB-(150)	ng/g	0.0019 U	0.0019	0.0095				3450671
22'3566'-HexaCB-(152)	ng/g	0.0018 U	0.0018	0.0095				3450671
HexaCB-(153)+(168)	ng/g	1.84	0.0019	0.019				3450671
22'44'56'-HexaCB-(154)	ng/g	0.0121	0.0021	0.0095				3450671

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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'44'66'-HexaCB-(155)	ng/g	0.0021 U	0.0021	0.0095				3450671
HexaCB-(156)+(157)	ng/g	0.267	0.0024	0.019	0.0000300	0.00000801		3450671
233'44'6-HexaCB-(158)	ng/g	0.271	0.0018	0.0095				3450671
233'455'-HexaCB-(159)	ng/g	0.0165	0.0024	0.0095				3450671
233'456-HexaCB-(160)	ng/g	0.0019 U	0.0019	0.0095				3450671
233'45'6-HexaCB-(161)	ng/g	0.0018 U	0.0018	0.0095				3450671
233'4'55'-HexaCB-(162)	ng/g	0.0054 U (1)	0.0054	0.0095				3450671
233'4'5'6-HexaCB-(164)	ng/g	0.177	0.0019	0.0095				3450671
233'55'6-HexaCB-(165)	ng/g	0.0019 U	0.0019	0.0095				3450671
23'44'55'-HexaCB-(167)	ng/g	0.0855	0.0026	0.0095	0.0000300	0.00000257		3450671
33'44'55'-HexaCB-(169)	ng/g	0.0026 U	0.0026	0.0095	0.0300	0.0000780		3450671
22'33'44'5-HeptaCB-(170)	ng/g	0.460	0.0015	0.0095				3450671
HeptaCB-(171)+(173)	ng/g	0.146	0.0018	0.019				3450671
22'33'455'-HeptaCB-(172)	ng/g	0.0760	0.0019	0.0095				3450671
22'33'456'-HeptaCB-(174)	ng/g	0.503	0.0018	0.0095				3450671
22'33'45'6-HeptaCB-(175)	ng/g	0.0201	0.0026	0.0095				3450671
22'33'466'-HeptaCB-(176)	ng/g	0.0572	0.0020	0.0095				3450671
22'33'45'6'-HeptaCB-(177)	ng/g	0.268	0.0018	0.0095				3450671
22'33'55'6-HeptaCB-(178)	ng/g	0.0796	0.0028	0.0095				3450671
22'33'566'-HeptaCB-(179)	ng/g	0.175	0.0019	0.0095				3450671
HeptaCB-(180)+(193)	ng/g	1.09	0.0015	0.019				3450671
22'344'56-HeptaCB-(181)	ng/g	0.0017 U	0.0017	0.0095				3450671
22'344'56'-HeptaCB-(182)	ng/g	0.0027 U	0.0027	0.0095				3450671
22'344'5'6-HeptaCB-(183)	ng/g	0.299	0.0016	0.0095				3450671
22'344'66'-HeptaCB-(184)	ng/g	0.0018 U	0.0018	0.0095				3450671
22'3455'6-HeptaCB-(185)	ng/g	0.0016 U	0.0016	0.0095				3450671
22'34566'-HeptaCB-(186)	ng/g	0.0020 U	0.0020	0.0095				3450671
22'34'55'6-HeptaCB-(187)	ng/g	0.495	0.0025	0.0095				3450671

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WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'34'566'-HeptaCB-(188)	ng/g	0.0024 U	0.0024	0.0095				3450671
233'44'55'-HeptaCB-(189)	ng/g	0.0179	0.0024	0.0095	0.0000300	0.000000537		3450671
233'44'56-HeptaCB-(190)	ng/g	0.0871	0.0014	0.0095				3450671
233'44'5'6-HeptaCB-(191)	ng/g	0.0183	0.0014	0.0095				3450671
233'455'6-HeptaCB-(192)	ng/g	0.0015 U	0.0015	0.0095				3450671
22'33'44'55'-OctaCB-(194)	ng/g	0.149	0.0031	0.0095				3450671
22'33'44'56-OctaCB-(195)	ng/g	0.0667	0.0033	0.0095				3450671
22'33'44'56'-OctaCB-(196)	ng/g	0.0885	0.0024	0.0095				3450671
22'33'44'66'OctaCB-(197)	ng/g	0.0071 J	0.0017	0.0095				3450671
OctaCB-(198)+(199)	ng/g	0.183	0.0024	0.019				3450671
22'33'4566'-OctaCB-(200)	ng/g	0.0193	0.0017	0.0095				3450671
22'33'45'66'-OctaCB-(201)	ng/g	0.0215	0.0017	0.0095				3450671
22'33'55'66'-OctaCB-(202)	ng/g	0.0363	0.0023	0.0095				3450671
22'344'55'6-OctaCB-(203)	ng/g	0.112	0.0023	0.0095				3450671
22'344'566'-OctaCB-(204)	ng/g	0.0017 U	0.0017	0.0095				3450671
233'44'55'6-OctaCB-(205)	ng/g	0.0091 J	0.0026	0.0095				3450671
22'33'44'55'6-NonaCB-(206)	ng/g	0.111	0.0030	0.0095				3450671
22'33'44'566'-NonaCB-(207)	ng/g	0.0109	0.0022	0.0095				3450671
22'33'455'66'-NonaCB-(208)	ng/g	0.0331	0.0027	0.0095				3450671
DecaCB-(209)	ng/g	0.122	0.0042	0.0095				3450671
Monochlorobiphenyl	ng/g	0.0095	0.0023	N/A			2	3450671
Dichlorobiphenyl	ng/g	0.405	0.0029	N/A			9	3450671
Trichlorobiphenyl	ng/g	2.70	0.0022	N/A			15	3450671
Tetrachlorobiphenyl	ng/g	4.95	0.0032	N/A			20	3450671
Pentachlorobiphenyl	ng/g	10.7	0.0030	N/A			23	3450671
Hexachlorobiphenyl	ng/g	11.3	0.0029	N/A			22	3450671
Heptachlorobiphenyl	ng/g	3.79	0.0028	N/A			15	3450671
Octachlorobiphenyl	ng/g	0.692	0.0033	N/A			10	3450671
Nonachlorobiphenyl	ng/g	0.155	0.0030	N/A			3	3450671

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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**B22-SWSP-MH-020131029**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Decachlorobiphenyl	ng/g	0.122	0.0042	N/A			1	3450671
Total PCB	ng/g	34.8	N/A	N/A				3450671
TOTAL TOXIC EQUIVALENCY	ng/g					0.000564		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	108						3450671
C13-22'33'44'55'6-NonaCB-(206)	%	89						3450671
C13-22'33'44'5-HeptaCB-(170)	%	127						3450671
C13-22'33'455'66'-NonaCB-(208)	%	108						3450671
C13-22'33'55'66'-OctaCB-(202)	%	120						3450671
C13-22'33'55'6-HeptaCB-(178)	%	100						3450671
C13-22'344'55'-HeptaCB-(180)	%	123						3450671
C13-22'34'566'-HeptaCB-(188)	%	89						3450671
C13-22'44'66'-HexaCB-(155)	%	88						3450671
C13-22'466'-PentaCB-(104)	%	88						3450671
C13-22'66'-TetraCB-(54)	%	91						3450671
C13-22'6-TriCB-(19)	%	90						3450671
C13-22'-DiCB-(4)	%	68						3450671
C13-233'44'55'6-OctaCB-(205)	%	101						3450671
C13-233'44'55'-HeptaCB-(189)	%	113						3450671
C13-233'44'-PentaCB-(105)	%	103						3450671
C13-233'55'-PentaCB-(111)	%	98						3450671
C13-23'44'55'-HexaCB-(167)	%	98						3450671
C13-2344'5-PentaCB-(114)	%	100						3450671
C13-23'44'5-PentaCB-(118)	%	103						3450671
C13-2'344'5-PentaCB-(123)	%	103						3450671
C13-2-MonoCB-(1)	%	67						3450671
C13-33'44'55'-HexaCB-(169)	%	51						3450671
C13-33'44'5-PentaCB-(126)	%	91						3450671
C13-33'44'-TetraCB-(77)	%	116						3450671

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Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-344'5-TetraCB-(81)	%	116						3450671
C13-344'-TriCB-(37)	%	113						3450671
C13-44'-DiCB-(15)	%	115						3450671
C13-4-MonoCB-(3)	%	78						3450671
C13-DecaCB-(209)	%	72						3450671
C13-HexaCB-(156)+(157)	%	93						3450671

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Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**B22-SWSP-MH-020131029 Lab-Dup**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
2-MonoCB-(1)	ng/g	0.0059 J	0.0022	0.0098				3450671
3-MonoCB-(2)	ng/g	0.0019 U	0.0019	0.0098				3450671
4-MonoCB-(3)	ng/g	0.0057 J	0.0021	0.0098				3450671
22'-DiCB-(4)	ng/g	0.0609 (1)	0.0023	0.0098				3450671
2,3-DiCB-(5)	ng/g	0.0023 U	0.0023	0.0098				3450671
2,3'-DiCB-(6)	ng/g	0.0312	0.0019	0.0098				3450671
2,4-DiCB-(7)	ng/g	0.0049 J	0.0019	0.0098				3450671
2,4'-DiCB-(8)	ng/g	0.106	0.0016	0.0098				3450671
2,5-DiCB-(9)	ng/g	0.0090 J	0.0019	0.0098				3450671
2,6-DiCB-(10)	ng/g	0.0026 J	0.0017	0.0098				3450671
3,3'-DiCB-(11)	ng/g	0.0515	0.0020	0.0098				3450671
DiCB-(12)+(13)	ng/g	0.022	0.0020	0.020				3450671
3,5-DiCB-(14)	ng/g	0.0019 U	0.0019	0.0098				3450671
4,4'-DiCB-(15)	ng/g	0.258 (1)	0.0032	0.0098				3450671
22'3-TriCB-(16)	ng/g	0.176 (1)	0.0030	0.0098				3450671
22'4-TriCB-(17)	ng/g	0.211 (1)	0.0030	0.0098				3450671
TriCB-(18)+(30)	ng/g	0.444 (1)	0.0024	0.020				3450671
22'6-TriCB-(19)	ng/g	0.0613 (1)	0.0027	0.0098				3450671
TriCB-(20) + (28)	ng/g	0.858 (1)	0.0023	0.020				3450671
TriCB-(21)+(33)	ng/g	0.455 (1)	0.0023	0.020				3450671
234'-TriCB-(22)	ng/g	0.301 (1)	0.0023	0.0098				3450671
235-TriCB-(23)	ng/g	0.0023 U	0.0023	0.0098				3450671
236-TriCB-(24)	ng/g	0.0128	0.0024	0.0098				3450671
23'4-TriCB-(25)	ng/g	0.0602 (1)	0.0023	0.0098				3450671
TriCB-(26)+(29)	ng/g	0.121 (1)	0.0023	0.020				3450671
23'6-TriCB-(27)	ng/g	0.0452	0.0021	0.0098				3450671
24'5-TriCB-(31)	ng/g	0.668 (1)	0.0021	0.0098				3450671

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(1) Duplicate sample results don't match. Probably due to matrix homgenity.

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Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
24'6-TriCB-(32)	ng/g	0.160 (1)	0.0019	0.0098				3450671
23'5'-TriCB-(34)	ng/g	0.0024 U	0.0024	0.0098				3450671
33'4-TriCB-(35)	ng/g	0.0165	0.0023	0.0098				3450671
33'5-TriCB-(36)	ng/g	0.0020 U	0.0020	0.0098				3450671
344'-TriCB-(37)	ng/g	0.284 (1)	0.0026	0.0098				3450671
345-TriCB-(38)	ng/g	0.0023 U	0.0023	0.0098				3450671
34'5-TriCB-(39)	ng/g	0.0022 U	0.0022	0.0098				3450671
TetraCB-(40)+(41)+(71)	ng/g	0.427 (1)	0.0023	0.029				3450671
22'34'-TetraCB-(42)	ng/g	0.243 (1)	0.0030	0.0098				3450671
22'35-TetraCB-(43)	ng/g	0.0341	0.0034	0.0098				3450671
TetraCB-(44)+(47)+(65)	ng/g	0.783	0.0022	0.029				3450671
TetraCB-(45)+(51)	ng/g	0.179 (1)	0.0023	0.020				3450671
22'36'-TetraCB-(46)	ng/g	0.0748 (1)	0.0029	0.0098				3450671
22'45-TetraCB-(48)	ng/g	0.139 (1)	0.0023	0.0098				3450671
TetraCB-(49)+TetraCB-(69)	ng/g	0.434	0.0021	0.020				3450671
TetraCB-(50)+(53)	ng/g	0.135 (1)	0.0023	0.020				3450671
22'55'-TetraCB-(52)	ng/g	1.19	0.0023	0.0098				3450671
22'66'-TetraCB-(54)	ng/g	0.0025 U	0.0025	0.0098				3450671
233'4-TetraCB-(55)	ng/g	0.0022 U	0.0022	0.0098				3450671
233'4'-Tetra CB(56)	ng/g	0.193	0.0023	0.0098				3450671
233'5-TetraCB-(57)	ng/g	0.0021 U	0.0021	0.0098				3450671
233'5'-TetraCB-(58)	ng/g	0.0021 U	0.0021	0.0098				3450671
TetraCB-(59)+(62)+(75)	ng/g	0.082	0.0017	0.029				3450671
2344'-TetraCB -(60)	ng/g	0.0835	0.0021	0.0098				3450671
TetraCB-(61)+(70)+(74)+(76)	ng/g	0.929	0.0021	0.039				3450671
234'5-TetraCB-(63)	ng/g	0.0130	0.0020	0.0098				3450671
234'6-TetraCB-(64)	ng/g	0.421	0.0019	0.0098				3450671

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Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
23'44'-TetraCB-(66)	ng/g	0.327	0.0019	0.0098				3450671
23'45-TetraCB-(67)	ng/g	0.0154	0.0019	0.0098				3450671
23'45'-TetraCB-(68)	ng/g	0.0018 U	0.0018	0.0098				3450671
23'55'-TetraCB-(72)	ng/g	0.0026 J	0.0020	0.0098				3450671
23'5'6-TetraCB-(73)	ng/g	0.0016 U	0.0016	0.0098				3450671
33'44'-TetraCB-(77)	ng/g	0.0541 (1)	0.0023	0.0098	0.000100	0.00000541		3450671
33'45-TetraCB-(78)	ng/g	0.0021 U	0.0021	0.0098				3450671
33'45'-TetraCB(79)	ng/g	0.0238	0.0018	0.0098				3450671
33'55'-TetraCB-(80)	ng/g	0.0019 U	0.0019	0.0098				3450671
344'5-TetraCB-(81)	ng/g	0.0024 U	0.0024	0.0098	0.000300	0.000000720		3450671
22'33'4-PentaCB-(82)	ng/g	0.152	0.0033	0.0098				3450671
PentaCB-(83)+(99)	ng/g	0.610	0.0032	0.020				3450671
22'33'6-PentaCB-(84)	ng/g	0.446	0.0037	0.0098				3450671
PentaCB-(85)+(116)+(117)	ng/g	0.149	0.0025	0.029				3450671
PentaCB-(86)(87)(97)(109)(119)(125)	ng/g	0.874	0.0026	0.059				3450671
PentaCB-(88)+(91)	ng/g	0.189	0.0030	0.020				3450671
22'346'-PentaCB-(89)	ng/g	0.0129	0.0032	0.0098				3450671
PentaCB-(90)+(101)+(113)	ng/g	1.37	0.0026	0.029				3450671
22'355'-PentaCB-(92)	ng/g	0.235	0.0031	0.0098				3450671
PentaCB-(93)+(98)+(100)+(102)	ng/g	0.052	0.0032	0.039				3450671
22'356'-PentaCB-(94)	ng/g	0.0083 J	0.0033	0.0098				3450671
22'35'6-PentaCB-(95)	ng/g	1.39	0.0030	0.0098				3450671
22'366'-PentaCB-(96)	ng/g	0.0107	0.0017	0.0098				3450671
22'45'6-PentaCB-(103)	ng/g	0.0071 J	0.0027	0.0098				3450671
22'466'-PentaCB-(104)	ng/g	0.0016 U	0.0016	0.0098				3450671
233'44'-PentaCB-(105)	ng/g	0.478	0.0021	0.0098	0.0000300	0.0000143		3450671
233'45-PentaCB-(106)	ng/g	0.0019 U	0.0019	0.0098				3450671

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Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
233'4'5-PentaCB-(107)	ng/g	0.0671	0.0018	0.0098				3450671
PentaCB-(108)+(124)	ng/g	0.042	0.0019	0.020				3450671
PentaCB-(110)+(115)	ng/g	2.07	0.0025	0.020				3450671
233'55'-PentaCB-(111)	ng/g	0.0020 U	0.0020	0.0098				3450671
233'56-PentaCB-(112)	ng/g	0.0022 U	0.0022	0.0098				3450671
2344'5-PentaCB-(114)	ng/g	0.0240	0.0021	0.0098	0.0000300	0.000000720		3450671
23'44'5-PentaCB-(118)	ng/g	1.14	0.0021	0.0098	0.0000300	0.0000342		3450671
23'455'-PentaCB-(120)	ng/g	0.0020 U	0.0020	0.0098				3450671
23'45'6-PentaCB-(121)	ng/g	0.0022 U	0.0022	0.0098				3450671
233'4'5'-PentaCB-(122)	ng/g	0.013 U (1)	0.013	0.0098				3450671
23'44'5'-PentaCB-(123)	ng/g	0.0168	0.0023	0.0098	0.0000300	0.000000504		3450671
33'44'5-PentaCB-(126)	ng/g	0.0047 U (1)	0.0047	0.0098	0.100	0.000470		3450671
33'455'-PentaCB-(127)	ng/g	0.0019 U	0.0019	0.0098				3450671
HexaCB-(128)+(166)	ng/g	0.317	0.0022	0.020				3450671
HexaCB-(129)+(138)+(163)	ng/g	2.60	0.0024	0.029				3450671
22'33'45'-HexaCB-(130)	ng/g	0.132	0.0028	0.0098				3450671
22'33'46-HexaCB-(131)	ng/g	0.0330	0.0031	0.0098				3450671
22'33'46'-HexaCB-(132)	ng/g	0.820	0.0027	0.0098				3450671
22'33'55'-HexaCB-(133)	ng/g	0.0250	0.0026	0.0098				3450671
HexaCB-(134)+(143)	ng/g	0.118	0.0028	0.020				3450671
HexaCB-(135)+(151)	ng/g	0.625	0.0022	0.020				3450671
22'33'66'-HexaCB-(136)	ng/g	0.271	0.0018	0.0098				3450671
22'344'5-HexaCB-(137)	ng/g	0.112	0.0026	0.0098				3450671
HexaCB-(139)+(140)	ng/g	0.032	0.0024	0.020				3450671
22'3455'-HexaCB-(141)	ng/g	0.429	0.0027	0.0098				3450671
22'3456-HexaCB-(142)	ng/g	0.0028 U	0.0028	0.0098				3450671
22'345'6-HexaCB-(144)	ng/g	0.0845	0.0021	0.0098				3450671

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
22'3466'-HexaCB-(145)	ng/g	0.0018 U	0.0018	0.0098				3450671
22'34'55'-HexaCB-(146)	ng/g	0.273	0.0023	0.0098				3450671
HexaCB-(147)+(149)	ng/g	1.70	0.0023	0.020				3450671
22'34'56'-HexaCB-(148)	ng/g	0.0022 U	0.0022	0.0098				3450671
22'34'66'-HexaCB-(150)	ng/g	0.0018 U	0.0018	0.0098				3450671
22'3566'-HexaCB-(152)	ng/g	0.0017 U	0.0017	0.0098				3450671
HexaCB-(153)+(168)	ng/g	1.60	0.0019	0.020				3450671
22'44'56'-HexaCB-(154)	ng/g	0.0132	0.0020	0.0098				3450671
22'44'66'-HexaCB-(155)	ng/g	0.0020 U	0.0020	0.0098				3450671
HexaCB-(156)+(157)	ng/g	0.223	0.0028	0.020	0.0000300	0.00000669		3450671
233'44'6-HexaCB-(158)	ng/g	0.234	0.0019	0.0098				3450671
233'455'-HexaCB-(159)	ng/g	0.0162	0.0027	0.0098				3450671
233'456-HexaCB-(160)	ng/g	0.0020 U	0.0020	0.0098				3450671
233'45'6-HexaCB-(161)	ng/g	0.0019 U	0.0019	0.0098				3450671
233'4'55'-HexaCB-(162)	ng/g	0.0048 J	0.0026	0.0098				3450671
233'4'5'6-HexaCB-(164)	ng/g	0.159	0.0020	0.0098				3450671
233'55'6-HexaCB-(165)	ng/g	0.0020 U	0.0020	0.0098				3450671
23'44'55'-HexaCB-(167)	ng/g	0.0796	0.0030	0.0098	0.0000300	0.00000239		3450671
33'44'55'-HexaCB-(169)	ng/g	0.0030 U	0.0030	0.0098	0.0300	0.0000900		3450671
22'33'44'5-HeptaCB-(170)	ng/g	0.459	0.0022	0.0098				3450671
HeptaCB-(171)+(173)	ng/g	0.141	0.0027	0.020				3450671
22'33'455'-HeptaCB-(172)	ng/g	0.0787	0.0027	0.0098				3450671
22'33'456'-HeptaCB-(174)	ng/g	0.505	0.0026	0.0098				3450671
22'33'45'6-HeptaCB-(175)	ng/g	0.0212	0.0021	0.0098				3450671
22'33'466'-HeptaCB-(176)	ng/g	0.0530	0.0016	0.0098				3450671
22'33'45'6'-HeptaCB-(177)	ng/g	0.281	0.0027	0.0098				3450671
22'33'55'6-HeptaCB-(178)	ng/g	0.0877	0.0022	0.0098				3450671
22'33'566'-HeptaCB-(179)	ng/g	0.176	0.0015	0.0098				3450671

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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**B22-SWSP-MH-020131029 Lab-Dup**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
HeptaCB-(180)+(193)	ng/g	1.07	0.0022	0.020				3450671
22'344'56-HeptaCB-(181)	ng/g	0.0024 U	0.0024	0.0098				3450671
22'344'56'-HeptaCB-(182)	ng/g	0.0021 U	0.0021	0.0098				3450671
22'344'5'6-HeptaCB-(183)	ng/g	0.292	0.0023	0.0098				3450671
22'344'66'-HeptaCB-(184)	ng/g	0.0014 U	0.0014	0.0098				3450671
22'3455'6-HeptaCB-(185)	ng/g	0.0024 U	0.0024	0.0098				3450671
22'34566'-HeptaCB-(186)	ng/g	0.0016 U	0.0016	0.0098				3450671
22'34'55'6-HeptaCB-(187)	ng/g	0.530	0.0020	0.0098				3450671
22'34'566'-HeptaCB-(188)	ng/g	0.0019 U	0.0019	0.0098				3450671
233'44'55'-HeptaCB-(189)	ng/g	0.0173	0.0026	0.0098	0.0000300	0.000000519		3450671
233'44'56-HeptaCB-(190)	ng/g	0.0816	0.0021	0.0098				3450671
233'44'5'6-HeptaCB-(191)	ng/g	0.0181	0.0020	0.0098				3450671
233'455'6-HeptaCB-(192)	ng/g	0.0021 U	0.0021	0.0098				3450671
22'33'44'55'-OctaCB-(194)	ng/g	0.160	0.0031	0.0098				3450671
22'33'44'56-OctaCB-(195)	ng/g	0.0699	0.0034	0.0098				3450671
22'33'44'56'-OctaCB-(196)	ng/g	0.103	0.0016	0.0098				3450671
22'33'44'66'OctaCB-(197)	ng/g	0.0089 J	0.0011	0.0098				3450671
OctaCB-(198)+(199)	ng/g	0.206	0.0016	0.020				3450671
22'33'4566'-OctaCB-(200)	ng/g	0.0248	0.0011	0.0098				3450671
22'33'45'66'-OctaCB-(201)	ng/g	0.0262	0.0011	0.0098				3450671
22'33'55'66'-OctaCB-(202)	ng/g	0.0436	0.0015	0.0098				3450671
22'344'55'6-OctaCB-(203)	ng/g	0.134	0.0015	0.0098				3450671
22'344'566'-OctaCB-(204)	ng/g	0.0011 U	0.0011	0.0098				3450671
233'44'55'6-OctaCB-(205)	ng/g	0.0099	0.0027	0.0098				3450671
22'33'44'55'6-NonaCB-(206)	ng/g	0.125	0.0029	0.0098				3450671
22'33'44'566'-NonaCB-(207)	ng/g	0.0138	0.0022	0.0098				3450671
22'33'455'66'-NonaCB-(208)	ng/g	0.0418	0.0026	0.0098				3450671
DecaCB-(209)	ng/g	0.127	0.0026	0.0098				3450671

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Apex Laboratories
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	**B22-SWSP-MH-020131029 Lab-Dup**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
Monochlorobiphenyl	ng/g	0.0116	0.0022	N/A			2	3450671
Dichlorobiphenyl	ng/g	0.545	0.0032	N/A			9	3450671
Trichlorobiphenyl	ng/g	3.87	0.0030	N/A			15	3450671
Tetrachlorobiphenyl	ng/g	5.78	0.0034	N/A			21	3450671
Pentachlorobiphenyl	ng/g	9.34	0.0037	N/A			21	3450671
Hexachlorobiphenyl	ng/g	9.90	0.0031	N/A			23	3450671
Heptachlorobiphenyl	ng/g	3.81	0.0027	N/A			15	3450671
Octachlorobiphenyl	ng/g	0.786	0.0034	N/A			10	3450671
Nonachlorobiphenyl	ng/g	0.181	0.0029	N/A			3	3450671
Decachlorobiphenyl	ng/g	0.127	0.0026	N/A			1	3450671
Total PCB	ng/g	34.4	N/A	N/A				3450671
TOTAL TOXIC EQUIVALENCY	ng/g					0.000625		
Surrogate Recovery (%)								
C13-2,44'-TriCB-(28)	%	114						3450671
C13-22'33'44'55'6-NonaCB-(206)	%	96						3450671
C13-22'33'44'5-HeptaCB-(170)	%	143						3450671
C13-22'33'455'66'-NonaCB-(208)	%	126						3450671
C13-22'33'55'66'-OctaCB-(202)	%	136						3450671
C13-22'33'55'6-HeptaCB-(178)	%	111						3450671
C13-22'344'55'-HeptaCB-(180)	%	147 (1)						3450671
C13-22'34'566'-HeptaCB-(188)	%	97						3450671
C13-22'44'66'-HexaCB-(155)	%	95						3450671
C13-22'466'-PentaCB-(104)	%	91						3450671
C13-22'66'-TetraCB-(54)	%	97						3450671
C13-22'6-TriCB-(19)	%	102						3450671
C13-22'-DiCB-(4)	%	85						3450671
C13-233'44'55'6-OctaCB-(205)	%	105						3450671

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(1) Result is within method acceptable criteria(25-150% recovery).

