Columbia Analytical Services™ 1317 S. 13th Avenue, Kelso, WA 98626 | 360.577.7222 | 360.636.1068 (fax) | www.caslab.com

January 26, 2011 Analytical Report for Service Request No: K1013795

Brian O' Neal
PES Environmental
1215 Fourth Avenue, Suite 1350
P.O. Box 108
Seattle, WA 98161

RE: Univar Portland Stormwater 2010

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on December 13, 2010. For your reference, these analyses have been assigned our service request number K1013795.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at HHolmes@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Howard Holmes
Project Chemist

HH/dlm

cc: Matt Dahl, PES Environmental (Seattle, WA)

100% Recycled Paper

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value that was detected outside the quantitation range.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value that was detected outside the quantitation range.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value that was detected outside the quantitation range.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Program	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DHS	WA200001
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	PES Environmental	**Service Request No.:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), and Laboratory Control Sample (LCS).

Sample Receipt

Three water samples were received for analysis at Columbia Analytical Services on 12/13/10. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Oil and Grease by EPA Method 1664:
The control criteria for matrix spike recovery of Oil and Grease for sample K1014213-001MS4 was not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Free Cyanide by Method 9014:
The matrix spike recovery of Free Cyanide for sample SPI-1-W-121310 was outside control criteria because of suspected matrix interference. A matrix spike duplicate was also analyzed, but produced similar results. The results of the original analysis were reported. No further corrective action was appropriate.

pH by SM 4500-H+B:
In accordance with the 2007 EPA Methods Update Rule published in the Federal Register, the holding time for pH is 15 minutes from sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

No other anomalies associated with the analysis of these samples were observed.

Total and Dissolved Metals

Matrix Spike Recovery Exceptions:
The control criteria for matrix spike recovery of Aluminum and Zinc for sample SPI-1-121310 were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Approved by Howard Holmes **Date** 1-26-11

Diesel Range Organics by EPA Method 8015B

No anomalies associated with the analysis of these samples were observed.

Organochlorine Pesticides by EPA Method 8081A

Calibration Verification Exceptions:
The upper control criterion was exceeded for Toxaphene in Continuing Calibration Verification (CCV) 1229F004. The field samples analyzed in this sequence did not contain the analyte in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

Matrix Spike Recovery Exceptions:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Elevated Detection Limits:
The MDL is elevated for a few compounds in sample Method Blank KWG1100123-9. The chromatogram indicated the presence of non-target background components, which were apparently introduced as laboratory artifacts. The contamination prevented adequate resolution of the target compounds at the MDL. Note the level of background was relatively low compared to the MDL, so the affect on the results was minimal. The results are flagged to indicate the problem.

The detection limit was further elevated for a few analytes in all samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

The detection limit was elevated for all analytes in both field samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components that prevented adequate resolution of the internal standard. Clean-up of the extract was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilution. A semiquantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution. The results were flagged to indicate the matrix interference.

Lab Control Sample Exceptions:
The upper control criterion was exceeded for Toxaphene in Duplicate Laboratory Control Sample (DLCS) KWG1100123-2. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. No further corrective action was appropriate.

Sample Confirmation Notes:
The confirmation comparison criteria of 40% difference for Endrin Aldehyde was exceeded in sample SPI-2-W-121310. The lower of the two values was reported when there was an apparent interference on the alternate column that produced the higher value.

No other anomalies associated with the analysis of these samples were observed.

PCB Congeners by EPA Method 8082

Second Source Exceptions:
The analysis of PCB Congeners by EPA 8082 requires the use of dual column confirmation. When the Initial Calibration Verification (ICV) criteria are met for both columns, the higher of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for PCB 149 in CAL 9598. The ICV results were reported from the acceptable column. The data quality was not affected. No further corrective action was necessary.

Approved by Howard Holman **Date** 1-26-11

Elevated Detection Limits:
The detection limit was elevated for several analytes in both field samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

Method Blank Exceptions:
The Method Blank KWG1014093-3 contained low levels of PCB 18 above the Method Reporting Limit (MRL). In accordance with CAS QA/QC policy, all sample results less than twenty times the level found in the Method Blank were flagged as estimated. No hits above the MRL were detected in the associated field samples. No further corrective action was necessary.

No other anomalies associated with the analysis of these samples were observed.

Chlorophenoxy Herbicides by EPA Method 8151

Calibration Verification Exceptions:
The upper control criterion was exceeded for MCPA and/or MCPP in Continuing Calibration Verification (CCV) 1230F011 and 1230F029. The field samples analyzed in this sequence did not contain the analyte(s) in question. Since the apparent problem indicated a potential high bias, the data quality was not affected. No further corrective action was required.

Lab Control Sample Exceptions:
The lower control criterion was exceeded for Dalapon and 2,4,5-T in Laboratory Control Samples (LCS/DLCS) KWG1014256-1/KWG1014256-2. The analytes in question were not detected in the associated field samples. The error associated with elevated recovery indicated a low bias. Reanalysis of the associated field samples was not performed because insufficient sample remained for additional testing. No further corrective action was appropriate.

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) for List analytes in the replicate Laboratory Control Sample (LCS) analyses (KWG1014256-1 and KWG1014256-2) was outside control criteria. Reanalysis of the associated field samples was not performed because insufficient sample remained for additional testing. The data was flagged to indicate the problem.

No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260B

Lab Control Sample Exceptions:
The advisory criterion was exceeded for Carbon Disulfide in Laboratory Control Sample (LCS) KWG1014076-1 and Duplicate Laboratory Control Sample (DLCS) KWG1014076-2. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Sample Notes and Discussion:
The client requested 2-Chloroethyl Vinyl Ether (2-CVE) be included in the reported analyte list. The analysis of 2-CVE in water by method 8260 requires the collection of an unpreserved sample. 2-Chloroethyl Vinyl Ether is highly reactive and preservation may accelerate loss by polymerization or other rapid chemical reaction. Therefore, the accuracy of results from a preserved sample cannot be guaranteed. In the future, if the client requires this analyte, both preserved an unpreserved samples need to be collected to accurately report 2-CVE and prevent missed holding times.

No other anomalies associated with the analysis of these samples were observed.

Approved by _____ **Date** 1-26-11

Semivolatile Organic Compounds by EPA Method 8270C

Surrogate Exceptions:
The control criteria were exceeded for various surrogates in sample SPI-1-W-121310 due to suspected matrix interference. The sample extract was black and showed signs of damaging the analytical column during analysis. No further corrective action was taken.

Lab Control Sample Exceptions:
The advisory criterion was exceeded for 4-Chloroaniline, 3-Nitroaniline, 4-Nitroaniline, and 3,3'-Dichlorobenzidine in Duplicate Laboratory Control Sample (DLCS) KWG1013726-2. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) for various analytes in the replicate Laboratory Control Sample (LCS) analyses (KWG1013726-1 and KWG1013726-2) was outside control criteria. Reanalysis of the associated field samples was not performed because insufficient sample remained for additional testing. The data was flagged to indicate the problem.

Elevated Detection Limits:
The detection limits were elevated in sample SPI-1-W-121310. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components. The extract was highly colored and viscous, which indicated the need to perform a dilution prior to injection into the instrument. Clean-up of the extract was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilution. A semi-quantitative screen was performed prior to final analysis. The results of the screening indicated the need to perform a dilution.

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270C

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Approved by Howard Holmes **Date** 1-26-11

Chain of Custody

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

REMARKS:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	Sulfate by 300/9056	Ammonia as N by 350.1					
SPI-1-W-121310	12/13/10	1200		Water	17	X	X					
SPI-2-W-121310	12/13/10	1100			13	X	X					

Relinquished by/date:	/ 12/13/10
Received by/date:	/ 12/13/10 1645
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation	
Water Investigation/Remediation	165
Air-Soil Investigation or Remediation	
Waste	

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

see attached for details and priorities

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

REMARKS:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	TSS by 2540D	TOC by 415.1	Total Metals by 200.8 *	Dissolved Iron by 200.7**	Mercury by 1631M	VOCs by 8260B	SVOCs/PAHS (SIM) by 8270C
SPI-1-W-121310	12/13/10	1200		Water	17	X	X	X	X	X	X	X
SPI-2-W-121310	12/13/10	1100		Water	13	X	X	X	X	X	X	X

Relinquished by/date:	/ 12/13/10	
Received by/date:	/12/13/10 1615	Invoice Instructions – Univar to provide to Sampler (Circle code. If multiple codes apply, note in Remarks)
Relinquished by/date:	/	
Received by/date:	/	
Relinquished by/date:	/	Soil Investigation/Remediation
Received by/date:	/	Water Investigation/Remediation 165
Relinquished by/date:	/	Air-Soil Investigation or Remediation
Received by/date:	/	Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

* Metals = Al, As, Sb, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Ag, Se, Zn
**filter in lab

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

REMARKS:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	PCB Cogeners by 8082	Chl. Herbicides by 8151A	Org. Chl. Pesticides by 8081 (ULL)	Cyanide***	Oil & Grease by 1664	Diesel & Residual TPH by NTWPH-Dx	Sulfides by 9030b
SPI-1-W-121310	12/13/10	1200		Water	17	X	X	X	X	X	X	X
SPI-2-W-121310	12/13/10	1100		water	13	X	X	X	X	[illegible]	X	X

Do not analyze [illegible]

Relinquished by/date:	/ 12/13/10	
Received by/date:	/ 12/13/10 1615	Invoice Instructions – Univar to provide to Sampler (Circle code. If multiple codes apply, note in Remarks)
Relinquished by/date:	/	
Received by/date:	/	
Relinquished by/date:	/	Soil Investigation/Remediation
Received by/date:	/	Water Investigation/Remediation 165
Relinquished by/date:	/	Air-Soil Investigation or Remediation
Received by/date:	/	Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

*** total and amenable by 4500CNE; free by 9014

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Columbia Analytical Services, Inc. PC_____
Cooler Receipt and Preservation Form

Client / Project: Onivar Service Request *K10* 13795

Received: 12/13/10 Opened: 12/13/10 By: SSN

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where?_____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
	~~3.8~~ 4.2	295			
5.8	5.2	304			

7. Packing material used: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Sleeves* *Other*_____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

*Notes, Discrepancies, & Resolutions:*_____

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10

Analysis Method: SM 4500-H+ B

Units: pH Units
Basis: NA

pH

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	6.70		-		1	NA	12/14/10 12:11	*

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Date Analyzed:	12/14/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-121310	**Units:**	pH Units
Lab Code:	K1013795-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-121310DUP Duplicate Sample K1013795-001DUP3 Result	Average	RPD	RPD Limit
pH	SM 4500-H+ B			6.70	6.66	6.68	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/14/10

Lab Control Sample Summary
General Chemistry Parameters

Units: pH Units
Basis: NA

Analyte Name	Method	Lab Control Sample K1013795-LCS2 Result	Spike Amount	% Rec	% Rec Limits
pH	SM 4500-H+ B	7.25	7.24	100	85 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
Prep Method:	Method	**Units:**	mg/L
Analysis Method:	1664	**Basis:**	NA

Oil and Grease, Total (HEM)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**1.4**	J	5.0	0.8	1	12/29/10	12/29/10 11:30	
Method Blank	K1013795-MB1	ND	U	5.0	0.8	1	12/29/10	12/29/10 11:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/29/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1014213-001

Units: mg/L
Basis: NA

Analytical Method: 1664
Prep Method: Method

Batch QCMS
Matrix Spike
K1014213-001MS4

Analyte Name	Sample Result	Result	Spike Amount	% Rec		% Rec Limits
Oil and Grease, Total (HEM)	224	403	60.0	298	*	78 - 114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/29/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS1			Duplicate Lab Control Sample K1013795-DLCS1					
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Oil and Grease, Total (HEM)	1664	55.7	60.0	93	54.7	60.0	91	78 - 114	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10

Units: NTU
Basis: NA

Analysis Method: 180.1

Turbidity

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**22.1**		0.20	0.04	1	NA	12/14/10 13:59	
Method Blank	K1013795-MB1	**0.06**	J	0.20	0.04	1	NA	12/14/10 13:59	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/14/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: NTU
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-121310DUP Duplicate Sample K1013795-001DUP3 Result	Average	RPD	RPD Limit
Turbidity	180.1	0.20	0.04	22.1	21.9	22.0	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/14/10

Lab Control Sample Summary
General Chemistry Parameters

Units: NTU
Basis: NA

Analyte Name	Method	Lab Control Sample K1013795-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Turbidity	180.1	1.97	1.98	99	82 - 109

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10

Analysis Method: 300.0

Units: mg/L
Basis: NA

Sulfate

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**0.54**		0.40	0.02	2	NA	12/16/10 17:21	
SPI-2-W-121310	K1013795-002	**0.97**		0.40	0.02	2	NA	12/16/10 18:45	
Method Blank	K1013795-MB1	ND	U	0.20	0.01	1	NA	12/16/10 11:07	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/16/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-121310DUP Duplicate Sample K1013795-001DUP3 Result	Average	RPD	RPD Limit
Sulfate	300.0	0.40	0.02	0.54	0.50	0.521	8	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/16/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: mg/L
Basis: NA

Analytical Method: 300.0

		SPI-1-W-121310MS Matrix Spike K1013795-001MS2			SPI-1-W-121310DMS Duplicate Matrix Spike K1013795-001DMS2					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfate	0.54	4.34	4.00	95	4.37	4.00	96	80 - 120	<1	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/16/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Sulfate	300.0	4.62	5.00	92	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Units:	mg/L
Analysis Method:	350.1	**Basis:**	NA

Ammonia as Nitrogen

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	ND	U	0.050	0.020	1	NA	12/14/10 10:07	
SPI-2-W-121310	K1013795-002	ND	U	0.050	0.020	1	NA	12/14/10 10:07	
Method Blank	K1013795-MB1	ND	U	0.050	0.020	1	NA	12/14/10 10:07	
Method Blank	K1013795-MB2	ND	U	0.050	0.020	1	NA	12/14/10 10:07	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/14/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: KQ1013694-25

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample KQ1013694-25DUP6 Result	Average	RPD	RPD Limit
Ammonia as Nitrogen	350.1	0.050	0.020	0.734	0.711	0.723	3	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/14/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: KQ1013694-25

Units: mg/L
Basis: NA

Analytical Method: 350.1

		Batch QCMS Matrix Spike KQ1013694-25MS5			Batch QCDMS Duplicate Matrix Spike KQ1013694-25DMS5					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ammonia as Nitrogen	0.734	2.65	2.00	96	2.71	2.00	99	90 - 110	2	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/14/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Ammonia as Nitrogen	350.1	14.3	14.3	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/14/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS3			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Ammonia as Nitrogen	350.1	14.6	14.3	102	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Units:	mg/L
Analysis Method:	415.1	**Basis:**	NA

Carbon, Total Organic

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**2.06**		0.50	0.07	1	NA	12/16/10 18:42	
SPI-2-W-121310	K1013795-002	**3.05**		0.50	0.07	1	NA	12/16/10 18:42	
Method Blank	K1013795-MB1	ND	U	0.50	0.07	1	NA	12/16/10 18:42	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Date Analyzed:	12/16/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-121310	**Units:**	mg/L
Lab Code:	K1013795-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-121310DUP Duplicate Sample K1013795-001DUP3 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	2.06	2.08	2.07	1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/16/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: mg/L
Basis: NA

Analytical Method: 415.1

		SPI-1-W-121310MS Matrix Spike K1013795-001MS3			
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Carbon, Total Organic	2.06	28.3	25.0	105	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.
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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/16/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Carbon, Total Organic	415.1	26.6	26.0	102	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
Prep Method:	EPA 9030B Modified	**Units:**	mg/L
Analysis Method:	9030M	**Basis:**	NA

Sulfide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	ND	U	0.10	0.03	1	12/18/10	12/18/10 19:07	
SPI-2-W-121310	K1013795-002	ND	U	0.10	0.03	1	12/18/10	12/18/10 19:07	
Method Blank	K1013795-MB1	ND	U	0.10	0.03	1	12/18/10	12/18/10 19:07	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Date Analyzed:	12/18/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-121310	**Units:**	mg/L
Lab Code:	K1013795-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-121310DUP Duplicate Sample K1013795-001DUP3 Result	Average	RPD	RPD Limit
Sulfide, Total	9030M	0.10	0.03	ND U	ND U	NC	NC	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/18/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: mg/L
Basis: NA

Analytical Method: 9030M
Prep Method: EPA 9030B Modified

		SPI-1-W-121310MS Matrix Spike K1013795-001MS2			SPI-1-W-121310DMS Duplicate Matrix Spike K1013795-001DMS2					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfide, Total	ND	78.2	67.4	116	78.6	67.4	117	34 - 166	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/18/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Sulfide, Total	9030M	1.53	1.35	113	55 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Units:	µMHOS/cm
Analysis Method:	SM 2510 B	**Basis:**	NA

Conductivity at 25 Degrees Celsius

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**15.8**		2.0	0.4	1	NA	12/28/10 15:30	
Method Blank	K1013795-MB1	**1.5**	J	2.0	0.4	1	NA	12/28/10 15:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/28/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: KQ1014223-05

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample KQ1014223-05DUP7 Result	Average	RPD	RPD Limit
Conductivity at 25 Degrees Celsius	SM 2510 B	2.0	0.4	42600	42700	42600	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/28/10

Lab Control Sample Summary
General Chemistry Parameters

Units: µMHOS/cm
Basis: NA

		Lab Control Sample K1013795-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Conductivity at 25 Degrees Celsius	SM 2510 B	797	839	95	88 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Units:	mg/L
Analysis Method:	SM 2540 D	**Basis:**	NA

Solids, Total Suspended (TSS)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**28**		20	20	1	NA	12/15/10 09:00	
SPI-2-W-121310	K1013795-002	**72**		20	20	1	NA	12/15/10 09:00	
Method Blank	K1013795-MB1	ND	U	5.0	5.0	1	NA	12/15/10 09:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/15/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1013779-001

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1013779-001DUP2 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	8.0	7.5	7.75	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/15/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1013816-025

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1013816-025DUP4 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	41.5	34.0	37.8	20	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/15/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1013822-002

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1013822-002DUP5 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	5.5	ND U	NC	NC	20

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/15/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1013795-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	300	320	94	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
Prep Method:	SM 4500-CN-C	**Units:**	mg/L
Analysis Method:	SM 4500-CN- E	**Basis:**	NA

Cyanide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	ND	U	0.010	0.003	1	12/15/10	12/16/10 10:05	
SPI-2-W-121310	K1013795-002	ND	U	0.010	0.003	1	12/15/10	12/16/10 10:05	
Method Blank	K1013795-MB1	ND	U	0.010	0.003	1	12/15/10	12/16/10 10:05	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	12/16/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1013701-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1013701-001DUP1 Result	Average	RPD	RPD Limit
Cyanide, Total	SM 4500-CN- E	0.010	0.003	ND U	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA
Date Analyzed: 12/16/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1013701-001

Units: mg/L
Basis: NA

Analytical Method: SM 4500-CN- E
Prep Method: SM 4500-CN-C

		Batch QCMS Matrix Spike K1013701-001MS1			Batch QCDMS Duplicate Matrix Spike K1013701-001DMS1					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Total	ND	0.0884	0.100	88	0.102	0.100	102	23 - 148	14	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/16/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1013795-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Total	SM 4500-CN- E	0.705	0.73	97	84 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Cyanide, Ammenable to Chlorination

Prep Method:	Calculation	Units:	mg/L (ppm)
Analysis Method:	SM 4500-CN E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Prepped	Date Analyzed	Result	Result Notes
SPI-1-W-121310	K1013795-001	0.010	0.003	1	12/15/2010	12/16/2010	ND	
SPI-2-W-121310	K1013795-002	0.010	0.003	1	12/15/2010	12/16/2010	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10

Analysis Method: 9014

Units: mg/L
Basis: NA

Cyanide, Free

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	ND	U	0.010	0.010	1	NA	12/17/10 11:30	
SPI-2-W-121310	K1013795-002	ND	U	0.010	0.010	1	NA	12/17/10 11:30	
Method Blank	K1013795-MB1	ND	U	0.010	0.010	1	NA	12/17/10 11:30	

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/17/10

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-121310DUP Duplicate Sample K1013795-001DUP3 Result	Average	RPD	RPD Limit
Cyanide, Free	9014	0.010	0.010	ND U	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10
Date Analyzed: 12/17/10

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: mg/L
Basis: NA

Analytical Method: 9014

		SPI-1-W-121310MS Matrix Spike K1013795-001MS2				SPI-1-W-121310DMS Duplicate Matrix Spike K1013795-001DMS2						
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**		**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Free	ND	0.281	0.200	141	*	0.283	0.200	141	*	75 - 125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Analyzed: 12/17/10

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1013795-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Cyanide, Free	9014	0.138	0.155	89	85 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Metals

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10

Mercury, Total

Prep Method:	METHOD	Units:	ng/L
Analysis Method:	1631E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-1-W-121310	K1013795-001	1.0	0.06	1	12/14/10	12/15/10	4.95	
SPI-2-W-121310	K1013795-002	1.0	0.06	1	12/14/10	12/15/10	5.70	
Method Blank 1	K1013795-MB1	1.0	0.06	1	12/14/10	12/15/10	ND	
Method Blank 2	K1013795-MB2	1.0	0.06	1	12/14/10	12/15/10	0.08	J
Method Blank 3	K1013795-MB3	1.0	0.06	1	12/14/10	12/15/10	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
		Date Extracted:	12/14/10
		Date Analyzed:	12/15/10

Matrix Spike/Duplicate Matrix Spike Summary
Total Metals

Sample Name:	SPI-1-W-121310		Units:	ng/L
Lab Code:	K1013795-001MS,	K1013795-001DMS	Basis:	NA
Test Notes:				

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
Mercury	METHOD	1631E	1.0	25	25	4.95	25.0	26.5	80	86	71-125	6	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	12/15/10

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Initial)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	5.38	108	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	12/15/10

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Final)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	5.82	116	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	12/15/10

Quality Control Sample (QCS) Summary
Total Metals

Sample Name: Quality Control Sample

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	5.17	103	77-123	

Metals

Columbia Analytical Services

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INORGANIC ANALYSIS DATA PACKAGE

Client: PES Environmental
Project Name: Univar Portland Stormwater 2010
Project No.:

Service Request: K1013795

Sample Name:	Lab Code:
SPI-1-W-121310	K1013795-001
SPI-1-W-121310D	K1013795-001D
SPI-1-W-121310D	K1013795-001DDISS
SPI-1-W-121310	K1013795-001DISS
SPI-1-W-121310S	K1013795-001S
SPI-1-W-121310S	K1013795-001SDISS
SPI-2-W-121310	K1013795-002
SPI-2-W-121310	K1013795-002DISS
Method Blank	K1013795-MB

Comments:

Approved By: 3C **Date:** 1/7/11

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Date Collected:**	12/13/10
Project Name:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-121310 **Lab Code:** K1013795-001

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	01/06/11	01/07/11	638		
Antimony	200.8	0.05	0.02	1.0	12/20/10	12/27/10	1.87		
Arsenic	200.8	0.50	0.07	1.0	12/20/10	12/27/10	0.40	J	
Cadmium	200.8	0.020	0.005	1.0	01/06/11	01/07/11	0.264		
Chromium	200.8	0.20	0.04	1.0	12/20/10	12/27/10	0.99		
Copper	200.8	0.10	0.02	1.0	12/20/10	12/27/10	4.21		
Lead	200.8	0.020	0.005	1.0	01/06/11	01/07/11	3.730		
Manganese	200.8	0.05	0.01	1.0	12/20/10	12/27/10	16.0		
Molybdenum	200.8	0.050	0.008	1.0	12/20/10	12/27/10	0.476		
Nickel	200.8	0.20	0.03	1.0	12/20/10	12/27/10	1.20		
Selenium	200.8	1.0	0.3	1.0	12/20/10	12/27/10	0.3	J	
Silver	200.8	0.020	0.004	1.0	12/20/10	12/27/10	0.014	J	
Zinc	200.8	0.50	0.20	1.0	12/20/10	12/27/10	111		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Date Collected:**	12/13/10
Project Name:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-121310 **Lab Code:** K1013795-001DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	12/20/10	01/06/11	1040		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Date Collected:**	12/13/10
Project Name:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-121310 **Lab Code:** K1013795-002

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	01/06/11	01/07/11	342		
Antimony	200.8	0.05	0.02	1.0	12/20/10	12/27/10	1.20		
Arsenic	200.8	0.50	0.07	1.0	12/20/10	12/27/10	0.57		
Cadmium	200.8	0.020	0.005	1.0	01/06/11	01/07/11	0.182		
Chromium	200.8	0.20	0.04	1.0	12/20/10	12/27/10	0.95		
Copper	200.8	0.10	0.02	1.0	12/20/10	12/27/10	3.44		
Lead	200.8	0.020	0.005	1.0	01/06/11	01/07/11	2.260		
Manganese	200.8	0.05	0.01	1.0	12/20/10	12/27/10	33.1		
Molybdenum	200.8	0.050	0.008	1.0	12/20/10	12/27/10	0.638		
Nickel	200.8	0.20	0.03	1.0	12/20/10	12/27/10	1.35		
Selenium	200.8	1.0	0.3	1.0	12/20/10	12/27/10	0.3	U	
Silver	200.8	0.020	0.004	1.0	12/20/10	12/27/10	0.009	J	
Zinc	200.8	0.50	0.20	1.0	12/20/10	12/27/10	110		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Date Collected:**	12/13/10
Project Name:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-121310 **Lab Code:** K1013795-002DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	12/20/10	01/06/11	664		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: PES Environmental
Service Request: K1013795
Project No.: NA
Date Collected:
Project Name: Univar Portland Stormwater 2010
Date Received:
Matrix: WATER
Units: ug/L
Basis: NA

Sample Name: Method Blank
Lab Code: K1013795-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	01/06/11	01/07/11	0.3	U	
Antimony	200.8	0.05	0.02	1.0	12/20/10	12/27/10	0.05	J	
Arsenic	200.8	0.50	0.07	1.0	12/20/10	12/27/10	0.17	J	
Cadmium	200.8	0.020	0.005	1.0	01/06/11	01/07/11	0.005	U	
Chromium	200.8	0.20	0.04	1.0	12/20/10	12/27/10	0.04	U	
Copper	200.8	0.10	0.02	1.0	12/20/10	12/27/10	0.02	U	
Iron	200.7	10.0	3.0	1.0	12/20/10	01/06/11	3.0	U	
Lead	200.8	0.020	0.005	1.0	01/06/11	01/07/11	0.005	U	
Manganese	200.8	0.05	0.01	1.0	12/20/10	12/27/10	0.02	J	
Molybdenum	200.8	0.050	0.008	1.0	12/20/10	12/27/10	0.011	J	
Nickel	200.8	0.20	0.03	1.0	12/20/10	12/27/10	0.03	U	
Selenium	200.8	1.0	0.3	1.0	12/20/10	12/27/10	0.3	U	
Silver	200.8	0.020	0.004	1.0	12/20/10	12/27/10	0.004	U	
Zinc	200.8	0.50	0.20	1.0	12/20/10	12/27/10	0.20	U	

% Solids: 0.0

Comments:

Columbia Analytical Services

Metals

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SPIKE SAMPLE RECOVERY

Client: PES Environmental

Service Request: K1013795

Project No.: NA

Units: UG/L

Project Name: Univar Portland Stormwater 2010

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: SPI-1-W-121310S

Lab Code: K1013795-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum		621		638		20.00	-85.0		200.8
Antimony	70 - 130	21.0		1.87		20.00	95.6		200.8
Arsenic	70 - 130	21.2		0.40	J	20.00	104.0		200.8
Cadmium	70 - 130	20.6		0.264		20.00	101.7		200.8
Chromium	70 - 130	21.9		0.99		20.00	104.6		200.8
Copper	70 - 130	25.4		4.21		20.00	106.0		200.8
Lead	70 - 130	24.1		3.730		20.00	101.8		200.8
Manganese	70 - 130	37.7		16.0		20.00	108.5		200.8
Molybdenum	70 - 130	20.6		0.476		20.00	100.6		200.8
Nickel	70 - 130	22.1		1.20		20.00	104.5		200.8
Selenium	70 - 130	21.6		0.3	J	20.00	106.5		200.8
Silver	70 - 130	18.7		0.014	J	20.00	93.4		200.8
Zinc		130		111		20.00	95.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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SPIKE SAMPLE RECOVERY

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Units:**	UG/L
Project Name:	Univar Portland Stormwater 2010	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: SPI-1-W-121310S **Lab Code:** K1013795-001SDISS

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Iron	70 - 130	2090		1040		1000.00	105.0		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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DUPLICATES

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Units:**	UG/L
Project Name:	Univar Portland Stormwater 2010	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: SPI-1-W-121310D **Lab Code:** K1013795-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	20	638		579		9.7		200.8
Antimony	20	1.87		1.89		1.1		200.8
Arsenic		0.40	J	0.42	J	4.9		200.8
Cadmium	20	0.264		0.252		4.7		200.8
Chromium		0.99		1.20		19.2		200.8
Copper	20	4.21		4.54		7.5		200.8
Lead	20	3.730		3.540		5.2		200.8
Manganese	20	16.0		17.4		8.4		200.8
Molybdenum	20	0.476		0.528		10.4		200.8
Nickel	20	1.20		1.43		17.5		200.8
Selenium		0.3	J	0.3	U	200.0		200.8
Silver		0.014	J	0.018	J	25.0		200.8
Zinc	20	111		113		1.8		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

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DUPLICATES

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Units:**	UG/L
Project Name:	Univar Portland Stormwater 2010	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: SPI-1-W-121310D **Lab Code:** K1013795-001DDISS

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	20	1040		1080		3.8		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

LABORATORY CONTROL SAMPLE

Client: PES Environmental **Service Request:** K1013795

Project No.: NA

Project Name: Univar Portland Stormwater 2010

Aqueous LCS Source: Inorganic Ventures **Solid LCS Source:**

Analyte	Aqueous: ug/L			Solid: mg/kg				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	20	20.8	104.0					
Antimony	20	20.6	103.0					
Arsenic	20	20.5	102.5					
Cadmium	20	20.5	102.5					
Chromium	20	20.5	102.5					
Copper	20	20.9	104.5					
Iron	2500	2520	100.8					
Lead	20	20.5	102.5					
Manganese	20	20.4	102.0					
Molybdenum	20	20.3	101.5					
Nickel	20	20.5	102.5					
Selenium	20	20.9	104.5					
Silver	20	19.1	95.5					
Zinc	20	20.6	103.0					

Diesel and Residual Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Diesel and Residual Range Organics

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**220**	H	110	12	1	12/17/10	12/22/10	KWG1013973	
Residual Range Organics (RRO)	**440**	O	110	20	1	12/17/10	12/22/10	KWG1013973	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	50-150	12/22/10	Acceptable
n-Triacontane	79	50-150	12/22/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Diesel and Residual Range Organics

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**330**	H	110	12	1	12/17/10	12/22/10	KWG1013973	
Residual Range Organics (RRO)	**820**	O	110	20	1	12/17/10	12/22/10	KWG1013973	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	76	50-150	12/22/10	Acceptable
n-Triacontane	75	50-150	12/22/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1013973-3	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**12**	J	100	11	1	12/17/10	12/22/10	KWG1013973	
Residual Range Organics (RRO)	**31**	J	100	19	1	12/17/10	12/22/10	KWG1013973	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	76	50-150	12/22/10	Acceptable
n-Triacontane	76	50-150	12/22/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: Method
Analysis Method: NWTPH-Dx

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-1-W-121310	K1013795-001	81	79
SPI-2-W-121310	K1013795-002	76	75
SPI-1-W-121310DUP	KWG1013973-1	79	76
Method Blank	KWG1013973-3	76	76
Lab Control Sample	KWG1013973-2	94	88

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	50-150
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/17/2010
Sample Matrix:	Water	**Date Analyzed:**	12/22/2010

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1013973

Analyte Name	MRL	MDL	Sample Result	SPI-1-W-121310DUP KWG1013973-1 Duplicate Sample Result	Average	Relative Percent Difference	RPD Limit
Diesel Range Organics (DRO)	110	12	220	290	260	27	30
Residual Range Organics (RRO)	110	21	440	570	500	27	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/17/2010
Sample Matrix:	Water	**Date Analyzed:**	12/22/2010

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	Method	**Units:**	ug/L
Analysis Method:	NWTPH-Dx	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1013973

	Lab Control Sample KWG1013973-2 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	2960	3200	92	46-140
Residual Range Organics (RRO)	1380	1600	86	45-159

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Organochlorine Pesticides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Organochlorine Pesticides

Sample Name:	SPI-1-W-121310	**Units:**	ng/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	2.5	1.1	5	12/16/10	01/22/11	KWG1100123	
Hexachlorobenzene	ND	U	2.5	1.4	5	12/16/10	01/22/11	KWG1100123	
beta-BHC	ND	U	2.5	2.1	5	12/16/10	01/22/11	KWG1100123	
gamma-BHC (Lindane)	ND	U	2.5	2.4	5	12/16/10	01/22/11	KWG1100123	
delta-BHC	ND	U	2.5	0.70	5	12/16/10	01/22/11	KWG1100123	
Heptachlor	ND	Ui	2.5	2.0	5	12/16/10	01/22/11	KWG1100123	
Aldrin	ND	U	2.5	1.7	5	12/16/10	01/22/11	KWG1100123	
Heptachlor Epoxide	ND	U	2.5	1.1	5	12/16/10	01/22/11	KWG1100123	
gamma-Chlordane†	ND	U	2.5	1.6	5	12/16/10	01/22/11	KWG1100123	
Endosulfan I	ND	U	2.5	1.3	5	12/16/10	01/22/11	KWG1100123	
alpha-Chlordane	ND	U	2.5	1.4	5	12/16/10	01/22/11	KWG1100123	
Dieldrin	ND	U	2.5	1.9	5	12/16/10	01/22/11	KWG1100123	
4,4'-DDE	ND	U	2.5	0.95	5	12/16/10	01/22/11	KWG1100123	
Endrin	ND	U	2.5	2.5	5	12/16/10	01/22/11	KWG1100123	
Endosulfan II	ND	U	2.5	1.8	5	12/16/10	01/22/11	KWG1100123	
4,4'-DDD	ND	Ui	2.5	2.0	5	12/16/10	01/22/11	KWG1100123	
Endrin Aldehyde	**6.2**	D	2.5	1.1	5	12/16/10	01/22/11	KWG1100123	
Endosulfan Sulfate	ND	Ui	7.0	7.0	5	12/16/10	01/22/11	KWG1100123	
4,4'-DDT	ND	Ui	11	11	5	12/16/10	01/22/11	KWG1100123	
Endrin Ketone	ND	U	2.5	1.6	5	12/16/10	01/22/11	KWG1100123	
Methoxychlor	ND	Ui	3.9	3.9	5	12/16/10	01/22/11	KWG1100123	
Toxaphene	ND	Ui	260	260	5	12/16/10	01/22/11	KWG1100123	*
Chlordane	ND	Ui	49	31	5	12/16/10	01/22/11	KWG1100123	
Oxychlordane	ND	Ui	2.5	1.5	5	12/16/10	01/22/11	KWG1100123	
2,4'-DDE	ND	U	2.5	1.3	5	12/16/10	01/22/11	KWG1100123	
cis-Nonachlor	ND	Ui	3.1	3.1	5	12/16/10	01/22/11	KWG1100123	
2,4'-DDD	ND	Ui	2.5	1.6	5	12/16/10	01/22/11	KWG1100123	
trans-Nonachlor	ND	U	2.5	0.55	5	12/16/10	01/22/11	KWG1100123	
2,4'-DDT	ND	Ui	2.5	2.5	5	12/16/10	01/22/11	KWG1100123	

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Organochlorine Pesticides

Sample Name:	SPI-1-W-121310	**Units:**	ng/L
Lab Code:	K1013795-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	53	20-102	01/22/11	Acceptable
Decachlorobiphenyl	89	35-128	01/22/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Organochlorine Pesticides

Sample Name:	SPI-2-W-121310	**Units:**	ng/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	Ui	2.5	1.5	5	12/16/10	01/22/11	KWG1100123	
Hexachlorobenzene	ND	U	2.5	1.4	5	12/16/10	01/22/11	KWG1100123	
beta-BHC	ND	U	2.5	2.1	5	12/16/10	01/22/11	KWG1100123	
gamma-BHC (Lindane)	ND	U	2.5	2.4	5	12/16/10	01/22/11	KWG1100123	
delta-BHC	ND	U	2.5	0.70	5	12/16/10	01/22/11	KWG1100123	
Heptachlor	ND	Ui	2.5	1.4	5	12/16/10	01/22/11	KWG1100123	
Aldrin	ND	U	2.5	1.7	5	12/16/10	01/22/11	KWG1100123	
Heptachlor Epoxide	ND	U	2.5	1.1	5	12/16/10	01/22/11	KWG1100123	
gamma-Chlordane†	ND	U	2.5	1.6	5	12/16/10	01/22/11	KWG1100123	
Endosulfan I	ND	U	2.5	1.3	5	12/16/10	01/22/11	KWG1100123	
alpha-Chlordane	ND	U	2.5	1.4	5	12/16/10	01/22/11	KWG1100123	
Dieldrin	ND	U	2.5	1.9	5	12/16/10	01/22/11	KWG1100123	
4,4'-DDE	ND	U	2.5	0.95	5	12/16/10	01/22/11	KWG1100123	
Endrin	ND	U	2.5	2.5	5	12/16/10	01/22/11	KWG1100123	
Endosulfan II	ND	U	2.5	1.8	5	12/16/10	01/22/11	KWG1100123	
4,4'-DDD	ND	Ui	3.5	3.5	5	12/16/10	01/22/11	KWG1100123	
Endrin Aldehyde	**4.3**	PD	2.5	1.1	5	12/16/10	01/22/11	KWG1100123	
Endosulfan Sulfate	ND	Ui	2.7	2.7	5	12/16/10	01/22/11	KWG1100123	
4,4'-DDT	ND	Ui	11	11	5	12/16/10	01/22/11	KWG1100123	
Endrin Ketone	ND	U	2.5	1.6	5	12/16/10	01/22/11	KWG1100123	
Methoxychlor	ND	Ui	2.9	2.9	5	12/16/10	01/22/11	KWG1100123	
Toxaphene	ND	Ui	210	210	5	12/16/10	01/22/11	KWG1100123	*
Chlordane	ND	U	49	29	5	12/16/10	01/22/11	KWG1100123	
Oxychlordane	ND	Ui	2.5	0.47	5	12/16/10	01/22/11	KWG1100123	
2,4'-DDE	ND	U	2.5	1.3	5	12/16/10	01/22/11	KWG1100123	
cis-Nonachlor	ND	Ui	2.5	2.4	5	12/16/10	01/22/11	KWG1100123	
2,4'-DDD	ND	Ui	2.5	2.1	5	12/16/10	01/22/11	KWG1100123	
trans-Nonachlor	ND	U	2.5	0.55	5	12/16/10	01/22/11	KWG1100123	
2,4'-DDT	ND	Ui	2.5	2.5	5	12/16/10	01/22/11	KWG1100123	

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Organochlorine Pesticides

Sample Name:	SPI-2-W-121310	**Units:**	ng/L
Lab Code:	K1013795-002	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	52	20-102	01/22/11	Acceptable
Decachlorobiphenyl	89	35-128	01/22/11	Acceptable

† **Analyte Comments**

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1100123-9	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.49	0.21	1	12/16/10	01/04/11	KWG1100123	
Hexachlorobenzene	ND	U	0.49	0.27	1	12/16/10	01/04/11	KWG1100123	
beta-BHC	ND	U	0.49	0.41	1	12/16/10	01/04/11	KWG1100123	
gamma-BHC (Lindane)	ND	U	0.49	0.47	1	12/16/10	01/04/11	KWG1100123	
delta-BHC	ND	U	0.49	0.14	1	12/16/10	01/04/11	KWG1100123	
Heptachlor	ND	U	0.49	0.18	1	12/16/10	01/04/11	KWG1100123	
Aldrin	ND	U	0.49	0.33	1	12/16/10	01/04/11	KWG1100123	
Heptachlor Epoxide	ND	U	0.49	0.21	1	12/16/10	01/04/11	KWG1100123	
gamma-Chlordane†	ND	U	0.49	0.31	1	12/16/10	01/04/11	KWG1100123	
Endosulfan I	ND	U	0.49	0.25	1	12/16/10	01/04/11	KWG1100123	
alpha-Chlordane	ND	U	0.49	0.27	1	12/16/10	01/04/11	KWG1100123	
Dieldrin	ND	U	0.49	0.37	1	12/16/10	01/04/11	KWG1100123	
4,4'-DDE	ND	U	0.49	0.19	1	12/16/10	01/04/11	KWG1100123	
Endrin	ND	U	0.49	0.49	1	12/16/10	01/04/11	KWG1100123	
Endosulfan II	ND	Ui	0.49	0.36	1	12/16/10	01/04/11	KWG1100123	
4,4'-DDD	ND	U	0.49	0.21	1	12/16/10	01/04/11	KWG1100123	
Endrin Aldehyde	ND	U	0.49	0.21	1	12/16/10	01/04/11	KWG1100123	
Endosulfan Sulfate	ND	U	0.49	0.28	1	12/16/10	01/04/11	KWG1100123	
4,4'-DDT	ND	U	0.49	0.17	1	12/16/10	01/04/11	KWG1100123	
Endrin Ketone	ND	U	0.49	0.32	1	12/16/10	01/04/11	KWG1100123	
Methoxychlor	ND	U	0.49	0.44	1	12/16/10	01/04/11	KWG1100123	
Toxaphene	ND	Ui	29	29	1	12/16/10	01/04/11	KWG1100123	*
Chlordane	ND	U	9.8	5.8	1	12/16/10	01/04/11	KWG1100123	
Oxychlordane	ND	U	0.49	0.069	1	12/16/10	01/04/11	KWG1100123	
2,4'-DDE	ND	Ui	0.49	0.28	1	12/16/10	01/04/11	KWG1100123	
cis-Nonachlor	ND	U	0.49	0.14	1	12/16/10	01/04/11	KWG1100123	
2,4'-DDD	ND	U	0.49	0.068	1	12/16/10	01/04/11	KWG1100123	
trans-Nonachlor	ND	U	0.49	0.11	1	12/16/10	01/04/11	KWG1100123	
2,4'-DDT	ND	U	0.49	0.13	1	12/16/10	01/04/11	KWG1100123	

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1100123-9	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	61	20-102	01/04/11	Acceptable
Decachlorobiphenyl	89	35-128	01/04/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Organochlorine Pesticides

Extraction Method: EPA 3535A
Analysis Method: 8081A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-1-W-121310	K1013795-001	53 D	89 D
SPI-2-W-121310	K1013795-002	52 D	89 D
Method Blank	KWG1100123-9	61	89
Lab Control Sample	KWG1100123-1	58	84
Duplicate Lab Control Sample	KWG1100123-2	49	76

Surrogate Recovery Control Limits (%)

Sur1 =	Tetrachloro-m-xylene	20-102
Sur2 =	Decachlorobiphenyl	35-128

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/16/2010
Sample Matrix:	Water	**Date Analyzed:**	01/04/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Organochlorine Pesticides

Extraction Method:	EPA 3535A	**Units:**	ng/L
Analysis Method:	8081A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1100123

	Lab Control Sample KWG1100123-1 Lab Control Spike			Duplicate Lab Control Sample KWG1100123-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	7.26	10.0	73	6.42	10.0	64	36-122	12	30
Hexachlorobenzene	6.53	10.0	65	5.85	10.0	59	31-95	11	30
beta-BHC	8.22	10.0	82	7.30	10.0	73	42-125	12	30
gamma-BHC (Lindane)	8.10	10.0	81	7.21	10.0	72	44-117	12	30
delta-BHC	7.79	10.0	78	6.97	10.0	70	48-123	11	30
Heptachlor	7.92	10.0	79	7.09	10.0	71	40-115	11	30
Aldrin	6.23	10.0	62	5.61	10.0	56	10-102	10	30
Heptachlor Epoxide	7.95	10.0	80	6.99	10.0	70	49-109	13	30
gamma-Chlordane	7.56	10.0	76	6.85	10.0	68	47-113	10	30
Endosulfan I	7.85	10.0	79	6.90	10.0	69	35-115	13	30
alpha-Chlordane	7.93	10.0	79	6.96	10.0	70	45-115	13	30
Dieldrin	8.00	10.0	80	7.03	10.0	70	50-115	13	30
4,4'-DDE	7.81	10.0	78	7.16	10.0	72	41-116	9	30
Endrin	7.85	10.0	78	6.98	10.0	70	48-126	12	30
Endosulfan II	8.18	10.0	82	7.18	10.0	72	28-128	13	30
4,4'-DDD	8.19	10.0	82	7.43	10.0	74	33-132	10	30
Endrin Aldehyde	7.45	10.0	75	6.71	10.0	67	27-104	10	30
Endosulfan Sulfate	8.06	10.0	81	7.04	10.0	70	38-118	14	30
4,4'-DDT	8.34	10.0	83	7.72	10.0	77	42-143	8	30
Endrin Ketone	9.11	10.0	91	7.92	10.0	79	30-124	14	30
Methoxychlor	8.13	10.0	81	7.60	10.0	76	43-143	7	30
Toxaphene	257	200	129	298	200	149 *	36-137	15	30
Chlordane	87.7	100	88	103	100	103	45-148	16	30
Oxychlordane	7.03	10.0	70	7.03	10.0	70	40-126	0	30
2,4'-DDE	7.20	10.0	72	7.32	10.0	73	29-126	2	30
cis-Nonachlor	7.14	10.0	71	7.22	10.0	72	42-125	1	30
2,4'-DDD	7.64	10.0	76	7.09	10.0	71	51-112	7	30
trans-Nonachlor	7.10	10.0	71	7.01	10.0	70	47-123	1	30
2,4'-DDT	7.47	10.0	75	7.37	10.0	74	51-117	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Congener Specific PCBs

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Congener Specific PCBs

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: ng/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	5.9	0.99	1	12/20/10	12/24/10	KWG1014093	
PCB 18	**2.7**	BJP	5.9	0.88	1	12/20/10	12/24/10	KWG1014093	
PCB 28	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 44	ND	U	5.9	0.37	1	12/20/10	12/24/10	KWG1014093	
PCB 52	ND	U	5.9	0.38	1	12/20/10	12/24/10	KWG1014093	
PCB 66	ND	U	5.9	0.36	1	12/20/10	12/24/10	KWG1014093	
PCB 87	ND	Ui	5.9	0.64	1	12/20/10	12/24/10	KWG1014093	
PCB 101	ND	Ui	5.9	5.9	1	12/20/10	12/24/10	KWG1014093	
PCB 114	ND	U	5.9	0.24	1	12/20/10	12/24/10	KWG1014093	
PCB 123	ND	U	5.9	0.23	1	12/20/10	12/24/10	KWG1014093	
PCB 138	**0.80**	J	5.9	0.73	1	12/20/10	12/24/10	KWG1014093	
PCB 156	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 167	ND	U	5.9	0.35	1	12/20/10	12/24/10	KWG1014093	
PCB 180	**0.71**	JP	5.9	0.44	1	12/20/10	12/24/10	KWG1014093	
PCB 183	ND	U	5.9	0.91	1	12/20/10	12/24/10	KWG1014093	
PCB 184	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 187	ND	Ui	5.9	0.50	1	12/20/10	12/24/10	KWG1014093	
PCB 189	ND	U	5.9	0.28	1	12/20/10	12/24/10	KWG1014093	
PCB 195	ND	U	5.9	0.39	1	12/20/10	12/24/10	KWG1014093	
PCB 206	ND	U	5.9	0.65	1	12/20/10	12/24/10	KWG1014093	
PCB 209	ND	U	5.9	0.57	1	12/20/10	12/24/10	KWG1014093	
PCB 60	**2.9**	J	5.9	0.46	1	12/20/10	12/24/10	KWG1014093	
PCB 77	ND	U	5.9	0.35	1	12/20/10	12/24/10	KWG1014093	
PCB 81	**1.4**	J	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 90	ND	Ui	5.9	0.42	1	12/20/10	12/24/10	KWG1014093	
PCB 105	**0.76**	JP	5.9	0.32	1	12/20/10	12/24/10	KWG1014093	
PCB 118	ND	Ui	5.9	0.64	1	12/20/10	12/24/10	KWG1014093	
PCB 126	ND	U	5.9	0.44	1	12/20/10	12/24/10	KWG1014093	
PCB 128	ND	U	5.9	0.68	1	12/20/10	12/24/10	KWG1014093	
PCB 153	ND	Ui	5.9	0.91	1	12/20/10	12/24/10	KWG1014093	
PCB 157	ND	U	5.9	0.16	1	12/20/10	12/24/10	KWG1014093	
PCB 158	**1.5**	J	5.9	0.36	1	12/20/10	12/24/10	KWG1014093	
PCB 166	ND	U	5.9	0.39	1	12/20/10	12/24/10	KWG1014093	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Congener Specific PCBs

Sample Name:	SPI-1-W-121310	**Units:**	ng/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 170	**0.33**	JP	5.9	0.15	1	12/20/10	12/24/10	KWG1014093	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	88	26-100	12/24/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Congener Specific PCBs

Sample Name: SPI-2-W-121310
Lab Code: K1013795-002

Units: ng/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	Ui	5.0	5.0	1	12/20/10	12/24/10	KWG1014093	
PCB 18	ND	Ui	56	56	1	12/20/10	12/24/10	KWG1014093	
PCB 28	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 44	ND	U	5.0	0.31	1	12/20/10	12/24/10	KWG1014093	
PCB 52	ND	Ui	5.0	0.81	1	12/20/10	12/24/10	KWG1014093	
PCB 66	ND	U	5.0	0.30	1	12/20/10	12/24/10	KWG1014093	
PCB 87	ND	Ui	5.0	2.7	1	12/20/10	12/24/10	KWG1014093	
PCB 101	ND	Ui	5.0	1.9	1	12/20/10	12/24/10	KWG1014093	
PCB 114	ND	U	5.0	0.20	1	12/20/10	12/24/10	KWG1014093	
PCB 123	ND	U	5.0	0.19	1	12/20/10	12/24/10	KWG1014093	
PCB 138	ND	U	5.0	0.62	1	12/20/10	12/24/10	KWG1014093	
PCB 156	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 167	ND	U	5.0	0.29	1	12/20/10	12/24/10	KWG1014093	
PCB 180	ND	Ui	5.0	0.62	1	12/20/10	12/24/10	KWG1014093	
PCB 183	ND	U	5.0	0.77	1	12/20/10	12/24/10	KWG1014093	
PCB 184	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 187	ND	Ui	5.0	5.0	1	12/20/10	12/24/10	KWG1014093	
PCB 189	ND	U	5.0	0.23	1	12/20/10	12/24/10	KWG1014093	
PCB 195	ND	U	5.0	0.33	1	12/20/10	12/24/10	KWG1014093	
PCB 206	ND	U	5.0	0.55	1	12/20/10	12/24/10	KWG1014093	
PCB 209	ND	U	5.0	0.48	1	12/20/10	12/24/10	KWG1014093	
PCB 60	ND	Ui	5.0	0.98	1	12/20/10	12/24/10	KWG1014093	
PCB 77	ND	U	5.0	0.29	1	12/20/10	12/24/10	KWG1014093	
PCB 81	**0.42**	JP	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 90	ND	Ui	5.0	1.5	1	12/20/10	12/24/10	KWG1014093	
PCB 105	ND	U	5.0	0.27	1	12/20/10	12/24/10	KWG1014093	
PCB 118	ND	Ui	5.0	0.22	1	12/20/10	12/24/10	KWG1014093	
PCB 126	ND	U	5.0	0.37	1	12/20/10	12/24/10	KWG1014093	
PCB 128	ND	U	5.0	0.57	1	12/20/10	12/24/10	KWG1014093	
PCB 153	ND	Ui	5.0	0.54	1	12/20/10	12/24/10	KWG1014093	
PCB 157	ND	U	5.0	0.13	1	12/20/10	12/24/10	KWG1014093	
PCB 158	ND	Ui	5.0	1.2	1	12/20/10	12/24/10	KWG1014093	
PCB 166	ND	Ui	5.0	2.9	1	12/20/10	12/24/10	KWG1014093	

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Congener Specific PCBs

Sample Name: SPI-2-W-121310
Lab Code: K1013795-002

Units: ng/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 170	ND	U	5.0	0.12	1	12/20/10	12/24/10	KWG1014093	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	73	26-100	12/24/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Aqueous liquid

Service Request: K1013795
Date Collected: NA
Date Received: NA

Congener Specific PCBs

Sample Name: Method Blank
Lab Code: KWG1014093-3

Units: ng/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	5.0	0.84	1	12/20/10	12/24/10	KWG1014093	
PCB 18	**7.1**		5.0	0.74	1	12/20/10	12/24/10	KWG1014093	
PCB 28	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 44	ND	U	5.0	0.31	1	12/20/10	12/24/10	KWG1014093	
PCB 52	ND	U	5.0	0.32	1	12/20/10	12/24/10	KWG1014093	
PCB 66	ND	U	5.0	0.30	1	12/20/10	12/24/10	KWG1014093	
PCB 87	ND	U	5.0	0.35	1	12/20/10	12/24/10	KWG1014093	
PCB 101	ND	U	5.0	0.25	1	12/20/10	12/24/10	KWG1014093	
PCB 114	ND	U	5.0	0.20	1	12/20/10	12/24/10	KWG1014093	
PCB 123	ND	U	5.0	0.19	1	12/20/10	12/24/10	KWG1014093	
PCB 138	ND	U	5.0	0.62	1	12/20/10	12/24/10	KWG1014093	
PCB 156	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 167	ND	U	5.0	0.29	1	12/20/10	12/24/10	KWG1014093	
PCB 180	ND	U	5.0	0.37	1	12/20/10	12/24/10	KWG1014093	
PCB 183	ND	U	5.0	0.77	1	12/20/10	12/24/10	KWG1014093	
PCB 184	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 187	ND	U	5.0	0.27	1	12/20/10	12/24/10	KWG1014093	
PCB 189	ND	U	5.0	0.23	1	12/20/10	12/24/10	KWG1014093	
PCB 195	ND	U	5.0	0.33	1	12/20/10	12/24/10	KWG1014093	
PCB 206	ND	U	5.0	0.55	1	12/20/10	12/24/10	KWG1014093	
PCB 209	ND	U	5.0	0.48	1	12/20/10	12/24/10	KWG1014093	
PCB 60	ND	U	5.0	0.39	1	12/20/10	12/24/10	KWG1014093	
PCB 77	ND	U	5.0	0.29	1	12/20/10	12/24/10	KWG1014093	
PCB 81	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 90	ND	U	5.0	0.33	1	12/20/10	12/24/10	KWG1014093	
PCB 105	ND	U	5.0	0.27	1	12/20/10	12/24/10	KWG1014093	
PCB 118	ND	U	5.0	0.099	1	12/20/10	12/24/10	KWG1014093	
PCB 126	ND	U	5.0	0.37	1	12/20/10	12/24/10	KWG1014093	
PCB 128	ND	U	5.0	0.57	1	12/20/10	12/24/10	KWG1014093	
PCB 153	ND	U	5.0	0.48	1	12/20/10	12/24/10	KWG1014093	
PCB 157	ND	U	5.0	0.13	1	12/20/10	12/24/10	KWG1014093	
PCB 158	ND	U	5.0	0.30	1	12/20/10	12/24/10	KWG1014093	
PCB 166	ND	U	5.0	0.33	1	12/20/10	12/24/10	KWG1014093	

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Aqueous liquid

Service Request: K1013795
Date Collected: NA
Date Received: NA

Congener Specific PCBs

Sample Name: Method Blank
Lab Code: KWG1014093-3

Units: ng/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.0	0.34	1	12/20/10	12/24/10	KWG1014093	
PCB 170	ND	U	5.0	0.12	1	12/20/10	12/24/10	KWG1014093	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	65	26-100	12/24/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Congener Specific PCBs

Extraction Method: EPA 3520C
Analysis Method: 8082A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-W-121310	K1013795-001	88
SPI-2-W-121310	K1013795-002	73
Method Blank	KWG1014093-3	65
Lab Control Sample	KWG1014093-1	81
Duplicate Lab Control Sample	KWG1014093-2	76

Surrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene 26-100

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/20/2010
Sample Matrix:	Aqueous liquid	**Date Analyzed:**	12/24/2010

Lab Control Spike/Duplicate Lab Control Spike Summary
Congener Specific PCBs

Extraction Method:	EPA 3520C	**Units:**	ng/L
Analysis Method:	8082A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1014093

	Lab Control Sample KWG1014093-1 Lab Control Spike			Duplicate Lab Control Sample KWG1014093-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
PCB 8	104	100	104	94.6	100	95	44-127	9	30
PCB 18	84.1	100	84	84.8	100	85	39-118	1	30
PCB 28	103	100	103	97.5	100	97	54-139	5	30
PCB 44	95.0	100	95	81.6	100	82	53-124	15	30
PCB 52	90.8	100	91	77.9	100	78	48-111	15	30
PCB 66	107	100	107	94.0	100	94	51-118	13	30
PCB 87	96.0	100	96	89.9	100	90	52-112	7	30
PCB 114	91.4	100	91	79.5	100	80	50-125	14	30
PCB 123	97.9	100	98	84.6	100	85	49-126	15	30
PCB 138	94.8	100	95	83.2	100	83	49-118	13	30
PCB 156	97.3	100	97	86.9	100	87	54-137	11	30
PCB 167	101	100	101	93.0	100	93	45-124	8	30
PCB 180	104	100	104	90.9	100	91	55-137	14	30
PCB 183	88.7	100	89	82.5	100	83	43-130	7	30
PCB 184	95.8	100	96	96.2	100	96	53-118	0	30
PCB 187	105	100	105	113	100	113	55-117	7	30
PCB 189	98.8	100	99	88.4	100	88	54-130	11	30
PCB 195	104	100	104	91.0	100	91	52-126	13	30
PCB 206	93.6	100	94	83.3	100	83	53-123	12	30
PCB 209	112	100	112	96.5	100	97	53-124	15	30
PCB 60	88.0	100	88	76.2	100	76	42-185	14	30
PCB 77	83.1	100	83	77.0	100	77	33-149	8	30
PCB 81	90.5	100	90	85.4	100	85	22-161	6	30
PCB 90	82.9	100	83	83.6	100	84	37-180	1	30
PCB 105	91.1	100	91	85.2	100	85	43-135	7	30
PCB 118	87.3	100	87	76.1	100	76	47-135	14	30
PCB 126	97.4	100	97	84.5	100	85	44-135	14	30
PCB 128	88.3	100	88	71.0	100	71	37-129	22	30
PCB 153	87.4	100	87	74.4	100	74	29-133	16	30
PCB 157	90.2	100	90	79.4	100	79	27-153	13	30
PCB 158	97.3	100	97	85.2	100	85	24-158	13	30
PCB 169	91.7	100	92	79.5	100	79	32-161	14	30
PCB 170	95.6	100	96	82.5	100	82	36-135	15	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Chlorinated Herbicides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Chlorinated Herbicides

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.20	0.095	1	12/16/10	12/31/10	KWG1014256	*
Dicamba	ND	U	0.10	0.10	1	12/16/10	12/31/10	KWG1014256	
MCPP	ND	U	50	31	1	12/16/10	12/31/10	KWG1014256	
MCPA	ND	U	50	35	1	12/16/10	12/31/10	KWG1014256	
Dichlorprop	ND	U	0.20	0.060	1	12/16/10	12/31/10	KWG1014256	
2,4-D	ND	U	0.20	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-TP (Silvex)	ND	U	0.10	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-T	ND	U	0.10	0.058	1	12/16/10	12/31/10	KWG1014256	*
2,4-DB	ND	U	0.20	0.17	1	12/16/10	12/31/10	KWG1014256	
Dinoseb	ND	U	0.10	0.050	1	12/16/10	12/31/10	KWG1014256	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	57	10-136	12/31/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Chlorinated Herbicides

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.40	0.095	1	12/16/10	12/31/10	KWG1014256	*
Dicamba	ND	U	0.20	0.10	1	12/16/10	12/31/10	KWG1014256	
MCPP	ND	U	99	31	1	12/16/10	12/31/10	KWG1014256	
MCPA	ND	U	99	35	1	12/16/10	12/31/10	KWG1014256	
Dichlorprop	ND	U	0.40	0.060	1	12/16/10	12/31/10	KWG1014256	
2,4-D	ND	U	0.40	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-TP (Silvex)	ND	U	0.20	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-T	ND	U	0.20	0.058	1	12/16/10	12/31/10	KWG1014256	*
2,4-DB	ND	U	0.40	0.17	1	12/16/10	12/31/10	KWG1014256	
Dinoseb	ND	U	0.20	0.050	1	12/16/10	12/31/10	KWG1014256	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	68	10-136	12/31/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Chlorinated Herbicides

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1014256-3	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.20	0.095	1	12/16/10	12/31/10	KWG1014256	*
Dicamba	ND	U	0.10	0.10	1	12/16/10	12/31/10	KWG1014256	
MCPP	ND	U	50	31	1	12/16/10	12/31/10	KWG1014256	
MCPA	ND	U	50	35	1	12/16/10	12/31/10	KWG1014256	
Dichlorprop	ND	U	0.20	0.060	1	12/16/10	12/31/10	KWG1014256	
2,4-D	ND	U	0.20	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-TP (Silvex)	ND	U	0.10	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-T	ND	U	0.10	0.058	1	12/16/10	12/31/10	KWG1014256	*
2,4-DB	ND	U	0.20	0.17	1	12/16/10	12/31/10	KWG1014256	
Dinoseb	ND	U	0.10	0.050	1	12/16/10	12/31/10	KWG1014256	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	47	10-136	12/31/10	Acceptable

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Chlorinated Herbicides

Extraction Method: Method
Analysis Method: 8151A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-W-121310	K1013795-001	57
SPI-2-W-121310	K1013795-002	68
Method Blank	KWG1014256-3	47
Lab Control Sample	KWG1014256-1	58
Duplicate Lab Control Sample	KWG1014256-2	83

Surrogate Recovery Control Limits (%)

Sur1 = 2,4-Dichlorophenylacetic Acid 10-136

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Extracted: 12/16/2010
Date Analyzed: 12/31/2010

Lab Control Spike/Duplicate Lab Control Spike Summary
Chlorinated Herbicides

Extraction Method: Method
Analysis Method: 8151A

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1014256

	Lab Control Sample KWG1014256-1 Lab Control Spike			Duplicate Lab Control Sample KWG1014256-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Dalapon	0.404	1.25	32 *	0.696	1.25	56	40-114	53 *	30
Dicamba	0.825	1.25	66	0.924	1.25	74	62-107	11	30
MCPP	83.7	125	67	93.6	125	75	47-117	11	30
MCPA	66.0	125	53	73.5	125	59	47-113	11	30
Dichlorprop	0.777	1.25	62	0.814	1.25	65	58-107	5	30
2,4-D	0.865	1.25	69	0.935	1.25	75	53-106	8	30
2,4,5-TP (Silvex)	0.838	1.25	67	0.881	1.25	70	66-118	5	30
2,4,5-T	0.843	1.25	67 *	0.889	1.25	71	71-123	5	30
2,4-DB	0.539	1.25	43	0.571	1.25	46	40-133	6	30
Dinoseb	0.782	1.25	63	0.770	1.25	62	47-121	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Volatile Organic Compounds

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	12/23/10	12/23/10	KWG1014076	
Chloromethane	**0.21**	J	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
Vinyl Chloride	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Bromomethane	ND	U	0.50	0.090	1	12/23/10	12/23/10	KWG1014076	
Chloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Trichlorofluoromethane	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Acrolein	ND	U	50	0.96	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Acetone	**15**	J	20	3.3	1	12/23/10	12/23/10	KWG1014076	
Iodomethane	ND	U	5.0	0.11	1	12/23/10	12/23/10	KWG1014076	
Carbon Disulfide	**0.27**	J	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	*
Methylene Chloride	ND	U	2.0	0.17	1	12/23/10	12/23/10	KWG1014076	
Acrylonitrile	**1.2**	J	5.0	0.26	1	12/23/10	12/23/10	KWG1014076	
trans-1,2-Dichloroethene	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethane	ND	U	0.50	0.077	1	12/23/10	12/23/10	KWG1014076	
Vinyl Acetate	ND	U	5.0	0.43	1	12/23/10	12/23/10	KWG1014076	
2,2-Dichloropropane	ND	U	0.50	0.060	1	12/23/10	12/23/10	KWG1014076	
cis-1,2-Dichloroethene	**0.16**	J	0.50	0.067	1	12/23/10	12/23/10	KWG1014076	
2-Butanone (MEK)	**14**	J	20	1.9	1	12/23/10	12/23/10	KWG1014076	
Bromochloromethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Chloroform	ND	U	0.50	0.072	1	12/23/10	12/23/10	KWG1014076	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Carbon Tetrachloride	ND	U	0.50	0.096	1	12/23/10	12/23/10	KWG1014076	
Benzene	ND	U	0.50	0.054	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	12/23/10	12/23/10	KWG1014076	
Trichloroethene (TCE)	**0.11**	J	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloropropane	ND	U	0.50	0.095	1	12/23/10	12/23/10	KWG1014076	
Dibromomethane	ND	U	0.50	0.15	1	12/23/10	12/23/10	KWG1014076	
Bromodichloromethane	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	12/23/10	12/23/10	KWG1014076	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	12/23/10	12/23/10	KWG1014076	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	12/23/10	12/23/10	KWG1014076	
Toluene	**0.14**	J	0.50	0.052	1	12/23/10	12/23/10	KWG1014076	

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Volatile Organic Compounds

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	12/23/10	12/23/10	KWG1014076	
2-Hexanone	ND	U	20	2.7	1	12/23/10	12/23/10	KWG1014076	
1,3-Dichloropropane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Dibromochloromethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	12/23/10	12/23/10	KWG1014076	
Chlorobenzene	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Ethylbenzene	**0.14**	J	0.50	0.050	1	12/23/10	12/23/10	KWG1014076	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
m,p-Xylenes	**0.58**		0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
o-Xylene	**0.16**	J	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Styrene	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Bromoform	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Isopropylbenzene	ND	U	2.0	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	12/23/10	12/23/10	KWG1014076	
n-Propylbenzene	ND	U	2.0	0.53	1	12/23/10	12/23/10	KWG1014076	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	12/23/10	12/23/10	KWG1014076	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	12/23/10	12/23/10	KWG1014076	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	12/23/10	12/23/10	KWG1014076	
sec-Butylbenzene	ND	U	2.0	0.062	1	12/23/10	12/23/10	KWG1014076	
4-Isopropyltoluene	ND	U	2.0	0.051	1	12/23/10	12/23/10	KWG1014076	
n-Butylbenzene	ND	U	2.0	0.42	1	12/23/10	12/23/10	KWG1014076	
Naphthalene	ND	U	2.0	0.088	1	12/23/10	12/23/10	KWG1014076	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	83	73-122	12/23/10	Acceptable
Toluene-d8	79	78-129	12/23/10	Acceptable
4-Bromofluorobenzene	75	68-117	12/23/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Volatile Organic Compounds

Sample Name: SPI-2-W-121310
Lab Code: K1013795-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	12/23/10	12/23/10	KWG1014076	
Chloromethane	**0.10**	J	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
Vinyl Chloride	**0.35**	J	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Bromomethane	ND	U	0.50	0.090	1	12/23/10	12/23/10	KWG1014076	
Chloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Trichlorofluoromethane	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Acrolein	ND	U	50	0.96	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Acetone	**12**	J	20	3.3	1	12/23/10	12/23/10	KWG1014076	
Iodomethane	ND	U	5.0	0.11	1	12/23/10	12/23/10	KWG1014076	
Carbon Disulfide	**0.23**	J	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	*
Methylene Chloride	ND	U	2.0	0.17	1	12/23/10	12/23/10	KWG1014076	
Acrylonitrile	**0.44**	J	5.0	0.26	1	12/23/10	12/23/10	KWG1014076	
trans-1,2-Dichloroethene	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethane	**0.22**	J	0.50	0.077	1	12/23/10	12/23/10	KWG1014076	
Vinyl Acetate	ND	U	5.0	0.43	1	12/23/10	12/23/10	KWG1014076	
2,2-Dichloropropane	ND	U	0.50	0.060	1	12/23/10	12/23/10	KWG1014076	
cis-1,2-Dichloroethene	**2.1**		0.50	0.067	1	12/23/10	12/23/10	KWG1014076	
2-Butanone (MEK)	**9.5**	J	20	1.9	1	12/23/10	12/23/10	KWG1014076	
Bromochloromethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Chloroform	ND	U	0.50	0.072	1	12/23/10	12/23/10	KWG1014076	
1,1,1-Trichloroethane (TCA)	**0.72**		0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Carbon Tetrachloride	ND	U	0.50	0.096	1	12/23/10	12/23/10	KWG1014076	
Benzene	**0.060**	J	0.50	0.054	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	12/23/10	12/23/10	KWG1014076	
Trichloroethene (TCE)	**1.1**		0.50	0.10	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloropropane	ND	U	0.50	0.095	1	12/23/10	12/23/10	KWG1014076	
Dibromomethane	ND	U	0.50	0.15	1	12/23/10	12/23/10	KWG1014076	
Bromodichloromethane	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	12/23/10	12/23/10	KWG1014076	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	12/23/10	12/23/10	KWG1014076	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	12/23/10	12/23/10	KWG1014076	
Toluene	**0.49**	J	0.50	0.052	1	12/23/10	12/23/10	KWG1014076	

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Volatile Organic Compounds

Sample Name: SPI-2-W-121310
Lab Code: K1013795-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Tetrachloroethene (PCE)	**0.82**		0.50	0.099	1	12/23/10	12/23/10	KWG1014076	
2-Hexanone	ND	U	20	2.7	1	12/23/10	12/23/10	KWG1014076	
1,3-Dichloropropane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Dibromochloromethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	12/23/10	12/23/10	KWG1014076	
Chlorobenzene	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Ethylbenzene	**0.14**	J	0.50	0.050	1	12/23/10	12/23/10	KWG1014076	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
m,p-Xylenes	**0.39**	J	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
o-Xylene	**0.13**	J	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Styrene	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Bromoform	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Isopropylbenzene	ND	U	2.0	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	12/23/10	12/23/10	KWG1014076	
n-Propylbenzene	ND	U	2.0	0.53	1	12/23/10	12/23/10	KWG1014076	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	12/23/10	12/23/10	KWG1014076	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	12/23/10	12/23/10	KWG1014076	
1,2,4-Trimethylbenzene	**0.070**	J	2.0	0.069	1	12/23/10	12/23/10	KWG1014076	
sec-Butylbenzene	ND	U	2.0	0.062	1	12/23/10	12/23/10	KWG1014076	
4-Isopropyltoluene	ND	U	2.0	0.051	1	12/23/10	12/23/10	KWG1014076	
n-Butylbenzene	ND	U	2.0	0.42	1	12/23/10	12/23/10	KWG1014076	
Naphthalene	ND	U	2.0	0.088	1	12/23/10	12/23/10	KWG1014076	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	84	73-122	12/23/10	Acceptable
Toluene-d8	82	78-129	12/23/10	Acceptable
4-Bromofluorobenzene	76	68-117	12/23/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Volatile Organic Compounds

Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	K1013795-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	12/23/10	12/23/10	KWG1014076	
Chloromethane	**0.090**	J	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
Vinyl Chloride	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Bromomethane	ND	U	0.50	0.090	1	12/23/10	12/23/10	KWG1014076	
Chloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Trichlorofluoromethane	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Acrolein	ND	U	50	0.96	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Acetone	ND	U	20	3.3	1	12/23/10	12/23/10	KWG1014076	
Iodomethane	ND	U	5.0	0.11	1	12/23/10	12/23/10	KWG1014076	
Carbon Disulfide	ND	U	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	*
Methylene Chloride	**0.24**	J	2.0	0.17	1	12/23/10	12/23/10	KWG1014076	
Acrylonitrile	ND	U	5.0	0.26	1	12/23/10	12/23/10	KWG1014076	
trans-1,2-Dichloroethene	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethane	ND	U	0.50	0.077	1	12/23/10	12/23/10	KWG1014076	
Vinyl Acetate	ND	U	5.0	0.43	1	12/23/10	12/23/10	KWG1014076	
2,2-Dichloropropane	ND	U	0.50	0.060	1	12/23/10	12/23/10	KWG1014076	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	12/23/10	12/23/10	KWG1014076	
2-Butanone (MEK)	ND	U	20	1.9	1	12/23/10	12/23/10	KWG1014076	
Bromochloromethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Chloroform	ND	U	0.50	0.072	1	12/23/10	12/23/10	KWG1014076	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Carbon Tetrachloride	ND	U	0.50	0.096	1	12/23/10	12/23/10	KWG1014076	
Benzene	ND	U	0.50	0.054	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	12/23/10	12/23/10	KWG1014076	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloropropane	ND	U	0.50	0.095	1	12/23/10	12/23/10	KWG1014076	
Dibromomethane	ND	U	0.50	0.15	1	12/23/10	12/23/10	KWG1014076	
Bromodichloromethane	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	12/23/10	12/23/10	KWG1014076	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	12/23/10	12/23/10	KWG1014076	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	12/23/10	12/23/10	KWG1014076	
Toluene	ND	U	0.50	0.052	1	12/23/10	12/23/10	KWG1014076	

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Volatile Organic Compounds

Sample Name: Trip Blank
Lab Code: K1013795-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	12/23/10	12/23/10	KWG1014076	
2-Hexanone	ND	U	20	2.7	1	12/23/10	12/23/10	KWG1014076	
1,3-Dichloropropane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Dibromochloromethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	12/23/10	12/23/10	KWG1014076	
Chlorobenzene	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Ethylbenzene	ND	U	0.50	0.050	1	12/23/10	12/23/10	KWG1014076	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
m,p-Xylenes	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
o-Xylene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Styrene	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Bromoform	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Isopropylbenzene	ND	U	2.0	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	12/23/10	12/23/10	KWG1014076	
n-Propylbenzene	ND	U	2.0	0.53	1	12/23/10	12/23/10	KWG1014076	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	12/23/10	12/23/10	KWG1014076	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	12/23/10	12/23/10	KWG1014076	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	12/23/10	12/23/10	KWG1014076	
sec-Butylbenzene	ND	U	2.0	0.062	1	12/23/10	12/23/10	KWG1014076	
4-Isopropyltoluene	ND	U	2.0	0.051	1	12/23/10	12/23/10	KWG1014076	
n-Butylbenzene	ND	U	2.0	0.42	1	12/23/10	12/23/10	KWG1014076	
Naphthalene	ND	U	2.0	0.088	1	12/23/10	12/23/10	KWG1014076	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	87	73-122	12/23/10	Acceptable
Toluene-d8	80	78-129	12/23/10	Acceptable
4-Bromofluorobenzene	71	68-117	12/23/10	Acceptable

Comments

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1014076-3

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	12/23/10	12/23/10	KWG1014076	
Chloromethane	ND	U	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
Vinyl Chloride	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Bromomethane	ND	U	0.50	0.090	1	12/23/10	12/23/10	KWG1014076	
Chloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Trichlorofluoromethane	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Acrolein	ND	U	50	0.96	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Acetone	ND	U	20	3.3	1	12/23/10	12/23/10	KWG1014076	
Iodomethane	**0.12**	J	5.0	0.11	1	12/23/10	12/23/10	KWG1014076	
Carbon Disulfide	ND	U	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	*
Methylene Chloride	ND	U	2.0	0.17	1	12/23/10	12/23/10	KWG1014076	
Acrylonitrile	ND	U	5.0	0.26	1	12/23/10	12/23/10	KWG1014076	
trans-1,2-Dichloroethene	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethane	ND	U	0.50	0.077	1	12/23/10	12/23/10	KWG1014076	
Vinyl Acetate	ND	U	5.0	0.43	1	12/23/10	12/23/10	KWG1014076	
2,2-Dichloropropane	ND	U	0.50	0.060	1	12/23/10	12/23/10	KWG1014076	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	12/23/10	12/23/10	KWG1014076	
2-Butanone (MEK)	ND	U	20	1.9	1	12/23/10	12/23/10	KWG1014076	
Bromochloromethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Chloroform	ND	U	0.50	0.072	1	12/23/10	12/23/10	KWG1014076	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Carbon Tetrachloride	ND	U	0.50	0.096	1	12/23/10	12/23/10	KWG1014076	
Benzene	ND	U	0.50	0.054	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	12/23/10	12/23/10	KWG1014076	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloropropane	ND	U	0.50	0.095	1	12/23/10	12/23/10	KWG1014076	
Dibromomethane	ND	U	0.50	0.15	1	12/23/10	12/23/10	KWG1014076	
Bromodichloromethane	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	12/23/10	12/23/10	KWG1014076	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	12/23/10	12/23/10	KWG1014076	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	12/23/10	12/23/10	KWG1014076	
Toluene	ND	U	0.50	0.052	1	12/23/10	12/23/10	KWG1014076	

Comments

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1014076-3

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	12/23/10	12/23/10	KWG1014076	
2-Hexanone	ND	U	20	2.7	1	12/23/10	12/23/10	KWG1014076	
1,3-Dichloropropane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
Dibromochloromethane	ND	U	0.50	0.14	1	12/23/10	12/23/10	KWG1014076	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	12/23/10	12/23/10	KWG1014076	
Chlorobenzene	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Ethylbenzene	ND	U	0.50	0.050	1	12/23/10	12/23/10	KWG1014076	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
m,p-Xylenes	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
o-Xylene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Styrene	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Bromoform	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Isopropylbenzene	ND	U	2.0	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	12/23/10	12/23/10	KWG1014076	
n-Propylbenzene	ND	U	2.0	0.53	1	12/23/10	12/23/10	KWG1014076	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	12/23/10	12/23/10	KWG1014076	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	12/23/10	12/23/10	KWG1014076	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	12/23/10	12/23/10	KWG1014076	
sec-Butylbenzene	ND	U	2.0	0.062	1	12/23/10	12/23/10	KWG1014076	
4-Isopropyltoluene	ND	U	2.0	0.051	1	12/23/10	12/23/10	KWG1014076	
n-Butylbenzene	ND	U	2.0	0.42	1	12/23/10	12/23/10	KWG1014076	
Naphthalene	ND	U	2.0	0.088	1	12/23/10	12/23/10	KWG1014076	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	90	73-122	12/23/10	Acceptable
Toluene-d8	81	78-129	12/23/10	Acceptable
4-Bromofluorobenzene	72	68-117	12/23/10	Acceptable

Comments:

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
SPI-1-W-121310	K1013795-001	83	79	75
SPI-2-W-121310	K1013795-002	84	82	76
Trip Blank	K1013795-003	87	80	71
Batch QC	K1013945-020	85	81	73
Method Blank	KWG1014076-3	90	81	72
Batch QCMS	KWG1014076-4	84	88	80
Batch QCDMS	KWG1014076-5	85	87	82
Lab Control Sample	KWG1014076-1	87	87	81
Duplicate Lab Control Sample	KWG1014076-2	88	88	82

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	73-122
Sur2 =	Toluene-d8	78-129
Sur3 =	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Extracted: 12/23/2010
Date Analyzed: 12/23/2010

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: Batch QC
Lab Code: K1013945-020

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260B

Level: Low
Extraction Lot: KWG1014076

Analyte Name	Sample Result	Batch QCMS KWG1014076-4 Matrix Spike			Batch QCDMS KWG1014076-5 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	0.17	13.8	10.0	136	13.8	10.0	136	52-151	0	30
1,1-Dichloroethene	ND	12.0	10.0	120	11.9	10.0	119	67-147	0	30
Chloroform	ND	9.29	10.0	93	9.17	10.0	92	65-125	1	30
Carbon Tetrachloride	ND	10.1	10.0	101	9.64	10.0	96	56-143	5	30
Benzene	ND	9.89	10.0	99	9.89	10.0	99	69-126	0	30
Trichloroethene (TCE)	0.27	10.2	10.0	99	10.2	10.0	99	56-137	0	30
Bromodichloromethane	ND	8.65	10.0	87	8.38	10.0	84	69-131	3	30
Toluene	ND	9.94	10.0	99	9.99	10.0	100	66-128	1	30
1,1,2-Trichloroethane	ND	9.43	10.0	94	9.60	10.0	96	68-125	2	30
2-Hexanone	ND	49.3	50.0	99	48.8	50.0	98	44-135	1	30
Chlorobenzene	ND	9.21	10.0	92	9.41	10.0	94	68-120	2	30
Ethylbenzene	ND	10.1	10.0	101	10.2	10.0	102	65-126	2	30
1,2,3-Trichloropropane	ND	8.93	10.0	89	8.98	10.0	90	65-122	1	30
Naphthalene	ND	8.61	10.0	86	8.89	10.0	89	61-137	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Extracted: 12/23/2010
Date Analyzed: 12/23/2010

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1014076

	Lab Control Sample KWG1014076-1 Lab Control Spike			Duplicate Lab Control Sample KWG1014076-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Dichlorodifluoromethane	10.4	10.0	104	10.1	10.0	101	21-156	3	30
Chloromethane	10.7	10.0	107	10.6	10.0	106	45-135	1	30
Vinyl Chloride	12.0	10.0	120	12.0	10.0	120	59-135	0	30
Bromomethane	7.32	10.0	73	8.13	10.0	81	24-144	10	30
Chloroethane	10.9	10.0	109	10.8	10.0	108	60-128	2	30
Dichlorofluoromethane (CFC 21)	10.7	10.0	107	10.9	10.0	109	68-139	3	30
Trichlorofluoromethane	9.00	10.0	90	8.60	10.0	86	54-129	5	30
Acrolein	95.6	100	96	91.7	100	92	10-214	4	30
1,1-Dichloroethene	10.5	10.0	105	10.4	10.0	104	70-136	1	30
Acetone	50.2	50.0	100	52.5	50.0	105	53-129	4	30
Iodomethane	22.1	30.0	74	25.7	30.0	86	37-158	15	30
Carbon Disulfide	27.6	20.0	138 *	26.6	20.0	133 *	64-129	4	30
Methylene Chloride	8.66	10.0	87	8.79	10.0	88	64-137	1	30
Acrylonitrile	37.3	40.0	93	43.2	40.0	108	48-144	15	30
trans-1,2-Dichloroethene	9.02	10.0	90	8.92	10.0	89	70-121	1	30
1,1-Dichloroethane	9.15	10.0	92	9.09	10.0	91	72-122	1	30
Vinyl Acetate	48.1	50.0	96	55.0	50.0	110	10-193	14	30
2,2-Dichloropropane	10.5	10.0	105	10.0	10.0	100	48-133	4	30
cis-1,2-Dichloroethene	8.51	10.0	85	8.65	10.0	87	76-125	2	30
2-Butanone (MEK)	47.0	50.0	94	51.1	50.0	102	56-137	8	30
Bromochloromethane	8.54	10.0	85	8.35	10.0	84	72-123	2	30
Chloroform	8.65	10.0	87	8.58	10.0	86	71-118	1	30
1,1,1-Trichloroethane (TCA)	9.58	10.0	96	9.14	10.0	91	65-126	5	30
Carbon Tetrachloride	9.74	10.0	97	9.20	10.0	92	58-133	6	30
Benzene	8.68	10.0	87	8.79	10.0	88	74-118	1	30
1,2-Dichloroethane (EDC)	8.61	10.0	86	8.54	10.0	85	69-125	1	30
Trichloroethene (TCE)	8.74	10.0	87	8.63	10.0	86	71-122	1	30
1,2-Dichloropropane	8.43	10.0	84	8.48	10.0	85	73-123	1	30
Dibromomethane	8.11	10.0	81	8.36	10.0	84	71-124	3	30
Bromodichloromethane	8.72	10.0	87	8.69	10.0	87	72-127	0	30
2-Chloroethyl Vinyl Ether	9.12	10.0	91	10.1	10.0	101	10-192	10	30
cis-1,3-Dichloropropene	9.13	10.0	91	9.21	10.0	92	71-125	1	30
4-Methyl-2-pentanone (MIBK)	48.3	50.0	97	51.9	50.0	104	57-129	7	30
Toluene	8.69	10.0	87	8.69	10.0	87	74-117	0	30
trans-1,3-Dichloropropene	8.80	10.0	88	8.69	10.0	87	56-121	1	30
1,1,2-Trichloroethane	8.53	10.0	85	9.00	10.0	90	73-122	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Extracted: 12/23/2010
Date Analyzed: 12/23/2010

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260B

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1014076

	Lab Control Sample KWG1014076-1 Lab Control Spike			Duplicate Lab Control Sample KWG1014076-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Tetrachloroethene (PCE)	8.52	10.0	85	8.32	10.0	83	65-121	2	30
2-Hexanone	43.5	50.0	87	46.6	50.0	93	44-135	7	30
1,3-Dichloropropane	8.15	10.0	82	8.46	10.0	85	74-120	4	30
Dibromochloromethane	9.23	10.0	92	8.88	10.0	89	67-124	4	30
1,2-Dibromoethane (EDB)	8.07	10.0	81	8.43	10.0	84	71-120	4	30
Chlorobenzene	8.41	10.0	84	8.34	10.0	83	74-115	1	30
Ethylbenzene	8.97	10.0	90	8.91	10.0	89	71-118	1	30
1,1,1,2-Tetrachloroethane	8.41	10.0	84	8.47	10.0	85	71-118	1	30
m,p-Xylenes	18.0	20.0	90	18.0	20.0	90	73-119	0	30
o-Xylene	8.63	10.0	86	8.58	10.0	86	74-120	1	30
Styrene	8.74	10.0	87	8.67	10.0	87	75-123	1	30
Bromoform	9.14	10.0	91	9.05	10.0	91	57-135	1	30
Isopropylbenzene	9.74	10.0	97	9.56	10.0	96	65-110	2	30
1,1,2,2-Tetrachloroethane	8.15	10.0	82	8.85	10.0	89	63-126	8	30
trans-1,4-Dichloro-2-butene	37.5	30.0	125	45.4	30.0	151	28-174	19	30
n-Propylbenzene	9.26	10.0	93	9.34	10.0	93	69-122	1	30
1,2,3-Trichloropropane	8.30	10.0	83	8.72	10.0	87	67-123	5	30
1,3,5-Trimethylbenzene	9.51	10.0	95	9.57	10.0	96	70-120	1	30
1,2,4-Trimethylbenzene	9.22	10.0	92	9.43	10.0	94	72-121	2	30
sec-Butylbenzene	9.34	10.0	93	9.47	10.0	95	73-130	1	30
4-Isopropyltoluene	8.84	10.0	88	8.93	10.0	89	67-115	1	30
n-Butylbenzene	9.13	10.0	91	9.34	10.0	93	62-123	2	30
Naphthalene	7.56	10.0	76	8.27	10.0	83	58-132	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Semi-Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	11	2.3	5	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethyl) Ether	ND	U	1.1	0.19	5	12/16/10	01/11/11	KWG1013726	
Phenol	ND	U	2.7	0.34	5	12/16/10	01/11/11	KWG1013726	
2-Chlorophenol	ND	U	2.7	0.29	5	12/16/10	01/11/11	KWG1013726	
1,3-Dichlorobenzene	ND	U	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
1,4-Dichlorobenzene	ND	U	1.1	0.16	5	12/16/10	01/11/11	KWG1013726	
1,2-Dichlorobenzene	ND	U	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
Benzyl Alcohol	ND	U	2.7	0.39	5	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroisopropyl) Ether	ND	U	1.1	0.14	5	12/16/10	01/11/11	KWG1013726	
2-Methylphenol	ND	U	2.7	0.58	5	12/16/10	01/11/11	KWG1013726	
Hexachloroethane	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
N-Nitrosodi-n-propylamine	ND	U	1.1	0.20	5	12/16/10	01/11/11	KWG1013726	
4-Methylphenol†	ND	U	2.7	0.64	5	12/16/10	01/11/11	KWG1013726	
Nitrobenzene	ND	U	1.1	0.15	5	12/16/10	01/11/11	KWG1013726	
Isophorone	ND	U	1.1	0.085	5	12/16/10	01/11/11	KWG1013726	
2-Nitrophenol	ND	U	2.7	0.34	5	12/16/10	01/11/11	KWG1013726	
2,4-Dimethylphenol	ND	U	22	12	5	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethoxy)methane	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
2,4-Dichlorophenol	ND	U	2.7	0.25	5	12/16/10	01/11/11	KWG1013726	
Benzoic Acid	**6.5**	JD	27	5.8	5	12/16/10	01/11/11	KWG1013726	
1,2,4-Trichlorobenzene	ND	U	1.1	0.085	5	12/16/10	01/11/11	KWG1013726	
4-Chloroaniline	ND	U	1.1	0.14	5	12/16/10	01/11/11	KWG1013726	*
Hexachlorobutadiene	ND	U	1.1	0.15	5	12/16/10	01/11/11	KWG1013726	
4-Chloro-3-methylphenol	ND	U	2.7	0.20	5	12/16/10	01/11/11	KWG1013726	
Hexachlorocyclopentadiene	ND	U	5.3	1.0	5	12/16/10	01/11/11	KWG1013726	
2,4,6-Trichlorophenol	ND	U	2.7	0.31	5	12/16/10	01/11/11	KWG1013726	
2,4,5-Trichlorophenol	ND	U	2.7	0.17	5	12/16/10	01/11/11	KWG1013726	
2-Chloronaphthalene	ND	U	1.1	0.22	5	12/16/10	01/11/11	KWG1013726	
2-Nitroaniline	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
Dimethyl Phthalate	**0.18**	JD	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
2,6-Dinitrotoluene	ND	U	1.1	0.18	5	12/16/10	01/11/11	KWG1013726	
3-Nitroaniline	ND	U	5.3	0.16	5	12/16/10	01/11/11	KWG1013726	*
2,4-Dinitrophenol	ND	U	22	0.90	5	12/16/10	01/11/11	KWG1013726	

Comments:

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
4-Nitrophenol	ND	U	11	1.5	5	12/16/10	01/11/11	KWG1013726	
2,4-Dinitrotoluene	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
4-Chlorophenyl Phenyl Ether	ND	U	1.1	0.15	5	12/16/10	01/11/11	KWG1013726	
Diethyl Phthalate	**0.50**	JD	1.1	0.064	5	12/16/10	01/11/11	KWG1013726	
4-Nitroaniline	ND	U	5.3	0.10	5	12/16/10	01/11/11	KWG1013726	*
2-Methyl-4,6-dinitrophenol	ND	U	11	0.14	5	12/16/10	01/11/11	KWG1013726	
N-Nitrosodiphenylamine	ND	U	1.1	0.26	5	12/16/10	01/11/11	KWG1013726	
4-Bromophenyl Phenyl Ether	ND	U	1.1	0.14	5	12/16/10	01/11/11	KWG1013726	
Hexachlorobenzene	ND	U	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
Pentachlorophenol	ND	U	5.3	1.8	5	12/16/10	01/11/11	KWG1013726	
Carbazole	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
Di-n-butyl Phthalate	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
Butyl Benzyl Phthalate	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
3,3'-Dichlorobenzidine	ND	U	11	2.3	5	12/16/10	01/11/11	KWG1013726	*
Bis(2-ethylhexyl) Phthalate	**2.0**	JD	5.3	0.69	5	12/16/10	01/11/11	KWG1013726	
Di-n-octyl Phthalate	ND	U	5.3	0.48	25	12/16/10	01/14/11	KWG1013726	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	85	12-109	01/11/11	Acceptable
Phenol-d6	0	23-106	01/11/11	Outside Control Limits
Nitrobenzene-d5	82	26-110	01/11/11	Acceptable
2-Fluorobiphenyl	164	31-94	01/11/11	Outside Control Limits
2,4,6-Tribromophenol	86	23-127	01/11/11	Acceptable
Terphenyl-d14	136	40-127	01/11/11	Outside Control Limits

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.2	0.45	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethyl) Ether	ND	U	0.22	0.037	1	12/16/10	01/11/11	KWG1013726	
Phenol	**0.11**	J	0.53	0.067	1	12/16/10	01/11/11	KWG1013726	
2-Chlorophenol	ND	U	0.53	0.057	1	12/16/10	01/11/11	KWG1013726	
1,3-Dichlorobenzene	ND	U	0.22	0.023	1	12/16/10	01/11/11	KWG1013726	
1,4-Dichlorobenzene	ND	U	0.22	0.031	1	12/16/10	01/11/11	KWG1013726	
1,2-Dichlorobenzene	ND	U	0.22	0.024	1	12/16/10	01/11/11	KWG1013726	
Benzyl Alcohol	ND	U	0.53	0.077	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroisopropyl) Ether	ND	U	0.22	0.028	1	12/16/10	01/11/11	KWG1013726	
2-Methylphenol	ND	U	0.53	0.12	1	12/16/10	01/11/11	KWG1013726	
Hexachloroethane	ND	U	0.22	0.026	1	12/16/10	01/11/11	KWG1013726	
N-Nitrosodi-n-propylamine	ND	U	0.22	0.039	1	12/16/10	01/11/11	KWG1013726	
4-Methylphenol†	ND	U	0.53	0.13	1	12/16/10	01/11/11	KWG1013726	
Nitrobenzene	ND	U	0.22	0.030	1	12/16/10	01/11/11	KWG1013726	
Isophorone	ND	U	0.22	0.017	1	12/16/10	01/11/11	KWG1013726	
2-Nitrophenol	ND	U	0.53	0.067	1	12/16/10	01/11/11	KWG1013726	
2,4-Dimethylphenol	ND	U	4.3	2.4	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethoxy)methane	ND	U	0.22	0.026	1	12/16/10	01/11/11	KWG1013726	
2,4-Dichlorophenol	ND	U	0.53	0.050	1	12/16/10	01/11/11	KWG1013726	
Benzoic Acid	ND	U	5.3	1.2	1	12/16/10	01/11/11	KWG1013726	
1,2,4-Trichlorobenzene	ND	U	0.22	0.017	1	12/16/10	01/11/11	KWG1013726	
4-Chloroaniline	ND	U	0.22	0.027	1	12/16/10	01/11/11	KWG1013726	*
Hexachlorobutadiene	ND	U	0.22	0.029	1	12/16/10	01/11/11	KWG1013726	
4-Chloro-3-methylphenol	ND	U	0.53	0.039	1	12/16/10	01/11/11	KWG1013726	
Hexachlorocyclopentadiene	ND	U	1.1	0.20	1	12/16/10	01/11/11	KWG1013726	
2,4,6-Trichlorophenol	ND	U	0.53	0.062	1	12/16/10	01/11/11	KWG1013726	
2,4,5-Trichlorophenol	ND	U	0.53	0.033	1	12/16/10	01/11/11	KWG1013726	
2-Chloronaphthalene	ND	U	0.22	0.044	1	12/16/10	01/11/11	KWG1013726	
2-Nitroaniline	ND	U	0.22	0.026	1	12/16/10	01/11/11	KWG1013726	
Dimethyl Phthalate	**0.054**	J	0.22	0.023	1	12/16/10	01/11/11	KWG1013726	
2,6-Dinitrotoluene	ND	U	0.22	0.035	1	12/16/10	01/11/11	KWG1013726	
3-Nitroaniline	ND	U	1.1	0.031	1	12/16/10	01/11/11	KWG1013726	*
2,4-Dinitrophenol	ND	U	4.3	0.18	1	12/16/10	01/11/11	KWG1013726	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
4-Nitrophenol	ND	U	2.2	0.30	1	12/16/10	01/11/11	KWG1013726	
2,4-Dinitrotoluene	ND	U	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
4-Chlorophenyl Phenyl Ether	ND	U	0.22	0.029	1	12/16/10	01/11/11	KWG1013726	
Diethyl Phthalate	**0.11**	J	0.22	0.013	1	12/16/10	01/11/11	KWG1013726	
4-Nitroaniline	ND	U	1.1	0.020	1	12/16/10	01/11/11	KWG1013726	*
2-Methyl-4,6-dinitrophenol	ND	U	2.2	0.027	1	12/16/10	01/11/11	KWG1013726	
N-Nitrosodiphenylamine	ND	U	0.22	0.051	1	12/16/10	01/11/11	KWG1013726	
4-Bromophenyl Phenyl Ether	ND	U	0.22	0.028	1	12/16/10	01/11/11	KWG1013726	
Hexachlorobenzene	ND	U	0.22	0.024	1	12/16/10	01/11/11	KWG1013726	
Pentachlorophenol	ND	U	1.1	0.36	1	12/16/10	01/11/11	KWG1013726	
Carbazole	ND	U	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
Di-n-butyl Phthalate	**0.13**	J	0.22	0.025	1	12/16/10	01/11/11	KWG1013726	
Butyl Benzyl Phthalate	**0.071**	J	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
3,3'-Dichlorobenzidine	ND	U	2.2	0.46	1	12/16/10	01/11/11	KWG1013726	*
Bis(2-ethylhexyl) Phthalate	**0.77**	J	1.1	0.14	1	12/16/10	01/11/11	KWG1013726	
Di-n-octyl Phthalate	**0.048**	J	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	69	12-109	01/11/11	Acceptable
Phenol-d6	60	23-106	01/11/11	Acceptable
Nitrobenzene-d5	67	26-110	01/11/11	Acceptable
2-Fluorobiphenyl	65	31-94	01/11/11	Acceptable
2,4,6-Tribromophenol	66	23-127	01/11/11	Acceptable
Terphenyl-d14	76	40-127	01/11/11	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG1013726-3

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	12/16/10	01/11/11	KWG1013726	
Phenol	**0.13**	J	0.50	0.063	1	12/16/10	01/11/11	KWG1013726	
2-Chlorophenol	ND	U	0.50	0.054	1	12/16/10	01/11/11	KWG1013726	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	12/16/10	01/11/11	KWG1013726	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	12/16/10	01/11/11	KWG1013726	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	12/16/10	01/11/11	KWG1013726	
Benzyl Alcohol	ND	U	0.50	0.073	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	12/16/10	01/11/11	KWG1013726	
2-Methylphenol	ND	U	0.50	0.11	1	12/16/10	01/11/11	KWG1013726	
Hexachloroethane	ND	U	0.20	0.024	1	12/16/10	01/11/11	KWG1013726	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	12/16/10	01/11/11	KWG1013726	
4-Methylphenol†	ND	U	0.50	0.12	1	12/16/10	01/11/11	KWG1013726	
Nitrobenzene	ND	U	0.20	0.028	1	12/16/10	01/11/11	KWG1013726	
Isophorone	ND	U	0.20	0.016	1	12/16/10	01/11/11	KWG1013726	
2-Nitrophenol	ND	U	0.50	0.063	1	12/16/10	01/11/11	KWG1013726	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	12/16/10	01/11/11	KWG1013726	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	12/16/10	01/11/11	KWG1013726	
Benzoic Acid	ND	U	5.0	1.1	1	12/16/10	01/11/11	KWG1013726	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	12/16/10	01/11/11	KWG1013726	
4-Chloroaniline	ND	U	0.20	0.025	1	12/16/10	01/11/11	KWG1013726	*
Hexachlorobutadiene	ND	U	0.20	0.027	1	12/16/10	01/11/11	KWG1013726	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	12/16/10	01/11/11	KWG1013726	
Hexachlorocyclopentadiene	ND	U	1.0	0.19	1	12/16/10	01/11/11	KWG1013726	
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	12/16/10	01/11/11	KWG1013726	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	12/16/10	01/11/11	KWG1013726	
2-Chloronaphthalene	ND	U	0.20	0.041	1	12/16/10	01/11/11	KWG1013726	
2-Nitroaniline	ND	U	0.20	0.024	1	12/16/10	01/11/11	KWG1013726	
Dimethyl Phthalate	ND	U	0.20	0.021	1	12/16/10	01/11/11	KWG1013726	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	12/16/10	01/11/11	KWG1013726	
3-Nitroaniline	ND	U	1.0	0.029	1	12/16/10	01/11/11	KWG1013726	*
2,4-Dinitrophenol	ND	U	4.0	0.17	1	12/16/10	01/11/11	KWG1013726	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1013726-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	12/16/10	01/11/11	KWG1013726	
4-Nitrophenol	ND	U	2.0	0.28	1	12/16/10	01/11/11	KWG1013726	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	12/16/10	01/11/11	KWG1013726	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	12/16/10	01/11/11	KWG1013726	
Diethyl Phthalate	**0.019**	J	0.20	0.012	1	12/16/10	01/11/11	KWG1013726	
4-Nitroaniline	ND	U	1.0	0.019	1	12/16/10	01/11/11	KWG1013726	*
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	12/16/10	01/11/11	KWG1013726	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	12/16/10	01/11/11	KWG1013726	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	12/16/10	01/11/11	KWG1013726	
Hexachlorobenzene	ND	U	0.20	0.022	1	12/16/10	01/11/11	KWG1013726	
Pentachlorophenol	ND	U	1.0	0.34	1	12/16/10	01/11/11	KWG1013726	
Carbazole	ND	U	0.20	0.018	1	12/16/10	01/11/11	KWG1013726	
Di-n-butyl Phthalate	ND	U	0.20	0.023	1	12/16/10	01/11/11	KWG1013726	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	12/16/10	01/11/11	KWG1013726	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	12/16/10	01/11/11	KWG1013726	*
Bis(2-ethylhexyl) Phthalate	ND	U	1.0	0.13	1	12/16/10	01/11/11	KWG1013726	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	12/16/10	01/11/11	KWG1013726	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	77	12-109	01/11/11	Acceptable
Phenol-d6	83	23-106	01/11/11	Acceptable
Nitrobenzene-d5	92	26-110	01/11/11	Acceptable
2-Fluorobiphenyl	80	31-94	01/11/11	Acceptable
2,4,6-Tribromophenol	68	23-127	01/11/11	Acceptable
Terphenyl-d14	104	40-127	01/11/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
SPI-1-W-121310	K1013795-001	85 D	0 D *	82 D	164 D *	86 D	136 D *
SPI-2-W-121310	K1013795-002	69	60	67	65	66	76
Method Blank	KWG1013726-3	77	83	92	80	68	104
Lab Control Sample	KWG1013726-1	84	83	84	76	79	93
Duplicate Lab Control Sample	KWG1013726-2	83	79	81	74	84	93

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	12-109	Sur5 = 2,4,6-Tribromophenol	23-127
Sur2 = Phenol-d6	23-106	Sur6 = Terphenyl-d14	40-127
Sur3 = Nitrobenzene-d5	26-110		
Sur4 = 2-Fluorobiphenyl	31-94		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/16/2010
Sample Matrix:	Water	**Date Analyzed:**	01/11/2011 - 01/14/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 3520C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1013726

	Lab Control Sample KWG1013726-1 Lab Control Spike			Duplicate Lab Control Sample KWG1013726-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
N-Nitrosodimethylamine	4.00	5.00	80	3.67	5.00	73	26-119	8	30
Bis(2-chloroethyl) Ether	4.45	5.00	89	3.90	5.00	78	37-109	13	30
Phenol	4.30	5.00	86	3.72	5.00	74	35-114	14	30
2-Chlorophenol	4.62	5.00	92	4.16	5.00	83	37-110	10	30
1,3-Dichlorobenzene	2.70	5.00	54	2.36	5.00	47	14-68	13	30
1,4-Dichlorobenzene	2.82	5.00	56	2.47	5.00	49	15-71	13	30
1,2-Dichlorobenzene	3.08	5.00	62	2.69	5.00	54	17-76	14	30
Benzyl Alcohol	4.92	5.00	98	3.92	5.00	78	32-115	23	30
Bis(2-chloroisopropyl) Ether	4.18	5.00	84	3.62	5.00	72	29-110	14	30
2-Methylphenol	3.84	5.00	77	4.01	5.00	80	21-109	4	30
Hexachloroethane	2.26	5.00	45	2.01	5.00	40	10-59	12	30
N-Nitrosodi-n-propylamine	4.41	5.00	88	3.93	5.00	79	32-112	11	30
4-Methylphenol	3.81	5.00	76	3.98	5.00	80	19-114	4	30
Nitrobenzene	4.38	5.00	88	3.88	5.00	78	36-110	12	30
Isophorone	4.02	5.00	80	3.57	5.00	71	38-106	12	30
2-Nitrophenol	4.56	5.00	91	4.09	5.00	82	41-112	11	30
2,4-Dimethylphenol	1.09	5.00	22	4.16	5.00	83	10-106	117 *	30
Bis(2-chloroethoxy)methane	4.28	5.00	86	3.52	5.00	70	39-109	19	30
2,4-Dichlorophenol	4.50	5.00	90	4.13	5.00	83	37-111	8	30
Benzoic Acid	8.84	15.0	59	12.3	15.0	82	10-83		30
1,2,4-Trichlorobenzene	2.95	5.00	59	2.57	5.00	51	18-76	14	30
4-Chloroaniline	3.07	5.00	61	0.119	5.00	2 *	14-108	185 *	30
Hexachlorobutadiene	2.08	5.00	42	1.89	5.00	38	10-59	10	30
4-Chloro-3-methylphenol	3.89	5.00	78	3.81	5.00	76	33-115	2	30
Hexachlorocyclopentadiene	0.509	5.00	10	0.945	5.00	19	10-37	60 *	30
2,4,6-Trichlorophenol	4.54	5.00	91	4.21	5.00	84	36-113	7	30
2,4,5-Trichlorophenol	4.61	5.00	92	4.04	5.00	81	41-112	13	30
2-Chloronaphthalene	3.74	5.00	75	3.26	5.00	65	31-95	14	30
2-Nitroaniline	4.16	5.00	83	2.92	5.00	58	40-118	35 *	30
Dimethyl Phthalate	4.24	5.00	85	3.77	5.00	75	46-111	12	30
2,6-Dinitrotoluene	4.64	5.00	93	4.04	5.00	81	44-116	14	30
3-Nitroaniline	4.01	5.00	80	0.239	5.00	5 *	34-118	177 *	30
2,4-Dinitrophenol	3.39	5.00	68	4.24	5.00	85	10-116	22	30
Dibenzofuran	3.97	5.00	79	3.60	5.00	72	37-103	10	30
4-Nitrophenol	3.93	5.00	79	3.86	5.00	77	38-125	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/16/2010
Sample Matrix:	Water	**Date Analyzed:**	01/11/2011 - 01/14/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method:	EPA 3520C	**Units:**	ug/L
Analysis Method:	8270C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1013726

	Lab Control Sample KWG1013726-1 Lab Control Spike			Duplicate Lab Control Sample KWG1013726-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
2,4-Dinitrotoluene	4.52	5.00	90	4.04	5.00	81	47-119	11	30
4-Chlorophenyl Phenyl Ether	3.94	5.00	79	3.53	5.00	71	37-103	11	30
Diethyl Phthalate	4.15	5.00	83	3.77	5.00	75	47-113	10	30
4-Nitroaniline	4.14	5.00	83	0.612	5.00	12 *	38-119	148 *	30
2-Methyl-4,6-dinitrophenol	3.97	5.00	79	3.85	5.00	77	10-125	3	30
N-Nitrosodiphenylamine	3.82	5.00	76	2.04	5.00	41	36-111	61 *	30
4-Bromophenyl Phenyl Ether	3.88	5.00	78	3.53	5.00	71	42-105	10	30
Hexachlorobenzene	3.97	5.00	79	3.58	5.00	72	42-102	10	30
Pentachlorophenol	3.83	5.00	77	4.11	5.00	82	10-119	7	30
Carbazole	4.21	5.00	84	2.92	5.00	58	49-114	36 *	30
Di-n-butyl Phthalate	4.15	5.00	83	3.75	5.00	75	44-126	10	30
Butyl Benzyl Phthalate	4.49	5.00	90	3.99	5.00	80	48-115	12	30
3,3'-Dichlorobenzidine	3.27	5.00	65	ND	5.00	0 *	13-108		30
Bis(2-ethylhexyl) Phthalate	4.42	5.00	88	3.95	5.00	79	45-122	11	30
Di-n-octyl Phthalate	4.52	5.00	90	4.66	5.00	93	48-119	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Polynuclear Aromatic Hydrocarbons

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.050**		0.020	0.0030	1	12/16/10	12/27/10	KWG1013727	
2-Methylnaphthalene	**0.012**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Acenaphthylene	ND	U	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Acenaphthene	ND	U	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Fluorene	**0.0044**	J	0.020	0.0038	1	12/16/10	12/27/10	KWG1013727	
Phenanthrene	**0.011**	J	0.020	0.0050	1	12/16/10	12/27/10	KWG1013727	
Anthracene	ND	U	0.020	0.0036	1	12/16/10	12/27/10	KWG1013727	
Fluoranthene	**0.0082**	J	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Pyrene	**0.012**	J	0.020	0.0035	1	12/16/10	12/27/10	KWG1013727	
Benz(a)anthracene	**0.0033**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Chrysene	**0.0038**	J	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Benzo(b)fluoranthene	**0.0038**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	12/16/10	12/27/10	KWG1013727	
Indeno(1,2,3-cd)pyrene	**0.0032**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(g,h,i)perylene	**0.0047**	J	0.020	0.0029	1	12/16/10	12/27/10	KWG1013727	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	80	28-98	12/27/10	Acceptable
Fluoranthene-d10	92	31-105	12/27/10	Acceptable
Terphenyl-d14	109	27-112	12/27/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.030**		0.020	0.0030	1	12/16/10	12/27/10	KWG1013727	
2-Methylnaphthalene	**0.019**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Acenaphthylene	**0.0045**	J	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Acenaphthene	**0.0045**	J	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Fluorene	**0.0090**	J	0.020	0.0038	1	12/16/10	12/27/10	KWG1013727	
Phenanthrene	**0.015**	J	0.020	0.0050	1	12/16/10	12/27/10	KWG1013727	
Anthracene	ND	U	0.020	0.0036	1	12/16/10	12/27/10	KWG1013727	
Fluoranthene	**0.012**	J	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Pyrene	**0.024**		0.020	0.0035	1	12/16/10	12/27/10	KWG1013727	
Benz(a)anthracene	**0.0052**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Chrysene	ND	U	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Benzo(b)fluoranthene	**0.0066**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(a)pyrene	**0.0044**	J	0.020	0.0043	1	12/16/10	12/27/10	KWG1013727	
Indeno(1,2,3-cd)pyrene	**0.0043**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(g,h,i)perylene	**0.0069**	J	0.020	0.0029	1	12/16/10	12/27/10	KWG1013727	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	84	28-98	12/27/10	Acceptable
Fluoranthene-d10	100	31-105	12/27/10	Acceptable
Terphenyl-d14	109	27-112	12/27/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1013727-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0030	1	12/16/10	12/27/10	KWG1013727	
2-Methylnaphthalene	ND	U	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Acenaphthylene	ND	U	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Acenaphthene	ND	U	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Fluorene	ND	U	0.020	0.0038	1	12/16/10	12/27/10	KWG1013727	
Phenanthrene	ND	U	0.020	0.0050	1	12/16/10	12/27/10	KWG1013727	
Anthracene	ND	U	0.020	0.0036	1	12/16/10	12/27/10	KWG1013727	
Fluoranthene	ND	U	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Pyrene	ND	U	0.020	0.0035	1	12/16/10	12/27/10	KWG1013727	
Benz(a)anthracene	**0.0032**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Chrysene	ND	U	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Benzo(b)fluoranthene	ND	U	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	12/16/10	12/27/10	KWG1013727	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(g,h,i)perylene	ND	U	0.020	0.0029	1	12/16/10	12/27/10	KWG1013727	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	71	28-98	12/27/10	Acceptable
Fluoranthene-d10	80	31-105	12/27/10	Acceptable
Terphenyl-d14	93	27-112	12/27/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
SPI-1-W-121310	K1013795-001	80	92	109
SPI-2-W-121310	K1013795-002	84	100	109
Method Blank	KWG1013727-3	71	80	93
Lab Control Sample	KWG1013727-1	70	80	83
Duplicate Lab Control Sample	KWG1013727-2	77	86	91

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	28-98
Sur2 =	Fluoranthene-d10	31-105
Sur3 =	Terphenyl-d14	27-112

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Extracted:**	12/16/2010
Sample Matrix:	Water	**Date Analyzed:**	12/27/2010

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3520C	**Units:**	ug/L
Analysis Method:	8270C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1013727

	Lab Control Sample KWG1013727-1 Lab Control Spike			Duplicate Lab Control Sample KWG1013727-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	2.05	2.50	82	2.00	2.50	80	39-110	3	30
2-Methylnaphthalene	1.76	2.50	70	1.73	2.50	69	39-115	2	30
Acenaphthylene	2.17	2.50	87	2.09	2.50	84	44-115	4	30
Acenaphthene	2.16	2.50	86	2.09	2.50	84	44-113	3	30
Fluorene	2.28	2.50	91	2.15	2.50	86	48-118	6	30
Phenanthrene	2.43	2.50	97	2.25	2.50	90	47-120	8	30
Anthracene	2.45	2.50	98	2.29	2.50	92	44-117	6	30
Fluoranthene	2.76	2.50	110	2.52	2.50	101	48-128	9	30
Pyrene	2.83	2.50	113	2.77	2.50	111	42-133	2	30
Benz(a)anthracene	2.15	2.50	86	2.03	2.50	81	48-125	6	30
Chrysene	2.40	2.50	96	2.29	2.50	92	50-128	5	30
Benzo(b)fluoranthene	2.37	2.50	95	2.16	2.50	86	49-131	9	30
Benzo(k)fluoranthene	2.51	2.50	100	2.37	2.50	95	54-131	5	30
Benzo(a)pyrene	2.39	2.50	96	2.19	2.50	88	43-134	9	30
Indeno(1,2,3-cd)pyrene	2.30	2.50	92	1.98	2.50	79	45-133	15	30
Dibenz(a,h)anthracene	2.29	2.50	92	1.94	2.50	77	49-133	17	30
Benzo(g,h,i)perylene	2.55	2.50	102	2.30	2.50	92	51-124	10	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

MEMORANDUM

TO: Project File **DATE:** January 31, 2011

FROM: Jerry Harris

SUBJECT: Laboratory Data Validation Review

PROJECT: Univar Portland

PROJECT #: 816.001.01(048)

TASK: December 13, 2010 Water Sampling

LAB: Columbia Analytical Services Report K1013795

Two water samples were collected on December 13, 2010 from the Univar USA Inc. facility in Portland, Oregon.

The samples were analyzed by the following methods:

Method SM 4500-H+B (pH [SPI-1 only])

Method 1661E (Mercury)

Method 180.1 (Turbidity [SP-1 only])

Method 200 (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn)

Method 300.0 (Sulfate)

Method 350.1 (Ammonia)

Method 415.1 (Total Organic Carbon [TOC])

Method 8081A (Pesticides [PEST])

Method 8082 (PCB Congeners [PCBs])

Method 8151A (Herbicides [HERB])

Method 8260 (Volatile Organic Compounds [VOCs])

Method 8270C (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

Method 9014 (Free Cyanide)

Method 9030M (Total Sulfide)

Method 1664 (Oil and Grease [O&G] [SP-1 only])

NWTPH-Dx (Diesel Range Organics [DRO] and Residual Range Organics [RRO])

SM 2510B (Conductivity [SP-1 only])

SM 2540D (Total Suspended Sediments [TSS])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

Laboratory analyses were conducted by Columbia Analytical Services (CAS) of Kelso, Washington. CAS project number: K1013795.

The quality assurance review of the water sample data is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 2004).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

The laboratory report provided by the analytical laboratory was reviewed. All sample bottles were contained in two coolers that were hand-delivered to the laboratory by a courier. The samples were stored on water ice. The coolers were received at cooler temperatures of 5.1 and 5.8 degrees Centigrade (°C). A temperature blank was included in both coolers and the blank temperatures were 4.2 and 5.2 °C. The recommended temperature preservation range is 2 °C +/- 4°C.

The cooler and blank temperatures were within the control limits; therefore, no data was qualified due to temperature considerations.

Holding Times

Table 1 provides a summary of the extraction times (where appropriate) and analysis holding times. All extractions and analyses were performed within the recommended holding times except for the following

SM4500-H+B (pH): The hold time for pH measurements is 15 minutes. The laboratory performed the pH measurement of sample SPI-1 approximately 24 hours after collection. The

pH result from SPI-1 is qualified as estimated and assigned a J flag. The laboratory report page showing the data qualification is attached.

SM2510B (conductivity): The hold time for conductivity measurements is essentially zero (measurements should be collected in the field. The laboratory performed the conductivity measurement of sample SPI-1 two days after collection. The conductivity result from SPI-1 is qualified as estimated and assigned a J flag. The laboratory report page showing the data qualification is attached.

No other data was qualified due to holding time exceedances.

Initial Calibration

Hard copies of the initial calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in initial calibration results associated with the project analyses. The laboratory reported the following initial calibration issues:

Method 8082 (PCBs): The laboratory reported that the secondary column primary evaluation criterion was not met for PCB 149 in ICAL 9598. The laboratory reported the ICV results from the primary column and concluded the data was not affected.

No other significant initial calibration issues relating to the remaining analyses were noted in the case narrative; therefore no data qualifications were required.

Continuing Calibration

Hard copies of the continuing calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in continuing calibration results associated with the project analyses.

Method 8081A (PESTs): The laboratory reported that the upper control criterion for toxaphene was exceeded in CCV 1229F004, indicating a potential high bias in sample results for this compound. Toxaphene was not detected in the project samples; therefore, the potential bias was not realized. The data was not affected and no qualifications were warranted.

The laboratory also reported that the confirmation comparison of 40RPD was not met for endrin aldehyde in sample SPI-2. Per laboratory SOP, when this occurs, the lower of the two concentrations is reported. No qualifications were warranted.

Method 8151 (HERBs): The laboratory reported that the upper control criterion for MCPA and MCPP was exceeded in CCVs 1230F011 and 1230F029, indicating a potential high bias in sample results for this compound. MCPA and MCPP were not detected in the project samples; therefore, the potential bias was not realized. The data was not affected and no qualifications were warranted.

No other significant continuing calibration issues relating to the remaining analyses were noted in the case narrative; therefore no data qualifications were required.

Method Blank Results

At least one laboratory method blank was analyzed for each analytical method and extraction group that included the project sample. The method blank results are summarized in Table 2. Target compounds were detected in the method blanks for the following methods:

Method 1631E (mercury): Hg was detected in one of the three method blanks run for this method. The detected concentration was 0.08 nanograms per liter (ng/l). The concentrations of mercury detected in the project samples ranged from 4 to 6 ng/l. Because the sample concentrations were more than ten times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Method 180.1 (conductivity): Conductivity was detected in method blank run for this method. The detected concentration was 1.5 uMHOS. The conductivity detected in the project sample was 15.8 uMHOS. Because the sample concentration was more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Method 180.1 (turbidity): Turbidity was detected in method blank run for this method. The detected concentration was 0.06 NTUs. The turbidity detected in the project sample was 22.1 NTUs. Because the sample concentration was more than ten times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Method 200.8 (As, Sb, Mn, Mo only): Arsenic was detected in the method blank run for this method. The detected concentration was 0.17 µg/l. The concentrations of As detected in the project samples were 0.40 and 0.57 µg/l. Because the sample concentrations were less than five times the blank concentration, the data may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The As results for both samples are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. No other qualifications were warranted.

Sb was detected in the method blank run for this method. The detected concentration of Sb was 0.05 µg/l. The concentrations of Sb detected in the project samples were 1.87 and 1.2 µg/l. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Mn was detected in the method blank run for this method. The detected concentration of Mn was 0.02 µg/l. The concentration of manganese detected in the project samples were 16 and 33.1 µg/l. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Mo was detected in the method blank run for this method. The detected concentration of Mo was 0.011 µg/l. The concentration of Mo detected in the project samples were 0.476 and 0.638 µg/l. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Method 8082A (2,2',5-Trichlorobiphenyl only): 2,2',5-Trichlorobiphenyl (PCB 18) was detected in the method blank at a concentration of 7.1 nanograms per liter (ng/l). 2,2',5-Trichlorobiphenyl was detected in project sample SPI-1 at a concentration of 2.7 ng/l. The sample data for 2,2',5-Trichlorobiphenyl may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The 2,2',5-Trichlorobiphenyl result for sample SPI-1 is qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. No other qualifications were warranted.

Method 8260 (Idomethane only): Idomethane was detected in the method blank but was not detected in the project sample. The data was not affected and no qualifications were warranted.

Method 8270C (diethyl phthalate and phenol only): Diethyl phthalate was detected in the method blank at a concentration of 0.019 µg/l and in the project samples at concentrations of 0.5 and 0.11 µg/l. Because the samples concentrations were more than five times the blank concentrations, the data is not affected by the blank detection. No qualifications were warranted.

Phenol was detected in the method blank at a concentration of 0.13 µg/l and in project sample SPI-2 at a concentration of 0.11 µg/l. Because the sample concentration in SPI-2 was similar to the blank concentration, the SPI-2 result may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The phenol result for sample SPI-2 is qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. No other qualifications were warranted.

Method 8270C SIM (Benz(a)anthracene only): Benz(a)anthracene was detected in the method blank at a concentration of 0.0032 µg/l and in the project samples at concentrations of 0.0033 and 0.0052 µg/l. Because the samples concentrations were less than five times the blank concentrations, the SPI-1 and SPI-2 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The Benz(a)anthracene results for samples SPI-1 and SPI-2 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. No other qualifications were warranted.

NWTPH-Dx (Diesel and Residual Range Organics): Diesel and Residual range organics were detected in the method blank at concentrations of 12 and 31 µg/l respectively. Diesel and Residual range organics were detected in the project samples at concentrations greater than five times the blank concentrations. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detections in the blank. No qualifications were warranted.

Target compounds were not detected in the method blanks for any of the remaining methods. No data qualifications were required.

Trip Blank Results

Method 8260B: A trip blank was prepared and analyzed for Method 8260B analysis. Chloromethane and dichloromethane were detected in the trip blank at concentrations of 0.090 and 0.24 ug/l. Chloromethane was detected in samples SPI-1 and SPI-2 at concentrations of 0.21 and 0.10 ug/l. Dichloromethane was not detected in the samples. The chloromethane detections in the samples were less than five times the blank concentration. Because the sample

concentrations were less than five times the blank concentrations, the SPI-1 and SPI-2 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The chloromethane results for samples SPI-1 and SPI-2 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. No other qualifications were warranted. No other qualifications were warranted.

No other trip blank analyses were required for this event.

Field Blank Results

No field blanks were required or collected during this field event.

Field Duplicate Analyses

No field duplicates were required or collected during this field event.

Laboratory Duplicate Analyses

The laboratory prepared duplicates for the following analyses:

SM4500-H+B (pH): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

SM2510B (conductivity): The RPD between the primary and the batch duplicate sample was within the control limit. No qualifications were warranted.

Method 200 (Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn): A batch (non-project) duplicate was prepared. The relative percent differences (RPDs) for all metals were within the control limits of 20 RPD or +/- detection limit in the case of selenium. No qualifications were warranted.

Method 300.0 (Sulfate): The RPD between the primary and the batch duplicate sample was within the control limit. No qualifications were warranted.

Method 350.1 (Ammonia): The RPD between the primary and the batch duplicate sample was within the control limit. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

Method 9014 (Free Cyanide): The RPD between the primary and the duplicate sample was within the control limits. No qualifications were warranted.

Method 9030M (Total Sulfide): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

SM 2540D (Total Suspended Sediments [TSS]): The relative percent difference (RPD) between the primary and the batch (non-project) duplicate sample was 6. No qualifications were warranted.

SM 4500CNE (Total Cyanide and Amenable Cyanide): The RPD between the primary and the duplicate sample results for both total cyanide and amenable cyanide were within the control limits. No qualifications were warranted.

NWTPH-Dx (TPH-Dx/TPH-HO): The RPDs between the primary and the duplicate sample results for both total TPHs were within the control limits. No qualifications were warranted.

For the remaining methods, either a duplicate was not required or the laboratory prepared matrix spike or laboratory control samples duplicates. These results are discussed in the Matrix Spike and Laboratory Control Sample sections of this report.

Surrogate Recoveries

Surrogates were injected into all samples, field duplicates, method blanks, matrix spike and matrix spike duplicates (MS/MSDs), and laboratory control samples (LCSs) that were analyzed for organic compounds. The surrogate recoveries (%Rs) are summarized in Table 3. The %Rs for all analyses were within the control limits with the following exceptions:

Method 8270C (Semi-Volatile Organic Compounds [SVOCs): The p-terphenyl and 2-fluorobiphenyl %Rs in project sample SPI-1 were above the upper %R limit, indicating a potential high bias in associated sample results. The laboratory reported that the sample was black and showed signs of damaging the instrument. The sample and surrogates were also subjected to a five-fold dilution prior to analysis. The out of control surrogates control the base/neutral fraction of the target analyte list. Phthalates were the only base/neutral compounds detected in sample SPI-1. Based upon the surrogate exceedances, the detected base/neutral compounds in SPI-1 (phthalates) were qualified as estimated and assigned a J flag. No other base/neutral compounds were detected; therefore, the potential high bias was not realized in the undetected compounds and they were not qualified.

The acid surrogate phenol d-6 %R in sample SPI-1 was below the lower %R limits, indicating a potential low bias in associated results. The %R for phenol was 0%. The %Rs for the remaining two acid surrogates were within the control limits. The phenol-d6 surrogate controls the phenol, methylphenol, and dimethylphenol acid compounds. Given this information all detections of phenol, methylphenol, and dimethylphenol compounds in sample SPI-1 are qualified as estimated and assigned a J flag. All non-detect results for phenol, methylphenol, and dimethylphenol compounds are qualified as rejected and assigned an R flag. The remaining acid compounds and all base/neutral fraction of the target analyte list are not affected. Laboratory report pages showing the data qualifications are attached.

Surrogates were not required for the remaining, non-organic analyses.

Laboratory Control Samples

One laboratory control sample (LCS) was run for each analytical method performed on the project samples. For some methods, an LCS duplicate (LCSD) was analyzed in lieu of a sample or matrix spike duplicate. This is an acceptable substitution. The LCS' were run at the appropriate frequency for this project. The LCS %R and LCS/LCSD (where appropriate) RPD results are summarized in Table 4. The %Rs and RPDs for all methods and control compounds met the %R acceptance criteria with the following exceptions:

Method 8260B (VOCs): The carbon disulfide %Rs in the method LCS and LCSD were above the upper control limit, indicating a potential high bias in sample results. The remaining LCS target analytes were within the control limits for %R and the LCS/LCSD RPDs for all target analytes were within the control limits. This compound was detected in the project samples. Based upon the information summarized above, the carbon disulfide results for the project samples are qualified as estimated and assigned a J flag. No other qualifications were warranted.

Method 8081A (PESTs): The toxaphene %R in the method LCSD was above the upper control limit, indicating a potential high bias in sample results. This compound was not detected in the project samples; therefore, the potential bias was not realized. No qualifications were warranted.

Method 8151A (Herbicides [HERB]): The 2,4,5-T and dalapon %R in the method LCS was below the lower control limit, indicating a potential low bias in sample results. The LCSD %Rs for both compounds were within the control limit. The remaining LCS target analytes were within the control limits for %R and the LCS/LCSD RPDs for all target analytes were within the control limits except for dalapon. These compounds were not detected in the project samples. Although the LCS %R were low, the LCSD results show the instrument was capable of accurately detecting these compounds. No other potential issues regarding the detection of these compounds were identified in the QC data. Based upon the information summarized above, the low %R recovery for 2,4,5-T and dalapon is not considered sufficient cause to reject the data; however, the sample results for these two compounds are qualified as estimated and assigned a J flag. No other qualifications were warranted.

Method 8270C (SVOCs): The 3,3-dichlorobenzidiene, 3-nitroanaline, 4-nitroanaline, and 4-chloroanaline %Rs in the LCSD were below the lower control limit, indicating a potential low bias in sample results. The LCS %Rs for these compounds were within the control limit. The remaining LCSD target analytes were within the control limits for %R. The LCS/LCSD RPDs for all target analytes except the compounds listed above, n-nitro-sodiphenylamine, and carbazole were within the control limits. For all compounds listed above,the LCS results were within the control limit, indicating that the instrument was capable of accurately detecting the compounds. Based upon this information, none of the associated sample results are rejected; however, all sample results for 3,3-dichlorobenzidiene, 3-nitroanaline, 4-nitroanaline, and 4-chloroanaline are qualified as estimated and assigned a J flag. The RPD exceedances are not considered sufficient cause to qualify the data. No other SVOCs were qualified. The laboratory report pages with the data qualifications shown are attached.

Matrix Spike/Matrix Spike Duplicates

One MS analysis is required for each twenty samples of a given matrix/project; therefore MS were run at the appropriate frequency for this project. Sample duplicates or MSDs are also run by the laboratory at this frequency. The MS/MSD %R and MS/MSD (where appropriate) RPD results are summarized in Table 5.

MS analyses were conducted for each of the each of the following analytical methods performed on the project sample:

Method 415.1 (Total Organic Carbon [TOC]): The MS %R was within the control limits. No qualifications were warranted.

Method 9014 (Free Cyanide): The MS and MSD %Rs were above the upper control limits. The spike amount used was more than 20 times the detection limit and free cyanide was not detected in the project sample. Based upon this information, the MS and MSD exceedances do not warrant qualification of the data.

Method 9030M (Total Sulfide): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 1631E (mercury): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 200 (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn): The aluminum MS %R was below the lower control limit, indicating a potential variability in aluminum results for samples with concentrations similar to the spike levels. The spike concentration was more than 30 times less than the sample concentration. Based upon the ratio of spike to sample concentration, the %R exceedance is not considered to be sufficient to warrant qualification of the data.

Method 300.0 (Sulfate): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Batch (non-project) MSs and MSDs were prepared by the laboratory for selected methods. Because the MS and MSD samples were prepared from a non-project sample, the batch MS/MSD results do not apply to the project sample data. However, the reporting of the batch results are requested to confirm that the laboratory is following the property QA/QC protocols. Methods that used a batch MS and MSD (if required) are:

Method 1664 (Oil & Grease)

Method 350.1 (Ammonia)

Method 8260 (Volatile Organic Compounds [VOCs])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

For the following methods, a LCS/LCS duplicate analysis was performed in lieu of a MS/MSD due to lack of sufficient project sample. This substitution is considered acceptable and the LCS/LCSD results are discussed in the LCS section above:

Method 8081A (Pesticides [PEST])

Method 8082 (PCB Congeners [PCBs])

Method 8151A (Herbicides [HERB])

Method 8270C (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

NWTPH-Dx (Diesel Range Organics [DRO] and Residual Range Organics [RRO])

A MS is not required for the following methods:

SM 2540D (Total Suspended Sediments [TSS])

Other Quality Control Issues

No other significant quality control issues were identified.

Quantitation Limits

The laboratory analytical results were reported based on laboratory MRLs for routine analytical services (RAS). The MRLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The MRLs are dependent upon sample concentration, sample volume, and dilutions, if required. MDL were also reported for selected analytes. In some cases, the laboratory reported a concentration between the MRL and MDL and qualified these results as estimated. These qualifiers are retained for validation purposes. No other data qualifiers were assigned based on MRLs or MDLs.

Data Assessment

Data were qualified as estimated and the results from selected acid compounds in the Method 8270C target analyte list were rejected. The laboratory data pages showing the qualifiers are attached. The rejected data is considered unusable. All remaining data, including the data qualified as estimated, are judged to be acceptable for their intended use.