Maxxam Job #: B3J0865
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SEMI-VOLATILE ORGANICS BY HRMS (SOIL)

Maxxam ID		TT9622						
Sampling Date		2013/10/29 11:00						
COC Number		na			TOXIC EQUIVALENCY		# of	
	Units	B22-SWSP-MH-020131029 Lab-Dup	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-233'44'55'-HeptaCB-(189)	%	128						3450671
C13-233'44'-PentaCB-(105)	%	104						3450671
C13-233'55'-PentaCB-(111)	%	101						3450671
C13-23'44'55'-HexaCB-(167)	%	101						3450671
C13-2344'5-PentaCB-(114)	%	100						3450671
C13-23'44'5-PentaCB-(118)	%	106						3450671
C13-2'344'5-PentaCB-(123)	%	102						3450671
C13-2-MonoCB-(1)	%	81						3450671
C13-33'44'55'-HexaCB-(169)	%	64						3450671
C13-33'44'5-PentaCB-(126)	%	96						3450671
C13-33'44'-TetraCB-(77)	%	117						3450671
C13-344'5-TetraCB-(81)	%	119						3450671
C13-344'-TriCB-(37)	%	116						3450671
C13-44'-DiCB-(15)	%	121						3450671
C13-4-MonoCB-(3)	%	88						3450671
C13-DecaCB-(209)	%	82						3450671
C13-HexaCB-(156)+(157)	%	99						3450671

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QC Batch = Quality Control Batch
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

Test Summary

Maxxam ID TT9622 **Collected** 2013/10/29
Sample ID B22-SWSP-MH-020131029 **Shipped**
Matrix Soil **Received** 2013/11/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Dioxins/Furans in Soil (8290A)	HRMS/MS	3424985	2013/11/12	2013/11/17	Owen Cosby
Moisture	BAL	3413680	N/A	2013/11/06	Min Yang
PCB Congeners in Soil (1668A)	HRMS/MS	3450671	2013/12/04	2013/12/08	Cathy Xu

Maxxam ID TT9622 Dup **Collected** 2013/10/29
Sample ID B22-SWSP-MH-020131029 **Shipped**
Matrix Soil **Received** 2013/11/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PCB Congeners in Soil (1668A)	HRMS/MS	3450671	2013/12/04	2013/12/08	Cathy Xu

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Maxxam Job #: B3J0865
Report Date: 2013/12/31

Apex Laboratories
Client Project #: A3K0014

Package 1	4.8°C

Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Revised report (2013/12/31): Homologs reported as per client's request.

Results relate only to the items tested.

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A3K0014
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: GB3J0865

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3413680	THT	RPD - Sample/Sample Dup	Moisture	2013/11/06	1.6		%	20
3424985	OBC	Matrix Spike	C13-1234678 HeptaCDD	2013/11/16		55	%	40 - 135
		Matrix Spike DUP	C13-1234678 HeptaCDD	2013/11/16		54	%	40 - 135
		Matrix Spike	C13-1234678 HeptaCDF	2013/11/16		62	%	40 - 135
		Matrix Spike DUP	C13-1234678 HeptaCDF	2013/11/16		60	%	40 - 135
		Matrix Spike	C13-123478 HexaCDF	2013/11/16		52	%	40 - 135
		Matrix Spike DUP	C13-123478 HexaCDF	2013/11/16		51	%	40 - 135
		Matrix Spike	C13-123678 HexaCDD	2013/11/16		43	%	40 - 135
		Matrix Spike DUP	C13-123678 HexaCDD	2013/11/16		43	%	40 - 135
		Matrix Spike	C13-12378 PentaCDD	2013/11/16		49	%	40 - 135
		Matrix Spike DUP	C13-12378 PentaCDD	2013/11/16		48	%	40 - 135
		Matrix Spike	C13-12378 PentaCDF	2013/11/16		51	%	40 - 135
		Matrix Spike DUP	C13-12378 PentaCDF	2013/11/16		51	%	40 - 135
		Matrix Spike	C13-2378 TetraCDD	2013/11/16		38 (1)	%	40 - 135
		Matrix Spike DUP	C13-2378 TetraCDD	2013/11/16		37 (1)	%	40 - 135
		Matrix Spike	C13-2378 TetraCDF	2013/11/16		53	%	40 - 135
		Matrix Spike DUP	C13-2378 TetraCDF	2013/11/16		51	%	40 - 135
		Matrix Spike	C13-OCDD	2013/11/16		49	%	40 - 135
		Matrix Spike DUP	C13-OCDD	2013/11/16		50	%	40 - 135
		Matrix Spike	2,3,7,8-Tetra CDD	2013/11/16		107	%	80 - 140
		Matrix Spike DUP	2,3,7,8-Tetra CDD	2013/11/16		105	%	80 - 140
		MS/MSD RPD	2,3,7,8-Tetra CDD	2013/11/16	1.9		%	25
		Matrix Spike	1,2,3,7,8-Penta CDD	2013/11/16		99	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8-Penta CDD	2013/11/16		103	%	80 - 140
		MS/MSD RPD	1,2,3,7,8-Penta CDD	2013/11/16	4.0		%	25
		Matrix Spike	1,2,3,4,7,8-Hexa CDD	2013/11/16		109	%	80 - 140
		Matrix Spike DUP	1,2,3,4,7,8-Hexa CDD	2013/11/16		109	%	80 - 140
		MS/MSD RPD	1,2,3,4,7,8-Hexa CDD	2013/11/16	0		%	25
		Matrix Spike	1,2,3,6,7,8-Hexa CDD	2013/11/16		99	%	80 - 140
		Matrix Spike DUP	1,2,3,6,7,8-Hexa CDD	2013/11/16		95	%	80 - 140
		MS/MSD RPD	1,2,3,6,7,8-Hexa CDD	2013/11/16	4.1		%	25
		Matrix Spike	1,2,3,7,8,9-Hexa CDD	2013/11/16		109	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8,9-Hexa CDD	2013/11/16		103	%	80 - 140
		MS/MSD RPD	1,2,3,7,8,9-Hexa CDD	2013/11/16	5.7		%	25
		Matrix Spike	1,2,3,4,6,7,8-Hepta CDD	2013/11/16		175 (2)	%	80 - 140
		Matrix Spike DUP	1,2,3,4,6,7,8-Hepta CDD	2013/11/16		93	%	80 - 140
		MS/MSD RPD	1,2,3,4,6,7,8-Hepta CDD	2013/11/16	61.2 (3)		%	25
		Matrix Spike	Octa CDD	2013/11/16		574 (2)	%	80 - 140
		Matrix Spike DUP	Octa CDD	2013/11/16		71 (4)	%	80 - 140
		MS/MSD RPD	Octa CDD	2013/11/16	156 (4)		%	25
		Matrix Spike	Total Tetra CDD	2013/11/16		131	%	N/A
		Matrix Spike DUP	Total Tetra CDD	2013/11/16		127	%	N/A
		MS/MSD RPD	Total Tetra CDD	2013/11/16	3.2		%	25
		Matrix Spike	Total Penta CDD	2013/11/16		123	%	N/A
		Matrix Spike DUP	Total Penta CDD	2013/11/16		127	%	N/A
		MS/MSD RPD	Total Penta CDD	2013/11/16	3.3		%	25
		Matrix Spike	Total Hexa CDD	2013/11/16		411	%	N/A
		Matrix Spike DUP	Total Hexa CDD	2013/11/16		397	%	N/A
		MS/MSD RPD	Total Hexa CDD	2013/11/16	3.5		%	25
		Matrix Spike	Total Hepta CDD	2013/11/16		456	%	N/A
		Matrix Spike DUP	Total Hepta CDD	2013/11/16		354	%	N/A
		MS/MSD RPD	Total Hepta CDD	2013/11/16	25.0		%	25
		Matrix Spike	2,3,7,8-Tetra CDF	2013/11/16		70 (4)	%	80 - 140

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A3K0014
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB3J0865

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3424985	OBC	Matrix Spike DUP	2,3,7,8-Tetra CDF	2013/11/16		72 (4)	%	80 - 140
		MS/MSD RPD	2,3,7,8-Tetra CDF	2013/11/16	2.8 (4)		%	25
		Matrix Spike	1,2,3,7,8-Penta CDF	2013/11/16		93	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8-Penta CDF	2013/11/16		95	%	80 - 140
		MS/MSD RPD	1,2,3,7,8-Penta CDF	2013/11/16	2.1		%	25
		Matrix Spike	2,3,4,7,8-Penta CDF	2013/11/16		90	%	80 - 140
		Matrix Spike DUP	2,3,4,7,8-Penta CDF	2013/11/16		89	%	80 - 140
		MS/MSD RPD	2,3,4,7,8-Penta CDF	2013/11/16	1.1		%	25
		Matrix Spike	1,2,3,4,7,8-Hexa CDF	2013/11/16		90	%	80 - 140
		Matrix Spike DUP	1,2,3,4,7,8-Hexa CDF	2013/11/16		88	%	80 - 140
		MS/MSD RPD	1,2,3,4,7,8-Hexa CDF	2013/11/16	2.2		%	25
		Matrix Spike	1,2,3,6,7,8-Hexa CDF	2013/11/16		91	%	80 - 140
		Matrix Spike DUP	1,2,3,6,7,8-Hexa CDF	2013/11/16		89	%	80 - 140
		MS/MSD RPD	1,2,3,6,7,8-Hexa CDF	2013/11/16	2.2		%	25
		Matrix Spike	2,3,4,6,7,8-Hexa CDF	2013/11/16		78 (4)	%	80 - 140
		Matrix Spike DUP	2,3,4,6,7,8-Hexa CDF	2013/11/16		86	%	80 - 140
		MS/MSD RPD	2,3,4,6,7,8-Hexa CDF	2013/11/16	9.8		%	25
		Matrix Spike	1,2,3,7,8,9-Hexa CDF	2013/11/16		91	%	80 - 140
		Matrix Spike DUP	1,2,3,7,8,9-Hexa CDF	2013/11/16		91	%	80 - 140
		MS/MSD RPD	1,2,3,7,8,9-Hexa CDF	2013/11/16	0		%	25
		Matrix Spike	1,2,3,4,6,7,8-Hepta CDF	2013/11/16		91	%	80 - 140
		Matrix Spike DUP	1,2,3,4,6,7,8-Hepta CDF	2013/11/16		84	%	80 - 140
		MS/MSD RPD	1,2,3,4,6,7,8-Hepta CDF	2013/11/16	8.0		%	25
		Matrix Spike	1,2,3,4,7,8,9-Hepta CDF	2013/11/16		84	%	80 - 140
		Matrix Spike DUP	1,2,3,4,7,8,9-Hepta CDF	2013/11/16		85	%	80 - 140
		MS/MSD RPD	1,2,3,4,7,8,9-Hepta CDF	2013/11/16	1.2		%	25
		Matrix Spike	Octa CDF	2013/11/16		118	%	80 - 140
		Matrix Spike DUP	Octa CDF	2013/11/16		97	%	80 - 140
		MS/MSD RPD	Octa CDF	2013/11/16	19.5		%	25
		Matrix Spike	Total Tetra CDF	2013/11/16		88	%	N/A
		Matrix Spike DUP	Total Tetra CDF	2013/11/16		89	%	N/A
		MS/MSD RPD	Total Tetra CDF	2013/11/16	1.2		%	25
		Matrix Spike	Total Penta CDF	2013/11/16		226	%	N/A
		Matrix Spike DUP	Total Penta CDF	2013/11/16		225	%	N/A
		MS/MSD RPD	Total Penta CDF	2013/11/16	0.2		%	25
		Matrix Spike	Total Hexa CDF	2013/11/16		436	%	N/A
		Matrix Spike DUP	Total Hexa CDF	2013/11/16		438	%	N/A
		MS/MSD RPD	Total Hexa CDF	2013/11/16	0.6		%	25
		Matrix Spike	Total Hepta CDF	2013/11/16		260	%	N/A
		Matrix Spike DUP	Total Hepta CDF	2013/11/16		251	%	N/A
		MS/MSD RPD	Total Hepta CDF	2013/11/16	3.5		%	25
		Spiked Blank	C13-1234678 HeptaCDD	2013/11/16		124	%	40 - 135
			C13-1234678 HeptaCDF	2013/11/16		129	%	40 - 135
			C13-123478 HexaCDF	2013/11/16		101	%	40 - 135
			C13-123678 HexaCDD	2013/11/16		84	%	40 - 135
			C13-12378 PentaCDD	2013/11/16		95	%	40 - 135
			C13-12378 PentaCDF	2013/11/16		100	%	40 - 135
			C13-2378 TetraCDD	2013/11/16		67	%	40 - 135
			C13-2378 TetraCDF	2013/11/16		109	%	40 - 135
			C13-OCDD	2013/11/16		128	%	40 - 135
			2,3,7,8-Tetra CDD	2013/11/16		95	%	80 - 140
			1,2,3,7,8-Penta CDD	2013/11/16		102	%	80 - 140
			1,2,3,4,7,8-Hexa CDD	2013/11/16		103	%	80 - 140
			1,2,3,6,7,8-Hexa CDD	2013/11/16		99	%	80 - 140
			1,2,3,7,8,9-Hexa CDD	2013/11/16		116	%	80 - 140

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3424985	OBC	Spiked Blank	1,2,3,4,6,7,8-Hepta CDD	2013/11/16		100	%	80 - 140
			Octa CDD	2013/11/16		99	%	80 - 140
			2,3,7,8-Tetra CDF	2013/11/16		94	%	80 - 140
			1,2,3,7,8-Penta CDF	2013/11/16		104	%	80 - 140
			2,3,4,7,8-Penta CDF	2013/11/16		105	%	80 - 140
			1,2,3,4,7,8-Hexa CDF	2013/11/16		104	%	80 - 140
			1,2,3,6,7,8-Hexa CDF	2013/11/16		98	%	80 - 140
			2,3,4,6,7,8-Hexa CDF	2013/11/16		103	%	80 - 140
			1,2,3,7,8,9-Hexa CDF	2013/11/16		113	%	80 - 140
			1,2,3,4,6,7,8-Hepta CDF	2013/11/16		95	%	80 - 140
			1,2,3,4,7,8,9-Hepta CDF	2013/11/16		110	%	80 - 140
			Octa CDF	2013/11/16		101	%	80 - 140
		Method Blank	C13-1234678 HeptaCDD	2013/11/16		118	%	40 - 135
			C13-1234678 HeptaCDF	2013/11/16		55	%	40 - 135
			C13-123478 HexaCDF	2013/11/16		51	%	40 - 135
			C13-123678 HexaCDD	2013/11/16		50	%	40 - 135
			C13-12378 PentaCDD	2013/11/16		96	%	40 - 135
			C13-12378 PentaCDF	2013/11/16		99	%	40 - 135
			C13-2378 TetraCDD	2013/11/16		80	%	40 - 135
			C13-2378 TetraCDF	2013/11/16		122	%	40 - 135
			C13-OCDD	2013/11/16		105	%	40 - 135
			2,3,7,8-Tetra CDD	2013/11/16	0.099 U, EDL=0.099		pg/g	
			1,2,3,7,8-Penta CDD	2013/11/16	0.10 U, EDL=0.10		pg/g	
			1,2,3,4,7,8-Hexa CDD	2013/11/16	0.11 U, EDL=0.11		pg/g	
			1,2,3,6,7,8-Hexa CDD	2013/11/16	0.11 U, EDL=0.11		pg/g	
			1,2,3,7,8,9-Hexa CDD	2013/11/16	0.10 U, EDL=0.10		pg/g	
			1,2,3,4,6,7,8-Hepta CDD	2013/11/16	0.10 U, EDL=0.10		pg/g	
			Octa CDD	2013/11/16	0.78 J, EDL=0.11		pg/g	
			Total Tetra CDD	2013/11/16	0.47 U, EDL=0.47 (5)		pg/g	
			Total Penta CDD	2013/11/16	0.21 U, EDL=0.21 (5)		pg/g	
			Total Hexa CDD	2013/11/16	0.35 U, EDL=0.35 (5)		pg/g	
			Total Hepta CDD	2013/11/16	0.10 U, EDL=0.10		pg/g	
			2,3,7,8-Tetra CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			1,2,3,7,8-Penta CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			2,3,4,7,8-Penta CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			1,2,3,4,7,8-Hexa CDF	2013/11/16	0.095 U, EDL=0.095		pg/g	
			1,2,3,6,7,8-Hexa CDF	2013/11/16	0.094 U, EDL=0.094		pg/g	
			2,3,4,6,7,8-Hexa CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			1,2,3,7,8,9-Hexa CDF	2013/11/16	0.12 U, EDL=0.12		pg/g	
			1,2,3,4,6,7,8-Hepta CDF	2013/11/16	0.090 U, EDL=0.090		pg/g	
			1,2,3,4,7,8,9-Hepta CDF	2013/11/16	0.12 U, EDL=0.12		pg/g	
			Octa CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			Total Tetra CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			Total Penta CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			Total Hexa CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
			Total Hepta CDF	2013/11/16	0.10 U, EDL=0.10		pg/g	
3450671	CXU	Spiked Blank	C13-2,44'-TriCB-(28)	2013/12/08		77	%	30 - 135
			C13-22'33'44'55'6-NonaCB-(206)	2013/12/08		99	%	25 - 150
			C13-22'33'44'5-HeptaCB-(170)	2013/12/08		99	%	25 - 150
			C13-22'33'455'66'-NonaCB-(208)	2013/12/08		100	%	25 - 150
			C13-22'33'55'66'-OctaCB-(202)	2013/12/08		97	%	25 - 150
			C13-22'33'55'6-HeptaCB-(178)	2013/12/08		110	%	30 - 135
			C13-22'344'55'-HeptaCB-(180)	2013/12/08		106	%	30 - 135
			C13-22'34'566'-HeptaCB-(188)	2013/12/08		90	%	25 - 150
			C13-22'44'66'-HexaCB-(155)	2013/12/08		72	%	25 - 150

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3450671	CXU	Spiked Blank	C13-22'466'-PentaCB-(104)	2013/12/08		57	%	25 - 150
			C13-22'66'-TetraCB-(54)	2013/12/08		52	%	25 - 150
			C13-22'6-TriCB-(19)	2013/12/08		50	%	25 - 150
			C13-22'-DiCB-(4)	2013/12/08		39	%	25 - 150
			C13-233'44'55'6-OctaCB-(205)	2013/12/08		100	%	25 - 150
			C13-233'44'55'-HeptaCB-(189)	2013/12/08		109	%	25 - 150
			C13-233'44'-PentaCB-(105)	2013/12/08		96	%	25 - 150
			C13-233'55'-PentaCB-(111)	2013/12/08		91	%	30 - 135
			C13-23'44'55'-HexaCB-(167)	2013/12/08		98	%	25 - 150
			C13-2344'5-PentaCB-(114)	2013/12/08		89	%	25 - 150
			C13-23'44'5-PentaCB-(118)	2013/12/08		91	%	25 - 150
			C13-2'344'5-PentaCB-(123)	2013/12/08		93	%	25 - 150
			C13-2-MonoCB-(1)	2013/12/08		44	%	15 - 150
			C13-33'44'55'-HexaCB-(169)	2013/12/08		86	%	25 - 150
			C13-33'44'5-PentaCB-(126)	2013/12/08		97	%	25 - 150
			C13-33'44'-TetraCB-(77)	2013/12/08		106	%	25 - 150
			C13-344'5-TetraCB-(81)	2013/12/08		102	%	25 - 150
			C13-344'-TriCB-(37)	2013/12/08		82	%	25 - 150
			C13-44'-DiCB-(15)	2013/12/08		70	%	25 - 150
			C13-4-MonoCB-(3)	2013/12/08		47	%	15 - 150
			C13-DecaCB-(209)	2013/12/08		83	%	25 - 150
			C13-HexaCB-(156)+(157)	2013/12/08		97	%	25 - 150
			2-MonoCB-(1)	2013/12/08		102	%	50 - 150
			4-MonoCB-(3)	2013/12/08		96	%	50 - 150
			22'-DiCB-(4)	2013/12/08		103	%	50 - 150
			4,4'-DiCB-(15)	2013/12/08		91	%	50 - 150
			22'6-TriCB-(19)	2013/12/08		101	%	50 - 150
			235-TriCB-(23)	2013/12/08		87	%	50 - 150
			23'5'-TriCB-(34)	2013/12/08		96	%	50 - 150
			344'-TriCB-(37)	2013/12/08		92	%	50 - 150
			22'66'-TetraCB-(54)	2013/12/08		99	%	50 - 150
			33'44'-TetraCB-(77)	2013/12/08		93	%	50 - 150
			344'5-TetraCB-(81)	2013/12/08		93	%	50 - 150
			22'466'-PentaCB-(104)	2013/12/08		107	%	50 - 150
			233'44'-PentaCB-(105)	2013/12/08		95	%	50 - 150
			2344'5-PentaCB-(114)	2013/12/08		95	%	50 - 150
			23'44'5-PentaCB-(118)	2013/12/08		95	%	50 - 150
			23'44'5'-PentaCB-(123)	2013/12/08		95	%	50 - 150
			33'44'5-PentaCB-(126)	2013/12/08		94	%	50 - 150
			22'44'66'-HexaCB-(155)	2013/12/08		100	%	50 - 150
			HexaCB-(156)+(157)	2013/12/08		95	%	50 - 150
			23'44'55'-HexaCB-(167)	2013/12/08		93	%	50 - 150
			33'44'55'-HexaCB-(169)	2013/12/08		94	%	50 - 150
			22'33'44'5-HeptaCB-(170)	2013/12/08		103	%	50 - 150
			HeptaCB-(180)+(193)	2013/12/08		86	%	50 - 150
			22'344'56'-HeptaCB-(182)	2013/12/08		90	%	50 - 150
			22'34'55'6-HeptaCB-(187)	2013/12/08		85	%	50 - 150
			22'34'566'-HeptaCB-(188)	2013/12/08		92	%	50 - 150
			233'44'55'-HeptaCB-(189)	2013/12/08		89	%	50 - 150
			22'33'55'66'-OctaCB-(202)	2013/12/08		100	%	50 - 150
			233'44'55'6-OctaCB-(205)	2013/12/08		99	%	50 - 150
			22'33'44'55'6-NonaCB-(206)	2013/12/08		98	%	50 - 150
			22'33'455'66'-NonaCB-(208)	2013/12/08		98	%	50 - 150
			DecaCB-(209)	2013/12/08		105	%	50 - 150
		Method Blank	C13-2,44'-TriCB-(28)	2013/12/08		104	%	30 - 135