Table 1. HOLD TIME SUMMARY

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	1631E	12/13/2010	12/14/2010	12/15/2010	NA	OK
	1664	12/13/2010	12/29/2010	12/29/2010	NA	OK
	180.1	12/13/2010		12/14/2010	NA	OK
	200.7	12/13/2010	12/20/2010	1/6/2011	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	300.0	12/13/2010		12/16/2010	NA	OK
	350.1	12/13/2010		12/14/2010	NA	OK
	415.1	12/13/2010		12/16/2010	NA	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/14/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	9014	12/13/2010		12/17/2010	NA	OK
	9030M	12/13/2010	12/18/2010	12/18/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	SM 2510 B	12/13/2010		12/28/2010	NA	Not OK
	SM 2540 D	12/13/2010		12/15/2010	NA	OK
	SM4500CNE	12/13/2010	12/15/2010	12/16/2010	NA	OK
	SM4500CNE	12/13/2010	12/15/2010	12/16/2010	NA	OK
	SM4500-H+B	12/13/2010		12/14/2010	NA	Not OK
SPI-1-W-121310D	200.7	12/13/2010	12/20/2010	1/6/2011	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-121310D	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
SPI-1-W-121310S	200.7	12/13/2010	12/20/2010	1/6/2011	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
SPI-2-W-121310	1631E	12/13/2010	12/14/2010	12/15/2010	NA	OK
	200.7	12/13/2010	12/20/2010	1/6/2011	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	1/6/2011	1/7/2011	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	200.8	12/13/2010	12/20/2010	12/27/2010	NA	OK
	300.0	12/13/2010		12/16/2010	NA	OK
	350.1	12/13/2010		12/14/2010	NA	OK
	415.1	12/13/2010		12/16/2010	NA	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8081A	12/13/2010	12/16/2010	1/22/2011	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8082A	12/13/2010	12/20/2010	12/24/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8151A	12/13/2010	12/16/2010	12/31/2010	OK	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8260B	12/13/2010	12/23/2010	12/23/2010	NA	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C	12/13/2010	12/16/2010	1/11/2011	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	8270C SIM	12/13/2010	12/16/2010	12/27/2010	OK	OK
	9014	12/13/2010		12/17/2010	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-121310	9030M	12/13/2010	12/18/2010	12/18/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	NWTPH-Dx	12/13/2010	12/17/2010	12/22/2010	NA	OK
	SM 2540 D	12/13/2010		12/15/2010	NA	OK
	SM4500CNE	12/13/2010	12/15/2010	12/16/2010	NA	OK
	SM4500CNE	12/13/2010	12/15/2010	12/16/2010	NA	OK

Table 2. METHOD BLANK SUMMARY

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
1631E	K1013795	125656	Mercury, Total	METHOD BLANK	0.08	0.06	ng/L
1631E	K1013795	125656	Mercury, Total	METHOD BLANK		0.06	ng/L
1631E	K1013795	125656	Mercury, Total	METHOD BLANK		0.06	ng/L
1664	K1013795	126627	Oil and Grease, Total (HEM)	METHOD BLANK		0.8	mg/L
180.1	K1013795	229235	Turbidity	METHOD BLANK	0.06	0.04	NTU
200.7	K1013795	126097	Iron, Total	METHOD BLANK		3.0	ug/L
200.8	K1013795	126102	Antimony, Total	METHOD BLANK	0.05	0.02	ug/L
200.8	K1013795	126102	Arsenic, Total	METHOD BLANK	0.17	0.07	ug/L
200.8	K1013795	126102	Chromium, Total	METHOD BLANK		0.04	ug/L
200.8	K1013795	126102	Copper, Total	METHOD BLANK		0.02	ug/L
200.8	K1013795	126102	Manganese, Total	METHOD BLANK	0.02	0.01	ug/L
200.8	K1013795	126102	Molybdenum, Total	METHOD BLANK	0.011	0.008	ug/L
200.8	K1013795	126102	Nickel, Total	METHOD BLANK		0.03	ug/L
200.8	K1013795	126102	Selenium, Total	METHOD BLANK		0.3	ug/L
200.8	K1013795	126102	Silver, Total	METHOD BLANK		0.004	ug/L
200.8	K1013795	126102	Zinc, Total	METHOD BLANK		0.20	ug/L
200.8	K1013795	126102R	Aluminum, Total	METHOD BLANK		0.3	ug/L
200.8	K1013795	126102R	Cadmium, Total	METHOD BLANK		0.005	ug/L
200.8	K1013795	126102R	Lead, Total	METHOD BLANK		0.005	ug/L
300.0	K1013795	229416	Sulfate	METHOD BLANK		0.01	mg/L
350.1	K1013795	229066	Ammonia as Nitrogen	METHOD BLANK		0.020	mg/L
415.1	K1013795	229447	Carbon, Total Organic	METHOD BLANK		0.07	mg/L
8081A	K1013795	KWG1100123	2,4'-DDD	METHOD BLANK		0.068	ng/L
8081A	K1013795	KWG1100123	2,4'-DDE	METHOD BLANK		0.28	ng/L
8081A	K1013795	KWG1100123	2,4'-DDT	METHOD BLANK		0.13	ng/L
8081A	K1013795	KWG1100123	4,4'-DDD	METHOD BLANK		0.21	ng/L
8081A	K1013795	KWG1100123	4,4'-DDE	METHOD BLANK		0.19	ng/L
8081A	K1013795	KWG1100123	4,4'-DDT	METHOD BLANK		0.17	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8081A	K1013795	KWG1100123	Aldrin	METHOD BLANK		0.33	ng/L
8081A	K1013795	KWG1100123	alpha-BHC	METHOD BLANK		0.21	ng/L
8081A	K1013795	KWG1100123	alpha-Chlordane	METHOD BLANK		0.27	ng/L
8081A	K1013795	KWG1100123	beta-BHC	METHOD BLANK		0.41	ng/L
8081A	K1013795	KWG1100123	Chlordane	METHOD BLANK		5.8	ng/L
8081A	K1013795	KWG1100123	cis-Nonachlor	METHOD BLANK		0.14	ng/L
8081A	K1013795	KWG1100123	Decachlorobiphenyl	METHOD BLANK			%
8081A	K1013795	KWG1100123	delta-BHC	METHOD BLANK		0.14	ng/L
8081A	K1013795	KWG1100123	Dieldrin	METHOD BLANK		0.37	ng/L
8081A	K1013795	KWG1100123	Endosulfan I	METHOD BLANK		0.25	ng/L
8081A	K1013795	KWG1100123	Endosulfan II	METHOD BLANK		0.36	ng/L
8081A	K1013795	KWG1100123	Endosulfan Sulfate	METHOD BLANK		0.28	ng/L
8081A	K1013795	KWG1100123	Endrin	METHOD BLANK		0.49	ng/L
8081A	K1013795	KWG1100123	Endrin Aldehyde	METHOD BLANK		0.21	ng/L
8081A	K1013795	KWG1100123	Endrin Ketone	METHOD BLANK		0.32	ng/L
8081A	K1013795	KWG1100123	gamma-BHC	METHOD BLANK		0.47	ng/L
8081A	K1013795	KWG1100123	gamma-Chlordane	METHOD BLANK		0.31	ng/L
8081A	K1013795	KWG1100123	Heptachlor	METHOD BLANK		0.18	ng/L
8081A	K1013795	KWG1100123	Heptachlor Epoxide	METHOD BLANK		0.21	ng/L
8081A	K1013795	KWG1100123	Hexachlorobenzene	METHOD BLANK		0.27	ng/L
8081A	K1013795	KWG1100123	Methoxychlor	METHOD BLANK		0.44	ng/L
8081A	K1013795	KWG1100123	Oxychlordane	METHOD BLANK		0.069	ng/L
8081A	K1013795	KWG1100123	Tetrachloro-m-xylene	METHOD BLANK			%
8081A	K1013795	KWG1100123	Toxaphene	METHOD BLANK		29	ng/L
8081A	K1013795	KWG1100123	trans-Nonachlor	METHOD BLANK		0.11	ng/L
8082A	K1013795	KWG1014093	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	METHOD BLANK		0.55	ng/L
8082A	K1013795	KWG1014093	2,2',3,3',4,4',5,6-Octachlorobiphenyl	METHOD BLANK		0.33	ng/L
8082A	K1013795	KWG1014093	2,2',3,3',4,4',5-Heptachlorobiphenyl	METHOD BLANK		0.12	ng/L
8082A	K1013795	KWG1014093	2,2',3,3',4,4'-Hexachlorobiphenyl	METHOD BLANK		0.57	ng/L
8082A	K1013795	KWG1014093	2,2',3,4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.37	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8082A	K1013795	KWG1014093	2,2',3,4,4',5',6-Heptachlorobiphenyl	METHOD BLANK		0.77	ng/L
8082A	K1013795	KWG1014093	2,2',3,4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.62	ng/L
8082A	K1013795	KWG1014093	2,2',3,4,4',6,6'-Heptachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1013795	KWG1014093	2,2',3,4',5,5',6-Heptachlorobiphenyl	METHOD BLANK		0.27	ng/L
8082A	K1013795	KWG1014093	2,2',3,4',5-Pentachlorobiphenyl	METHOD BLANK		0.33	ng/L
8082A	K1013795	KWG1014093	2,2',3,4,5'-Pentachlorobiphenyl	METHOD BLANK		0.35	ng/L
8082A	K1013795	KWG1014093	2,2',3,5'-Tetrachlorobiphenyl	METHOD BLANK		0.31	ng/L
8082A	K1013795	KWG1014093	2,2',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.48	ng/L
8082A	K1013795	KWG1014093	2,2',4,5,5'-Pentachlorobiphenyl	METHOD BLANK		0.25	ng/L
8082A	K1013795	KWG1014093	2,2',5,5'-Tetrachlorobiphenyl	METHOD BLANK		0.32	ng/L
8082A	K1013795	KWG1014093	2,2',5-Trichlorobiphenyl	METHOD BLANK	7.1	0.74	ng/L
8082A	K1013795	KWG1014093	2,3,3',4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.23	ng/L
8082A	K1013795	KWG1014093	2,3,3',4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.13	ng/L
8082A	K1013795	KWG1014093	2,3,3',4,4',5-Hexachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1013795	KWG1014093	2,3,3',4,4',6-Hexachlorobiphenyl	METHOD BLANK		0.30	ng/L
8082A	K1013795	KWG1014093	2,3,3',4,4'-Pentachlorobiphenyl	METHOD BLANK		0.27	ng/L
8082A	K1013795	KWG1014093	2,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.29	ng/L
8082A	K1013795	KWG1014093	2,3,4,4',5,6-Hexachlorobiphenyl	METHOD BLANK		0.33	ng/L
8082A	K1013795	KWG1014093	2',3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.19	ng/L
8082A	K1013795	KWG1014093	2,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.099	ng/L
8082A	K1013795	KWG1014093	2,3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.20	ng/L
8082A	K1013795	KWG1014093	2,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.30	ng/L
8082A	K1013795	KWG1014093	2,3,4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.39	ng/L
8082A	K1013795	KWG1014093	2,4,4'-Trichlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1013795	KWG1014093	2,4'-Dichlorobiphenyl	METHOD BLANK		0.84	ng/L
8082A	K1013795	KWG1014093	3,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1013795	KWG1014093	3,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.37	ng/L
8082A	K1013795	KWG1014093	3,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.29	ng/L
8082A	K1013795	KWG1014093	3,4,4',5-Tetrachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1013795	KWG1014093	Decachlorobiphenyl	METHOD BLANK		0.48	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8082A	K1013795	KWG1014093	Tetrachloro-m-xylene	METHOD BLANK			%
8151A	K1013795	KWG1014256	2,4,5-T	METHOD BLANK		0.058	ug/L
8151A	K1013795	KWG1014256	2,4,5-TP	METHOD BLANK		0.054	ug/L
8151A	K1013795	KWG1014256	2,4-D	METHOD BLANK		0.054	ug/L
8151A	K1013795	KWG1014256	2,4-DB	METHOD BLANK		0.17	ug/L
8151A	K1013795	KWG1014256	2,4-Dichlorophenylacetic Acid	METHOD BLANK			%
8151A	K1013795	KWG1014256	Dalapon	METHOD BLANK		0.095	ug/L
8151A	K1013795	KWG1014256	Dicamba	METHOD BLANK		0.10	ug/L
8151A	K1013795	KWG1014256	Dichlorprop	METHOD BLANK		0.060	ug/L
8151A	K1013795	KWG1014256	Dinoseb	METHOD BLANK		0.050	ug/L
8151A	K1013795	KWG1014256	MCPA	METHOD BLANK		35	ug/L
8151A	K1013795	KWG1014256	MCPP	METHOD BLANK		31	ug/L
8260B	K1013795	KWG1014076	1,1,1,2-Tetrachloroethane	METHOD BLANK		0.11	ug/L
8260B	K1013795	KWG1014076	1,1,1-Trichloroethane	METHOD BLANK		0.075	ug/L
8260B	K1013795	KWG1014076	1,1,2,2-Tetrachloroethane	METHOD BLANK		0.16	ug/L
8260B	K1013795	KWG1014076	1,1,2-Trichloroethane	METHOD BLANK		0.14	ug/L
8260B	K1013795	KWG1014076	1,1-Dichloroethane	METHOD BLANK		0.077	ug/L
8260B	K1013795	KWG1014076	1,1-Dichloroethene	METHOD BLANK		0.074	ug/L
8260B	K1013795	KWG1014076	1,2,3-Trichloropropane	METHOD BLANK		0.20	ug/L
8260B	K1013795	KWG1014076	1,2,4-Trimethylbenzene	METHOD BLANK		0.069	ug/L
8260B	K1013795	KWG1014076	1,2-Dibromoethane	METHOD BLANK		0.10	ug/L
8260B	K1013795	KWG1014076	1,2-Dichloroethane	METHOD BLANK		0.080	ug/L
8260B	K1013795	KWG1014076	1,2-Dichloropropane	METHOD BLANK		0.095	ug/L
8260B	K1013795	KWG1014076	1,3,5-Trimethylbenzene	METHOD BLANK		0.089	ug/L
8260B	K1013795	KWG1014076	1,3-Dichloropropane	METHOD BLANK		0.14	ug/L
8260B	K1013795	KWG1014076	2,2-Dichloropropane	METHOD BLANK		0.060	ug/L
8260B	K1013795	KWG1014076	2-Butanone	METHOD BLANK		1.9	ug/L
8260B	K1013795	KWG1014076	2-Chloroethyl Vinyl Ether	METHOD BLANK		0.16	ug/L
8260B	K1013795	KWG1014076	2-Hexanone	METHOD BLANK		2.7	ug/L
8260B	K1013795	KWG1014076	4-Bromofluorobenzene	METHOD BLANK			%

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8260B	K1013795	KWG1014076	4-Isopropyltoluene	METHOD BLANK		0.051	ug/L
8260B	K1013795	KWG1014076	4-Methyl-2-pentanone	METHOD BLANK		2.6	ug/L
8260B	K1013795	KWG1014076	Acetone	METHOD BLANK		3.3	ug/L
8260B	K1013795	KWG1014076	Acrolein	METHOD BLANK		0.96	ug/L
8260B	K1013795	KWG1014076	Acrylonitrile	METHOD BLANK		0.26	ug/L
8260B	K1013795	KWG1014076	Benzene	METHOD BLANK		0.054	ug/L
8260B	K1013795	KWG1014076	Bromochloromethane	METHOD BLANK		0.16	ug/L
8260B	K1013795	KWG1014076	Bromodichloromethane	METHOD BLANK		0.091	ug/L
8260B	K1013795	KWG1014076	Bromoform	METHOD BLANK		0.16	ug/L
8260B	K1013795	KWG1014076	Bromomethane	METHOD BLANK		0.090	ug/L
8260B	K1013795	KWG1014076	Carbon Disulfide	METHOD BLANK		0.10	ug/L
8260B	K1013795	KWG1014076	Carbon Tetrachloride	METHOD BLANK		0.096	ug/L
8260B	K1013795	KWG1014076	Chlorobenzene	METHOD BLANK		0.11	ug/L
8260B	K1013795	KWG1014076	Chloroethane	METHOD BLANK		0.16	ug/L
8260B	K1013795	KWG1014076	Chloroform	METHOD BLANK		0.072	ug/L
8260B	K1013795	KWG1014076	Chloromethane	METHOD BLANK		0.068	ug/L
8260B	K1013795	KWG1014076	cis-1,2-Dichloroethene	METHOD BLANK		0.067	ug/L
8260B	K1013795	KWG1014076	cis-1,3-Dichloropropene	METHOD BLANK		0.18	ug/L
8260B	K1013795	KWG1014076	Dibromochloromethane	METHOD BLANK		0.14	ug/L
8260B	K1013795	KWG1014076	Dibromofluoromethane	METHOD BLANK			%
8260B	K1013795	KWG1014076	Dibromomethane	METHOD BLANK		0.15	ug/L
8260B	K1013795	KWG1014076	Dichlorodifluoromethane	METHOD BLANK		0.13	ug/L
8260B	K1013795	KWG1014076	Dichlorofluoromethane	METHOD BLANK		0.11	ug/L
8260B	K1013795	KWG1014076	Dichloromethane	METHOD BLANK		0.17	ug/L
8260B	K1013795	KWG1014076	Ethylbenzene	METHOD BLANK		0.050	ug/L
8260B	K1013795	KWG1014076	Iodomethane	METHOD BLANK	0.12	0.11	ug/L
8260B	K1013795	KWG1014076	Isopropylbenzene	METHOD BLANK		0.091	ug/L
8260B	K1013795	KWG1014076	m,p-Xylenes	METHOD BLANK		0.091	ug/L
8260B	K1013795	KWG1014076	Naphthalene	METHOD BLANK		0.088	ug/L
8260B	K1013795	KWG1014076	n-Butylbenzene	METHOD BLANK		0.42	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8260B	K1013795	KWG1014076	n-Propylbenzene	METHOD BLANK		0.53	ug/L
8260B	K1013795	KWG1014076	o-Xylene	METHOD BLANK		0.074	ug/L
8260B	K1013795	KWG1014076	sec-Butylbenzene	METHOD BLANK		0.062	ug/L
8260B	K1013795	KWG1014076	Styrene	METHOD BLANK		0.12	ug/L
8260B	K1013795	KWG1014076	Tetrachloroethene	METHOD BLANK		0.099	ug/L
8260B	K1013795	KWG1014076	Toluene	METHOD BLANK		0.052	ug/L
8260B	K1013795	KWG1014076	Toluene-d8	METHOD BLANK			%
8260B	K1013795	KWG1014076	trans-1,2-Dichloroethene	METHOD BLANK		0.091	ug/L
8260B	K1013795	KWG1014076	trans-1,3-Dichloropropene	METHOD BLANK		0.068	ug/L
8260B	K1013795	KWG1014076	trans-1,4-Dichloro-2-butene	METHOD BLANK		0.35	ug/L
8260B	K1013795	KWG1014076	Trichloroethene	METHOD BLANK		0.10	ug/L
8260B	K1013795	KWG1014076	Trichlorofluoromethane	METHOD BLANK		0.12	ug/L
8260B	K1013795	KWG1014076	Vinyl Acetate	METHOD BLANK		0.43	ug/L
8260B	K1013795	KWG1014076	Vinyl Chloride	METHOD BLANK		0.075	ug/L
8270C	K1013795	KWG1013726	1,2,4-Trichlorobenzene	METHOD BLANK		0.016	ug/L
8270C	K1013795	KWG1013726	1,2-Dichlorobenzene	METHOD BLANK		0.022	ug/L
8270C	K1013795	KWG1013726	1,3-Dichlorobenzene	METHOD BLANK		0.021	ug/L
8270C	K1013795	KWG1013726	1,4-Dichlorobenzene	METHOD BLANK		0.029	ug/L
8270C	K1013795	KWG1013726	2,4,5-Trichlorophenol	METHOD BLANK		0.031	ug/L
8270C	K1013795	KWG1013726	2,4,6-Tribromophenol	METHOD BLANK			%
8270C	K1013795	KWG1013726	2,4,6-Trichlorophenol	METHOD BLANK		0.058	ug/L
8270C	K1013795	KWG1013726	2,4-Dichlorophenol	METHOD BLANK		0.047	ug/L
8270C	K1013795	KWG1013726	2,4-Dimethylphenol	METHOD BLANK		2.2	ug/L
8270C	K1013795	KWG1013726	2,4-Dinitrophenol	METHOD BLANK		0.17	ug/L
8270C	K1013795	KWG1013726	2,4-Dinitrotoluene	METHOD BLANK		0.018	ug/L
8270C	K1013795	KWG1013726	2,6-Dinitrotoluene	METHOD BLANK		0.033	ug/L
8270C	K1013795	KWG1013726	2-Chloronaphthalene	METHOD BLANK		0.041	ug/L
8270C	K1013795	KWG1013726	2-Chlorophenol	METHOD BLANK		0.054	ug/L
8270C	K1013795	KWG1013726	2-Fluorobiphenyl	METHOD BLANK			%
8270C	K1013795	KWG1013726	2-Fluorophenol	METHOD BLANK			%

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8270C	K1013795	KWG1013726	2-Methylphenol	METHOD BLANK		0.11	ug/L
8270C	K1013795	KWG1013726	2-Nitroaniline	METHOD BLANK		0.024	ug/L
8270C	K1013795	KWG1013726	2-Nitrophenol	METHOD BLANK		0.063	ug/L
8270C	K1013795	KWG1013726	3,3'-Dichlorobenzidine	METHOD BLANK		0.43	ug/L
8270C	K1013795	KWG1013726	3-Nitroaniline	METHOD BLANK		0.029	ug/L
8270C	K1013795	KWG1013726	4,6-Dinitro-2-methylphenol	METHOD BLANK		0.025	ug/L
8270C	K1013795	KWG1013726	4-Bromophenyl Phenyl Ether	METHOD BLANK		0.026	ug/L
8270C	K1013795	KWG1013726	4-Chloro-3-methylphenol	METHOD BLANK		0.037	ug/L
8270C	K1013795	KWG1013726	4-Chloroaniline	METHOD BLANK		0.025	ug/L
8270C	K1013795	KWG1013726	4-Chlorophenyl Phenyl Ether	METHOD BLANK		0.027	ug/L
8270C	K1013795	KWG1013726	4-Methylphenol	METHOD BLANK		0.12	ug/L
8270C	K1013795	KWG1013726	4-Nitroaniline	METHOD BLANK		0.019	ug/L
8270C	K1013795	KWG1013726	4-Nitrophenol	METHOD BLANK		0.28	ug/L
8270C	K1013795	KWG1013726	Benzoic Acid	METHOD BLANK		1.1	ug/L
8270C	K1013795	KWG1013726	Benzyl Alcohol	METHOD BLANK		0.073	ug/L
8270C	K1013795	KWG1013726	Bis(2-chloroethoxy)methane	METHOD BLANK		0.024	ug/L
8270C	K1013795	KWG1013726	Bis(2-chloroethyl) Ether	METHOD BLANK		0.035	ug/L
8270C	K1013795	KWG1013726	Bis(2-chloroisopropyl) Ether	METHOD BLANK		0.026	ug/L
8270C	K1013795	KWG1013726	Bis(2-ethylhexyl) Phthalate	METHOD BLANK		0.13	ug/L
8270C	K1013795	KWG1013726	Butyl Benzyl Phthalate	METHOD BLANK		0.018	ug/L
8270C	K1013795	KWG1013726	Carbazole	METHOD BLANK		0.018	ug/L
8270C	K1013795	KWG1013726	Dibenzofuran	METHOD BLANK		0.018	ug/L
8270C	K1013795	KWG1013726	Diethyl Phthalate	METHOD BLANK	0.019	0.012	ug/L
8270C	K1013795	KWG1013726	Dimethyl Phthalate	METHOD BLANK		0.021	ug/L
8270C	K1013795	KWG1013726	Di-n-butyl Phthalate	METHOD BLANK		0.023	ug/L
8270C	K1013795	KWG1013726	Di-n-octyl Phthalate	METHOD BLANK		0.018	ug/L
8270C	K1013795	KWG1013726	Hexachlorobenzene	METHOD BLANK		0.022	ug/L
8270C	K1013795	KWG1013726	Hexachlorobutadiene	METHOD BLANK		0.027	ug/L
8270C	K1013795	KWG1013726	Hexachlorocyclopentadiene	METHOD BLANK		0.19	ug/L
8270C	K1013795	KWG1013726	Hexachloroethane	METHOD BLANK		0.024	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8270C	K1013795	KWG1013726	Isophorone	METHOD BLANK		0.016	ug/L
8270C	K1013795	KWG1013726	Nitrobenzene	METHOD BLANK		0.028	ug/L
8270C	K1013795	KWG1013726	Nitrobenzene-d5	METHOD BLANK			%
8270C	K1013795	KWG1013726	N-Nitrosodimethylamine	METHOD BLANK		0.42	ug/L
8270C	K1013795	KWG1013726	N-Nitrosodi-n-propylamine	METHOD BLANK		0.037	ug/L
8270C	K1013795	KWG1013726	N-Nitrosodiphenylamine	METHOD BLANK		0.048	ug/L
8270C	K1013795	KWG1013726	Pentachlorophenol	METHOD BLANK		0.34	ug/L
8270C	K1013795	KWG1013726	Phenol	METHOD BLANK	0.13	0.063	ug/L
8270C	K1013795	KWG1013726	Phenol-d6	METHOD BLANK			%
8270C	K1013795	KWG1013726	p-Terphenyl-d14	METHOD BLANK			%
8270C SIM	K1013795	KWG1013727	2-Methylnaphthalene	METHOD BLANK		0.0023	ug/L
8270C SIM	K1013795	KWG1013727	Acenaphthene	METHOD BLANK		0.0044	ug/L
8270C SIM	K1013795	KWG1013727	Acenaphthylene	METHOD BLANK		0.0034	ug/L
8270C SIM	K1013795	KWG1013727	Anthracene	METHOD BLANK		0.0036	ug/L
8270C SIM	K1013795	KWG1013727	Benz(a)anthracene	METHOD BLANK	0.0032	0.0026	ug/L
8270C SIM	K1013795	KWG1013727	Benzo(a)pyrene	METHOD BLANK		0.0043	ug/L
8270C SIM	K1013795	KWG1013727	Benzo(b)fluoranthene	METHOD BLANK		0.0023	ug/L
8270C SIM	K1013795	KWG1013727	Benzo(g,h,i)perylene	METHOD BLANK		0.0029	ug/L
8270C SIM	K1013795	KWG1013727	Benzo(k)fluoranthene	METHOD BLANK		0.0025	ug/L
8270C SIM	K1013795	KWG1013727	Chrysene	METHOD BLANK		0.0034	ug/L
8270C SIM	K1013795	KWG1013727	Dibenz(a,h)anthracene	METHOD BLANK		0.0025	ug/L
8270C SIM	K1013795	KWG1013727	Fluoranthene	METHOD BLANK		0.0044	ug/L
8270C SIM	K1013795	KWG1013727	Fluoranthene-d10	METHOD BLANK			%
8270C SIM	K1013795	KWG1013727	Fluorene	METHOD BLANK		0.0038	ug/L
8270C SIM	K1013795	KWG1013727	Fluorene-d10	METHOD BLANK			%
8270C SIM	K1013795	KWG1013727	Indeno(1,2,3-cd)pyrene	METHOD BLANK		0.0026	ug/L
8270C SIM	K1013795	KWG1013727	Naphthalene	METHOD BLANK		0.0030	ug/L
8270C SIM	K1013795	KWG1013727	Phenanthrene	METHOD BLANK		0.0050	ug/L
8270C SIM	K1013795	KWG1013727	p-Terphenyl-d14	METHOD BLANK			%
8270C SIM	K1013795	KWG1013727	Pyrene	METHOD BLANK		0.0035	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
9014	K1013795	229827	Cyanide, Free	METHOD BLANK		0.010	mg/L
9030M	K1013795	125984	Sulfide, Total	METHOD BLANK		0.03	mg/L
NWTPH-Dx	K1013795	KWG1013973	Diesel Range Organics	METHOD BLANK	12	11	ug/L
NWTPH-Dx	K1013795	KWG1013973	n-Triacontane	METHOD BLANK			%
NWTPH-Dx	K1013795	KWG1013973	o-Terphenyl	METHOD BLANK			%
NWTPH-Dx	K1013795	KWG1013973	Residual Range Organics	METHOD BLANK	31	19	ug/L
SM 2510 B	K1013795	230667	Conductivity	METHOD BLANK	1.5	0.4	uMHO
SM 2540 D	K1013795	229218	Solids, Total Suspended	METHOD BLANK		5.0	mg/L
SM4500CNE	K1013795	125751	Cyanide, Total	METHOD BLANK		0.003	mg/L

Table 3. SURROGATE SUMMARY

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8081A	K1013795	Decachlorobiphenyl	SPI-2-W-121310	PP01	KWG1100123	89	35	128	OK
	K1013795	Decachlorobiphenyl	SPI-1-W-121310	PP01	KWG1100123	89	35	128	OK
	K1013795	Tetrachloro-m-xylene	SPI-1-W-121310	PP01	KWG1100123	53	20	102	OK
	K1013795	Tetrachloro-m-xylene	SPI-2-W-121310	PP01	KWG1100123	52	20	102	OK
8082A	K1013795	Tetrachloro-m-xylene	SPI-1-W-121310	PP01	KWG1014093	88	26	100	OK
	K1013795	Tetrachloro-m-xylene	SPI-2-W-121310	PP01	KWG1014093	73	26	100	OK
8151A	K1013795	2,4-Dichlorophenylacetic Acid	SPI-1-W-121310	PP01	KWG1014256	57	10	136	OK
	K1013795	2,4-Dichlorophenylacetic Acid	SPI-2-W-121310	PP01	KWG1014256	68	10	136	OK
8260B	K1013795	4-Bromofluorobenzene	SPI-1-W-121310	PP01	KWG1014076	75	68	117	OK
	K1013795	4-Bromofluorobenzene	TRIP BLANK	PP01	KWG1014076	71	68	117	OK
	K1013795	4-Bromofluorobenzene	SPI-2-W-121310	PP01	KWG1014076	76	68	117	OK
	K1013795	Dibromofluoromethane	SPI-1-W-121310	PP01	KWG1014076	83	73	122	OK
	K1013795	Dibromofluoromethane	TRIP BLANK	PP01	KWG1014076	87	73	122	OK
	K1013795	Dibromofluoromethane	SPI-2-W-121310	PP01	KWG1014076	84	73	122	OK
	K1013795	Toluene-d8	SPI-1-W-121310	PP01	KWG1014076	79	78	129	OK
	K1013795	Toluene-d8	TRIP BLANK	PP01	KWG1014076	80	78	129	OK
	K1013795	Toluene-d8	SPI-2-W-121310	PP01	KWG1014076	82	78	129	OK
8270C	K1013795	2,4,6-Tribromophenol	SPI-1-W-121310	PP01	KWG1013726	86	23	127	OK
	K1013795	2,4,6-Tribromophenol	SPI-2-W-121310	PP01	KWG1013726	66	23	127	OK
	K1013795	2-Fluorobiphenyl	SPI-2-W-121310	PP01	KWG1013726	65	31	94	OK
	K1013795	2-Fluorobiphenyl	SPI-1-W-121310	PP01	KWG1013726	164	31	94	FAIL
	K1013795	2-Fluorophenol	SPI-2-W-121310	PP01	KWG1013726	69	12	109	OK
	K1013795	2-Fluorophenol	SPI-1-W-121310	PP01	KWG1013726	85	12	109	OK
	K1013795	Nitrobenzene-d5	SPI-2-W-121310	PP01	KWG1013726	67	26	110	OK
	K1013795	Nitrobenzene-d5	SPI-1-W-121310	PP01	KWG1013726	82	26	110	OK
	K1013795	Phenol-d6	SPI-2-W-121310	PP01	KWG1013726	60	23	106	OK
	K1013795	Phenol-d6	SPI-1-W-121310	PP01	KWG1013726	0	23	106	FAIL

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8270C	K1013795	p-Terphenyl-d14	SPI-2-W-121310	PP01	KWG1013726	76	40	127	OK
	K1013795	p-Terphenyl-d14	SPI-1-W-121310	PP01	KWG1013726	136	40	127	FAIL
8270C SIM	K1013795	Fluoranthene-d10	SPI-1-W-121310	PP01	KWG1013727	92	31	105	OK
	K1013795	Fluoranthene-d10	SPI-2-W-121310	PP01	KWG1013727	100	31	105	OK
	K1013795	Fluorene-d10	SPI-1-W-121310	PP01	KWG1013727	80	28	98	OK
	K1013795	Fluorene-d10	SPI-2-W-121310	PP01	KWG1013727	84	28	98	OK
	K1013795	p-Terphenyl-d14	SPI-2-W-121310	PP01	KWG1013727	109	27	112	OK
	K1013795	p-Terphenyl-d14	SPI-1-W-121310	PP01	KWG1013727	109	27	112	OK
NWTPH-Dx	K1013795	n-Triacontane	SPI-1-W-121310	PP01	KWG1013973	79	50	150	OK
	K1013795	n-Triacontane	SPI-2-W-121310	PP01	KWG1013973	75	50	150	OK
	K1013795	o-Terphenyl	SPI-2-W-121310	PP01	KWG1013973	76	50	150	OK
	K1013795	o-Terphenyl	SPI-1-W-121310	PP01	KWG1013973	81	50	150	OK

Table 4. LCS SUMMARY

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1631E	Mercury, Total	CK11	K1013795	125656	OK RECOVER	NA	NA
	Mercury, Total	CK12	K1013795	125656	OK RECOVER	NA	NA
1664	Oil and Grease, Total (HE	CK11	K1013795	126627	OK RECOVER	NA	NA
	Oil and Grease, Total (HE	DK11	K1013795	126627	NA	OK DRECOVER	OK RPD
180.1	Turbidity	CK11	K1013795	229235	OK RECOVER	NA	NA
200.7	Iron, Total	CK11	K1013795	126097	OK RECOVER	NA	NA
200.8	Aluminum, Total	CK11	K1013795	126102R	OK RECOVER	NA	NA
	Antimony, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Arsenic, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Cadmium, Total	CK11	K1013795	126102R	OK RECOVER	NA	NA
	Chromium, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Copper, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Lead, Total	CK11	K1013795	126102R	OK RECOVER	NA	NA
	Manganese, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Molybdenum, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Nickel, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Selenium, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Silver, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
	Zinc, Total	CK11	K1013795	126102	OK RECOVER	NA	NA
300.0	Sulfate	CK11	K1013795	229416	OK RECOVER	NA	NA
350.1	Ammonia as Nitrogen	CK11	K1013795	229066	OK RECOVER	NA	NA
	Ammonia as Nitrogen	CK11	K1013795	229066	OK RECOVER	NA	NA
415.1	Carbon, Total Organic	CK11	K1013795	229447	OK RECOVER	NA	NA
8081A	2,4'-DDD	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	2,4'-DDD	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	2,4'-DDE	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	2,4'-DDE	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	2,4'-DDT	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	2,4'-DDT	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	4,4'-DDD	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081A	4,4'-DDD	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	4,4'-DDE	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	4,4'-DDE	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	4,4'-DDT	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	4,4'-DDT	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Aldrin	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Aldrin	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	alpha-BHC	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	alpha-BHC	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	alpha-Chlordane	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	alpha-Chlordane	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	beta-BHC	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	beta-BHC	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Chlordane	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Chlordane	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	cis-Nonachlor	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	cis-Nonachlor	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	delta-BHC	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	delta-BHC	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Dieldrin	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Dieldrin	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Endosulfan I	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Endosulfan I	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Endosulfan II	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Endosulfan II	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Endosulfan Sulfate	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Endosulfan Sulfate	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Endrin	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Endrin	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Endrin Aldehyde	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Endrin Aldehyde	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Endrin Ketone	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081A	Endrin Ketone	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	gamma-BHC	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	gamma-BHC	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	gamma-Chlordane	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	gamma-Chlordane	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Heptachlor	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Heptachlor	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Heptachlor Epoxide	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Heptachlor Epoxide	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Hexachlorobenzene	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Hexachlorobenzene	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Methoxychlor	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Methoxychlor	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Oxychlordane	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Oxychlordane	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
	Toxaphene	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	Toxaphene	DK11	K1013795	KWG1100123	NA	NOT OK HIGH	OK RPD
	trans-Nonachlor	CK11	K1013795	KWG1100123	OK RECOVER	NA	NA
	trans-Nonachlor	DK11	K1013795	KWG1100123	NA	OK DRECOVER	OK RPD
8082A	2,2',3,3',4,4',5,5',6-Nonac	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,3',4,4',5,5',6-Nonac	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,3',4,4',5,6-Octachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,3',4,4',5,6-Octachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,3',4,4',5-Heptachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,3',4,4',5-Heptachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,3',4,4'-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,3',4,4'-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',5,5'-Heptachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,4,4',5,5'-Heptachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',5',6-Heptachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,4,4',5',6-Heptachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',5'-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2,2',3,4,4',5'-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',6,6'-Heptachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,4,4',6,6'-Heptachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4',5,5',6-Heptachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,4',5,5',6-Heptachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4',5-Pentachlorobip	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,4',5-Pentachlorobip	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,4,5'-Pentachlorobip	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,4,5'-Pentachlorobip	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',3,5'-Tetrachlorobiphe	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',3,5'-Tetrachlorobiphe	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',4,4',5,5'-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',4,4',5,5'-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',5,5'-Tetrachlorobiphe	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',5,5'-Tetrachlorobiphe	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,2',5-Trichlorobiphenyl	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,2',5-Trichlorobiphenyl	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',5,5'-Heptachlor	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,3',4,4',5,5'-Heptachlor	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',5'-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,3',4,4',5'-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',5-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,3',4,4',5-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',6-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,3',4,4',6-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,3',4,4'-Pentachlorobip	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,3',4,4'-Pentachlorobip	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3',4,4',5,5'-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3',4,4',5,5'-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,4,4',5,6-Hexachlorobip	DK11	K1013795	KWG1014093	NA	NA	OK RPD
	2',3,4,4',5-Pentachlorobip	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2',3,4,4',5-Pentachlorobip	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2,3',4,4',5-Pentachlorobip	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3',4,4',5-Pentachlorobip	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,4,4',5-Pentachlorobiph	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,4,4',5-Pentachlorobiph	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3',4,4'-Tetrachlorobiphe	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3',4,4'-Tetrachlorobiphe	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,3,4,4'-Tetrachlorobiphe	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,3,4,4'-Tetrachlorobiphe	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,4,4'-Trichlorobiphenyl	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,4,4'-Trichlorobiphenyl	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	2,4'-Dichlorobiphenyl	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	2,4'-Dichlorobiphenyl	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	3,3',4,4',5,5'-Hexachlorobi	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	3,3',4,4',5,5'-Hexachlorobi	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	3,3',4,4',5-Pentachlorobip	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	3,3',4,4',5-Pentachlorobip	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	3,3',4,4'-Tetrachlorobiphe	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	3,3',4,4'-Tetrachlorobiphe	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	3,4,4',5-Tetrachlorobiphe	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	3,4,4',5-Tetrachlorobiphe	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
	Decachlorobiphenyl	CK11	K1013795	KWG1014093	OK RECOVER	NA	NA
	Decachlorobiphenyl	DK11	K1013795	KWG1014093	NA	OK DRECOVER	OK RPD
8151A	2,4,5-T	CK11	K1013795	KWG1014256	NOT OK LOW	NA	NA
	2,4,5-T	DK11	K1013795	KWG1014256	NA	NOT OK LOW	OK RPD
	2,4,5-TP	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	2,4,5-TP	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	2,4-D	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	2,4-D	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	2,4-DB	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	2,4-DB	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	Dalapon	CK11	K1013795	KWG1014256	NOT OK LOW	NA	NA
	Dalapon	DK11	K1013795	KWG1014256	NA	OK DRECOVER	NOT OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8151A	Dicamba	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	Dicamba	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	Dichlorprop	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	Dichlorprop	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	Dinoseb	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	Dinoseb	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	MCPA	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	MCPA	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
	MCPP	CK11	K1013795	KWG1014256	OK RECOVER	NA	NA
	MCPP	DK11	K1013795	KWG1014256	NA	OK DRECOVER	OK RPD
8260B	1,1,1,2-Tetrachloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,1,1,2-Tetrachloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,1,1-Trichloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,1,1-Trichloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,1,2,2-Tetrachloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,1,2,2-Tetrachloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,1,2-Trichloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,1,2-Trichloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,1-Dichloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,1-Dichloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,1-Dichloroethene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,1-Dichloroethene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,2,3-Trichloropropane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,2,3-Trichloropropane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,2,4-Trimethylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,2,4-Trimethylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,2-Dibromoethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,2-Dibromoethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,2-Dichloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,2-Dichloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,2-Dichloropropane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,2-Dichloropropane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260B	1,3,5-Trimethylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,3,5-Trimethylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	1,3-Dichloropropane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	1,3-Dichloropropane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	2,2-Dichloropropane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	2,2-Dichloropropane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	2-Butanone	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	2-Butanone	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	2-Chloroethyl Vinyl Ether	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	2-Chloroethyl Vinyl Ether	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	2-Hexanone	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	2-Hexanone	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	4-Isopropyltoluene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	4-Isopropyltoluene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	4-Methyl-2-pentanone	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	4-Methyl-2-pentanone	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Acetone	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Acetone	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Acrolein	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Acrolein	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Acrylonitrile	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Acrylonitrile	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Benzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Benzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Bromochloromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Bromochloromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Bromodichloromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Bromodichloromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Bromoform	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Bromoform	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Bromomethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Bromomethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260B	Carbon Disulfide	CK11	K1013795	KWG1014076	NOT OK HIGH	NA	NA
	Carbon Disulfide	DK11	K1013795	KWG1014076	NA	NOT OK HIGH	OK RPD
	Carbon Tetrachloride	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Carbon Tetrachloride	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Chlorobenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Chlorobenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Chloroethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Chloroethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Chloroform	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Chloroform	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Chloromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Chloromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	cis-1,2-Dichloroethene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	cis-1,2-Dichloroethene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	cis-1,3-Dichloropropene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	cis-1,3-Dichloropropene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Dibromochloromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Dibromochloromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Dibromomethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Dibromomethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Dichlorodifluoromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Dichlorodifluoromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Dichlorofluoromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Dichlorofluoromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Dichloromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Dichloromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Ethylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Ethylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Iodomethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Iodomethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Isopropylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Isopropylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260B	m,p-Xylenes	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	m,p-Xylenes	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Naphthalene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Naphthalene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	n-Butylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	n-Butylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	n-Propylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	n-Propylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	o-Xylene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	o-Xylene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	sec-Butylbenzene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	sec-Butylbenzene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Styrene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Styrene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Tetrachloroethene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Tetrachloroethene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Toluene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Toluene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	trans-1,2-Dichloroethene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	trans-1,2-Dichloroethene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	trans-1,3-Dichloropropen	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	trans-1,3-Dichloropropen	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	trans-1,4-Dichloro-2-bute	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	trans-1,4-Dichloro-2-bute	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Trichloroethene	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Trichloroethene	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Trichlorofluoromethane	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Trichlorofluoromethane	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Vinyl Acetate	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Vinyl Acetate	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD
	Vinyl Chloride	CK11	K1013795	KWG1014076	OK RECOVER	NA	NA
	Vinyl Chloride	DK11	K1013795	KWG1014076	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	1,2,4-Trichlorobenzene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	1,2,4-Trichlorobenzene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	1,2-Dichlorobenzene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	1,2-Dichlorobenzene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	1,3-Dichlorobenzene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	1,3-Dichlorobenzene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	1,4-Dichlorobenzene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	1,4-Dichlorobenzene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2,4,5-Trichlorophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,4,5-Trichlorophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2,4,6-Trichlorophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,4,6-Trichlorophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2,4-Dichlorophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,4-Dichlorophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2,4-Dimethylphenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,4-Dimethylphenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	NOT OK
	2,4-Dinitrophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,4-Dinitrophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2,4-Dinitrotoluene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,4-Dinitrotoluene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2,6-Dinitrotoluene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2,6-Dinitrotoluene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2-Chloronaphthalene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2-Chloronaphthalene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2-Chlorophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2-Chlorophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2-Methylphenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2-Methylphenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	2-Nitroaniline	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2-Nitroaniline	DK11	K1013795	KWG1013726	NA	OK DRECOVER	NOT OK
	2-Nitrophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	2-Nitrophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	3,3'-Dichlorobenzidine	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	3,3'-Dichlorobenzidine	DK11	K1013795	KWG1013726	NA	NOT OK LOW	NA
	3-Nitroaniline	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	3-Nitroaniline	DK11	K1013795	KWG1013726	NA	NOT OK LOW	NOT OK
	4,6-Dinitro-2-methylphen	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4,6-Dinitro-2-methylphen	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	4-Bromophenyl Phenyl Et	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Bromophenyl Phenyl Et	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	4-Chloro-3-methylphenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Chloro-3-methylphenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	4-Chloroaniline	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Chloroaniline	DK11	K1013795	KWG1013726	NA	NOT OK LOW	NOT OK
	4-Chlorophenyl Phenyl Et	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Chlorophenyl Phenyl Et	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	4-Methylphenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Methylphenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	4-Nitroaniline	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Nitroaniline	DK11	K1013795	KWG1013726	NA	NOT OK LOW	NOT OK
	4-Nitrophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	4-Nitrophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Benzoic Acid	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Benzoic Acid	DK11	K1013795	KWG1013726	NA	OK DRECOVER	NA
	Benzyl Alcohol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Benzyl Alcohol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Bis(2-chloroethoxy)metha	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Bis(2-chloroethoxy)metha	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Bis(2-chloroethyl) Ether	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Bis(2-chloroethyl) Ether	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Bis(2-chloroisopropyl) Eth	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Bis(2-chloroisopropyl) Eth	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Bis(2-ethylhexyl) Phthalat	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Bis(2-ethylhexyl) Phthalat	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Butyl Benzyl Phthalate	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Butyl Benzyl Phthalate	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Carbazole	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Carbazole	DK11	K1013795	KWG1013726	NA	OK DRECOVER	NOT OK
	Dibenzofuran	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Dibenzofuran	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Diethyl Phthalate	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Diethyl Phthalate	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Dimethyl Phthalate	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Dimethyl Phthalate	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Di-n-butyl Phthalate	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Di-n-butyl Phthalate	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Di-n-octyl Phthalate	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Di-n-octyl Phthalate	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Hexachlorobenzene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Hexachlorobenzene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Hexachlorobutadiene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Hexachlorobutadiene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Hexachlorocyclopentadie	CK11	K1013795	KWG1013726	NOT OK LOW	NA	NA
	Hexachlorocyclopentadie	DK11	K1013795	KWG1013726	NA	OK DRECOVER	NOT OK
	Hexachloroethane	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Hexachloroethane	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Isophorone	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Isophorone	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Nitrobenzene	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Nitrobenzene	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	N-Nitrosodimethylamine	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	N-Nitrosodimethylamine	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	N-Nitrosodi-n-propylamin	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	N-Nitrosodi-n-propylamin	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	N-Nitrosodiphenylamine	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	N-Nitrosodiphenylamine	DK11	K1013795	KWG1013726	NA	OK DRECOVER	NOT OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Pentachlorophenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Pentachlorophenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
	Phenol	CK11	K1013795	KWG1013726	OK RECOVER	NA	NA
	Phenol	DK11	K1013795	KWG1013726	NA	OK DRECOVER	OK RPD
8270C SIM	2-Methylnaphthalene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	2-Methylnaphthalene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Acenaphthene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Acenaphthene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Acenaphthylene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Acenaphthylene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Anthracene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Anthracene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Benz(a)anthracene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Benz(a)anthracene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Benzo(a)pyrene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Benzo(a)pyrene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Benzo(b)fluoranthene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Benzo(b)fluoranthene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Benzo(g,h,i)perylene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Benzo(g,h,i)perylene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Benzo(k)fluoranthene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Benzo(k)fluoranthene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Chrysene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Chrysene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Dibenz(a,h)anthracene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Dibenz(a,h)anthracene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Fluoranthene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Fluoranthene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Fluorene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Fluorene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Indeno(1,2,3-cd)pyrene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Indeno(1,2,3-cd)pyrene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C SIM	Naphthalene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Naphthalene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Phenanthrene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Phenanthrene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
	Pyrene	CK11	K1013795	KWG1013727	OK RECOVER	NA	NA
	Pyrene	DK11	K1013795	KWG1013727	NA	OK DRECOVER	OK RPD
9014	Cyanide, Free	CK11	K1013795	229827	OK RECOVER	NA	NA
9030M	Sulfide, Total	CK11	K1013795	125984	OK RECOVER	NA	NA
NWTPH-Dx	Diesel Range Organics	CK11	K1013795	KWG1013973	OK RECOVER	NA	NA
	Residual Range Organics	CK11	K1013795	KWG1013973	OK RECOVER	NA	NA
SM 2510 B	Conductivity	CK11	K1013795	230667	OK RECOVER	NA	NA
SM 2540 D	Solids, Total Suspended	CK11	K1013795	229218	OK RECOVER	NA	NA
SM4500CNE	Cyanide, Total	CK11	K1013795	125751	OK RECOVER	NA	NA
SM4500-H+B	pH	CK11	K1013795	229183	OK RECOVER	NA	NA

Table 5. MS SUMMARY

METHOD_	RES_	LAB_CHEM	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1631E	SL11	Mercury, Total	K1013795	125656	OK RECOVER	NA	NA
	DL11	Mercury, Total	K1013795	125656	NA	OK DRECOVER	OK RPD
200.7	SL11	Iron, Dissolved	K1013795	126097	OK RECOVER	NA	NA
200.8	SL11	Aluminum, Total	K1013795	126102R	NOT OK LOW	NA	NA
	SL11	Antimony, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Arsenic, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Cadmium, Total	K1013795	126102R	OK RECOVER	NA	NA
	SL11	Chromium, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Copper, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Lead, Total	K1013795	126102R	OK RECOVER	NA	NA
	SL11	Manganese, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Molybdenum, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Nickel, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Selenium, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Silver, Total	K1013795	126102	OK RECOVER	NA	NA
	SL11	Zinc, Total	K1013795	126102	OK RECOVER	NA	NA
300.0	SL11	Sulfate	K1013795	229416	OK RECOVER	NA	NA
	DL11	Sulfate	K1013795	229416	NA	OK DRECOVER	NA
415.1	SL11	Carbon, Total Organic	K1013795	229447	OK RECOVER	NA	NA
9014	SL11	Cyanide, Free	K1013795	229827	NOT OK HIGH	NA	NA
	DL11	Cyanide, Free	K1013795	229827	NA	NOT OK HIGH	NA
9030M	SL11	Sulfide, Total	K1013795	125984	OK RECOVER	NA	NA
	DL11	Sulfide, Total	K1013795	125984	NA	OK DRECOVER	NA

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10

Analysis Method: SM 4500-H+ B

Units: pH Units
Basis: NA

pH

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	6.70	J	-		1	NA	12/14/10 12:11	*

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/10
Sample Matrix:	Water	**Date Received:**	12/13/10
Prep Method:	Method	**Units:**	mg/L
Analysis Method:	1664	**Basis:**	NA

Oil and Grease, Total (HEM)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**1.4**	J J	5.0	0.8	1	12/29/10	12/29/10 11:30	
Method Blank	K1013795-MB1	ND	U	5.0	0.8	1	12/29/10	12/29/10 11:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/10
Date Received: 12/13/10

Units: µMHOS/cm
Analysis Method: SM 2510 B
Basis: NA

Conductivity at 25 Degrees Celsius

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-121310	K1013795-001	**15.8**	J	2.0	0.4	1	NA	12/28/10 15:30	
Method Blank	K1013795-MB1	**1.5**	J	2.0	0.4	1	NA	12/28/10 15:30	

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Date Collected:**	12/13/10
Project Name:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-121310 **Lab Code:** K1013795-001

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	01/06/11	01/07/11	638		
Antimony	200.8	0.05	0.02	1.0	12/20/10	12/27/10	1.87		
Arsenic	200.8	0.50	0.07	1.0	12/20/10	12/27/10	0.40	J	J
Cadmium	200.8	0.020	0.005	1.0	01/06/11	01/07/11	0.264		
Chromium	200.8	0.20	0.04	1.0	12/20/10	12/27/10	0.99		
Copper	200.8	0.10	0.02	1.0	12/20/10	12/27/10	4.21		
Lead	200.8	0.020	0.005	1.0	01/06/11	01/07/11	3.730		
Manganese	200.8	0.05	0.01	1.0	12/20/10	12/27/10	16.0		
Molybdenum	200.8	0.050	0.008	1.0	12/20/10	12/27/10	0.476		
Nickel	200.8	0.20	0.03	1.0	12/20/10	12/27/10	1.20		
Selenium	200.8	1.0	0.3	1.0	12/20/10	12/27/10	0.3	J	
Silver	200.8	0.020	0.004	1.0	12/20/10	12/27/10	0.014	J	
Zinc	200.8	0.50	0.20	1.0	12/20/10	12/27/10	111		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1013795
Project No.:	NA	**Date Collected:**	12/13/10
Project Name:	Univar Portland Stormwater 2010	**Date Received:**	12/13/10
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-121310 **Lab Code:** K1013795-002

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	01/06/11	01/07/11	342		
Antimony	200.8	0.05	0.02	1.0	12/20/10	12/27/10	1.20		
Arsenic	200.8	0.50	0.07	1.0	12/20/10	12/27/10	0.57		J
Cadmium	200.8	0.020	0.005	1.0	01/06/11	01/07/11	0.182		
Chromium	200.8	0.20	0.04	1.0	12/20/10	12/27/10	0.95		
Copper	200.8	0.10	0.02	1.0	12/20/10	12/27/10	3.44		
Lead	200.8	0.020	0.005	1.0	01/06/11	01/07/11	2.260		
Manganese	200.8	0.05	0.01	1.0	12/20/10	12/27/10	33.1		
Molybdenum	200.8	0.050	0.008	1.0	12/20/10	12/27/10	0.638		
Nickel	200.8	0.20	0.03	1.0	12/20/10	12/27/10	1.35		
Selenium	200.8	1.0	0.3	1.0	12/20/10	12/27/10	0.3	U	
Silver	200.8	0.020	0.004	1.0	12/20/10	12/27/10	0.009	J	
Zinc	200.8	0.50	0.20	1.0	12/20/10	12/27/10	110		

% Solids: 0.0

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland Stormwater 2010
Sample Matrix: Water

Service Request: K1013795
Date Collected: 12/13/2010
Date Received: 12/13/2010

Congener Specific PCBs

Sample Name: SPI-1-W-121310
Lab Code: K1013795-001

Units: ng/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	5.9	0.99	1	12/20/10	12/24/10	KWG1014093	
PCB 18	**2.7**	BJP J	5.9	0.88	1	12/20/10	12/24/10	KWG1014093	
PCB 28	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 44	ND	U	5.9	0.37	1	12/20/10	12/24/10	KWG1014093	
PCB 52	ND	U	5.9	0.38	1	12/20/10	12/24/10	KWG1014093	
PCB 66	ND	U	5.9	0.36	1	12/20/10	12/24/10	KWG1014093	
PCB 87	ND	Ui	5.9	0.64	1	12/20/10	12/24/10	KWG1014093	
PCB 101	ND	Ui	5.9	5.9	1	12/20/10	12/24/10	KWG1014093	
PCB 114	ND	U	5.9	0.24	1	12/20/10	12/24/10	KWG1014093	
PCB 123	ND	U	5.9	0.23	1	12/20/10	12/24/10	KWG1014093	
PCB 138	**0.80**	J	5.9	0.73	1	12/20/10	12/24/10	KWG1014093	
PCB 156	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 167	ND	U	5.9	0.35	1	12/20/10	12/24/10	KWG1014093	
PCB 180	**0.71**	JP	5.9	0.44	1	12/20/10	12/24/10	KWG1014093	
PCB 183	ND	U	5.9	0.91	1	12/20/10	12/24/10	KWG1014093	
PCB 184	ND	U	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 187	ND	Ui	5.9	0.50	1	12/20/10	12/24/10	KWG1014093	
PCB 189	ND	U	5.9	0.28	1	12/20/10	12/24/10	KWG1014093	
PCB 195	ND	U	5.9	0.39	1	12/20/10	12/24/10	KWG1014093	
PCB 206	ND	U	5.9	0.65	1	12/20/10	12/24/10	KWG1014093	
PCB 209	ND	U	5.9	0.57	1	12/20/10	12/24/10	KWG1014093	
PCB 60	**2.9**	J	5.9	0.46	1	12/20/10	12/24/10	KWG1014093	
PCB 77	ND	U	5.9	0.35	1	12/20/10	12/24/10	KWG1014093	
PCB 81	**1.4**	J	5.9	0.40	1	12/20/10	12/24/10	KWG1014093	
PCB 90	ND	Ui	5.9	0.42	1	12/20/10	12/24/10	KWG1014093	
PCB 105	**0.76**	JP	5.9	0.32	1	12/20/10	12/24/10	KWG1014093	
PCB 118	ND	Ui	5.9	0.64	1	12/20/10	12/24/10	KWG1014093	
PCB 126	ND	U	5.9	0.44	1	12/20/10	12/24/10	KWG1014093	
PCB 128	ND	U	5.9	0.68	1	12/20/10	12/24/10	KWG1014093	
PCB 153	ND	Ui	5.9	0.91	1	12/20/10	12/24/10	KWG1014093	
PCB 157	ND	U	5.9	0.16	1	12/20/10	12/24/10	KWG1014093	
PCB 158	**1.5**	J	5.9	0.36	1	12/20/10	12/24/10	KWG1014093	
PCB 166	ND	U	5.9	0.39	1	12/20/10	12/24/10	KWG1014093	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Chlorinated Herbicides

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U J	0.20	0.095	1	12/16/10	12/31/10	KWG1014256	*
Dicamba	ND	U	0.10	0.10	1	12/16/10	12/31/10	KWG1014256	
MCPP	ND	U	50	31	1	12/16/10	12/31/10	KWG1014256	
MCPA	ND	U	50	35	1	12/16/10	12/31/10	KWG1014256	
Dichlorprop	ND	U	0.20	0.060	1	12/16/10	12/31/10	KWG1014256	
2,4-D	ND	U	0.20	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-TP (Silvex)	ND	U	0.10	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-T	ND	U J	0.10	0.058	1	12/16/10	12/31/10	KWG1014256	*
2,4-DB	ND	U	0.20	0.17	1	12/16/10	12/31/10	KWG1014256	
Dinoseb	ND	U	0.10	0.050	1	12/16/10	12/31/10	KWG1014256	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	57	10-136	12/31/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Chlorinated Herbicides

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U J	0.40	0.095	1	12/16/10	12/31/10	KWG1014256	*
Dicamba	ND	U	0.20	0.10	1	12/16/10	12/31/10	KWG1014256	
MCPP	ND	U	99	31	1	12/16/10	12/31/10	KWG1014256	
MCPA	ND	U	99	35	1	12/16/10	12/31/10	KWG1014256	
Dichlorprop	ND	U	0.40	0.060	1	12/16/10	12/31/10	KWG1014256	
2,4-D	ND	U	0.40	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-TP (Silvex)	ND	U	0.20	0.054	1	12/16/10	12/31/10	KWG1014256	
2,4,5-T	ND	U J	0.20	0.058	1	12/16/10	12/31/10	KWG1014256	*
2,4-DB	ND	U	0.40	0.17	1	12/16/10	12/31/10	KWG1014256	
Dinoseb	ND	U	0.20	0.050	1	12/16/10	12/31/10	KWG1014256	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	68	10-136	12/31/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Volatile Organic Compounds

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	12/23/10	12/23/10	KWG1014076	
Chloromethane	**0.21**	J J	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
Vinyl Chloride	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Bromomethane	ND	U	0.50	0.090	1	12/23/10	12/23/10	KWG1014076	
Chloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Trichlorofluoromethane	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Acrolein	ND	U	50	0.96	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Acetone	**15**	J	20	3.3	1	12/23/10	12/23/10	KWG1014076	
Iodomethane	ND	U	5.0	0.11	1	12/23/10	12/23/10	KWG1014076	
Carbon Disulfide	**0.27**	J J	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	*
Methylene Chloride	ND	U	2.0	0.17	1	12/23/10	12/23/10	KWG1014076	
Acrylonitrile	**1.2**	J	5.0	0.26	1	12/23/10	12/23/10	KWG1014076	
trans-1,2-Dichloroethene	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethane	ND	U	0.50	0.077	1	12/23/10	12/23/10	KWG1014076	
Vinyl Acetate	ND	U	5.0	0.43	1	12/23/10	12/23/10	KWG1014076	
2,2-Dichloropropane	ND	U	0.50	0.060	1	12/23/10	12/23/10	KWG1014076	
cis-1,2-Dichloroethene	**0.16**	J	0.50	0.067	1	12/23/10	12/23/10	KWG1014076	
2-Butanone (MEK)	**14**	J	20	1.9	1	12/23/10	12/23/10	KWG1014076	
Bromochloromethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Chloroform	ND	U	0.50	0.072	1	12/23/10	12/23/10	KWG1014076	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Carbon Tetrachloride	ND	U	0.50	0.096	1	12/23/10	12/23/10	KWG1014076	
Benzene	ND	U	0.50	0.054	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	12/23/10	12/23/10	KWG1014076	
Trichloroethene (TCE)	**0.11**	J	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloropropane	ND	U	0.50	0.095	1	12/23/10	12/23/10	KWG1014076	
Dibromomethane	ND	U	0.50	0.15	1	12/23/10	12/23/10	KWG1014076	
Bromodichloromethane	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	12/23/10	12/23/10	KWG1014076	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	12/23/10	12/23/10	KWG1014076	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	12/23/10	12/23/10	KWG1014076	
Toluene	**0.14**	J	0.50	0.052	1	12/23/10	12/23/10	KWG1014076	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Volatile Organic Compounds

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	12/23/10	12/23/10	KWG1014076	
Chloromethane	**0.10**	J J	0.50	0.068	1	12/23/10	12/23/10	KWG1014076	
Vinyl Chloride	**0.35**	J	0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Bromomethane	ND	U	0.50	0.090	1	12/23/10	12/23/10	KWG1014076	
Chloroethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.11	1	12/23/10	12/23/10	KWG1014076	
Trichlorofluoromethane	ND	U	0.50	0.12	1	12/23/10	12/23/10	KWG1014076	
Acrolein	ND	U	50	0.96	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethene	ND	U	0.50	0.074	1	12/23/10	12/23/10	KWG1014076	
Acetone	**12**	J	20	3.3	1	12/23/10	12/23/10	KWG1014076	
Iodomethane	ND	U	5.0	0.11	1	12/23/10	12/23/10	KWG1014076	
Carbon Disulfide	**0.23**	J J	0.50	0.10	1	12/23/10	12/23/10	KWG1014076	*
Methylene Chloride	ND	U	2.0	0.17	1	12/23/10	12/23/10	KWG1014076	
Acrylonitrile	**0.44**	J	5.0	0.26	1	12/23/10	12/23/10	KWG1014076	
trans-1,2-Dichloroethene	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
1,1-Dichloroethane	**0.22**	J	0.50	0.077	1	12/23/10	12/23/10	KWG1014076	
Vinyl Acetate	ND	U	5.0	0.43	1	12/23/10	12/23/10	KWG1014076	
2,2-Dichloropropane	ND	U	0.50	0.060	1	12/23/10	12/23/10	KWG1014076	
cis-1,2-Dichloroethene	**2.1**		0.50	0.067	1	12/23/10	12/23/10	KWG1014076	
2-Butanone (MEK)	**9.5**	J	20	1.9	1	12/23/10	12/23/10	KWG1014076	
Bromochloromethane	ND	U	0.50	0.16	1	12/23/10	12/23/10	KWG1014076	
Chloroform	ND	U	0.50	0.072	1	12/23/10	12/23/10	KWG1014076	
1,1,1-Trichloroethane (TCA)	**0.72**		0.50	0.075	1	12/23/10	12/23/10	KWG1014076	
Carbon Tetrachloride	ND	U	0.50	0.096	1	12/23/10	12/23/10	KWG1014076	
Benzene	**0.060**	J	0.50	0.054	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	12/23/10	12/23/10	KWG1014076	
Trichloroethene (TCE)	**1.1**		0.50	0.10	1	12/23/10	12/23/10	KWG1014076	
1,2-Dichloropropane	ND	U	0.50	0.095	1	12/23/10	12/23/10	KWG1014076	
Dibromomethane	ND	U	0.50	0.15	1	12/23/10	12/23/10	KWG1014076	
Bromodichloromethane	ND	U	0.50	0.091	1	12/23/10	12/23/10	KWG1014076	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	12/23/10	12/23/10	KWG1014076	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	12/23/10	12/23/10	KWG1014076	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	12/23/10	12/23/10	KWG1014076	
Toluene	**0.49**	J	0.50	0.052	1	12/23/10	12/23/10	KWG1014076	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	11	2.3	5	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethyl) Ether	ND	U	1.1	0.19	5	12/16/10	01/11/11	KWG1013726	
Phenol	ND	U R	2.7	0.34	5	12/16/10	01/11/11	KWG1013726	
2-Chlorophenol	ND	U	2.7	0.29	5	12/16/10	01/11/11	KWG1013726	
1,3-Dichlorobenzene	ND	U	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
1,4-Dichlorobenzene	ND	U	1.1	0.16	5	12/16/10	01/11/11	KWG1013726	
1,2-Dichlorobenzene	ND	U	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
Benzyl Alcohol	ND	U	2.7	0.39	5	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroisopropyl) Ether	ND	U	1.1	0.14	5	12/16/10	01/11/11	KWG1013726	
2-Methylphenol	ND	U R	2.7	0.58	5	12/16/10	01/11/11	KWG1013726	
Hexachloroethane	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
N-Nitrosodi-n-propylamine	ND	U	1.1	0.20	5	12/16/10	01/11/11	KWG1013726	
4-Methylphenol†	ND	U R	2.7	0.64	5	12/16/10	01/11/11	KWG1013726	
Nitrobenzene	ND	U	1.1	0.15	5	12/16/10	01/11/11	KWG1013726	
Isophorone	ND	U	1.1	0.085	5	12/16/10	01/11/11	KWG1013726	
2-Nitrophenol	ND	U	2.7	0.34	5	12/16/10	01/11/11	KWG1013726	
2,4-Dimethylphenol	ND	U R	22	12	5	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethoxy)methane	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
2,4-Dichlorophenol	ND	U	2.7	0.25	5	12/16/10	01/11/11	KWG1013726	
Benzoic Acid	**6.5**	JD	27	5.8	5	12/16/10	01/11/11	KWG1013726	
1,2,4-Trichlorobenzene	ND	U	1.1	0.085	5	12/16/10	01/11/11	KWG1013726	
4-Chloroaniline	ND	U J	1.1	0.14	5	12/16/10	01/11/11	KWG1013726	*
Hexachlorobutadiene	ND	U	1.1	0.15	5	12/16/10	01/11/11	KWG1013726	
4-Chloro-3-methylphenol	ND	U R	2.7	0.20	5	12/16/10	01/11/11	KWG1013726	
Hexachlorocyclopentadiene	ND	U	5.3	1.0	5	12/16/10	01/11/11	KWG1013726	
2,4,6-Trichlorophenol	ND	U	2.7	0.31	5	12/16/10	01/11/11	KWG1013726	
2,4,5-Trichlorophenol	ND	U	2.7	0.17	5	12/16/10	01/11/11	KWG1013726	
2-Chloronaphthalene	ND	U	1.1	0.22	5	12/16/10	01/11/11	KWG1013726	
2-Nitroaniline	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
Dimethyl Phthalate	**0.18**	JD J	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
2,6-Dinitrotoluene	ND	U	1.1	0.18	5	12/16/10	01/11/11	KWG1013726	
3-Nitroaniline	ND	U J	5.3	0.16	5	12/16/10	01/11/11	KWG1013726	*
2,4-Dinitrophenol	ND	U	22	0.90	5	12/16/10	01/11/11	KWG1013726	

Comments:

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
4-Nitrophenol	ND	U	11	1.5	5	12/16/10	01/11/11	KWG1013726	
2,4-Dinitrotoluene	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
4-Chlorophenyl Phenyl Ether	ND	U	1.1	0.15	5	12/16/10	01/11/11	KWG1013726	
Diethyl Phthalate	**0.50**	JD J	1.1	0.064	5	12/16/10	01/11/11	KWG1013726	
4-Nitroaniline	ND	U J	5.3	0.10	5	12/16/10	01/11/11	KWG1013726	*
2-Methyl-4,6-dinitrophenol	ND	U	11	0.14	5	12/16/10	01/11/11	KWG1013726	
N-Nitrosodiphenylamine	ND	U	1.1	0.26	5	12/16/10	01/11/11	KWG1013726	
4-Bromophenyl Phenyl Ether	ND	U	1.1	0.14	5	12/16/10	01/11/11	KWG1013726	
Hexachlorobenzene	ND	U	1.1	0.12	5	12/16/10	01/11/11	KWG1013726	
Pentachlorophenol	ND	U	5.3	1.8	5	12/16/10	01/11/11	KWG1013726	
Carbazole	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
Di-n-butyl Phthalate	ND	U	1.1	0.13	5	12/16/10	01/11/11	KWG1013726	
Butyl Benzyl Phthalate	ND	U	1.1	0.095	5	12/16/10	01/11/11	KWG1013726	
3,3'-Dichlorobenzidine	ND	U J	11	2.3	5	12/16/10	01/11/11	KWG1013726	*
Bis(2-ethylhexyl) Phthalate	**2.0**	JD J	5.3	0.69	5	12/16/10	01/11/11	KWG1013726	
Di-n-octyl Phthalate	ND	U	5.3	0.48	25	12/16/10	01/14/11	KWG1013726	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	85	12-109	01/11/11	Acceptable
Phenol-d6	0	23-106	01/11/11	Outside Control Limits
Nitrobenzene-d5	82	26-110	01/11/11	Acceptable
2-Fluorobiphenyl	164	31-94	01/11/11	Outside Control Limits
2,4,6-Tribromophenol	86	23-127	01/11/11	Acceptable
Terphenyl-d14	136	40-127	01/11/11	Outside Control Limits

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.2	0.45	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethyl) Ether	ND	U	0.22	0.037	1	12/16/10	01/11/11	KWG1013726	
Phenol	**0.11**	J J	0.53	0.067	1	12/16/10	01/11/11	KWG1013726	
2-Chlorophenol	ND	U	0.53	0.057	1	12/16/10	01/11/11	KWG1013726	
1,3-Dichlorobenzene	ND	U	0.22	0.023	1	12/16/10	01/11/11	KWG1013726	
1,4-Dichlorobenzene	ND	U	0.22	0.031	1	12/16/10	01/11/11	KWG1013726	
1,2-Dichlorobenzene	ND	U	0.22	0.024	1	12/16/10	01/11/11	KWG1013726	
Benzyl Alcohol	ND	U	0.53	0.077	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroisopropyl) Ether	ND	U	0.22	0.028	1	12/16/10	01/11/11	KWG1013726	
2-Methylphenol	ND	U	0.53	0.12	1	12/16/10	01/11/11	KWG1013726	
Hexachloroethane	ND	U	0.22	0.026	1	12/16/10	01/11/11	KWG1013726	
N-Nitrosodi-n-propylamine	ND	U	0.22	0.039	1	12/16/10	01/11/11	KWG1013726	
4-Methylphenol†	ND	U	0.53	0.13	1	12/16/10	01/11/11	KWG1013726	
Nitrobenzene	ND	U	0.22	0.030	1	12/16/10	01/11/11	KWG1013726	
Isophorone	ND	U	0.22	0.017	1	12/16/10	01/11/11	KWG1013726	
2-Nitrophenol	ND	U	0.53	0.067	1	12/16/10	01/11/11	KWG1013726	
2,4-Dimethylphenol	ND	U	4.3	2.4	1	12/16/10	01/11/11	KWG1013726	
Bis(2-chloroethoxy)methane	ND	U	0.22	0.026	1	12/16/10	01/11/11	KWG1013726	
2,4-Dichlorophenol	ND	U	0.53	0.050	1	12/16/10	01/11/11	KWG1013726	
Benzoic Acid	ND	U	5.3	1.2	1	12/16/10	01/11/11	KWG1013726	
1,2,4-Trichlorobenzene	ND	U	0.22	0.017	1	12/16/10	01/11/11	KWG1013726	
4-Chloroaniline	ND	U J	0.22	0.027	1	12/16/10	01/11/11	KWG1013726	*
Hexachlorobutadiene	ND	U	0.22	0.029	1	12/16/10	01/11/11	KWG1013726	
4-Chloro-3-methylphenol	ND	U	0.53	0.039	1	12/16/10	01/11/11	KWG1013726	
Hexachlorocyclopentadiene	ND	U	1.1	0.20	1	12/16/10	01/11/11	KWG1013726	
2,4,6-Trichlorophenol	ND	U	0.53	0.062	1	12/16/10	01/11/11	KWG1013726	
2,4,5-Trichlorophenol	ND	U	0.53	0.033	1	12/16/10	01/11/11	KWG1013726	
2-Chloronaphthalene	ND	U	0.22	0.044	1	12/16/10	01/11/11	KWG1013726	
2-Nitroaniline	ND	U	0.22	0.026	1	12/16/10	01/11/11	KWG1013726	
Dimethyl Phthalate	**0.054**	J	0.22	0.023	1	12/16/10	01/11/11	KWG1013726	
2,6-Dinitrotoluene	ND	U	0.22	0.035	1	12/16/10	01/11/11	KWG1013726	
3-Nitroaniline	ND	U J	1.1	0.031	1	12/16/10	01/11/11	KWG1013726	*
2,4-Dinitrophenol	ND	U	4.3	0.18	1	12/16/10	01/11/11	KWG1013726	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
4-Nitrophenol	ND	U	2.2	0.30	1	12/16/10	01/11/11	KWG1013726	
2,4-Dinitrotoluene	ND	U	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
4-Chlorophenyl Phenyl Ether	ND	U	0.22	0.029	1	12/16/10	01/11/11	KWG1013726	
Diethyl Phthalate	**0.11**	J	0.22	0.013	1	12/16/10	01/11/11	KWG1013726	
4-Nitroaniline	ND	U J	1.1	0.020	1	12/16/10	01/11/11	KWG1013726	*
2-Methyl-4,6-dinitrophenol	ND	U	2.2	0.027	1	12/16/10	01/11/11	KWG1013726	
N-Nitrosodiphenylamine	ND	U	0.22	0.051	1	12/16/10	01/11/11	KWG1013726	
4-Bromophenyl Phenyl Ether	ND	U	0.22	0.028	1	12/16/10	01/11/11	KWG1013726	
Hexachlorobenzene	ND	U	0.22	0.024	1	12/16/10	01/11/11	KWG1013726	
Pentachlorophenol	ND	U	1.1	0.36	1	12/16/10	01/11/11	KWG1013726	
Carbazole	ND	U	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
Di-n-butyl Phthalate	**0.13**	J	0.22	0.025	1	12/16/10	01/11/11	KWG1013726	
Butyl Benzyl Phthalate	**0.071**	J	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	
3,3'-Dichlorobenzidine	ND	U J	2.2	0.46	1	12/16/10	01/11/11	KWG1013726	*
Bis(2-ethylhexyl) Phthalate	**0.77**	J	1.1	0.14	1	12/16/10	01/11/11	KWG1013726	
Di-n-octyl Phthalate	**0.048**	J	0.22	0.019	1	12/16/10	01/11/11	KWG1013726	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	69	12-109	01/11/11	Acceptable
Phenol-d6	60	23-106	01/11/11	Acceptable
Nitrobenzene-d5	67	26-110	01/11/11	Acceptable
2-Fluorobiphenyl	65	31-94	01/11/11	Acceptable
2,4,6-Tribromophenol	66	23-127	01/11/11	Acceptable
Terphenyl-d14	76	40-127	01/11/11	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-1-W-121310	**Units:**	ug/L
Lab Code:	K1013795-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.050**		0.020	0.0030	1	12/16/10	12/27/10	KWG1013727	
2-Methylnaphthalene	**0.012**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Acenaphthylene	ND	U	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Acenaphthene	ND	U	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Fluorene	**0.0044**	J	0.020	0.0038	1	12/16/10	12/27/10	KWG1013727	
Phenanthrene	**0.011**	J	0.020	0.0050	1	12/16/10	12/27/10	KWG1013727	
Anthracene	ND	U	0.020	0.0036	1	12/16/10	12/27/10	KWG1013727	
Fluoranthene	**0.0082**	J	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Pyrene	**0.012**	J	0.020	0.0035	1	12/16/10	12/27/10	KWG1013727	
Benz(a)anthracene	**0.0033**	J J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Chrysene	**0.0038**	J	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Benzo(b)fluoranthene	**0.0038**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	12/16/10	12/27/10	KWG1013727	
Indeno(1,2,3-cd)pyrene	**0.0032**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(g,h,i)perylene	**0.0047**	J	0.020	0.0029	1	12/16/10	12/27/10	KWG1013727	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	80	28-98	12/27/10	Acceptable
Fluoranthene-d10	92	31-105	12/27/10	Acceptable
Terphenyl-d14	109	27-112	12/27/10	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1013795
Project:	Univar Portland Stormwater 2010	**Date Collected:**	12/13/2010
Sample Matrix:	Water	**Date Received:**	12/13/2010

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-2-W-121310	**Units:**	ug/L
Lab Code:	K1013795-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.030**		0.020	0.0030	1	12/16/10	12/27/10	KWG1013727	
2-Methylnaphthalene	**0.019**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Acenaphthylene	**0.0045**	J	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Acenaphthene	**0.0045**	J	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Fluorene	**0.0090**	J	0.020	0.0038	1	12/16/10	12/27/10	KWG1013727	
Phenanthrene	**0.015**	J	0.020	0.0050	1	12/16/10	12/27/10	KWG1013727	
Anthracene	ND	U	0.020	0.0036	1	12/16/10	12/27/10	KWG1013727	
Fluoranthene	**0.012**	J	0.020	0.0044	1	12/16/10	12/27/10	KWG1013727	
Pyrene	**0.024**		0.020	0.0035	1	12/16/10	12/27/10	KWG1013727	
Benz(a)anthracene	**0.0052**	J	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Chrysene	ND	U	0.020	0.0034	1	12/16/10	12/27/10	KWG1013727	
Benzo(b)fluoranthene	**0.0066**	J	0.020	0.0023	1	12/16/10	12/27/10	KWG1013727	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(a)pyrene	**0.0044**	J	0.020	0.0043	1	12/16/10	12/27/10	KWG1013727	
Indeno(1,2,3-cd)pyrene	**0.0043**	J	0.020	0.0026	1	12/16/10	12/27/10	KWG1013727	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	12/16/10	12/27/10	KWG1013727	
Benzo(g,h,i)perylene	**0.0069**	J	0.020	0.0029	1	12/16/10	12/27/10	KWG1013727	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	84	28-98	12/27/10	Acceptable
Fluoranthene-d10	100	31-105	12/27/10	Acceptable
Terphenyl-d14	109	27-112	12/27/10	Acceptable

Comments:

Columbia Analytical Services INC
1317 S. 13th Avenue, Kelso, WA 98626 | 360.577.7222 | 360.636.1068 (fax) | www.caslab.com

May 17, 2011

Analytical Report for Service Request No: K1102163
Revised Service Request No: K1102163.01

Brian O' Neal
PES Environmental
1215 Fourth Avenue, Suite 1350
P.O. Box 108
Seattle, WA 98161

RE: Univar-Portland Facility

Dear Brian:

Enclosed is the revised report for the samples submitted to our laboratory on March 11, 2011. For your reference, these analyses have been assigned our service request number K1102163.

Dibenzofuran was removed from the PAH analyte list.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at HHolmes@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Howard Holmes
Project Chemist

HH/jw

REVISED
3:09 pm, May 17, 2011

100% Recycled Paper

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value that was detected outside the quantitation range.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	In accordance with the 2007 EPA Methods Update Rule published in the Federal Register, the holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value that was detected outside the quantitation range.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value that was detected outside the quantitation range.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ	WA100010
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	PES Environmental	**Service Request No.:**	K1102163
Project:	Univar-Portland	**Date Received:**	3/11/11
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), and Laboratory Control Sample (LCS).

Sample Receipt

Four water samples were received for analysis at Columbia Analytical Services on 3/11/11. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Oil and Grease by EPA Method 1664:
The matrix spike recovery of Oil and Grease for sample Batch QC was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential low bias in this matrix. No further corrective action was appropriate.

Cyanide, Amenable to Chlorination by Standard Method 4500-CN G, E:
Total Cyanide was not detected in the field sample analyzed in this delivery group. The result reported for Cyanide Amenable to Chlorination is based on inference from the Total Cyanide determination (i.e. Cyanide Amenable to Chlorination is a subcomponent of the Total Cyanide). Since Total Cyanide was not detected, the Cyanide Amenable to Chlorination could not be present in the sample.

No other anomalies associated with the analysis of these samples were observed.

Total and Dissolved Metals

No anomalies associated with the analysis of these samples were observed.

Diesel Range Organics by NWTPH-Dx

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for the replicate analysis of Diesel Range Organics (DRO) in sample Batch QC was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

No other anomalies associated with the analysis of these samples were observed.

Approved by Heather Holm **Date** 4-19-11

Organochlorine Pesticides by EPA Method 8081A

Second Source Exceptions:
The analysis of Chlorinated Pesticides by EPA 8081 requires the use of dual column confirmation. When the Initial Calibration Verification (ICV) criteria are met for both columns, the lower of the two sample results is generally reported. The data quality was not affected. No further corrective action was necessary.

Calibration Verification Exceptions:
The analysis of Chlorinated Pesticides by EPA 8081 requires the use of dual column confirmation. When the Continuing Calibration Verification (CCV) criterion is met for both columns, the lower of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for Methoxychlor in CCV 04060004. The results were reported from the column with an acceptable CCV. The data quality was not affected. No further corrective action was necessary.

Matrix Spike Recovery Exceptions:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Lab Control Sample Exceptions:
The upper control criterion was exceeded for 4,4'-DDE in Duplicate Laboratory Control Sample (DLCS) KWG1102601. The analyte in question was not detected in the associated field samples above the MRL. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. No further corrective action was appropriate.

Elevated Detection Limits:
The detection limit was elevated for all analytes in all samples. The sample extract was diluted prior to instrumental analysis due to relatively high levels of non-target background components. The extract was highly colored and viscous, which indicated the need to perform a dilution prior to injection into the instrument. Clean-up of the extract was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilution. The results were flagged to indicate the matrix interference.
The detection limit was further elevated for several analytes in all samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

The MDL is elevated for 2,4'-DDD in Method Blank KWG1102601-9. The chromatogram indicated the presence of non-target background components, which were apparently introduced as laboratory artifacts. The contamination prevented adequate resolution of the target compounds at the MDL. Note the level of background was relatively low compared to the MDL, so the affect on the results was minimal. No 2,4'-DDD was detected in the samples. The results are flagged to indicate the problem.

Sample Confirmation Notes:
The confirmation comparison criterion of 40% difference for a few analytes was exceeded in the samples. The lower of the two values was reported when there was an apparent interference on the alternate column that produced the higher value.

No other anomalies associated with the analysis of these samples were observed.

PCB Congeners by EPA Method 8082

Elevated Detection Limits:
The MDL is elevated for PCB18 in sample Method Blank KWG1102563-3. The chromatogram indicated the presence of non-target background components, which were apparently introduced as laboratory artifacts. The contamination prevented adequate resolution of the target compounds at the MDL. Note the level of background was relatively low compared to the MDL, so the affect on the results was minimal. No PCB18 was detected in the samples. The results are flagged to indicate the problem.

Approved by Heather Holmes **Date** 4-19-11

The detection limit was elevated for several analytes in both samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

Sample Confirmation Notes:
The confirmation comparison criteria of 40% difference for a few analytes was exceeded in the samples. The lower of the two values was reported when no evidence of a matrix interference was observed.

No other anomalies associated with the analysis of these samples were observed.

Chlorophenoxy Herbicides by EPA Method 8151

Lab Control Sample Exceptions:
The lower control criterion was exceeded for Dinoseb in Laboratory Control Sample (LCS) KWG1102423-1. The analyte in question was not detected in the associated field samples. The error associated with lower recovery indicated a low bias. No further corrective action was performed.

No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260B

Calibration Verification Exceptions:
The following analytes were incorrectly flagged as being outside the control criterion for Continuing Calibration Verification (CCV) J:\MS13\0315F003D: Bromomethane, and Iodomethane. As long as 80% or more of the analytes in the CCV pass within 20% of the true value, the CAS 8260C SOP allows for 40% RSD for the remaining analytes. The quality of the data had not been affected. No further corrective action was required.

The following analytes were incorrectly flagged as being outside the control criterion for Continuing Calibration Verification (CCV) J:\MS04\0321F003D: Toluene-d8. As long as 80% or more of the analytes in the CCV pass within 20% of the true value, the CAS 8260C SOP allows for 40% RSD for the remaining analytes. The quality of the data had not been affected. No further corrective action was required.

The CAS control criterion for the following analyte was not met in Continuing Calibration Verification (CCV) J:\MS13\0315F003.D: Acrolein. In accordance with CAS standard operating procedures, an MRL check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verifies instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question, and the field samples analyzed in this sequence did not contain the analyte in question, the data quality has not been significantly affected. No further corrective action was feasible

The CAS minimum relative response factor criterion for Acrolein was not met in Continuing Calibration Verification (CCV) J:\MS13\0315F003.D. In accordance with CAS standard operating procedures, a Method Reporting Limit (MRL) check standard containing the analyte of concern was analyzed each day of analysis. The MRL check standard verified instrument sensitivity was adequate to detect the analyte at the MRL on the day of analysis. Because the sensitivity was shown to be adequate to detect the compound in question the data quality was not significantly affected. No further corrective action was appropriate.

Lab Control Sample Exceptions:
The advisory criterion was exceeded for sec-Butylbenzene in Laboratory Control Sample (LCS) KWG1102360-3 per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Sample Notes and Discussion:
The Trip Blank analyzed with this sample contained low levels of Toluene above the Method Reporting Limit (MRL). The associated Storage Blank, which was prepared and stored at the laboratory the same time the Trip

Approved by Howard Holm **Date** 4-19-11

Blank was prepared, was analyzed as a Quality Assurance (QA) check. The Storage Blank did not contain the analyte in question.

No other anomalies associated with the analysis of these samples were observed.

Semivolatile Organic Compounds by EPA Method 8270C

Lab Control Sample Exceptions:
The advisory criterion was exceeded for Hexachlorocyclopentadiene and 3,3'-Dichlorobenzidine in Laboratory Control Sample (LCS) KWG1102304-1. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for 3,3'-Dichlorobenzidine in the replicate Laboratory control Samples (LCS/DLCS) KWG1102304-1 and KWG1102304-2 was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270C

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Approved by Howard Holm **Date** 4-19-11

Chain of Custody

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

REMARKS:
3 Coolers.
Thanks!
Z

	SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	TSS by 2540D	TOC by 415.1	Total Metals by 200.8 *	Dissolved Iron by 200.7	Mercury by 1631M	VOCs by 8260B	SVOCs-LL by 8270C	
1	SPI-1-W-031011	3/10/11	1430		Water	20	X	X	X	X	X	X	X	
2	SPI-2-W-031011	3/10/11	1600		Water	23	X	X	X	X	X	X	X	
3	SPI-3-W-031011	3/10/11	1700		Water	5			X			X		
4	SPI-EQB-W-031011	3/10/11	1330		Water	4						X	X	→ phthalates only
	SPI-1-S-031011	3/10/11	1315		Soil/H_2O	2								☆ Special Processing per Howard Holms
	SPI-2-S-031011	3/10/11	1215		Soil/H_2O	2								☆ Special Processing per Howard Holms
5	Trips				water	2						X		

Relinquished by/date: Jason Landskov 3/11/11
Received by/date: 3/11/11 1300
Relinquished by/date: /
Received by/date: /
Relinquished by/date: /
Received by/date: /
Relinquished by/date: /
Received by/date: /

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation
Water Investigation/Remediation 165
Air-Soil Investigation or Remediation
Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

* Metals = Al, As, Sb, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Ag, Se, Zn

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	Number of Containers	PAHs by 8270C-SIM	PCB Cogeners by 8082	Chl. Herbicides by 8151A	Org. Chl. Pesticides by 8081 (ULL)	Cyanide**	Oil & Grease by 1664	Diesel & Residual TPH by NTWPH-Dx	REMARKS:
SPI-1-W-031011	3/10/11	1430		Water	20	X	X	X	X	X	X	X	
SPI-2-W-031011	3/10/11	1600		Water	23	X	X	X	X	X	X	X	
SPI-3-W-031011	3/10/11	1700		Water	5	X							
SPI-EQB-W-031011	3/10/11	1330		Water	4								
SPI-1-S-031011	3/10/11	1315		Soil/H2O	2								☆ Special processing
SPI-2-S-031011	3/10/11	1215		Soil/H2O	2								☆ Special processing
Trips													

Relinquished by/date: Jason Lankford 3/11/11	
Received by/date: / 3/11/11 1300	
Relinquished by/date: /	
Received by/date: /	
Relinquished by/date: /	
Received by/date: /	
Relinquished by/date: /	
Received by/date: /	

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation	
Water Investigation/Remediation	165
Air-Soil Investigation or Remediation	
Waste	

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

** total and amenable by 4500CNE; free by 9014

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

REMARKS:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	[redacted]	Sulfides by 9030b	Sulfate by 300/9056	Ammonia as N by 350.1					REMARKS
SPI-1-W-031011	3/10/11	1430		Water	20	X	X	X					
SPI-2-W-031011	3/10/11	1600		Water	23	X	X	X					
SPI-3-W-031011	3/10/11	1700		water	5								
SPI-EQB-W-031011	3/10/11	1330		water	4								
SPI-1-S-031011	3/10/11	1315		Soil/H_2O	2								★ special processing
SPI-2-S-031011	3/10/11	1315		Soil/H_2O	2								★ special processing
Trips													

Relinquished by/date: Jason Lardinoy / 3/11/11
Received by/date: / 3/11/11 1300
Relinquished by/date: /
Received by/date: /
Relinquished by/date: /
Received by/date: /
Relinquished by/date: /
Received by/date: /

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation
Water Investigation/Remediation 165
Air-Soil Investigation or Remediation
Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

see attached for details and priorities

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

PC_____

Client / Project: Univar Service Request *K11* 2163

Received: 3/11/11 Opened: 3/11/11 By: LL Unloaded: 3/11/11 By: LL

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other*_____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where?_____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
5.4	2.7	304			
4.1	1.6	307			
7.1	3.3	311			

7. Packing material used. *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Sleeves* *Other*_____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

*Notes, Discrepancies, & Resolutions:*_____

Page 1 *of*_____

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11

Analysis Method: SM 2510 B

Units: µMHOS/cm
Basis: NA

Conductivity at 25 Degrees Celsius

Sample Name	Lab Code	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	**27.7**		2.0	1	NA	3/29/11 13:00	
SPI-2-W-031011	K1102163-002	**31.2**		2.0	1	NA	3/29/11 13:00	
Method Blank	K1102163-MB1	ND	U	2.0	1	NA	3/29/11 13:00	
Method Blank	K1102163-MB2	ND	U	2.0	1	NA	3/29/11 13:00	
Method Blank	K1102163-MB3	ND	U	2.0	1	NA	3/29/11 13:00	
Method Blank	K1102163-MB4	ND	U	2.0	1	NA	3/29/11 13:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	µMHOS/cm
Lab Code:	K1102461-001	**Basis:**	NA

				Batch QCDUP Duplicate Sample K1102461-001DUP11			
Analyte Name	**Method**	**MRL**	**Sample Result**	**Result**	**Average**	**RPD**	**RPD Limit**
Conductivity at 25 Degrees Celsius	SM 2510 B	2.0	2300	2290	2300	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102503-001

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	MRL	Sample Result	Batch QCDUP Duplicate Sample K1102503-001DUP12 Result	Average	RPD	RPD Limit
Conductivity at 25 Degrees Celsius	SM 2510 B	2.0	508	506	507	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102562-001

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	MRL	Sample Result	Batch QCDUP Duplicate Sample K1102562-001DUP13 Result	Average	RPD	RPD Limit
Conductivity at 25 Degrees Celsius	SM 2510 B	2.0	612	618	615	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102605-001

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	MRL	Sample Result	Batch QCDUP Duplicate Sample K1102605-001DUP14 Result	Average	RPD	RPD Limit
Conductivity at 25 Degrees Celsius	SM 2510 B	2.0	1140	1140	1140	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Conductivity at 25 Degrees Celsius	SM 2510 B	825	839	98	88 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Conductivity at 25 Degrees Celsius	SM 2510 B	822	839	98	88 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS4 Result	Spike Amount	% Rec	% Rec Limits
Conductivity at 25 Degrees Celsius	SM 2510 B	824	839	98	88 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: µMHOS/cm
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS5 Result	Spike Amount	% Rec	% Rec Limits
Conductivity at 25 Degrees Celsius	SM 2510 B	829	839	99	88 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
Prep Method:	Method	**Units:**	mg/L
Analysis Method:	1664	**Basis:**	NA

Oil and Grease, Total (HEM)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	**1.1**	J	5.2	0.8	1	3/16/11	3/17/11 08:00	
SPI-2-W-031011	K1102163-002	**1.5**	J	5.1	0.8	1	3/16/11	3/17/11 08:00	
Method Blank	K1102163-MB1	ND	U	5.0	0.8	1	3/16/11	3/17/11 08:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/17/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102067-001

Units: mg/L
Basis: NA

Analytical Method: 1664
Prep Method: Method

Analyte Name	Sample Result	Batch QCMS Matrix Spike K1102067-001MS2 Result	Spike Amount	% Rec		% Rec Limits
Oil and Grease, Total (HEM)	ND	24.4	57.7	42	*	78 - 114

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/17/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1102163-LCS1			Duplicate Lab Control Sample K1102163-DLCS1					
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Oil and Grease, Total (HEM)	1664	57.0	60.0	95	55.8	60.0	93	78 - 114	2	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
		Units:	mg/L
Analysis Method:	300.0	**Basis:**	NA

Sulfate

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	**1.01**		0.40	0.02	2	NA	3/16/11 21:12	
SPI-2-W-031011	K1102163-002	**1.23**		0.40	0.02	2	NA	3/16/11 21:26	
Method Blank	K1102163-MB1	**0.02**	J	0.20	0.01	1	NA	3/16/11 09:36	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/16/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1102183-002	**Basis:**	NA

					Batch QCDUP Duplicate Sample K1102183-002DUP10			
Analyte Name	**Method**	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**RPD**	**RPD Limit**
Sulfate	300.0	0.40	0.02	2.21	2.02	2.11	9	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/16/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102183-002

Units: mg/L
Basis: NA

Analytical Method: 300.0

		Batch QCMS Matrix Spike K1102183-002MS8			Batch QCDMS Duplicate Matrix Spike K1102183-002DMS8					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfate	2.21	5.98	4.00	94	6.05	4.00	96	80 - 120	1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/16/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Sulfate	300.0	4.86	5.00	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
		Units:	mg/L
Analysis Method:	350.1	**Basis:**	NA

Ammonia as Nitrogen

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	**0.025**	J	0.050	0.020	1	NA	3/15/11 14:20	
SPI-2-W-031011	K1102163-002	**0.084**		0.050	0.020	1	NA	3/15/11 14:20	
Method Blank	K1102163-MB1	ND	U	0.050	0.020	1	NA	3/15/11 14:20	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
		Date Analyzed:	3/15/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-031011	**Units:**	mg/L
Lab Code:	K1102163-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-031011DUP Duplicate Sample K1102163-001DUP7 Result	Average	RPD	RPD Limit
Ammonia as Nitrogen	350.1	0.050	0.020	0.025 J	0.027 J	0.0261	9	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11
Date Analyzed: 3/15/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: mg/L
Basis: NA

Analytical Method: 350.1

		SPI-1-W-031011MS Matrix Spike K1102163-001MS4			SPI-1-W-031011DMS Duplicate Matrix Spike K1102163-001DMS4					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ammonia as Nitrogen	0.025	2.03	2.00	100	2.02	2.00	100	90 - 110	<1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/15/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen	350.1	2.78	2.81	99	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11

Analysis Method: 415.1

Units: mg/L
Basis: NA

Carbon, Total Organic

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	**2.90**		0.50	0.07	1	NA	3/15/11 13:18	
SPI-2-W-031011	K1102163-002	**2.34**		0.50	0.07	1	NA	3/15/11 13:18	
Method Blank	K1102163-MB1	ND	U	0.50	0.07	1	NA	3/15/11 13:18	

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11
Date Analyzed: 3/15/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-031011DUP Duplicate Sample K1102163-002DUP8 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	2.34	2.05	2.19	13	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11
Date Analyzed: 3/15/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: mg/L
Basis: NA

Analytical Method: 415.1

		SPI-2-W-031011MS **Matrix Spike** K1102163-002MS6			
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Carbon, Total Organic	2.34	27.2	25.0	100	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/15/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	415.1	26.4	26.0	101	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
Prep Method:	EPA 9030B Modified	**Units:**	mg/L
Analysis Method:	9030M	**Basis:**	NA

Sulfide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	ND	U	0.10	0.03	1	3/16/11	3/16/11 15:50	
SPI-2-W-031011	K1102163-002	ND	U	0.10	0.03	1	3/16/11	3/16/11 15:50	
Method Blank	K1102163-MB1	ND	U	0.10	0.03	1	3/16/11	3/16/11 15:50	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11
Date Analyzed: 3/16/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-031011DUP Duplicate Sample K1102163-002DUP8 Result	Average	RPD	RPD Limit
Sulfide, Total	9030M	0.10	0.03	ND U	ND U	NC	NC	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11
Date Analyzed: 3/16/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: mg/L
Basis: NA

Analytical Method: 9030M
Prep Method: EPA 9030B Modified

		SPI-2-W-031011MS Matrix Spike K1102163-002MS5			SPI-2-W-031011DMS Duplicate Matrix Spike K1102163-002DMS5					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfide, Total	ND	80.5	71	114	77.1	71	109	34 - 166	4	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/16/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Sulfide, Total	9030M	1.45	1.41	103	55 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11

Analysis Method: SM 2540 D

Units: mg/L
Basis: NA

Solids, Total Suspended (TSS)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	**51.3**		6.7	6.7	1	NA	3/14/11 07:30	
SPI-2-W-031011	K1102163-002	**33.0**		5.0	5.0	1	NA	3/14/11 07:30	
Method Blank	K1102163-MB1	ND	U	5.0	5.0	1	NA	3/14/11 07:30	
Method Blank	K1102163-MB2	ND	U	5.0	5.0	1	NA	3/14/11 07:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/14/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102153-003

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1102153-003DUP5 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	10.5	10.0	10.3	5	10

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/14/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1102154-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1102154-001DUP6 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	ND U	ND U	NC	NC	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/14/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	320	320	100	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/14/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	324	320	101	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
Prep Method:	SM 4500-CN-C	**Units:**	mg/L
Analysis Method:	SM 4500-CN- E	**Basis:**	NA

Cyanide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	ND	U	0.010	0.003	1	3/15/11	3/16/11 13:00	
SPI-2-W-031011	K1102163-002	ND	U	0.010	0.003	1	3/15/11	3/16/11 13:00	
Method Blank	K1102163-MB1	ND	U	0.0047	0.0030	1	3/15/11	3/16/11 13:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/16/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1102173-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1102173-001DUP9 Result	Average	RPD	RPD Limit
Cyanide, Total	SM 4500-CN- E	0.010	0.003	ND U	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA
Date Analyzed: 3/16/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1102173-001

Units: mg/L
Basis: NA

Analytical Method: SM 4500-CN- E
Prep Method: SM 4500-CN-C

		Batch QCMS **Matrix Spike** K1102173-001MS7			Batch QCDMS **Duplicate Matrix Spike** K1102173-001DMS7					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Total	ND	0.0961	0.100	96	0.108	0.100	108	23 - 148	12	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/16/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Total	SM 4500-CN- E	0.671	0.73	92	84 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/2011
Sample Matrix:	Water	**Date Received:**	3/11/2011

Cyanide Ammenable to Chlorination

Prep Method:	Calculation	Units:	mg/L (ppm)
Analysis Method:	SM4500-CN E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	Dilution Factor	Date Analyzed	Result	Result Notes
SPI-1-W-031011	K1102163-001	0.010	1	3/16/2011	ND	
SPI-2-W-031011	K1102163-002	0.010	1	3/16/2011	ND	
Method Blank	K1102163-MB	0.010	1	3/16/2011	ND	

1A/020597p

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11

Units: mg/L
Analysis Method: 9014
Basis: NA

Cyanide, Free

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-031011	K1102163-001	ND	U	0.010	0.010	1	NA	3/22/11 15:45	
SPI-2-W-031011	K1102163-002	ND	U	0.010	0.010	1	NA	3/22/11 15:45	
Method Blank	K1102163-MB1	ND	U	0.010	0.010	1	NA	3/22/11 15:45	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	3/10/11
Sample Matrix:	Water	**Date Received:**	3/11/11
		Date Analyzed:	3/22/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-2-W-031011	**Units:**	mg/L
Lab Code:	K1102163-002	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-031011DUP Duplicate Sample K1102163-002DUP8 Result	Average	RPD	RPD Limit
Cyanide, Free	9014	0.010	0.010	ND U	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 3/10/11
Date Received: 3/11/11
Date Analyzed: 3/22/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: mg/L
Basis: NA

Analytical Method: 9014

		SPI-2-W-031011MS Matrix Spike K1102163-002MS5			SPI-2-W-031011DMS Duplicate Matrix Spike K1102163-002DMS5					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Free	ND	0.129	0.124	104	0.130	0.124	105	75 - 125	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Analyzed: 3/22/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1102163-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Free	9014	0.0664	0.062	107	85 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Metals

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/11
Sample Matrix:	Water	**Date Received:**	03/11/11

Mercury, Total

Prep Method:	METHOD	Units:	ng/L
Analysis Method:	1631E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-1-W-031011	K1102163-001	1.0	0.06	1	03/15/11	03/16/11	8.01	
SPI-2-W-031011	K1102163-002	1.0	0.06	1	03/15/11	03/16/11	5.22	
Method Blank1	K1102163-MB1	1.0	0.06	1	03/15/11	03/16/11	0.29	J
Method Blank2	K1102163-MB2	1.0	0.06	1	03/15/11	03/16/11	ND	
Method Blank3	K1102163-MB3	1.0	0.06	1	03/15/11	03/16/11	0.07	J

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	03/15/11
		Date Analyzed:	03/16/11

Matrix Spike/Duplicate Matrix Spike Summary
Total Metals

Sample Name:	Batch QC	Units:	ng/L
Lab Code:	K1102116-001MS, K1102116-001MSD	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
Mercury	METHOD	1631E	1.0	25	25	0.58	25.2	26.1	98	102	71-125	4	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	03/16/11

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Initial)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	4.85	97	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	03/16/11

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Final)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	4.86	97	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	03/16/11

Quality Control Sample (QCS) Summary
Total Metals

Sample Name: Quality Control Sample

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	4.84	97	77-123	

Metals

Columbia Analytical Services

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INORGANIC ANALYSIS DATA PACKAGE

Client: PES Environmental
Project Name: Univar-Portland Facility
Project No.:

Service Request: K1102163

Sample Name:	Lab Code:
Batch QC1D	K1102140-001D
Batch QC1S	K1102140-001S
SPI-1-W-031011	K1102163-001
SPI-1-W-031011	K1102163-001DISS
SPI-2-W-031011	K1102163-002
SPI-2-W-031011	K1102163-002DISS
SPI-3-W-031011	K1102163-003
Method Blank	K1102163-MB
Batch QC2D	K1102173-001D
Batch QC2S	K1102173-001S

Comments:

Approved By: SC **Date:** 4/6/11

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	03/10/11
Project Name:	Univar-Portland Facility	**Date Received:**	03/11/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-031011 **Lab Code:** K1102163-001

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	20.0	3.0	10.0	03/23/11	03/25/11	941		
Antimony	200.8	0.05	0.02	1.0	03/23/11	03/24/11	4.63		
Arsenic	200.8	0.50	0.07	1.0	03/23/11	03/24/11	0.34	J	
Cadmium	200.8	0.020	0.003	1.0	03/23/11	03/24/11	0.386		
Chromium	200.8	0.20	0.04	1.0	03/23/11	03/24/11	2.02		
Copper	200.8	0.10	0.02	1.0	03/23/11	03/24/11	7.64		
Lead	200.8	0.020	0.005	1.0	03/23/11	03/24/11	6.970		
Manganese	200.8	0.05	0.01	1.0	03/23/11	03/24/11	31.4		
Molybdenum	200.8	0.050	0.008	1.0	03/23/11	03/24/11	0.745		
Nickel	200.8	0.20	0.03	1.0	03/23/11	03/24/11	2.63		
Selenium	200.8	1.0	0.3	1.0	03/23/11	03/24/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	03/23/11	03/24/11	0.034		
Zinc	200.8	0.50	0.20	1.0	03/23/11	03/24/11	130		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	03/10/11
Project Name:	Univar-Portland Facility	**Date Received:**	03/11/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-031011 **Lab Code:** K1102163-001DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	03/23/11	03/28/11	17.8		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	03/10/11
Project Name:	Univar-Portland Facility	**Date Received:**	03/11/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-031011 **Lab Code:** K1102163-002

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	20.0	3.0	10.0	03/23/11	03/25/11	442		
Antimony	200.8	0.05	0.02	1.0	03/23/11	03/24/11	2.37		
Arsenic	200.8	0.50	0.07	1.0	03/23/11	03/24/11	0.56		
Cadmium	200.8	0.020	0.003	1.0	03/23/11	03/24/11	0.256		
Chromium	200.8	0.20	0.04	1.0	03/23/11	03/24/11	1.04		
Copper	200.8	0.10	0.02	1.0	03/23/11	03/24/11	5.86		
Lead	200.8	0.020	0.005	1.0	03/23/11	03/24/11	4.350		
Manganese	200.8	0.05	0.01	1.0	03/23/11	03/24/11	53.0		
Molybdenum	200.8	0.050	0.008	1.0	03/23/11	03/24/11	0.534		
Nickel	200.8	0.20	0.03	1.0	03/23/11	03/24/11	1.72		
Selenium	200.8	1.0	0.3	1.0	03/23/11	03/24/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	03/23/11	03/24/11	0.011	J	
Zinc	200.8	0.50	0.20	1.0	03/23/11	03/24/11	122		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	03/10/11
Project Name:	Univar-Portland Facility	**Date Received:**	03/11/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-031011 **Lab Code:** K1102163-002DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	03/23/11	03/28/11	828		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	03/10/11
Project Name:	Univar-Portland Facility	**Date Received:**	03/11/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-3-W-031011 **Lab Code:** K1102163-003

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	20.0	3.0	10.0	03/23/11	03/25/11	825		
Antimony	200.8	0.05	0.02	1.0	03/23/11	03/24/11	2.57		
Arsenic	200.8	0.50	0.07	1.0	03/23/11	03/24/11	0.57		
Cadmium	200.8	0.020	0.003	1.0	03/23/11	03/24/11	0.278		
Chromium	200.8	0.20	0.04	1.0	03/23/11	03/24/11	1.56		
Copper	200.8	0.10	0.02	1.0	03/23/11	03/24/11	6.46		
Lead	200.8	0.020	0.005	1.0	03/23/11	03/24/11	5.220		
Manganese	200.8	0.05	0.01	1.0	03/23/11	03/24/11	55.2		
Molybdenum	200.8	0.050	0.008	1.0	03/23/11	03/24/11	0.631		
Nickel	200.8	0.20	0.03	1.0	03/23/11	03/24/11	2.01		
Selenium	200.8	1.0	0.3	1.0	03/23/11	03/24/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	03/23/11	03/24/11	0.018	J	
Zinc	200.8	0.50	0.20	1.0	03/23/11	03/24/11	125		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	
Project Name:	Univar-Portland Facility	**Date Received:**	
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: Method Blank **Lab Code:** K1102163-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	03/23/11	03/25/11	0.3	U	
Antimony	200.8	0.05	0.02	1.0	03/23/11	03/24/11	0.02	U	
Arsenic	200.8	0.50	0.07	1.0	03/23/11	03/24/11	0.07	U	
Cadmium	200.8	0.020	0.003	1.0	03/23/11	03/24/11	0.003	U	
Chromium	200.8	0.20	0.04	1.0	03/23/11	03/24/11	0.04	U	
Copper	200.8	0.10	0.02	1.0	03/23/11	03/24/11	0.02	U	
Iron	200.7	10.0	3.0	1.0	03/23/11	03/28/11	3.0	U	
Lead	200.8	0.020	0.005	1.0	03/23/11	03/24/11	0.005	U	
Manganese	200.8	0.05	0.01	1.0	03/23/11	03/24/11	0.01	U	
Molybdenum	200.8	0.050	0.008	1.0	03/23/11	03/24/11	0.008	U	
Nickel	200.8	0.20	0.03	1.0	03/23/11	03/24/11	0.03	U	
Selenium	200.8	1.0	0.3	1.0	03/23/11	03/24/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	03/23/11	03/24/11	0.004	U	
Zinc	200.8	0.50	0.20	1.0	03/23/11	03/24/11	0.20	U	

% Solids: 0.0

Comments:

Metals

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SPIKE SAMPLE RECOVERY

Client:	PES Environmental	Service Request:	K1102163
Project No.:	NA	Units:	UG/L
Project Name:	Univar-Portland Facility	Basis:	NA
Matrix:	WATER	% Solids:	0.0

Sample Name: Batch QC1S Lab Code: K1102140-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Iron	70 - 130	2000		1050		1000.00	95.0		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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SPIKE SAMPLE RECOVERY

Client: PES Environmental

Service Request: K1102163

Project No.: NA

Units: UG/L

Project Name: Univar-Portland Facility

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC2S

Lab Code: K1102173-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum	70 - 130	23.7		3.2		20.00	102.5		200.8
Antimony	70 - 130	21.0		0.06		20.00	104.7		200.8
Arsenic	70 - 130	21.1		0.13	J	20.00	104.8		200.8
Cadmium	70 - 130	20.3		0.009	J	20.00	101.5		200.8
Chromium	70 - 130	20.2		0.16	J	20.00	100.2		200.8
Copper	70 - 130	20.2		0.30		20.00	99.5		200.8
Lead	70 - 130	19.9		0.031		20.00	99.3		200.8
Manganese	70 - 130	65.1		44.6		20.00	102.5		200.8
Molybdenum	70 - 130	21.9		0.489		20.00	107.1		200.8
Nickel	70 - 130	20.6		0.85		20.00	98.8		200.8
Selenium	70 - 130	20.9		0.3	U	20.00	104.5		200.8
Silver	70 - 130	19.9		0.005	J	20.00	99.5		200.8
Zinc	70 - 130	39.5		18.9		20.00	103.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 6 -

DUPLICATES

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Units:**	UG/L
Project Name:	Univar-Portland Facility	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: Batch QC1D **Lab Code:** K1102140-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	20	1050		1020		2.9		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client: PES Environmental

Service Request: K1102163

Project No.: NA

Units: UG/L

Project Name: Univar-Portland Facility

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC2D

Lab Code: K1102173-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum		3.2		3.1		3.2		200.8
Antimony		0.06		0.05		18.2		200.8
Arsenic		0.13	J	0.17	J	26.7		200.8
Cadmium		0.009	J	0.011	J	20.0		200.8
Chromium		0.16	J	0.22		31.6		200.8
Copper		0.30		0.28		6.9		200.8
Lead		0.031		0.033		6.2		200.8
Manganese	20	44.6		46.1		3.3		200.8
Molybdenum	20	0.489		0.493		0.8		200.8
Nickel		0.85		0.85		0.0		200.8
Selenium		0.3	U	0.3	U			200.8
Silver		0.005	J	0.004	U	200.0		200.8
Zinc	20	18.9		19.3		2.1		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

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LABORATORY CONTROL SAMPLE

Client: PES Environmental **Service Request:** K1102163

Project No.: NA

Project Name: Univar-Portland Facility

Aqueous LCS Source: CAS MIXED **Solid LCS Source:**

Analyte	Aqueous: ug/L			Solid: mg/kg				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	20	20.7	103.5					
Antimony	20	20.7	103.5					
Arsenic	20	20.1	100.5					
Cadmium	20	20.3	101.5					
Chromium	20	20.3	101.5					
Copper	20	20.3	101.5					
Iron	2500	2480	99.2					
Lead	20	20.5	102.5					
Manganese	20	20.4	102.0					
Molybdenum	20	20.4	102.0					
Nickel	20	20.1	100.5					
Selenium	20	20.1	100.5					
Silver	20	20.1	100.5					
Zinc	20	20.7	103.5					

Diesel and Residual Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Diesel and Residual Range Organics

Sample Name:	SPI-1-W-031011	**Units:**	ug/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**330**	H	110	12	1	03/17/11	03/22/11	KWG1102468	
Residual Range Organics (RRO)	**620**	O	110	20	1	03/17/11	03/22/11	KWG1102468	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	90	50-150	03/22/11	Acceptable
n-Triacontane	91	50-150	03/22/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Diesel and Residual Range Organics

Sample Name:	SPI-2-W-031011	**Units:**	ug/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**220**	H	110	12	1	03/17/11	03/22/11	KWG1102468	
Residual Range Organics (RRO)	**510**	O	110	21	1	03/17/11	03/22/11	KWG1102468	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	81	50-150	03/22/11	Acceptable
n-Triacontane	85	50-150	03/22/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1102468-3	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	100	11	1	03/17/11	03/22/11	KWG1102468	
Residual Range Organics (RRO)	**39**	J	100	19	1	03/17/11	03/22/11	KWG1102468	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	92	50-150	03/22/11	Acceptable
n-Triacontane	96	50-150	03/22/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
Batch QC	K1102162-001	97	104
SPI-1-W-031011	K1102163-001	90	91
SPI-2-W-031011	K1102163-002	81	85
Batch QCDUP	KWG1102468-1	73	79
Method Blank	KWG1102468-3	92	96
Lab Control Sample	KWG1102468-2	102	102

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	50-150
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Extracted:**	03/17/2011
Sample Matrix:	Water	**Date Analyzed:**	03/22/2011

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K1102162-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1102468

Analyte Name	MRL	MDL	Sample Result	Batch QCDUP KWG1102468-1 Duplicate Sample Result	Average	Relative Percent Difference	RPD Limit
Diesel Range Organics (DRO)	110	12	240	190	220	23 #	30
Residual Range Organics (RRO)	110	20	830	640	740	26	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/17/2011
Date Analyzed: 03/22/2011

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102468

	Lab Control Sample KWG1102468-2 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	3340	3200	104	46-140
Residual Range Organics (RRO)	1600	1600	100	45-159

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Organochlorine Pesticides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Organochlorine Pesticides

Sample Name:	SPI-1-W-031011	**Units:**	ng/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	**1.5**	JPD	2.7	1.2	5	03/16/11	04/07/11	KWG1102601	
Hexachlorobenzene	ND	U	2.7	1.5	5	03/16/11	04/07/11	KWG1102601	
beta-BHC	ND	U	2.7	2.2	5	03/16/11	04/07/11	KWG1102601	
gamma-BHC (Lindane)	ND	U	2.7	2.5	5	03/16/11	04/07/11	KWG1102601	
delta-BHC	**3.7**	D	2.7	0.74	5	03/16/11	04/07/11	KWG1102601	
Heptachlor	ND	Ui	2.7	2.7	5	03/16/11	04/07/11	KWG1102601	
Aldrin	ND	U	2.7	1.8	5	03/16/11	04/07/11	KWG1102601	
Heptachlor Epoxide	ND	Ui	2.7	1.3	5	03/16/11	04/07/11	KWG1102601	
gamma-Chlordane†	**1.9**	JPD	2.7	1.7	5	03/16/11	04/07/11	KWG1102601	
Endosulfan I	ND	U	2.7	1.4	5	03/16/11	04/07/11	KWG1102601	
alpha-Chlordane	ND	U	2.7	1.5	5	03/16/11	04/07/11	KWG1102601	
Dieldrin	ND	Ui	2.8	2.8	5	03/16/11	04/07/11	KWG1102601	
4,4'-DDE	ND	Ui	2.7	1.5	5	03/16/11	04/07/11	KWG1102601	*
Endrin	ND	U	2.7	2.6	5	03/16/11	04/07/11	KWG1102601	
Endosulfan II	**3.3**	PD	2.7	1.9	5	03/16/11	04/07/11	KWG1102601	
4,4'-DDD	ND	U	2.7	1.2	5	03/16/11	04/07/11	KWG1102601	
Endrin Aldehyde	**3.3**	D	2.7	1.2	5	03/16/11	04/07/11	KWG1102601	
Endosulfan Sulfate	**13**	PD	2.7	1.5	5	03/16/11	04/07/11	KWG1102601	
4,4'-DDT	**25**	PD	2.7	0.90	5	03/16/11	04/07/11	KWG1102601	
Endrin Ketone	ND	U	2.7	1.7	5	03/16/11	04/07/11	KWG1102601	
Methoxychlor	ND	Ui	6.3	6.3	5	03/16/11	04/07/11	KWG1102601	
Toxaphene	ND	Ui	360	360	5	03/16/11	04/07/11	KWG1102601	
Chlordane	ND	U	53	31	5	03/16/11	04/07/11	KWG1102601	
Oxychlordane	ND	U	2.7	0.37	5	03/16/11	04/07/11	KWG1102601	
2,4'-DDE	ND	U	2.7	1.4	5	03/16/11	04/07/11	KWG1102601	
cis-Nonachlor	ND	Ui	5.1	5.1	5	03/16/11	04/07/11	KWG1102601	
2,4'-DDD	ND	Ui	2.7	2.7	5	03/16/11	04/07/11	KWG1102601	
trans-Nonachlor	ND	U	2.7	0.58	5	03/16/11	04/07/11	KWG1102601	
2,4'-DDT	ND	Ui	2.7	2.7	5	03/16/11	04/07/11	KWG1102601	

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Organochlorine Pesticides

Sample Name:	SPI-1-W-031011	**Units:**	ng/L
Lab Code:	K1102163-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	85	20-102	04/07/11	Acceptable
Decachlorobiphenyl	112	35-128	04/07/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-031011	**Units:**	ng/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	**1.2**	JPD	2.5	1.1	5	03/16/11	04/07/11	KWG1102601	
Hexachlorobenzene	ND	U	2.5	1.4	5	03/16/11	04/07/11	KWG1102601	
beta-BHC	ND	U	2.5	2.1	5	03/16/11	04/07/11	KWG1102601	
gamma-BHC (Lindane)	ND	U	2.5	2.4	5	03/16/11	04/07/11	KWG1102601	
delta-BHC	**6.3**	D	2.5	0.70	5	03/16/11	04/07/11	KWG1102601	
Heptachlor	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
Aldrin	ND	U	2.5	1.7	5	03/16/11	04/07/11	KWG1102601	
Heptachlor Epoxide	ND	Ui	2.5	1.2	5	03/16/11	04/07/11	KWG1102601	
gamma-Chlordane†	ND	U	2.5	1.6	5	03/16/11	04/07/11	KWG1102601	
Endosulfan I	ND	U	2.5	1.3	5	03/16/11	04/07/11	KWG1102601	
alpha-Chlordane	ND	U	2.5	1.4	5	03/16/11	04/07/11	KWG1102601	
Dieldrin	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
4,4'-DDE	**1.3**	JPD	2.5	0.95	5	03/16/11	04/07/11	KWG1102601	*
Endrin	ND	U	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
Endosulfan II	**2.1**	JPD	2.5	1.8	5	03/16/11	04/07/11	KWG1102601	
4,4'-DDD	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
Endrin Aldehyde	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
Endosulfan Sulfate	**7.7**	PD	2.5	1.4	5	03/16/11	04/07/11	KWG1102601	
4,4'-DDT	**19**	PD	2.5	0.85	5	03/16/11	04/07/11	KWG1102601	
Endrin Ketone	ND	U	2.5	1.6	5	03/16/11	04/07/11	KWG1102601	
Methoxychlor	ND	Ui	5.0	4.8	5	03/16/11	04/07/11	KWG1102601	
Toxaphene	ND	Ui	260	260	5	03/16/11	04/07/11	KWG1102601	
Chlordane	ND	U	50	29	5	03/16/11	04/07/11	KWG1102601	
Oxychlordane	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
2,4'-DDE	ND	U	2.5	1.3	5	03/16/11	04/07/11	KWG1102601	
cis-Nonachlor	ND	Ui	4.1	4.1	5	03/16/11	04/07/11	KWG1102601	
2,4'-DDD	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	
trans-Nonachlor	ND	U	2.5	0.55	5	03/16/11	04/07/11	KWG1102601	
2,4'-DDT	ND	Ui	2.5	2.5	5	03/16/11	04/07/11	KWG1102601	

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-031011	**Units:**	ng/L
Lab Code:	K1102163-002	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	77	20-102	04/07/11	Acceptable
Decachlorobiphenyl	121	35-128	04/07/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1102601-9	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.50	0.21	1	03/16/11	04/06/11	KWG1102601	
Hexachlorobenzene	ND	U	0.50	0.27	1	03/16/11	04/06/11	KWG1102601	
beta-BHC	ND	U	0.50	0.41	1	03/16/11	04/06/11	KWG1102601	
gamma-BHC (Lindane)	ND	U	0.50	0.47	1	03/16/11	04/06/11	KWG1102601	
delta-BHC	ND	U	0.50	0.14	1	03/16/11	04/06/11	KWG1102601	
Heptachlor	ND	U	0.50	0.18	1	03/16/11	04/06/11	KWG1102601	
Aldrin	ND	U	0.50	0.33	1	03/16/11	04/06/11	KWG1102601	
Heptachlor Epoxide	ND	U	0.50	0.21	1	03/16/11	04/06/11	KWG1102601	
gamma-Chlordane†	ND	U	0.50	0.31	1	03/16/11	04/06/11	KWG1102601	
Endosulfan I	ND	U	0.50	0.25	1	03/16/11	04/06/11	KWG1102601	
alpha-Chlordane	ND	U	0.50	0.27	1	03/16/11	04/06/11	KWG1102601	
Dieldrin	ND	U	0.50	0.37	1	03/16/11	04/06/11	KWG1102601	
4,4'-DDE	ND	U	0.50	0.19	1	03/16/11	04/06/11	KWG1102601	*
Endrin	ND	U	0.50	0.49	1	03/16/11	04/06/11	KWG1102601	
Endosulfan II	**0.47**	J	0.50	0.35	1	03/16/11	04/06/11	KWG1102601	
4,4'-DDD	**0.77**		0.50	0.21	1	03/16/11	04/06/11	KWG1102601	
Endrin Aldehyde	ND	U	0.50	0.21	1	03/16/11	04/06/11	KWG1102601	
Endosulfan Sulfate	ND	U	0.50	0.28	1	03/16/11	04/06/11	KWG1102601	
4,4'-DDT	ND	U	0.50	0.17	1	03/16/11	04/06/11	KWG1102601	
Endrin Ketone	ND	U	0.50	0.32	1	03/16/11	04/06/11	KWG1102601	
Methoxychlor	ND	U	1.0	0.44	1	03/16/11	04/06/11	KWG1102601	
Toxaphene	ND	U	25	17	1	03/16/11	04/06/11	KWG1102601	
Chlordane	ND	U	9.9	5.8	1	03/16/11	04/06/11	KWG1102601	
Oxychlordane	ND	U	0.50	0.069	1	03/16/11	04/06/11	KWG1102601	
2,4'-DDE	ND	U	0.50	0.25	1	03/16/11	04/06/11	KWG1102601	
cis-Nonachlor	ND	U	0.50	0.14	1	03/16/11	04/06/11	KWG1102601	
2,4'-DDD	ND	Ui	0.50	0.50	1	03/16/11	04/06/11	KWG1102601	
trans-Nonachlor	ND	U	0.50	0.11	1	03/16/11	04/06/11	KWG1102601	
2,4'-DDT	ND	U	0.50	0.13	1	03/16/11	04/06/11	KWG1102601	

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1102601-9	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	76	20-102	04/06/11	Acceptable
Decachlorobiphenyl	94	35-128	04/06/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Organochlorine Pesticides

Extraction Method: EPA 3535A
Analysis Method: 8081B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-1-W-031011	K1102163-001	85 D	112 D
SPI-2-W-031011	K1102163-002	77 D	121 D
Method Blank	KWG1102601-9	76	94
Lab Control Sample	KWG1102601-1	71	87
Duplicate Lab Control Sample	KWG1102601-2	78	114

Surrogate Recovery Control Limits (%)

Sur1 =	Tetrachloro-m-xylene	20-102
Sur2 =	Decachlorobiphenyl	35-128

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Extracted:**	03/16/2011
Sample Matrix:	Water	**Date Analyzed:**	04/06/2011 - 04/07/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Organochlorine Pesticides

Extraction Method:	EPA 3535A	**Units:**	ng/L
Analysis Method:	8081B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1102601

	Lab Control Sample KWG1102601-1 Lab Control Spike			Duplicate Lab Control Sample KWG1102601-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	6.92	10.0	69	7.38	10.0	74	36-122	6	30
Hexachlorobenzene	7.27	10.0	73	8.10	10.0	81	31-95	11	30
beta-BHC	7.75	10.0	78	8.65	10.0	87	42-125	11	30
gamma-BHC (Lindane)	7.51	10.0	75	8.14	10.0	81	44-117	8	30
delta-BHC	8.16	10.0	82	9.24	10.0	92	48-123	12	30
Heptachlor	7.34	10.0	73	7.88	10.0	79	40-115	7	30
Aldrin	6.48	10.0	65	7.35	10.0	73	10-102	12	30
Heptachlor Epoxide	7.21	10.0	72	8.30	10.0	83	49-109	14	30
gamma-Chlordane	7.24	10.0	72	8.40	10.0	84	47-113	15	30
Endosulfan I	6.58	10.0	66	7.61	10.0	76	35-115	15	30
alpha-Chlordane	7.18	10.0	72	8.13	10.0	81	45-115	12	30
Dieldrin	7.32	10.0	73	8.65	10.0	87	50-115	17	30
4,4'-DDE	9.64	10.0	96	11.8	10.0	118 *	41-116	20	30
Endrin	7.25	10.0	72	8.14	10.0	81	48-126	12	30
Endosulfan II	7.35	10.0	74	8.97	10.0	90	28-128	20	30
4,4'-DDD	7.84	10.0	78	9.23	10.0	92	33-132	16	30
Endrin Aldehyde	6.24	10.0	62	7.76	10.0	78	27-104	22	30
Endosulfan Sulfate	7.03	10.0	70	8.51	10.0	85	38-118	19	30
4,4'-DDT	8.98	10.0	90	10.5	10.0	105	42-143	16	30
Endrin Ketone	7.93	10.0	79	9.74	10.0	97	30-124	21	30
Methoxychlor	10.6	10.0	106	13.1	10.0	131	43-143	22	30
Toxaphene	232	200	116	224	200	112	36-137	3	30
Chlordane	94.5	100	95	94.5	100	94	45-148	0	30
Oxychlordane	9.88	10.0	99	9.05	10.0	91	40-126	9	30
2,4'-DDE	11.7	10.0	117	11.8	10.0	118	29-126	1	30
cis-Nonachlor	10.1	10.0	101	9.35	10.0	94	42-125	7	30
2,4'-DDD	9.76	10.0	98	10.7	10.0	107	51-112	9	30
trans-Nonachlor	9.86	10.0	99	9.17	10.0	92	47-123	7	30
2,4'-DDT	9.95	10.0	99	10.6	10.0	106	51-117	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Congener Specific PCBs

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Congener Specific PCBs

Sample Name:	SPI-1-W-031011	**Units:**	ng/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	Ui	5.7	5.7	1	03/15/11	03/29/11	KWG1102911	
PCB 18	ND	Ui	64	64	1	03/15/11	03/29/11	KWG1102911	
PCB 28	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 44	ND	U	5.3	0.33	1	03/15/11	03/29/11	KWG1102911	
PCB 52	**0.91**	JP	5.3	0.34	1	03/15/11	03/29/11	KWG1102911	
PCB 66	ND	U	5.3	0.32	1	03/15/11	03/29/11	KWG1102911	
PCB 87	ND	Ui	5.3	0.88	1	03/15/11	03/29/11	KWG1102911	
PCB 101	ND	U	5.3	0.27	1	03/15/11	03/29/11	KWG1102911	
PCB 114	ND	U	5.3	0.21	1	03/15/11	03/29/11	KWG1102911	
PCB 123	ND	U	5.3	0.20	1	03/15/11	03/29/11	KWG1102911	
PCB 138	ND	Ui	5.3	0.67	1	03/15/11	03/29/11	KWG1102911	
PCB 156	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 167	ND	U	5.3	0.31	1	03/15/11	03/29/11	KWG1102911	
PCB 180	ND	Ui	5.3	0.40	1	03/15/11	03/29/11	KWG1102911	
PCB 183	ND	U	5.3	0.81	1	03/15/11	03/29/11	KWG1102911	
PCB 184	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 187	ND	Ui	5.3	5.3	1	03/15/11	03/29/11	KWG1102911	
PCB 189	ND	U	5.3	0.24	1	03/15/11	03/29/11	KWG1102911	
PCB 195	ND	U	5.3	0.35	1	03/15/11	03/29/11	KWG1102911	
PCB 206	ND	U	5.3	0.58	1	03/15/11	03/29/11	KWG1102911	
PCB 209	ND	U	5.3	0.50	1	03/15/11	03/29/11	KWG1102911	
PCB 60	ND	Ui	5.3	1.2	1	03/15/11	03/29/11	KWG1102911	
PCB 77	ND	U	5.3	0.31	1	03/15/11	03/29/11	KWG1102911	
PCB 81	**0.66**	JP	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 90	ND	U	5.3	0.35	1	03/15/11	03/29/11	KWG1102911	
PCB 105	ND	U	5.3	0.29	1	03/15/11	03/29/11	KWG1102911	
PCB 118	ND	Ui	5.3	0.22	1	03/15/11	03/29/11	KWG1102911	
PCB 126	ND	U	5.3	0.39	1	03/15/11	03/29/11	KWG1102911	
PCB 128	ND	U	5.3	0.60	1	03/15/11	03/29/11	KWG1102911	
PCB 153	ND	U	5.3	0.50	1	03/15/11	03/29/11	KWG1102911	
PCB 157	ND	U	5.3	0.14	1	03/15/11	03/29/11	KWG1102911	
PCB 158	**1.4**	J	5.3	0.32	1	03/15/11	03/29/11	KWG1102911	
PCB 166	ND	Ui	5.3	1.3	1	03/15/11	03/29/11	KWG1102911	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Congener Specific PCBs

Sample Name:	SPI-1-W-031011	**Units:**	ng/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 170	ND	Ui	5.3	0.18	1	03/15/11	03/29/11	KWG1102911	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	84	26-100	03/29/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Congener Specific PCBs