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3450671	CXU	Method Blank	C13-22'33'44'55'6-NonaCB-(206)	2013/12/08		95	%	25 - 150
			C13-22'33'44'5-HeptaCB-(170)	2013/12/08		99	%	25 - 150
			C13-22'33'455'66'-NonaCB-(208)	2013/12/08		99	%	25 - 150
			C13-22'33'55'66'-OctaCB-(202)	2013/12/08		96	%	25 - 150
			C13-22'33'55'6-HeptaCB-(178)	2013/12/08		115	%	30 - 135
			C13-22'344'55'-HeptaCB-(180)	2013/12/08		99	%	30 - 135
			C13-22'34'566'-HeptaCB-(188)	2013/12/08		91	%	25 - 150
			C13-22'44'66'-HexaCB-(155)	2013/12/08		84	%	25 - 150
			C13-22'466'-PentaCB-(104)	2013/12/08		79	%	25 - 150
			C13-22'66'-TetraCB-(54)	2013/12/08		85	%	25 - 150
			C13-22'6-TriCB-(19)	2013/12/08		86	%	25 - 150
			C13-22'-DiCB-(4)	2013/12/08		68	%	25 - 150
			C13-233'44'55'6-OctaCB-(205)	2013/12/08		98	%	25 - 150
			C13-233'44'55'-HeptaCB-(189)	2013/12/08		100	%	25 - 150
			C13-233'44'-PentaCB-(105)	2013/12/08		100	%	25 - 150
			C13-233'55'-PentaCB-(111)	2013/12/08		100	%	30 - 135
			C13-23'44'55'-HexaCB-(167)	2013/12/08		96	%	25 - 150
			C13-2344'5-PentaCB-(114)	2013/12/08		98	%	25 - 150
			C13-23'44'5-PentaCB-(118)	2013/12/08		99	%	25 - 150
			C13-2'344'5-PentaCB-(123)	2013/12/08		97	%	25 - 150
			C13-2-MonoCB-(1)	2013/12/08		69	%	15 - 150
			C13-33'44'55'-HexaCB-(169)	2013/12/08		91	%	25 - 150
			C13-33'44'5-PentaCB-(126)	2013/12/08		102	%	25 - 150
			C13-33'44'-TetraCB-(77)	2013/12/08		115	%	25 - 150
			C13-344'5-TetraCB-(81)	2013/12/08		112	%	25 - 150
			C13-344'-TriCB-(37)	2013/12/08		107	%	25 - 150
			C13-44'-DiCB-(15)	2013/12/08		101	%	25 - 150
			C13-4-MonoCB-(3)	2013/12/08		72	%	15 - 150
			C13-DecaCB-(209)	2013/12/08		83	%	25 - 150
			C13-HexaCB-(156)+(157)	2013/12/08		95	%	25 - 150
			2-MonoCB-(1)	2013/12/08	0.0012 U, EDL=0.0012		ng/g	
			3-MonoCB-(2)	2013/12/08	0.0010 U, EDL=0.0010		ng/g	
			4-MonoCB-(3)	2013/12/08	0.0011 U, EDL=0.0011		ng/g	
			22'-DiCB-(4)	2013/12/08	0.00087 U, EDL=0.00087		ng/g	
			2,3-DiCB-(5)	2013/12/08	0.0018 U, EDL=0.0018		ng/g	
			2,3'-DiCB-(6)	2013/12/08	0.0015 U, EDL=0.0015		ng/g	
			2,4-DiCB-(7)	2013/12/08	0.0015 U, EDL=0.0015		ng/g	
			2,4'-DiCB-(8)	2013/12/08	0.0013 U, EDL=0.0013		ng/g	
			2,5-DiCB-(9)	2013/12/08	0.0015 U, EDL=0.0015		ng/g	
			2,6-DiCB-(10)	2013/12/08	0.00066 U, EDL=0.00066		ng/g	
			3,3'-DiCB-(11)	2013/12/08	0.0015 U, EDL=0.0015		ng/g	
			DiCB-(12)+(13)	2013/12/08	0.0016 U, EDL=0.0016		ng/g	
			3,5-DiCB-(14)	2013/12/08	0.0015 U, EDL=0.0015		ng/g	
			4,4'-DiCB-(15)	2013/12/08	0.0025 U, EDL=0.0025		ng/g	
			22'3-TriCB-(16)	2013/12/08	0.0026 U, EDL=0.0026		ng/g	
			22'4-TriCB-(17)	2013/12/08	0.0026 U, EDL=0.0026		ng/g	
			TriCB-(18)+(30)	2013/12/08	0.0021 U, EDL=0.0021		ng/g	
			22'6-TriCB-(19)	2013/12/08	0.0023 U, EDL=0.0023		ng/g	
			TriCB-(20) + (28)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			TriCB-(21)+(33)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			234'-TriCB-(22)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			235-TriCB-(23)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			236-TriCB-(24)	2013/12/08	0.0020 U, EDL=0.0020		ng/g	
			23'4-TriCB-(25)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			TriCB-(26)+(29)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	

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3450671	CXU	Method Blank	23'6-TriCB-(27)	2013/12/08	0.0018 U, EDL=0.0018		ng/g	
			24'5-TriCB-(31)	2013/12/08	0.0016 U, EDL=0.0016		ng/g	
			24'6-TriCB-(32)	2013/12/08	0.0016 U, EDL=0.0016		ng/g	
			23'5'-TriCB-(34)	2013/12/08	0.0018 U, EDL=0.0018		ng/g	
			33'4-TriCB-(35)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			33'5-TriCB-(36)	2013/12/08	0.0015 U, EDL=0.0015		ng/g	
			344'-TriCB-(37)	2013/12/08	0.0020 U, EDL=0.0020		ng/g	
			345-TriCB-(38)	2013/12/08	0.0017 U, EDL=0.0017		ng/g	
			34'5-TriCB-(39)	2013/12/08	0.0016 U, EDL=0.0016		ng/g	
			TetraCB-(40)+(41)+(71)	2013/12/08	0.0010 U, EDL=0.0010		ng/g	
			22'34'-TetraCB-(42)	2013/12/08	0.0014 U, EDL=0.0014		ng/g	
			22'35-TetraCB-(43)	2013/12/08	0.0016 U, EDL=0.0016		ng/g	
			TetraCB-(44)+(47)+(65)	2013/12/08	0.0010 U, EDL=0.0010		ng/g	
			TetraCB-(45)+(51)	2013/12/08	0.0011 U, EDL=0.0011		ng/g	
			22'36'-TetraCB-(46)	2013/12/08	0.0013 U, EDL=0.0013		ng/g	
			22'45-TetraCB-(48)	2013/12/08	0.0010 U, EDL=0.0010		ng/g	
			TetraCB-(49)+TetraCB-(69)	2013/12/08	0.00096 U, EDL=0.00096		ng/g	
			TetraCB-(50)+(53)	2013/12/08	0.0010 U, EDL=0.0010		ng/g	
			22'55'-TetraCB-(52)	2013/12/08	0.0010 U, EDL=0.0010		ng/g	
			22'66'-TetraCB-(54)	2013/12/08	0.00013 U, EDL=0.00013		ng/g	
			233'4-TetraCB-(55)	2013/12/08	0.00078 U, EDL=0.00078		ng/g	
			233'4'-Tetra CB(56)	2013/12/08	0.00081 U, EDL=0.00081		ng/g	
			233'5-TetraCB-(57)	2013/12/08	0.00071 U, EDL=0.00071		ng/g	
			233'5'-TetraCB-(58)	2013/12/08	0.00074 U, EDL=0.00074		ng/g	
			TetraCB-(59)+(62)+(75)	2013/12/08	0.00078 U, EDL=0.00078		ng/g	
			2344'-TetraCB -(60)	2013/12/08	0.00073 U, EDL=0.00073		ng/g	
			TetraCB-(61)+(70)+(74)+(76)	2013/12/08	0.00073 U, EDL=0.00073		ng/g	
			234'5-TetraCB-(63)	2013/12/08	0.00068 U, EDL=0.00068		ng/g	
			234'6-TetraCB-(64)	2013/12/08	0.00088 U, EDL=0.00088		ng/g	
			23'44'-TetraCB-(66)	2013/12/08	0.00065 U, EDL=0.00065		ng/g	
			23'45-TetraCB-(67)	2013/12/08	0.00065 U, EDL=0.00065		ng/g	
			23'45'-TetraCB-(68)	2013/12/08	0.00064 U, EDL=0.00064		ng/g	
			23'55'-TetraCB-(72)	2013/12/08	0.00068 U, EDL=0.00068		ng/g	
			23'5'6-TetraCB-(73)	2013/12/08	0.00073 U, EDL=0.00073		ng/g	
			33'44'-TetraCB-(77)	2013/12/08	0.00079 U, EDL=0.00079		ng/g	
			33'45-TetraCB-(78)	2013/12/08	0.00072 U, EDL=0.00072		ng/g	
			33'45'-TetraCB(79)	2013/12/08	0.00064 U, EDL=0.00064		ng/g	
			33'55'-TetraCB-(80)	2013/12/08	0.00064 U, EDL=0.00064		ng/g	
			344'5-TetraCB-(81)	2013/12/08	0.00082 U, EDL=0.00082		ng/g	
			22'33'4-PentaCB-(82)	2013/12/08	0.0024 U, EDL=0.0024		ng/g	
			PentaCB-(83)+(99)	2013/12/08	0.0023 U, EDL=0.0023		ng/g	
			22'33'6-PentaCB-(84)	2013/12/08	0.0027 U, EDL=0.0027		ng/g	
			PentaCB-(85)+(116)+(117)	2013/12/08	0.0018 U, EDL=0.0018		ng/g	
			PentaCB-(86)(87)(97)(109)(119)(125)	2013/12/08	0.0019 U, EDL=0.0019		ng/g	
			PentaCB-(88)+(91)	2013/12/08	0.0022 U, EDL=0.0022		ng/g	
			22'346'-PentaCB-(89)	2013/12/08	0.0024 U, EDL=0.0024		ng/g	
			PentaCB-(90)+(101)+(113)	2013/12/08	0.0019 U, EDL=0.0019		ng/g	
			22'355'-PentaCB-(92)	2013/12/08	0.0022 U, EDL=0.0022		ng/g	
			PentaCB-(93)+(98)+(100)+(102)	2013/12/08	0.0023 U, EDL=0.0023		ng/g	
			22'356'-PentaCB-(94)	2013/12/08	0.0024 U, EDL=0.0024		ng/g	
			22'35'6-PentaCB-(95)	2013/12/08	0.0022 U, EDL=0.0022		ng/g	
			22'366'-PentaCB-(96)	2013/12/08	0.00018 U, EDL=0.00018		ng/g	
			22'45'6-PentaCB-(103)	2013/12/08	0.0020 U, EDL=0.0020		ng/g	
			22'466'-PentaCB-(104)	2013/12/08	0.00018 U, EDL=0.00018		ng/g	
			233'44'-PentaCB-(105)	2013/12/08	0.0011 U, EDL=0.0011		ng/g	

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3450671	CXU	Method Blank	233'45-PentaCB-(106)	2013/12/08	0.00093 U,	EDL=0.00093	ng/g	
			233'4'5-PentaCB-(107)	2013/12/08	0.00091 U,	EDL=0.00091	ng/g	
			PentaCB-(108)+(124)	2013/12/08	0.00092 U,	EDL=0.00092	ng/g	
			PentaCB-(110)+(115)	2013/12/08	0.0018 U,	EDL=0.0018	ng/g	
			233'55'-PentaCB-(111)	2013/12/08	0.0015 U,	EDL=0.0015	ng/g	
			233'56-PentaCB-(112)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			2344'5-PentaCB-(114)	2013/12/08	0.0010 U,	EDL=0.0010	ng/g	
			23'44'5-PentaCB-(118)	2013/12/08	0.0010 U,	EDL=0.0010	ng/g	
			23'455'-PentaCB-(120)	2013/12/08	0.0015 U,	EDL=0.0015	ng/g	
			23'45'6-PentaCB-(121)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			233'4'5'-PentaCB-(122)	2013/12/08	0.0010 U,	EDL=0.0010	ng/g	
			23'44'5'-PentaCB-(123)	2013/12/08	0.0011 U,	EDL=0.0011	ng/g	
			33'44'5-PentaCB-(126)	2013/12/08	0.0010 U,	EDL=0.0010	ng/g	
			33'455'-PentaCB-(127)	2013/12/08	0.00094 U,	EDL=0.00094	ng/g	
			HexaCB-(128)+(166)	2013/12/08	0.0019 U,	EDL=0.0019	ng/g	
			HexaCB-(129)+(138)+(163)	2013/12/08	0.0021 U,	EDL=0.0021	ng/g	
			22'33'45'-HexaCB-(130)	2013/12/08	0.0024 U,	EDL=0.0024	ng/g	
			22'33'46-HexaCB-(131)	2013/12/08	0.0026 U,	EDL=0.0026	ng/g	
			22'33'46'-HexaCB-(132)	2013/12/08	0.0023 U,	EDL=0.0023	ng/g	
			22'33'55'-HexaCB-(133)	2013/12/08	0.0022 U,	EDL=0.0022	ng/g	
			HexaCB-(134)+(143)	2013/12/08	0.0024 U,	EDL=0.0024	ng/g	
			HexaCB-(135)+(151)	2013/12/08	0.00038 U,	EDL=0.00038	ng/g	
			22'33'66'-HexaCB-(136)	2013/12/08	0.00030 U,	EDL=0.00030	ng/g	
			22'344'5-HexaCB-(137)	2013/12/08	0.0022 U,	EDL=0.0022	ng/g	
			HexaCB-(139)+(140)	2013/12/08	0.0020 U,	EDL=0.0020	ng/g	
			22'3455'-HexaCB-(141)	2013/12/08	0.0023 U,	EDL=0.0023	ng/g	
			22'3456-HexaCB-(142)	2013/12/08	0.0024 U,	EDL=0.0024	ng/g	
			22'345'6-HexaCB-(144)	2013/12/08	0.00036 U,	EDL=0.00036	ng/g	
			22'3466'-HexaCB-(145)	2013/12/08	0.00030 U,	EDL=0.00030	ng/g	
			22'34'55'-HexaCB-(146)	2013/12/08	0.0020 U,	EDL=0.0020	ng/g	
			HexaCB-(147)+(149)	2013/12/08	0.0019 U,	EDL=0.0019	ng/g	
			22'34'56'-HexaCB-(148)	2013/12/08	0.00038 U,	EDL=0.00038	ng/g	
			22'34'66'-HexaCB-(150)	2013/12/08	0.00030 U,	EDL=0.00030	ng/g	
			22'3566'-HexaCB-(152)	2013/12/08	0.00028 U,	EDL=0.00028	ng/g	
			HexaCB-(153)+(168)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			22'44'56'-HexaCB-(154)	2013/12/08	0.00034 U,	EDL=0.00034	ng/g	
			22'44'66'-HexaCB-(155)	2013/12/08	0.00033 U,	EDL=0.00033	ng/g	
			HexaCB-(156)+(157)	2013/12/08	0.00040 U,	EDL=0.00040	ng/g	
			233'44'6-HexaCB-(158)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			233'455'-HexaCB-(159)	2013/12/08	0.00039 U,	EDL=0.00039	ng/g	
			233'456-HexaCB-(160)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			233'45'6-HexaCB-(161)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			233'4'55'-HexaCB-(162)	2013/12/08	0.00038 U,	EDL=0.00038	ng/g	
			233'4'5'6-HexaCB-(164)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			233'55'6-HexaCB-(165)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			23'44'55'-HexaCB-(167)	2013/12/08	0.00042 U,	EDL=0.00042	ng/g	
			33'44'55'-HexaCB-(169)	2013/12/08	0.00043 U,	EDL=0.00043	ng/g	
			22'33'44'5-HeptaCB-(170)	2013/12/08	0.0015 U,	EDL=0.0015	ng/g	
			HeptaCB-(171)+(173)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			22'33'455'-HeptaCB-(172)	2013/12/08	0.0018 U,	EDL=0.0018	ng/g	
			22'33'456'-HeptaCB-(174)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			22'33'45'6-HeptaCB-(175)	2013/12/08	0.00039 U,	EDL=0.00039	ng/g	
			22'33'466'-HeptaCB-(176)	2013/12/08	0.00029 U,	EDL=0.00029	ng/g	
			22'33'45'6'-HeptaCB-(177)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			22'33'55'6-HeptaCB-(178)	2013/12/08	0.00041 U,	EDL=0.00041	ng/g	

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3450671	CXU	Method Blank	22'33'566'-HeptaCB-(179)	2013/12/08	0.00028 U,	EDL=0.00028	ng/g	
			HeptaCB-(180)+(193)	2013/12/08	0.0014 U,	EDL=0.0014	ng/g	
			22'344'56-HeptaCB-(181)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			22'344'56'-HeptaCB-(182)	2013/12/08	0.00040 U,	EDL=0.00040	ng/g	
			22'344'5'6-HeptaCB-(183)	2013/12/08	0.0015 U,	EDL=0.0015	ng/g	
			22'344'66'-HeptaCB-(184)	2013/12/08	0.00026 U,	EDL=0.00026	ng/g	
			22'3455'6-HeptaCB-(185)	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			22'34566'-HeptaCB-(186)	2013/12/08	0.00030 U,	EDL=0.00030	ng/g	
			22'34'55'6-HeptaCB-(187)	2013/12/08	0.00037 U,	EDL=0.00037	ng/g	
			22'34'566'-HeptaCB-(188)	2013/12/08	0.00036 U,	EDL=0.00036	ng/g	
			233'44'55'-HeptaCB-(189)	2013/12/08	0.0023 U,	EDL=0.0023	ng/g	
			233'44'56-HeptaCB-(190)	2013/12/08	0.0014 U,	EDL=0.0014	ng/g	
			233'44'5'6-HeptaCB-(191)	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			233'455'6-HeptaCB-(192)	2013/12/08	0.0014 U,	EDL=0.0014	ng/g	
			22'33'44'55'-OctaCB-(194)	2013/12/08	0.0019 U,	EDL=0.0019	ng/g	
			22'33'44'56-OctaCB-(195)	2013/12/08	0.0021 U,	EDL=0.0021	ng/g	
			22'33'44'56'-OctaCB-(196)	2013/12/08	0.0019 U,	EDL=0.0019	ng/g	
			22'33'44'66'OctaCB-(197)	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			OctaCB-(198)+(199)	2013/12/08	0.0018 U,	EDL=0.0018	ng/g	
			22'33'4566'-OctaCB-(200)	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			22'33'45'66'-OctaCB-(201)	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			22'33'55'66'-OctaCB-(202)	2013/12/08	0.0018 U,	EDL=0.0018	ng/g	
			22'344'55'6-OctaCB-(203)	2013/12/08	0.0018 U,	EDL=0.0018	ng/g	
			22'344'566'-OctaCB-(204)	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			233'44'55'6-OctaCB-(205)	2013/12/08	0.0017 U,	EDL=0.0017	ng/g	
			22'33'44'55'6-NonaCB-(206)	2013/12/08	0.00070 U,	EDL=0.00070	ng/g	
			22'33'44'566'-NonaCB-(207)	2013/12/08	0.00052 U,	EDL=0.00052	ng/g	
			22'33'455'66'-NonaCB-(208)	2013/12/08	0.00063 U,	EDL=0.00063	ng/g	
			DecaCB-(209)	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			Monochlorobiphenyl	2013/12/08	0.0012 U,	EDL=0.0012	ng/g	
			Dichlorobiphenyl	2013/12/08	0.0025 U,	EDL=0.0025	ng/g	
			Trichlorobiphenyl	2013/12/08	0.0026 U,	EDL=0.0026	ng/g	
			Tetrachlorobiphenyl	2013/12/08	0.0016 U,	EDL=0.0016	ng/g	
			Pentachlorobiphenyl	2013/12/08	0.0027 U,	EDL=0.0027	ng/g	
			Hexachlorobiphenyl	2013/12/08	0.0026 U,	EDL=0.0026	ng/g	
			Heptachlorobiphenyl	2013/12/08	0.0023 U,	EDL=0.0023	ng/g	
			Octachlorobiphenyl	2013/12/08	0.0021 U,	EDL=0.0021	ng/g	
			Nonachlorobiphenyl	2013/12/08	0.00070 U,	EDL=0.00070	ng/g	
			Decachlorobiphenyl	2013/12/08	0.0013 U,	EDL=0.0013	ng/g	
			Total PCB	2013/12/08	0		ng/g	
		RPD - Sample/Sample Dup	2-MonoCB-(1)	2013/12/08	NC		%	30
			3-MonoCB-(2)	2013/12/08	NC		%	30
			4-MonoCB-(3)	2013/12/08	NC		%	30
			22'-DiCB-(4)	2013/12/08	NC (6)		%	30
			2,3-DiCB-(5)	2013/12/08	NC		%	30
			2,3'-DiCB-(6)	2013/12/08	NC		%	30
			2,4-DiCB-(7)	2013/12/08	NC		%	30
			2,4'-DiCB-(8)	2013/12/08	24.2		%	30
			2,5-DiCB-(9)	2013/12/08	NC		%	30
			2,6-DiCB-(10)	2013/12/08	NC		%	30
			3,3'-DiCB-(11)	2013/12/08	NC		%	30
			DiCB-(12)+(13)	2013/12/08	NC		%	30
			3,5-DiCB-(14)	2013/12/08	NC		%	30

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3450671	CXU	RPD - Sample/Sample Dup	4,4'-DiCB-(15)	2013/12/08	34.3 (6)		%	30
			22'3-TriCB-(16)	2013/12/08	37.1 (6)		%	30
			22'4-TriCB-(17)	2013/12/08	42.7 (6)		%	30
			TriCB-(18)+(30)	2013/12/08	37.9 (6)		%	30
			22'6-TriCB-(19)	2013/12/08	NC (6)		%	30
			TriCB-(20) + (28)	2013/12/08	33.8 (6)		%	30
			TriCB-(21)+(33)	2013/12/08	35.0 (6)		%	30
			234'-TriCB-(22)	2013/12/08	32.4 (6)		%	30
			235-TriCB-(23)	2013/12/08	NC		%	30
			236-TriCB-(24)	2013/12/08	NC		%	30
			23'4-TriCB-(25)	2013/12/08	NC (6)		%	30
			TriCB-(26)+(29)	2013/12/08	NC (6)		%	30
			23'6-TriCB-(27)	2013/12/08	NC		%	30
			24'5-TriCB-(31)	2013/12/08	34.8 (6)		%	30
			24'6-TriCB-(32)	2013/12/08	35.5 (6)		%	30
			23'5'-TriCB-(34)	2013/12/08	NC		%	30
			33'4-TriCB-(35)	2013/12/08	NC		%	30
			33'5-TriCB-(36)	2013/12/08	NC		%	30
			344'-TriCB-(37)	2013/12/08	38.0 (6)		%	30
			345-TriCB-(38)	2013/12/08	NC		%	30
			34'5-TriCB-(39)	2013/12/08	NC		%	30
			TetraCB-(40)+(41)+(71)	2013/12/08	32.4 (6)		%	30
			22'34'-TetraCB-(42)	2013/12/08	31.9 (6)		%	30
			22'35-TetraCB-(43)	2013/12/08	NC		%	30
			TetraCB-(44)+(47)+(65)	2013/12/08	15.9		%	30
			TetraCB-(45)+(51)	2013/12/08	41.2 (6)		%	30
			22'36'-TetraCB-(46)	2013/12/08	42.5 (6)		%	30
			22'45-TetraCB-(48)	2013/12/08	35.4 (6)		%	30
			TetraCB-(49)+TetraCB-(69)	2013/12/08	18.0		%	30
			TetraCB-(50)+(53)	2013/12/08	32.2 (6)		%	30
			22'55'-TetraCB-(52)	2013/12/08	2.4		%	30
			22'66'-TetraCB-(54)	2013/12/08	NC		%	30
			233'4-TetraCB-(55)	2013/12/08	NC		%	30
			233'4'-Tetra CB(56)	2013/12/08	24.5		%	30
			233'5-TetraCB-(57)	2013/12/08	NC		%	30
			233'5'-TetraCB-(58)	2013/12/08	NC		%	30
			TetraCB-(59)+(62)+(75)	2013/12/08	NC		%	30
			2344'-TetraCB -(60)	2013/12/08	25.9		%	30
			TetraCB-(61)+(70)+(74)+(76)	2013/12/08	0.9		%	30
			234'5-TetraCB-(63)	2013/12/08	NC		%	30
			234'6-TetraCB-(64)	2013/12/08	27.0		%	30
			23'44'-TetraCB-(66)	2013/12/08	12.0		%	30
			23'45-TetraCB-(67)	2013/12/08	NC		%	30
			23'45'-TetraCB-(68)	2013/12/08	NC		%	30
			23'55'-TetraCB-(72)	2013/12/08	NC		%	30
			23'5'6-TetraCB-(73)	2013/12/08	NC		%	30
			33'44'-TetraCB-(77)	2013/12/08	NC (6)		%	30
			33'45-TetraCB-(78)	2013/12/08	NC		%	30
			33'45'-TetraCB(79)	2013/12/08	NC		%	30
			33'55'-TetraCB-(80)	2013/12/08	NC		%	30
			344'5-TetraCB-(81)	2013/12/08	NC		%	30
			22'33'4-PentaCB-(82)	2013/12/08	8.1		%	30
			PentaCB-(83)+(99)	2013/12/08	16.7		%	30

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3450671	CXU	RPD - Sample/Sample Dup	22'33'6-PentaCB-(84)	2013/12/08	8.8		%	30
			PentaCB-(85)+(116)+(117)	2013/12/08	8.7		%	30
			PentaCB-(86)(87)(97)(109)(119)(125)	2013/12/08	17.7		%	30
			PentaCB-(88)+(91)	2013/12/08	4.2		%	30
			22'346'-PentaCB-(89)	2013/12/08	NC		%	30
			PentaCB-(90)+(101)+(113)	2013/12/08	16.3		%	30
			22'355'-PentaCB-(92)	2013/12/08	14.3		%	30
			PentaCB-(93)+(98)+(100)+(102)	2013/12/08	NC		%	30
			22'356'-PentaCB-(94)	2013/12/08	NC		%	30
			22'35'6-PentaCB-(95)	2013/12/08	8.9		%	30
			22'366'-PentaCB-(96)	2013/12/08	NC		%	30
			22'45'6-PentaCB-(103)	2013/12/08	NC		%	30
			22'466'-PentaCB-(104)	2013/12/08	NC		%	30
			233'44'-PentaCB-(105)	2013/12/08	15.9		%	30
			233'45-PentaCB-(106)	2013/12/08	NC		%	30
			233'4'5-PentaCB-(107)	2013/12/08	15.4		%	30
			PentaCB-(108)+(124)	2013/12/08	NC		%	30
			PentaCB-(110)+(115)	2013/12/08	9.0		%	30
			233'55'-PentaCB-(111)	2013/12/08	NC		%	30
			233'56-PentaCB-(112)	2013/12/08	NC		%	30
			2344'5-PentaCB-(114)	2013/12/08	NC		%	30
			23'44'5-PentaCB-(118)	2013/12/08	20.3		%	30
			23'455'-PentaCB-(120)	2013/12/08	NC		%	30
			23'45'6-PentaCB-(121)	2013/12/08	NC		%	30
			233'4'5'-PentaCB-(122)	2013/12/08	NC (5)		%	30
			23'44'5'-PentaCB-(123)	2013/12/08	NC		%	30
			33'44'5-PentaCB-(126)	2013/12/08	NC (5)		%	30
			33'455'-PentaCB-(127)	2013/12/08	NC		%	30
			HexaCB-(128)+(166)	2013/12/08	24.3		%	30
			HexaCB-(129)+(138)+(163)	2013/12/08	14.0		%	30
			22'33'45'-HexaCB-(130)	2013/12/08	16.5		%	30
			22'33'46-HexaCB-(131)	2013/12/08	NC		%	30
			22'33'46'-HexaCB-(132)	2013/12/08	15.0		%	30
			22'33'55'-HexaCB-(133)	2013/12/08	NC		%	30
			HexaCB-(134)+(143)	2013/12/08	5.4		%	30
			HexaCB-(135)+(151)	2013/12/08	8.1		%	30
			22'33'66'-HexaCB-(136)	2013/12/08	10.4		%	30
			22'344'5-HexaCB-(137)	2013/12/08	18.4		%	30
			HexaCB-(139)+(140)	2013/12/08	NC		%	30
			22'3455'-HexaCB-(141)	2013/12/08	12.3		%	30
			22'3456-HexaCB-(142)	2013/12/08	NC		%	30
			22'345'6-HexaCB-(144)	2013/12/08	13.6		%	30
			22'3466'-HexaCB-(145)	2013/12/08	NC		%	30
			22'34'55'-HexaCB-(146)	2013/12/08	9.5		%	30
			HexaCB-(147)+(149)	2013/12/08	10.2		%	30
			22'34'56'-HexaCB-(148)	2013/12/08	NC		%	30
			22'34'66'-HexaCB-(150)	2013/12/08	NC		%	30
			22'3566'-HexaCB-(152)	2013/12/08	NC		%	30
			HexaCB-(153)+(168)	2013/12/08	13.9		%	30
			22'44'56'-HexaCB-(154)	2013/12/08	NC		%	30
			22'44'66'-HexaCB-(155)	2013/12/08	NC		%	30
			HexaCB-(156)+(157)	2013/12/08	18.1		%	30
			233'44'6-HexaCB-(158)	2013/12/08	14.8		%	30