Sample Name:	SPI-2-W-031011	**Units:**	ng/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	Ui	5.3	5.3	1	03/15/11	03/29/11	KWG1102911	
PCB 18	ND	Ui	63	63	1	03/15/11	03/29/11	KWG1102911	
PCB 28	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 44	ND	U	5.3	0.33	1	03/15/11	03/29/11	KWG1102911	
PCB 52	ND	Ui	5.3	1.1	1	03/15/11	03/29/11	KWG1102911	
PCB 66	ND	Ui	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 87	ND	Ui	5.3	0.52	1	03/15/11	03/29/11	KWG1102911	
PCB 101	ND	U	5.3	0.27	1	03/15/11	03/29/11	KWG1102911	
PCB 114	ND	U	5.3	0.21	1	03/15/11	03/29/11	KWG1102911	
PCB 123	ND	U	5.3	0.20	1	03/15/11	03/29/11	KWG1102911	
PCB 138	ND	U	5.3	0.65	1	03/15/11	03/29/11	KWG1102911	
PCB 156	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 167	ND	U	5.3	0.31	1	03/15/11	03/29/11	KWG1102911	
PCB 180	ND	U	5.3	0.39	1	03/15/11	03/29/11	KWG1102911	
PCB 183	ND	U	5.3	0.81	1	03/15/11	03/29/11	KWG1102911	
PCB 184	ND	Ui	5.3	0.46	1	03/15/11	03/29/11	KWG1102911	
PCB 187	ND	Ui	5.3	5.3	1	03/15/11	03/29/11	KWG1102911	
PCB 189	ND	U	5.3	0.24	1	03/15/11	03/29/11	KWG1102911	
PCB 195	ND	U	5.3	0.35	1	03/15/11	03/29/11	KWG1102911	
PCB 206	ND	U	5.3	0.58	1	03/15/11	03/29/11	KWG1102911	
PCB 209	ND	U	5.3	0.50	1	03/15/11	03/29/11	KWG1102911	
PCB 60	ND	Ui	5.3	0.73	1	03/15/11	03/29/11	KWG1102911	
PCB 77	ND	U	5.3	0.31	1	03/15/11	03/29/11	KWG1102911	
PCB 81	**0.46**	JP	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 90	ND	U	5.3	0.35	1	03/15/11	03/29/11	KWG1102911	
PCB 105	ND	U	5.3	0.29	1	03/15/11	03/29/11	KWG1102911	
PCB 118	ND	Ui	5.3	0.28	1	03/15/11	03/29/11	KWG1102911	
PCB 126	ND	U	5.3	0.39	1	03/15/11	03/29/11	KWG1102911	
PCB 128	ND	U	5.3	0.60	1	03/15/11	03/29/11	KWG1102911	
PCB 153	ND	U	5.3	0.50	1	03/15/11	03/29/11	KWG1102911	
PCB 157	ND	U	5.3	0.14	1	03/15/11	03/29/11	KWG1102911	
PCB 158	ND	Ui	5.3	0.98	1	03/15/11	03/29/11	KWG1102911	
PCB 166	ND	Ui	5.3	1.1	1	03/15/11	03/29/11	KWG1102911	

Comments:

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Congener Specific PCBs

Sample Name:	SPI-2-W-031011	**Units:**	ng/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.3	0.36	1	03/15/11	03/29/11	KWG1102911	
PCB 170	ND	Ui	5.3	0.35	1	03/15/11	03/29/11	KWG1102911	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	79	26-100	03/29/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Congener Specific PCBs

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1102911-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	**0.97**	J	5.0	0.84	1	03/15/11	03/29/11	KWG1102911	
PCB 18	ND	Ui	11	11	1	03/15/11	03/29/11	KWG1102911	
PCB 28	ND	U	5.0	0.34	1	03/15/11	03/29/11	KWG1102911	
PCB 44	ND	U	5.0	0.31	1	03/15/11	03/29/11	KWG1102911	
PCB 52	ND	U	5.0	0.32	1	03/15/11	03/29/11	KWG1102911	
PCB 66	ND	U	5.0	0.30	1	03/15/11	03/29/11	KWG1102911	
PCB 87	ND	U	5.0	0.35	1	03/15/11	03/29/11	KWG1102911	
PCB 101	ND	U	5.0	0.25	1	03/15/11	03/29/11	KWG1102911	
PCB 114	ND	U	5.0	0.20	1	03/15/11	03/29/11	KWG1102911	
PCB 123	ND	U	5.0	0.19	1	03/15/11	03/29/11	KWG1102911	
PCB 138	ND	U	5.0	0.62	1	03/15/11	03/29/11	KWG1102911	
PCB 156	ND	U	5.0	0.34	1	03/15/11	03/29/11	KWG1102911	
PCB 167	ND	U	5.0	0.29	1	03/15/11	03/29/11	KWG1102911	
PCB 180	ND	U	5.0	0.37	1	03/15/11	03/29/11	KWG1102911	
PCB 183	ND	U	5.0	0.77	1	03/15/11	03/29/11	KWG1102911	
PCB 184	ND	U	5.0	0.34	1	03/15/11	03/29/11	KWG1102911	
PCB 187	ND	U	5.0	0.27	1	03/15/11	03/29/11	KWG1102911	
PCB 189	ND	U	5.0	0.23	1	03/15/11	03/29/11	KWG1102911	
PCB 195	ND	U	5.0	0.33	1	03/15/11	03/29/11	KWG1102911	
PCB 206	ND	U	5.0	0.55	1	03/15/11	03/29/11	KWG1102911	
PCB 209	ND	U	5.0	0.48	1	03/15/11	03/29/11	KWG1102911	
PCB 60	ND	U	5.0	0.39	1	03/15/11	03/29/11	KWG1102911	
PCB 77	ND	U	5.0	0.29	1	03/15/11	03/29/11	KWG1102911	
PCB 81	ND	U	5.0	0.34	1	03/15/11	03/29/11	KWG1102911	
PCB 90	ND	U	5.0	0.33	1	03/15/11	03/29/11	KWG1102911	
PCB 105	ND	U	5.0	0.27	1	03/15/11	03/29/11	KWG1102911	
PCB 118	ND	U	5.0	0.099	1	03/15/11	03/29/11	KWG1102911	
PCB 126	ND	U	5.0	0.37	1	03/15/11	03/29/11	KWG1102911	
PCB 128	ND	U	5.0	0.57	1	03/15/11	03/29/11	KWG1102911	
PCB 153	ND	U	5.0	0.48	1	03/15/11	03/29/11	KWG1102911	
PCB 157	ND	U	5.0	0.13	1	03/15/11	03/29/11	KWG1102911	
PCB 158	ND	U	5.0	0.30	1	03/15/11	03/29/11	KWG1102911	
PCB 166	ND	U	5.0	0.33	1	03/15/11	03/29/11	KWG1102911	

Comments:

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Congener Specific PCBs

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1102911-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.0	0.34	1	03/15/11	03/29/11	KWG1102911	
PCB 170	ND	U	5.0	0.12	1	03/15/11	03/29/11	KWG1102911	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	77	26-100	03/29/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Congener Specific PCBs

Extraction Method: EPA 3520C
Analysis Method: 8082A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-W-031011	K1102163-001	84
SPI-2-W-031011	K1102163-002	79
Method Blank	KWG1102911-3	77
Lab Control Sample	KWG1102911-1	83
Duplicate Lab Control Sample	KWG1102911-2	70

Surrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene 26-100

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Extracted:**	03/15/2011
Sample Matrix:	Water	**Date Analyzed:**	03/29/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Congener Specific PCBs

Extraction Method:	EPA 3520C	**Units:**	ng/L
Analysis Method:	8082A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1102911

	Lab Control Sample KWG1102911-1 Lab Control Spike			Duplicate Lab Control Sample KWG1102911-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
PCB 8	93.1	100	93	88.9	100	89	44-127	5	30
PCB 18	95.7	100	96	83.0	100	83	39-118	14	30
PCB 28	86.1	100	86	95.7	100	96	54-139	11	30
PCB 44	81.3	100	81	92.3	100	92	53-124	13	30
PCB 52	76.3	100	76	87.4	100	87	48-111	14	30
PCB 66	89.0	100	89	102	100	102	51-118	13	30
PCB 87	79.9	100	80	90.0	100	90	52-112	12	30
PCB 114	77.1	100	77	86.4	100	86	50-125	11	30
PCB 123	80.4	100	80	91.0	100	91	49-126	12	30
PCB 138	78.0	100	78	87.0	100	87	49-118	11	30
PCB 156	81.5	100	82	90.7	100	91	54-137	11	30
PCB 167	82.7	100	83	93.3	100	93	45-124	12	30
PCB 180	84.8	100	85	94.5	100	95	55-137	11	30
PCB 183	71.0	100	71	83.0	100	83	43-130	16	30
PCB 184	83.7	100	84	89.5	100	90	53-118	7	30
PCB 187	88.5	100	88	96.3	100	96	55-117	8	30
PCB 189	82.7	100	83	91.5	100	92	54-130	10	30
PCB 195	83.6	100	84	92.6	100	93	52-126	10	30
PCB 206	76.3	100	76	84.6	100	85	53-123	10	30
PCB 209	89.6	100	90	99.8	100	100	53-124	11	30
PCB 60	79.9	100	80	86.6	100	87	42-185	8	30
PCB 77	68.5	100	68	77.1	100	77	33-149	12	30
PCB 81	74.5	100	75	83.8	100	84	22-161	12	30
PCB 90	72.5	100	73	85.1	100	85	37-180	16	30
PCB 105	74.9	100	75	83.9	100	84	43-135	11	30
PCB 118	71.6	100	72	80.3	100	80	47-135	12	30
PCB 126	83.5	100	84	92.8	100	93	44-135	10	30
PCB 128	72.8	100	73	81.1	100	81	37-129	11	30
PCB 153	76.4	100	76	86.9	100	87	29-133	13	30
PCB 157	74.8	100	75	83.3	100	83	27-153	11	30
PCB 158	80.6	100	81	89.7	100	90	24-158	11	30
PCB 169	74.9	100	75	82.5	100	83	32-161	10	30
PCB 170	78.4	100	78	86.9	100	87	36-135	10	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Chlorinated Herbicides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Chlorinated Herbicides

Sample Name:	SPI-1-W-031011	**Units:**	ug/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.43	0.10	1	03/15/11	04/02/11	KWG1102423	
Dicamba	ND	U	0.22	0.11	1	03/15/11	04/02/11	KWG1102423	
MCPP	ND	U	110	33	1	03/15/11	04/02/11	KWG1102423	
MCPA	ND	U	110	37	1	03/15/11	04/02/11	KWG1102423	
Dichlorprop	ND	U	0.43	0.064	1	03/15/11	04/02/11	KWG1102423	
2,4-D	ND	U	0.43	0.057	1	03/15/11	04/02/11	KWG1102423	
2,4,5-TP (Silvex)	ND	U	0.22	0.057	1	03/15/11	04/02/11	KWG1102423	
2,4,5-T	ND	U	0.22	0.062	1	03/15/11	04/02/11	KWG1102423	
2,4-DB	ND	U	0.43	0.18	1	03/15/11	04/02/11	KWG1102423	
Dinoseb	ND	U	0.22	0.053	1	03/15/11	04/02/11	KWG1102423	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	73	10-136	04/02/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Chlorinated Herbicides

Sample Name:	SPI-2-W-031011	**Units:**	ug/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.42	0.099	1	03/15/11	04/02/11	KWG1102423	
Dicamba	ND	U	0.21	0.11	1	03/15/11	04/02/11	KWG1102423	
MCPP	ND	U	110	33	1	03/15/11	04/02/11	KWG1102423	
MCPA	ND	U	110	37	1	03/15/11	04/02/11	KWG1102423	
Dichlorprop	ND	U	0.42	0.063	1	03/15/11	04/02/11	KWG1102423	
2,4-D	ND	U	0.42	0.057	1	03/15/11	04/02/11	KWG1102423	
2,4,5-TP (Silvex)	ND	U	0.21	0.057	1	03/15/11	04/02/11	KWG1102423	
2,4,5-T	ND	U	0.21	0.061	1	03/15/11	04/02/11	KWG1102423	
2,4-DB	ND	U	0.42	0.18	1	03/15/11	04/02/11	KWG1102423	
Dinoseb	ND	U	0.21	0.053	1	03/15/11	04/02/11	KWG1102423	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	81	10-136	04/02/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Chlorinated Herbicides

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1102423-3	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.40	0.095	1	03/15/11	04/01/11	KWG1102423	
Dicamba	ND	U	0.20	0.10	1	03/15/11	04/01/11	KWG1102423	
MCPP	ND	U	100	31	1	03/15/11	04/01/11	KWG1102423	
MCPA	ND	U	100	35	1	03/15/11	04/01/11	KWG1102423	
Dichlorprop	ND	U	0.40	0.060	1	03/15/11	04/01/11	KWG1102423	
2,4-D	ND	U	0.40	0.054	1	03/15/11	04/01/11	KWG1102423	
2,4,5-TP (Silvex)	ND	U	0.20	0.054	1	03/15/11	04/01/11	KWG1102423	
2,4,5-T	ND	U	0.20	0.058	1	03/15/11	04/01/11	KWG1102423	
2,4-DB	ND	U	0.40	0.17	1	03/15/11	04/01/11	KWG1102423	
Dinoseb	ND	U	0.20	0.050	1	03/15/11	04/01/11	KWG1102423	*

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	45	10-136	04/01/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Chlorinated Herbicides

Extraction Method: Method
Analysis Method: 8151A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-W-031011	K1102163-001	73
SPI-2-W-031011	K1102163-002	81
Method Blank	KWG1102423-3	45
Lab Control Sample	KWG1102423-1	61
Duplicate Lab Control Sample	KWG1102423-2	49

Surrogate Recovery Control Limits (%)

Sur1 = 2,4-Dichlorophenylacetic Acid 10-136

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Extracted:**	03/15/2011
Sample Matrix:	Water	**Date Analyzed:**	04/01/2011 - 04/02/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Chlorinated Herbicides

Extraction Method:	Method	**Units:**	ug/L
Analysis Method:	8151A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1102423

	Lab Control Sample KWG1102423-1 Lab Control Spike			Duplicate Lab Control Sample KWG1102423-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Dalapon	1.31	2.50	52	1.26	2.50	51	40-114	4	30
Dicamba	1.69	2.50	67	1.75	2.50	70	62-107	3	30
MCPP	205	250	82	196	250	79	47-117	4	30
MCPA	165	250	66	168	250	67	47-113	2	30
Dichlorprop	1.57	2.50	63	1.56	2.50	62	58-107	1	30
2,4-D	1.86	2.50	74	1.86	2.50	74	53-106	0	30
2,4,5-TP (Silvex)	1.83	2.50	73	1.82	2.50	73	66-118	0	30
2,4,5-T	1.85	2.50	74	1.91	2.50	76	71-123	3	30
2,4-DB	1.08	2.50	43	1.14	2.50	46	40-133	5	30
Dinoseb	1.13	2.50	45 *	1.46	2.50	59	47-121	26	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/15/11	03/15/11	KWG1102360	
Chloromethane	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
Vinyl Chloride	ND	U	0.50	0.075	1	03/15/11	03/15/11	KWG1102360	
Bromomethane	ND	U	0.50	0.090	1	03/15/11	03/15/11	KWG1102360	*
Chloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/15/11	03/15/11	KWG1102360	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/15/11	03/15/11	KWG1102360	
Acrolein	ND	U	50	0.96	1	03/15/11	03/15/11	KWG1102360	*
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Acetone	**8.6**	J	20	3.3	1	03/15/11	03/15/11	KWG1102360	
Iodomethane	ND	U	5.0	0.11	1	03/15/11	03/15/11	KWG1102360	*
Carbon Disulfide	ND	U	0.50	0.055	1	03/15/11	03/15/11	KWG1102360	
Methylene Chloride	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Acrylonitrile	ND	U	5.0	0.26	1	03/15/11	03/15/11	KWG1102360	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/15/11	03/15/11	KWG1102360	
1,1-Dichloroethane	ND	U	0.50	0.077	1	03/15/11	03/15/11	KWG1102360	
Vinyl Acetate	ND	U	5.0	0.43	1	03/15/11	03/15/11	KWG1102360	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/15/11	03/15/11	KWG1102360	
cis-1,2-Dichloroethene	**0.10**	J	0.50	0.067	1	03/15/11	03/15/11	KWG1102360	
2-Butanone (MEK)	ND	U	20	1.9	1	03/15/11	03/15/11	KWG1102360	
Bromochloromethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Chloroform	ND	U	0.50	0.072	1	03/15/11	03/15/11	KWG1102360	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	03/15/11	03/15/11	KWG1102360	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/15/11	03/15/11	KWG1102360	
Benzene	ND	U	0.50	0.054	1	03/15/11	03/15/11	KWG1102360	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/15/11	03/15/11	KWG1102360	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	03/15/11	03/15/11	KWG1102360	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/15/11	03/15/11	KWG1102360	
Dibromomethane	ND	U	0.50	0.15	1	03/15/11	03/15/11	KWG1102360	
Bromodichloromethane	ND	U	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	03/15/11	03/15/11	KWG1102360	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/15/11	03/15/11	KWG1102360	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/15/11	03/15/11	KWG1102360	

Comments:

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Toluene	**0.080**	J	0.50	0.052	1	03/15/11	03/15/11	KWG1102360	
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	03/15/11	03/15/11	KWG1102360	
2-Hexanone	ND	U	20	2.7	1	03/15/11	03/15/11	KWG1102360	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Dibromochloromethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Chlorobenzene	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
Ethylbenzene	ND	U	0.50	0.050	1	03/15/11	03/15/11	KWG1102360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
m,p-Xylenes	ND	U	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
o-Xylene	ND	U	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Styrene	ND	U	0.50	0.089	1	03/15/11	03/15/11	KWG1102360	
Bromoform	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Isopropylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/15/11	03/15/11	KWG1102360	
n-Propylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/15/11	03/15/11	KWG1102360	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/15/11	03/15/11	KWG1102360	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/15/11	03/15/11	KWG1102360	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/15/11	03/15/11	KWG1102360	*
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
n-Butylbenzene	ND	U	2.0	0.044	1	03/15/11	03/15/11	KWG1102360	
Naphthalene	ND	U	2.0	0.088	1	03/15/11	03/15/11	KWG1102360	

* See Case Narrative

Comments:

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	88	73-122	03/15/11	Acceptable
Toluene-d8	94	78-129	03/15/11	Acceptable
4-Bromofluorobenzene	91	68-117	03/15/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/15/11	03/15/11	KWG1102360	
Chloromethane	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
Vinyl Chloride	**0.49**	J	0.50	0.075	1	03/15/11	03/15/11	KWG1102360	
Bromomethane	ND	U	0.50	0.090	1	03/15/11	03/15/11	KWG1102360	*
Chloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/15/11	03/15/11	KWG1102360	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/15/11	03/15/11	KWG1102360	
Acrolein	ND	U	50	0.96	1	03/15/11	03/15/11	KWG1102360	*
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Acetone	**6.7**	J	20	3.3	1	03/15/11	03/15/11	KWG1102360	
Iodomethane	ND	U	5.0	0.11	1	03/15/11	03/15/11	KWG1102360	*
Carbon Disulfide	ND	U	0.50	0.055	1	03/15/11	03/15/11	KWG1102360	
Methylene Chloride	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Acrylonitrile	ND	U	5.0	0.26	1	03/15/11	03/15/11	KWG1102360	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/15/11	03/15/11	KWG1102360	
1,1-Dichloroethane	**0.20**	J	0.50	0.077	1	03/15/11	03/15/11	KWG1102360	
Vinyl Acetate	ND	U	5.0	0.43	1	03/15/11	03/15/11	KWG1102360	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/15/11	03/15/11	KWG1102360	
cis-1,2-Dichloroethene	**2.7**		0.50	0.067	1	03/15/11	03/15/11	KWG1102360	
2-Butanone (MEK)	ND	U	20	1.9	1	03/15/11	03/15/11	KWG1102360	
Bromochloromethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Chloroform	ND	U	0.50	0.072	1	03/15/11	03/15/11	KWG1102360	
1,1,1-Trichloroethane (TCA)	**0.53**		0.50	0.075	1	03/15/11	03/15/11	KWG1102360	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/15/11	03/15/11	KWG1102360	
Benzene	ND	U	0.50	0.054	1	03/15/11	03/15/11	KWG1102360	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/15/11	03/15/11	KWG1102360	
Trichloroethene (TCE)	**1.0**		0.50	0.10	1	03/15/11	03/15/11	KWG1102360	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/15/11	03/15/11	KWG1102360	
Dibromomethane	ND	U	0.50	0.15	1	03/15/11	03/15/11	KWG1102360	
Bromodichloromethane	ND	U	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	03/15/11	03/15/11	KWG1102360	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/15/11	03/15/11	KWG1102360	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/15/11	03/15/11	KWG1102360	

Comments:

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Toluene	**0.30**	J	0.50	0.052	1	03/15/11	03/15/11	KWG1102360	
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Tetrachloroethene (PCE)	**1.0**		0.50	0.099	1	03/15/11	03/15/11	KWG1102360	
2-Hexanone	ND	U	20	2.7	1	03/15/11	03/15/11	KWG1102360	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Dibromochloromethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Chlorobenzene	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
Ethylbenzene	**0.060**	J	0.50	0.050	1	03/15/11	03/15/11	KWG1102360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
m,p-Xylenes	**0.17**	J	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
o-Xylene	**0.15**	J	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Styrene	ND	U	0.50	0.089	1	03/15/11	03/15/11	KWG1102360	
Bromoform	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Isopropylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/15/11	03/15/11	KWG1102360	
n-Propylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/15/11	03/15/11	KWG1102360	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/15/11	03/15/11	KWG1102360	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/15/11	03/15/11	KWG1102360	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/15/11	03/15/11	KWG1102360	*
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
n-Butylbenzene	ND	U	2.0	0.044	1	03/15/11	03/15/11	KWG1102360	
Naphthalene	ND	U	2.0	0.088	1	03/15/11	03/15/11	KWG1102360	

* See Case Narrative

Comments:

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	89	73-122	03/15/11	Acceptable
Toluene-d8	94	78-129	03/15/11	Acceptable
4-Bromofluorobenzene	92	68-117	03/15/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-3-W-031011
Lab Code: K1102163-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/21/11	03/21/11	KWG1102535	
Chloromethane	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
Vinyl Chloride	**0.52**		0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Bromomethane	ND	U	0.50	0.090	1	03/21/11	03/21/11	KWG1102535	
Chloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/21/11	03/21/11	KWG1102535	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/21/11	03/21/11	KWG1102535	
Acrolein	ND	U	50	0.96	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Acetone	**6.5**	J	20	3.3	1	03/21/11	03/21/11	KWG1102535	
Iodomethane	ND	U	5.0	0.11	1	03/21/11	03/21/11	KWG1102535	
Carbon Disulfide	ND	U	0.50	0.055	1	03/21/11	03/21/11	KWG1102535	
Methylene Chloride	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Acrylonitrile	ND	U	5.0	0.26	1	03/21/11	03/21/11	KWG1102535	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethane	**0.21**	J	0.50	0.077	1	03/21/11	03/21/11	KWG1102535	
Vinyl Acetate	ND	U	5.0	0.43	1	03/21/11	03/21/11	KWG1102535	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/21/11	03/21/11	KWG1102535	
cis-1,2-Dichloroethene	**3.0**		0.50	0.067	1	03/21/11	03/21/11	KWG1102535	
2-Butanone (MEK)	ND	U	20	1.9	1	03/21/11	03/21/11	KWG1102535	
Bromochloromethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Chloroform	ND	U	0.50	0.072	1	03/21/11	03/21/11	KWG1102535	
1,1,1-Trichloroethane (TCA)	**0.56**		0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/21/11	03/21/11	KWG1102535	
Benzene	**0.12**	J	0.50	0.054	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/21/11	03/21/11	KWG1102535	
Trichloroethene (TCE)	**1.1**		0.50	0.10	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/21/11	03/21/11	KWG1102535	
Dibromomethane	ND	U	0.50	0.15	1	03/21/11	03/21/11	KWG1102535	
Bromodichloromethane	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/21/11	03/21/11	KWG1102535	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/21/11	03/21/11	KWG1102535	
Toluene	**1.6**		0.50	0.052	1	03/21/11	03/21/11	KWG1102535	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-3-W-031011
Lab Code: K1102163-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Tetrachloroethene (PCE)	**1.0**		0.50	0.099	1	03/21/11	03/21/11	KWG1102535	
2-Hexanone	ND	U	20	2.7	1	03/21/11	03/21/11	KWG1102535	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Dibromochloromethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Chlorobenzene	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
Ethylbenzene	**0.32**	J	0.50	0.050	1	03/21/11	03/21/11	KWG1102535	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
m,p-Xylenes	**0.83**		0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
o-Xylene	**0.30**	J	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Styrene	ND	U	0.50	0.089	1	03/21/11	03/21/11	KWG1102535	
Bromoform	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Isopropylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/21/11	03/21/11	KWG1102535	
n-Propylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/21/11	03/21/11	KWG1102535	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/21/11	03/21/11	KWG1102535	
1,2,4-Trimethylbenzene	**0.070**	J	2.0	0.069	1	03/21/11	03/21/11	KWG1102535	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/21/11	03/21/11	KWG1102535	
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
n-Butylbenzene	ND	U	2.0	0.044	1	03/21/11	03/21/11	KWG1102535	
Naphthalene	ND	U	2.0	0.088	1	03/21/11	03/21/11	KWG1102535	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	73-122	03/21/11	Acceptable
Toluene-d8	120	78-129	03/21/11	Acceptable
4-Bromofluorobenzene	101	68-117	03/21/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-EQB-W-031011
Lab Code: K1102163-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/21/11	03/21/11	KWG1102535	
Chloromethane	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
Vinyl Chloride	ND	U	0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Bromomethane	ND	U	0.50	0.090	1	03/21/11	03/21/11	KWG1102535	
Chloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/21/11	03/21/11	KWG1102535	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/21/11	03/21/11	KWG1102535	
Acrolein	ND	U	50	0.96	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Acetone	ND	U	20	3.3	1	03/21/11	03/21/11	KWG1102535	
Iodomethane	ND	U	5.0	0.11	1	03/21/11	03/21/11	KWG1102535	
Carbon Disulfide	ND	U	0.50	0.055	1	03/21/11	03/21/11	KWG1102535	
Methylene Chloride	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Acrylonitrile	ND	U	5.0	0.26	1	03/21/11	03/21/11	KWG1102535	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethane	ND	U	0.50	0.077	1	03/21/11	03/21/11	KWG1102535	
Vinyl Acetate	ND	U	5.0	0.43	1	03/21/11	03/21/11	KWG1102535	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/21/11	03/21/11	KWG1102535	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	03/21/11	03/21/11	KWG1102535	
2-Butanone (MEK)	**2.3**	J	20	1.9	1	03/21/11	03/21/11	KWG1102535	
Bromochloromethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Chloroform	ND	U	0.50	0.072	1	03/21/11	03/21/11	KWG1102535	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/21/11	03/21/11	KWG1102535	
Benzene	ND	U	0.50	0.054	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/21/11	03/21/11	KWG1102535	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/21/11	03/21/11	KWG1102535	
Dibromomethane	ND	U	0.50	0.15	1	03/21/11	03/21/11	KWG1102535	
Bromodichloromethane	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/21/11	03/21/11	KWG1102535	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/21/11	03/21/11	KWG1102535	
Toluene	**0.22**	J	0.50	0.052	1	03/21/11	03/21/11	KWG1102535	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Volatile Organic Compounds

Sample Name:	SPI-EQB-W-031011	**Units:**	ug/L
Lab Code:	K1102163-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	03/21/11	03/21/11	KWG1102535	
2-Hexanone	ND	U	20	2.7	1	03/21/11	03/21/11	KWG1102535	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Dibromochloromethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Chlorobenzene	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
Ethylbenzene	ND	U	0.50	0.050	1	03/21/11	03/21/11	KWG1102535	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
m,p-Xylenes	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
o-Xylene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Styrene	ND	U	0.50	0.089	1	03/21/11	03/21/11	KWG1102535	
Bromoform	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Isopropylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/21/11	03/21/11	KWG1102535	
n-Propylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/21/11	03/21/11	KWG1102535	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/21/11	03/21/11	KWG1102535	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/21/11	03/21/11	KWG1102535	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/21/11	03/21/11	KWG1102535	
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
n-Butylbenzene	ND	U	2.0	0.044	1	03/21/11	03/21/11	KWG1102535	
Naphthalene	ND	U	2.0	0.088	1	03/21/11	03/21/11	KWG1102535	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	73-122	03/21/11	Acceptable
Toluene-d8	117	78-129	03/21/11	Acceptable
4-Bromofluorobenzene	100	68-117	03/21/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: Trip Blanks
Lab Code: K1102163-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/21/11	03/21/11	KWG1102535	
Chloromethane	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
Vinyl Chloride	ND	U	0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Bromomethane	ND	U	0.50	0.090	1	03/21/11	03/21/11	KWG1102535	
Chloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/21/11	03/21/11	KWG1102535	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/21/11	03/21/11	KWG1102535	
Acrolein	ND	U	50	0.96	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Acetone	ND	U	20	3.3	1	03/21/11	03/21/11	KWG1102535	
Iodomethane	ND	U	5.0	0.11	1	03/21/11	03/21/11	KWG1102535	
Carbon Disulfide	ND	U	0.50	0.055	1	03/21/11	03/21/11	KWG1102535	
Methylene Chloride	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Acrylonitrile	ND	U	5.0	0.26	1	03/21/11	03/21/11	KWG1102535	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethane	ND	U	0.50	0.077	1	03/21/11	03/21/11	KWG1102535	
Vinyl Acetate	ND	U	5.0	0.43	1	03/21/11	03/21/11	KWG1102535	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/21/11	03/21/11	KWG1102535	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	03/21/11	03/21/11	KWG1102535	
2-Butanone (MEK)	ND	U	20	1.9	1	03/21/11	03/21/11	KWG1102535	
Bromochloromethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Chloroform	ND	U	0.50	0.072	1	03/21/11	03/21/11	KWG1102535	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/21/11	03/21/11	KWG1102535	
Benzene	ND	U	0.50	0.054	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/21/11	03/21/11	KWG1102535	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/21/11	03/21/11	KWG1102535	
Dibromomethane	ND	U	0.50	0.15	1	03/21/11	03/21/11	KWG1102535	
Bromodichloromethane	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/21/11	03/21/11	KWG1102535	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/21/11	03/21/11	KWG1102535	
Toluene	**0.77**		0.50	0.052	1	03/21/11	03/21/11	KWG1102535	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: Trip Blanks
Lab Code: K1102163-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	03/21/11	03/21/11	KWG1102535	
2-Hexanone	ND	U	20	2.7	1	03/21/11	03/21/11	KWG1102535	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Dibromochloromethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Chlorobenzene	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
Ethylbenzene	ND	U	0.50	0.050	1	03/21/11	03/21/11	KWG1102535	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
m,p-Xylenes	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
o-Xylene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Styrene	ND	U	0.50	0.089	1	03/21/11	03/21/11	KWG1102535	
Bromoform	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Isopropylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/21/11	03/21/11	KWG1102535	
n-Propylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/21/11	03/21/11	KWG1102535	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/21/11	03/21/11	KWG1102535	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/21/11	03/21/11	KWG1102535	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/21/11	03/21/11	KWG1102535	
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
n-Butylbenzene	ND	U	2.0	0.044	1	03/21/11	03/21/11	KWG1102535	
Naphthalene	ND	U	2.0	0.088	1	03/21/11	03/21/11	KWG1102535	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	73-122	03/21/11	Acceptable
Toluene-d8	121	78-129	03/21/11	Acceptable
4-Bromofluorobenzene	104	68-117	03/21/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1102360-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/15/11	03/15/11	KWG1102360	
Chloromethane	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
Vinyl Chloride	ND	U	0.50	0.075	1	03/15/11	03/15/11	KWG1102360	
Bromomethane	ND	U	0.50	0.090	1	03/15/11	03/15/11	KWG1102360	*
Chloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/15/11	03/15/11	KWG1102360	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/15/11	03/15/11	KWG1102360	
Acrolein	ND	U	50	0.96	1	03/15/11	03/15/11	KWG1102360	*
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Acetone	ND	U	20	3.3	1	03/15/11	03/15/11	KWG1102360	
Iodomethane	ND	U	5.0	0.11	1	03/15/11	03/15/11	KWG1102360	*
Carbon Disulfide	ND	U	0.50	0.055	1	03/15/11	03/15/11	KWG1102360	
Methylene Chloride	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Acrylonitrile	ND	U	5.0	0.26	1	03/15/11	03/15/11	KWG1102360	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/15/11	03/15/11	KWG1102360	
1,1-Dichloroethane	ND	U	0.50	0.077	1	03/15/11	03/15/11	KWG1102360	
Vinyl Acetate	ND	U	5.0	0.43	1	03/15/11	03/15/11	KWG1102360	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/15/11	03/15/11	KWG1102360	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	03/15/11	03/15/11	KWG1102360	
2-Butanone (MEK)	ND	U	20	1.9	1	03/15/11	03/15/11	KWG1102360	
Bromochloromethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Chloroform	ND	U	0.50	0.072	1	03/15/11	03/15/11	KWG1102360	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	03/15/11	03/15/11	KWG1102360	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/15/11	03/15/11	KWG1102360	
Benzene	ND	U	0.50	0.054	1	03/15/11	03/15/11	KWG1102360	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/15/11	03/15/11	KWG1102360	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	03/15/11	03/15/11	KWG1102360	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/15/11	03/15/11	KWG1102360	
Dibromomethane	ND	U	0.50	0.15	1	03/15/11	03/15/11	KWG1102360	
Bromodichloromethane	ND	U	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	03/15/11	03/15/11	KWG1102360	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/15/11	03/15/11	KWG1102360	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/15/11	03/15/11	KWG1102360	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1102360-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Toluene	ND	U	0.50	0.052	1	03/15/11	03/15/11	KWG1102360	
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	03/15/11	03/15/11	KWG1102360	
2-Hexanone	ND	U	20	2.7	1	03/15/11	03/15/11	KWG1102360	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Dibromochloromethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Chlorobenzene	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
Ethylbenzene	ND	U	0.50	0.050	1	03/15/11	03/15/11	KWG1102360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
m,p-Xylenes	ND	U	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
o-Xylene	ND	U	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Styrene	ND	U	0.50	0.089	1	03/15/11	03/15/11	KWG1102360	
Bromoform	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Isopropylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/15/11	03/15/11	KWG1102360	
n-Propylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/15/11	03/15/11	KWG1102360	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/15/11	03/15/11	KWG1102360	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/15/11	03/15/11	KWG1102360	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/15/11	03/15/11	KWG1102360	*
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
n-Butylbenzene	ND	U	2.0	0.044	1	03/15/11	03/15/11	KWG1102360	
Naphthalene	ND	U	2.0	0.088	1	03/15/11	03/15/11	KWG1102360	

* See Case Narrative

Comments:

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1102360-4

Units: ug/L
Basis: NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	89	73-122	03/15/11	Acceptable
Toluene-d8	94	78-129	03/15/11	Acceptable
4-Bromofluorobenzene	91	68-117	03/15/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1102535-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/21/11	03/21/11	KWG1102535	
Chloromethane	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
Vinyl Chloride	ND	U	0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Bromomethane	ND	U	0.50	0.090	1	03/21/11	03/21/11	KWG1102535	
Chloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/21/11	03/21/11	KWG1102535	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/21/11	03/21/11	KWG1102535	
Acrolein	ND	U	50	0.96	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Acetone	ND	U	20	3.3	1	03/21/11	03/21/11	KWG1102535	
Iodomethane	ND	U	5.0	0.11	1	03/21/11	03/21/11	KWG1102535	
Carbon Disulfide	ND	U	0.50	0.055	1	03/21/11	03/21/11	KWG1102535	
Methylene Chloride	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Acrylonitrile	ND	U	5.0	0.26	1	03/21/11	03/21/11	KWG1102535	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethane	ND	U	0.50	0.077	1	03/21/11	03/21/11	KWG1102535	
Vinyl Acetate	ND	U	5.0	0.43	1	03/21/11	03/21/11	KWG1102535	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/21/11	03/21/11	KWG1102535	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	03/21/11	03/21/11	KWG1102535	
2-Butanone (MEK)	ND	U	20	1.9	1	03/21/11	03/21/11	KWG1102535	
Bromochloromethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Chloroform	ND	U	0.50	0.072	1	03/21/11	03/21/11	KWG1102535	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/21/11	03/21/11	KWG1102535	
Benzene	ND	U	0.50	0.054	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/21/11	03/21/11	KWG1102535	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/21/11	03/21/11	KWG1102535	
Dibromomethane	ND	U	0.50	0.15	1	03/21/11	03/21/11	KWG1102535	
Bromodichloromethane	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/21/11	03/21/11	KWG1102535	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/21/11	03/21/11	KWG1102535	
Toluene	ND	U	0.50	0.052	1	03/21/11	03/21/11	KWG1102535	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1102535-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	03/21/11	03/21/11	KWG1102535	
2-Hexanone	ND	U	20	2.7	1	03/21/11	03/21/11	KWG1102535	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Dibromochloromethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Chlorobenzene	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
Ethylbenzene	ND	U	0.50	0.050	1	03/21/11	03/21/11	KWG1102535	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
m,p-Xylenes	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
o-Xylene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Styrene	ND	U	0.50	0.089	1	03/21/11	03/21/11	KWG1102535	
Bromoform	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Isopropylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/21/11	03/21/11	KWG1102535	
n-Propylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/21/11	03/21/11	KWG1102535	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/21/11	03/21/11	KWG1102535	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/21/11	03/21/11	KWG1102535	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/21/11	03/21/11	KWG1102535	
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
n-Butylbenzene	ND	U	2.0	0.044	1	03/21/11	03/21/11	KWG1102535	
Naphthalene	ND	U	2.0	0.088	1	03/21/11	03/21/11	KWG1102535	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	103	73-122	03/21/11	Acceptable
Toluene-d8	120	78-129	03/21/11	Acceptable
4-Bromofluorobenzene	111	68-117	03/21/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
Batch QC	K1102085-033	89	94	91
SPI-1-W-031011	K1102163-001	88	94	91
SPI-2-W-031011	K1102163-002	89	94	92
SPI-3-W-031011	K1102163-003	105	120	101
SPI-EQB-W-031011	K1102163-004	107	117	100
Trip Blanks	K1102163-005	103	121	104
Method Blank	KWG1102360-4	89	94	91
Method Blank	KWG1102535-4	103	120	111
Batch QCMS	KWG1102360-1	90	97	90
Batch QCDMS	KWG1102360-2	90	96	92
Lab Control Sample	KWG1102360-3	90	96	92
Lab Control Sample	KWG1102535-3	102	122	107

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	73-122
Sur2 =	Toluene-d8	78-129
Sur3 =	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Extracted:**	03/15/2011
Sample Matrix:	Water	**Date Analyzed:**	03/15/2011

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K1102085-033	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1102360

Analyte Name	Sample Result	Batch QCMS KWG1102360-1 Matrix Spike			Batch QCDMS KWG1102360-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	ND	1950	2000	98	1890	2000	94	52-151	3	30
1,1-Dichloroethene	ND	1820	2000	91	1760	2000	88	67-147	3	30
Chloroform	ND	1830	2000	92	1760	2000	88	65-125	4	30
Carbon Tetrachloride	ND	1920	2000	96	1870	2000	94	56-143	2	30
Benzene	1100	2920	2000	90	2830	2000	86	69-126	3	30
Trichloroethene (TCE)	ND	1800	2000	90	1730	2000	87	56-137	4	30
Bromodichloromethane	ND	1950	2000	98	1860	2000	93	69-131	5	30
Toluene	2000	3860	2000	91	3720	2000	84	66-128	4	30
1,1,2-Trichloroethane	ND	1880	2000	94	1900	2000	95	68-125	1	30
2-Hexanone	ND	9670	10000	97	9880	10000	99	44-135	2	30
Chlorobenzene	ND	1720	2000	86	1670	2000	84	68-120	3	30
Ethylbenzene	210	1990	2000	89	1940	2000	87	65-126	2	30
1,2,3-Trichloropropane	ND	1870	2000	94	1880	2000	94	65-122	0	30
Naphthalene	280	2500	2000	111	2450	2000	108	61-137	2	30

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Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/15/2011
Date Analyzed: 03/15/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102360

Analyte Name	Lab Control Sample KWG1102360-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	9.40	10.0	94	21-156
Chloromethane	9.32	10.0	93	45-135
Vinyl Chloride	7.78	10.0	78	59-135
Bromomethane	6.42	10.0	64	24-144
Chloroethane	8.03	10.0	80	60-128
Dichlorofluoromethane (CFC 21)	9.62	10.0	96	68-139
Trichlorofluoromethane	6.68	10.0	67	54-129
Acrolein	39.7	100	40	10-214
1,1-Dichloroethene	7.25	10.0	73	70-136
Acetone	54.6	50.0	109	53-129
Iodomethane	26.1	30.0	87	37-158
Carbon Disulfide	15.0	20.0	75	64-129
Methylene Chloride	8.42	10.0	84	64-137
Acrylonitrile	37.4	40.0	94	48-144
trans-1,2-Dichloroethene	7.68	10.0	77	70-121
1,1-Dichloroethane	7.98	10.0	80	72-122
Vinyl Acetate	40.4	50.0	81	10-193
2,2-Dichloropropane	8.04	10.0	80	48-133
cis-1,2-Dichloroethene	7.92	10.0	79	76-125
2-Butanone (MEK)	52.0	50.0	104	56-137
Bromochloromethane	8.43	10.0	84	72-123
Chloroform	8.29	10.0	83	71-118
1,1,1-Trichloroethane (TCA)	7.34	10.0	73	65-126
Carbon Tetrachloride	7.44	10.0	74	58-133
Benzene	7.84	10.0	78	74-118
1,2-Dichloroethane (EDC)	8.90	10.0	89	69-125
Trichloroethene (TCE)	7.58	10.0	76	71-122
1,2-Dichloropropane	8.46	10.0	85	73-123
Dibromomethane	8.62	10.0	86	71-124
Bromodichloromethane	8.79	10.0	88	72-127
2-Chloroethyl Vinyl Ether	9.00	10.0	90	10-192
cis-1,3-Dichloropropene	8.63	10.0	86	71-125
4-Methyl-2-pentanone (MIBK)	49.1	50.0	98	57-129
Toluene	7.56	10.0	76	74-117
trans-1,3-Dichloropropene	8.35	10.0	84	56-121

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/15/2011
Date Analyzed: 03/15/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102360

Analyte Name	Lab Control Sample KWG1102360-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
1,1,2-Trichloroethane	8.91	10.0	89	73-122
Tetrachloroethene (PCE)	7.22	10.0	72	65-121
2-Hexanone	47.8	50.0	96	44-135
1,3-Dichloropropane	8.65	10.0	87	74-120
Dibromochloromethane	8.67	10.0	87	67-124
1,2-Dibromoethane (EDB)	8.46	10.0	85	71-120
Chlorobenzene	7.82	10.0	78	74-115
Ethylbenzene	7.41	10.0	74	71-118
1,1,1,2-Tetrachloroethane	8.60	10.0	86	71-118
m,p-Xylenes	14.9	20.0	74	73-119
o-Xylene	7.73	10.0	77	74-120
Styrene	7.86	10.0	79	75-123
Bromoform	9.01	10.0	90	57-135
Isopropylbenzene	7.87	10.0	79	65-110
1,1,2,2-Tetrachloroethane	9.08	10.0	91	63-126
trans-1,4-Dichloro-2-butene	28.9	30.0	96	28-174
n-Propylbenzene	7.64	10.0	76	69-122
1,2,3-Trichloropropane	9.38	10.0	94	67-123
1,3,5-Trimethylbenzene	7.98	10.0	80	70-120
1,2,4-Trimethylbenzene	7.87	10.0	79	72-121
sec-Butylbenzene	7.12	10.0	71 *	73-130
4-Isopropyltoluene	7.49	10.0	75	67-115
n-Butylbenzene	7.42	10.0	74	62-123
Naphthalene	9.45	10.0	95	58-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/21/2011
Date Analyzed: 03/21/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102535

Analyte Name	Lab Control Sample KWG1102535-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Dichlorodifluoromethane	7.48	10.0	75	21-156
Chloromethane	7.92	10.0	79	45-135
Vinyl Chloride	8.84	10.0	88	59-135
Bromomethane	7.96	10.0	80	24-144
Chloroethane	8.76	10.0	88	60-128
Dichlorofluoromethane (CFC 21)	8.97	10.0	90	68-139
Trichlorofluoromethane	7.16	10.0	72	54-129
Acrolein	99.4	100	99	10-214
1,1-Dichloroethene	10.1	10.0	101	70-136
Acetone	51.5	50.0	103	53-129
Iodomethane	32.7	30.0	109	37-158
Carbon Disulfide	18.5	20.0	93	64-129
Methylene Chloride	8.66	10.0	87	64-137
Acrylonitrile	40.9	40.0	102	48-144
trans-1,2-Dichloroethene	9.32	10.0	93	70-121
1,1-Dichloroethane	8.59	10.0	86	72-122
Vinyl Acetate	51.0	50.0	102	10-193
2,2-Dichloropropane	8.74	10.0	87	48-133
cis-1,2-Dichloroethene	8.97	10.0	90	76-125
2-Butanone (MEK)	61.2	50.0	122	56-137
Bromochloromethane	9.41	10.0	94	72-123
Chloroform	8.59	10.0	86	71-118
1,1,1-Trichloroethane (TCA)	8.57	10.0	86	65-126
Carbon Tetrachloride	8.39	10.0	84	58-133
Benzene	9.14	10.0	91	74-118
1,2-Dichloroethane (EDC)	8.03	10.0	80	69-125
Trichloroethene (TCE)	9.51	10.0	95	71-122
1,2-Dichloropropane	9.15	10.0	92	73-123
Dibromomethane	8.99	10.0	90	71-124
Bromodichloromethane	8.67	10.0	87	72-127
cis-1,3-Dichloropropene	9.30	10.0	93	71-125
4-Methyl-2-pentanone (MIBK)	55.0	50.0	110	57-129
Toluene	9.61	10.0	96	74-117
trans-1,3-Dichloropropene	8.06	10.0	81	56-121
1,1,2-Trichloroethane	9.36	10.0	94	73-122

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/21/2011
Date Analyzed: 03/21/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102535

	Lab Control Sample KWG1102535-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Tetrachloroethene (PCE)	8.77	10.0	88	65-121
2-Hexanone	48.2	50.0	96	44-135
1,3-Dichloropropane	8.60	10.0	86	74-120
Dibromochloromethane	8.45	10.0	85	67-124
1,2-Dibromoethane (EDB)	8.80	10.0	88	71-120
Chlorobenzene	8.80	10.0	88	74-115
Ethylbenzene	9.03	10.0	90	71-118
1,1,1,2-Tetrachloroethane	8.49	10.0	85	71-118
m,p-Xylenes	18.1	20.0	90	73-119
o-Xylene	9.12	10.0	91	74-120
Styrene	9.28	10.0	93	75-123
Bromoform	8.75	10.0	88	57-135
Isopropylbenzene	8.19	10.0	82	65-110
1,1,2,2-Tetrachloroethane	9.69	10.0	97	63-126
trans-1,4-Dichloro-2-butene	38.6	30.0	129	28-174
n-Propylbenzene	8.85	10.0	89	69-122
1,2,3-Trichloropropane	8.82	10.0	88	67-123
1,3,5-Trimethylbenzene	9.14	10.0	91	70-120
1,2,4-Trimethylbenzene	9.11	10.0	91	72-121
sec-Butylbenzene	7.72	10.0	77	73-130
4-Isopropyltoluene	8.71	10.0	87	67-115
n-Butylbenzene	7.89	10.0	79	62-123
Naphthalene	12.9	10.0	129	58-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Semi-Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	03/14/11	04/17/11	KWG1102304	
Phenol	**0.063**	J	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2-Chlorophenol	ND	U	0.50	0.054	1	03/14/11	04/17/11	KWG1102304	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	03/14/11	04/17/11	KWG1102304	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Benzyl Alcohol	ND	U	0.50	0.073	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
2-Methylphenol	ND	U	0.50	0.11	1	03/14/11	04/17/11	KWG1102304	
Hexachloroethane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	03/14/11	04/17/11	KWG1102304	
4-Methylphenol†	ND	U	0.50	0.12	1	03/14/11	04/17/11	KWG1102304	
Nitrobenzene	ND	U	0.20	0.028	1	03/14/11	04/17/11	KWG1102304	
Isophorone	**0.036**	J	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
2-Nitrophenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	03/14/11	04/17/11	KWG1102304	
Benzoic Acid	**1.4**	J	5.0	1.1	1	03/14/11	04/17/11	KWG1102304	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
4-Chloroaniline	ND	U	0.20	0.025	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobutadiene	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	03/14/11	04/17/11	KWG1102304	
Hexachlorocyclopentadiene	ND	U	1.0	0.19	1	03/14/11	04/17/11	KWG1102304	*
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	03/14/11	04/17/11	KWG1102304	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	03/14/11	04/17/11	KWG1102304	
2-Chloronaphthalene	ND	U	0.20	0.041	1	03/14/11	04/17/11	KWG1102304	
2-Nitroaniline	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
Dimethyl Phthalate	**0.097**	J	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	03/14/11	04/17/11	KWG1102304	
3-Nitroaniline	ND	U	1.0	0.029	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrophenol	ND	U	4.0	0.17	1	03/14/11	04/17/11	KWG1102304	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-031011	**Units:**	ug/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Nitrophenol	**0.45**	J	2.0	0.28	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.094**	J	0.20	0.012	1	03/14/11	04/17/11	KWG1102304	
4-Nitroaniline	ND	U	1.0	0.019	1	03/14/11	04/17/11	KWG1102304	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	03/14/11	04/17/11	KWG1102304	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Pentachlorophenol	**0.35**	J	1.0	0.34	1	03/14/11	04/17/11	KWG1102304	
Carbazole	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	**0.083**	J	0.20	0.023	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	**0.14**	J	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	03/14/11	04/17/11	KWG1102304	*
Bis(2-ethylhexyl) Phthalate	**1.3**		1.0	0.13	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	76	12-109	04/17/11	Acceptable
Phenol-d6	78	23-106	04/17/11	Acceptable
Nitrobenzene-d5	79	26-110	04/17/11	Acceptable
2-Fluorobiphenyl	71	31-94	04/17/11	Acceptable
2,4,6-Tribromophenol	84	23-127	04/17/11	Acceptable
Terphenyl-d14	90	40-127	04/17/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	03/14/11	04/17/11	KWG1102304	
Phenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2-Chlorophenol	ND	U	0.50	0.054	1	03/14/11	04/17/11	KWG1102304	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	03/14/11	04/17/11	KWG1102304	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Benzyl Alcohol	ND	U	0.50	0.073	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
2-Methylphenol	ND	U	0.50	0.11	1	03/14/11	04/17/11	KWG1102304	
Hexachloroethane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	03/14/11	04/17/11	KWG1102304	
4-Methylphenol†	ND	U	0.50	0.12	1	03/14/11	04/17/11	KWG1102304	
Nitrobenzene	ND	U	0.20	0.028	1	03/14/11	04/17/11	KWG1102304	
Isophorone	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
2-Nitrophenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	03/14/11	04/17/11	KWG1102304	
Benzoic Acid	**1.4**	J	5.0	1.1	1	03/14/11	04/17/11	KWG1102304	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
4-Chloroaniline	ND	U	0.20	0.025	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobutadiene	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	03/14/11	04/17/11	KWG1102304	
Hexachlorocyclopentadiene	ND	U	1.0	0.19	1	03/14/11	04/17/11	KWG1102304	*
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	03/14/11	04/17/11	KWG1102304	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	03/14/11	04/17/11	KWG1102304	
2-Chloronaphthalene	ND	U	0.20	0.041	1	03/14/11	04/17/11	KWG1102304	
2-Nitroaniline	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
Dimethyl Phthalate	**0.076**	J	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	03/14/11	04/17/11	KWG1102304	
3-Nitroaniline	ND	U	1.0	0.029	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrophenol	ND	U	4.0	0.17	1	03/14/11	04/17/11	KWG1102304	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-031011	**Units:**	ug/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Nitrophenol	**0.39**	J	2.0	0.28	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.079**	J	0.20	0.012	1	03/14/11	04/17/11	KWG1102304	
4-Nitroaniline	ND	U	1.0	0.019	1	03/14/11	04/17/11	KWG1102304	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	03/14/11	04/17/11	KWG1102304	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Pentachlorophenol	**0.42**	J	1.0	0.34	1	03/14/11	04/17/11	KWG1102304	
Carbazole	**0.024**	J	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	**0.11**	J	0.20	0.023	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	**0.11**	J	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	03/14/11	04/17/11	KWG1102304	*
Bis(2-ethylhexyl) Phthalate	**0.97**	J	1.0	0.13	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	67	12-109	04/17/11	Acceptable
Phenol-d6	71	23-106	04/17/11	Acceptable
Nitrobenzene-d5	79	26-110	04/17/11	Acceptable
2-Fluorobiphenyl	68	31-94	04/17/11	Acceptable
2,4,6-Tribromophenol	79	23-127	04/17/11	Acceptable
Terphenyl-d14	95	40-127	04/17/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-EQB-W-031011	**Units:**	ug/L
Lab Code:	K1102163-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U	0.21	0.022	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.045**	J	0.21	0.013	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	**0.024**	J	0.21	0.024	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	ND	U	0.21	0.019	1	03/14/11	04/17/11	KWG1102304	
Bis(2-ethylhexyl) Phthalate	ND	U	1.1	0.14	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U	0.21	0.019	1	03/14/11	04/17/11	KWG1102304	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorobiphenyl	67	31-94	04/17/11	Acceptable
Terphenyl-d14	101	40-127	04/17/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG1102304-3

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	03/14/11	04/17/11	KWG1102304	
Phenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2-Chlorophenol	ND	U	0.50	0.054	1	03/14/11	04/17/11	KWG1102304	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	03/14/11	04/17/11	KWG1102304	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Benzyl Alcohol	ND	U	0.50	0.073	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
2-Methylphenol	ND	U	0.50	0.11	1	03/14/11	04/17/11	KWG1102304	
Hexachloroethane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	03/14/11	04/17/11	KWG1102304	
4-Methylphenol†	ND	U	0.50	0.12	1	03/14/11	04/17/11	KWG1102304	
Nitrobenzene	ND	U	0.20	0.028	1	03/14/11	04/17/11	KWG1102304	
Isophorone	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
2-Nitrophenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	03/14/11	04/17/11	KWG1102304	
Benzoic Acid	ND	U	5.0	1.1	1	03/14/11	04/17/11	KWG1102304	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
4-Chloroaniline	ND	U	0.20	0.025	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobutadiene	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	03/14/11	04/17/11	KWG1102304	
Hexachlorocyclopentadiene	ND	U	1.0	0.19	1	03/14/11	04/17/11	KWG1102304	*
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	03/14/11	04/17/11	KWG1102304	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	03/14/11	04/17/11	KWG1102304	
2-Chloronaphthalene	ND	U	0.20	0.041	1	03/14/11	04/17/11	KWG1102304	
2-Nitroaniline	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
Dimethyl Phthalate	**0.026**	J	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	03/14/11	04/17/11	KWG1102304	
3-Nitroaniline	ND	U	1.0	0.029	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrophenol	ND	U	4.0	0.17	1	03/14/11	04/17/11	KWG1102304	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1102304-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Nitrophenol	ND	U	2.0	0.28	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.012**	J	0.20	0.012	1	03/14/11	04/17/11	KWG1102304	
4-Nitroaniline	ND	U	1.0	0.019	1	03/14/11	04/17/11	KWG1102304	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	03/14/11	04/17/11	KWG1102304	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Pentachlorophenol	ND	U	1.0	0.34	1	03/14/11	04/17/11	KWG1102304	
Carbazole	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	ND	U	0.20	0.023	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	03/14/11	04/17/11	KWG1102304	*
Bis(2-ethylhexyl) Phthalate	ND	U	1.0	0.13	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	44	12-109	04/17/11	Acceptable
Phenol-d6	65	23-106	04/17/11	Acceptable
Nitrobenzene-d5	90	26-110	04/17/11	Acceptable
2-Fluorobiphenyl	76	31-94	04/17/11	Acceptable
2,4,6-Tribromophenol	40	23-127	04/17/11	Acceptable
Terphenyl-d14	98	40-127	04/17/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
SPI-1-W-031011	K1102163-001	76	78	79	71	84	90
SPI-2-W-031011	K1102163-002	67	71	79	68	79	95
SPI-EQB-W-031011	K1102163-004				67		101
Method Blank	KWG1102304-3	44	65	90	76	40	98
Lab Control Sample	KWG1102304-1	85	85	91	73	81	100
Duplicate Lab Control Sample	KWG1102304-2	84	85	89	74	83	96

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	12-109	Sur5 = 2,4,6-Tribromophenol	23-127
Sur2 = Phenol-d6	23-106	Sur6 = Terphenyl-d14	40-127
Sur3 = Nitrobenzene-d5	26-110		
Sur4 = 2-Fluorobiphenyl	31-94		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/14/2011
Date Analyzed: 04/17/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102304

	Lab Control Sample KWG1102304-1 Lab Control Spike			Duplicate Lab Control Sample KWG1102304-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
N-Nitrosodimethylamine	4.77	5.00	95	4.16	5.00	83	26-119	14	30
Bis(2-chloroethyl) Ether	4.35	5.00	87	3.84	5.00	77	37-109	13	30
Phenol	4.26	5.00	85	3.73	5.00	75	35-114	13	30
2-Chlorophenol	4.26	5.00	85	3.73	5.00	75	37-110	13	30
1,3-Dichlorobenzene	2.46	5.00	49	2.34	5.00	47	14-68	5	30
1,4-Dichlorobenzene	2.46	5.00	49	2.36	5.00	47	15-71	4	30
1,2-Dichlorobenzene	2.64	5.00	53	2.50	5.00	50	17-76	6	30
Benzyl Alcohol	4.19	5.00	84	3.76	5.00	75	32-115	11	30
Bis(2-chloroisopropyl) Ether	4.21	5.00	84	3.72	5.00	74	29-110	12	30
2-Methylphenol	3.14	5.00	63	2.83	5.00	57	21-109	10	30
Hexachloroethane	2.05	5.00	41	1.98	5.00	40	10-59	3	30
N-Nitrosodi-n-propylamine	4.35	5.00	87	3.87	5.00	77	32-112	12	30
4-Methylphenol	3.14	5.00	63	2.92	5.00	58	19-114	7	30
Nitrobenzene	4.47	5.00	89	3.88	5.00	78	36-110	14	30
Isophorone	3.69	5.00	74	3.23	5.00	65	38-106	13	30
2-Nitrophenol	4.27	5.00	85	3.82	5.00	76	41-112	11	30
2,4-Dimethylphenol	0.534	5.00	11	0.705	5.00	14	10-106	28	30
Bis(2-chloroethoxy)methane	4.17	5.00	83	3.61	5.00	72	39-109	15	30
2,4-Dichlorophenol	4.01	5.00	80	3.55	5.00	71	37-111	12	30
Benzoic Acid	3.68	15.0	25	3.73	15.0	25	10-83	1	30
1,2,4-Trichlorobenzene	2.57	5.00	51	2.41	5.00	48	18-76	6	30
4-Chloroaniline	2.31	5.00	46	2.53	5.00	51	14-108	9	30
Hexachlorobutadiene	2.02	5.00	40	1.90	5.00	38	10-59	6	30
4-Chloro-3-methylphenol	3.58	5.00	72	3.28	5.00	66	33-115	9	30
Hexachlorocyclopentadiene	0.368	5.00	7 *	0.481	5.00	10	10-37	27	30
2,4,6-Trichlorophenol	3.84	5.00	77	3.40	5.00	68	36-113	12	30
2,4,5-Trichlorophenol	4.11	5.00	82	3.54	5.00	71	41-112	15	30
2-Chloronaphthalene	3.26	5.00	65	2.95	5.00	59	31-95	10	30
2-Nitroaniline	4.01	5.00	80	3.65	5.00	73	40-118	9	30
Dimethyl Phthalate	4.13	5.00	83	3.64	5.00	73	46-111	13	30
2,6-Dinitrotoluene	4.07	5.00	81	3.72	5.00	74	44-116	9	30
3-Nitroaniline	3.91	5.00	78	3.48	5.00	70	34-118	12	30
2,4-Dinitrophenol	2.55	5.00	51	2.38	5.00	48	10-116	7	30
Dibenzofuran	3.79	5.00	76	3.41	5.00	68	37-103	10	30
4-Nitrophenol	4.23	5.00	85	3.61	5.00	72	38-125	16	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/14/2011
Date Analyzed: 04/17/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102304

	Lab Control Sample KWG1102304-1 Lab Control Spike				Duplicate Lab Control Sample KWG1102304-2 Duplicate Lab Control Spike						
Analyte Name	**Result**	**Expected**	**%Rec**		**Result**	**Expected**	**%Rec**		**%Rec Limits**	**RPD**		**RPD Limit**
2,4-Dinitrotoluene	4.33	5.00	87		3.79	5.00	76		47-119	13		30
4-Chlorophenyl Phenyl Ether	3.69	5.00	74		3.35	5.00	67		37-103	10		30
Diethyl Phthalate	4.09	5.00	82		3.68	5.00	74		47-113	11		30
4-Nitroaniline	4.01	5.00	80		3.80	5.00	76		38-119	5		30
2-Methyl-4,6-dinitrophenol	3.71	5.00	74		3.35	5.00	67		10-125	10		30
N-Nitrosodiphenylamine	3.71	5.00	74		3.26	5.00	65		36-111	13		30
4-Bromophenyl Phenyl Ether	3.81	5.00	76		3.42	5.00	68		42-105	11		30
Hexachlorobenzene	3.79	5.00	76		3.39	5.00	68		42-102	11		30
Pentachlorophenol	3.58	5.00	72		3.03	5.00	61		10-119	16		30
Carbazole	4.08	5.00	82		3.56	5.00	71		49-114	14		30
Di-n-butyl Phthalate	4.14	5.00	83		3.52	5.00	70		44-126	16		30
Butyl Benzyl Phthalate	4.40	5.00	88		3.75	5.00	75		48-115	16		30
3,3'-Dichlorobenzidine	0.268	5.00	5	*	1.77	5.00	35		13-108	147	*	30
Bis(2-ethylhexyl) Phthalate	4.81	5.00	96		3.76	5.00	75		45-122	25		30
Di-n-octyl Phthalate	4.47	5.00	89		3.75	5.00	75		48-119	18		30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Polynuclear Aromatic Hydrocarbons

REVISED

3:10 pm, May 17, 2011

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-1-W-031011	**Units:**	ug/L
Lab Code:	K1102163-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.034**		0.022	0.0032	1	03/14/11	03/17/11	KWG1102305	
2-Methylnaphthalene	**0.019**	J	0.022	0.0025	1	03/14/11	03/17/11	KWG1102305	
Acenaphthylene	**0.0051**	J	0.022	0.0036	1	03/14/11	03/17/11	KWG1102305	
Acenaphthene	ND	U	0.022	0.0047	1	03/14/11	03/17/11	KWG1102305	
Fluorene	**0.0092**	J	0.022	0.0040	1	03/14/11	03/17/11	KWG1102305	
Phenanthrene	**0.026**		0.022	0.0053	1	03/14/11	03/17/11	KWG1102305	
Anthracene	ND	U	0.022	0.0038	1	03/14/11	03/17/11	KWG1102305	
Fluoranthene	**0.040**		0.022	0.0047	1	03/14/11	03/17/11	KWG1102305	
Pyrene	**0.081**		0.022	0.0037	1	03/14/11	03/17/11	KWG1102305	
Benz(a)anthracene	**0.014**	J	0.022	0.0028	1	03/14/11	03/17/11	KWG1102305	
Chrysene	**0.020**	J	0.022	0.0036	1	03/14/11	03/17/11	KWG1102305	
Benzo(b)fluoranthene	**0.024**		0.022	0.0025	1	03/14/11	03/17/11	KWG1102305	
Benzo(k)fluoranthene	**0.0078**	J	0.022	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(a)pyrene	**0.019**	J	0.022	0.0046	1	03/14/11	03/17/11	KWG1102305	
Indeno(1,2,3-cd)pyrene	**0.017**	J	0.022	0.0028	1	03/14/11	03/17/11	KWG1102305	
Dibenz(a,h)anthracene	ND	U	0.022	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(g,h,i)perylene	**0.032**		0.022	0.0031	1	03/14/11	03/17/11	KWG1102305	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	83	28-98	03/17/11	Acceptable
Fluoranthene-d10	86	31-105	03/17/11	Acceptable
Terphenyl-d14	76	27-112	03/17/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-2-W-031011	**Units:**	ug/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.028**		0.021	0.0032	1	03/14/11	03/17/11	KWG1102305	
2-Methylnaphthalene	**0.012**	J	0.021	0.0024	1	03/14/11	03/17/11	KWG1102305	
Acenaphthylene	**0.0057**	J	0.021	0.0036	1	03/14/11	03/17/11	KWG1102305	
Acenaphthene	**0.015**	J	0.021	0.0046	1	03/14/11	03/17/11	KWG1102305	
Fluorene	**0.013**	J	0.021	0.0040	1	03/14/11	03/17/11	KWG1102305	
Phenanthrene	**0.024**		0.021	0.0053	1	03/14/11	03/17/11	KWG1102305	
Anthracene	**0.016**	J	0.021	0.0038	1	03/14/11	03/17/11	KWG1102305	
Fluoranthene	**0.043**		0.021	0.0046	1	03/14/11	03/17/11	KWG1102305	
Pyrene	**0.072**		0.021	0.0037	1	03/14/11	03/17/11	KWG1102305	
Benz(a)anthracene	**0.012**	J	0.021	0.0028	1	03/14/11	03/17/11	KWG1102305	
Chrysene	**0.015**	J	0.021	0.0036	1	03/14/11	03/17/11	KWG1102305	
Benzo(b)fluoranthene	**0.021**		0.021	0.0024	1	03/14/11	03/17/11	KWG1102305	
Benzo(k)fluoranthene	**0.0049**	J	0.021	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(a)pyrene	**0.015**	J	0.021	0.0045	1	03/14/11	03/17/11	KWG1102305	
Indeno(1,2,3-cd)pyrene	**0.010**	J	0.021	0.0028	1	03/14/11	03/17/11	KWG1102305	
Dibenz(a,h)anthracene	ND	U	0.021	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(g,h,i)perylene	**0.026**		0.021	0.0031	1	03/14/11	03/17/11	KWG1102305	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	86	28-98	03/17/11	Acceptable
Fluoranthene-d10	91	31-105	03/17/11	Acceptable
Terphenyl-d14	96	27-112	03/17/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Polynuclear Aromatic Hydrocarbons

Sample Name: SPI-3-W-031011
Lab Code: K1102163-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.058**		0.022	0.0032	1	03/14/11	03/17/11	KWG1102305	
2-Methylnaphthalene	**0.013**	J	0.022	0.0025	1	03/14/11	03/17/11	KWG1102305	
Acenaphthylene	**0.0049**	J	0.022	0.0037	1	03/14/11	03/17/11	KWG1102305	
Acenaphthene	**0.016**	J	0.022	0.0047	1	03/14/11	03/17/11	KWG1102305	
Fluorene	**0.012**	J	0.022	0.0041	1	03/14/11	03/17/11	KWG1102305	
Phenanthrene	**0.024**		0.022	0.0054	1	03/14/11	03/17/11	KWG1102305	
Anthracene	**0.0088**	J	0.022	0.0039	1	03/14/11	03/17/11	KWG1102305	
Fluoranthene	**0.043**		0.022	0.0047	1	03/14/11	03/17/11	KWG1102305	
Pyrene	**0.070**		0.022	0.0038	1	03/14/11	03/17/11	KWG1102305	
Benz(a)anthracene	**0.0093**	J	0.022	0.0028	1	03/14/11	03/17/11	KWG1102305	
Chrysene	**0.016**	J	0.022	0.0037	1	03/14/11	03/17/11	KWG1102305	
Benzo(b)fluoranthene	**0.020**	J	0.022	0.0025	1	03/14/11	03/17/11	KWG1102305	
Benzo(k)fluoranthene	ND	U	0.022	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(a)pyrene	**0.0089**	J	0.022	0.0046	1	03/14/11	03/17/11	KWG1102305	
Indeno(1,2,3-cd)pyrene	**0.014**	J	0.022	0.0028	1	03/14/11	03/17/11	KWG1102305	
Dibenz(a,h)anthracene	ND	U	0.022	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(g,h,i)perylene	**0.022**		0.022	0.0031	1	03/14/11	03/17/11	KWG1102305	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	28-98	03/17/11	Acceptable
Fluoranthene-d10	82	31-105	03/17/11	Acceptable
Terphenyl-d14	87	27-112	03/17/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1102305-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0030	1	03/14/11	03/18/11	KWG1102305	
2-Methylnaphthalene	**0.0029**	J	0.020	0.0023	1	03/14/11	03/18/11	KWG1102305	
Acenaphthylene	ND	U	0.020	0.0034	1	03/14/11	03/18/11	KWG1102305	
Acenaphthene	ND	U	0.020	0.0044	1	03/14/11	03/18/11	KWG1102305	
Fluorene	ND	U	0.020	0.0038	1	03/14/11	03/18/11	KWG1102305	
Phenanthrene	ND	U	0.020	0.0050	1	03/14/11	03/18/11	KWG1102305	
Anthracene	ND	U	0.020	0.0036	1	03/14/11	03/18/11	KWG1102305	
Fluoranthene	ND	U	0.020	0.0044	1	03/14/11	03/18/11	KWG1102305	
Pyrene	ND	U	0.020	0.0035	1	03/14/11	03/18/11	KWG1102305	
Benz(a)anthracene	ND	U	0.020	0.0026	1	03/14/11	03/18/11	KWG1102305	
Chrysene	ND	U	0.020	0.0034	1	03/14/11	03/18/11	KWG1102305	
Benzo(b)fluoranthene	ND	U	0.020	0.0023	1	03/14/11	03/18/11	KWG1102305	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	03/14/11	03/18/11	KWG1102305	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	03/14/11	03/18/11	KWG1102305	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	03/14/11	03/18/11	KWG1102305	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	03/14/11	03/18/11	KWG1102305	
Benzo(g,h,i)perylene	ND	U	0.020	0.0029	1	03/14/11	03/18/11	KWG1102305	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	82	28-98	03/18/11	Acceptable
Fluoranthene-d10	86	31-105	03/18/11	Acceptable
Terphenyl-d14	92	27-112	03/18/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
SPI-1-W-031011	K1102163-001	83	86	76
SPI-2-W-031011	K1102163-002	86	91	96
SPI-3-W-031011	K1102163-003	78	82	87
Method Blank	KWG1102305-3	82	86	92
Lab Control Sample	KWG1102305-1	85	90	93
Duplicate Lab Control Sample	KWG1102305-2	86	85	92

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	28-98
Sur2 =	Fluoranthene-d10	31-105
Sur3 =	Terphenyl-d14	27-112

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Extracted: 03/14/2011
Date Analyzed: 03/18/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270C SIM

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1102305

	Lab Control Sample KWG1102305-1 Lab Control Spike			Duplicate Lab Control Sample KWG1102305-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	2.13	2.50	85	2.04	2.50	82	39-110	4	30
2-Methylnaphthalene	1.90	2.50	76	1.84	2.50	73	39-115	4	30
Acenaphthylene	2.34	2.50	94	2.26	2.50	90	44-115	4	30
Acenaphthene	2.33	2.50	93	2.23	2.50	89	44-113	4	30
Fluorene	2.31	2.50	92	2.29	2.50	91	48-118	1	30
Phenanthrene	2.57	2.50	103	2.33	2.50	93	47-120	10	30
Anthracene	2.44	2.50	98	2.27	2.50	91	44-117	7	30
Fluoranthene	2.52	2.50	101	2.44	2.50	98	48-128	3	30
Pyrene	2.50	2.50	100	2.44	2.50	98	42-133	2	30
Benz(a)anthracene	2.46	2.50	99	2.40	2.50	96	48-125	3	30
Chrysene	2.50	2.50	100	2.44	2.50	98	50-128	2	30
Benzo(b)fluoranthene	2.38	2.50	95	2.38	2.50	95	49-131	0	30
Benzo(k)fluoranthene	2.48	2.50	99	2.44	2.50	97	54-131	2	30
Benzo(a)pyrene	2.45	2.50	98	2.42	2.50	97	43-134	1	30
Indeno(1,2,3-cd)pyrene	2.28	2.50	91	2.17	2.50	87	45-133	5	30
Dibenz(a,h)anthracene	2.14	2.50	85	2.02	2.50	81	49-133	6	30
Benzo(g,h,i)perylene	2.36	2.50	94	2.29	2.50	92	51-124	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

MEMORANDUM

TO: Project File **DATE:** May 11, 2011

FROM: Jerry Harris

SUBJECT: Laboratory Data Validation Review

PROJECT: Univar Portland

PROJECT #: 816.001.01(048)

TASK: March 10, 2011 Stormwater Sampling

LAB: Columbia Analytical Services Report K1102163

Two water samples were collected on March 10, 2011 from the Univar USA Inc. facility in Portland, Oregon. In addition, one blind field duplicate, one trip blank and one equipment rinsate blank were collected. The blind field duplicate (SPI-3-W-031011) was collected with primary sample SPI-2-W-031011.