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Apex Laboratories
Attention: Philip Nerenberg
Client Project #: A3K0014
P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB3J0865

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3450671	CXU	RPD - Sample/Sample Dup	233'455'-HexaCB-(159)	2013/12/08	NC		%	30
			233'456-HexaCB-(160)	2013/12/08	NC		%	30
			233'45'6-HexaCB-(161)	2013/12/08	NC		%	30
			233'4'55'-HexaCB-(162)	2013/12/08	NC		%	30
			233'4'5'6-HexaCB-(164)	2013/12/08	11.1		%	30
			233'55'6-HexaCB-(165)	2013/12/08	NC		%	30
			23'44'55'-HexaCB-(167)	2013/12/08	7.2		%	30
			33'44'55'-HexaCB-(169)	2013/12/08	NC		%	30
			22'33'44'5-HeptaCB-(170)	2013/12/08	0.2		%	30
			HeptaCB-(171)+(173)	2013/12/08	3.5		%	30
			22'33'455'-HeptaCB-(172)	2013/12/08	3.6		%	30
			22'33'456'-HeptaCB-(174)	2013/12/08	0.5		%	30
			22'33'45'6-HeptaCB-(175)	2013/12/08	NC		%	30
			22'33'466'-HeptaCB-(176)	2013/12/08	7.7		%	30
			22'33'45'6'-HeptaCB-(177)	2013/12/08	4.8		%	30
			22'33'55'6-HeptaCB-(178)	2013/12/08	9.7		%	30
			22'33'566'-HeptaCB-(179)	2013/12/08	0.5		%	30
			HeptaCB-(180)+(193)	2013/12/08	2.4		%	30
			22'344'56-HeptaCB-(181)	2013/12/08	NC		%	30
			22'344'56'-HeptaCB-(182)	2013/12/08	NC		%	30
			22'344'5'6-HeptaCB-(183)	2013/12/08	2.2		%	30
			22'344'66'-HeptaCB-(184)	2013/12/08	NC		%	30
			22'3455'6-HeptaCB-(185)	2013/12/08	NC		%	30
			22'34566'-HeptaCB-(186)	2013/12/08	NC		%	30
			22'34'55'6-HeptaCB-(187)	2013/12/08	6.8		%	30
			22'34'566'-HeptaCB-(188)	2013/12/08	NC		%	30
			233'44'55'-HeptaCB-(189)	2013/12/08	NC		%	30
			233'44'56-HeptaCB-(190)	2013/12/08	6.4		%	30
			233'44'5'6-HeptaCB-(191)	2013/12/08	NC		%	30
			233'455'6-HeptaCB-(192)	2013/12/08	NC		%	30
			22'33'44'55'-OctaCB-(194)	2013/12/08	7.2		%	30
			22'33'44'56-OctaCB-(195)	2013/12/08	4.8		%	30
			22'33'44'56'-OctaCB-(196)	2013/12/08	15.1		%	30
			22'33'44'66'OctaCB-(197)	2013/12/08	NC		%	30
			OctaCB-(198)+(199)	2013/12/08	12.1		%	30
			22'33'4566'-OctaCB-(200)	2013/12/08	NC		%	30
			22'33'45'66'-OctaCB-(201)	2013/12/08	NC		%	30
			22'33'55'66'-OctaCB-(202)	2013/12/08	NC		%	30
			22'344'55'6-OctaCB-(203)	2013/12/08	17.5		%	30
			22'344'566'-OctaCB-(204)	2013/12/08	NC		%	30
			233'44'55'6-OctaCB-(205)	2013/12/08	NC		%	30
			22'33'44'55'6-NonaCB-(206)	2013/12/08	11.7		%	30
			22'33'44'566'-NonaCB-(207)	2013/12/08	NC		%	30
			22'33'455'66'-NonaCB-(208)	2013/12/08	NC		%	30
			DecaCB-(209)	2013/12/08	4.3		%	30
			Monochlorobiphenyl	2013/12/08	20.2		%	N/A
			Dichlorobiphenyl	2013/12/08	29.4		%	N/A
			Trichlorobiphenyl	2013/12/08	35.8		%	N/A
			Tetrachlorobiphenyl	2013/12/08	15.4		%	N/A
			Pentachlorobiphenyl	2013/12/08	13.4		%	N/A
			Hexachlorobiphenyl	2013/12/08	13.0		%	N/A
			Heptachlorobiphenyl	2013/12/08	0.4		%	N/A
			Octachlorobiphenyl	2013/12/08	12.7		%	N/A

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Apex Laboratories
Attention: Philip Nerenberg
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P.O. #:
Site Location:

Quality Assurance Report (Continued)

Maxxam Job Number: GB3J0865

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
3450671	CXU	RPD - Sample/Sample Dup	Nonachlorobiphenyl	2013/12/08	15.2		%	N/A
			Decachlorobiphenyl	2013/12/08	4.3		%	N/A
			Total PCB	2013/12/08	1.3		%	N/A

N/A = Not Applicable
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery below method criteria 40% -135% due to matrix interference
(2) Recovery exceeds method criteria 80% - 140%
This may be due to sample heterogeneity.
(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.
(4) Recovery below method criteria 80% - 140%
This may be due to sample heterogeneity.
(5) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.
(6) Duplicate sample results don't match. Probably due to matrix homgenity.

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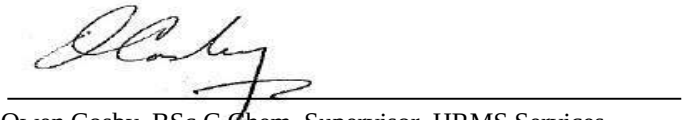
Validation Signature Page

Maxxam Job #: B3J0865

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Specialist

Kay Shaw, C. Chem, Sr Scientific Specialist, HRMS Services



Owen Cosby, BSc.C.Chem, Supervisor, HRMS Services

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Basin 20 Storm Water Sampling and Analysis Data
November 18, 2013 Sampling Event, Source Control Evaluation,
Burgard Industrial Park, Portland, Oregon
Bridgewater Group, Inc., 2014

BRIDGEWATER GROUP, INC.

Basin 20 Storm Water Sampling and Analysis Data
November 18, 2013 Sampling Event
Source Control Evaluation
Burgard Industrial Park
Portland, Oregon

TO: Jim Orr/Oregon DEQ

CC: Mat Cusma/Schnitzer
Mark Bartee/Schnitzer

FROM: Ross Rieke/Bridgewater Group

DATE: January 28, 2014

This memorandum presents the results of the November 18, 2013 storm water sampling and analysis performed at Basin 20 at the Burgard Industrial Park (BIP) in Portland, Oregon (Figure 1, Figure 2). The storm water sampling and analysis were performed in general accordance with the March 12, 2013 *Basin 19, 20, and 20A Sampling and Analysis Plan*.

Basin 20 Description

Based on 2012 and 2013 smoke testing, flow testing, and dye testing and a City of Portland video survey of Basin 21 conveyance and discharge system, Outfall 20 appears to drain an approximately 1.7 acre area north of the head of the IT slip (Figure 3). Activities in this predominantly paved area include Schnitzer Steel vendor and employee vehicle traffic and vehicle traffic related to other BIP entities (Wilbur-Ellis, RB Rubber Recycling), as well as non-BIP (Rock-Tenn) employee, vendor, and customer car and truck traffic and material storage.

Historical storm water system drawings showed Outfall 20 draining an area immediately south of Burgard Way, east of the head of the IT slip. However, site observations during periods of extended heavy rainfall in 2011 noted that this area does not drain and storm water is retained on the area and eventually infiltrates and/or evaporates.

Basin 20 Storm Water Sampling and Analysis

Storm Water Sample Collection

A Basin 20 storm water sample was collected on November 18, 2013 at the Basin 20 outfall at the IT Slip. Table 1 presents the rainfall conditions preceding, and during, the storm water sampling event.

Based on site conditions observed during preparation for the initial sampling event, it was determined that a representative storm water sample could not be obtained directly from the OF 20 discharge pipe. The end of the pipe was completely deteriorated and the OF20 discharge consisted of a flow emanating from the IT Slip bank near where the pipe previously daylighted. In order to obtain a sample representative of the Basin 20 discharge, a shallow “quieting basin” was constructed where the flow emanated from the bank. The quieting basin was about 20-inches long, about 6-inches wide, and three to four inches deep. The bottom of the basins was lined with clean, gravelly sand. The basin was allowed to sit for at least 24 hours after

construction prior to collecting the storm water sample.

The storm water sample was collected by lowering a stainless steel container into the discharging water and filling the container. The container was filled by placing the container opening facing away from the flowing water. The sample was then poured into the laboratory-supplied sample container specific for each analysis. Overall, the storm water sample was collected in a manner that minimized suspended bank soil particulates in the sample.

Storm Water Sample Analysis

The Basin 20 storm water sample was analyzed for the following:

- PCB aroclors, homologs, and congeners;
- Phthalates;
- Dioxins/furans;
- Butyltins;
- Aluminum, antimony, arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, silver, and zinc;
- Polycyclic aromatic hydrocarbons (PAHs);
- Organochlorine pesticides;
- Petroleum Hydrocarbons (gasoline, diesel, and heavy oil);
- Total suspended solids (TSS); and
- Total organic carbon (TOC).

Table 2 presents the results of the Basin 20 storm water sample analyses. Copies of the analytical laboratory reports are provided in Appendix A. Review of the laboratory QA/QC results did not indicate any issues requiring corrective action.

Attachments:

Table 1 – Storm Water Sampling Event Rainfall Data, 11/18/2013 Sampling Event
Table 2 – Storm Water Sample Analytical Laboratory Results
Figure 1 – Site Location Map
Figure 2 – Burgard Industrial Park Site Plan
Figure 3 – Basin 20 Storm Water Sample Location
Appendix A – Analytical Laboratory Reports

Tables

Table 1
Storm Water Sampling Event Rainfall Data
11/18/2013 Sampling Event
Burgard Industrial Park Basin 20

Date	Daily Total	Hourly Rain Fall (0.01 inches)																							
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11/5/13	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11/6/13	38	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	6	4	5	2	1	4	7	1	3
11/7/13	40	0	1	0	2	0	2	1	0	19	12	0	0	0	0	0	0	1	0	0	2	0	0	0	0
11/8/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/9/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/10/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/11/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/12/13	19	0	0	2	4	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/13/13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11/14/13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0
11/15/13	10	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0	0	3	0	0	1	0	0
11/16/13	10	2	0	0	0	0	0	1	0	4	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11/17/13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11/18/13	34	0	0	0	0	0	0	0	0	0	0	4	9	2	0	4	1	0	5	7	1	1	0	0	0

Data from Shipyard Rain Gage - 8900 N. Sever Road
Sampling Day
Sampling Hours

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
PAHs (ug/l)			
Acenaphthene	0.2		0.095 U
Acenaphthylene	0.2		0.095 U
Anthracene			0.095 U
Benzo(a)anthracene	0.018		0.10 U
Benzo(a)pyrene	0.018		0.16 J
Benzo(b+k)fluoranthene	0.018		0.14 J
Benzo(g,h,i)perylene	0.2		0.10 J
Chrysene	0.018		0.13 J
Dibenzo(a,h)anthracene	0.018		0.10 U
Fluoranthene	0.2		0.14 J
Fluorene	0.2		0.095 U
Indeno(1,2,3-cd)pyrene	0.018		0.10 U
Naphthalene	0.2		0.19 U
Phenanthrene	0.2		0.10 U
Pyrene	0.2		0.17 J
Total Detected PAHs		1	0.82
PCBs (ug/l)			
Aroclor 1016	0.96		0.010 U
Aroclor 1221	0.034		0.010 U
Aroclor 1232	0.034		0.010 U
Aroclor 1242	0.034		0.021
Aroclor 1248	0.034		0.010 U
Aroclor 1254	0.034		0.038
Aroclor 1260	0.034		0.023
Total Detected PCB aroclors	0.000064		0.082
PCB Congeners (ng/l)			
2-MonoCB-(1)			0.033 U
3-MonoCB-(2)			0.016 U
4-MonoCB-(3)			0.024 J
22'-DiCB-(4)			0.33
2,3-DiCB-(5)			0.017 U
2,3'-DiCB-(6)			0.11
2,4-DiCB-(7)			0.015 U
2,4'-DiCB-(8)			0.54
2,5-DiCB-(9)			0.028 J
2,6-DiCB-(10)			0.015 U
3,3'-DiCB-(11)			0.50
DiCB-(12)+(13)			0.063 U
3,5-DiCB-(14)			0.015 U
4,4'-DiCB-(15)			0.66
22'3-TriCB-(16)			0.58
22'4-TriCB-(17)			0.52
TriCB-(18)+(30)			1.1
22'6-TriCB-(19)			0.14
TriCB-(20) + (28)			2.5
TriCB-(21)+(33)			1.4

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
234'-TriCB-(22)			1.0
235-TriCB-(23)			0.020 U
236-TriCB-(24)			0.029 J
23'4-TriCB-(25)			0.18
TriCB-(26)+(29)			0.36
23'6-TriCB-(27)			0.10 J
24'5-TriCB-(31)			1.9
24'6-TriCB-(32)			0.38
23'5'-TriCB-(34)			0.020 U
33'4-TriCB-(35)			0.047 J
33'5-TriCB-(36)			0.016 U
344'-TriCB-(37)			0.94
345-TriCB-(38)			0.019 U
34'5-TriCB-(39)			0.017 U
TetraCB-(40)+(41)+(71)			1.3
22'34'-TetraCB-(42)			0.67
22'35-TetraCB-(43)			0.10 J
TetraCB-(44)+(47)+(65)			2.2
TetraCB-(45)+(51)			0.33
22'36'-TetraCB-(46)			0.13
22'45-TetraCB-(48)			0.39
TetraCB-(49)+TetraCB-(69)			1.1
TetraCB-(50)+(53)			0.23
22'55'-TetraCB-(52)			2.2
22'66'-TetraCB-(54)			0.016 U
233'4-TetraCB-(55)			0.018 U
233'4'-Tetra CB(56)			0.83
233'5-TetraCB-(57)			0.018 U
233'5'-TetraCB-(58)			0.018 U
TetraCB-(59)+(62)+(75)			0.20 J
2344'-TetraCB -(60)			0.35
TetraCB-(61)+(70)+(74)+(76)			3.0
234'5-TetraCB-(63)			0.048 J
234'6-TetraCB-(64)			1.1
23'44'-TetraCB-(66)			1.5
23'45-TetraCB-(67)			0.053 J
23'45'-TetraCB-(68)			0.016 U
23'55'-TetraCB-(72)			0.017 U
23'5'6-TetraCB-(73)			0.016 U
33'44'-TetraCB-(77)			0.24
33'45-TetraCB-(78)			0.018 U
33'45'-TetraCB(79)			0.030 J
33'55'-TetraCB-(80)			0.016 U
344'5-TetraCB-(81)			0.022 U
22'33'4-PentaCB-(82)			0.51
PentaCB-(83)+(99)			1.7
22'33'6-PentaCB-(84)			0.90
PentaCB-(85)+(116)+(117)			0.52
PentaCB-(86)(87)(97)(109)(119)(125)			2.6

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
PentaCB-(88)+(91)			0.39
22'346'-PentaCB-(89)			0.036 J
PentaCB-(90)+(101)+(113)			3.3
22'355'-PentaCB-(92)			0.55
PentaCB-(93)+(98)+(100)+(102)			0.12 J
22'356'-PentaCB-(94)			0.021 U
22'35'6-PentaCB-(95)			2.3
22'366'-PentaCB-(96)			0.019 U
22'45'6-PentaCB-(103)			0.018 U
22'466'-PentaCB-(104)			0.016 U
233'44'-PentaCB-(105)			1.8
233'45-PentaCB-(106)			0.020 U
233'4'5-PentaCB-(107)			0.21
PentaCB-(108)+(124)			0.14 J
PentaCB-(110)+(115)			5.8
233'55'-PentaCB-(111)			0.014 U
233'56-PentaCB-(112)			0.015 U
2344'5-PentaCB-(114)			0.074 J
23'44'5-PentaCB-(118)			4.0
23'455'-PentaCB-(120)			0.014 U
23'45'6-PentaCB-(121)			0.014 U
233'4'5'-PentaCB-(122)			0.054 J
23'44'5'-PentaCB-(123)			0.071 J
33'44'5-PentaCB-(126)			0.025 J
33'455'-PentaCB-(127)			0.020 U
HexaCB-(128)+(166)			1.0
HexaCB-(129)+(138)+(163)			6.6
22'33'45'-HexaCB-(130)			0.33
22'33'46-HexaCB-(131)			0.081 J
22'33'46'-HexaCB-(132)			1.8
22'33'55'-HexaCB-(133)			0.054 J
HexaCB-(134)+(143)			0.26
HexaCB-(135)+(151)			1.1
22'33'66'-HexaCB-(136)			0.43
22'344'5-HexaCB-(137)			0.31
HexaCB-(139)+(140)			0.083 J
22'3455'-HexaCB-(141)			1.0
22'3456-HexaCB-(142)			0.021 U
22'345'6-HexaCB-(144)			0.19
22'3466'-HexaCB-(145)			0.020 U
22'34'55'-HexaCB-(146)			0.60
HexaCB-(147)+(149)			3.3
22'34'56'-HexaCB-(148)			0.025 U
22'34'66'-HexaCB-(150)			0.018 U
22'3566'-HexaCB-(152)			0.019 U
HexaCB-(153)+(168)			3.8
22'44'56'-HexaCB-(154)			0.029 J
22'44'66'-HexaCB-(155)			0.020 U
HexaCB-(156)+(157)			0.68

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
233'44'6-HexaCB-(158)			0.60
233'455'-HexaCB-(159)			0.035 J
233'456-HexaCB-(160)			0.015 U
233'45'6-HexaCB-(161)			0.014 U
233'4'55'-HexaCB-(162)			0.024 J
233'4'5'6-HexaCB-(164)			0.35
233'55'6-HexaCB-(165)			0.015 U
23'44'55'-HexaCB-(167)			0.23
33'44'55'-HexaCB-(169)			0.023 U
22'33'44'5-HeptaCB-(170)			1.0
HeptaCB-(171)+(173)			0.28
22'33'455'-HeptaCB-(172)			0.18
22'33'456'-HeptaCB-(174)			0.93
22'33'45'6-HeptaCB-(175)			0.035 J
22'33'466'-HeptaCB-(176)			0.10
22'33'45'6'-HeptaCB-(177)			0.52
22'33'55'6-HeptaCB-(178)			0.18
22'33'566'-HeptaCB-(179)			0.32
HeptaCB-(180)+(193)			2.5
22'344'56-HeptaCB-(181)			0.020 U
22'344'56'-HeptaCB-(182)			0.019 U
22'344'5'6-HeptaCB-(183)			0.50
22'344'66'-HeptaCB-(184)			0.013 U
22'3455'6-HeptaCB-(185)			0.083 J
22'34566'-HeptaCB-(186)			0.014 U
22'34'55'6-HeptaCB-(187)			1.1
22'34'566'-HeptaCB-(188)			0.016 U
233'44'55'-HeptaCB-(189)			0.042 U
233'44'56-HeptaCB-(190)			0.21
233'44'5'6-HeptaCB-(191)			0.039 J
233'455'6-HeptaCB-(192)			0.017 U
22'33'44'55'-OctaCB-(194)			0.63
22'33'44'56-OctaCB-(195)			0.18
22'33'44'56'-OctaCB-(196)			0.33
22'33'44'66'OctaCB-(197)			0.018 U
OctaCB-(198)+(199)			0.80
22'33'4566'-OctaCB-(200)			0.072 J
22'33'45'66'-OctaCB-(201)			0.074 U
22'33'55'66'-OctaCB-(202)			0.18
22'344'55'6-OctaCB-(203)			0.50
22'344'566'-OctaCB-(204)			0.017 U
233'44'55'6-OctaCB-(205)			0.026 U
22'33'44'55'6-NonaCB-(206)			0.59
22'33'44'566'-NonaCB-(207)			0.063 J
22'33'455'66'-NonaCB-(208)			0.14
DecaCB-(209)			0.14
PCB Homologs (ng/l)			
Monochlorobiphenyl			0.024

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
Dichlorobiphenyl			2.2
Trichlorobiphenyl			11
Tetrachlorobiphenyl			16
Pentachlorobiphenyl			25
Hexachlorobiphenyl			23
Heptachlorobiphenyl			8.0
Octachlorobiphenyl			2.7
Nonachlorobiphenyl			0.8
Decachlorobiphenyl			0.14
Total Detected PCBs (Method 1668	0.064	400	89
Phthalates (ug/l)			
Bis(2-ethylhexyl) phthalate	2.2	5	11 U
Butylbenzyl phthalate	3		14 U
Dibutyl phthalate	3		14 U
Diethyl phthalate	3		14 U
Dimethyl phthalate	3		14 U
Di-n-octyl phthalate	3		14 U
Pesticides (ug/l)			
2,4'-DDD	0.00031		0.010 U
2,4'-DDE	0.00022		0.010 U
2,4'-DDT	0.2		0.019 U
4,4'-DDD	0.00031		0.010 U
4,4'-DDE	0.00022		0.010 U
4,4'-DDT	0.00022		0.010 U
Aldrin	0.00005		0.0095 U
alpha-BHC	0.0049		0.0095 U
beta-BHC	0.017		0.0095 U
cis-Chlordane	0.00081		0.0095 U
cis-Nonachlor	0.19		0.010 U
Chlordane Technical			0.36 U
delta-BHC	0.052		0.0095 U
Dieldrin	0.000054		0.0095 U
Endosulfan I	0.051		0.029 U
Endosulfan II	0.051		0.0095 U
Endosulfan sulfate	89		0.0095 U
Endrin	0.036		0.0095 U
Endrin aldehyde			0.0095 U
Endrin ketone			0.0095 U
gamma-BHC	0.037		0.0095 U
Heptachlor	0.000079		0.019 U
Heptachlor epoxide	0.000039		0.0095 U
Hexachlorobenzene	0.00029		0.029 U
Hexachlorobutadiene	0.86		0.0095 U
Hexachloroethane	3.3		
Methoxychlor	0.03		0.029 U
Mirex	NC		0.0095 U
Oxychlordane	0.19		0.0095 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
Toxaphene	0.0002		0.36 U
trans-Chlordane	0.00081		0.0095 U
trans-Nonachlor	0.19		0.0095 U
Dioxins (pg/l)			
1,2,3,4,6,7,8-HeptaCDD			137
1,2,3,4,6,7,8-HeptaCDF			28 U
1,2,3,4,7,8,9-HeptaCDF			1.5 U
1,2,3,4,7,8-HexaCDD			2.9 U
1,2,3,4,7,8-HexaCDF			2.6 U
1,2,3,6,7,8-HexaCDD			6.4 J
1,2,3,6,7,8-HexaCDF			1.6 J
1,2,3,7,8,9-HexaCDD			5.0 J
1,2,3,7,8,9-HexaCDF			1.1 U
1,2,3,7,8-PentaCDD			1.2 U
1,2,3,7,8-PentaCDF			1.4 U
2,3,4,6,7,8-HexaCDF			1.8 J
2,3,4,7,8-PentaCDF			1.4 U
2,3,7,8-TetraCDD	0.0051		1.2 U
2,3,7,8-TetraCDF			2.0 J
OCDD			1100
OCDF			44
HeptaCDD homologs			328
HeptaCDF homologs			43
HexaCDD homologs			55
HexaCDF homologs			42
PentaCDD homologs			1.2 U
PentaCDF homologs			12
TetraCDD homologs			1.2 U
TetraCDF homologs			4.7
Total Dioxin TEQ	0.0051		5.3
Butyltins (ug/l)			
Butyltin ion			0.20 U
Dibutyltin ion			0.29 U
Tributyltin ion	0.072		0.19 U
Total Metals (ug/l)			
Aluminum			1880
Antimony	6		1.2
Arsenic	0.045	2	1.0
Cadmium	0.094	0.7	0.42
Chromium	100	7	18
Copper	2.7	60	25
Lead	0.54	50	24
Manganese	50		222
Mercury	0.77	0.2	0.040 U
Nickel	16	8	3.7
Silver	0.12	0.1	0.10 U

Table 2
Storm Water Sample Analytical Laboratory Results
Burgard Industrial Park - Basin 20

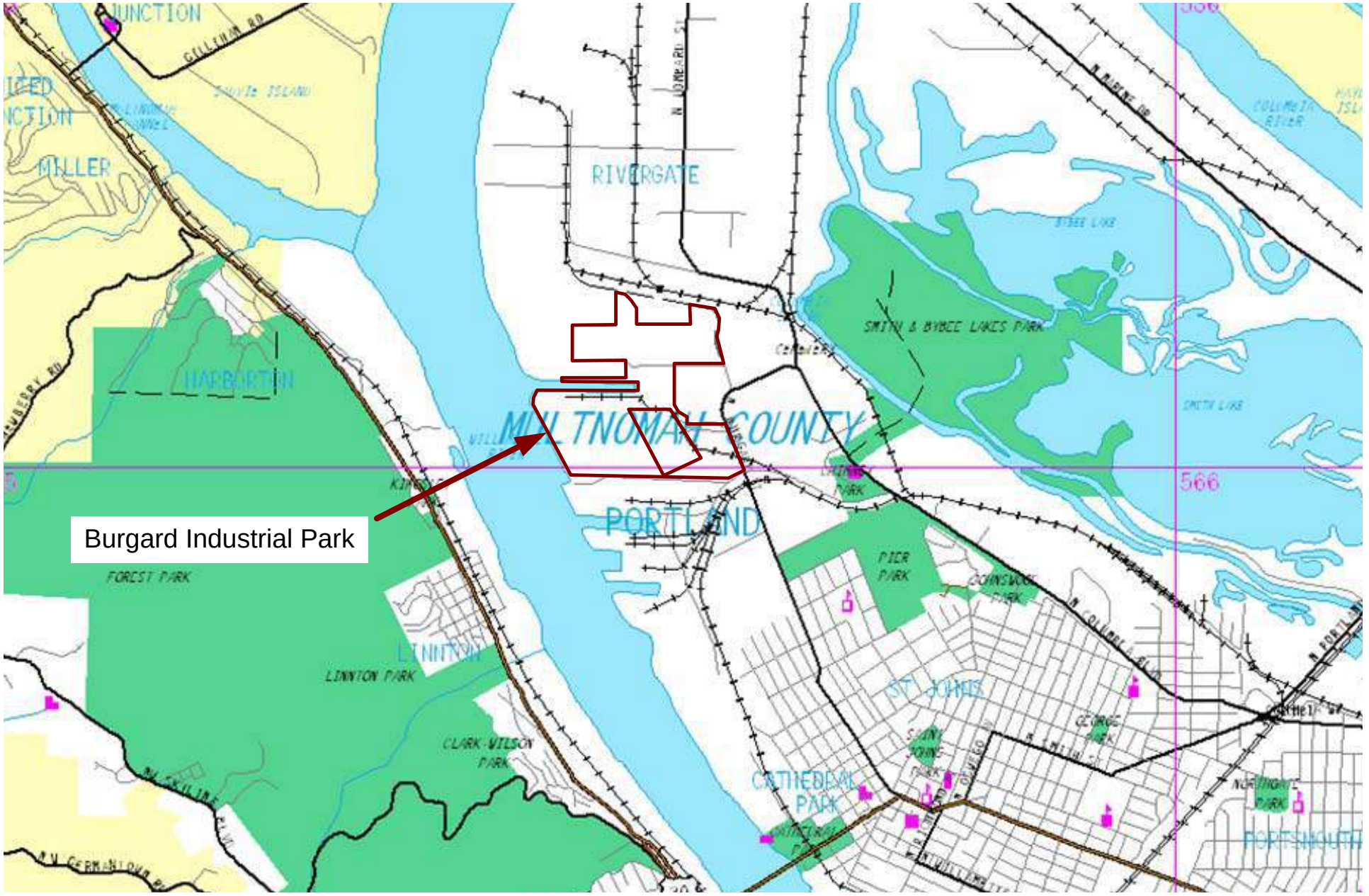
Chemical	Portland Harbor JSCS SLV[1]	DEQ Appendix E "Typical PH Values"[2]	SP-20A-1 11/18/2013
Zinc	36	500	159
Dissolved Metals (ug/l)			
Aluminum			79
Antimony	6		0.72 J
Arsenic	0.045	2	0.50 U
Cadmium	0.094	0.7	0.12 J
Chromium	100	7	1.2
Copper	2.7	60	9.8
Lead	0.54	50	0.68
Manganese	50		56
Mercury	0.77	0.2	0.040 U
Nickel	16	8	1.6
Silver	0.12	0.1	0.10 U
Zinc	36	500	52
Pertroleum Hydrocarbons (mg/l)			
Gasoline			0.050 U
Diesel			0.10 U
Oil			1.5
TSS (mg/l)		60	49
TOC (mg/l)			15

U - Not detectet at noted detection limit
J- Estimated value

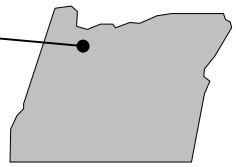
1 - Table 3-1 PH JSCS Guidance, 7/16/2007 revision
2 - October 2010, DEQ Guidance for Evaluating Stormwater Pathway at Upland Sites, Appendix E, Tool For Evaluating Stormwater Data

Detected concentration > 10 x SLV
Detected concentration > 100 x SLV
Detected concentration > 1000 x SLV

Figures



Portland, Oregon



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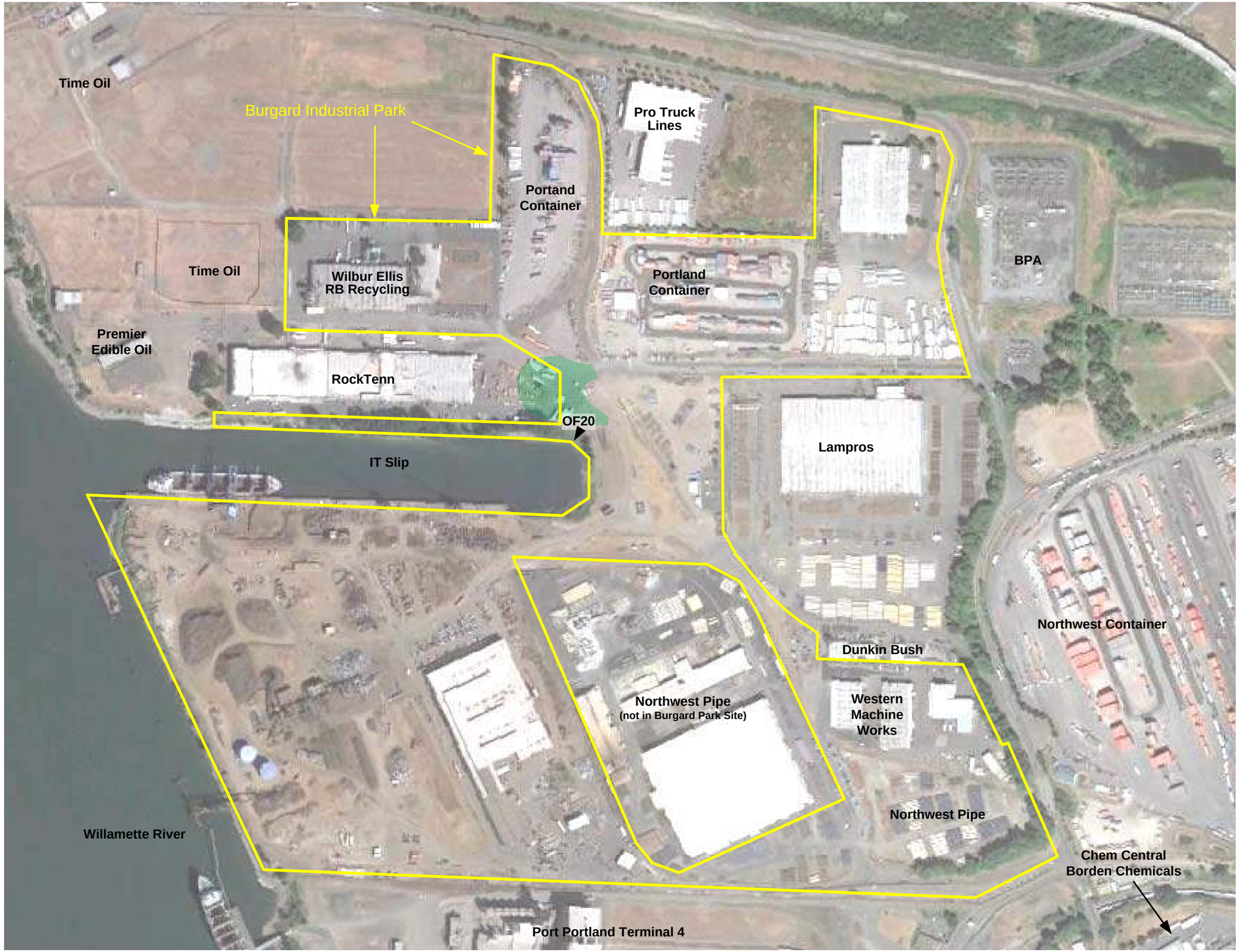
Approximate Scale

2700 feet

Figure 1
Site Location Map
Burgard Industrial Park

BRIDGEWATER GROUP, INC.



Basin 20

Base Photograph August 2012

Figure 2
Burgard Industrial Park Site Plan
Portland, Oregon

BRIDGEWATER GROUP, INC.

N

Approximate Scale

140 feet

Base photograph August 2012

Storm Water Sample Location

Figure 3
Basin 20 Storm Water Sample Location
Burgard Industrial Park

BRIDGEWATER GROUP, INC.

Appendix A – Analytical Laboratory Reports

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Tuesday, December 24, 2013

Ross Rieke
Bridgewater Group
4500 SW Kruse Way; Suite 110
Lake Oswego, OR 97035

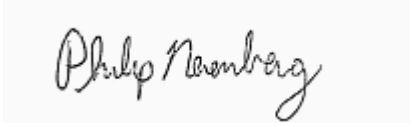
RE: Schnitzer-Burgard / 8001-20

Enclosed are the results of analyses for work order A3K0592, which was received by the laboratory on 11/19/2013 at 3:30:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B22-SP1-20131118	A3K0592-01	Water	11/18/13 13:20	11/19/13 15:30
B20-SP-20A-1-20131118	A3K0592-02	Water	11/18/13 14:30	11/19/13 15:30
B18-SP1-20131118	A3K0592-03	Water	11/18/13 15:10	11/19/13 15:30
B19-SP-19-1-20131119	A3K0592-04	Water	11/19/13 09:45	11/19/13 15:30

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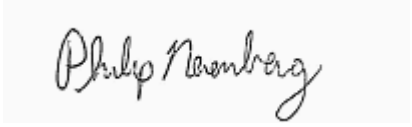

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

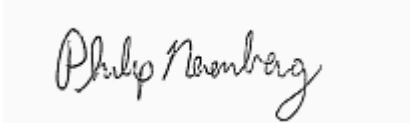
Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.0990	0.198	mg/L	1	11/24/13 20:59	NWTPH-Dx	
Oil	**0.517**	0.198	0.396	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.102	0.204	mg/L	1	11/24/13 22:30	NWTPH-Dx	
Oil	**1.54**	0.204	0.408	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 91 %*	*Limits: 50-150 %*	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.485	0.971	mg/L	5	11/24/13 23:07	NWTPH-Dx	
Oil	**2.97**	0.971	1.94	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*	"	"	"	*S-05*
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3110690**			
Diesel	ND	0.472	0.943	mg/L	5	11/24/13 23:43	NWTPH-Dx	
Oil	**2.28**	0.943	1.89	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 97 %*	*Limits: 50-150 %*	"	"	"	*S-05*

Apex Laboratories



Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 12:14	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 13:07	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*101 %*	*Limits: 50-150 %*	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 13:33	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*104 %*	*Limits: 50-150 %*	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3110613**			
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	11/21/13 13:59	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	

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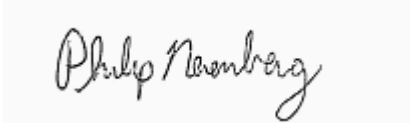

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.00962	0.0192	ug/L	1	12/05/13 10:56	EPA 8082A	
Aroclor 1221	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1232	ND	0.0192	0.0192	"	"	"	"	
Aroclor 1242	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1248	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1254	ND	0.00962	0.0192	"	"	"	"	
Aroclor 1260	ND	0.00962	0.0192	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 71 %*	*Limits: 40-135 %*	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.00980	0.0196	ug/L	1	12/05/13 11:14	EPA 8082A	
Aroclor 1221	ND	0.00980	0.0196	"	"	"	"	
Aroclor 1232	ND	0.00980	0.0196	"	"	"	"	
Aroclor 1242	**0.0212**	0.00980	0.0196	"	"	"	"	P-10
Aroclor 1248	ND	0.00980	0.0196	"	"	"	"	
Aroclor 1254	**0.0379**	0.00980	0.0196	"	"	"	"	P-10
Aroclor 1260	**0.0233**	0.00980	0.0196	"	"	"	"	P-10
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 63 %*	*Limits: 40-135 %*	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.0194	0.0388	ug/L	1	12/05/13 11:32	EPA 8082A	
Aroclor 1221	ND	0.0194	0.0388	"	"	"	"	
Aroclor 1232	ND	0.0194	0.0388	"	"	"	"	
Aroclor 1242	**0.0303**	0.0194	0.0388	"	"	"	"	J
Aroclor 1248	ND	0.0194	0.0388	"	"	"	"	
Aroclor 1254	**0.0395**	0.0194	0.0388	"	"	"	"	P-10
Aroclor 1260	**0.0204**	0.0194	0.0388	"	"	"	"	J
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 59 %*	*Limits: 40-135 %*	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Aroclor 1016	ND	0.0190	0.0381	ug/L	1	12/05/13 11:50	EPA 8082A	
Aroclor 1221	ND	0.0190	0.0381	"	"	"	"	
Aroclor 1232	ND	0.0190	0.0381	"	"	"	"	
Aroclor 1242	**0.181**	0.0190	0.0381	"	"	"	"	P-10
Aroclor 1248	ND	0.0190	0.0381	"	"	"	"	
Aroclor 1254	**0.316**	0.0190	0.0381	"	"	"	"	P-10
Aroclor 1260	**0.162**	0.0190	0.0381	"	"	"	"	P-10

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**		**Batch: 3120081**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 53 %*	*Limits: 40-135 %*	1	"	EPA 8082A	

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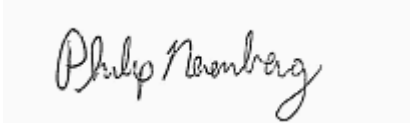

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.0101	0.0202	ug/L	1	11/27/13 13:32	EPA 8081B	
alpha-BHC	ND	0.0101	0.0202	"	"	"	"	
beta-BHC	ND	0.0101	0.0202	"	"	"	"	
delta-BHC	ND	0.0101	0.0202	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0101	0.0202	"	"	"	"	
cis-Chlordane	ND	0.0101	0.0202	"	"	"	"	
trans-Chlordane	ND	0.0101	0.0202	"	"	"	"	
4,4'-DDD	ND	0.0101	0.0202	"	"	"	"	
4,4'-DDE	ND	0.0101	0.0202	"	"	"	"	
4,4'-DDT	ND	0.0101	0.0202	"	"	"	"	
Dieldrin	ND	0.0101	0.0202	"	"	"	"	
Endosulfan I	ND	0.0101	0.0202	"	"	"	"	
Endosulfan II	ND	0.0101	0.0202	"	"	"	"	
Endosulfan sulfate	ND	0.0101	0.0202	"	"	"	"	
Endrin	ND	0.0101	0.0202	"	"	"	"	
Endrin Aldehyde	ND	0.0101	0.0202	"	"	"	"	
Endrin ketone	ND	0.0101	0.0202	"	"	"	"	
Heptachlor	ND	0.0101	0.0202	"	"	"	"	
Heptachlor epoxide	ND	0.0101	0.0202	"	"	"	"	
Methoxychlor	ND	0.0303	0.0606	"	"	"	"	
Chlordane (Technical)	ND	0.380	0.758	"	"	"	"	
Toxaphene (Total)	ND	0.380	0.758	"	"	"	"	
cis-Nonachlor	ND	0.0101	0.0202	"	"	"	"	
2,4'-DDD	ND	0.0101	0.0202	"	"	"	"	
2,4'-DDE	ND	0.0101	0.0202	"	"	"	"	
2,4'-DDT	ND	0.0101	0.0202	"	"	"	"	
Hexachlorobenzene	ND	0.0303	0.0606	"	"	"	"	
Hexachlorobutadiene	ND	0.0101	0.0202	"	"	"	"	
Mirex	ND	0.0101	0.0202	"	"	"	"	
Oxychlordane	ND	0.0101	0.0202	"	"	"	"	
trans-Nonachlor	ND	0.0101	0.0202	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*87 %*	*Limits: 30-135 %*	"	"	"	

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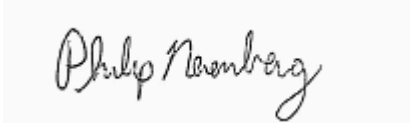

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B20-SP-20A-1-20131118 (A3K0592-02RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.00952	0.0190	ug/L	1	11/27/13 13:50	EPA 8081B	
alpha-BHC	ND	0.00952	0.0190	"	"	"	"	
beta-BHC	ND	0.00952	0.0190	"	"	"	"	
delta-BHC	ND	0.00952	0.0190	"	"	"	"	
gamma-BHC (Lindane)	ND	0.00952	0.0190	"	"	"	"	
cis-Chlordane	ND	0.00952	0.0190	"	"	"	"	
trans-Chlordane	ND	0.00952	0.0190	"	"	"	"	
4,4'-DDD	ND	0.00952	0.0190	"	"	"	"	
4,4'-DDE	ND	0.00952	0.0190	"	"	"	"	
4,4'-DDT	ND	0.00952	0.0190	"	"	"	"	
Dieldrin	ND	0.00952	0.0190	"	"	"	"	
Endosulfan I	ND	0.0286	0.0286	"	"	"	"	R-02
Endosulfan II	ND	0.00952	0.0190	"	"	"	"	
Endosulfan sulfate	ND	0.00952	0.0190	"	"	"	"	
Endrin	ND	0.00952	0.0190	"	"	"	"	
Endrin Aldehyde	ND	0.00952	0.0190	"	"	"	"	
Endrin ketone	ND	0.00952	0.0190	"	"	"	"	
Heptachlor	ND	0.0190	0.0190	"	"	"	"	
Heptachlor epoxide	ND	0.00952	0.0190	"	"	"	"	
Methoxychlor	ND	0.0286	0.0571	"	"	"	"	
Chlordane (Technical)	ND	0.358	0.714	"	"	"	"	
Toxaphene (Total)	ND	0.358	0.714	"	"	"	"	
cis-Nonachlor	ND	0.00952	0.0190	"	"	"	"	
2,4'-DDD	ND	0.00952	0.0190	"	"	"	"	
2,4'-DDE	ND	0.00952	0.0190	"	"	"	"	
2,4'-DDT	ND	0.0190	0.0190	"	"	"	"	
Hexachlorobenzene	ND	0.0286	0.0571	"	"	"	"	
Hexachlorobutadiene	ND	0.00952	0.0190	"	"	"	"	
Mirex	ND	0.00952	0.0190	"	"	"	"	
Oxychlordane	ND	0.00952	0.0190	"	"	"	"	
trans-Nonachlor	ND	0.00952	0.0190	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 75 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*86 %*	*Limits: 30-135 %*	"	"	"	

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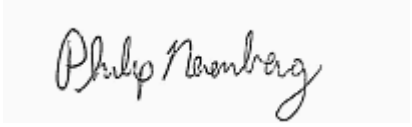

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.00971	0.0194	ug/L	1	11/27/13 14:08	EPA 8081B	
alpha-BHC	ND	0.00971	0.0194	"	"	"	"	
beta-BHC	ND	0.00971	0.0194	"	"	"	"	
delta-BHC	ND	0.00971	0.0194	"	"	"	"	
gamma-BHC (Lindane)	ND	0.00971	0.0194	"	"	"	"	
cis-Chlordane	ND	0.00971	0.0194	"	"	"	"	
trans-Chlordane	ND	0.00971	0.0194	"	"	"	"	
4,4'-DDD	ND	0.00971	0.0194	"	"	"	"	
4,4'-DDE	ND	0.00971	0.0194	"	"	"	"	
4,4'-DDT	ND	0.00971	0.0194	"	"	"	"	
Dieldrin	ND	0.00971	0.0194	"	"	"	"	
Endosulfan I	ND	0.0777	0.0777	"	"	"	"	R-02
Endosulfan II	ND	0.00971	0.0194	"	"	"	"	
Endosulfan sulfate	ND	0.00971	0.0194	"	"	"	"	
Endrin	ND	0.00971	0.0194	"	"	"	"	
Endrin Aldehyde	ND	0.00971	0.0194	"	"	"	"	
Endrin ketone	ND	0.00971	0.0194	"	"	"	"	
Heptachlor	ND	0.00971	0.0194	"	"	"	"	
Heptachlor epoxide	ND	0.00971	0.0194	"	"	"	"	
Methoxychlor	ND	0.0291	0.0583	"	"	"	"	
Chlordane (Technical)	ND	0.365	0.728	"	"	"	"	
Toxaphene (Total)	ND	0.365	0.728	"	"	"	"	
cis-Nonachlor	ND	0.00971	0.0194	"	"	"	"	
2,4'-DDD	ND	0.00971	0.0194	"	"	"	"	
2,4'-DDE	ND	0.00971	0.0194	"	"	"	"	
2,4'-DDT	ND	0.00971	0.0194	"	"	"	"	
Hexachlorobenzene	ND	0.0291	0.0583	"	"	"	"	
Hexachlorobutadiene	ND	0.00971	0.0194	"	"	"	"	
Mirex	ND	0.00971	0.0194	"	"	"	"	
Oxychlordane	ND	0.00971	0.0194	"	"	"	"	
trans-Nonachlor	ND	0.00971	0.0194	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 73 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*75 %*	*Limits: 30-135 %*	"	"	"	

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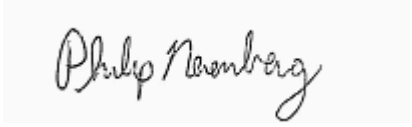

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B19-SP-19-1-20131119 (A3K0592-04RE1)			**Matrix: Water**		**Batch: 3110743**			**C-05**
Aldrin	ND	0.00943	0.0189	ug/L	1	11/27/13 14:26	EPA 8081B	
alpha-BHC	ND	0.00943	0.0189	"	"	"	"	
beta-BHC	ND	0.00943	0.0189	"	"	"	"	
delta-BHC	ND	0.00943	0.0189	"	"	"	"	
gamma-BHC (Lindane)	ND	0.00943	0.0189	"	"	"	"	
cis-Chlordane	ND	0.00943	0.0189	"	"	"	"	
trans-Chlordane	ND	0.00943	0.0189	"	"	"	"	
4,4'-DDD	**0.0627**	0.00943	0.0189	"	"	"	"	
4,4'-DDE	**0.0558**	0.00943	0.0189	"	"	"	"	
4,4'-DDT	**0.123**	0.00943	0.0189	"	"	"	"	
Dieldrin	ND	0.00943	0.0189	"	"	"	"	
Endosulfan I	ND	0.0943	0.0943	"	"	"	"	R-02
Endosulfan II	ND	0.00943	0.0189	"	"	"	"	
Endosulfan sulfate	ND	0.00943	0.0189	"	"	"	"	
Endrin	ND	0.00943	0.0189	"	"	"	"	
Endrin Aldehyde	ND	0.00943	0.0189	"	"	"	"	
Endrin ketone	ND	0.00943	0.0189	"	"	"	"	
Heptachlor	ND	0.00943	0.0189	"	"	"	"	
Heptachlor epoxide	ND	0.00943	0.0189	"	"	"	"	
Methoxychlor	ND	0.0283	0.0566	"	"	"	"	
Chlordane (Technical)	ND	0.355	0.708	"	"	"	"	
Toxaphene (Total)	ND	0.355	0.708	"	"	"	"	
cis-Nonachlor	ND	0.0377	0.0377	"	"	"	"	R-02
2,4'-DDD	ND	0.0226	0.0226	"	"	"	"	R-02
2,4'-DDE	ND	0.0189	0.0189	"	"	"	"	
2,4'-DDT	ND	0.0226	0.0226	"	"	"	"	R-02
Hexachlorobenzene	ND	0.0283	0.0566	"	"	"	"	
Hexachlorobutadiene	ND	0.00943	0.0189	"	"	"	"	
Mirex	ND	0.00943	0.0189	"	"	"	"	
Oxychlordane	ND	0.00943	0.0189	"	"	"	"	
trans-Nonachlor	ND	0.00943	0.0189	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*	*Limits: 25-140 %*	"	"	"	
Decachlorobiphenyl (Surr)			*85 %*	*Limits: 30-135 %*	"	"	"	

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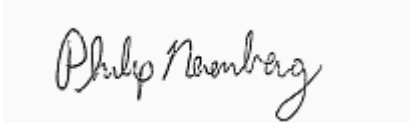