The samples were analyzed by one or more of the following methods (Table 1):

Method 1664 (Oil & Grease)

Method 1631E (Mercury)

Method 200.7 (dissolved Fe)

Method 200.8 (total Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn)

Method 300.0 (Sulfate)

Method 350.1 (Ammonia)

Method 415.1 (Total Organic Carbon [TOC])

Method 8081A (Pesticides [PEST])

Method 8082 (PCB Congeners [PCBs])

Method 8151A (Herbicides [HERB])

Method 8260 (Volatile Organic Compounds [VOCs])

Method 8270C (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

Method 9014 (Free Cyanide)

Method 9030M (Total Sulfide)

NWTPH-Dx (Diesel Range Organics [DRO] and Residual Range Organics [RRO])

SM 2510B (Specific Conductivity)

SM 2540D (Total Suspended Sediments [TSS])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

Laboratory analyses were conducted by Columbia Analytical Services (CAS) of Kelso, Washington. CAS project number: K1102163.

The quality assurance review of the water sample data is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 2004).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested. The field conductivity meter used for this sampling event failed; therefore, analyses for specific conductivity (method SM2510B) were added to the analytical request verbally after the samples were shipped. No other issues were noted.

Sample Collection and Preservation

The laboratory cooler receipt log provided by the analytical laboratory was reviewed. All sample bottles were contained in three coolers that were hand-delivered to the laboratory by a courier. The samples were stored on water ice. The coolers were received at cooler temperatures of 5.4, 4.1, and 7.1 degrees Centigrade (°C), respectively. A temperature blank was included in each cooler and the blank temperatures were 2.7, 1.6, and 3.3°C. The recommended temperature preservation range is 2 °C +/- 4°C.

The preservation temperatures of the first cooler were within the recommended range. The temperature blank temperature of the second cooler was below the recommended range while the cooler temperature was within the recommended range. The laboratory receipt log indicated that the samples were received on water ice with no damage or anomalies noted (e.g. cracked containers or frozen samples). Based upon this information, the low, but not freezing temperature of the blank in the second cooler is not considered sufficient cause to qualify the data. The temperature blank temperature of the third cooler was within the recommended range while the cooler temperature was above the recommended range. The laboratory receipt log

indicated that these samples were received on water ice with no damage or anomalies noted. Based upon this information, and because the blank temperature is considered a more reliable measure of sample temperature than the cooler temperature, the elevated temperature of the third cooler is not considered sufficient cause to qualify the data. No data was qualified due to temperature considerations.

Holding Times

Table 2 provides a summary of the extraction times (where appropriate) and analysis holding times. All extractions and analyses were performed within the recommended holding times.

No data was qualified.

Initial Calibration

Hard copies of the initial calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in initial calibration results associated with the project analyses. The laboratory reported the following initial calibration issues:

No significant initial calibration issues were noted in the case narrative; therefore no data qualifications were required.

Continuing Calibration

Hard copies of the continuing calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in continuing calibration results associated with the project analyses.

Method 8081A (PESTs): The laboratory reported that the secondary (confirmation) column primary evaluation criteria were not met for methoxyclor in CCV 04060004. The laboratory reported the CCV results from the primary column and concluded the data was not affected.

Method 8260B (VOCs): The laboratory reported that the CCV control criterion and minimum relative response factor were not met for Acrolien in CCV J:\MS13\0315F003.D. The laboratory performed a MRL check standard analysis for this compound on each day of analysis to ensure that the compound could be detected. The instrument sensitivity was determined to be adequate and the compound was not detected in any project samples. No qualifications were warranted.

No other significant continuing calibration issues relating to the remaining analyses were noted in the case narrative; therefore no data qualifications were required.

Method Blank Results

At least one laboratory method blank was analyzed for each analytical method and extraction group that included the project sample. The method blank results are summarized in Table 3. Target compounds were detected in the method blanks for the following methods:

Method 1631E (mercury): Hg was detected in two of the three method blanks run for this method. The detected concentrations were 0.29 and 0.07 nanograms per liter (ng/l). The concentrations of mercury detected in the project samples was 8.01 and 5.22 ng/l. Because the sample concentrations were more than five times the blank concentrations, the data is not affected by the detections in the blanks. No qualifications were warranted.

Method 300.0 (sulfate): Sulfate was detected in the method blank run for this method. The detected concentration was 0.02 milligrams per liter (mg/l). The concentrations of sulfate detected in the project samples were 1.01 and 1.23 mg/l. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Method 8081B (4,4'-DDD and Endosulfan II only): 4,4'-DDD and Endosulfan II were detected in the method blank at concentrations of 0.77 and 0.47 ng/L, respectively. 4-4'-DDD was not detected in the project samples; therefore no qualifications of 4,4'-DDD were warranted. Endosulfan II was detected in the project samples at concentrations of 3.3 and 2.1 ng/l in samples SPI-1-W-031011 and SPI-2-W-031011, respectively. The concentration of Endosulfan II in SPI-1-W-031011 is greater than five times the detection limit and therefore the SPI-1 result is unaffected. The concentration of Endosulfan II in SPI-2-W-031011 is less than five times the blank concentration and therefore may be affected by the blank. Based upon this information, the Endosulfan II concentration in SPI-2-W-031011 is qualified as estimated and assigned a J flag. No other qualifications were warranted.

Method 8082A (2,4'-Dichlorobiphenyl only): 2,4'-Dichlorobiphenyl was detected in the method blank at a concentration of 0.97 ng/L. 2,4'-Dichlorobiphenyl was not detected in the project samples; therefore no qualifications of 2,4'-Dichlorobiphenyl were warranted.

Method 8270C (diethyl phthalate, dimethyl phthalate): Diethyl phthalate was detected in the method blank at a concentration of 0.012 micrograms per liter (µg/l). Diethyl phthalate was detected in the project samples SPI-1-W-031011 and SPI-2-W-031011 at concentrations of 0.094 and 0.079 µg/l. These concentrations had been qualified by the laboratory as estimated because the reported concentrations were greater than the method detection limit (MDL) but less than the method reporting limit (MRL). This phthalate is a common laboratory contaminant. Per Section V, paragraph E(2) of the *Functional Guidelines* for semivolatile compounds (USEPA, 1999), because the concentrations of this compound detected in the samples are less than 10 times the concentration detected in the blank, the detection limit for only these detections is raised to the concentration detected in these samples (i.e. for SPI-1-W-031011, the diethyl phthalate result is qualified as undetected at a MDL of 0.094 µg/l and the concentration of this compound in SPI-2-W-031011 is qualified as undetected at a MDL of 0.079 µg/l). In addition, diethyl phthalate was detected in the equipment rinsate blank (SPI-EQB-031011 at a concentration of 0.045 µg/l). For the reasons described above, this concentration is also changed to undetected at a MDL of 0.045 µg/l.

Dimethyl phthalate was detected in the method blank at a concentration of 0.026 µg/l. Dimethyl phthalate was detected in the project samples SPI-1-W-031011 and SPI-2-W-031011 at concentrations of 0.097 and 0.076 µg/l. These concentrations had been qualified by the laboratory as estimated because the reported concentrations were greater than the MDL but less

than the MRL. This phthalate is a common laboratory contaminant. Per Section V, paragraph E(2) of the *Functional Guidelines* for semivolatile compounds (USEPA, 1999), because the concentrations of this compound detected in the samples are less than 10 times the concentration detected in the blank, the detection limit for only these detections is raised to the concentration detected in these samples (i.e. for SPI-1-W-031011, the dimethyl phthalate result is qualified as undetected at a MDL of 0.097 µg/l and the concentration of this compound in SPI-2-W-031011 is qualified as undetected at a MDL of 0.076 µg/l).

Method 8270C/SIM (2-methylnaphthalene only): 2-methylnaphthalene was detected in the method blank at a concentration of 0.0029 micrograms per liter (µg/l). 2-methylnaphthalene was detected in the project samples SPI-1-W-031011, SPI-2-W-031011, and SPI-3-W-031011 at concentrations of 0.019, 0.012, and 0.013 µg/l, respectively. These concentrations had been qualified by the laboratory as estimated because the reported concentrations were greater than the MDL but less than the MRL. Because the concentrations of this compound detected in the sample SPI-1-W-031011 is greater than than five times the concentration detected in the blank, the sample result is unaffected by the blank and no qualification is warranted based upon the method blank detection. For samples SPI-2-W-031011 and SPI-3-W-031011, 2-methylnaphthalene was detected at concentrations less than five times the method blank concentration. The 2-methylnaphthalene results from these two samples are qualified as estimated and assigned a J flag.

NWTPH-Dx (Residual Range Organics only): Residual range organics was detected in the method blank at a concentration of 39 µg/l and in the project samples at concentrations of 620 (SPI-1-W-031011) and 510 (SPI-2-W-031011) µg/l. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Target compounds were not detected in the method blanks for any of the remaining methods. No data qualifications were required.

Trip Blank Results

A trip blank was prepared by the laboratory, traveled with the sample containers to the field, and was returned to the laboratory with the filled sample bottles for analysis. The trip blank was only analyzed by USEPA Method 8260C. Trip blank results for detected compounds only are shown on Table 4.

Toluene was detected in the trip blank at a concentration of 0.77 µg/l. No other compounds were detected in the trip blank. Toluene was detected in all three project samples and in the equipment rinsate blank. The detected concentrations in the samples and blank were less than five times the concentration detected in the trip blank. Based upon this information, there is a potential for toluene cross-contamination of the samples. Therefore, the results for toluene in samples SPI-1-W-031011, SPI-2-W-031011, SPI-3-W-031011, and SPI-EQB-031011 are qualified as estimated and assigned a J flag. It is noted that the laboratory also qualified the toluene results from all samples except SPI-3-W-031011 as estimated because the reported results were between the MDL and MRL. No other qualifications were warranted based upon the trip blank results.

Field Blank Results

An equipment rinsate blank was prepared in the field and analyzed with the project samples. The rinsate blank sample ID was SPI-EQB-031011. The rinsate blank was analyzed by USEPA Methods 8260C and 8270C only. Field rinsate blank results for detected compounds only are shown on Table 4.

Toluene and 2-butanone were detected in the rinsate blank during the USEPA Method 8260C analysis. The detected concentrations in the blank were 0.22 and 2.3 µg/l, respectively. Toluene was detected in all three project samples. The detected concentration of toluene in sample SPI-3-W-031011 was greater than five times the field blank concentration; therefore this result is not qualified. The toluene concentrations in SPI-1-W-031011 and SPI-2-W-031011 were less than five times the concentration detected in the trip blank. Based upon this information, there is a potential for toluene cross-contamination of these samples. Therefore, the results for toluene in samples SPI-1-W-031011 and SPI-2-W-031011 are qualified as estimated and assigned a J flag. It is noted that these toluene results have already been qualified as estimated due to potential cross-contamination based upon the trip blank results. 2-butanone was not detected in any of the project samples; therefore, the detection in the rinsate blank did not result in a high bias of the sample results. No qualifications were warranted. No other USEPA 8260C compounds were detected in the blank.

Diethyl phthalate and di-n-butylphthalate were detected in the rinsate blank during the USEPA Method 8270C analyses. The detected concentrations in the blank were 0.045 and 0.024 µg/l, respectively. As discussed in the method blank section above, due to the presence of diethyl phthalate in the method blank, the detection limits of diethyl phthalate in the project samples were raised and all diethyl phthalate results, including the rinsate blank diethyl phthalate result, that were less than 10 times the method blank concentration were revised to undetected at the raised reporting limit. Based upon these previous qualifications/revisions of the diethyl phthalate results, no additional qualification were warranted due to the rinsate blank detection. Di-n-butyl phthalate was detected in project samples SPI-1-W-031011 and SPI-2-W-031011. The detected concentration in sample SPI-2-W-031011 was greater than five times the field blank concentration; therefore this result is not qualified. The di-n-butylphthalate concentrations in SPI-1-W-031011 was less than five times the concentration detected in the rinsate blank. Based upon this information, there is a potential for di-n-butylphthalate cross-contamination of this sample. Therefore, the result for di-n-butylphthalate in sample SPI-1-W-031011 is qualified as estimated and assigned a J flag. It is noted that this di-n-butylphthalate result has already been qualified as estimated by the laboratory because the detected concentration was between the MRL and MDL. No other USEPA 8270C compounds were detected in the blank.

Field Duplicate Analyses

A blind field duplicate was prepared and analyzed with the project samples. The duplicate (SPI-3-W-031011) was collected with primary sample SPI-2-W-031011. The results of the field duplicate are:

Method 200 (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn): The relative percent differences (RPDs) for all metals were within the control limits except for aluminum, chromium and silver. The silver results from these two samples were qualified as estimated because the detections were between the MDL and MRL. No additional qualifications were warranted due to the field duplicate RPD exceedance. Based upon the RPD exceedance for chromium and aluminum, these results were qualified as estimated in the primary and duplicate samples. Chromium and aluminum are not designated control analytes for duplicate evaluations; therefore, these RPD exceedances are not considered sufficient cause to qualify the SPI-1-W-031011 results.

Method 300.0 (Sulfate): A field duplicate was not required for this method. No qualifications were warranted.

Method 350.1 (Ammonia): A field duplicate was not required for this method. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): A field duplicate was not required for this method. No qualifications were warranted.

Method 1631E (mercury): A field duplicate was not required for this method. No qualifications were warranted.

Method 1664 (Oil & Grease): A field duplicate was not required for this method. No qualifications were warranted.

Method 9014 (Free Cyanide): A field duplicate was not required for this method. No qualifications were warranted.

Method 9030M (Total Sulfide): A field duplicate was not required for this method. No qualifications were warranted.

SM 2510B (Specific conductivity): A field duplicate was not required for this method. No qualifications were warranted.

SM 2540D (Total Suspended Sediments [TSS]): A field duplicate was not required for this method. No qualifications were warranted.

SM 4500CNE (Total Cyanide and Amenable Cyanide): A field duplicate was not required for this method. No qualifications were warranted.

NWTPH-Dx (DRO and HRO): A field duplicate was not required for this method. No qualifications were warranted.

Method 8081B (Pesticides [PEST]): A field duplicate was not required for this method. No qualifications were warranted.

Method 8151A (Herbicides [HERB]): A field duplicate was not required for this method. No qualifications were warranted.

Method 8082A (PCBs): A field duplicate was not required for this method. No qualifications were warranted.

Method 8260B (Volatile Organic Compounds [VOCs]). The RPDs for all detected VOCs were within the control limits except for benzene, toluene, ethylbenzene, m,p-xylenes, o-xylenes, and 1,2,4-trimethylbenzene. Benzene and 1,2,4-trimethylbenzene were only detected in the field duplicate and the detected concentrations were qualified as estimated because the detections were between the MDL and MRL. No additional qualifications were warranted due to the field duplicate RPD exceedances. Ethylbenzene and o-xylenes were detected in the primary and duplicate samples and the detected concentrations were qualified as estimated because the detections were between the MDL and MRL. No additional qualifications were warranted due to the field duplicate RPD exceedance. Toluene and m,p-xylenes were detected in the primary sample at concentrations between the MDL and MRL but were detected in the duplicate sample at concentrations above the MRL. Based upon this information, the duplicate toluene and m,p-xylenes concentrations are qualified as estimated and assigned a J flag. None of the duplicate RPD exceedances are considered to be sufficient cause to warrant qualification of the any of the other sample results.

Method 8270C (Semi-Volatile Organic Compounds [SVOCs]): A field duplicate was not required for this method. No qualifications were warranted.

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs]). The RPDs for all detected PAHs were within the control limits except for naphthalene, anthracene, and benzo-a-pyrene. Anthracene and benzo-a-pyrene were detected in the primary and duplicate samples and the detected concentrations were qualified as estimated because the detections were between the MDL and MRL. No additional qualifications were warranted due to the field duplicate RPD exceedance. Naphthalene was detected in the primary sample and duplicate sample at concentrations above the MRL. Based upon this information, the primary and duplicate sample naphthalene concentrations are qualified as estimated and assigned a J flag. None of the duplicate RPD exceedances are considered to be sufficient cause to warrant qualification of the any of the other sample results.

Laboratory Duplicate Analyses

The laboratory prepared duplicates for the following analyses:

Method 200 (Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn): A batch (non-project) duplicate was prepared. The RPDs for all metals were within the control limits except for chromium and silver. Because the sample and duplicate results were from a batch sample, and because the remaining metals QC data was in control, no qualifications were warranted based upon the batch duplicate results.

Method 300.0 (Sulfate): The RPD between the primary and the batch duplicate sample was 9. No qualifications were warranted.

Method 350.1 (Ammonia): The RPD between the primary and the duplicate of project sample SPI-1-W- 031011 sample was 9. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): The RPD between the primary and the duplicate sample was 13. No qualifications were warranted.

Method 9014 (Free Cyanide): The RPD between the primary and the duplicate sample was not calculated because the primary sample result and the duplicate result were not detected at a detection limit of 0.010 mg/l. No qualifications were warranted.

Method 9030M (Total Sulfide): Total sulfide was not detected in the primary or duplicate samples. The RPD between the primary and the duplicate sample was not calculated. No qualifications were warranted.

SM 2510B (Specific conductivity): The relative percent difference (RPD) between the primary and the batch (non-project) high and low range duplicate samples were <1. No qualifications were warranted.

SM 2540D (Total Suspended Sediments [TSS]): The relative percent difference (RPD) between the primary and the batch (non-project) high and low range duplicate samples were 5 and 'not calculated' (due to non-detect results). No qualifications were warranted.

SM 4500CNE (Total Cyanide and Amenable Cyanide): The RPD between the primary and the duplicate sample results for both total cyanide and amenable cyanide was not calculated because the primary sample result and the duplicate result were not detected at detection limits of 0.010 and 0.030 mg/l, respectively. No qualifications were warranted.

NWTPH-Dx (DRO and HRO): The relative percent difference (RPD) between the primary and the batch (non-project) high and low range duplicate samples were within the control limit of 30. No qualifications were warranted.

For the remaining methods, either a duplicate was not required or the laboratory prepared matrix spike or laboratory control samples duplicates. These results are discussed in the Matrix Spike and Laboratory Control Sample sections of this report.

Surrogate Recoveries

Surrogates were injected into all samples, field duplicates, method blanks, matrix spike and matrix spike duplicates (MS/MSDs), and laboratory control samples (LCSs) that were analyzed for organic compounds. The surrogate recoveries (%Rs) are summarized in Table 5. The %Rs for all analyses were within the control limits. No qualifications of the data were warranted.

Surogates were not required for non-organic analyses.

Laboratory Control Samples

One laboratory control sample (LCS) was run for each analytical method performed on the project samples. For some methods, an LCS duplicate (LCSD) was analyzed in lieu of a sample or matrix spike duplicate. This is an acceptable substitution. The LCS' were run at the appropriate frequency for this project. The LCS %R and LCS/LCSD (where appropriate) RPD results are summarized in Table 6. The %Rs and RPDs for all methods and control compounds met the %R acceptance criteria with the following exceptions:

Method 8081B (Pesticides [PEST]): The 4,4'-DDE %R in the method LCS was within the control limits; however, the LCSD %R for this compound was above the control limit, indicating a potential high bias in sample results. The remaining LCS target analytes were within the control limits for %R and the LCS/LCSD RPDs for all target analytes were within the control limits. 4,4;-DDE was not detected in project sample SPI-1-031011 but was detected in SPI-2-031011 at a concentration between the MDL and MRL. The laboratory qualified this result as estimated because it was between the MDL and MRL. The %R exceedance in the LCSD indicates a potential high bias in this result. Since the result is already qualified as estimated, no additional qualifications were warranted. No other PEST qualifications were warranted.

Method 8151A (Herbicides [HERB]): The dinoseb %R in the method LCS was below the lower control limit, indicating a potential low bias in sample results. The LCSD %R for dinoseb was within the control limit. The remaining LCS target analytes were within the control limits for %R and the LCS/LCSD RPDs for all target analytes were within the control limits. Dinoseb was not detected in the project samples. Although the LCS dinoseb %R was marginally below the lower control limit, the LCSD %R was within the control limit and the RPD between the two was within the control limit. In addition, the LCS results show the instrument was capable of detecting this compound. Based upon the information summarized above, the non-detect results for dinoseb in the project samples are qualified as estimated but are not rejected. No other qualifications were warranted.

Method 8260C (VOCs): The sec-butylbenzene %R in the method LCS was below the lower control limit in extraction group KWG1102360, indicating a potential low bias in associated sample results for the KWG1102360. The remaining LCS target analytes in KWG1102360 and all the LCS target analytes in extraction group KWG1102535 were within the control limits for %R. Sec-butylbenzene was not detected in the project samples associated with the KWG1102360 extraction group (samples SPI-1 and SPI-2). Sec-butylbenzene is not part of the group of LCS analytes used to control the analysis and was reported for informational use only. No other potential issues regarding the detection of sec-butylbenzene were identified in the QC data. Based upon the information summarized above, the low %R recovery for sec-butylbenzene is considered sufficient cause to qualify the data as estimated but not rejected. No other qualifications were warranted.

Method 8270C (SVOCs): The 3,3-dichlorobenzidine and hexachlorocyclopentadiene %Rs in the method LCS was below the lower control limit, indicating a potential low bias in sample results. The LCSD %Rs for 3,3-dichlorobenzidine and hexachlorocyclopentadiene were zero. The remaining LCS target analytes were within the control limits for %R. The LCS/LCSD RPDs for all target analytes except 3,3-dichlorobenzidine and hexachlorocyclopentadiene were within the

control limits. 3,3-dichlorobenzidine and hexachlorocyclopentadiene were not detected in the project sample. The LCS and LCSD 3,3-dichlorobenzidine and hexachlorocyclopentadiene %Rs were zero indicating potential issues with the instrument's capability of detecting this compound. The 3,3-dichlorobenzidine and hexachlorocyclopentadiene results are qualified as rejected and assigned an R flag. No other SVOC qualifications were warranted.

Matrix Spike/Matrix Spike Duplicates

One MS analysis is required for each twenty samples of a given matrix/project; therefore MS were run at the appropriate frequency for this project. Sample duplicates or MSDs are also run by the laboratory at this frequency. The MS/MSD %R and MS/MSD (where appropriate) RPD results are summarized in Table 7.

MS analyses were conducted for each of the each of the following analytical methods performed on the project sample:

Method 200.8 (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn): The MS %Rs were within the control limits for all spiked analytes. No qualifications were warranted.

Method 350.1 (Ammonia): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): The MS %R was within the control limits. No qualifications were warranted.

Method 9014 (Free Cyanide): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 9030M (Total Sulfide): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Batch (non-project) MSs and MSDs were prepared by the laboratory for selected methods. Because the MS and MSD samples were prepared from a non-project sample, the batch MS/MSD results do not apply to the project sample data. However, the reporting of the batch results are requested to confirm that the laboratory is following the property QA/QC protocols. Methods that used a batch MS and MSD (if required) are:

Method 1631E (mercury)

Method 1664 (Oil & Grease)

Method 300.0 (Sulfate)

Method 8260 (Volatile Organic Compounds [VOCs])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

For the following methods, a LCS/LCS duplicate analysis was performed in lieu of a MS/MSD due to lack of sufficient project sample. This substitution is considered acceptable and the LCS/LCSD results are discussed in the LCS section above:

Method 8081B (Pesticides [PEST])

Method 8151A (Herbicides [HERB])

Method 8082A (PCBs)

Method 8270C (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

A MS is not required for the following methods:

SM 2510B (Specific Conductivity)

SM 2540D (Total Suspended Sediments [TSS])

NWTPH-Dx (DRO and HRO)

Other Quality Control Issues

No other significant quality control issues were identified.

Quantitation Limits

The laboratory analytical results were reported based on laboratory MRLs for routine analytical services (RAS). The MRLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The MRLs are dependent upon sample concentration, sample volume, and dilutions, if required. MDL were also reported for selected analytes. In some cases, the laboratory reported a concentration between the MRL and MDL and qualified these results as estimated. These qualifiers are retained for validation purposes. No other data qualifiers were assigned based on MRLs or MDLs.

Data Assessment

Data were qualified as estimated and the 3,3-dichlorobenzidine and hexachlorocyclopentadiene results for samples SPI-1-W-031011 and SPI-2-W-031011 were qualified as rejected. The qualifier flags have been added to the ER_Q field of the laboratory database deliverable. The rejected data is considered unusable. All remaining data, including the data qualified as estimated, are judged to be acceptable for their intended use.

Table 1. Sample Summary

SAMP_ID	SAMP_DATE	METHOD_ID
SPI-1-W-031011		
	3/10/2011	1631E
	3/10/2011	1664
	3/10/2011	200.7
	3/10/2011	200.8
	3/10/2011	300.0
	3/10/2011	350.1
	3/10/2011	415.1
	3/10/2011	4500CNE
	3/10/2011	8081B
	3/10/2011	8082A
	3/10/2011	8151A
	3/10/2011	8260C
	3/10/2011	8270C
	3/10/2011	8270C SIM
	3/10/2011	9014
	3/10/2011	9030M
	3/10/2011	NWTPH-Dx
	3/10/2011	SM 2510 B
	3/10/2011	SM 2540 D
SPI-2-W-031011		
	3/10/2011	1631E
	3/10/2011	1664
	3/10/2011	200.7
	3/10/2011	200.8
	3/10/2011	300.0
	3/10/2011	350.1
	3/10/2011	415.1
	3/10/2011	4500CNE
	3/10/2011	8081B
	3/10/2011	8082A
	3/10/2011	8151A
	3/10/2011	8260C
	3/10/2011	8270C
	3/10/2011	8270C SIM
	3/10/2011	9014
	3/10/2011	9030M
	3/10/2011	NWTPH-Dx
	3/10/2011	SM 2510 B
	3/10/2011	SM 2540 D

SAMP_ID	SAMP_DATE	METHOD_ID
SPI-3-W-031011		
	3/10/2011	200.8
	3/10/2011	8260C
	3/10/2011	8270C SIM
SPI-EQB-W031011		
	3/10/2011	8260C
	3/10/2011	8270C
TRIP BLANKS		
	3/10/2011	8260C

Table 2. HOLD TIME SUMMARY

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	1631E	3/10/2011	3/15/2011	3/16/2011	NA	OK
	1664	3/10/2011	3/16/2011	3/17/2011	NA	OK
	200.7	3/10/2011	3/23/2011	3/28/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/25/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	300.0	3/10/2011		3/16/2011	NA	OK
	350.1	3/10/2011		3/15/2011	NA	OK
	415.1	3/10/2011		3/15/2011	NA	OK
	4500CNE	3/10/2011		3/24/2011	NA	OK
	4500CNE	3/10/2011	3/15/2011	3/16/2011	NA	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-031011	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	9014	3/10/2011		3/22/2011	NA	OK
	9030M	3/10/2011	3/16/2011	3/16/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	SM 2510 B	3/10/2011		3/29/2011	NA	OK
	SM 2540 D	3/10/2011		3/14/2011	NA	OK
SPI-2-W-031011	1631E	3/10/2011	3/15/2011	3/16/2011	NA	OK
	1664	3/10/2011	3/16/2011	3/17/2011	NA	OK
	200.7	3/10/2011	3/23/2011	3/28/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/25/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	300.0	3/10/2011		3/16/2011	NA	OK
	350.1	3/10/2011		3/15/2011	NA	OK
	415.1	3/10/2011		3/15/2011	NA	OK
	4500CNE	3/10/2011		3/24/2011	NA	OK
	4500CNE	3/10/2011	3/15/2011	3/16/2011	NA	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8081B	3/10/2011	3/16/2011	4/7/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8082A	3/10/2011	3/15/2011	3/29/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8151A	3/10/2011	3/15/2011	4/2/2011	OK	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8260C	3/10/2011	3/15/2011	3/15/2011	NA	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-031011	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	9014	3/10/2011		3/22/2011	NA	OK
	9030M	3/10/2011	3/16/2011	3/16/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	NWTPH-Dx	3/10/2011	3/17/2011	3/22/2011	NA	OK
	SM 2510 B	3/10/2011		3/29/2011	NA	OK
	SM 2540 D	3/10/2011		3/14/2011	NA	OK
SPI-3-W-031011	200.8	3/10/2011	3/23/2011	3/25/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	200.8	3/10/2011	3/23/2011	3/24/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-3-W-031011	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-3-W-031011	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-3-W-031011	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
	8270C SIM	3/10/2011	3/14/2011	3/17/2011	OK	OK
SPI-EQB-W031011	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-EQB-W031011	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-EQB-W031011	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
	8270C	3/10/2011	3/14/2011	4/17/2011	OK	OK
TRIP BLANKS	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
TRIP BLANKS	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
TRIP BLANKS	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK
	8260C	3/10/2011	3/21/2011	3/21/2011	NA	OK

Table 3. METHOD BLANK SUMMARY

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
1631E	K1102163	130358	Mercury, Total	METHOD BLANK		0.06	ng/L
1631E	K1102163	130358	Mercury, Total	METHOD BLANK	0.29	0.06	ng/L
1631E	K1102163	130358	Mercury, Total	METHOD BLANK	0.07	0.06	ng/L
1664	K1102163	130447	Oil and Grease, Total	METHOD BLANK		0.8	mg/L
200.7	K1102163	130784	Iron, Total	METHOD BLANK		3.0	ug/L
200.8	K1102163	130787	Aluminum, Total	METHOD BLANK		0.3	ug/L
200.8	K1102163	130787	Antimony, Total	METHOD BLANK		0.02	ug/L
200.8	K1102163	130787	Arsenic, Total	METHOD BLANK		0.07	ug/L
200.8	K1102163	130787	Cadmium, Total	METHOD BLANK		0.003	ug/L
200.8	K1102163	130787	Chromium, Total	METHOD BLANK		0.04	ug/L
200.8	K1102163	130787	Copper, Total	METHOD BLANK		0.02	ug/L
200.8	K1102163	130787	Lead, Total	METHOD BLANK		0.005	ug/L
200.8	K1102163	130787	Manganese, Total	METHOD BLANK		0.01	ug/L
200.8	K1102163	130787	Molybdenum, Total	METHOD BLANK		0.008	ug/L
200.8	K1102163	130787	Nickel, Total	METHOD BLANK		0.03	ug/L
200.8	K1102163	130787	Selenium, Total	METHOD BLANK		0.3	ug/L
200.8	K1102163	130787	Silver, Total	METHOD BLANK		0.004	ug/L
200.8	K1102163	130787	Zinc, Total	METHOD BLANK		0.20	ug/L
300.0	K1102163	239266	Sulfate	METHOD BLANK	0.02	0.01	mg/L
350.1	K1102163	239125	Ammonia as Nitrogen	METHOD BLANK		0.020	mg/L
415.1	K1102163	239095	Carbon, Total Organic	METHOD BLANK		0.07	mg/L
4500CNE	K1102163	130311	Cyanide, Total	METHOD BLANK		0.0030	mg/L
4500CNE	K1102163	130888	Cyanide, Amenable to Chlorination	METHOD BLANK			mg/L
8081B	K1102163	KWG1102601	2,4'-DDD	METHOD BLANK		0.50	ng/L
8081B	K1102163	KWG1102601	2,4'-DDE	METHOD BLANK		0.25	ng/L
8081B	K1102163	KWG1102601	2,4'-DDT	METHOD BLANK		0.13	ng/L
8081B	K1102163	KWG1102601	4,4'-DDD	METHOD BLANK	0.77	0.21	ng/L
8081B	K1102163	KWG1102601	4,4'-DDE	METHOD BLANK		0.19	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8081B	K1102163	KWG1102601	4,4'-DDT	METHOD BLANK		0.17	ng/L
8081B	K1102163	KWG1102601	Aldrin	METHOD BLANK		0.33	ng/L
8081B	K1102163	KWG1102601	alpha-BHC	METHOD BLANK		0.21	ng/L
8081B	K1102163	KWG1102601	alpha-Chlordane	METHOD BLANK		0.27	ng/L
8081B	K1102163	KWG1102601	beta-BHC	METHOD BLANK		0.41	ng/L
8081B	K1102163	KWG1102601	Chlordane	METHOD BLANK		5.8	ng/L
8081B	K1102163	KWG1102601	cis-Nonachlor	METHOD BLANK		0.14	ng/L
8081B	K1102163	KWG1102601	Decachlorobiphenyl	METHOD BLANK			%
8081B	K1102163	KWG1102601	delta-BHC	METHOD BLANK		0.14	ng/L
8081B	K1102163	KWG1102601	Dieldrin	METHOD BLANK		0.37	ng/L
8081B	K1102163	KWG1102601	Endosulfan I	METHOD BLANK		0.25	ng/L
8081B	K1102163	KWG1102601	Endosulfan II	METHOD BLANK	0.47	0.35	ng/L
8081B	K1102163	KWG1102601	Endosulfan Sulfate	METHOD BLANK		0.28	ng/L
8081B	K1102163	KWG1102601	Endrin	METHOD BLANK		0.49	ng/L
8081B	K1102163	KWG1102601	Endrin Aldehyde	METHOD BLANK		0.21	ng/L
8081B	K1102163	KWG1102601	Endrin Ketone	METHOD BLANK		0.32	ng/L
8081B	K1102163	KWG1102601	gamma-BHC	METHOD BLANK		0.47	ng/L
8081B	K1102163	KWG1102601	gamma-Chlordane	METHOD BLANK		0.31	ng/L
8081B	K1102163	KWG1102601	Heptachlor	METHOD BLANK		0.18	ng/L
8081B	K1102163	KWG1102601	Heptachlor Epoxide	METHOD BLANK		0.21	ng/L
8081B	K1102163	KWG1102601	Hexachlorobenzene	METHOD BLANK		0.27	ng/L
8081B	K1102163	KWG1102601	Methoxychlor	METHOD BLANK		0.44	ng/L
8081B	K1102163	KWG1102601	Oxychlordane	METHOD BLANK		0.069	ng/L
8081B	K1102163	KWG1102601	Tetrachloro-m-xylene	METHOD BLANK			%
8081B	K1102163	KWG1102601	Toxaphene	METHOD BLANK		17	ng/L
8081B	K1102163	KWG1102601	trans-Nonachlor	METHOD BLANK		0.11	ng/L
8082A	K1102163	KWG1102911	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	METHOD BLANK		0.55	ng/L
8082A	K1102163	KWG1102911	2,2',3,3',4,4',5,6-Octachlorobiphenyl	METHOD BLANK		0.33	ng/L
8082A	K1102163	KWG1102911	2,2',3,3',4,4',5-Heptachlorobiphenyl	METHOD BLANK		0.12	ng/L
8082A	K1102163	KWG1102911	2,2',3,3',4,4'-Hexachlorobiphenyl	METHOD BLANK		0.57	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8082A	K1102163	KWG1102911	2,2',3,4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.37	ng/L
8082A	K1102163	KWG1102911	2,2',3,4,4',5',6-Heptachlorobiphenyl	METHOD BLANK		0.77	ng/L
8082A	K1102163	KWG1102911	2,2',3,4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.62	ng/L
8082A	K1102163	KWG1102911	2,2',3,4,4',6,6'-Heptachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1102163	KWG1102911	2,2',3,4',5,5',6-Heptachlorobiphenyl	METHOD BLANK		0.27	ng/L
8082A	K1102163	KWG1102911	2,2',3,4',5-Pentachlorobiphenyl	METHOD BLANK		0.33	ng/L
8082A	K1102163	KWG1102911	2,2',3,4,5'-Pentachlorobiphenyl	METHOD BLANK		0.35	ng/L
8082A	K1102163	KWG1102911	2,2',3,5'-Tetrachlorobiphenyl	METHOD BLANK		0.31	ng/L
8082A	K1102163	KWG1102911	2,2',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.48	ng/L
8082A	K1102163	KWG1102911	2,2',4,5,5'-Pentachlorobiphenyl	METHOD BLANK		0.25	ng/L
8082A	K1102163	KWG1102911	2,2',5,5'-Tetrachlorobiphenyl	METHOD BLANK		0.32	ng/L
8082A	K1102163	KWG1102911	2,2',5-Trichlorobiphenyl	METHOD BLANK		11	ng/L
8082A	K1102163	KWG1102911	2,3,3',4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.23	ng/L
8082A	K1102163	KWG1102911	2,3,3',4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.13	ng/L
8082A	K1102163	KWG1102911	2,3,3',4,4',5-Hexachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1102163	KWG1102911	2,3,3',4,4',6-Hexachlorobiphenyl	METHOD BLANK		0.30	ng/L
8082A	K1102163	KWG1102911	2,3,3',4,4'-Pentachlorobiphenyl	METHOD BLANK		0.27	ng/L
8082A	K1102163	KWG1102911	2,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.29	ng/L
8082A	K1102163	KWG1102911	2,3,4,4',5,6-Hexachlorobiphenyl	METHOD BLANK		0.33	ng/L
8082A	K1102163	KWG1102911	2',3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.19	ng/L
8082A	K1102163	KWG1102911	2,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.099	ng/L
8082A	K1102163	KWG1102911	2,3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.20	ng/L
8082A	K1102163	KWG1102911	2,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.30	ng/L
8082A	K1102163	KWG1102911	2,3,4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.39	ng/L
8082A	K1102163	KWG1102911	2,4,4'-Trichlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1102163	KWG1102911	2,4'-Dichlorobiphenyl	METHOD BLANK	0.97	0.84	ng/L
8082A	K1102163	KWG1102911	3,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.34	ng/L
8082A	K1102163	KWG1102911	3,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.37	ng/L
8082A	K1102163	KWG1102911	3,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.29	ng/L
8082A	K1102163	KWG1102911	3,4,4',5-Tetrachlorobiphenyl	METHOD BLANK		0.34	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8082A	K1102163	KWG1102911	Decachlorobiphenyl	METHOD BLANK		0.48	ng/L
8082A	K1102163	KWG1102911	Tetrachloro-m-xylene	METHOD BLANK			%
8151A	K1102163	KWG1102423	2,4,5-T	METHOD BLANK		0.058	ug/L
8151A	K1102163	KWG1102423	2,4,5-TP	METHOD BLANK		0.054	ug/L
8151A	K1102163	KWG1102423	2,4-D	METHOD BLANK		0.054	ug/L
8151A	K1102163	KWG1102423	2,4-DB	METHOD BLANK		0.17	ug/L
8151A	K1102163	KWG1102423	2,4-Dichlorophenylacetic Acid	METHOD BLANK			%
8151A	K1102163	KWG1102423	Dalapon	METHOD BLANK		0.095	ug/L
8151A	K1102163	KWG1102423	Dicamba	METHOD BLANK		0.10	ug/L
8151A	K1102163	KWG1102423	Dichlorprop	METHOD BLANK		0.060	ug/L
8151A	K1102163	KWG1102423	Dinoseb	METHOD BLANK		0.050	ug/L
8151A	K1102163	KWG1102423	MCPA	METHOD BLANK		35	ug/L
8151A	K1102163	KWG1102423	MCPP	METHOD BLANK		31	ug/L
8260C	K1102163	KWG1102360	1,1,1,2-Tetrachloroethane	METHOD BLANK		0.11	ug/L
8260C	K1102163	KWG1102360	1,1,1-Trichloroethane	METHOD BLANK		0.075	ug/L
8260C	K1102163	KWG1102360	1,1,2,2-Tetrachloroethane	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102360	1,1,2-Trichloroethane	METHOD BLANK		0.14	ug/L
8260C	K1102163	KWG1102360	1,1-Dichloroethane	METHOD BLANK		0.077	ug/L
8260C	K1102163	KWG1102360	1,1-Dichloroethene	METHOD BLANK		0.074	ug/L
8260C	K1102163	KWG1102360	1,2,3-Trichloropropane	METHOD BLANK		0.20	ug/L
8260C	K1102163	KWG1102360	1,2,4-Trimethylbenzene	METHOD BLANK		0.069	ug/L
8260C	K1102163	KWG1102360	1,2-Dibromoethane	METHOD BLANK		0.10	ug/L
8260C	K1102163	KWG1102360	1,2-Dichloroethane	METHOD BLANK		0.080	ug/L
8260C	K1102163	KWG1102360	1,2-Dichloropropane	METHOD BLANK		0.095	ug/L
8260C	K1102163	KWG1102360	1,3,5-Trimethylbenzene	METHOD BLANK		0.089	ug/L
8260C	K1102163	KWG1102360	1,3-Dichloropropane	METHOD BLANK		0.14	ug/L
8260C	K1102163	KWG1102360	2,2-Dichloropropane	METHOD BLANK		0.060	ug/L
8260C	K1102163	KWG1102360	2-Butanone	METHOD BLANK		1.9	ug/L
8260C	K1102163	KWG1102360	2-Chloroethyl Vinyl Ether	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102360	2-Hexanone	METHOD BLANK		2.7	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8260C	K1102163	KWG1102360	4-Bromofluorobenzene	METHOD BLANK			%
8260C	K1102163	KWG1102360	4-Isopropyltoluene	METHOD BLANK		0.051	ug/L
8260C	K1102163	KWG1102360	4-Methyl-2-pentanone	METHOD BLANK		2.6	ug/L
8260C	K1102163	KWG1102360	Acetone	METHOD BLANK		3.3	ug/L
8260C	K1102163	KWG1102360	Acrolein	METHOD BLANK		0.96	ug/L
8260C	K1102163	KWG1102360	Acrylonitrile	METHOD BLANK		0.26	ug/L
8260C	K1102163	KWG1102360	Benzene	METHOD BLANK		0.054	ug/L
8260C	K1102163	KWG1102360	Bromochloromethane	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102360	Bromodichloromethane	METHOD BLANK		0.091	ug/L
8260C	K1102163	KWG1102360	Bromoform	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102360	Bromomethane	METHOD BLANK		0.090	ug/L
8260C	K1102163	KWG1102360	Carbon Disulfide	METHOD BLANK		0.055	ug/L
8260C	K1102163	KWG1102360	Carbon Tetrachloride	METHOD BLANK		0.096	ug/L
8260C	K1102163	KWG1102360	Chlorobenzene	METHOD BLANK		0.11	ug/L
8260C	K1102163	KWG1102360	Chloroethane	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102360	Chloroform	METHOD BLANK		0.072	ug/L
8260C	K1102163	KWG1102360	Chloromethane	METHOD BLANK		0.068	ug/L
8260C	K1102163	KWG1102360	cis-1,2-Dichloroethene	METHOD BLANK		0.067	ug/L
8260C	K1102163	KWG1102360	cis-1,3-Dichloropropene	METHOD BLANK		0.18	ug/L
8260C	K1102163	KWG1102360	Dibromochloromethane	METHOD BLANK		0.14	ug/L
8260C	K1102163	KWG1102360	Dibromofluoromethane	METHOD BLANK			%
8260C	K1102163	KWG1102360	Dibromomethane	METHOD BLANK		0.15	ug/L
8260C	K1102163	KWG1102360	Dichlorodifluoromethane	METHOD BLANK		0.13	ug/L
8260C	K1102163	KWG1102360	Dichlorofluoromethane	METHOD BLANK		0.053	ug/L
8260C	K1102163	KWG1102360	Dichloromethane	METHOD BLANK		0.10	ug/L
8260C	K1102163	KWG1102360	Ethylbenzene	METHOD BLANK		0.050	ug/L
8260C	K1102163	KWG1102360	Iodomethane	METHOD BLANK		0.11	ug/L
8260C	K1102163	KWG1102360	Isopropylbenzene	METHOD BLANK		0.051	ug/L
8260C	K1102163	KWG1102360	m,p-Xylenes	METHOD BLANK		0.091	ug/L
8260C	K1102163	KWG1102360	Naphthalene	METHOD BLANK		0.088	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8260C	K1102163	KWG1102360	n-Butylbenzene	METHOD BLANK		0.044	ug/L
8260C	K1102163	KWG1102360	n-Propylbenzene	METHOD BLANK		0.051	ug/L
8260C	K1102163	KWG1102360	o-Xylene	METHOD BLANK		0.074	ug/L
8260C	K1102163	KWG1102360	sec-Butylbenzene	METHOD BLANK		0.062	ug/L
8260C	K1102163	KWG1102360	Styrene	METHOD BLANK		0.089	ug/L
8260C	K1102163	KWG1102360	Tetrachloroethene	METHOD BLANK		0.099	ug/L
8260C	K1102163	KWG1102360	Toluene	METHOD BLANK		0.052	ug/L
8260C	K1102163	KWG1102360	Toluene-d8	METHOD BLANK			%
8260C	K1102163	KWG1102360	trans-1,2-Dichloroethene	METHOD BLANK		0.057	ug/L
8260C	K1102163	KWG1102360	trans-1,3-Dichloropropene	METHOD BLANK		0.068	ug/L
8260C	K1102163	KWG1102360	trans-1,4-Dichloro-2-butene	METHOD BLANK		0.35	ug/L
8260C	K1102163	KWG1102360	Trichloroethene	METHOD BLANK		0.10	ug/L
8260C	K1102163	KWG1102360	Trichlorofluoromethane	METHOD BLANK		0.12	ug/L
8260C	K1102163	KWG1102360	Vinyl Acetate	METHOD BLANK		0.43	ug/L
8260C	K1102163	KWG1102360	Vinyl Chloride	METHOD BLANK		0.075	ug/L
8260C	K1102163	KWG1102535	1,1,1,2-Tetrachloroethane	METHOD BLANK		0.11	ug/L
8260C	K1102163	KWG1102535	1,1,1-Trichloroethane	METHOD BLANK		0.075	ug/L
8260C	K1102163	KWG1102535	1,1,2,2-Tetrachloroethane	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102535	1,1,2-Trichloroethane	METHOD BLANK		0.14	ug/L
8260C	K1102163	KWG1102535	1,1-Dichloroethane	METHOD BLANK		0.077	ug/L
8260C	K1102163	KWG1102535	1,1-Dichloroethene	METHOD BLANK		0.074	ug/L
8260C	K1102163	KWG1102535	1,2,3-Trichloropropane	METHOD BLANK		0.20	ug/L
8260C	K1102163	KWG1102535	1,2,4-Trimethylbenzene	METHOD BLANK		0.069	ug/L
8260C	K1102163	KWG1102535	1,2-Dibromoethane	METHOD BLANK		0.10	ug/L
8260C	K1102163	KWG1102535	1,2-Dichloroethane	METHOD BLANK		0.080	ug/L
8260C	K1102163	KWG1102535	1,2-Dichloropropane	METHOD BLANK		0.095	ug/L
8260C	K1102163	KWG1102535	1,3,5-Trimethylbenzene	METHOD BLANK		0.089	ug/L
8260C	K1102163	KWG1102535	1,3-Dichloropropane	METHOD BLANK		0.14	ug/L
8260C	K1102163	KWG1102535	2,2-Dichloropropane	METHOD BLANK		0.060	ug/L
8260C	K1102163	KWG1102535	2-Butanone	METHOD BLANK		1.9	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8260C	K1102163	KWG1102535	2-Hexanone	METHOD BLANK		2.7	ug/L
8260C	K1102163	KWG1102535	4-Bromofluorobenzene	METHOD BLANK			%
8260C	K1102163	KWG1102535	4-Isopropyltoluene	METHOD BLANK		0.051	ug/L
8260C	K1102163	KWG1102535	4-Methyl-2-pentanone	METHOD BLANK		2.6	ug/L
8260C	K1102163	KWG1102535	Acetone	METHOD BLANK		3.3	ug/L
8260C	K1102163	KWG1102535	Acrolein	METHOD BLANK		0.96	ug/L
8260C	K1102163	KWG1102535	Acrylonitrile	METHOD BLANK		0.26	ug/L
8260C	K1102163	KWG1102535	Benzene	METHOD BLANK		0.054	ug/L
8260C	K1102163	KWG1102535	Bromochloromethane	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102535	Bromodichloromethane	METHOD BLANK		0.091	ug/L
8260C	K1102163	KWG1102535	Bromoform	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102535	Bromomethane	METHOD BLANK		0.090	ug/L
8260C	K1102163	KWG1102535	Carbon Disulfide	METHOD BLANK		0.055	ug/L
8260C	K1102163	KWG1102535	Carbon Tetrachloride	METHOD BLANK		0.096	ug/L
8260C	K1102163	KWG1102535	Chlorobenzene	METHOD BLANK		0.11	ug/L
8260C	K1102163	KWG1102535	Chloroethane	METHOD BLANK		0.16	ug/L
8260C	K1102163	KWG1102535	Chloroform	METHOD BLANK		0.072	ug/L
8260C	K1102163	KWG1102535	Chloromethane	METHOD BLANK		0.068	ug/L
8260C	K1102163	KWG1102535	cis-1,2-Dichloroethene	METHOD BLANK		0.067	ug/L
8260C	K1102163	KWG1102535	cis-1,3-Dichloropropene	METHOD BLANK		0.18	ug/L
8260C	K1102163	KWG1102535	Dibromochloromethane	METHOD BLANK		0.14	ug/L
8260C	K1102163	KWG1102535	Dibromofluoromethane	METHOD BLANK			%
8260C	K1102163	KWG1102535	Dibromomethane	METHOD BLANK		0.15	ug/L
8260C	K1102163	KWG1102535	Dichlorodifluoromethane	METHOD BLANK		0.13	ug/L
8260C	K1102163	KWG1102535	Dichlorofluoromethane	METHOD BLANK		0.053	ug/L
8260C	K1102163	KWG1102535	Dichloromethane	METHOD BLANK		0.10	ug/L
8260C	K1102163	KWG1102535	Ethylbenzene	METHOD BLANK		0.050	ug/L
8260C	K1102163	KWG1102535	Iodomethane	METHOD BLANK		0.11	ug/L
8260C	K1102163	KWG1102535	Isopropylbenzene	METHOD BLANK		0.051	ug/L
8260C	K1102163	KWG1102535	m,p-Xylenes	METHOD BLANK		0.091	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8260C	K1102163	KWG1102535	Naphthalene	METHOD BLANK		0.088	ug/L
8260C	K1102163	KWG1102535	n-Butylbenzene	METHOD BLANK		0.044	ug/L
8260C	K1102163	KWG1102535	n-Propylbenzene	METHOD BLANK		0.051	ug/L
8260C	K1102163	KWG1102535	o-Xylene	METHOD BLANK		0.074	ug/L
8260C	K1102163	KWG1102535	sec-Butylbenzene	METHOD BLANK		0.062	ug/L
8260C	K1102163	KWG1102535	Styrene	METHOD BLANK		0.089	ug/L
8260C	K1102163	KWG1102535	Tetrachloroethene	METHOD BLANK		0.099	ug/L
8260C	K1102163	KWG1102535	Toluene	METHOD BLANK		0.052	ug/L
8260C	K1102163	KWG1102535	Toluene-d8	METHOD BLANK			%
8260C	K1102163	KWG1102535	trans-1,2-Dichloroethene	METHOD BLANK		0.057	ug/L
8260C	K1102163	KWG1102535	trans-1,3-Dichloropropene	METHOD BLANK		0.068	ug/L
8260C	K1102163	KWG1102535	trans-1,4-Dichloro-2-butene	METHOD BLANK		0.35	ug/L
8260C	K1102163	KWG1102535	Trichloroethene	METHOD BLANK		0.10	ug/L
8260C	K1102163	KWG1102535	Trichlorofluoromethane	METHOD BLANK		0.12	ug/L
8260C	K1102163	KWG1102535	Vinyl Acetate	METHOD BLANK		0.43	ug/L
8260C	K1102163	KWG1102535	Vinyl Chloride	METHOD BLANK		0.075	ug/L
8270C	K1102163	KWG1102304	1,2,4-Trichlorobenzene	METHOD BLANK		0.016	ug/L
8270C	K1102163	KWG1102304	1,2-Dichlorobenzene	METHOD BLANK		0.022	ug/L
8270C	K1102163	KWG1102304	1,3-Dichlorobenzene	METHOD BLANK		0.021	ug/L
8270C	K1102163	KWG1102304	1,4-Dichlorobenzene	METHOD BLANK		0.029	ug/L
8270C	K1102163	KWG1102304	2,4,5-Trichlorophenol	METHOD BLANK		0.031	ug/L
8270C	K1102163	KWG1102304	2,4,6-Tribromophenol	METHOD BLANK			%
8270C	K1102163	KWG1102304	2,4,6-Trichlorophenol	METHOD BLANK		0.058	ug/L
8270C	K1102163	KWG1102304	2,4-Dichlorophenol	METHOD BLANK		0.047	ug/L
8270C	K1102163	KWG1102304	2,4-Dimethylphenol	METHOD BLANK		2.2	ug/L
8270C	K1102163	KWG1102304	2,4-Dinitrophenol	METHOD BLANK		0.17	ug/L
8270C	K1102163	KWG1102304	2,4-Dinitrotoluene	METHOD BLANK		0.018	ug/L
8270C	K1102163	KWG1102304	2,6-Dinitrotoluene	METHOD BLANK		0.033	ug/L
8270C	K1102163	KWG1102304	2-Chloronaphthalene	METHOD BLANK		0.041	ug/L
8270C	K1102163	KWG1102304	2-Chlorophenol	METHOD BLANK		0.054	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8270C	K1102163	KWG1102304	2-Fluorobiphenyl	METHOD BLANK			%
8270C	K1102163	KWG1102304	2-Fluorophenol	METHOD BLANK			%
8270C	K1102163	KWG1102304	2-Methylphenol	METHOD BLANK		0.11	ug/L
8270C	K1102163	KWG1102304	2-Nitroaniline	METHOD BLANK		0.024	ug/L
8270C	K1102163	KWG1102304	2-Nitrophenol	METHOD BLANK		0.063	ug/L
8270C	K1102163	KWG1102304	3,3'-Dichlorobenzidine	METHOD BLANK		0.43	ug/L
8270C	K1102163	KWG1102304	3-Nitroaniline	METHOD BLANK		0.029	ug/L
8270C	K1102163	KWG1102304	4,6-Dinitro-2-methylphenol	METHOD BLANK		0.025	ug/L
8270C	K1102163	KWG1102304	4-Bromophenyl Phenyl Ether	METHOD BLANK		0.026	ug/L
8270C	K1102163	KWG1102304	4-Chloro-3-methylphenol	METHOD BLANK		0.037	ug/L
8270C	K1102163	KWG1102304	4-Chloroaniline	METHOD BLANK		0.025	ug/L
8270C	K1102163	KWG1102304	4-Chlorophenyl Phenyl Ether	METHOD BLANK		0.027	ug/L
8270C	K1102163	KWG1102304	4-Methylphenol	METHOD BLANK		0.12	ug/L
8270C	K1102163	KWG1102304	4-Nitroaniline	METHOD BLANK		0.019	ug/L
8270C	K1102163	KWG1102304	4-Nitrophenol	METHOD BLANK		0.28	ug/L
8270C	K1102163	KWG1102304	Benzoic Acid	METHOD BLANK		1.1	ug/L
8270C	K1102163	KWG1102304	Benzyl Alcohol	METHOD BLANK		0.073	ug/L
8270C	K1102163	KWG1102304	Bis(2-chloroethoxy)methane	METHOD BLANK		0.024	ug/L
8270C	K1102163	KWG1102304	Bis(2-chloroethyl) Ether	METHOD BLANK		0.035	ug/L
8270C	K1102163	KWG1102304	Bis(2-chloroisopropyl) Ether	METHOD BLANK		0.026	ug/L
8270C	K1102163	KWG1102304	Bis(2-ethylhexyl) Phthalate	METHOD BLANK		0.13	ug/L
8270C	K1102163	KWG1102304	Butyl Benzyl Phthalate	METHOD BLANK		0.018	ug/L
8270C	K1102163	KWG1102304	Carbazole	METHOD BLANK		0.018	ug/L
8270C	K1102163	KWG1102304	Dibenzofuran	METHOD BLANK		0.018	ug/L
8270C	K1102163	KWG1102304	Diethyl Phthalate	METHOD BLANK	0.012	0.012	ug/L
8270C	K1102163	KWG1102304	Dimethyl Phthalate	METHOD BLANK	0.026	0.021	ug/L
8270C	K1102163	KWG1102304	Di-n-butyl Phthalate	METHOD BLANK		0.023	ug/L
8270C	K1102163	KWG1102304	Di-n-octyl Phthalate	METHOD BLANK		0.018	ug/L
8270C	K1102163	KWG1102304	Hexachlorobenzene	METHOD BLANK		0.022	ug/L
8270C	K1102163	KWG1102304	Hexachlorobutadiene	METHOD BLANK		0.027	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8270C	K1102163	KWG1102304	Hexachlorocyclopentadiene	METHOD BLANK		0.19	ug/L
8270C	K1102163	KWG1102304	Hexachloroethane	METHOD BLANK		0.024	ug/L
8270C	K1102163	KWG1102304	Isophorone	METHOD BLANK		0.016	ug/L
8270C	K1102163	KWG1102304	Nitrobenzene	METHOD BLANK		0.028	ug/L
8270C	K1102163	KWG1102304	Nitrobenzene-d5	METHOD BLANK			%
8270C	K1102163	KWG1102304	N-Nitrosodimethylamine	METHOD BLANK		0.42	ug/L
8270C	K1102163	KWG1102304	N-Nitrosodi-n-propylamine	METHOD BLANK		0.037	ug/L
8270C	K1102163	KWG1102304	N-Nitrosodiphenylamine	METHOD BLANK		0.048	ug/L
8270C	K1102163	KWG1102304	Pentachlorophenol	METHOD BLANK		0.34	ug/L
8270C	K1102163	KWG1102304	Phenol	METHOD BLANK		0.063	ug/L
8270C	K1102163	KWG1102304	Phenol-d6	METHOD BLANK			%
8270C	K1102163	KWG1102304	p-Terphenyl-d14	METHOD BLANK			%
8270C SIM	K1102163	KWG1102305	2-Methylnaphthalene	METHOD BLANK	0.0029	0.0023	ug/L
8270C SIM	K1102163	KWG1102305	Acenaphthene	METHOD BLANK		0.0044	ug/L
8270C SIM	K1102163	KWG1102305	Acenaphthylene	METHOD BLANK		0.0034	ug/L
8270C SIM	K1102163	KWG1102305	Anthracene	METHOD BLANK		0.0036	ug/L
8270C SIM	K1102163	KWG1102305	Benz(a)anthracene	METHOD BLANK		0.0026	ug/L
8270C SIM	K1102163	KWG1102305	Benzo(a)pyrene	METHOD BLANK		0.0043	ug/L
8270C SIM	K1102163	KWG1102305	Benzo(b)fluoranthene	METHOD BLANK		0.0023	ug/L
8270C SIM	K1102163	KWG1102305	Benzo(g,h,i)perylene	METHOD BLANK		0.0029	ug/L
8270C SIM	K1102163	KWG1102305	Benzo(k)fluoranthene	METHOD BLANK		0.0025	ug/L
8270C SIM	K1102163	KWG1102305	Chrysene	METHOD BLANK		0.0034	ug/L
8270C SIM	K1102163	KWG1102305	Dibenz(a,h)anthracene	METHOD BLANK		0.0025	ug/L
8270C SIM	K1102163	KWG1102305	Dibenzofuran	METHOD BLANK		0.0046	ug/L
8270C SIM	K1102163	KWG1102305	Fluoranthene	METHOD BLANK		0.0044	ug/L
8270C SIM	K1102163	KWG1102305	Fluoranthene-d10	METHOD BLANK			%
8270C SIM	K1102163	KWG1102305	Fluorene	METHOD BLANK		0.0038	ug/L
8270C SIM	K1102163	KWG1102305	Fluorene-d10	METHOD BLANK			%
8270C SIM	K1102163	KWG1102305	Indeno(1,2,3-cd)pyrene	METHOD BLANK		0.0026	ug/L
8270C SIM	K1102163	KWG1102305	Naphthalene	METHOD BLANK		0.0030	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	UNITS
8270C SIM	K1102163	KWG1102305	Phenanthrene	METHOD BLANK		0.0050	ug/L
8270C SIM	K1102163	KWG1102305	p-Terphenyl-d14	METHOD BLANK			%
8270C SIM	K1102163	KWG1102305	Pyrene	METHOD BLANK		0.0035	ug/L
9014	K1102163	240258	Cyanide, Free	METHOD BLANK		0.010	mg/L
9030M	K1102163	130456	Sulfide, Total	METHOD BLANK		0.03	mg/L
NWTPH-Dx	K1102163	KWG1102468	Diesel Range Organics	METHOD BLANK		11	ug/L
NWTPH-Dx	K1102163	KWG1102468	n-Triacontane	METHOD BLANK			%
NWTPH-Dx	K1102163	KWG1102468	o-Terphenyl	METHOD BLANK			%
NWTPH-Dx	K1102163	KWG1102468	Residual Range Organics	METHOD BLANK	39	19	ug/L
SM 2510 B	K1102163	240594	Conductivity	METHOD BLANK			uMHO
SM 2540 D	K1102163	238924	Solids, Total Suspended	METHOD BLANK		5.0	mg/L

Table 4. Trip and Equipment Blank Summary

LIMIT1 _	_	LAB_CHEM	CONC	LIMIT1	UNITS
8260C	SPI-EQB-W03101	Toluene	0.22	0.052	ug/L
	SPI-EQB-W03101	2-Butanone	2.3	1.9	ug/L
	TRIP BLANKS	Toluene	0.77	0.052	ug/L
8270C	SPI-EQB-W03101	Di-n-butyl Phthalate	0.024	0.024	ug/L
	SPI-EQB-W03101	Diethyl Phthalate	0.045	0.045	ug/L

Table 5. SURROGATE SUMMARY

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8081B	K1102163	Decachlorobiphenyl	SPI-2-W-031011	PP01	KWG1102601	121	35	128	OK
	K1102163	Decachlorobiphenyl	SPI-1-W-031011	PP01	KWG1102601	112	35	128	OK
	K1102163	Tetrachloro-m-xylene	SPI-1-W-031011	PP01	KWG1102601	85	20	102	OK
	K1102163	Tetrachloro-m-xylene	SPI-2-W-031011	PP01	KWG1102601	77	20	102	OK
8082A	K1102163	Tetrachloro-m-xylene	SPI-1-W-031011	PP01	KWG1102911	84	26	100	OK
	K1102163	Tetrachloro-m-xylene	SPI-2-W-031011	PP01	KWG1102911	79	26	100	OK
8151A	K1102163	2,4-Dichlorophenylacetic Acid	SPI-1-W-031011	PP01	KWG1102423	73	10	136	OK
	K1102163	2,4-Dichlorophenylacetic Acid	SPI-2-W-031011	PP01	KWG1102423	81	10	136	OK
8260C	K1102163	4-Bromofluorobenzene	TRIP BLANKS	PP01	KWG1102535	104	68	117	OK
	K1102163	4-Bromofluorobenzene	SPI-2-W-031011	PP01	KWG1102360	92	68	117	OK
	K1102163	4-Bromofluorobenzene	SPI-EQB-W03101	PP01	KWG1102535	100	68	117	OK
	K1102163	4-Bromofluorobenzene	SPI-1-W-031011	PP01	KWG1102360	91	68	117	OK
	K1102163	4-Bromofluorobenzene	SPI-3-W-031011	PP01	KWG1102535	101	68	117	OK
	K1102163	Dibromofluoromethane	SPI-3-W-031011	PP01	KWG1102535	105	73	122	OK
	K1102163	Dibromofluoromethane	SPI-1-W-031011	PP01	KWG1102360	88	73	122	OK
	K1102163	Dibromofluoromethane	SPI-2-W-031011	PP01	KWG1102360	89	73	122	OK
	K1102163	Dibromofluoromethane	SPI-EQB-W03101	PP01	KWG1102535	107	73	122	OK
	K1102163	Dibromofluoromethane	TRIP BLANKS	PP01	KWG1102535	103	73	122	OK
	K1102163	Toluene-d8	TRIP BLANKS	PP01	KWG1102535	121	78	129	OK
	K1102163	Toluene-d8	SPI-2-W-031011	PP01	KWG1102360	94	78	129	OK
	K1102163	Toluene-d8	SPI-1-W-031011	PP01	KWG1102360	94	78	129	OK
	K1102163	Toluene-d8	SPI-EQB-W03101	PP01	KWG1102535	117	78	129	OK
	K1102163	Toluene-d8	SPI-3-W-031011	PP01	KWG1102535	120	78	129	OK
8270C	K1102163	2,4,6-Tribromophenol	SPI-1-W-031011	PP01	KWG1102304	84	23	127	OK
	K1102163	2,4,6-Tribromophenol	SPI-2-W-031011	PP01	KWG1102304	79	23	127	OK
	K1102163	2-Fluorobiphenyl	SPI-1-W-031011	PP01	KWG1102304	71	31	94	OK
	K1102163	2-Fluorobiphenyl	SPI-EQB-W03101	PP01	KWG1102304	67	31	94	OK

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8270C	K1102163	2-Fluorobiphenyl	SPI-2-W-031011	PP01	KWG1102304	68	31	94	OK
	K1102163	2-Fluorophenol	SPI-1-W-031011	PP01	KWG1102304	76	12	109	OK
	K1102163	2-Fluorophenol	SPI-2-W-031011	PP01	KWG1102304	67	12	109	OK
	K1102163	Nitrobenzene-d5	SPI-1-W-031011	PP01	KWG1102304	79	26	110	OK
	K1102163	Nitrobenzene-d5	SPI-2-W-031011	PP01	KWG1102304	79	26	110	OK
	K1102163	Phenol-d6	SPI-2-W-031011	PP01	KWG1102304	71	23	106	OK
	K1102163	Phenol-d6	SPI-1-W-031011	PP01	KWG1102304	78	23	106	OK
	K1102163	p-Terphenyl-d14	SPI-EQB-W03101	PP01	KWG1102304	101	40	127	OK
	K1102163	p-Terphenyl-d14	SPI-2-W-031011	PP01	KWG1102304	95	40	127	OK
	K1102163	p-Terphenyl-d14	SPI-1-W-031011	PP01	KWG1102304	90	40	127	OK
8270C SIM	K1102163	Fluoranthene-d10	SPI-3-W-031011	PP01	KWG1102305	82	31	105	OK
	K1102163	Fluoranthene-d10	SPI-1-W-031011	PP01	KWG1102305	86	31	105	OK
	K1102163	Fluoranthene-d10	SPI-2-W-031011	PP01	KWG1102305	91	31	105	OK
	K1102163	Fluorene-d10	SPI-3-W-031011	PP01	KWG1102305	78	28	98	OK
	K1102163	Fluorene-d10	SPI-1-W-031011	PP01	KWG1102305	83	28	98	OK
	K1102163	Fluorene-d10	SPI-2-W-031011	PP01	KWG1102305	86	28	98	OK
	K1102163	p-Terphenyl-d14	SPI-3-W-031011	PP01	KWG1102305	87	27	112	OK
	K1102163	p-Terphenyl-d14	SPI-2-W-031011	PP01	KWG1102305	96	27	112	OK
	K1102163	p-Terphenyl-d14	SPI-1-W-031011	PP01	KWG1102305	76	27	112	OK
NWTPH-Dx	K1102163	n-Triacontane	SPI-1-W-031011	PP01	KWG1102468	91	50	150	OK
	K1102163	n-Triacontane	SPI-2-W-031011	PP01	KWG1102468	85	50	150	OK
	K1102163	o-Terphenyl	SPI-1-W-031011	PP01	KWG1102468	90	50	150	OK
	K1102163	o-Terphenyl	SPI-2-W-031011	PP01	KWG1102468	81	50	150	OK

Table 6. LCS SUMMARY

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1631E	Mercury, Total	CK11	K1102163	130358	OK RECOVER	NA	NA
	Mercury, Total	CK12	K1102163	130358	OK RECOVER	NA	NA
1664	Oil and Grease, Total	CK11	K1102163	130447	OK RECOVER	NA	NA
	Oil and Grease, Total	DK11	K1102163	130447	NA	OK DRECOVER	OK RPD
200.7	Iron, Total	CK11	K1102163	130784	OK RECOVER	NA	NA
200.8	Aluminum, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Antimony, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Arsenic, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Cadmium, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Chromium, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Copper, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Lead, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Manganese, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Molybdenum, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Nickel, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Selenium, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Silver, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
	Zinc, Total	CK11	K1102163	130787	OK RECOVER	NA	NA
300.0	Sulfate	CK11	K1102163	239266	OK RECOVER	NA	NA
350.1	Ammonia as Nitrogen	CK11	K1102163	239125	OK RECOVER	NA	NA
415.1	Carbon, Total Organic	CK11	K1102163	239095	OK RECOVER	NA	NA
4500CNE	Cyanide, Total	CK11	K1102163	130311	OK RECOVER	NA	NA
8081B	2,4'-DDD	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	2,4'-DDD	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	2,4'-DDE	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	2,4'-DDE	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	2,4'-DDT	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	2,4'-DDT	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	4,4'-DDD	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	4,4'-DDD	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	4,4'-DDE	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	4,4'-DDE	DK11	K1102163	KWG1102601	NA	NOT OK HIGH	OK RPD
	4,4'-DDT	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	4,4'-DDT	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Aldrin	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Aldrin	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	alpha-BHC	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	alpha-BHC	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	alpha-Chlordane	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	alpha-Chlordane	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	beta-BHC	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	beta-BHC	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Chlordane	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Chlordane	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	cis-Nonachlor	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	cis-Nonachlor	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	delta-BHC	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	delta-BHC	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Dieldrin	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Dieldrin	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Endosulfan I	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Endosulfan I	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Endosulfan II	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Endosulfan II	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Endosulfan Sulfate	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Endosulfan Sulfate	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Endrin	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Endrin	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Endrin Aldehyde	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Endrin Aldehyde	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Endrin Ketone	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Endrin Ketone	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	gamma-BHC	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	gamma-BHC	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	gamma-Chlordane	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	gamma-Chlordane	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Heptachlor	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Heptachlor	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Heptachlor Epoxide	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Heptachlor Epoxide	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Hexachlorobenzene	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Hexachlorobenzene	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Methoxychlor	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Methoxychlor	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Oxychlordane	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Oxychlordane	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	Toxaphene	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	Toxaphene	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
	trans-Nonachlor	CK11	K1102163	KWG1102601	OK RECOVER	NA	NA
	trans-Nonachlor	DK11	K1102163	KWG1102601	NA	OK DRECOVER	OK RPD
8082A	2,2',3,3',4,4',5,5',6-Nonac	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,3',4,4',5,5',6-Nonac	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,3',4,4',5,6-Octachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,3',4,4',5,6-Octachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,3',4,4',5-Heptachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,3',4,4',5-Heptachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,3',4,4'-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,3',4,4'-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',5,5'-Heptachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4,4',5,5'-Heptachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',5',6-Heptachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4,4',5',6-Heptachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,4,4',5'-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4,4',5'-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2,2',3,4,4',6,6'-Heptachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4,4',6,6'-Heptachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,4',5,5',6-Heptachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4',5,5',6-Heptachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,4',5-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4',5-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,4,5'-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,4,5'-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',3,5'-Tetrachlorobiphe	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',3,5'-Tetrachlorobiphe	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',4,4',5,5'-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',4,4',5,5'-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',4,5,5'-Pentachlorobip	DK11	K1102163	KWG1102911	NA	NA	OK RPD
	2,2',5,5'-Tetrachlorobiphe	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',5,5'-Tetrachlorobiphe	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,2',5-Trichlorobiphenyl	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,2',5-Trichlorobiphenyl	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',5,5'-Heptachlor	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,3',4,4',5,5'-Heptachlor	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',5'-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,3',4,4',5'-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',5-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,3',4,4',5-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,3',4,4',6-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,3',4,4',6-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,3',4,4'-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,3',4,4'-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3',4,4',5,5'-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3',4,4',5,5'-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,4,4',5,6-Hexachlorobip	DK11	K1102163	KWG1102911	NA	NA	OK RPD
	2',3,4,4',5-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2',3,4,4',5-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2,3',4,4',5-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3',4,4',5-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,4,4',5-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,4,4',5-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3',4,4'-Tetrachlorobiphe	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3',4,4'-Tetrachlorobiphe	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,3,4,4'-Tetrachlorobiphe	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,3,4,4'-Tetrachlorobiphe	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,4,4'-Trichlorobiphenyl	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,4,4'-Trichlorobiphenyl	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	2,4'-Dichlorobiphenyl	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	2,4'-Dichlorobiphenyl	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	3,3',4,4',5,5'-Hexachlorobi	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	3,3',4,4',5,5'-Hexachlorobi	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	3,3',4,4',5-Pentachlorobip	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	3,3',4,4',5-Pentachlorobip	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	3,3',4,4'-Tetrachlorobiphe	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	3,3',4,4'-Tetrachlorobiphe	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	3,4,4',5-Tetrachlorobiphe	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	3,4,4',5-Tetrachlorobiphe	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
	Decachlorobiphenyl	CK11	K1102163	KWG1102911	OK RECOVER	NA	NA
	Decachlorobiphenyl	DK11	K1102163	KWG1102911	NA	OK DRECOVER	OK RPD
8151A	2,4,5-T	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	2,4,5-T	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	2,4,5-TP	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	2,4,5-TP	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	2,4-D	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	2,4-D	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	2,4-DB	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	2,4-DB	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	Dalapon	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	Dalapon	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8151A	Dicamba	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	Dicamba	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	Dichlorprop	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	Dichlorprop	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	Dinoseb	CK11	K1102163	KWG1102423	NOT OK LOW	NA	NA
	Dinoseb	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	MCPA	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	MCPA	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
	MCPP	CK11	K1102163	KWG1102423	OK RECOVER	NA	NA
	MCPP	DK11	K1102163	KWG1102423	NA	OK DRECOVER	OK RPD
8260C	1,1,1,2-Tetrachloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,1,1,2-Tetrachloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,1,1-Trichloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,1,1-Trichloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,1,2,2-Tetrachloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,1,2,2-Tetrachloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,1,2-Trichloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,1,2-Trichloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,1-Dichloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,1-Dichloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,1-Dichloroethene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,1-Dichloroethene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,2,3-Trichloropropane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,2,3-Trichloropropane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,2,4-Trimethylbenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,2,4-Trimethylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,2-Dibromoethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,2-Dibromoethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,2-Dichloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,2-Dichloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,2-Dichloropropane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,2-Dichloropropane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	1,3,5-Trimethylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	1,3,5-Trimethylbenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,3-Dichloropropane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	1,3-Dichloropropane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	2,2-Dichloropropane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	2,2-Dichloropropane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	2-Butanone	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	2-Butanone	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	2-Chloroethyl Vinyl Ether	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	2-Hexanone	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	2-Hexanone	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	4-Isopropyltoluene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	4-Isopropyltoluene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	4-Methyl-2-pentanone	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	4-Methyl-2-pentanone	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Acetone	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Acetone	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Acrolein	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Acrolein	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Acrylonitrile	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Acrylonitrile	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Benzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Benzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Bromochloromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Bromochloromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Bromodichloromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Bromodichloromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Bromoform	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Bromoform	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Bromomethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Bromomethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Carbon Disulfide	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	Carbon Disulfide	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Carbon Tetrachloride	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Carbon Tetrachloride	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Chlorobenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Chlorobenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Chloroethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Chloroethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Chloroform	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Chloroform	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Chloromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Chloromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	cis-1,2-Dichloroethene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	cis-1,2-Dichloroethene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	cis-1,3-Dichloropropene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	cis-1,3-Dichloropropene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Dibromochloromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Dibromochloromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Dibromomethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Dibromomethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Dichlorodifluoromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Dichlorodifluoromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Dichlorofluoromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Dichlorofluoromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Dichloromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Dichloromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Ethylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Ethylbenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Iodomethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Iodomethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Isopropylbenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Isopropylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	m,p-Xylenes	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	m,p-Xylenes	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Naphthalene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Naphthalene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	n-Butylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	n-Butylbenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	n-Propylbenzene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	n-Propylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	o-Xylene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	o-Xylene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	sec-Butylbenzene	CK11	K1102163	KWG1102360	NOT OK LOW	NA	NA
	sec-Butylbenzene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Styrene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Styrene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Tetrachloroethene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Tetrachloroethene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Toluene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Toluene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	trans-1,2-Dichloroethene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	trans-1,2-Dichloroethene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	trans-1,3-Dichloropropen	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	trans-1,3-Dichloropropen	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	trans-1,4-Dichloro-2-bute	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	trans-1,4-Dichloro-2-bute	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Trichloroethene	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Trichloroethene	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Trichlorofluoromethane	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Trichlorofluoromethane	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Vinyl Acetate	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
	Vinyl Acetate	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Vinyl Chloride	CK11	K1102163	KWG1102535	OK RECOVER	NA	NA
	Vinyl Chloride	CK11	K1102163	KWG1102360	OK RECOVER	NA	NA
8270C	1,2,4-Trichlorobenzene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	1,2,4-Trichlorobenzene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	1,2-Dichlorobenzene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	1,2-Dichlorobenzene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	1,3-Dichlorobenzene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	1,3-Dichlorobenzene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	1,4-Dichlorobenzene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	1,4-Dichlorobenzene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,4,5-Trichlorophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,4,5-Trichlorophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,4,6-Trichlorophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,4,6-Trichlorophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,4-Dichlorophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,4-Dichlorophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,4-Dimethylphenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,4-Dimethylphenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,4-Dinitrophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,4-Dinitrophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,4-Dinitrotoluene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,4-Dinitrotoluene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2,6-Dinitrotoluene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2,6-Dinitrotoluene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2-Chloronaphthalene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2-Chloronaphthalene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2-Chlorophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2-Chlorophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2-Methylphenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2-Methylphenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2-Nitroaniline	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2-Nitroaniline	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	2-Nitrophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	2-Nitrophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	3,3'-Dichlorobenzidine	CK11	K1102163	KWG1102304	NOT OK LOW	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	3,3'-Dichlorobenzidine	DK11	K1102163	KWG1102304	NA	OK DRECOVER	NOT OK
	3-Nitroaniline	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	3-Nitroaniline	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4,6-Dinitro-2-methylphen	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4,6-Dinitro-2-methylphen	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Bromophenyl Phenyl Et	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Bromophenyl Phenyl Et	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Chloro-3-methylphenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Chloro-3-methylphenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Chloroaniline	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Chloroaniline	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Chlorophenyl Phenyl Et	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Chlorophenyl Phenyl Et	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Methylphenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Methylphenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Nitroaniline	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Nitroaniline	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	4-Nitrophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	4-Nitrophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Benzoic Acid	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Benzoic Acid	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Benzyl Alcohol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Benzyl Alcohol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Bis(2-chloroethoxy)metha	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Bis(2-chloroethoxy)metha	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Bis(2-chloroethyl) Ether	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Bis(2-chloroethyl) Ether	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Bis(2-chloroisopropyl) Eth	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Bis(2-chloroisopropyl) Eth	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Bis(2-ethylhexyl) Phthalat	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Bis(2-ethylhexyl) Phthalat	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Butyl Benzyl Phthalate	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Butyl Benzyl Phthalate	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Carbazole	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Carbazole	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Dibenzofuran	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Dibenzofuran	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Diethyl Phthalate	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Diethyl Phthalate	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Dimethyl Phthalate	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Dimethyl Phthalate	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Di-n-butyl Phthalate	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Di-n-butyl Phthalate	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Di-n-octyl Phthalate	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Di-n-octyl Phthalate	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Hexachlorobenzene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Hexachlorobenzene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Hexachlorobutadiene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Hexachlorobutadiene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Hexachlorocyclopentadie	CK11	K1102163	KWG1102304	NOT OK LOW	NA	NA
	Hexachlorocyclopentadie	DK11	K1102163	KWG1102304	NA	NOT OK LOW	OK RPD
	Hexachloroethane	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Hexachloroethane	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Isophorone	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Isophorone	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Nitrobenzene	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Nitrobenzene	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	N-Nitrosodimethylamine	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	N-Nitrosodimethylamine	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	N-Nitrosodi-n-propylamin	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	N-Nitrosodi-n-propylamin	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	N-Nitrosodiphenylamine	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	N-Nitrosodiphenylamine	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Pentachlorophenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Pentachlorophenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
	Phenol	CK11	K1102163	KWG1102304	OK RECOVER	NA	NA
	Phenol	DK11	K1102163	KWG1102304	NA	OK DRECOVER	OK RPD
8270C SIM	2-Methylnaphthalene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	2-Methylnaphthalene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Acenaphthene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Acenaphthene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Acenaphthylene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Acenaphthylene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Anthracene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Anthracene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Benz(a)anthracene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Benz(a)anthracene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Benzo(a)pyrene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Benzo(a)pyrene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Benzo(b)fluoranthene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Benzo(b)fluoranthene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Benzo(g,h,i)perylene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Benzo(g,h,i)perylene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Benzo(k)fluoranthene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Benzo(k)fluoranthene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Chrysene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Chrysene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Dibenz(a,h)anthracene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Dibenz(a,h)anthracene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Dibenzofuran	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Dibenzofuran	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Fluoranthene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Fluoranthene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Fluorene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Fluorene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Indeno(1,2,3-cd)pyrene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C SIM	Indeno(1,2,3-cd)pyrene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Naphthalene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Naphthalene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Phenanthrene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Phenanthrene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
	Pyrene	CK11	K1102163	KWG1102305	OK RECOVER	NA	NA
	Pyrene	DK11	K1102163	KWG1102305	NA	OK DRECOVER	OK RPD
9014	Cyanide, Free	CK11	K1102163	240258	OK RECOVER	NA	NA
9030M	Sulfide, Total	CK11	K1102163	130456	OK RECOVER	NA	NA
NWTPH-Dx	Diesel Range Organics	CK11	K1102163	KWG1102468	OK RECOVER	NA	NA
	Residual Range Organics	CK11	K1102163	KWG1102468	OK RECOVER	NA	NA
SM 2510 B	Conductivity	CK11	K1102163	240594	OK RECOVER	NA	NA
	Conductivity	CK11	K1102163	240594	OK RECOVER	NA	NA
	Conductivity	CK11	K1102163	240594	OK RECOVER	NA	NA
	Conductivity	CK11	K1102163	240594	OK RECOVER	NA	NA
SM 2540 D	Solids, Total Suspended	CK11	K1102163	238924	OK RECOVER	NA	NA
	Solids, Total Suspended	CK11	K1102163	238924	OK RECOVER	NA	NA

Table 7. MS SUMMARY

METHOD	RES_	LAB_CHEM	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
350.1	SL11	Ammonia as Nitrogen	K1102163	239125	OK RECOVER	NA	NA
	DL11	Ammonia as Nitrogen	K1102163	239125	NA	OK DRECOVER	NA
415.1	SL11	Carbon, Total Organic	K1102163	239095	OK RECOVER	NA	NA
9014	SL11	Cyanide, Free	K1102163	240258	OK RECOVER	NA	NA
	DL11	Cyanide, Free	K1102163	240258	NA	OK DRECOVER	OK RPD
9030M	SL11	Sulfide, Total	K1102163	130456	OK RECOVER	NA	NA
	DL11	Sulfide, Total	K1102163	130456	NA	OK DRECOVER	OK RPD

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1102163
Project No.:	NA	**Date Collected:**	03/10/11
Project Name:	Univar-Portland Facility	**Date Received:**	03/11/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-3-W-031011 **Lab Code:** K1102163-003

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	20.0	3.0	10.0	03/23/11	03/25/11	825		J
Antimony	200.8	0.05	0.02	1.0	03/23/11	03/24/11	2.57		
Arsenic	200.8	0.50	0.07	1.0	03/23/11	03/24/11	0.57		
Cadmium	200.8	0.020	0.003	1.0	03/23/11	03/24/11	0.278		
Chromium	200.8	0.20	0.04	1.0	03/23/11	03/24/11	1.56		J
Copper	200.8	0.10	0.02	1.0	03/23/11	03/24/11	6.46		
Lead	200.8	0.020	0.005	1.0	03/23/11	03/24/11	5.220		
Manganese	200.8	0.05	0.01	1.0	03/23/11	03/24/11	55.2		
Molybdenum	200.8	0.050	0.008	1.0	03/23/11	03/24/11	0.631		
Nickel	200.8	0.20	0.03	1.0	03/23/11	03/24/11	2.01		
Selenium	200.8	1.0	0.3	1.0	03/23/11	03/24/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	03/23/11	03/24/11	0.018	J	
Zinc	200.8	0.50	0.20	1.0	03/23/11	03/24/11	125		

% Solids: 0.0

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Toluene	**0.080**	J	0.50	0.052	1	03/15/11	03/15/11	KWG1102360	
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	03/15/11	03/15/11	KWG1102360	
2-Hexanone	ND	U	20	2.7	1	03/15/11	03/15/11	KWG1102360	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Dibromochloromethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Chlorobenzene	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
Ethylbenzene	ND	U	0.50	0.050	1	03/15/11	03/15/11	KWG1102360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
m,p-Xylenes	ND	U	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
o-Xylene	ND	U	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Styrene	ND	U	0.50	0.089	1	03/15/11	03/15/11	KWG1102360	
Bromoform	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Isopropylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/15/11	03/15/11	KWG1102360	
n-Propylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/15/11	03/15/11	KWG1102360	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/15/11	03/15/11	KWG1102360	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/15/11	03/15/11	KWG1102360	
sec-Butylbenzene	ND	U J	2.0	0.062	1	03/15/11	03/15/11	KWG1102360	*
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
n-Butylbenzene	ND	U	2.0	0.044	1	03/15/11	03/15/11	KWG1102360	
Naphthalene	ND	U	2.0	0.088	1	03/15/11	03/15/11	KWG1102360	

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Toluene	**0.30**	J	0.50	0.052	1	03/15/11	03/15/11	KWG1102360	
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/15/11	03/15/11	KWG1102360	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Tetrachloroethene (PCE)	**1.0**		0.50	0.099	1	03/15/11	03/15/11	KWG1102360	
2-Hexanone	ND	U	20	2.7	1	03/15/11	03/15/11	KWG1102360	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
Dibromochloromethane	ND	U	0.50	0.14	1	03/15/11	03/15/11	KWG1102360	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/15/11	03/15/11	KWG1102360	
Chlorobenzene	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
Ethylbenzene	**0.060**	J	0.50	0.050	1	03/15/11	03/15/11	KWG1102360	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/15/11	03/15/11	KWG1102360	
m,p-Xylenes	**0.17**	J	0.50	0.091	1	03/15/11	03/15/11	KWG1102360	
o-Xylene	**0.15**	J	0.50	0.074	1	03/15/11	03/15/11	KWG1102360	
Styrene	ND	U	0.50	0.089	1	03/15/11	03/15/11	KWG1102360	
Bromoform	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
Isopropylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/15/11	03/15/11	KWG1102360	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/15/11	03/15/11	KWG1102360	
n-Propylbenzene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/15/11	03/15/11	KWG1102360	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/15/11	03/15/11	KWG1102360	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	03/15/11	03/15/11	KWG1102360	
sec-Butylbenzene	ND	U J	2.0	0.062	1	03/15/11	03/15/11	KWG1102360	*
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/15/11	03/15/11	KWG1102360	
n-Butylbenzene	ND	U	2.0	0.044	1	03/15/11	03/15/11	KWG1102360	
Naphthalene	ND	U	2.0	0.088	1	03/15/11	03/15/11	KWG1102360	

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-3-W-031011
Lab Code: K1102163-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	03/21/11	03/21/11	KWG1102535	
Chloromethane	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
Vinyl Chloride	**0.52**		0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Bromomethane	ND	U	0.50	0.090	1	03/21/11	03/21/11	KWG1102535	
Chloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	03/21/11	03/21/11	KWG1102535	
Trichlorofluoromethane	ND	U	0.50	0.12	1	03/21/11	03/21/11	KWG1102535	
Acrolein	ND	U	50	0.96	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethene	ND	U	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Acetone	**6.5**	J	20	3.3	1	03/21/11	03/21/11	KWG1102535	
Iodomethane	ND	U	5.0	0.11	1	03/21/11	03/21/11	KWG1102535	
Carbon Disulfide	ND	U	0.50	0.055	1	03/21/11	03/21/11	KWG1102535	
Methylene Chloride	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Acrylonitrile	ND	U	5.0	0.26	1	03/21/11	03/21/11	KWG1102535	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	03/21/11	03/21/11	KWG1102535	
1,1-Dichloroethane	**0.21**	J	0.50	0.077	1	03/21/11	03/21/11	KWG1102535	
Vinyl Acetate	ND	U	5.0	0.43	1	03/21/11	03/21/11	KWG1102535	
2,2-Dichloropropane	ND	U	0.50	0.060	1	03/21/11	03/21/11	KWG1102535	
cis-1,2-Dichloroethene	**3.0**		0.50	0.067	1	03/21/11	03/21/11	KWG1102535	
2-Butanone (MEK)	ND	U	20	1.9	1	03/21/11	03/21/11	KWG1102535	
Bromochloromethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Chloroform	ND	U	0.50	0.072	1	03/21/11	03/21/11	KWG1102535	
1,1,1-Trichloroethane (TCA)	**0.56**		0.50	0.075	1	03/21/11	03/21/11	KWG1102535	
Carbon Tetrachloride	ND	U	0.50	0.096	1	03/21/11	03/21/11	KWG1102535	
Benzene	**0.12**	J	0.50	0.054	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	03/21/11	03/21/11	KWG1102535	
Trichloroethene (TCE)	**1.1**		0.50	0.10	1	03/21/11	03/21/11	KWG1102535	
1,2-Dichloropropane	ND	U	0.50	0.095	1	03/21/11	03/21/11	KWG1102535	
Dibromomethane	ND	U	0.50	0.15	1	03/21/11	03/21/11	KWG1102535	
Bromodichloromethane	ND	U	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	03/21/11	03/21/11	KWG1102535	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	03/21/11	03/21/11	KWG1102535	
Toluene	**1.6**	J	0.50	0.052	1	03/21/11	03/21/11	KWG1102535	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Volatile Organic Compounds

Sample Name: SPI-3-W-031011
Lab Code: K1102163-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	03/21/11	03/21/11	KWG1102535	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Tetrachloroethene (PCE)	**1.0**		0.50	0.099	1	03/21/11	03/21/11	KWG1102535	
2-Hexanone	ND	U	20	2.7	1	03/21/11	03/21/11	KWG1102535	
1,3-Dichloropropane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
Dibromochloromethane	ND	U	0.50	0.14	1	03/21/11	03/21/11	KWG1102535	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	03/21/11	03/21/11	KWG1102535	
Chlorobenzene	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
Ethylbenzene	**0.32**	J	0.50	0.050	1	03/21/11	03/21/11	KWG1102535	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	03/21/11	03/21/11	KWG1102535	
m,p-Xylenes	**0.83**	J	0.50	0.091	1	03/21/11	03/21/11	KWG1102535	
o-Xylene	**0.30**	J	0.50	0.074	1	03/21/11	03/21/11	KWG1102535	
Styrene	ND	U	0.50	0.089	1	03/21/11	03/21/11	KWG1102535	
Bromoform	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
Isopropylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	03/21/11	03/21/11	KWG1102535	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	03/21/11	03/21/11	KWG1102535	
n-Propylbenzene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	03/21/11	03/21/11	KWG1102535	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	03/21/11	03/21/11	KWG1102535	
1,2,4-Trimethylbenzene	**0.070**	J	2.0	0.069	1	03/21/11	03/21/11	KWG1102535	
sec-Butylbenzene	ND	U	2.0	0.062	1	03/21/11	03/21/11	KWG1102535	
4-Isopropyltoluene	ND	U	2.0	0.051	1	03/21/11	03/21/11	KWG1102535	
n-Butylbenzene	ND	U	2.0	0.044	1	03/21/11	03/21/11	KWG1102535	
Naphthalene	ND	U	2.0	0.088	1	03/21/11	03/21/11	KWG1102535	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	73-122	03/21/11	Acceptable
Toluene-d8	120	78-129	03/21/11	Acceptable
4-Bromofluorobenzene	101	68-117	03/21/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-1-W-031011
Lab Code: K1102163-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Nitrophenol	**0.45**	J	2.0	0.28	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.094**	J U	0.20	0.012	1	03/14/11	04/17/11	KWG1102304	
4-Nitroaniline	ND	U	1.0	0.019	1	03/14/11	04/17/11	KWG1102304	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	03/14/11	04/17/11	KWG1102304	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Pentachlorophenol	**0.35**	J	1.0	0.34	1	03/14/11	04/17/11	KWG1102304	
Carbazole	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	**0.083**	J	0.20	0.023	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	**0.14**	J	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
3,3'-Dichlorobenzidine	ND	U R	2.0	0.43	1	03/14/11	04/17/11	KWG1102304	*
Bis(2-ethylhexyl) Phthalate	**1.3**		1.0	0.13	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	03/14/11	04/17/11	KWG1102304	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	76	12-109	04/17/11	Acceptable
Phenol-d6	78	23-106	04/17/11	Acceptable
Nitrobenzene-d5	79	26-110	04/17/11	Acceptable
2-Fluorobiphenyl	71	31-94	04/17/11	Acceptable
2,4,6-Tribromophenol	84	23-127	04/17/11	Acceptable
Terphenyl-d14	90	40-127	04/17/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-W-031011
Lab Code: K1102163-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	03/14/11	04/17/11	KWG1102304	
Phenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2-Chlorophenol	ND	U	0.50	0.054	1	03/14/11	04/17/11	KWG1102304	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	03/14/11	04/17/11	KWG1102304	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Benzyl Alcohol	ND	U	0.50	0.073	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
2-Methylphenol	ND	U	0.50	0.11	1	03/14/11	04/17/11	KWG1102304	
Hexachloroethane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	03/14/11	04/17/11	KWG1102304	
4-Methylphenol†	ND	U	0.50	0.12	1	03/14/11	04/17/11	KWG1102304	
Nitrobenzene	ND	U	0.20	0.028	1	03/14/11	04/17/11	KWG1102304	
Isophorone	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
2-Nitrophenol	ND	U	0.50	0.063	1	03/14/11	04/17/11	KWG1102304	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	03/14/11	04/17/11	KWG1102304	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	03/14/11	04/17/11	KWG1102304	
Benzoic Acid	**1.4**	J	5.0	1.1	1	03/14/11	04/17/11	KWG1102304	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	03/14/11	04/17/11	KWG1102304	
4-Chloroaniline	ND	U	0.20	0.025	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobutadiene	ND	U	0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	03/14/11	04/17/11	KWG1102304	
Hexachlorocyclopentadiene	ND	U R	1.0	0.19	1	03/14/11	04/17/11	KWG1102304	*
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	03/14/11	04/17/11	KWG1102304	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	03/14/11	04/17/11	KWG1102304	
2-Chloronaphthalene	ND	U	0.20	0.041	1	03/14/11	04/17/11	KWG1102304	
2-Nitroaniline	ND	U	0.20	0.024	1	03/14/11	04/17/11	KWG1102304	
Dimethyl Phthalate	**0.076**	J U	0.20	0.021	1	03/14/11	04/17/11	KWG1102304	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	03/14/11	04/17/11	KWG1102304	
3-Nitroaniline	ND	U	1.0	0.029	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrophenol	ND	U	4.0	0.17	1	03/14/11	04/17/11	KWG1102304	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-031011	**Units:**	ug/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q		MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U		0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Nitrophenol	**0.39**	J		2.0	0.28	1	03/14/11	04/17/11	KWG1102304	
2,4-Dinitrotoluene	ND	U		0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
4-Chlorophenyl Phenyl Ether	ND	U		0.20	0.027	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.079**	J	U	0.20	0.012	1	03/14/11	04/17/11	KWG1102304	
4-Nitroaniline	ND	U		1.0	0.019	1	03/14/11	04/17/11	KWG1102304	
2-Methyl-4,6-dinitrophenol	ND	U		2.0	0.025	1	03/14/11	04/17/11	KWG1102304	
N-Nitrosodiphenylamine	ND	U		0.20	0.048	1	03/14/11	04/17/11	KWG1102304	
4-Bromophenyl Phenyl Ether	ND	U		0.20	0.026	1	03/14/11	04/17/11	KWG1102304	
Hexachlorobenzene	ND	U		0.20	0.022	1	03/14/11	04/17/11	KWG1102304	
Pentachlorophenol	**0.42**	J		1.0	0.34	1	03/14/11	04/17/11	KWG1102304	
Carbazole	**0.024**	J		0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	**0.11**	J		0.20	0.023	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	**0.11**	J		0.20	0.018	1	03/14/11	04/17/11	KWG1102304	
3,3'-Dichlorobenzidine	ND	U	R	2.0	0.43	1	03/14/11	04/17/11	KWG1102304	*
Bis(2-ethylhexyl) Phthalate	**0.97**	J		1.0	0.13	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U		0.20	0.018	1	03/14/11	04/17/11	KWG1102304	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	67	12-109	04/17/11	Acceptable
Phenol-d6	71	23-106	04/17/11	Acceptable
Nitrobenzene-d5	79	26-110	04/17/11	Acceptable
2-Fluorobiphenyl	68	31-94	04/17/11	Acceptable
2,4,6-Tribromophenol	79	23-127	04/17/11	Acceptable
Terphenyl-d14	95	40-127	04/17/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-EQB-W-031011	**Units:**	ug/L
Lab Code:	K1102163-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q		MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dimethyl Phthalate	ND	U		0.21	0.022	1	03/14/11	04/17/11	KWG1102304	
Diethyl Phthalate	**0.045**	J	U	0.21	0.013	1	03/14/11	04/17/11	KWG1102304	
Di-n-butyl Phthalate	**0.024**	J		0.21	0.024	1	03/14/11	04/17/11	KWG1102304	
Butyl Benzyl Phthalate	ND	U		0.21	0.019	1	03/14/11	04/17/11	KWG1102304	
Bis(2-ethylhexyl) Phthalate	ND	U		1.1	0.14	1	03/14/11	04/17/11	KWG1102304	
Di-n-octyl Phthalate	ND	U		0.21	0.019	1	03/14/11	04/17/11	KWG1102304	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorobiphenyl	67	31-94	04/17/11	Acceptable
Terphenyl-d14	101	40-127	04/17/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1102163
Project:	Univar-Portland Facility	**Date Collected:**	03/10/2011
Sample Matrix:	Water	**Date Received:**	03/11/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-2-W-031011	**Units:**	ug/L
Lab Code:	K1102163-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.028**	J	0.021	0.0032	1	03/14/11	03/17/11	KWG1102305	
2-Methylnaphthalene	**0.012**	J	0.021	0.0024	1	03/14/11	03/17/11	KWG1102305	
Acenaphthylene	**0.0057**	J	0.021	0.0036	1	03/14/11	03/17/11	KWG1102305	
Acenaphthene	**0.015**	J	0.021	0.0046	1	03/14/11	03/17/11	KWG1102305	
Fluorene	**0.013**	J	0.021	0.0040	1	03/14/11	03/17/11	KWG1102305	
Phenanthrene	**0.024**		0.021	0.0053	1	03/14/11	03/17/11	KWG1102305	
Anthracene	**0.016**	J	0.021	0.0038	1	03/14/11	03/17/11	KWG1102305	
Fluoranthene	**0.043**		0.021	0.0046	1	03/14/11	03/17/11	KWG1102305	
Pyrene	**0.072**		0.021	0.0037	1	03/14/11	03/17/11	KWG1102305	
Benz(a)anthracene	**0.012**	J	0.021	0.0028	1	03/14/11	03/17/11	KWG1102305	
Chrysene	**0.015**	J	0.021	0.0036	1	03/14/11	03/17/11	KWG1102305	
Benzo(b)fluoranthene	**0.021**		0.021	0.0024	1	03/14/11	03/17/11	KWG1102305	
Benzo(k)fluoranthene	**0.0049**	J	0.021	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(a)pyrene	**0.015**	J	0.021	0.0045	1	03/14/11	03/17/11	KWG1102305	
Indeno(1,2,3-cd)pyrene	**0.010**	J	0.021	0.0028	1	03/14/11	03/17/11	KWG1102305	
Dibenz(a,h)anthracene	ND	U	0.021	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(g,h,i)perylene	**0.026**		0.021	0.0031	1	03/14/11	03/17/11	KWG1102305	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	86	28-98	03/17/11	Acceptable
Fluoranthene-d10	91	31-105	03/17/11	Acceptable
Terphenyl-d14	96	27-112	03/17/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar-Portland Facility
Sample Matrix: Water

Service Request: K1102163
Date Collected: 03/10/2011
Date Received: 03/11/2011

Polynuclear Aromatic Hydrocarbons

Sample Name: SPI-3-W-031011
Lab Code: K1102163-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.058**	J	0.022	0.0032	1	03/14/11	03/17/11	KWG1102305	
2-Methylnaphthalene	**0.013**	J	0.022	0.0025	1	03/14/11	03/17/11	KWG1102305	
Acenaphthylene	**0.0049**	J	0.022	0.0037	1	03/14/11	03/17/11	KWG1102305	
Acenaphthene	**0.016**	J	0.022	0.0047	1	03/14/11	03/17/11	KWG1102305	
Fluorene	**0.012**	J	0.022	0.0041	1	03/14/11	03/17/11	KWG1102305	
Phenanthrene	**0.024**		0.022	0.0054	1	03/14/11	03/17/11	KWG1102305	
Anthracene	**0.0088**	J	0.022	0.0039	1	03/14/11	03/17/11	KWG1102305	
Fluoranthene	**0.043**		0.022	0.0047	1	03/14/11	03/17/11	KWG1102305	
Pyrene	**0.070**		0.022	0.0038	1	03/14/11	03/17/11	KWG1102305	
Benz(a)anthracene	**0.0093**	J	0.022	0.0028	1	03/14/11	03/17/11	KWG1102305	
Chrysene	**0.016**	J	0.022	0.0037	1	03/14/11	03/17/11	KWG1102305	
Benzo(b)fluoranthene	**0.020**	J	0.022	0.0025	1	03/14/11	03/17/11	KWG1102305	
Benzo(k)fluoranthene	ND	U	0.022	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(a)pyrene	**0.0089**	J	0.022	0.0046	1	03/14/11	03/17/11	KWG1102305	
Indeno(1,2,3-cd)pyrene	**0.014**	J	0.022	0.0028	1	03/14/11	03/17/11	KWG1102305	
Dibenz(a,h)anthracene	ND	U	0.022	0.0027	1	03/14/11	03/17/11	KWG1102305	
Benzo(g,h,i)perylene	**0.022**		0.022	0.0031	1	03/14/11	03/17/11	KWG1102305	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	28-98	03/17/11	Acceptable
Fluoranthene-d10	82	31-105	03/17/11	Acceptable
Terphenyl-d14	87	27-112	03/17/11	Acceptable

Comments:

Columbia Analytical Services™ 1317 S. 13th Avenue, Kelso, WA 98626 360.577.7222 360.636.1068 (fax) www.caslab.com

May 26, 2011 Analytical Report for Service Request No: K1103713

Brian O' Neal
PES Environmental
1215 Fourth Avenue, Suite 1350
P.O. Box 108
Seattle, WA 98161

RE: Portland Facility/165

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on April 29, 2011. For your reference, these analyses have been assigned our service request number K1103713.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at HHolmes@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Howard Holmes
Project Chemist

HH/jw

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Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value that was detected outside the quantitation range.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	In accordance with the 2007 EPA Methods Update Rule published in the Federal Register, the holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value that was detected outside the quantitation range.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value that was detected outside the quantitation range.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ	WA100010
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	PES Environmental	**Service Request No.:**	K1103713
Project:	Univar Portland	**Date Received:**	4/29/11
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), and Laboratory Control Sample (LCS).

Sample Receipt

Two water samples were received for analysis at Columbia Analytical Services on 4/29/11. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Free Cyanide by Method 9014:
The matrix spike recovery of Free Cyanide for sample SPI-2-W-042811 was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

Cyanide, Amenable to Chlorination by Standard Method 4500-CN G, E:
Total Cyanide was not detected in the field sample SPI-2-W-042811 analyzed in this delivery group. The result reported for Cyanide Amenable to Chlorination is based on inference from the Total Cyanide determination (i.e. Cyanide Amenable to Chlorination is a subcomponent of the Total Cyanide). Since Total Cyanide was not detected, the Cyanide Amenable to Chlorination could not be present in the sample.

Total Suspended Solids by SM 2540D:
The Relative Percent Difference (RPD) criterion for the replicate analysis of Total Suspended Solids in sample SPI-2-W-042811 was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

No other anomalies associated with the analysis of these samples were observed.

Total and Dissolved Metals

Matrix Spike Recovery Exceptions:
The control criteria for matrix spike recovery of Aluminum and Zinc for the Batch QC sample were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Approved by Harlan D. Holmes **Date** 6-8-11

Diesel Range Organics by NWTPH-Dx

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for the replicate analysis of Residual Range Organics (RRO) in sample Batch QC was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

No other anomalies associated with the analysis of these samples were observed.

Organochlorine Pesticides by EPA Method 8081A

Calibration Verification Exceptions:
The analysis of Chlorinated Pesticides by EPA 8081 requires the use of dual column confirmation. When the Continuing Calibration Verification (CCV) criterion is met for both columns, the lower of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for Decachlorobiphenyl in CCV 0517F004 and for Methoxychlor in CCV 0519F004. The results were reported from the column with an acceptable CCV. The data quality was not affected. No further corrective action was necessary.

Matrix Spike Recovery Exceptions:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Elevated Detection Limits:
The detection limit was elevated for all analytes in samples SPI-1-W-042811 and SPI-2-W-042811. The chromatogram indicated the presence of non-target background components. The samples were diluted in order to achieve optimal resolution of the target analytes and internal standard. The results were flagged to indicate the matrix interference.

The detection limit was elevated for a few analytes in samples SPI-1-W-042811 and SPI-2-W-042811. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

No other anomalies associated with the analysis of these samples were observed.

PCB Congeners by EPA Method 8082

Elevated Detection Limits:
The detection limit was elevated for a few analytes in these samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

The MDL is elevated for PCB 18 in sample Method Blank KWG1104023-3. The chromatogram indicated the presence of non-target background components, which were apparently introduced as laboratory artifacts. The contamination prevented adequate resolution of the target compounds at the MDL. Note the level of background was relatively low compared to the MDL, so the affect on the results was minimal. The results are flagged to indicate the problem.

Lab Control Sample Exceptions:
The upper control criterion was exceeded for PCB 187 in Laboratory Control Sample (LCS) KWG1104023-1. The analyte in question was not detected in the associated field samples. The error associated with elevated recovery indicated a high bias. The sample data was not significantly affected. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Approved by Howard Holmes **Date** 6-8-11

Chlorophenoxy Herbicides by EPA Method 8151

Sample Confirmation Notes:
The confirmation comparison criteria of 40% difference for 2,4-D was exceeded in sample SPI-1-W-042811. The lower of the two values was reported when no evidence of matrix interference was observed.

No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260B

Calibration Verification Exceptions:
The following analytes were flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) J:\MS04\0503F005.D: Trichlorofluoromethane, 1,1-Dichloroethene, Carbon Disulfide, 1,1,1-Trichloroethane, Carbon Tetrachloride, Tetrachloroethene, Ethylbenzene, Isopropylbenzene, n-Propylbenzene, and n-Butylbenzene. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Elevated Detection Limits:
The detection limit was elevated for 2-Butanone (MEK) in sample SPI-1-W-042811. The matrix interference prevented adequate resolution of the target compound at the normal limit. The result was flagged to indicate the matrix interference.

Matrix Spike Recovery Exceptions:
The matrix spike recoveries of 1,1-Dichloroethene for sample Batch QCMS and Vinyl Chloride, 1,1-Dichloroethene, and Benzene for sample Batch QCDMS were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Semivolatile Organic Compounds by EPA Method 8270C

Lab Control Sample Exceptions:
The advisory criterion was exceeded for 4-Chloroaniline and 3,3'-Dichlorobenzidine in Duplicate Laboratory Control Sample (DLCS) KWG1103990-2. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for 4-Chloroaniline and 3,3'-Dichlorobenzidine in the replicate Laboratory Control Samples (LCS/DLCS) KWG1103990-1 and KWG1103990-2 was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Approved by Hawkins D Holmes **Date** 6-8-11

Polynuclear Aromatic Hydrocarbons by EPA Method 8270C

Sample Notes and Discussion:
A Matrix Spike/Matrix Spike Duplicate (MS/MSD) was not extracted with this sample batch. A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Approved by Howard Holmes **Date** 6-8-11

Chain of Custody

K1103713

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4138

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

REMARKS: 3 coolers total

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	TSS by 2540D	TOC by 415.1	Total Metals by 200.8 *	Dissolved Iron by 200.7	Mercury by 1631M	VOCs by 8260B	SVOCs-LL by 8270C	
SPI-1-W-042811	4/28/11	1200		Water	X	X	X	X	X	X	X	
SPI-2-W-042811	4/28/11	1400		Water	X	X	X	X	X	X	X	
SPI-1-S-042811	4/28/11	1030		Soil/H2O								Special Processing per Howard Holmes
SPI-2-S-042811	4/28/11	945		Soil/H2O								Special Processing per Howard Holmes
Trip Blanks				Water						X		

Relinquished by/date:	4/28/11
Received by/date: Tara Jones	4/28/11
Relinquished by/date:	/
Received by/date:	4/29/11 0800
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation
Water Investigation/Remediation: 165
Air-Soil Investigation or Remediation
Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4138

* Metals = Al, As, Sb, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Ag, Se, Zn

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Univar Chain of Custody/Laboratory Analysis Request Form

K1105242

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	PAHs by 8270C-SIM	PCB Cogeners by 8082	Chl. Herbicides by 8151A	Org. Chl. Pesticides by 8081 (ULL)	Cyanide**	Oil & Grease by 1664	Diesel & Residual TPH by NTWPH-Dx	REMARKS:
SPI-1-W-042811	4/28	1200		Water	X	X	X	X	X	X	X	
SPI-2-W-042811	4/28	1400		Water	X	X	X	X	X	X	X	
SPI-1-S-042811	4/28	1030		Soil/H2O								Special Processing per Howard Holmes
SPI-2-S-042811	4/28	945		Soil/H2O								Special Processing per Howard Holmes

Relinquished by/date:	4/28/11
Received by/date: Tonia Tomas	4/28/11
Relinquished by/date:	/
Received by/date:	4/29/11 0800
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation	
Water Investigation/Remediation	165
Air-Soil Investigation or Remediation	
Waste	

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

** total and amenable by 4500CNE; free by 9014

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

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K1107442

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4138

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility

Contractor Project Manager: Brian O'Neal

Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980

Sampler's Signature:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX		Sulfides by 9030b	Sulfate by 300/9056	Ammonia as N by 350.1					REMARKS:
SPI-1-W-042811				Water		X	X	X					
SPI-2-W-042811				Water		X	X	X					
SPI-1-S-042811				Soil/H2O									Special processing per Howard Holmes
SPI-2-S-042811				Soil/H2O									Special processing per Howard Holmes

Relinquished by/date:	4/28/11	
Received by/date:	4/28/11	
Relinquished by/date:	/	
Received by/date:	4/29/11 0800	
Relinquished by/date:	/	Soil Investigation/Remediation
Received by/date:	/	Water Investigation/Remediation 165
Relinquished by/date:	/	Air-Soil Investigation or Remediation
Received by/date:	/	Waste

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4138

see attached for details and priorities

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

13

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

PC 42

Client / Project: Univar Service Request K11 3713

Received: 4/28/11 Opened: 4/29/11 By: KB Unloaded: 4/29/11 By: KB

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID (NA)	Tracking Number (NA)	Filed
-.2	.7	298			
3	.4	308			
2.1	2.3	302			

7. Packing material used. *Inserts* *Baggies* *Bubble Wrap* ~~*Gel Packs*~~ KB 4/29/11 *Wet Ice* *Sleeves* *Other* _____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: Did not receive tripblank as specified on coc.

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Units:	mg/L
Analysis Method:	SM 2540 D	**Basis:**	NA

Solids, Total Suspended (TSS)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**25.0**		5.0	5.0	1	NA	5/4/11 14:30	
SPI-2-W-042811	K1103713-002	**12.0**		5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB1	ND	U	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB2	ND	U	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB3	ND	U	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB4	ND	U	5.0	5.0	1	NA	5/4/11 14:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/ 4/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-2-W-042811	**Units:**	mg/L
Lab Code:	K1103713-002	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-042811DUP Duplicate Sample K1103713-002DUP5 Result	Average	RPD		RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	12.0	18.0	15.0	40	*	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 4/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	352	433	81	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 4/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	372	433	86	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
Prep Method:	Method	**Units:**	mg/L
Analysis Method:	1664	**Basis:**	NA

Oil and Grease, Total (HEM)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**0.8**	J	5.1	0.8	1	5/11/11	5/12/11 12:00	
SPI-2-W-042811	K1103713-002	**1.3**	J	5.1	0.8	1	5/11/11	5/12/11 12:00	
Method Blank	K1103713-MB1	ND	U	5.0	0.8	1	5/11/11	5/12/11 12:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/12/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1103975-001	**Basis:**	NA

					Batch QCDUP **Duplicate Sample** K1103975-001DUP10			
Analyte Name	**Method**	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**RPD**	**RPD Limit**
Oil and Grease, Total (HEM)	1664	4.8	0.8	15.7	17.4	16.5	11	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: NA
Date Received: NA
Date Analyzed: 5/12/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1103750-004

Units: mg/L
Basis: NA

Analytical Method: 1664
Prep Method: Method

Batch QCMS
Matrix Spike
K1103750-004MS8

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Oil and Grease, Total (HEM)	ND	71.1	84.5	84	78 - 114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/12/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1103713-LCS1			Duplicate Lab Control Sample K1103713-DLCS1					
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Oil and Grease, Total (HEM)	1664	50.6	60.0	84	54.5	60.0	91	78 - 114	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Units:	mg/L
Analysis Method:	300.0	**Basis:**	NA

Sulfate

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**1.39**		0.40	0.02	2	NA	4/29/11 13:11	
SPI-2-W-042811	K1103713-002	**3.75**		0.40	0.02	2	NA	4/29/11 13:26	
Method Blank	K1103713-MB1	ND	U	0.20	0.01	1	NA	4/29/11 09:34	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	4/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1103718-001	**Basis:**	NA

					Batch QCDUP Duplicate Sample K1103718-001DUP7			
Analyte Name	**Method**	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**RPD**	**RPD Limit**
Sulfate	300.0	0.20	0.01	4.80	4.80	4.80	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: NA
Date Received: NA
Date Analyzed: 4/29/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1103718-001

Units: mg/L
Basis: NA

Analytical Method: 300.0

		Batch QCMS Matrix Spike K1103718-001MS7			Batch QCDMS Duplicate Matrix Spike K1103718-001DMS7					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfate	4.80	6.95	2.00	108	6.95	2.00	107	80 - 120	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 4/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Sulfate	300.0	4.56	5.00	91	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Units:	mg/L
Analysis Method:	350.1	**Basis:**	NA

Ammonia as Nitrogen

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**0.143**		0.050	0.020	1	NA	5/4/11 09:19	
SPI-2-W-042811	K1103713-002	**0.407**		0.050	0.020	1	NA	5/4/11 09:19	
Method Blank	K1103713-MB1	ND	U	0.050	0.020	1	NA	5/4/11 09:19	
Method Blank	K1103713-MB2	ND	U	0.050	0.020	1	NA	5/4/11 09:19	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/ 4/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-042811	**Units:**	mg/L
Lab Code:	K1103713-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-042811DUP Duplicate Sample K1103713-001DUP4 Result	Average	RPD	RPD Limit
Ammonia as Nitrogen	350.1	0.050	0.020	0.143	0.161	0.152	12	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 4/28/11
Date Received: 4/29/11
Date Analyzed: 5/ 4/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-042811
Lab Code: K1103713-001

Units: mg/L
Basis: NA

Analytical Method: 350.1

		SPI-1-W-042811MS Matrix Spike K1103713-001MS4			SPI-1-W-042811DMS Duplicate Matrix Spike K1103713-001DMS4					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ammonia as Nitrogen	0.143	2.23	2.00	104	2.21	2.00	104	90 - 110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 4/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen	350.1	13.5	13.9	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 4/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen	350.1	13.5	13.9	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Units:	mg/L
Analysis Method:	415.1	**Basis:**	NA

Carbon, Total Organic

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**6.61**		0.50	0.07	1	NA	5/5/11 15:35	
SPI-2-W-042811	K1103713-002	**5.1**		1.0	0.2	2	NA	4/29/11 16:25	
Method Blank	K1103713-MB1	ND	U	0.50	0.07	1	NA	4/29/11 16:25	
Method Blank	K1103713-MB2	ND	U	0.50	0.07	1	NA	5/5/11 15:35	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/ 5/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-042811	**Units:**	mg/L
Lab Code:	K1103713-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-042811DUP Duplicate Sample K1103713-001DUP4 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	6.61	6.50	6.55	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/ 5/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-042811 **Units:** mg/L
Lab Code: K1103713-001 **Basis:** NA

Analytical Method: 415.1

SPI-1-W-042811MS
Matrix Spike
K1103713-001MS5

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	6.61	31.1	25.0	98	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 5/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1103713-LCS1			Duplicate Lab Control Sample K1103713-DLCS1					
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Total Organic	415.1	24.8	26.0	95	24.4	26.0	94	83 - 117	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 4/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	415.1	25.0	26.0	96	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
Prep Method:	EPA 9030B Modified	**Units:**	mg/L
Analysis Method:	9030M	**Basis:**	NA

Sulfide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	ND	U	0.10	0.03	1	5/ 4/11	5/4/11 16:01	
SPI-2-W-042811	K1103713-002	ND	U	0.10	0.03	1	5/ 4/11	5/4/11 16:01	
Method Blank	K1103713-MB1	ND	U	0.10	0.03	1	5/ 4/11	5/4/11 16:01	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/ 4/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-042811	**Units:**	mg/L
Lab Code:	K1103713-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-042811DUP Duplicate Sample K1103713-001DUP4 Result	Average	RPD	RPD Limit
Sulfide, Total	9030M	0.10	0.03	ND U	ND U	NC	NC	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 4/28/11
Date Received: 4/29/11
Date Analyzed: 5/ 4/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-1-W-042811
Lab Code: K1103713-001

Units: mg/L
Basis: NA

Analytical Method: 9030M
Prep Method: EPA 9030B Modified

		SPI-1-W-042811MS Matrix Spike K1103713-001MS4			SPI-1-W-042811DMS Duplicate Matrix Spike K1103713-001DMS4					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfide, Total	ND	81.8	82	99	79.6	82	97	34 - 166	3	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 4/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1103713-LCS1			Duplicate Lab Control Sample K1103713-DLCS1					
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfide, Total	9030M	1.61	1.64	98	1.55	1.64	94	55 - 130	4	20

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
Prep Method:	SM 4500-CN-C	**Units:**	mg/L
Analysis Method:	SM 4500-CN- E	**Basis:**	NA

Cyanide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**0.013**		0.010	0.003	1	4/30/11	5/4/11 09:30	
SPI-2-W-042811	K1103713-002	ND	U	0.010	0.003	1	4/30/11	5/4/11 09:30	
Method Blank	K1103713-MB1	ND	U	0.010	0.003	1	4/30/11	5/4/11 09:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	5/ 4/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1103663-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1103663-001DUP3 Result	Average	RPD	RPD Limit
Cyanide, Total	SM 4500-CN-E	0.010	0.003	ND U	0.006 J	NC	NC	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: NA
Date Received: NA
Date Analyzed: 5/ 4/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1103663-001

Units: mg/L
Basis: NA

Analytical Method: SM 4500-CN- E
Prep Method: Method

		Batch QCMS **Matrix Spike** K1103663-001MS3			Batch QCDMS **Duplicate Matrix Spike** K1103663-001DMS3					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Total	ND	0.0730	0.100	73	0.0778	0.100	78	23 - 148	6	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 4/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Total	SM 4500-CN-E	0.633	0.73	87	84 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Units:	mg/L
Analysis Method:	9014	**Basis:**	NA

Cyanide, Free

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	ND	U	0.010	0.010	1	NA	5/11/11 09:30	
SPI-2-W-042811	K1103713-002	ND	U	0.010	0.010	1	NA	5/11/11 09:30	
Method Blank	K1103713-MB1	ND	U	0.010	0.010	1	NA	5/11/11 09:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/11/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-2-W-042811	**Units:**	mg/L
Lab Code:	K1103713-002	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-042811DUP Duplicate Sample K1103713-002DUP5 Result	Average	RPD	RPD Limit
Cyanide, Free	9014	0.010	0.010	ND U	ND U	NC	NC	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 4/28/11
Date Received: 4/29/11
Date Analyzed: 5/11/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-2-W-042811
Lab Code: K1103713-002

Units: mg/L
Basis: NA

Analytical Method: 9014

		SPI-2-W-042811MS Matrix Spike K1103713-002MS6				SPI-2-W-042811DMS Duplicate Matrix Spike K1103713-002DMS6					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**		**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Free	ND	0.263	0.204	129	*	0.480	0.400	120	75 - 125	7	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/11/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Free	9014	0.267	0.310	86	85 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/2011
Sample Matrix:	Water	**Date Received:**	4/29/2011

Cyanide, Amenable to Chlorination

Prep Method:	SM 4500-CN-G	Units:	mg/L (ppm)
Analysis Method:	SM 4500-CN-E	Basis:	NA
Test Notes:			

Sample Name		MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-1-W-042811	K1103713-001	0.010	0.003	1	5/7/2011	5/7/2011	0.013	
Method Blank	K1103713-MB	0.010	0.003	1	5/7/2011	5/7/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/2011
Sample Matrix:	Water	**Date Received:**	4/29/2011

Cyanide, Amenable to Chlorination

Prep Method:	Calculation	Units:	mg/L (ppm)
Analysis Method:	SM 4500-CN-E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-2-W-042811	K1103713-002	0.010	0.003	1	4/30/2011	5/4/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Date Analyzed:	5/ 7/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-1-W-042811	**Units:**	mg/L
Lab Code:	K1103713-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-042811DUP Duplicate Sample K1103713-001DUP4 Result	Average	RPD	RPD Limit
Cyanide, Amenable to Chlorination	SM 4500-CN-E	0.010	0.003	0.013	0.013	0.0125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/2011
Sample Matrix:	Water	**Date Received:**	4/29/2011
		Date Extracted:	5/7/2011
		Date Analyzed:	5/7/2011

Duplicate Summary
Inorganic Parameters

Sample Name:	SPI-1-W-042811	Units:	mg/L (ppm)
Lab Code:	K1103713-001DUP	Basis:	NA
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Cyanide, Amenable to Chlorination	SM 4500-CN-G	SM 4500-CN-E	0.010	0.013	0.013	0.013	< 1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Analyzed: 5/ 7/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1103713-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Amenable to Chlorination	SM 4500-CN-E	0.353	0.31	114	56 - 169

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Metals

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/11
Sample Matrix:	Water	**Date Received:**	04/29/11

Mercury, Total

Prep Method:	METHOD	Units:	ng/L
Analysis Method:	1631E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-1-W-042811	K1103713-001	1.0	0.06	1	05/02/11	05/06/11	5.62	
SPI-2-W-042811	K1103713-002	1.0	0.06	1	05/02/11	05/06/11	4.11	
Method Blank1	K1103713-MB1	1.0	0.06	1	05/02/11	05/06/11	ND	
Method Blank2	K1103713-MB2	1.0	0.06	1	05/02/11	05/06/11	0.07	J
Method Blank3	K1103713-MB3	1.0	0.06	1	05/02/11	05/06/11	0.10	J

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	05/02/11
		Date Analyzed:	05/06/11

Matrix Spike/Duplicate Matrix Spike Summary
Total Metals

Sample Name:	Batch QC		Units:	ng/L
Lab Code:	K1103718-001MS,	K1103718-001MSD	Basis:	NA
Test Notes:				

				Spike Level		Sample	Spike Result		Percent Recovery				
Analyte	**Prep Method**	**Analysis Method**	**MRL**	**MS**	**DMS**	**Result**	**MS**	**DMS**	**MS**	**DMS**	**CAS Acceptance Limits**	**Relative Percent Difference**	**Result Notes**
Mercury	METHOD	1631E	1.0	25	25	0.59	25.6	26.1	100	102	71-125	2	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	05/06/11

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Initial)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	4.94	99	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	05/06/11

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Final)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	5.01	100	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	05/06/11

Quality Control Sample (QCS) Summary
Total Metals

Sample Name: Quality Control Sample

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	5.12	102	77-123	

Metals

Columbia Analytical Services

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INORGANIC ANALYSIS DATA PACKAGE