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01RE1)			**Matrix: Water**		**Batch: 3110696**			**R-04**
Acenaphthene	ND	0.0417	0.0833	ug/L	4	11/27/13 15:54	EPA 8270D P/P	
Acenaphthylene	**0.0775**	0.0417	0.0833	"	"	"	"	J
Anthracene	ND	0.0417	0.0833	"	"	"	"	
Benz(a)anthracene	ND	0.0417	0.0833	"	"	"	"	
Benzo(a)pyrene	**0.0484**	0.0417	0.0833	"	"	"	"	J
Benzo(b)fluoranthene	ND	0.0417	0.0833	"	"	"	"	
Benzo(k)fluoranthene	ND	0.0417	0.0833	"	"	"	"	
Benzo(g,h,i)perylene	ND	0.0417	0.0833	"	"	"	"	
Chrysene	ND	0.0417	0.0833	"	"	"	"	
Dibenz(a,h)anthracene	ND	0.0417	0.0833	"	"	"	"	
Fluoranthene	ND	0.0417	0.0833	"	"	"	"	
Fluorene	ND	0.0417	0.0833	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0417	0.0833	"	"	"	"	
1-Methylnaphthalene	ND	0.0833	0.167	"	"	"	"	
2-Methylnaphthalene	ND	0.0833	0.167	"	"	"	"	
Naphthalene	ND	0.0833	0.167	"	"	"	"	
Phenanthrene	ND	0.0417	0.0833	"	"	"	"	
Pyrene	ND	0.0417	0.0833	"	"	"	"	
Carbazole	ND	0.0625	0.125	"	"	"	"	
Dibenzofuran	ND	0.0417	0.0833	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	4.58	9.17	"	"	"	"	
Butyl benzyl phthalate	ND	6.25	12.5	"	"	"	"	
Diethylphthalate	ND	6.25	12.5	"	"	"	"	
Dimethylphthalate	ND	6.25	12.5	"	"	"	"	
Di-n-butylphthalate	ND	6.25	12.5	"	"	"	"	
Di-n-octyl phthalate	ND	6.25	12.5	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 48 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*51 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*78 %*	*Limits: 50-125 %*	"	"	"	

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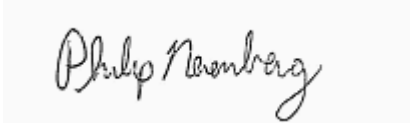

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B20-SP-20A-1-20131118 (A3K0592-02RE1)			**Matrix: Water**		**Batch: 3110696**			**R-04**
Acenaphthene	ND	0.0952	0.190	ug/L	10	11/27/13 16:31	EPA 8270D P/P	
Acenaphthylene	ND	0.0952	0.190	"	"	"	"	
Anthracene	ND	0.0952	0.190	"	"	"	"	
Benz(a)anthracene	ND	0.0952	0.190	"	"	"	"	
Benzo(a)pyrene	**0.155**	0.0952	0.190	"	"	"	"	J
Benzo(b)fluoranthene	**0.136**	0.0952	0.190	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.0952	0.190	"	"	"	"	
Benzo(g,h,i)perylene	**0.0964**	0.0952	0.190	"	"	"	"	J
Chrysene	**0.125**	0.0952	0.190	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.0952	0.190	"	"	"	"	
Fluoranthene	**0.137**	0.0952	0.190	"	"	"	"	J
Fluorene	ND	0.0952	0.190	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.0952	0.190	"	"	"	"	
1-Methylnaphthalene	ND	0.190	0.381	"	"	"	"	
2-Methylnaphthalene	ND	0.190	0.381	"	"	"	"	
Naphthalene	ND	0.190	0.381	"	"	"	"	
Phenanthrene	ND	0.0952	0.190	"	"	"	"	
Pyrene	**0.171**	0.0952	0.190	"	"	"	"	J
Carbazole	ND	0.143	0.286	"	"	"	"	
Dibenzofuran	ND	0.0952	0.190	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	10.5	21.0	"	"	"	"	
Butyl benzyl phthalate	ND	14.3	28.6	"	"	"	"	
Diethylphthalate	ND	14.3	28.6	"	"	"	"	
Dimethylphthalate	ND	14.3	28.6	"	"	"	"	
Di-n-butylphthalate	ND	14.3	28.6	"	"	"	"	
Di-n-octyl phthalate	ND	14.3	28.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 44 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*55 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*70 %*	*Limits: 50-125 %*	"	"	"	

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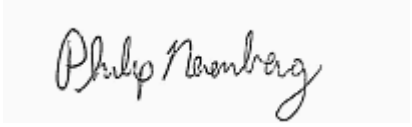

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03RE1)			**Matrix: Water**		**Batch: 3110696**			
Acenaphthene	ND	0.198	0.396	ug/L	4	11/27/13 17:07	EPA 8270D P/P	
Acenaphthylene	ND	0.198	0.396	"	"	"	"	
Anthracene	ND	0.198	0.396	"	"	"	"	
Benz(a)anthracene	ND	0.198	0.396	"	"	"	"	
Benzo(a)pyrene	**0.305**	0.198	0.396	"	"	"	"	J
Benzo(b)fluoranthene	**0.237**	0.198	0.396	"	"	"	"	J
Benzo(k)fluoranthene	ND	0.198	0.396	"	"	"	"	
Benzo(g,h,i)perylene	**0.235**	0.198	0.396	"	"	"	"	J
Chrysene	**0.286**	0.198	0.396	"	"	"	"	J
Dibenz(a,h)anthracene	ND	0.198	0.396	"	"	"	"	
Fluoranthene	**0.303**	0.198	0.396	"	"	"	"	J
Fluorene	ND	0.198	0.396	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	0.198	0.396	"	"	"	"	
1-Methylnaphthalene	ND	0.396	0.792	"	"	"	"	
2-Methylnaphthalene	ND	0.396	0.792	"	"	"	"	
Naphthalene	ND	0.396	0.792	"	"	"	"	
Phenanthrene	ND	0.198	0.396	"	"	"	"	
Pyrene	**0.424**	0.198	0.396	"	"	"	"	
Carbazole	ND	0.297	0.594	"	"	"	"	
Dibenzofuran	ND	0.198	0.396	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	21.8	43.6	"	"	"	"	
Butyl benzyl phthalate	ND	29.7	59.4	"	"	"	"	
Diethylphthalate	ND	29.7	59.4	"	"	"	"	
Dimethylphthalate	ND	29.7	59.4	"	"	"	"	
Di-n-butylphthalate	ND	29.7	59.4	"	"	"	"	
Di-n-octyl phthalate	ND	29.7	59.4	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 74 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*65 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*84 %*	*Limits: 50-125 %*	"	"	"	

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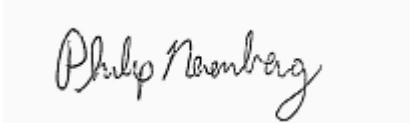

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B19-SP-19-1-20131119 (A3K0592-04RE1)			**Matrix: Water**		**Batch: 3110696**			
Acenaphthene	ND	0.0755	0.151	ug/L	4	11/27/13 17:44	EPA 8270D P/P	
Acenaphthylene	ND	0.0755	0.151	"	"	"	"	
Anthracene	**0.0958**	0.0755	0.151	"	"	"	"	J
Benz(a)anthracene	**0.362**	0.0755	0.151	"	"	"	"	
Benzo(a)pyrene	**0.471**	0.0755	0.151	"	"	"	"	
Benzo(b)fluoranthene	**0.974**	0.0755	0.151	"	"	"	"	
Benzo(k)fluoranthene	**0.293**	0.0755	0.151	"	"	"	"	
Benzo(g,h,i)perylene	**0.543**	0.0755	0.151	"	"	"	"	
Chrysene	**0.777**	0.0755	0.151	"	"	"	"	
Dibenz(a,h)anthracene	**0.114**	0.0755	0.151	"	"	"	"	J
Fluoranthene	**0.760**	0.0755	0.151	"	"	"	"	
Fluorene	ND	0.0755	0.151	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**0.432**	0.0755	0.151	"	"	"	"	
1-Methylnaphthalene	ND	0.151	0.302	"	"	"	"	
2-Methylnaphthalene	ND	0.151	0.302	"	"	"	"	
Naphthalene	ND	0.151	0.302	"	"	"	"	
Phenanthrene	**0.214**	0.0755	0.151	"	"	"	"	
Pyrene	**0.843**	0.0755	0.151	"	"	"	"	
Carbazole	ND	0.113	0.226	"	"	"	"	
Dibenzofuran	ND	0.0755	0.151	"	"	"	"	
Bis(2-ethylhexyl)phthalate	**14.4**	8.30	16.6	"	"	"	"	J
Butyl benzyl phthalate	ND	11.3	22.6	"	"	"	"	
Diethylphthalate	ND	11.3	22.6	"	"	"	"	
Dimethylphthalate	ND	11.3	22.6	"	"	"	"	
Di-n-butylphthalate	ND	11.3	22.6	"	"	"	"	
Di-n-octyl phthalate	ND	11.3	22.6	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 57 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*55 %*	*Limits: 30-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*85 %*	*Limits: 50-125 %*	"	"	"	

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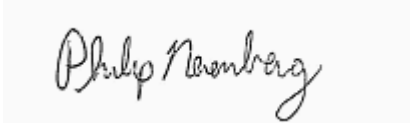

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**					
Batch: 3120396								
Aluminum	**322**	25.0	50.0	ug/L	1	12/18/13 18:37	EPA 6020A	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.956**	0.0400	1.00	"	"	"	"	J
Chromium	**1.96**	0.500	2.00	"	"	"	"	J
Copper	**6.52**	0.500	1.00	"	"	"	"	
Lead	**2.34**	0.100	0.200	"	"	"	"	
Manganese	**27.6**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**1.03**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**79.7**	2.00	4.00	"	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**					
Batch: 3120464								
Aluminum	**1880**	25.0	50.0	ug/L	1	12/19/13 16:35	EPA 6020A	
Antimony	**1.20**	0.500	1.00	"	"	"	"	
Arsenic	**1.03**	0.500	1.00	"	"	"	"	
Cadmium	**0.422**	0.0400	0.200	"	"	"	"	
Chromium	**18.3**	0.500	1.00	"	"	12/21/13 15:14	"	
Copper	**25.0**	0.500	1.00	"	"	12/19/13 16:35	"	
Lead	**23.8**	0.100	0.200	"	"	"	"	
Manganese	**222**	0.500	1.00	"	"	12/21/13 15:14	"	
Mercury	ND	0.0400	0.0800	"	"	12/19/13 16:35	"	H-01
Nickel	**3.71**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**159**	2.00	4.00	"	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Batch: 3120396								
Aluminum	**7340**	25.0	50.0	ug/L	1	12/18/13 18:39	EPA 6020A	
Antimony	**0.867**	0.500	1.00	"	"	"	"	J
Arsenic	**1.18**	0.500	1.00	"	"	"	"	
Cadmium	**0.511**	0.0400	1.00	"	"	"	"	J
Chromium	**41.0**	0.500	2.00	"	"	"	"	
Copper	**43.2**	0.500	1.00	"	"	"	"	
Lead	**32.0**	0.100	0.200	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Manganese	**581**	0.500	1.00	ug/L	1	"	EPA 6020A	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**13.0**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**346**	2.00	4.00	"	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**					
Batch: 3120396								
Aluminum	**3830**	25.0	50.0	ug/L	1	12/18/13 18:42	EPA 6020A	
Antimony	**4.31**	0.500	1.00	"	"	"	"	
Arsenic	**2.34**	0.500	1.00	"	"	"	"	
Cadmium	**1.71**	0.0400	1.00	"	"	"	"	
Chromium	**25.3**	0.500	2.00	"	"	"	"	
Copper	**94.4**	0.500	1.00	"	"	"	"	
Lead	**173**	0.100	0.200	"	"	"	"	
Manganese	**416**	0.500	1.00	"	"	"	"	
Mercury	**0.217**	0.0400	0.0800	"	"	"	"	H-01
Nickel	**12.2**	0.500	1.00	"	"	"	"	
Silver	**0.178**	0.100	0.200	"	"	"	"	J
Zinc	**569**	2.00	4.00	"	"	"	"	

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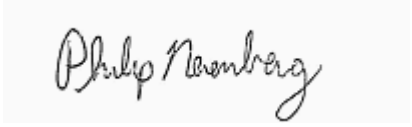

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**27.6**	25.0	50.0	ug/L	1	12/17/13 19:23	EPA 6020A (Diss)	J
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.100**	0.0400	0.200	"	"	"	"	J
Chromium	ND	0.500	1.00	"	"	"	"	
Copper	**5.12**	0.500	1.00	"	"	"	"	
Lead	**0.356**	0.100	0.200	"	"	"	"	Q-23
Manganese	**17.3**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**0.744**	0.500	1.00	"	"	"	"	J
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**68.2**	2.00	4.00	"	"	"	"	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**78.7**	25.0	50.0	ug/L	1	12/17/13 19:31	EPA 6020A (Diss)	
Antimony	**0.722**	0.500	1.00	"	"	"	"	J
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.122**	0.0400	0.200	"	"	"	"	J
Chromium	**1.18**	0.500	1.00	"	"	"	"	
Copper	**9.80**	0.500	1.00	"	"	"	"	
Lead	**0.678**	0.100	0.200	"	"	"	"	Q-23
Manganese	**55.6**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**1.61**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**51.7**	2.00	4.00	"	"	"	"	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**71.4**	25.0	50.0	ug/L	1	12/17/13 19:34	EPA 6020A (Diss)	
Antimony	ND	0.500	1.00	"	"	"	"	
Arsenic	ND	0.500	1.00	"	"	"	"	
Cadmium	**0.0444**	0.0400	0.200	"	"	"	"	J
Chromium	**0.522**	0.500	1.00	"	"	"	"	J
Copper	**6.66**	0.500	1.00	"	"	"	"	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Lead	**0.289**	0.100	0.200	ug/L	1	"	EPA 6020A (Diss)	Q-23
Manganese	**41.6**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	H-01
Nickel	**1.27**	0.500	1.00	"	"	"	"	
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**36.5**	2.00	4.00	"	"	"	"	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**					
Batch: 3120388								
Aluminum	**76.2**	25.0	50.0	ug/L	1	12/17/13 19:37	EPA 6020A (Diss)	
Antimony	**1.80**	0.500	1.00	"	"	"	"	Q-23
Arsenic	**0.700**	0.500	1.00	"	"	"	"	J
Cadmium	**0.0444**	0.0400	0.200	"	"	"	"	J
Chromium	**1.26**	0.500	1.00	"	"	"	"	
Copper	**6.22**	0.500	1.00	"	"	"	"	
Lead	**1.67**	0.100	0.200	"	"	"	"	Q-23
Manganese	**12.9**	0.500	1.00	"	"	"	"	
Mercury	ND	0.0400	0.0800	"	"	"	"	
Nickel	**0.644**	0.500	1.00	"	"	"	"	J
Silver	ND	0.100	0.200	"	"	"	"	
Zinc	**10.3**	2.00	4.00	"	"	"	"	

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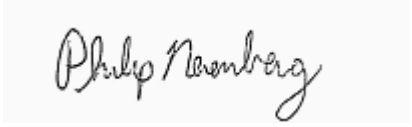

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

ANALYTICAL SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
B22-SP1-20131118 (A3K0592-01)			**Matrix: Water**					
Batch: 3110625								
Total Suspended Solids	ND	5.00	5.00	mg/L	1	11/25/13 16:16	SM 2540 D	
Batch: 3110705								
Total Organic Carbon	**8.48**	1.00	1.00	"	"	11/27/13 23:35	SM 5310 B	
B20-SP-20A-1-20131118 (A3K0592-02)			**Matrix: Water**					
Batch: 3110625								
Total Suspended Solids	**49.0**	5.00	5.00	mg/L	1	11/25/13 16:16	SM 2540 D	
Batch: 3110705								
Total Organic Carbon	**14.7**	1.00	1.00	"	"	11/28/13 06:24	SM 5310 B	
B18-SP1-20131118 (A3K0592-03)			**Matrix: Water**					
Batch: 3110625								
Total Suspended Solids	**300**	10.0	10.0	mg/L	1	11/25/13 16:16	SM 2540 D	
Batch: 3110705								
Total Organic Carbon	**5.50**	1.00	1.00	"	"	11/27/13 22:03	SM 5310 B	
B19-SP-19-1-20131119 (A3K0592-04)			**Matrix: Water**					
Batch: 3110705								
Total Organic Carbon	**4.24**	1.00	1.00	mg/L	1	11/27/13 22:27	SM 5310 B	
Batch: 3110750								
Total Suspended Solids	**60.0**	5.00	5.00	"	"	11/27/13 10:58	SM 2540 D	

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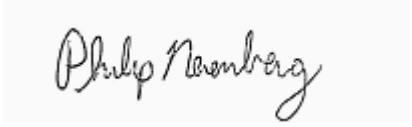

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110690 - EPA 3510C (Acid Extraction)									**Water**			
Blank (3110690-BLK1)					Prepared: 11/23/13 12:57 Analyzed: 11/24/13 15:49							
NWTPH-Dx												
Diesel	ND	0.0909	0.182	mg/L	1	---	---	---	---	---	---	
Oil	ND	0.182	0.364	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS (3110690-BS1)					Prepared: 11/23/13 12:57 Analyzed: 11/24/13 16:07							
NWTPH-Dx												
Diesel	0.950	0.100	0.200	mg/L	1	1.25	---	76	58-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 91 %*	*Limits: 50-150 %*		*Dilution: 1x*						
LCS Dup (3110690-BSD1)					Prepared: 11/23/13 12:57 Analyzed: 11/24/13 16:26							**Q-19**
NWTPH-Dx												
Diesel	1.05	0.100	0.200	mg/L	1	1.25	---	84	58-115%	10	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*		*Dilution: 1x*						

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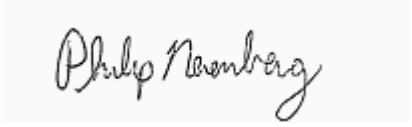

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110613 - EPA 5030B									**Water**			
Blank (3110613-BLK1)					Prepared: 11/21/13 09:00 Analyzed: 11/21/13 11:48							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 103 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*			*"*					
LCS (3110613-BS2)					Prepared: 11/21/13 09:00 Analyzed: 11/21/13 11:21							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.598	0.0500	0.100	mg/L	1	0.500	---	120	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*			*"*					
Duplicate (3110613-DUP1)					Prepared: 11/21/13 10:00 Analyzed: 11/21/13 12:40							
QC Source Sample: B22-SP1-20131118 (A3K0592-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	0.0500	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*104 %*	*50-150 %*			*"*					

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls -- EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120081 - EPA 3510C (Neutral pH)							**Water**					
Blank (3120081-BLK1)					Prepared: 12/04/13 08:19 Analyzed: 12/05/13 08:41							**C-07**
EPA 8082A												
Aroclor 1016	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 74 %*	*Limits: 40-135 %*		*Dilution: 1x*						
LCS (3120081-BS1)					Prepared: 12/04/13 08:19 Analyzed: 12/05/13 09:08							**C-07**
EPA 8082A												
Aroclor 1016	0.943	0.0100	0.0200	ug/L	1	1.25	---	75	40-140%	---	---	
Aroclor 1260	0.830	0.0100	0.0200	"	"	"	---	66	"	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 67 %*	*Limits: 40-135 %*		*Dilution: 1x*						
LCS Dup (3120081-BSD1)					Prepared: 12/04/13 08:19 Analyzed: 12/05/13 09:26							**C-07, Q-19**
EPA 8082A												
Aroclor 1016	0.956	0.0100	0.0200	ug/L	1	1.25	---	76	40-140%	1	30%	
Aroclor 1260	0.837	0.0100	0.0200	"	"	"	---	67	"	0.8	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 62 %*	*Limits: 40-135 %*		*Dilution: 1x*						

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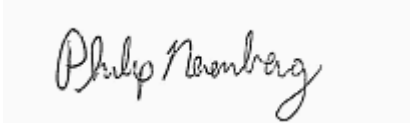

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
Blank (3110743-BLK1)					Prepared: 11/25/13 14:31 Analyzed: 11/27/13 12:04							**C-05**
EPA 8081B												
Aldrin	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
alpha-BHC	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
beta-BHC	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
delta-BHC	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dieldrin	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endosulfan I	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endosulfan II	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endrin	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Endrin ketone	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Heptachlor	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Methoxychlor	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	0.342	0.682	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	0.342	0.682	"	"	---	---	---	---	---	---	
cis-Nonachlor	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
2,4'-DDD	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
2,4'-DDE	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
2,4'-DDT	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Mirex	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Oxychlordane	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	

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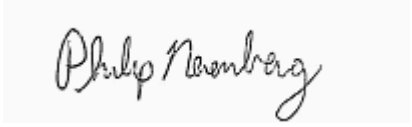

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)								**Water**				
Blank (3110743-BLK1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:04					**C-05**
trans-Nonachlor	ND	0.00909	0.0182	ug/L	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 69 %*	*Limits: 25-140 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*92 %*	*30-135 %*				*"*				
LCS (3110743-BS1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:21					**C-05**
EPA 8081B												
Aldrin	0.367	0.0100	0.0200	ug/L	1	0.500	---	73	25-140%	---	---	
alpha-BHC	0.421	0.0100	0.0200	"	"	"	---	84	60-130%	---	---	
beta-BHC	0.402	0.0100	0.0200	"	"	"	---	80	65-125%	---	---	
delta-BHC	0.448	0.0100	0.0200	"	"	"	---	90	45-135%	---	---	
gamma-BHC (Lindane)	0.428	0.0100	0.0200	"	"	"	---	86	25-135%	---	---	
cis-Chlordane	0.419	0.0100	0.0200	"	"	"	---	84	65-125%	---	---	
trans-Chlordane	0.420	0.0100	0.0200	"	"	"	---	84	60-125%	---	---	
4,4'-DDD	0.476	0.0100	0.0200	"	"	"	---	95	25-150%	---	---	
4,4'-DDE	0.432	0.0100	0.0200	"	"	"	---	86	35-140%	---	---	
4,4'-DDT	0.530	0.0100	0.0200	"	"	"	---	106	45-140%	---	---	
Dieldrin	0.456	0.0100	0.0200	"	"	"	---	91	60-130%	---	---	
Endosulfan I	0.421	0.0100	0.0200	"	"	"	---	84	50-110%	---	---	
Endosulfan II	0.465	0.0100	0.0200	"	"	"	---	93	30-130%	---	---	
Endosulfan sulfate	0.443	0.0100	0.0200	"	"	"	---	89	55-135%	---	---	
Endrin	0.480	0.0100	0.0200	"	"	"	---	96	"	---	---	
Endrin Aldehyde	0.414	0.0100	0.0200	"	"	"	---	83	"	---	---	
Endrin ketone	0.448	0.0100	0.0200	"	"	"	---	90	75-125%	---	---	
Heptachlor	0.404	0.0100	0.0200	"	"	"	---	81	40-130%	---	---	
Heptachlor epoxide	0.421	0.0100	0.0200	"	"	"	---	84	60-130%	---	---	
Methoxychlor	0.540	0.0300	0.0600	"	"	"	---	108	55-150%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 67 %*	*Limits: 25-140 %*				*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*77 %*	*30-135 %*				*"*				
LCS (3110743-BS2)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:57					**C-05**
EPA 8081B												
cis-Nonachlor	0.416	0.0100	0.0200	ug/L	1	0.500	---	83	25-120%	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
LCS (3110743-BS2)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:57					**C-05**
2,4'-DDD	0.401	0.0100	0.0200	ug/L	"	"	---	80	30-135%	---	---	
2,4'-DDE	0.394	0.0100	0.0200	"	"	"	---	79	50-140%	---	---	
2,4'-DDT	0.466	0.0100	0.0200	"	"	"	---	93	45-140%	---	---	
Hexachlorobenzene	0.352	0.0300	0.0600	"	"	"	---	70	25-120%	---	---	
Hexachlorobutadiene	0.224	0.0100	0.0200	"	"	"	---	45	"	---	---	
Mirex	0.364	0.0100	0.0200	"	"	"	---	73	"	---	---	
Oxychlordane	0.402	0.0100	0.0200	"	"	"	---	80	"	---	---	
trans-Nonachlor	0.395	0.0100	0.0200	"	"	"	---	79	"	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 76 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*85 %*	*30-135 %*			*"*					
LCS Dup (3110743-BSD1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:39					**C-05, Q-19**
EPA 8081B												
Aldrin	0.399	0.0100	0.0200	ug/L	1	0.500	---	80	25-140%	8	30%	
alpha-BHC	0.449	0.0100	0.0200	"	"	"	---	90	60-130%	6	30%	
beta-BHC	0.433	0.0100	0.0200	"	"	"	---	87	65-125%	7	30%	
delta-BHC	0.477	0.0100	0.0200	"	"	"	---	95	45-135%	6	30%	
gamma-BHC (Lindane)	0.443	0.0100	0.0200	"	"	"	---	89	25-135%	4	30%	
cis-Chlordane	0.457	0.0100	0.0200	"	"	"	---	91	65-125%	9	30%	
trans-Chlordane	0.450	0.0100	0.0200	"	"	"	---	90	60-125%	7	30%	
4,4'-DDD	0.530	0.0100	0.0200	"	"	"	---	106	25-150%	11	30%	
4,4'-DDE	0.482	0.0100	0.0200	"	"	"	---	96	35-140%	11	30%	
4,4'-DDT	0.584	0.0100	0.0200	"	"	"	---	117	45-140%	10	30%	
Dieldrin	0.482	0.0100	0.0200	"	"	"	---	96	60-130%	6	30%	
Endosulfan I	0.457	0.0100	0.0200	"	"	"	---	91	50-110%	8	30%	
Endosulfan II	0.516	0.0100	0.0200	"	"	"	---	103	30-130%	10	30%	
Endosulfan sulfate	0.499	0.0100	0.0200	"	"	"	---	100	55-135%	12	30%	
Endrin	0.526	0.0100	0.0200	"	"	"	---	105	"	9	30%	
Endrin Aldehyde	0.464	0.0100	0.0200	"	"	"	---	93	"	11	30%	
Endrin ketone	0.490	0.0100	0.0200	"	"	"	---	98	75-125%	9	30%	
Heptachlor	0.432	0.0100	0.0200	"	"	"	---	86	40-130%	7	30%	
Heptachlor epoxide	0.458	0.0100	0.0200	"	"	"	---	92	60-130%	8	30%	

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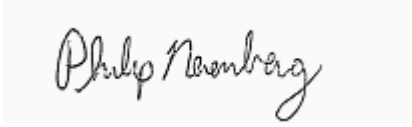

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110743 - EPA 3510C (Neutral pH)/3640A (GPC)							**Water**					
LCS Dup (3110743-BSD1)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 12:39					**C-05, Q-19**
Methoxychlor	0.614	0.0300	0.0600	"	"	"	---	123	55-150%	13	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 68 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*82 %*	*30-135 %*			*"*					
LCS Dup (3110743-BSD2)					Prepared: 11/25/13 14:31		Analyzed: 11/27/13 13:15					**C-05, Q-19**
EPA 8081B												
cis-Nonachlor	0.449	0.0100	0.0200	ug/L	1	0.500	---	90	25-120%	8	30%	
2,4'-DDD	0.465	0.0100	0.0200	"	"	"	---	93	30-135%	15	30%	
2,4'-DDE	0.441	0.0100	0.0200	"	"	"	---	88	50-140%	11	30%	
2,4'-DDT	0.518	0.0100	0.0200	"	"	"	---	104	45-140%	11	30%	
Hexachlorobenzene	0.384	0.0300	0.0600	"	"	"	---	77	25-120%	9	30%	
Hexachlorobutadiene	0.205	0.0100	0.0200	"	"	"	---	41	"	9	30%	
Mirex	0.396	0.0100	0.0200	"	"	"	---	79	"	8	30%	
Oxychlordane	0.431	0.0100	0.0200	"	"	"	---	86	"	7	30%	
trans-Nonachlor	0.428	0.0100	0.0200	"	"	"	---	86	"	8	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 77 %*	*Limits: 25-140 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*91 %*	*30-135 %*			*"*					

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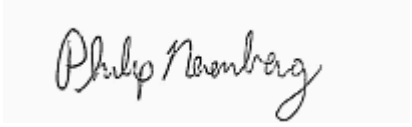

Philip Nerenberg, Lab Director

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Tigard, OR 97223
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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110696 - EPA 3510C (Acid Extraction)							**Water**					
Blank (3110696-BLK2)					Prepared: 11/25/13 07:08 Analyzed: 11/26/13 17:11							
EPA 8270D P/P												
Acenaphthene	ND	0.00909	0.0182	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	0.0273	0.0545	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Chrysene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluoranthene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Fluorene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Naphthalene	ND	0.0182	0.0364	"	"	---	---	---	---	---	---	
Phenanthrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Pyrene	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Carbazole	ND	0.0136	0.0273	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	0.00909	0.0182	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	1.00	2.00	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	1.36	2.73	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 78 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*70 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*87 %*	*50-125 %*	*"*

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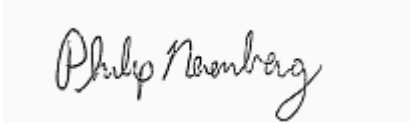

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110696 - EPA 3510C (Acid Extraction)							**Water**					
LCS (3110696-BS2)					Prepared: 11/25/13 07:08 Analyzed: 11/26/13 17:47							
EPA 8270D P/P												
Acenaphthene	2.97	0.0100	0.0200	ug/L	1	4.00	---	74	45-125%	---	---	
Acenaphthylene	3.03	0.0100	0.0200	"	"	"	---	76	50-125%	---	---	
Anthracene	3.23	0.0100	0.0200	"	"	"	---	81	55-125%	---	---	
Benz(a)anthracene	3.80	0.0100	0.0200	"	"	"	---	95	"	---	---	
Benzo(a)pyrene	3.27	0.0150	0.0300	"	"	"	---	82	"	---	---	
Benzo(b)fluoranthene	3.57	0.0150	0.0300	"	"	"	---	89	45-125%	---	---	
Benzo(k)fluoranthene	3.47	0.0150	0.0300	"	"	"	---	87	"	---	---	
Benzo(b+k)fluoranthene(s)	7.00	0.0300	0.0600	"	"	8.00	---	87	"	---	---	
Benzo(g,h,i)perylene	3.40	0.0100	0.0200	"	"	4.00	---	85	40-125%	---	---	
Chrysene	3.79	0.0100	0.0200	"	"	"	---	95	55-125%	---	---	
Dibenz(a,h)anthracene	4.03	0.0100	0.0200	"	"	"	---	101	40-125%	---	---	
Fluoranthene	3.45	0.0100	0.0200	"	"	"	---	86	55-125%	---	---	
Fluorene	3.04	0.0100	0.0200	"	"	"	---	76	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	3.58	0.0100	0.0200	"	"	"	---	89	45-125%	---	---	
1-Methylnaphthalene	2.70	0.0200	0.0400	"	"	"	---	68	45-120%	---	---	
2-Methylnaphthalene	2.73	0.0200	0.0400	"	"	"	---	68	"	---	---	
Naphthalene	2.54	0.0200	0.0400	"	"	"	---	63	40-125%	---	---	
Phenanthrene	3.28	0.0100	0.0200	"	"	"	---	82	50-125%	---	---	
Pyrene	3.43	0.0100	0.0200	"	"	"	---	86	"	---	---	
Carbazole	3.80	0.0150	0.0300	"	"	"	---	95	"	---	---	
Dibenzofuran	3.07	0.0100	0.0200	"	"	"	---	77	55-125%	---	---	
Bis(2-ethylhexyl)phthalate	3.53	1.10	2.20	"	"	"	---	88	40-125%	---	---	
Butyl benzyl phthalate	3.78	1.50	3.00	"	"	"	---	94	45-125%	---	---	
Diethylphthalate	3.38	1.50	3.00	"	"	"	---	84	40-125%	---	---	
Dimethylphthalate	3.42	1.50	3.00	"	"	"	---	85	25-125%	---	---	
Di-n-butylphthalate	3.40	1.50	3.00	"	"	"	---	85	55-125%	---	---	
Di-n-octyl phthalate	3.53	1.50	3.00	"	"	"	---	88	35-125%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 82 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*72 %*	*30-120 %*	*"*
p-Terphenyl-d14 (Surr)	*86 %*	*50-125 %*	*"*

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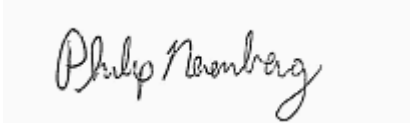

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110696 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (3110696-BSD2)					Prepared: 11/25/13 07:08 Analyzed: 11/26/13 18:24							**Q-19**
EPA 8270D P/P												
Acenaphthene	2.75	0.0100	0.0200	ug/L	1	4.00	---	69	45-125%	8	30%	
Acenaphthylene	2.79	0.0100	0.0200	"	"	"	---	70	50-125%	8	30%	
Anthracene	3.17	0.0100	0.0200	"	"	"	---	79	55-125%	2	30%	
Benz(a)anthracene	3.86	0.0100	0.0200	"	"	"	---	97	"	2	30%	
Benzo(a)pyrene	3.33	0.0150	0.0300	"	"	"	---	83	"	2	30%	
Benzo(b)fluoranthene	3.62	0.0150	0.0300	"	"	"	---	90	45-125%	1	30%	
Benzo(k)fluoranthene	3.51	0.0150	0.0300	"	"	"	---	88	"	1	30%	
Benzo(b+k)fluoranthene(s)	7.09	0.0300	0.0600	"	"	8.00	---	89	"	1	30%	
Benzo(g,h,i)perylene	3.53	0.0100	0.0200	"	"	4.00	---	88	40-125%	4	30%	
Chrysene	3.88	0.0100	0.0200	"	"	"	---	97	55-125%	2	30%	
Dibenz(a,h)anthracene	4.19	0.0100	0.0200	"	"	"	---	105	40-125%	4	30%	
Fluoranthene	3.51	0.0100	0.0200	"	"	"	---	88	55-125%	2	30%	
Fluorene	2.89	0.0100	0.0200	"	"	"	---	72	50-125%	5	30%	
Indeno(1,2,3-cd)pyrene	3.65	0.0100	0.0200	"	"	"	---	91	45-125%	2	30%	
1-Methylnaphthalene	2.52	0.0200	0.0400	"	"	"	---	63	45-120%	7	30%	
2-Methylnaphthalene	2.59	0.0200	0.0400	"	"	"	---	65	"	5	30%	
Naphthalene	2.34	0.0200	0.0400	"	"	"	---	59	40-125%	8	30%	
Phenanthrene	3.25	0.0100	0.0200	"	"	"	---	81	50-125%	1	30%	
Pyrene	3.51	0.0100	0.0200	"	"	"	---	88	"	3	30%	
Carbazole	3.99	0.0150	0.0300	"	"	"	---	100	"	5	30%	
Dibenzofuran	2.84	0.0100	0.0200	"	"	"	---	71	55-125%	8	30%	
Bis(2-ethylhexyl)phthalate	3.58	1.10	2.20	"	"	"	---	90	40-125%	1	30%	
Butyl benzyl phthalate	3.81	1.50	3.00	"	"	"	---	95	45-125%	1	30%	
Diethylphthalate	3.31	1.50	3.00	"	"	"	---	83	40-125%	2	30%	
Dimethylphthalate	3.22	1.50	3.00	"	"	"	---	80	25-125%	6	30%	
Di-n-butylphthalate	3.49	1.50	3.00	"	"	"	---	87	55-125%	3	30%	
Di-n-octyl phthalate	3.55	1.50	3.00	"	"	"	---	89	35-125%	0.7	30%	

Surr: Nitrobenzene-d5 (Surr) *Recovery: 64 %* *Limits: 35-120 %* *Dilution: 1x*
2-Fluorobiphenyl (Surr) *62 %* *30-120 %* *"*
p-Terphenyl-d14 (Surr) *85 %* *50-125 %* *"*

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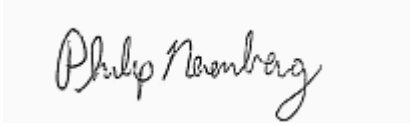

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120396 - EPA 3015A							**Water**					
Blank (3120396-BLK1)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 17:28							
EPA 6020A												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.0400	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (3120396-BS1)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 17:25							
EPA 6020A												
Aluminum	5630	25.0	50.0	ug/L	1	5560	---	101	80-120%	---	---	
Antimony	33.3	0.500	1.00	"	"	34.7	---	96	"	---	---	
Arsenic	52.1	0.500	1.00	"	"	55.6	---	94	"	---	---	
Cadmium	52.8	0.0400	0.200	"	"	"	---	95	"	---	---	
Chromium	57.0	0.500	1.00	"	"	"	---	103	"	---	---	B-02
Copper	53.0	0.500	1.00	"	"	"	---	95	"	---	---	
Lead	55.8	0.100	0.200	"	"	"	---	100	"	---	---	
Manganese	59.5	0.500	1.00	"	"	"	---	107	"	---	---	
Mercury	1.09	0.0400	0.0800	"	"	1.11	---	98	"	---	---	
Nickel	54.0	0.500	1.00	"	"	55.6	---	97	"	---	---	
Silver	33.5	0.100	0.200	"	"	34.7	---	97	"	---	---	
Zinc	53.6	2.00	4.00	"	"	55.6	---	96	"	---	---	
Matrix Spike (3120396-MS2)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 18:45							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
EPA 6020A												

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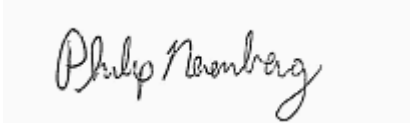

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120396 - EPA 3015A							**Water**					
Matrix Spike (3120396-MS2)					Prepared: 12/16/13 11:00 Analyzed: 12/18/13 18:45							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
Aluminum	9450	25.0	50.0	ug/L	1	5560	3830	101	75-125%	---	---	
Antimony	31.9	0.500	1.00	"	"	34.7	4.31	79	"	---	---	
Arsenic	50.9	0.500	1.00	"	"	55.6	2.34	87	"	---	---	
Cadmium	53.4	0.0400	1.00	"	"	"	1.71	93	"	---	---	
Chromium	77.5	0.500	2.00	"	"	"	25.3	94	"	---	---	
Copper	142	0.500	1.00	"	"	"	94.4	86	"	---	---	
Lead	221	0.100	0.200	"	"	"	173	87	"	---	---	
Manganese	468	0.500	1.00	"	"	"	416	93	"	---	---	
Mercury	1.22	0.0400	0.0800	"	"	1.11	0.217	90	"	---	---	H-01
Nickel	62.0	0.500	1.00	"	"	55.6	12.2	90	"	---	---	
Silver	32.7	0.100	0.200	"	"	34.7	0.178	94	"	---	---	
Zinc	613	2.00	4.00	"	"	55.6	569	79	"	---	---	

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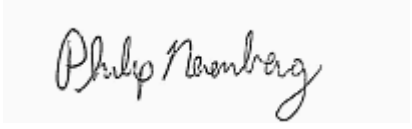

Philip Nerenberg, Lab Director

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120464 - EPA 3015A							**Water**					
Blank (3120464-BLK1)					Prepared: 12/18/13 13:34 Analyzed: 12/19/13 15:20							
EPA 6020A												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.0400	0.200	"	"	---	---	---	---	---	---	
Copper	**0.967**	0.500	1.00	"	"	---	---	---	---	---	---	B-02, J
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
Blank (3120464-BLK2)					Prepared: 12/18/13 13:34 Analyzed: 12/20/13 13:32							
EPA 6020A												
Manganese	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	Q-16
EPA 6020A												
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
LCS (3120464-BS1)					Prepared: 12/18/13 13:34 Analyzed: 12/19/13 15:23							
EPA 6020A												
Aluminum	5730	25.0	50.0	ug/L	1	5560	---	103	80-120%	---	---	
Antimony	33.1	0.500	1.00	"	"	34.7	---	95	"	---	---	
Arsenic	54.8	0.500	1.00	"	"	55.6	---	99	85-115%	---	---	
Cadmium	53.5	0.0400	0.200	"	"	"	---	96	80-120%	---	---	
Copper	54.4	0.500	1.00	"	"	"	---	98	"	---	---	B-02
Lead	55.8	0.100	0.200	"	"	"	---	100	"	---	---	
Mercury	1.07	0.0400	0.0800	"	"	1.11	---	96	"	---	---	
Nickel	54.3	0.500	1.00	"	"	55.6	---	98	"	---	---	
Silver	32.8	0.100	0.200	"	"	34.7	---	95	"	---	---	
Zinc	54.0	2.00	4.00	"	"	55.6	---	97	"	---	---	
LCS (3120464-BS2)					Prepared: 12/18/13 13:34 Analyzed: 12/21/13 14:37							

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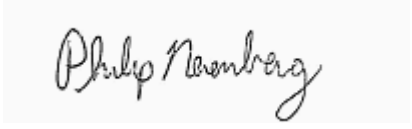

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120464 - EPA 3015A							**Water**					
LCS (3120464-BS2)					Prepared: 12/18/13 13:34 Analyzed: 12/21/13 14:37							
EPA 6020A												
Chromium	58.7	0.500	1.00	ug/L	1	55.6	---	106	80-120%	---	---	Q-16
Manganese	58.7	0.500	1.00	"	"	"	---	106	"	---	---	Q-16

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120388 - EPA 3015A - Dissolved								**Water**				
Blank (3120388-BLK1)						Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:17						
EPA 6020A (Diss)												
Aluminum	ND	25.0	50.0	ug/L	1	---	---	---	---	---	---	
Antimony	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Arsenic	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	0.0400	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Copper	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Lead	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Manganese	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Mercury	ND	0.0400	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	0.500	1.00	"	"	---	---	---	---	---	---	
Silver	ND	0.100	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	2.00	4.00	"	"	---	---	---	---	---	---	
LCS (3120388-BS1)						Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:20						
EPA 6020A (Diss)												
Aluminum	5830	25.0	50.0	ug/L	1	5560	---	105	80-120%	---	---	
Antimony	34.1	0.500	1.00	"	"	34.7	---	98	"	---	---	
Arsenic	51.8	0.500	1.00	"	"	55.6	---	93	"	---	---	
Cadmium	51.8	0.0400	0.200	"	"	"	---	93	"	---	---	
Chromium	54.3	0.500	1.00	"	"	"	---	98	"	---	---	
Copper	53.7	0.500	1.00	"	"	"	---	97	"	---	---	
Lead	56.3	0.100	0.200	"	"	"	---	101	"	---	---	Q-23
Manganese	53.7	0.500	1.00	"	"	"	---	97	"	---	---	
Mercury	1.14	0.0400	0.0800	"	"	1.11	---	103	"	---	---	Q-23
Nickel	54.6	0.500	1.00	"	"	55.6	---	98	"	---	---	
Silver	32.6	0.100	0.200	"	"	34.7	---	94	"	---	---	
Zinc	49.9	2.00	4.00	"	"	55.6	---	90	"	---	---	
Duplicate (3120388-DUP1)						Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:40						
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
EPA 6020A (Diss)												

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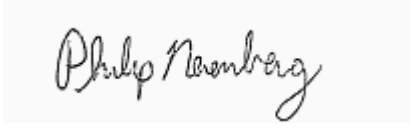

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120388 - EPA 3015A - Dissolved							**Water**					
Duplicate (3120388-DUP1)					Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:40							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
Aluminum	**76.2**	25.0	50.0	ug/L	1	---	76.2	---	---	0.01	20%	
Antimony	**1.82**	0.500	1.00	"	"	---	1.80	---	---	1	20%	Q-23
Arsenic	**0.789**	0.500	1.00	"	"	---	0.700	---	---	12	20%	J
Cadmium	ND	0.0400	0.200	"	"	---	0.0444	---	---	***	20%	
Chromium	**1.27**	0.500	1.00	"	"	---	1.26	---	---	0.9	20%	
Copper	**6.12**	0.500	1.00	"	"	---	6.22	---	---	2	20%	
Lead	**1.62**	0.100	0.200	"	"	---	1.67	---	---	3	20%	Q-23
Manganese	**12.0**	0.500	1.00	"	"	---	12.9	---	---	7	20%	
Mercury	ND	0.0400	0.0800	"	"	---	ND	---	---	---	20%	
Nickel	**0.633**	0.500	1.00	"	"	---	0.644	---	---	2	20%	J
Silver	ND	0.100	0.200	"	"	---	ND	---	---	---	20%	
Zinc	**10.7**	2.00	4.00	"	"	---	10.3	---	---	4	20%	
Matrix Spike (3120388-MS1)					Prepared: 12/16/13 10:34 Analyzed: 12/17/13 19:43							
QC Source Sample: B19-SP-19-1-20131119 (A3K0592-04)												
EPA 6020A (Diss)												
Aluminum	5860	25.0	50.0	ug/L	1	5560	76.2	104	75-125%	---	---	
Antimony	34.2	0.500	1.00	"	"	34.7	1.80	93	"	---	---	Q-23
Arsenic	51.8	0.500	1.00	"	"	55.6	0.700	92	"	---	---	
Cadmium	52.7	0.0400	0.200	"	"	"	0.0444	95	"	---	---	
Chromium	55.6	0.500	1.00	"	"	"	1.26	98	"	---	---	
Copper	58.7	0.500	1.00	"	"	"	6.22	94	"	---	---	
Lead	57.0	0.100	0.200	"	"	"	1.67	100	"	---	---	Q-23
Manganese	68.7	0.500	1.00	"	"	"	12.9	100	"	---	---	
Mercury	1.13	0.0400	0.0800	"	"	1.11	ND	102	"	---	---	Q-23
Nickel	54.5	0.500	1.00	"	"	55.6	0.644	97	"	---	---	
Silver	32.6	0.100	0.200	"	"	34.7	ND	94	"	---	---	
Zinc	59.9	2.00	4.00	"	"	55.6	10.3	89	"	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110625 - Total Suspended Solids									Water			
Blank (3110625-BLK1)					Prepared: 11/21/13 12:05		Analyzed: 11/25/13 16:16					
SM 2540 D												
Total Suspended Solids	ND	2.00	2.00	mg/L	1	---	---	---	---	---	---	
Reference (3110625-SRM1)					Prepared: 11/21/13 12:05		Analyzed: 11/25/13 16:16					
SM 2540 D												
Total Suspended Solids	97.0			mg/L	1	100		97	90-110%	---	---	

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110705 - Method Prep: Aq							**Water**					
Blank (3110705-BLK1)					Prepared: 11/25/13 08:50		Analyzed: 11/27/13 17:01					
SM 5310 B												
Total Organic Carbon	ND	1.00	1.00	mg/L	1	---	---	---	---	---	---	
LCS (3110705-BS1)					Prepared: 11/25/13 08:50		Analyzed: 11/27/13 17:26					
SM 5310 B												
Total Organic Carbon	9.57	1.00	1.00	mg/L	1	10.0	---	96	85-115%	---	---	
Duplicate (3110705-DUP1)					Prepared: 11/25/13 08:50		Analyzed: 11/27/13 23:59					
QC Source Sample: B22-SP1-20131118 (A3K0592-01)												
SM 5310 B												
Total Organic Carbon	**8.99**	1.00	1.00	mg/L	1	---	8.48	---	---	6	20%	
Matrix Spike (3110705-MS1)					Prepared: 11/25/13 08:50		Analyzed: 11/28/13 05:58					
QC Source Sample: B22-SP1-20131118 (A3K0592-01)												
SM 5310 B												
Total Organic Carbon	17.6	1.01	1.01	mg/L	1	10.0	8.48	91	75-125%	---	---	

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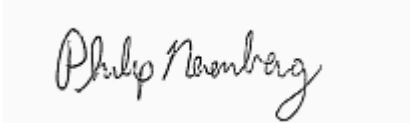

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

QUALITY CONTROL (QC) SAMPLE RESULTS

Conventional Chemistry Parameters

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3110750 - Total Suspended Solids									Water			
Blank (3110750-BLK1)					Prepared: 11/26/13 14:41		Analyzed: 11/27/13 10:58					
SM 2540 D												
Total Suspended Solids	ND	5.00	5.00	mg/L	1	---	---	---	---	---	---	
Reference (3110750-SRM1)					Prepared: 11/26/13 14:41		Analyzed: 11/27/13 10:58					
SM 2540 D												
Total Suspended Solids	99.0			mg/L	1	100		99	90-110%	---	---	

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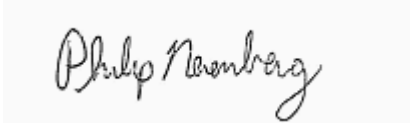

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Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

SAMPLE PREPARATION INFORMATION

Diesel and Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110690							
A3K0592-01	Water	NWTPH-Dx	11/18/13 13:20	11/23/13 12:57	1010mL/5mL	1000mL/5mL	0.99
A3K0592-02	Water	NWTPH-Dx	11/18/13 14:30	11/23/13 12:57	980mL/5mL	1000mL/5mL	1.02
A3K0592-03	Water	NWTPH-Dx	11/18/13 15:10	11/23/13 12:57	1030mL/5mL	1000mL/5mL	0.97
A3K0592-04	Water	NWTPH-Dx	11/19/13 09:45	11/23/13 12:57	1060mL/5mL	1000mL/5mL	0.94

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110613							
A3K0592-01	Water	NWTPH-Gx (MS)	11/18/13 13:20	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00
A3K0592-02	Water	NWTPH-Gx (MS)	11/18/13 14:30	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00
A3K0592-03	Water	NWTPH-Gx (MS)	11/18/13 15:10	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00
A3K0592-04	Water	NWTPH-Gx (MS)	11/19/13 09:45	11/21/13 10:00	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls -- EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3120081							
A3K0592-01	Water	EPA 8082A	11/18/13 13:20	12/04/13 08:19	1040mL/1mL	1000mL/1mL	0.96
A3K0592-02	Water	EPA 8082A	11/18/13 14:30	12/04/13 08:19	1020mL/1mL	1000mL/1mL	0.98
A3K0592-03	Water	EPA 8082A	11/18/13 15:10	12/04/13 08:19	1030mL/2mL	1000mL/1mL	1.94
A3K0592-04	Water	EPA 8082A	11/19/13 09:45	12/04/13 08:19	1050mL/2mL	1000mL/1mL	1.90

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3510C (Neutral pH)/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110743							
A3K0592-01RE1	Water	EPA 8081B	11/18/13 13:20	11/25/13 14:31	990mL/10mL	1000mL/5mL	2.02
A3K0592-02RE1	Water	EPA 8081B	11/18/13 14:30	11/25/13 14:31	1050mL/10mL	1000mL/5mL	1.90
A3K0592-03RE1	Water	EPA 8081B	11/18/13 15:10	11/25/13 14:31	1030mL/10mL	1000mL/5mL	1.94
A3K0592-04RE1	Water	EPA 8081B	11/19/13 09:45	11/25/13 14:31	1060mL/10mL	1000mL/5mL	1.89

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4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D - Selected Analytes

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110696							
A3K0592-01RE1	Water	EPA 8270D P/P	11/18/13 13:20	11/25/13 07:08	960mL/1mL	1000mL/1mL	1.04
A3K0592-02RE1	Water	EPA 8270D P/P	11/18/13 14:30	11/25/13 07:08	1050mL/1mL	1000mL/1mL	0.95
A3K0592-03RE1	Water	EPA 8270D P/P	11/18/13 15:10	11/25/13 07:08	1010mL/5mL	1000mL/1mL	4.95
A3K0592-04RE1	Water	EPA 8270D P/P	11/19/13 09:45	11/25/13 07:08	1060mL/2mL	1000mL/1mL	1.89

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3120396							
A3K0592-01	Water	EPA 6020A	11/18/13 13:20	12/16/13 11:00	45mL/50mL	45mL/50mL	1.00
A3K0592-03	Water	EPA 6020A	11/18/13 15:10	12/16/13 11:00	45mL/50mL	45mL/50mL	1.00
A3K0592-04	Water	EPA 6020A	11/19/13 09:45	12/16/13 11:00	45mL/50mL	45mL/50mL	1.00
Batch: 3120464							
A3K0592-02	Water	EPA 6020A	11/18/13 14:30	12/18/13 13:34	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A - Dissolved

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3120388							
A3K0592-01	Water	EPA 6020A (Diss)	11/18/13 13:20	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00
A3K0592-02	Water	EPA 6020A (Diss)	11/18/13 14:30	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00
A3K0592-03	Water	EPA 6020A (Diss)	11/18/13 15:10	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00
A3K0592-04	Water	EPA 6020A (Diss)	11/19/13 09:45	12/16/13 10:34	45mL/50mL	45mL/50mL	1.00

Conventional Chemistry Parameters

Prep: Method Prep: Aq

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110705							
A3K0592-01	Water	SM 5310 B	11/18/13 13:20	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00
A3K0592-02	Water	SM 5310 B	11/18/13 14:30	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00
A3K0592-03	Water	SM 5310 B	11/18/13 15:10	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00
A3K0592-04	Water	SM 5310 B	11/19/13 09:45	11/25/13 08:50	40mL/40mL	1mL/1mL	1.00

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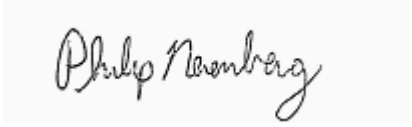

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Bridgewater Group	Project: **Schnitzer-Burgard**	
4500 SW Kruse Way; Suite 110	Project Number: 8001-20	**Reported:**
Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

SAMPLE PREPARATION INFORMATION

Conventional Chemistry Parameters

Prep: Total Suspended Solids

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3110625							
A3K0592-01	Water	SM 2540 D	11/18/13 13:20	11/21/13 12:05	1N/A/1N/A	1N/A/1N/A	NA
A3K0592-02	Water	SM 2540 D	11/18/13 14:30	11/21/13 12:05	1N/A/1N/A	1N/A/1N/A	NA
A3K0592-03	Water	SM 2540 D	11/18/13 15:10	11/21/13 12:05	1N/A/1N/A	1N/A/1N/A	NA
Batch: 3110750							
A3K0592-04	Water	SM 2540 D	11/19/13 09:45	11/26/13 14:41	1N/A/1N/A	1N/A/1N/A	NA

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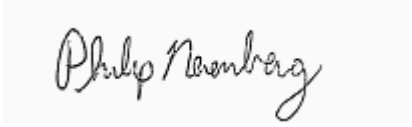

Philip Nerenberg, Lab Director

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Notes and Definitions

Qualifiers:

B-02	Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
C-05	Extract has undergone a GPC (Gel-Permeation Chromotography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
H-01	This sample was analyzed outside the recommended holding time.
J	Estimated Result . Result detected below the lowest point of the calibration curve, but above the specified MDL.
P-10	Result estimated due to the presence of multiple aroclors and/or matrix interference.
Q-16	Reanalysis of an original Batch QC sample.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
R-04	Reporting levels elevated due to dilution necessary for analysis.
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

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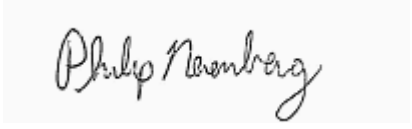

Philip Nerenberg, Lab Director

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Lake Oswego, OR 97035	Project Manager: Ross Rieke	12/24/13 14:25

Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

***

Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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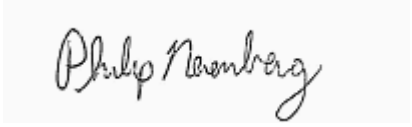

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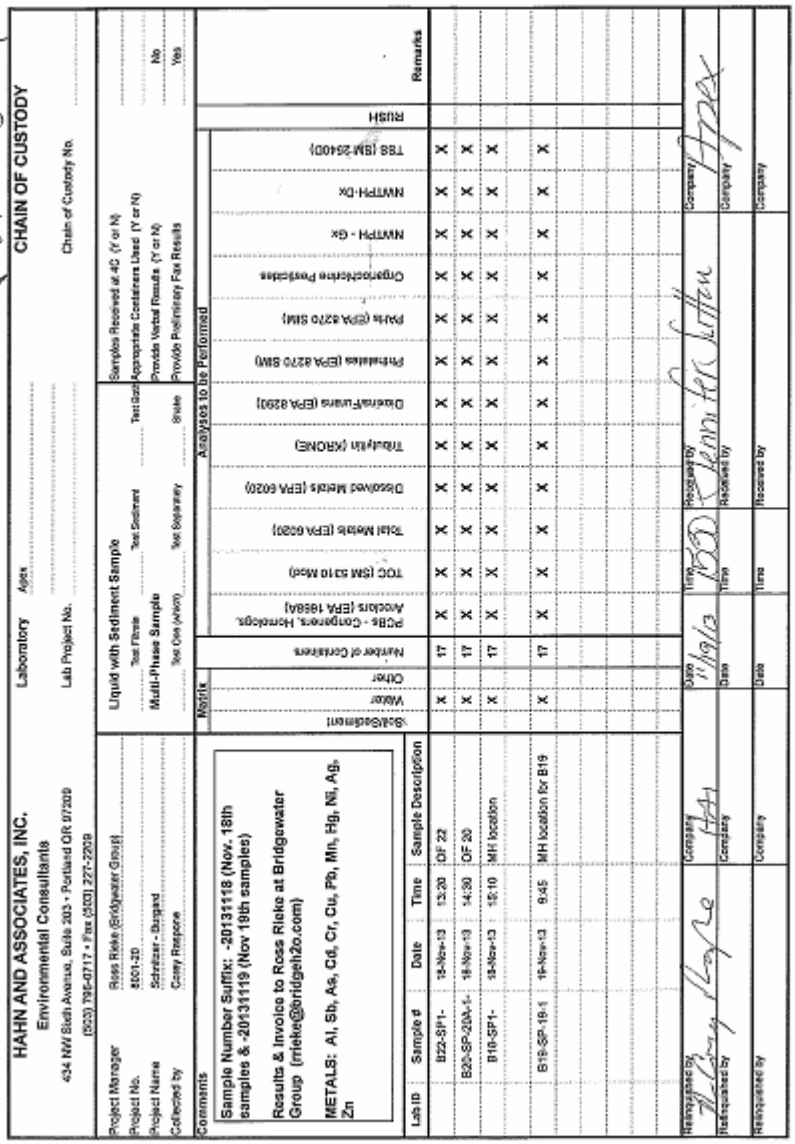

CHAIN OF CUSTODY

HAHN AND ASSOCIATES, INC.
Environmental Consultants
434 NW Sixth Avenue, Suite 203 - Portland OR 97209
(503) 795-0717 • Fax (503) 221-2009

Laboratory: Apex
Lab Project No.:
Chain of Custody No.:

Project Manager: Ross Rieke (Bridgewater Group)
Project No.: 8001-20
Project Name: Schnitzer - Burgard
Collected by: Corey Rasgorra

Liquid with Sediment Sample — Test Filtrate / Test Sediment
Multi-Phase Sample — Test Core (w/soil) / Test Supernatant
Solubility Test — Test Bioassay

Samples Received at 4C (Y or N)
Appropriate Containers Used (Y or N)
Provide Verbal Results (Y or N): No
Provide Preliminary Fax Results: Yes

Comments:
Sample Number Suffix: -20131118 (Nov. 18th samples & -20131119 (Nov 18th samples)
Results & Invoice to Ross Rieke at Bridgewater Group (rrieke@bridgeh2o.com)
METALS: Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Hg, Ni, Ag, Zn

Lab ID	Sample #	Date	Time	Sample Description	Matrix: Solid/Sediment	Water	Other	Number of Containers	PCBs - (Congeners, Homologs, Aroclors (EPA 1668A)	TOC (SM 5310 Mod)	Total Metals (EPA 6020)	Dissolved Metals (EPA 6020)	Thallium (ARONE)	Dioxins/Furans (EPA 8290)	Phthalates (EPA 8270 SIM)	PAHs (EPA 8270 SIM)	Organochlorine Pesticides	NWTPH - Gx	NWTPH-Dx	TSS (SM 2540D)	RUSH	Remarks
	B22-SP1-	18-Nov-13	13:20	DF 22		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B20-SP-20A-1-	18-Nov-13	14:30	DF 20		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B16-SP1-	18-Nov-13	15:10	MH location		X		17	X	X	X	X	X	X	X	X	X	X	X	X		
	B19-SP-18-1	18-Nov-13	9:45	MH location for B19		X		17	X	X	X	X	X	X	X	X	X	X	X	X		

Relinquished by: Company: HAH — Date: 11/19/13 — Time: 1000 — Received by: Penny Lee Litten — Company: Apex
Relinquished by: Company: — Date: — Time: — Received by: — Company:
Relinquished by: Company: — Date: — Time: — Received by: — Company:

Apex Laboratories

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Philip Nerenberg

Philip Nerenberg, Lab Director

Analytical Resources, Incorporated
Analytical Chemists and Consultants

November 26, 2013

Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR 97223

Client Project: A3K0592
ARI Job No.: XP36

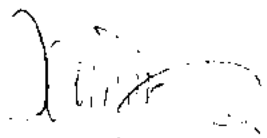
Dear Mr. Nerenberg:

Please find enclosed the original Chain of Custody record (COC), sample receipt documentation, and the final data for the samples from the project referenced above.

Sample receipt information and analytical details are addressed in the Case Narrative.

An electronic copy of this report and all supporting raw data will be kept on file at ARI. Should you have any questions or concerns, please feel free to call me at your convenience.

Respectfully,
ANALYTICAL RESOURCES, INC.



Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile: XP36

Enclosures

11-21-13 KH

SUBCONTRACT ORDER

Apex Laboratories

A3K0592

SENDING LABORATORY:

Apex Laboratories
12232 S.W. Garden Place
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 718-0333
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Analytical Resources, INC
4611 S. 134th Place
Tukwila, WA 98168
Phone :(206) 695-6200
Fax: (206) 695-6201

OF 22, 1 unpres amber reads B22-SWSP-MH,

Sample Name: B22-SP1-20131118 **Water** **Sampled: 11/18/13 13:20** (A3K0592-01)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/02/13 13:20	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

OF 20

Sample Name: B20-SP-20A-1-20131118 **Water** **Sampled: 11/18/13 14:30** (A3K0592-02)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/02/13 14:30	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

MH location

Sample Name: B18-SP1-20131118 **Water** **Sampled: 11/18/13 15:10** (A3K0592-03)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/02/13 15:10	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

MH location for B19

Sample Name: B19-SP-19-1-20131119 **Water** **Sampled: 11/19/13 09:45** (A3K0592-04)

Analysis	Due	Expires	Comments
TBT, Butyl Tins (3) (Sub)	12/05/13 17:00	12/03/13 09:45	Krone--ARI
Containers Supplied:			
(E)1 L Amber Glass - Non Preserved			
(F)1 L Amber Glass - Non Preserved			

Std TAT

Released By	Date	Received By	Date
	11-21-13 15:12	UPS (Shipper)	
UPS (Shipper)			
Released By	Date	Received By	Date
			11-22-13 1150

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Apex

COC No(s): _____ NA

Assigned ARI Job No. XP36

Project Name: _____

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: 1Z x47 20R 17709 4216 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		5.1
Time: 1150		
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	90677955

Cooler Accepted by: TS Date: 11-22-13 Time: 1150

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time _____ Equipment: _____ Split by: _____

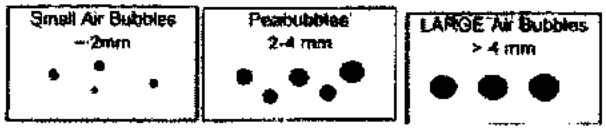
Samples Logged by: TS Date: 11-22-13 Time: 1221

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Case Narrative

Client: Apex Laboratories
Project: A3K0592
ARI Job No.: XP36

Sample Receipt

Analytical Resources, Inc. (ARI) accepted four water samples on November 22, 2013 under ARI job XP36. The cooler temperature measured by IR thermometer following ARI SOP was 5.1°C. For further details regarding sample receipt, please refer to the Cooler Receipt Form.

The samples were analyzed for parameters as requested on the COC.

Butyltins by Krone 1988 SIM

All sample volumes were submitted in one-liter amber glass bottles therefore the extraction required bottle rinse could not be performed.

The LCS and LCSD percent recoveries of Butyltin fell outside advisory control limits low for **LCS-112313**. All other percent recoveries were within control limits. No corrective action was taken.

There were no other irregularities with this analysis.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: XP36
Client: Apex Labs
Project Event: A3K0592
Project Name: N/A

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	B22-SP1-20131118	XP36A	13-26074	Water	11/18/13 13:20	11/22/13 11:50
2.	B20-SP-20A-1-20131118	XP36B	13-26075	Water	11/18/13 14:30	11/22/13 11:50
3.	B18-SP1-20131118	XP36C	13-26076	Water	11/18/13 15:10	11/22/13 11:50
4.	B19-SP-19-1-20131119	XP36D	13-26077	Water	11/19/13 09:45	11/22/13 11:50

XP36 : 0005

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B22-SP1-20131118**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36A
LIMS ID: 13-26074
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/18/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 09:43
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	54.6%
Tripentyl Tin Chloride	57.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B20-SP-20A-1-20131118**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36B
LIMS ID: 13-26075
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/18/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 09:57
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	42.0%
Tripentyl Tin Chloride	47.6%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B18-SP1-20131118**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36C
LIMS ID: 13-26076
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/18/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 10:41
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	50.7%
Tripentyl Tin Chloride	57.4%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: B19-SP-19-1-20131119**
Extraction Method: SW3510C **SAMPLE**

Lab Sample ID: XP36D
LIMS ID: 13-26077
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: 11/19/13
Date Received: 11/22/13

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 10:55
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	60.7%
Tripentyl Tin Chloride	70.8%

ANALYTICAL RESOURCES INCORPORATED

TBT SURROGATE RECOVERY SUMMARY

Matrix: Water

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA

Client ID	TPRT	TPNT	TOT OUT
MB-112313	66.0%	76.1%	0
LCS-112313	57.7%	66.2%	0
LCSD-112313	45.8%	51.8%	0
B22-SP1-20131118	54.6%	57.8%	0
B20-SP-20A-1-20131118	42.0%	47.6%	0
B18-SP1-20131118	50.7%	57.4%	0
B19-SP-19-1-20131119	60.7%	70.8%	0

	LCS/MB LIMITS	QC LIMITS
(TPRT) = Tripropyl Tin Chloride	(30-160)	(30-160)
(TPNT) = Tripentyl Tin Chloride	(30-160)	(30-160)

Prep Method: SW3510C
Analytical Method: TBT (Hexyl) Krone 1988
Log Number Range: 13-26074 to 13-26077

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS

Sample ID: LCS-112313
LAB CONTROL SAMPLE

Lab Sample ID: LCS-112313
LIMS ID: 13-26074
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592

Date Sampled: NA
Date Received: NA

Date Extracted LCS: 11/23/13

Date Analyzed LCS: 11/26/13 09:16
LCSD: 11/26/13 09:29
Instrument/Analyst LCS: NT12/VTS
LCSD: NT12/VTS

Sample Amount LCS: 100 mL
LCSD: 100 mL
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00
Alumina Cleanup: Yes

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Tributyltin Ion	1.61	2.23	72.2%	1.28	2.23	57.4%	22.8%
Dibutyltin Ion	1.12	1.92	58.3%	0.92	1.92	47.9%	19.6%
Butyltin Ion	0.45	1.56	28.8%	0.29	1.56	18.6%	43.2%

Reported in µg/L (ppb)

RPD calculated using sample concentrations per SW846.

TBT Surrogate Recovery

	LCS	LCSD
Tripropyl Tin Chloride	57.7%	45.8%
Tripentyl Tin Chloride	66.2%	51.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
Tributyl Tins by Krone 1988 SIM GC/MS **Sample ID: MB-112313**
Extraction Method: SW3510C **METHOD BLANK**

Lab Sample ID: MB-112313
LIMS ID: 13-26074
Matrix: Water
Data Release Authorized:
Reported: 11/26/13

QC Report No: XP36-Apex Labs
Project: A3K0592
Event: NA
Date Sampled: NA
Date Received: NA

Date Extracted: 11/23/13
Date Analyzed: 11/26/13 09:02
Instrument/Analyst: NT12/VTS

Sample Amount: 100 mL
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: Yes

CAS Number	Analyte	DL	LOQ	Result	Q
36643-28-4	Tributyltin Ion	0.043	0.19	< 0.19	U
14488-53-0	Dibutyltin Ion	0.096	0.29	< 0.29	U
78763-54-9	Butyltin Ion	0.11	0.20	< 0.20	U

Reported in µg/L (ppb)

TBT Surrogate Recovery

Tripropyl Tin Chloride	66.0%
Tripentyl Tin Chloride	76.1%

Maxxam

Success Through Science®

Your Project #: A3K0592
Your C.O.C. #: NA

Attention: Philip Nerenberg
Apex Laboratories
12232 SW Garden Place
Tigard, OR
USA 97223

Report Date: 2013/12/27
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3K2315
Received: 2013/11/22, 11:45

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Dioxins/Furans in Water (8290A) (1)	1	2013/12/02	2013/12/03	BRL SOP-00406	EPA 8290A mod.
Dioxins/Furans in Water (8290A) (1)	3	2013/12/02	2013/12/04	BRL SOP-00406	EPA 8290A mod.
PCB Congeners in Water (1668A)	4	2013/11/29	2013/12/04	BRL SOP-00408	EPA 1668A mod.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Confirmatory runs for 2,3,7,8-TCDF are performed only if the primary result is greater than the RDL.

U = Undetected at the limit of quantitation.
J = Estimated concentration between the EDL & RDL.
B = Blank Contamination.
Q = One or more quality control criteria failed.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Ivana Vukovic, Env Project Manager
Email: IVukovic@maxxam.ca
Phone# (905) 817-5700

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Total cover pages: 1

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
2,3,7,8-Tetra CDD *	pg/L	1.2 U	1.2	2.2	1.00	1.20		3444979
1,2,3,7,8-Penta CDD	pg/L	1.5 U	1.5	11	1.00	1.50		3444979
1,2,3,4,7,8-Hexa CDD	pg/L	1.0 U	1.0	11	0.100	0.100		3444979
1,2,3,6,7,8-Hexa CDD	pg/L	1.1 U (1)	1.1	11	0.100	0.110		3444979
1,2,3,7,8,9-Hexa CDD	pg/L	1.2 U (1)	1.2	11	0.100	0.120		3444979
1,2,3,4,6,7,8-Hepta CDD	pg/L	34	1.0	11	0.0100	0.340		3444979
Octa CDD	pg/L	256	1.1	22	0.000300	0.0768		3444979
Total Tetra CDD	pg/L	1.2 U	1.2	2.2				3444979
Total Penta CDD	pg/L	1.5 U	1.5	11				3444979
Total Hexa CDD	pg/L	7.49 J	0.88	11				3444979
Total Hepta CDD	pg/L	64	1.0	11				3444979
2,3,7,8-Tetra CDF **	pg/L	0.99 U	0.99	2.2	0.100	0.0990		3444979
1,2,3,7,8-Penta CDF	pg/L	1.3 U	1.3	11	0.0300	0.0390		3444979
2,3,4,7,8-Penta CDF	pg/L	1.4 U	1.4	11	0.300	0.420		3444979
1,2,3,4,7,8-Hexa CDF	pg/L	1.1 U	1.1	11	0.100	0.110		3444979
1,2,3,6,7,8-Hexa CDF	pg/L	1.02 J	0.89	11	0.100	0.102		3444979
2,3,4,6,7,8-Hexa CDF	pg/L	1.1 U	1.1	11	0.100	0.110		3444979
1,2,3,7,8,9-Hexa CDF	pg/L	1.4 U	1.4	11	0.100	0.140		3444979
1,2,3,4,6,7,8-Hepta CDF	pg/L	19 U (1)	19	11	0.0100	0.190		3444979
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.3 U (1)	1.3	11	0.0100	0.0130		3444979
Octa CDF	pg/L	34	1.4	22	0.000300	0.0102		3444979
Total Tetra CDF	pg/L	0.99 U	0.99	2.2				3444979
Total Penta CDF	pg/L	1.4 U	1.4	11				3444979
Total Hexa CDF	pg/L	18	1.1	11				3444979
Total Hepta CDF	pg/L	26	0.99	11				3444979
TOTAL TOXIC EQUIVALENCY	pg/L					4.68		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	125						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds
(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0787						
Sampling Date		2013/11/18 13:20						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B22-SP1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	102						3444979
C13-123478 HexaCDF	%	107						3444979
C13-123678 HexaCDD *	%	107						3444979
C13-12378 PentaCDD	%	135						3444979
C13-12378 PentaCDF	%	123						3444979
C13-2378 TetraCDD	%	71						3444979
C13-2378 TetraCDF	%	76						3444979
C13-OCDD	%	123						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
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TEF = Toxic Equivalency Factor, TEQ = Toxic Equivalency Quotient,
The Total Toxic Equivalency (TEQ) value reported is the sum of Toxic Equivalent Quotients for the congeners tested.
WHO(2005): The 2005 World Health Organization, Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds

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Maxxam Job #: B3K2315
Report Date: 2013/12/27

Apex Laboratories
Client Project #: A3K0592

DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	**B20-SP-20A-1-20131118**	**EDL**	**RDL**	**TEF (2005 WHO)**	**TEQ(DL)**	**Isomers**	**QC Batch**
2,3,7,8-Tetra CDD *	pg/L	1.2 U	1.2	2.2	1.00	1.20		3444979
1,2,3,7,8-Penta CDD	pg/L	1.2 U	1.2	11	1.00	1.20		3444979
1,2,3,4,7,8-Hexa CDD	pg/L	2.9 U (1)	2.9	11	0.100	0.290		3444979
1,2,3,6,7,8-Hexa CDD	pg/L	6.4 J	1.1	11	0.100	0.640		3444979
1,2,3,7,8,9-Hexa CDD	pg/L	5.0 J	1.3	11	0.100	0.500		3444979
1,2,3,4,6,7,8-Hepta CDD	pg/L	137	1.2	11	0.0100	1.37		3444979
Octa CDD	pg/L	1100	1.6	22	0.000300	0.330		3444979
Total Tetra CDD	pg/L	1.2 U	1.2	2.2				3444979
Total Penta CDD	pg/L	1.2 U	1.2	11				3444979
Total Hexa CDD	pg/L	55	1.2	11				3444979
Total Hepta CDD	pg/L	328	1.2	11				3444979
2,3,7,8-Tetra CDF **	pg/L	2.0 J	1.3	2.2	0.100	0.200		3444979
1,2,3,7,8-Penta CDF	pg/L	1.4 U	1.4	11	0.0300	0.0420		3444979
2,3,4,7,8-Penta CDF	pg/L	1.4 U	1.4	11	0.300	0.420		3444979
1,2,3,4,7,8-Hexa CDF	pg/L	2.6 U (1)	2.6	11	0.100	0.260		3444979
1,2,3,6,7,8-Hexa CDF	pg/L	1.61 J	0.74	11	0.100	0.161		3444979
2,3,4,6,7,8-Hexa CDF	pg/L	1.81 J	0.91	11	0.100	0.181		3444979
1,2,3,7,8,9-Hexa CDF	pg/L	1.1 U	1.1	11	0.100	0.110		3444979
1,2,3,4,6,7,8-Hepta CDF	pg/L	28 U (1)	28	11	0.0100	0.280		3444979
1,2,3,4,7,8,9-Hepta CDF	pg/L	1.5 U (1)	1.5	11	0.0100	0.0150		3444979
Octa CDF	pg/L	44	1.4	22	0.000300	0.0132		3444979
Total Tetra CDF	pg/L	4.7	1.3	2.2				3444979
Total Penta CDF	pg/L	12	1.4	11				3444979
Total Hexa CDF	pg/L	42	0.90	11				3444979
Total Hepta CDF	pg/L	43	1.0	11				3444979
TOTAL TOXIC EQUIVALENCY	pg/L					7.21		
Surrogate Recovery (%)								
C13-1234678 HeptaCDD	%	118						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
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(1) EMPC / NDR - Peak detected does not meet ratio criteria and has resulted in an elevated detection limit.

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DIOXINS AND FURANS BY HRMS (WATER)

Maxxam ID		UA0788						
Sampling Date		2013/11/18 14:30						
COC Number		NA			TOXIC EQUIVALENCY		# of	
	Units	B20-SP-20A-1-20131118	EDL	RDL	TEF (2005 WHO)	TEQ(DL)	Isomers	QC Batch
C13-1234678 HeptaCDF **	%	99						3444979
C13-123478 HexaCDF	%	104						3444979
C13-123678 HexaCDD *	%	104						3444979
C13-12378 PentaCDD	%	130						3444979
C13-12378 PentaCDF	%	118						3444979
C13-2378 TetraCDD	%	80						3444979
C13-2378 TetraCDF	%	80						3444979
C13-OCDD	%	117						3444979

RDL = Reportable Detection Limit
EDL = Estimated Detection Limit
QC Batch = Quality Control Batch
* CDD = Chloro Dibenzo-p-Dioxin, ** CDF = Chloro Dibenzo-p-Furan
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