Client: PES Environmental
Project Name: Portland Facility
Project No.: 165

Service Request: K1103713

Sample Name:	Lab Code:
SPI-1-W-042811	K1103713-001
SPI-1-W-042811	K1103713-001DISS
SPI-2-W-042811	K1103713-002
SPI-2-W-042811	K1103713-002DISS
Method Blank	K1103713-MB
Batch QC1D	K1103837-001D
Batch QC1S	K1103837-001S
Batch QC2D	K1103918-001D
Batch QC2S	K1103918-001S

Comments:

Approved By: 3C **Date:** 5/20/11

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1103713
Project No.:	165	**Date Collected:**	4/28/2011
Project Name:	Portland Facility	**Date Received:**	4/29/2011
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-042811 **Lab Code:** K1103713-001

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	20.0	3.0	10.0	05/12/11	05/18/11	1200		
Antimony	200.8	0.05	0.02	1.0	05/12/11	05/17/11	13.0		
Arsenic	200.8	0.50	0.07	1.0	05/12/11	05/17/11	0.42	J	
Cadmium	200.8	0.020	0.003	1.0	05/12/11	05/17/11	0.502		
Chromium	200.8	0.20	0.04	1.0	05/12/11	05/17/11	2.09		
Copper	200.8	0.10	0.02	1.0	05/12/11	05/17/11	9.69		
Lead	200.8	0.020	0.005	1.0	05/12/11	05/17/11	5.580		
Manganese	200.8	0.05	0.01	1.0	05/12/11	05/17/11	59.9		
Molybdenum	200.8	0.050	0.008	1.0	05/12/11	05/17/11	1.01		
Nickel	200.8	0.20	0.03	1.0	05/12/11	05/17/11	2.79		
Selenium	200.8	1.0	0.3	1.0	05/12/11	05/17/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	05/12/11	05/17/11	0.049		
Zinc	200.8	0.50	0.20	1.0	05/12/11	05/17/11	161		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1103713
Project No.:	165	**Date Collected:**	4/28/2011
Project Name:	Portland Facility	**Date Received:**	4/29/2011
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-042811 **Lab Code:** K1103713-001DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	05/12/11	05/14/11	24.9		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1103713
Project No.:	165	**Date Collected:**	4/28/2011
Project Name:	Portland Facility	**Date Received:**	4/29/2011
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-042811 **Lab Code:** K1103713-002

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	20.0	3.0	10.0	05/12/11	05/18/11	523		
Antimony	200.8	0.05	0.02	1.0	05/12/11	05/17/11	8.84		
Arsenic	200.8	0.50	0.07	1.0	05/12/11	05/17/11	1.18		
Cadmium	200.8	0.020	0.003	1.0	05/12/11	05/17/11	0.309		
Chromium	200.8	0.20	0.04	1.0	05/12/11	05/17/11	1.34		
Copper	200.8	0.10	0.02	1.0	05/12/11	05/17/11	7.27		
Lead	200.8	0.020	0.005	1.0	05/12/11	05/17/11	2.920		
Manganese	200.8	0.05	0.01	1.0	05/12/11	05/17/11	144		
Molybdenum	200.8	0.050	0.008	1.0	05/12/11	05/17/11	0.987		
Nickel	200.8	0.20	0.03	1.0	05/12/11	05/17/11	3.19		
Selenium	200.8	1.0	0.3	1.0	05/12/11	05/17/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	05/12/11	05/17/11	0.022		
Zinc	200.8	0.50	0.20	1.0	05/12/11	05/17/11	139		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1103713
Project No.:	165	**Date Collected:**	4/28/2011
Project Name:	Portland Facility	**Date Received:**	4/29/2011
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-042811 **Lab Code:** K1103713-002DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	05/12/11	05/14/11	762		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1103713
Project No.:	165	**Date Collected:**	
Project Name:	Portland Facility	**Date Received:**	
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: Method Blank **Lab Code:** K1103713-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	05/12/11	05/17/11	0.3	J	
Antimony	200.8	0.05	0.02	1.0	05/12/11	05/17/11	0.02	U	
Arsenic	200.8	0.50	0.07	1.0	05/12/11	05/17/11	0.07	U	
Cadmium	200.8	0.020	0.003	1.0	05/12/11	05/17/11	0.003	U	
Chromium	200.8	0.20	0.04	1.0	05/12/11	05/17/11	0.06	J	
Copper	200.8	0.10	0.02	1.0	05/12/11	05/17/11	0.02	U	
Iron	200.7	10.0	3.0	1.0	05/12/11	05/14/11	3.0	U	
Lead	200.8	0.020	0.005	1.0	05/12/11	05/17/11	0.005	U	
Manganese	200.8	0.05	0.01	1.0	05/12/11	05/17/11	0.01	U	
Molybdenum	200.8	0.050	0.008	1.0	05/12/11	05/17/11	0.008	U	
Nickel	200.8	0.20	0.03	1.0	05/12/11	05/17/11	0.03	U	
Selenium	200.8	1.0	0.3	1.0	05/12/11	05/17/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	05/12/11	05/17/11	0.004	U	
Zinc	200.8	0.50	0.20	1.0	05/12/11	05/17/11	0.20	U	

% Solids: 0.0

Comments:

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: PES Environmental

Service Request: K1103713

Project No.: 165

Units: UG/L

Project Name: Portland Facility

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC1S

Lab Code: K1103837-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Iron	70 - 130	1440		467		1000.00	97.3		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: PES Environmental

Service Request: K1103713

Project No.: 165

Units: UG/L

Project Name: Portland Facility

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: Batch QC2S

Lab Code: K1103918-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum		137		122		20.00	75.0		200.8
Antimony	70 - 130	21.8		1.51		20.00	101.4		200.8
Arsenic	70 - 130	21.4		1.26		20.00	100.7		200.8
Cadmium	70 - 130	20.4		0.088		20.00	101.6		200.8
Chromium	70 - 130	21.4		1.80		20.00	98.0		200.8
Copper	70 - 130	29.5		9.64		20.00	99.3		200.8
Lead	70 - 130	27.6		7.290		20.00	101.6		200.8
Manganese	70 - 130	34.3		14.2		20.00	100.5		200.8
Molybdenum	70 - 130	20.9		0.774		20.00	100.6		200.8
Nickel	70 - 130	21.4		1.57		20.00	99.2		200.8
Selenium	70 - 130	19.6		0.3	U	20.00	98.0		200.8
Silver	70 - 130	18.7		0.070		20.00	93.2		200.8
Zinc		475		451		20.00	120.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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DUPLICATES

Client:	PES Environmental	**Service Request:**	K1103713
Project No.:	165	**Units:**	UG/L
Project Name:	Portland Facility	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: Batch QC1D **Lab Code:** K1103837-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	20	467		485		3.8		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client:	PES Environmental	Service Request:	K1103713
Project No.:	165	Units:	UG/L
Project Name:	Portland Facility	Basis:	NA
Matrix:	WATER	% Solids:	0.0

Sample Name: Batch QC2D Lab Code: K1103918-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	20	122		123		0.8		200.8
Antimony	20	1.51		1.48		2.0		200.8
Arsenic		1.26		1.27		0.8		200.8
Cadmium		0.088		0.089		1.1		200.8
Chromium	20	1.80		1.73		4.0		200.8
Copper	20	9.64		9.56		0.8		200.8
Lead	20	7.290		7.360		1.0		200.8
Manganese	20	14.2		14.0		1.4		200.8
Molybdenum	20	0.774		0.672		14.1		200.8
Nickel	20	1.57		1.51		3.9		200.8
Selenium		0.3	U	0.3	U			200.8
Silver		0.070		0.068		2.9		200.8
Zinc	20	451		451		0.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

LABORATORY CONTROL SAMPLE

Client: PES Environmental **Service Request:** K1103713

Project No.: 165

Project Name: Portland Facility

Aqueous LCS Source: Inorganic Ventures **Solid LCS Source:**

Analyte	Aqueous: ug/L			Solid: mg/kg				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	20	20.2	101.0					
Antimony	20	20.6	103.0					
Arsenic	20	20.4	102.0					
Cadmium	20	20.3	101.5					
Chromium	20	20.2	101.0					
Copper	20	20.0	100.0					
Iron	2500	2490	99.6					
Lead	20	20.4	102.0					
Manganese	20	20.3	101.5					
Molybdenum	20	19.5	97.5					
Nickel	20	20.2	101.0					
Selenium	20	20.3	101.5					
Silver	20	18.5	92.5					
Zinc	20	20.2	101.0					

Diesel and Residual Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Diesel and Residual Range Organics

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**650**	Y	120	13	1	05/05/11	05/09/11	KWG1104052	
Residual Range Organics (RRO)	**810**	O	120	22	1	05/05/11	05/09/11	KWG1104052	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	87	50-150	05/09/11	Acceptable
n-Triacontane	91	50-150	05/09/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Diesel and Residual Range Organics

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**430**	Y	110	12	1	05/05/11	05/09/11	KWG1104052	
Residual Range Organics (RRO)	**600**	O	110	21	1	05/05/11	05/09/11	KWG1104052	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	77	50-150	05/09/11	Acceptable
n-Triacontane	81	50-150	05/09/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1104052-3	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	100	11	1	05/05/11	05/09/11	KWG1104052	
Residual Range Organics (RRO)	**38**	J	100	19	1	05/05/11	05/09/11	KWG1104052	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	92	50-150	05/09/11	Acceptable
n-Triacontane	96	50-150	05/09/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: Method
Analysis Method: NWTPH-Dx

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-1-W-042811	K1103713-001	87	91
SPI-2-W-042811	K1103713-002	77	81
Batch QC	K1103901-001	87	90
Batch QCDUP	KWG1104052-1	88	92
Method Blank	KWG1104052-3	92	96
Lab Control Sample	KWG1104052-2	99	97

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	50-150
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/05/2011
Sample Matrix:	Water	**Date Analyzed:**	05/09/2011

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K1103901-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1104052

Analyte Name	MRL	MDL	Sample Result	Batch QCDUP KWG1104052-1 Duplicate Sample Result	Average	Relative Percent Difference	RPD Limit
Diesel Range Organics (DRO)	110	12	ND	ND	ND	-	30
Residual Range Organics (RRO)	110	20	30	28	29	7 #	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/05/2011
Sample Matrix:	Water	**Date Analyzed:**	05/09/2011

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	Method	**Units:**	ug/L
Analysis Method:	NWTPH-Dx	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1104052

	Lab Control Sample KWG1104052-2 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	3340	3200	104	46-140
Residual Range Organics (RRO)	1530	1600	96	45-159

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Organochlorine Pesticides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Organochlorine Pesticides

Sample Name:	SPI-1-W-042811	**Units:**	ng/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	2.6	1.1	5	05/04/11	05/17/11	KWG1104292	
Hexachlorobenzene	ND	U	2.6	1.4	5	05/04/11	05/17/11	KWG1104292	
beta-BHC	ND	U	2.6	2.1	5	05/04/11	05/17/11	KWG1104292	
gamma-BHC (Lindane)	ND	U	2.6	2.4	5	05/04/11	05/17/11	KWG1104292	
delta-BHC	ND	U	2.6	0.72	5	05/04/11	05/17/11	KWG1104292	
Heptachlor	ND	Ui	2.6	2.1	5	05/04/11	05/17/11	KWG1104292	
Aldrin	ND	U	2.6	0.57	5	05/04/11	05/17/11	KWG1104292	
Heptachlor Epoxide	ND	U	2.6	1.1	5	05/04/11	05/17/11	KWG1104292	
gamma-Chlordane†	ND	U	2.6	1.6	5	05/04/11	05/17/11	KWG1104292	
Endosulfan I	**5.7**	PD	2.6	1.3	5	05/04/11	05/17/11	KWG1104292	
alpha-Chlordane	**5.3**	D	2.6	1.4	5	05/04/11	05/17/11	KWG1104292	
Dieldrin	ND	U	2.6	1.9	5	05/04/11	05/17/11	KWG1104292	
4,4'-DDE	**1.3**	JPD	2.6	0.97	5	05/04/11	05/17/11	KWG1104292	
Endrin	ND	Ui	2.9	2.9	5	05/04/11	05/17/11	KWG1104292	
Endosulfan II	ND	Ui	4.3	4.3	5	05/04/11	05/17/11	KWG1104292	
4,4'-DDD	**4.5**	D	2.6	1.1	5	05/04/11	05/17/11	KWG1104292	
Endrin Aldehyde	ND	Ui	2.6	2.6	5	05/04/11	05/17/11	KWG1104292	
Endosulfan Sulfate	ND	Ui	17	17	5	05/04/11	05/17/11	KWG1104292	
4,4'-DDT	ND	Ui	3.7	3.7	5	05/04/11	05/17/11	KWG1104292	
Endrin Ketone	**2.3**	JPD	2.6	1.7	5	05/04/11	05/17/11	KWG1104292	
Methoxychlor	ND	U	2.6	1.5	5	05/04/11	05/17/11	KWG1104292	
Toxaphene	ND	Ui	260	260	5	05/04/11	05/17/11	KWG1104292	
Chlordane	ND	Ui	52	48	5	05/04/11	05/17/11	KWG1104292	
Oxychlordane	ND	U	2.6	0.36	5	05/04/11	05/17/11	KWG1104292	
2,4'-DDE	ND	U	2.6	0.62	5	05/04/11	05/17/11	KWG1104292	
cis-Nonachlor	ND	Ui	4.3	4.3	5	05/04/11	05/17/11	KWG1104292	
2,4'-DDD	ND	Ui	3.2	3.2	5	05/04/11	05/17/11	KWG1104292	
trans-Nonachlor	ND	Ui	3.5	3.5	5	05/04/11	05/17/11	KWG1104292	
2,4'-DDT	ND	Ui	2.6	2.6	5	05/04/11	05/17/11	KWG1104292	

Comments:

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Organochlorine Pesticides

Sample Name:	SPI-1-W-042811	**Units:**	ng/L
Lab Code:	K1103713-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	76	20-102	05/17/11	Acceptable
Decachlorobiphenyl	70	35-128	05/17/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-042811	**Units:**	ng/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	2.7	1.1	5	05/04/11	05/17/11	KWG1104292	
Hexachlorobenzene	ND	U	2.7	1.5	5	05/04/11	05/17/11	KWG1104292	
beta-BHC	ND	U	2.7	2.2	5	05/04/11	05/17/11	KWG1104292	
gamma-BHC (Lindane)	ND	U	2.7	2.5	5	05/04/11	05/17/11	KWG1104292	
delta-BHC	ND	U	2.7	0.73	5	05/04/11	05/17/11	KWG1104292	
Heptachlor	ND	U	2.7	0.94	5	05/04/11	05/17/11	KWG1104292	
Aldrin	ND	U	2.7	0.58	5	05/04/11	05/17/11	KWG1104292	
Heptachlor Epoxide	ND	U	2.7	1.1	5	05/04/11	05/17/11	KWG1104292	
gamma-Chlordane†	ND	U	2.7	1.7	5	05/04/11	05/17/11	KWG1104292	
Endosulfan I	**3.8**	D	2.7	1.4	5	05/04/11	05/17/11	KWG1104292	
alpha-Chlordane	**3.7**	PD	2.7	1.5	5	05/04/11	05/17/11	KWG1104292	
Dieldrin	ND	U	2.7	2.0	5	05/04/11	05/17/11	KWG1104292	
4,4'-DDE	ND	Ui	2.7	1.5	5	05/04/11	05/17/11	KWG1104292	
Endrin	ND	U	2.7	2.6	5	05/04/11	05/17/11	KWG1104292	
Endosulfan II	ND	Ui	4.9	4.9	5	05/04/11	05/17/11	KWG1104292	
4,4'-DDD	ND	Ui	6.0	6.0	5	05/04/11	05/17/11	KWG1104292	
Endrin Aldehyde	ND	Ui	6.0	6.0	5	05/04/11	05/17/11	KWG1104292	
Endosulfan Sulfate	ND	Ui	5.3	5.3	5	05/04/11	05/17/11	KWG1104292	
4,4'-DDT	ND	Ui	8.5	8.5	5	05/04/11	05/17/11	KWG1104292	
Endrin Ketone	**1.8**	JPD	2.7	1.7	5	05/04/11	05/17/11	KWG1104292	
Methoxychlor	ND	Ui	2.8	2.8	5	05/04/11	05/17/11	KWG1104292	
Toxaphene	ND	Ui	230	230	5	05/04/11	05/17/11	KWG1104292	
Chlordane	ND	Ui	53	43	5	05/04/11	05/17/11	KWG1104292	
Oxychlordane	ND	Ui	5.0	5.0	5	05/04/11	05/17/11	KWG1104292	
2,4'-DDE	ND	U	2.7	0.63	5	05/04/11	05/17/11	KWG1104292	
cis-Nonachlor	**4.4**	D	2.7	0.73	5	05/04/11	05/17/11	KWG1104292	
2,4'-DDD	ND	Ui	2.8	2.8	5	05/04/11	05/17/11	KWG1104292	
trans-Nonachlor	**5.0**	PD	2.7	0.58	5	05/04/11	05/17/11	KWG1104292	
2,4'-DDT	ND	U	2.7	0.68	5	05/04/11	05/17/11	KWG1104292	

Comments:

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-042811	**Units:**	ng/L
Lab Code:	K1103713-002	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	72	20-102	05/17/11	Acceptable
Decachlorobiphenyl	65	35-128	05/17/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1104292-9	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.50	0.21	1	05/04/11	05/16/11	KWG1104292	
Hexachlorobenzene	ND	U	0.50	0.27	1	05/04/11	05/16/11	KWG1104292	
beta-BHC	ND	U	0.50	0.41	1	05/04/11	05/16/11	KWG1104292	
gamma-BHC (Lindane)	ND	U	0.50	0.47	1	05/04/11	05/16/11	KWG1104292	
delta-BHC	ND	U	0.50	0.14	1	05/04/11	05/16/11	KWG1104292	
Heptachlor	ND	U	0.50	0.18	1	05/04/11	05/16/11	KWG1104292	
Aldrin	ND	U	0.50	0.11	1	05/04/11	05/16/11	KWG1104292	
Heptachlor Epoxide	ND	U	0.50	0.21	1	05/04/11	05/16/11	KWG1104292	
gamma-Chlordane†	ND	U	0.50	0.31	1	05/04/11	05/16/11	KWG1104292	
Endosulfan I	ND	U	0.50	0.25	1	05/04/11	05/16/11	KWG1104292	
alpha-Chlordane	ND	U	0.50	0.27	1	05/04/11	05/16/11	KWG1104292	
Dieldrin	ND	U	0.50	0.37	1	05/04/11	05/16/11	KWG1104292	
4,4'-DDE	ND	U	0.50	0.19	1	05/04/11	05/16/11	KWG1104292	
Endrin	ND	U	0.50	0.49	1	05/04/11	05/16/11	KWG1104292	
Endosulfan II	ND	U	0.50	0.35	1	05/04/11	05/16/11	KWG1104292	
4,4'-DDD	ND	U	0.50	0.21	1	05/04/11	05/16/11	KWG1104292	
Endrin Aldehyde	ND	U	0.50	0.21	1	05/04/11	05/16/11	KWG1104292	
Endosulfan Sulfate	ND	U	0.50	0.28	1	05/04/11	05/16/11	KWG1104292	
4,4'-DDT	ND	U	0.50	0.17	1	05/04/11	05/16/11	KWG1104292	
Endrin Ketone	ND	U	0.50	0.32	1	05/04/11	05/16/11	KWG1104292	
Methoxychlor	ND	U	0.50	0.28	1	05/04/11	05/19/11	KWG1104292	
Toxaphene	ND	U	25	9.0	1	05/04/11	05/16/11	KWG1104292	
Chlordane	ND	U	10	2.0	1	05/04/11	05/16/11	KWG1104292	
Oxychlordane	ND	U	0.50	0.069	1	05/04/11	05/16/11	KWG1104292	
2,4'-DDE	ND	U	0.50	0.12	1	05/04/11	05/16/11	KWG1104292	
cis-Nonachlor	ND	U	0.50	0.14	1	05/04/11	05/16/11	KWG1104292	
2,4'-DDD	ND	Ui	0.50	0.093	1	05/04/11	05/16/11	KWG1104292	
trans-Nonachlor	ND	U	0.50	0.11	1	05/04/11	05/16/11	KWG1104292	
2,4'-DDT	ND	U	0.50	0.13	1	05/04/11	05/16/11	KWG1104292	

Comments:

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1104292-9	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	65	20-102	05/16/11	Acceptable
Decachlorobiphenyl	53	35-128	05/16/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Organochlorine Pesticides

Extraction Method: EPA 3535A
Analysis Method: 8081B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-1-W-042811	K1103713-001	76 D	70 D
SPI-2-W-042811	K1103713-002	72 D	65 D
Method Blank	KWG1104292-9	65	53
Lab Control Sample	KWG1104292-1	70	62
Duplicate Lab Control Sample	KWG1104292-2	69	62

Surrogate Recovery Control Limits (%)

Sur1 =	Tetrachloro-m-xylene	20-102
Sur2 =	Decachlorobiphenyl	35-128

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/04/2011
Sample Matrix:	Water	**Date Analyzed:**	05/17/2011 - 05/19/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Organochlorine Pesticides

Extraction Method:	EPA 3535A	**Units:**	ng/L
Analysis Method:	8081B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1104292

	Lab Control Sample KWG1104292-1 Lab Control Spike			Duplicate Lab Control Sample KWG1104292-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	8.26	10.0	83	7.82	10.0	78	36-122	5	30
Hexachlorobenzene	7.70	10.0	77	7.13	10.0	71	31-95	8	30
beta-BHC	8.18	10.0	82	7.85	10.0	79	42-125	4	30
gamma-BHC (Lindane)	8.23	10.0	82	7.82	10.0	78	44-117	5	30
delta-BHC	8.79	10.0	88	8.36	10.0	84	48-123	5	30
Heptachlor	7.74	10.0	77	7.53	10.0	75	40-115	3	30
Aldrin	7.41	10.0	74	6.95	10.0	70	10-102	6	30
Heptachlor Epoxide	7.74	10.0	77	7.47	10.0	75	49-109	3	30
gamma-Chlordane	7.91	10.0	79	7.30	10.0	73	47-113	8	30
Endosulfan I	7.77	10.0	78	7.57	10.0	76	35-115	3	30
alpha-Chlordane	7.83	10.0	78	7.49	10.0	75	45-115	4	30
Dieldrin	8.11	10.0	81	7.69	10.0	77	50-115	5	30
4,4'-DDE	7.82	10.0	78	7.45	10.0	75	41-116	5	30
Endrin	7.88	10.0	79	7.48	10.0	75	48-126	5	30
Endosulfan II	7.77	10.0	78	7.48	10.0	75	28-128	4	30
4,4'-DDD	8.10	10.0	81	7.73	10.0	77	33-132	5	30
Endrin Aldehyde	7.73	10.0	77	7.46	10.0	75	27-104	4	30
Endosulfan Sulfate	7.88	10.0	79	7.56	10.0	76	38-118	4	30
4,4'-DDT	8.19	10.0	82	7.81	10.0	78	42-143	5	30
Endrin Ketone	8.35	10.0	83	7.85	10.0	79	30-124	6	30
Methoxychlor	9.10	10.0	91	8.34	10.0	83	43-143	9	30
Toxaphene	200	200	100	204	200	102	36-137	2	30
Chlordane	96.5	100	96	92.9	100	93	45-148	4	30
Oxychlordane	7.64	10.0	76	7.47	10.0	75	40-126	2	30
2,4'-DDE	6.32	10.0	63	5.49	10.0	55	29-126	14	30
cis-Nonachlor	8.00	10.0	80	7.78	10.0	78	42-125	3	30
2,4'-DDD	7.83	10.0	78	7.63	10.0	76	51-112	3	30
trans-Nonachlor	7.83	10.0	78	7.59	10.0	76	47-123	3	30
2,4'-DDT	8.53	10.0	85	8.07	10.0	81	51-117	5	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Congener Specific PCBs

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Congener Specific PCBs

Sample Name:	SPI-1-W-042811	**Units:**	ng/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	Ui	6.6	6.6	1	05/03/11	05/05/11	KWG1104023	
PCB 18	ND	Ui	73	73	1	05/03/11	05/05/11	KWG1104023	
PCB 28	ND	Ui	5.0	5.0	1	05/03/11	05/05/11	KWG1104023	
PCB 44	ND	U	5.0	0.31	1	05/03/11	05/05/11	KWG1104023	
PCB 52	**0.45**	J	5.0	0.32	1	05/03/11	05/05/11	KWG1104023	
PCB 66	ND	U	5.0	0.30	1	05/03/11	05/05/11	KWG1104023	
PCB 87	ND	Ui	5.0	0.54	1	05/03/11	05/05/11	KWG1104023	
PCB 101	ND	U	5.0	0.25	1	05/03/11	05/05/11	KWG1104023	
PCB 114	ND	U	5.0	0.20	1	05/03/11	05/05/11	KWG1104023	
PCB 123	ND	U	5.0	0.19	1	05/03/11	05/05/11	KWG1104023	
PCB 138	ND	Ui	5.0	0.75	1	05/03/11	05/05/11	KWG1104023	
PCB 156	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 167	ND	U	5.0	0.29	1	05/03/11	05/05/11	KWG1104023	
PCB 180	ND	Ui	5.0	0.38	1	05/03/11	05/05/11	KWG1104023	
PCB 183	ND	U	5.0	0.77	1	05/03/11	05/05/11	KWG1104023	
PCB 184	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 187	ND	Ui	5.0	5.0	1	05/03/11	05/05/11	KWG1104023	*
PCB 189	ND	U	5.0	0.23	1	05/03/11	05/05/11	KWG1104023	
PCB 195	ND	U	5.0	0.33	1	05/03/11	05/05/11	KWG1104023	
PCB 206	ND	U	5.0	0.55	1	05/03/11	05/05/11	KWG1104023	
PCB 209	ND	U	5.0	0.48	1	05/03/11	05/05/11	KWG1104023	
PCB 60	ND	U	5.0	0.39	1	05/03/11	05/05/11	KWG1104023	
PCB 77	ND	U	5.0	0.29	1	05/03/11	05/05/11	KWG1104023	
PCB 81	ND	Ui	5.0	0.46	1	05/03/11	05/05/11	KWG1104023	
PCB 90	ND	U	5.0	0.33	1	05/03/11	05/05/11	KWG1104023	
PCB 105	ND	U	5.0	0.27	1	05/03/11	05/05/11	KWG1104023	
PCB 118	ND	U	5.0	0.099	1	05/03/11	05/05/11	KWG1104023	
PCB 126	ND	U	5.0	0.37	1	05/03/11	05/05/11	KWG1104023	
PCB 128	ND	U	5.0	0.57	1	05/03/11	05/05/11	KWG1104023	
PCB 153	ND	U	5.0	0.48	1	05/03/11	05/05/11	KWG1104023	
PCB 157	ND	U	5.0	0.13	1	05/03/11	05/05/11	KWG1104023	
PCB 158	ND	U	5.0	0.30	1	05/03/11	05/05/11	KWG1104023	
PCB 166	ND	Ui	5.0	1.7	1	05/03/11	05/05/11	KWG1104023	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Congener Specific PCBs

Sample Name:	SPI-1-W-042811	**Units:**	ng/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 170	ND	U	5.0	0.12	1	05/03/11	05/05/11	KWG1104023	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	82	26-100	05/05/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Congener Specific PCBs

Sample Name:	SPI-2-W-042811	**Units:**	ng/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	Ui	5.1	4.0	1	05/03/11	05/05/11	KWG1104023	
PCB 18	ND	Ui	48	48	1	05/03/11	05/05/11	KWG1104023	
PCB 28	ND	Ui	5.1	5.1	1	05/03/11	05/05/11	KWG1104023	
PCB 44	ND	U	5.1	0.32	1	05/03/11	05/05/11	KWG1104023	
PCB 52	ND	U	5.1	0.33	1	05/03/11	05/05/11	KWG1104023	
PCB 66	ND	U	5.1	0.31	1	05/03/11	05/05/11	KWG1104023	
PCB 87	**0.40**	JP	5.1	0.36	1	05/03/11	05/05/11	KWG1104023	
PCB 101	ND	U	5.1	0.26	1	05/03/11	05/05/11	KWG1104023	
PCB 114	ND	U	5.1	0.21	1	05/03/11	05/05/11	KWG1104023	
PCB 123	ND	U	5.1	0.20	1	05/03/11	05/05/11	KWG1104023	
PCB 138	ND	U	5.1	0.63	1	05/03/11	05/05/11	KWG1104023	
PCB 156	ND	U	5.1	0.35	1	05/03/11	05/05/11	KWG1104023	
PCB 167	ND	U	5.1	0.30	1	05/03/11	05/05/11	KWG1104023	
PCB 180	ND	U	5.1	0.38	1	05/03/11	05/05/11	KWG1104023	
PCB 183	ND	U	5.1	0.78	1	05/03/11	05/05/11	KWG1104023	
PCB 184	ND	U	5.1	0.35	1	05/03/11	05/05/11	KWG1104023	
PCB 187	ND	Ui	5.1	5.1	1	05/03/11	05/05/11	KWG1104023	*
PCB 189	ND	U	5.1	0.24	1	05/03/11	05/05/11	KWG1104023	
PCB 195	ND	U	5.1	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 206	ND	U	5.1	0.56	1	05/03/11	05/05/11	KWG1104023	
PCB 209	ND	U	5.1	0.49	1	05/03/11	05/05/11	KWG1104023	
PCB 60	ND	U	5.1	0.40	1	05/03/11	05/05/11	KWG1104023	
PCB 77	ND	U	5.1	0.30	1	05/03/11	05/05/11	KWG1104023	
PCB 81	ND	U	5.1	0.35	1	05/03/11	05/05/11	KWG1104023	
PCB 90	ND	U	5.1	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 105	ND	U	5.1	0.28	1	05/03/11	05/05/11	KWG1104023	
PCB 118	ND	U	5.1	0.10	1	05/03/11	05/05/11	KWG1104023	
PCB 126	ND	U	5.1	0.38	1	05/03/11	05/05/11	KWG1104023	
PCB 128	ND	U	5.1	0.58	1	05/03/11	05/05/11	KWG1104023	
PCB 153	ND	U	5.1	0.49	1	05/03/11	05/05/11	KWG1104023	
PCB 157	ND	U	5.1	0.14	1	05/03/11	05/05/11	KWG1104023	
PCB 158	ND	U	5.1	0.31	1	05/03/11	05/05/11	KWG1104023	
PCB 166	ND	Ui	5.1	0.88	1	05/03/11	05/05/11	KWG1104023	

Comments:

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Congener Specific PCBs

Sample Name:	SPI-2-W-042811	**Units:**	ng/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.1	0.35	1	05/03/11	05/05/11	KWG1104023	
PCB 170	ND	U	5.1	0.13	1	05/03/11	05/05/11	KWG1104023	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	71	26-100	05/05/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Congener Specific PCBs

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1104023-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	5.0	0.84	1	05/03/11	05/05/11	KWG1104023	
PCB 18	ND	Ui	5.0	5.0	1	05/03/11	05/05/11	KWG1104023	
PCB 28	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 44	ND	U	5.0	0.31	1	05/03/11	05/05/11	KWG1104023	
PCB 52	ND	U	5.0	0.32	1	05/03/11	05/05/11	KWG1104023	
PCB 66	ND	U	5.0	0.30	1	05/03/11	05/05/11	KWG1104023	
PCB 87	ND	U	5.0	0.35	1	05/03/11	05/05/11	KWG1104023	
PCB 101	ND	U	5.0	0.25	1	05/03/11	05/05/11	KWG1104023	
PCB 114	ND	U	5.0	0.20	1	05/03/11	05/05/11	KWG1104023	
PCB 123	ND	U	5.0	0.19	1	05/03/11	05/05/11	KWG1104023	
PCB 138	ND	U	5.0	0.62	1	05/03/11	05/05/11	KWG1104023	
PCB 156	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 167	ND	U	5.0	0.29	1	05/03/11	05/05/11	KWG1104023	
PCB 180	ND	U	5.0	0.37	1	05/03/11	05/05/11	KWG1104023	
PCB 183	ND	U	5.0	0.77	1	05/03/11	05/05/11	KWG1104023	
PCB 184	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 187	ND	U	5.0	0.27	1	05/03/11	05/05/11	KWG1104023	*
PCB 189	ND	U	5.0	0.23	1	05/03/11	05/05/11	KWG1104023	
PCB 195	ND	U	5.0	0.33	1	05/03/11	05/05/11	KWG1104023	
PCB 206	ND	U	5.0	0.55	1	05/03/11	05/05/11	KWG1104023	
PCB 209	ND	U	5.0	0.48	1	05/03/11	05/05/11	KWG1104023	
PCB 60	ND	U	5.0	0.39	1	05/03/11	05/05/11	KWG1104023	
PCB 77	ND	U	5.0	0.29	1	05/03/11	05/05/11	KWG1104023	
PCB 81	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 90	ND	U	5.0	0.33	1	05/03/11	05/05/11	KWG1104023	
PCB 105	ND	U	5.0	0.27	1	05/03/11	05/05/11	KWG1104023	
PCB 118	ND	U	5.0	0.099	1	05/03/11	05/05/11	KWG1104023	
PCB 126	ND	U	5.0	0.37	1	05/03/11	05/05/11	KWG1104023	
PCB 128	ND	U	5.0	0.57	1	05/03/11	05/05/11	KWG1104023	
PCB 153	ND	U	5.0	0.48	1	05/03/11	05/05/11	KWG1104023	
PCB 157	ND	U	5.0	0.13	1	05/03/11	05/05/11	KWG1104023	
PCB 158	ND	U	5.0	0.30	1	05/03/11	05/05/11	KWG1104023	
PCB 166	ND	U	5.0	0.33	1	05/03/11	05/05/11	KWG1104023	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Congener Specific PCBs

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1104023-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	5.0	0.34	1	05/03/11	05/05/11	KWG1104023	
PCB 170	ND	U	5.0	0.12	1	05/03/11	05/05/11	KWG1104023	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	82	26-100	05/05/11	Acceptable

Comments:

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Congener Specific PCBs

Extraction Method: EPA 3520C
Analysis Method: 8082A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-W-042811	K1103713-001	82
SPI-2-W-042811	K1103713-002	71
Method Blank	KWG1104023-3	82
Lab Control Sample	KWG1104023-1	77
Duplicate Lab Control Sample	KWG1104023-2	82

Surrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene 26-100

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/03/2011
Sample Matrix:	Water	**Date Analyzed:**	05/05/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Congener Specific PCBs

Extraction Method:	EPA 3520C	**Units:**	ng/L
Analysis Method:	8082A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1104023

	Lab Control Sample KWG1104023-1 Lab Control Spike			Duplicate Lab Control Sample KWG1104023-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
PCB 8	101	100	101	107	100	107	44-127	6	30
PCB 18	95.1	100	95	112	100	112	39-118	16	30
PCB 28	95.7	100	96	97.4	100	97	54-139	2	30
PCB 44	92.3	100	92	92.5	100	92	53-124	0	30
PCB 52	85.7	100	86	86.7	100	87	48-111	1	30
PCB 66	101	100	101	101	100	101	51-118	0	30
PCB 87	92.3	100	92	90.8	100	91	52-112	2	30
PCB 114	87.4	100	87	86.9	100	87	50-125	1	30
PCB 123	91.3	100	91	91.0	100	91	49-126	0	30
PCB 138	88.0	100	88	87.7	100	88	49-118	0	30
PCB 156	91.7	100	92	91.1	100	91	54-137	1	30
PCB 167	98.6	100	99	93.5	100	94	45-124	5	30
PCB 180	96.1	100	96	95.8	100	96	55-137	0	30
PCB 183	87.3	100	87	88.8	100	89	43-130	2	30
PCB 184	95.7	100	96	95.1	100	95	53-118	1	30
PCB 187	125	100	125 *	104	100	104	55-117	18	30
PCB 189	91.6	100	92	91.6	100	92	54-130	0	30
PCB 195	93.4	100	93	93.3	100	93	52-126	0	30
PCB 206	84.0	100	84	83.9	100	84	53-123	0	30
PCB 209	98.4	100	98	98.1	100	98	53-124	0	30
PCB 60	88.4	100	88	90.6	100	91	42-185	3	30
PCB 77	75.1	100	75	75.4	100	75	33-149	0	30
PCB 81	83.4	100	83	82.8	100	83	22-161	1	30
PCB 90	81.8	100	82	82.7	100	83	37-180	1	30
PCB 105	84.6	100	85	84.1	100	84	43-135	1	30
PCB 118	81.2	100	81	80.7	100	81	47-135	1	30
PCB 126	92.7	100	93	92.4	100	92	44-135	0	30
PCB 128	82.2	100	82	81.9	100	82	37-129	0	30
PCB 153	87.3	100	87	91.9	100	92	29-133	5	30
PCB 157	84.3	100	84	84.1	100	84	27-153	0	30
PCB 158	91.4	100	91	91.1	100	91	24-158	0	30
PCB 169	82.5	100	82	82.3	100	82	32-161	0	30
PCB 170	88.0	100	88	87.8	100	88	36-135	0	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Chlorinated Herbicides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Chlorinated Herbicides

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.40	0.095	1	05/02/11	05/23/11	KWG1104406	
Dicamba	ND	U	0.20	0.10	1	05/02/11	05/23/11	KWG1104406	
MCPP	ND	U	100	31	1	05/02/11	05/23/11	KWG1104406	
MCPA	ND	U	100	35	1	05/02/11	05/23/11	KWG1104406	
Dichlorprop	ND	U	0.40	0.060	1	05/02/11	05/23/11	KWG1104406	
2,4-D	**0.12**	JP	0.40	0.054	1	05/02/11	05/23/11	KWG1104406	
2,4,5-TP (Silvex)	ND	U	0.20	0.054	1	05/02/11	05/23/11	KWG1104406	
2,4,5-T	ND	U	0.20	0.058	1	05/02/11	05/23/11	KWG1104406	
2,4-DB	ND	U	0.40	0.17	1	05/02/11	05/23/11	KWG1104406	
Dinoseb	ND	U	0.20	0.050	1	05/02/11	05/23/11	KWG1104406	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	54	10-136	05/23/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Chlorinated Herbicides

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.40	0.095	1	05/02/11	05/23/11	KWG1104406	
Dicamba	ND	U	0.20	0.10	1	05/02/11	05/23/11	KWG1104406	
MCPP	ND	U	100	31	1	05/02/11	05/23/11	KWG1104406	
MCPA	ND	U	100	35	1	05/02/11	05/23/11	KWG1104406	
Dichlorprop	ND	U	0.40	0.060	1	05/02/11	05/23/11	KWG1104406	
2,4-D	ND	U	0.40	0.054	1	05/02/11	05/23/11	KWG1104406	
2,4,5-TP (Silvex)	ND	U	0.20	0.054	1	05/02/11	05/23/11	KWG1104406	
2,4,5-T	ND	U	0.20	0.058	1	05/02/11	05/23/11	KWG1104406	
2,4-DB	ND	U	0.40	0.17	1	05/02/11	05/23/11	KWG1104406	
Dinoseb	ND	U	0.20	0.050	1	05/02/11	05/23/11	KWG1104406	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	53	10-136	05/23/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Chlorinated Herbicides

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1104406-3	**Basis:**	NA
Extraction Method:	Method	**Level:**	Low
Analysis Method:	8151A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dalapon	ND	U	0.40	0.095	1	05/02/11	05/23/11	KWG1104406	
Dicamba	ND	U	0.20	0.10	1	05/02/11	05/23/11	KWG1104406	
MCPP	ND	U	100	31	1	05/02/11	05/23/11	KWG1104406	
MCPA	ND	U	100	35	1	05/02/11	05/23/11	KWG1104406	
Dichlorprop	ND	U	0.40	0.060	1	05/02/11	05/23/11	KWG1104406	
2,4-D	ND	U	0.40	0.054	1	05/02/11	05/23/11	KWG1104406	
2,4,5-TP (Silvex)	ND	U	0.20	0.054	1	05/02/11	05/23/11	KWG1104406	
2,4,5-T	ND	U	0.20	0.058	1	05/02/11	05/23/11	KWG1104406	
2,4-DB	ND	U	0.40	0.17	1	05/02/11	05/23/11	KWG1104406	
Dinoseb	ND	U	0.20	0.050	1	05/02/11	05/23/11	KWG1104406	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2,4-Dichlorophenylacetic Acid	62	10-136	05/23/11	Acceptable

Comments:

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Chlorinated Herbicides

Extraction Method: Method
Analysis Method: 8151A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-W-042811	K1103713-001	54
SPI-2-W-042811	K1103713-002	53
Method Blank	KWG1104406-3	62
Lab Control Sample	KWG1104406-1	89
Duplicate Lab Control Sample	KWG1104406-2	89

Surrogate Recovery Control Limits (%)

Sur1 = 2,4-Dichlorophenylacetic Acid 10-136

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/02/2011
Sample Matrix:	Water	**Date Analyzed:**	05/23/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Chlorinated Herbicides

Extraction Method:	Method	**Units:**	ug/L
Analysis Method:	8151A	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1104406

	Lab Control Sample KWG1104406-1 Lab Control Spike			Duplicate Lab Control Sample KWG1104406-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Dalapon	1.42	2.50	57	1.46	2.50	58	40-114	2	30
Dicamba	1.62	2.50	65	1.54	2.50	62	62-107	5	30
MCPP	129	250	52	117	250	47	47-117	10	30
MCPA	148	250	59	142	250	57	47-113	4	30
Dichlorprop	1.58	2.50	63	1.50	2.50	60	58-107	5	30
2,4-D	1.85	2.50	74	1.89	2.50	76	53-106	2	30
2,4,5-TP (Silvex)	1.85	2.50	74	1.79	2.50	72	66-118	3	30
2,4,5-T	1.76	2.50	71	1.83	2.50	73	71-123	4	30
2,4-DB	1.64	2.50	66	2.01	2.50	80	40-133	20	30
Dinoseb	1.36	2.50	54	1.24	2.50	50	47-121	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 04/28/2011
Date Received: 04/29/2011

Volatile Organic Compounds

Sample Name: SPI-1-W-042811
Lab Code: K1103713-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	05/03/11	05/03/11	KWG1103928	
Chloromethane	ND	U	0.50	0.068	1	05/03/11	05/03/11	KWG1103928	
Vinyl Chloride	ND	U	0.50	0.075	1	05/03/11	05/03/11	KWG1103928	
Bromomethane	ND	U	0.50	0.090	1	05/03/11	05/03/11	KWG1103928	
Chloroethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	05/03/11	05/03/11	KWG1103928	
Trichlorofluoromethane	ND	U	0.50	0.12	1	05/03/11	05/03/11	KWG1103928	*
Acrolein	ND	U	50	0.96	1	05/03/11	05/03/11	KWG1103928	
1,1-Dichloroethene	ND	U	0.50	0.074	1	05/03/11	05/03/11	KWG1103928	*
Acetone	**60**		20	3.3	1	05/03/11	05/03/11	KWG1103928	
Iodomethane	ND	U	5.0	0.11	1	05/03/11	05/03/11	KWG1103928	
Carbon Disulfide	ND	U	0.50	0.055	1	05/03/11	05/03/11	KWG1103928	*
Methylene Chloride	ND	U	2.0	0.10	1	05/03/11	05/03/11	KWG1103928	
Acrylonitrile	ND	U	5.0	0.26	1	05/03/11	05/03/11	KWG1103928	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	05/03/11	05/03/11	KWG1103928	
1,1-Dichloroethane	ND	U	0.50	0.077	1	05/03/11	05/03/11	KWG1103928	
Vinyl Acetate	ND	U	5.0	0.43	1	05/03/11	05/03/11	KWG1103928	
2,2-Dichloropropane	ND	U	0.50	0.060	1	05/03/11	05/03/11	KWG1103928	
cis-1,2-Dichloroethene	**0.17**	J	0.50	0.067	1	05/03/11	05/03/11	KWG1103928	
2-Butanone (MEK)	ND	Ui	20	3.2	1	05/03/11	05/03/11	KWG1103928	
Bromochloromethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Chloroform	**0.79**		0.50	0.072	1	05/03/11	05/03/11	KWG1103928	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	05/03/11	05/03/11	KWG1103928	*
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/03/11	05/03/11	KWG1103928	*
Benzene	**0.080**	J	0.50	0.054	1	05/03/11	05/03/11	KWG1103928	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	05/03/11	05/03/11	KWG1103928	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	05/03/11	05/03/11	KWG1103928	
1,2-Dichloropropane	ND	U	0.50	0.095	1	05/03/11	05/03/11	KWG1103928	
Dibromomethane	ND	U	0.50	0.15	1	05/03/11	05/03/11	KWG1103928	
Bromodichloromethane	ND	U	0.50	0.091	1	05/03/11	05/03/11	KWG1103928	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	05/03/11	05/03/11	KWG1103928	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	05/03/11	05/03/11	KWG1103928	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	05/03/11	05/03/11	KWG1103928	
Toluene	**0.12**	J	0.50	0.052	1	05/03/11	05/03/11	KWG1103928	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Volatile Organic Compounds

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	05/03/11	05/03/11	KWG1103928	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
Tetrachloroethene (PCE)	**0.27**	J	0.50	0.099	1	05/03/11	05/03/11	KWG1103928	*
2-Hexanone	ND	U	20	2.7	1	05/03/11	05/03/11	KWG1103928	
1,3-Dichloropropane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
Dibromochloromethane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	05/03/11	05/03/11	KWG1103928	
Chlorobenzene	ND	U	0.50	0.11	1	05/03/11	05/03/11	KWG1103928	
Ethylbenzene	ND	U	0.50	0.050	1	05/03/11	05/03/11	KWG1103928	*
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	05/03/11	05/03/11	KWG1103928	
m,p-Xylenes	**0.26**	J	0.50	0.091	1	05/03/11	05/03/11	KWG1103928	
o-Xylene	**0.29**	J	0.50	0.074	1	05/03/11	05/03/11	KWG1103928	
Styrene	ND	U	0.50	0.089	1	05/03/11	05/03/11	KWG1103928	
Bromoform	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Isopropylbenzene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	05/03/11	05/03/11	KWG1103928	
n-Propylbenzene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	*
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	05/03/11	05/03/11	KWG1103928	
1,3,5-Trimethylbenzene	**0.16**	J	2.0	0.089	1	05/03/11	05/03/11	KWG1103928	
1,2,4-Trimethylbenzene	**0.23**	J	2.0	0.069	1	05/03/11	05/03/11	KWG1103928	
sec-Butylbenzene	ND	U	2.0	0.062	1	05/03/11	05/03/11	KWG1103928	
4-Isopropyltoluene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	
n-Butylbenzene	ND	U	2.0	0.044	1	05/03/11	05/03/11	KWG1103928	*
Naphthalene	ND	U	2.0	0.088	1	05/03/11	05/03/11	KWG1103928	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	73-122	05/03/11	Acceptable
Toluene-d8	117	78-129	05/03/11	Acceptable
4-Bromofluorobenzene	104	68-117	05/03/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 04/28/2011
Date Received: 04/29/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-042811
Lab Code: K1103713-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	05/03/11	05/03/11	KWG1103928	
Chloromethane	ND	U	0.50	0.068	1	05/03/11	05/03/11	KWG1103928	
Vinyl Chloride	**2.1**		0.50	0.075	1	05/03/11	05/03/11	KWG1103928	
Bromomethane	ND	U	0.50	0.090	1	05/03/11	05/03/11	KWG1103928	
Chloroethane	**0.38**	J	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	05/03/11	05/03/11	KWG1103928	
Trichlorofluoromethane	ND	U	0.50	0.12	1	05/03/11	05/03/11	KWG1103928	*
Acrolein	ND	U	50	0.96	1	05/03/11	05/03/11	KWG1103928	
1,1-Dichloroethene	ND	U	0.50	0.074	1	05/03/11	05/03/11	KWG1103928	*
Acetone	**29**		20	3.3	1	05/03/11	05/03/11	KWG1103928	
Iodomethane	ND	U	5.0	0.11	1	05/03/11	05/03/11	KWG1103928	
Carbon Disulfide	ND	U	0.50	0.055	1	05/03/11	05/03/11	KWG1103928	*
Methylene Chloride	ND	U	2.0	0.10	1	05/03/11	05/03/11	KWG1103928	
Acrylonitrile	ND	U	5.0	0.26	1	05/03/11	05/03/11	KWG1103928	
trans-1,2-Dichloroethene	**0.10**	J	0.50	0.057	1	05/03/11	05/03/11	KWG1103928	
1,1-Dichloroethane	**1.8**		0.50	0.077	1	05/03/11	05/03/11	KWG1103928	
Vinyl Acetate	ND	U	5.0	0.43	1	05/03/11	05/03/11	KWG1103928	
2,2-Dichloropropane	ND	U	0.50	0.060	1	05/03/11	05/03/11	KWG1103928	
cis-1,2-Dichloroethene	**11**		0.50	0.067	1	05/03/11	05/03/11	KWG1103928	
2-Butanone (MEK)	ND	U	20	1.9	1	05/03/11	05/03/11	KWG1103928	
Bromochloromethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Chloroform	**0.90**		0.50	0.072	1	05/03/11	05/03/11	KWG1103928	
1,1,1-Trichloroethane (TCA)	**6.9**		0.50	0.075	1	05/03/11	05/03/11	KWG1103928	*
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/03/11	05/03/11	KWG1103928	*
Benzene	**0.21**	J	0.50	0.054	1	05/03/11	05/03/11	KWG1103928	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	05/03/11	05/03/11	KWG1103928	
Trichloroethene (TCE)	**3.3**		0.50	0.10	1	05/03/11	05/03/11	KWG1103928	
1,2-Dichloropropane	ND	U	0.50	0.095	1	05/03/11	05/03/11	KWG1103928	
Dibromomethane	ND	U	0.50	0.15	1	05/03/11	05/03/11	KWG1103928	
Bromodichloromethane	ND	U	0.50	0.091	1	05/03/11	05/03/11	KWG1103928	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	05/03/11	05/03/11	KWG1103928	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	05/03/11	05/03/11	KWG1103928	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	05/03/11	05/03/11	KWG1103928	
Toluene	**0.35**	J	0.50	0.052	1	05/03/11	05/03/11	KWG1103928	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Volatile Organic Compounds

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	05/03/11	05/03/11	KWG1103928	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
Tetrachloroethene (PCE)	**3.9**		0.50	0.099	1	05/03/11	05/03/11	KWG1103928	*
2-Hexanone	ND	U	20	2.7	1	05/03/11	05/03/11	KWG1103928	
1,3-Dichloropropane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
Dibromochloromethane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	05/03/11	05/03/11	KWG1103928	
Chlorobenzene	ND	U	0.50	0.11	1	05/03/11	05/03/11	KWG1103928	
Ethylbenzene	ND	U	0.50	0.050	1	05/03/11	05/03/11	KWG1103928	*
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	05/03/11	05/03/11	KWG1103928	
m,p-Xylenes	**0.32**	J	0.50	0.091	1	05/03/11	05/03/11	KWG1103928	
o-Xylene	**0.65**		0.50	0.074	1	05/03/11	05/03/11	KWG1103928	
Styrene	ND	U	0.50	0.089	1	05/03/11	05/03/11	KWG1103928	
Bromoform	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Isopropylbenzene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	05/03/11	05/03/11	KWG1103928	
n-Propylbenzene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	*
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	05/03/11	05/03/11	KWG1103928	
1,3,5-Trimethylbenzene	**0.13**	J	2.0	0.089	1	05/03/11	05/03/11	KWG1103928	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	05/03/11	05/03/11	KWG1103928	
sec-Butylbenzene	ND	U	2.0	0.062	1	05/03/11	05/03/11	KWG1103928	
4-Isopropyltoluene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	
n-Butylbenzene	ND	U	2.0	0.044	1	05/03/11	05/03/11	KWG1103928	*
Naphthalene	ND	U	2.0	0.088	1	05/03/11	05/03/11	KWG1103928	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	111	73-122	05/03/11	Acceptable
Toluene-d8	115	78-129	05/03/11	Acceptable
4-Bromofluorobenzene	103	68-117	05/03/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1103928-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	05/03/11	05/03/11	KWG1103928	
Chloromethane	ND	U	0.50	0.068	1	05/03/11	05/03/11	KWG1103928	
Vinyl Chloride	ND	U	0.50	0.075	1	05/03/11	05/03/11	KWG1103928	
Bromomethane	ND	U	0.50	0.090	1	05/03/11	05/03/11	KWG1103928	
Chloroethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	05/03/11	05/03/11	KWG1103928	
Trichlorofluoromethane	ND	U	0.50	0.12	1	05/03/11	05/03/11	KWG1103928	*
Acrolein	ND	U	50	0.96	1	05/03/11	05/03/11	KWG1103928	
1,1-Dichloroethene	ND	U	0.50	0.074	1	05/03/11	05/03/11	KWG1103928	*
Acetone	ND	U	20	3.3	1	05/03/11	05/03/11	KWG1103928	
Iodomethane	ND	U	5.0	0.11	1	05/03/11	05/03/11	KWG1103928	
Carbon Disulfide	ND	U	0.50	0.055	1	05/03/11	05/03/11	KWG1103928	*
Methylene Chloride	ND	U	2.0	0.10	1	05/03/11	05/03/11	KWG1103928	
Acrylonitrile	ND	U	5.0	0.26	1	05/03/11	05/03/11	KWG1103928	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	05/03/11	05/03/11	KWG1103928	
1,1-Dichloroethane	ND	U	0.50	0.077	1	05/03/11	05/03/11	KWG1103928	
Vinyl Acetate	ND	U	5.0	0.43	1	05/03/11	05/03/11	KWG1103928	
2,2-Dichloropropane	ND	U	0.50	0.060	1	05/03/11	05/03/11	KWG1103928	
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	05/03/11	05/03/11	KWG1103928	
2-Butanone (MEK)	ND	U	20	1.9	1	05/03/11	05/03/11	KWG1103928	
Bromochloromethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Chloroform	ND	U	0.50	0.072	1	05/03/11	05/03/11	KWG1103928	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	05/03/11	05/03/11	KWG1103928	*
Carbon Tetrachloride	ND	U	0.50	0.096	1	05/03/11	05/03/11	KWG1103928	*
Benzene	ND	U	0.50	0.054	1	05/03/11	05/03/11	KWG1103928	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	05/03/11	05/03/11	KWG1103928	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	05/03/11	05/03/11	KWG1103928	
1,2-Dichloropropane	ND	U	0.50	0.095	1	05/03/11	05/03/11	KWG1103928	
Dibromomethane	ND	U	0.50	0.15	1	05/03/11	05/03/11	KWG1103928	
Bromodichloromethane	ND	U	0.50	0.091	1	05/03/11	05/03/11	KWG1103928	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	05/03/11	05/03/11	KWG1103928	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	05/03/11	05/03/11	KWG1103928	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	05/03/11	05/03/11	KWG1103928	
Toluene	ND	U	0.50	0.052	1	05/03/11	05/03/11	KWG1103928	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1103928-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	05/03/11	05/03/11	KWG1103928	
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	05/03/11	05/03/11	KWG1103928	*
2-Hexanone	ND	U	20	2.7	1	05/03/11	05/03/11	KWG1103928	
1,3-Dichloropropane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
Dibromochloromethane	ND	U	0.50	0.14	1	05/03/11	05/03/11	KWG1103928	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	05/03/11	05/03/11	KWG1103928	
Chlorobenzene	ND	U	0.50	0.11	1	05/03/11	05/03/11	KWG1103928	
Ethylbenzene	ND	U	0.50	0.050	1	05/03/11	05/03/11	KWG1103928	*
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	05/03/11	05/03/11	KWG1103928	
m,p-Xylenes	ND	U	0.50	0.091	1	05/03/11	05/03/11	KWG1103928	
o-Xylene	ND	U	0.50	0.074	1	05/03/11	05/03/11	KWG1103928	
Styrene	ND	U	0.50	0.089	1	05/03/11	05/03/11	KWG1103928	
Bromoform	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
Isopropylbenzene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	*
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	05/03/11	05/03/11	KWG1103928	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	05/03/11	05/03/11	KWG1103928	
n-Propylbenzene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	*
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	05/03/11	05/03/11	KWG1103928	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	05/03/11	05/03/11	KWG1103928	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	05/03/11	05/03/11	KWG1103928	
sec-Butylbenzene	ND	U	2.0	0.062	1	05/03/11	05/03/11	KWG1103928	
4-Isopropyltoluene	ND	U	2.0	0.051	1	05/03/11	05/03/11	KWG1103928	
n-Butylbenzene	ND	U	2.0	0.044	1	05/03/11	05/03/11	KWG1103928	*
Naphthalene	ND	U	2.0	0.088	1	05/03/11	05/03/11	KWG1103928	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	108	73-122	05/03/11	Acceptable
Toluene-d8	119	78-129	05/03/11	Acceptable
4-Bromofluorobenzene	107	68-117	05/03/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
Batch QC	K1103627-001	110	118	104
SPI-1-W-042811	K1103713-001	111	117	104
SPI-2-W-042811	K1103713-002	111	115	103
Method Blank	KWG1103928-4	108	119	107
Batch QCMS	KWG1103928-1	107	116	106
Batch QCDMS	KWG1103928-2	107	116	108
Lab Control Sample	KWG1103928-3	108	117	111

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	73-122
Sur2 =	Toluene-d8	78-129
Sur3 =	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/03/2011
Sample Matrix:	Water	**Date Analyzed:**	05/03/2011

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	Batch QC	**Units:**	ug/L
Lab Code:	K1103627-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1103928

		Batch QCMS KWG1103928-1 Matrix Spike				Batch QCDMS KWG1103928-2 Duplicate Matrix Spike						
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**		**Result**	**Expected**	**%Rec**		**%Rec Limits**	**RPD**	**RPD Limit**
Vinyl Chloride	0.61	5.87	10.0	53		5.60	10.0	50	*	52-151	5	30
1,1-Dichloroethene	ND	6.49	10.0	65	*	6.26	10.0	63	*	67-147	4	30
Chloroform	ND	8.05	10.0	81		7.82	10.0	78		65-125	3	30
Carbon Tetrachloride	ND	6.60	10.0	66		6.18	10.0	62		56-143	7	30
Benzene	0.72	7.66	10.0	69		7.44	10.0	67	*	69-126	3	30
Trichloroethene (TCE)	0.22	7.70	10.0	75		7.51	10.0	73		56-137	2	30
Bromodichloromethane	ND	8.21	10.0	82		8.03	10.0	80		69-131	2	30
Toluene	ND	7.33	10.0	73		7.20	10.0	72		66-128	2	30
1,1,2-Trichloroethane	ND	8.05	10.0	81		8.12	10.0	81		68-125	1	30
2-Hexanone	ND	37.7	50.0	75		39.9	50.0	80		44-135	6	30
Chlorobenzene	ND	7.49	10.0	75		7.30	10.0	73		68-120	3	30
Ethylbenzene	ND	6.97	10.0	70		6.83	10.0	68		65-126	2	30
1,2,3-Trichloropropane	ND	7.59	10.0	76		7.59	10.0	76		65-122	0	30
Naphthalene	ND	8.44	10.0	84		9.00	10.0	90		61-137	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Extracted: 05/03/2011
Date Analyzed: 05/03/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1103928

	Lab Control Sample KWG1103928-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	2.89	10.0	29	21-156
Chloromethane	5.77	10.0	58	45-135
Vinyl Chloride	6.02	10.0	60	59-135
Bromomethane	6.46	10.0	65	24-144
Chloroethane	6.90	10.0	69	60-128
Dichlorofluoromethane (CFC 21)	7.58	10.0	76	68-139
Trichlorofluoromethane	5.86	10.0	59	54-129
Acrolein	100	100	100	10-214
1,1-Dichloroethene	7.32	10.0	73	70-136
Acetone	42.3	50.0	85	53-129
Iodomethane	33.5	30.0	112	37-158
Carbon Disulfide	13.8	20.0	69	64-129
Methylene Chloride	8.29	10.0	83	64-137
Acrylonitrile	34.3	40.0	86	48-144
trans-1,2-Dichloroethene	8.16	10.0	82	70-121
1,1-Dichloroethane	8.27	10.0	83	72-122
Vinyl Acetate	42.7	50.0	85	10-193
2,2-Dichloropropane	7.98	10.0	80	48-133
cis-1,2-Dichloroethene	8.29	10.0	83	76-125
2-Butanone (MEK)	45.3	50.0	91	56-137
Bromochloromethane	9.35	10.0	94	72-123
Chloroform	8.67	10.0	87	71-118
1,1,1-Trichloroethane (TCA)	7.46	10.0	75	65-126
Carbon Tetrachloride	7.33	10.0	73	58-133
Benzene	7.86	10.0	79	74-118
1,2-Dichloroethane (EDC)	8.64	10.0	86	69-125
Trichloroethene (TCE)	8.21	10.0	82	71-122
1,2-Dichloropropane	7.87	10.0	79	73-123
Dibromomethane	8.48	10.0	85	71-124
Bromodichloromethane	8.56	10.0	86	72-127
2-Chloroethyl Vinyl Ether	8.00	10.0	80	10-192
cis-1,3-Dichloropropene	8.42	10.0	84	71-125
4-Methyl-2-pentanone (MIBK)	42.2	50.0	84	57-129
Toluene	8.23	10.0	82	74-117
trans-1,3-Dichloropropene	7.23	10.0	72	56-121
1,1,2-Trichloroethane	8.05	10.0	81	73-122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Extracted: 05/03/2011
Date Analyzed: 05/03/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1103928

	Lab Control Sample KWG1103928-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Tetrachloroethene (PCE)	7.90	10.0	79	65-121
2-Hexanone	37.6	50.0	75	44-135
1,3-Dichloropropane	7.67	10.0	77	74-120
Dibromochloromethane	7.84	10.0	78	67-124
1,2-Dibromoethane (EDB)	7.97	10.0	80	71-120
Chlorobenzene	8.17	10.0	82	74-115
Ethylbenzene	7.85	10.0	79	71-118
1,1,1,2-Tetrachloroethane	8.06	10.0	81	71-118
m,p-Xylenes	15.8	20.0	79	73-119
o-Xylene	8.07	10.0	81	74-120
Styrene	8.46	10.0	85	75-123
Bromoform	8.17	10.0	82	57-135
Isopropylbenzene	8.42	10.0	84	65-110
1,1,2,2-Tetrachloroethane	7.36	10.0	74	63-126
trans-1,4-Dichloro-2-butene	23.5	30.0	78	28-174
n-Propylbenzene	7.43	10.0	74	69-122
1,2,3-Trichloropropane	7.74	10.0	77	67-123
1,3,5-Trimethylbenzene	7.92	10.0	79	70-120
1,2,4-Trimethylbenzene	7.90	10.0	79	72-121
sec-Butylbenzene	7.41	10.0	74	73-130
4-Isopropyltoluene	7.66	10.0	77	67-115
n-Butylbenzene	7.36	10.0	74	62-123
Naphthalene	8.71	10.0	87	58-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Semi-Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 04/28/2011
Date Received: 04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-1-W-042811
Lab Code: K1103713-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	05/05/11	05/13/11	KWG1103990	
Phenol	**0.091**	J	0.50	0.063	1	05/05/11	05/13/11	KWG1103990	
2-Chlorophenol	ND	U	0.50	0.054	1	05/05/11	05/13/11	KWG1103990	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	05/05/11	05/13/11	KWG1103990	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	05/05/11	05/13/11	KWG1103990	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	05/05/11	05/13/11	KWG1103990	
Benzyl Alcohol	**0.12**	J	0.50	0.073	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	05/05/11	05/13/11	KWG1103990	
2-Methylphenol	ND	U	0.50	0.11	1	05/05/11	05/13/11	KWG1103990	
Hexachloroethane	ND	U	0.20	0.024	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	05/05/11	05/13/11	KWG1103990	
4-Methylphenol†	**0.14**	J	0.50	0.12	1	05/05/11	05/13/11	KWG1103990	
Nitrobenzene	**0.095**	J	0.20	0.028	1	05/05/11	05/13/11	KWG1103990	
Isophorone	ND	U	0.20	0.016	1	05/05/11	05/13/11	KWG1103990	
2-Nitrophenol	ND	U	0.50	0.063	1	05/05/11	05/13/11	KWG1103990	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	05/05/11	05/13/11	KWG1103990	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	05/05/11	05/13/11	KWG1103990	
Benzoic Acid	ND	U	5.0	1.1	1	05/05/11	05/13/11	KWG1103990	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	05/05/11	05/13/11	KWG1103990	
4-Chloroaniline	ND	U	0.20	0.025	1	05/05/11	05/13/11	KWG1103990	*
Hexachlorobutadiene	ND	U	0.20	0.027	1	05/05/11	05/13/11	KWG1103990	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	05/05/11	05/13/11	KWG1103990	
Hexachlorocyclopentadiene	ND	U	1.0	0.19	1	05/05/11	05/13/11	KWG1103990	
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	05/05/11	05/13/11	KWG1103990	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	05/05/11	05/13/11	KWG1103990	
2-Chloronaphthalene	ND	U	0.20	0.041	1	05/05/11	05/13/11	KWG1103990	
2-Nitroaniline	ND	U	0.20	0.024	1	05/05/11	05/13/11	KWG1103990	
Dimethyl Phthalate	**0.068**	J	0.20	0.021	1	05/05/11	05/13/11	KWG1103990	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	05/05/11	05/13/11	KWG1103990	
3-Nitroaniline	ND	U	1.0	0.029	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrophenol	ND	U	4.0	0.17	1	05/05/11	05/13/11	KWG1103990	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	**0.025**	J	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
4-Nitrophenol	ND	U	2.0	0.28	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	05/05/11	05/13/11	KWG1103990	
Diethyl Phthalate	**0.079**	J	0.20	0.012	1	05/05/11	05/13/11	KWG1103990	
4-Nitroaniline	ND	U	1.0	0.019	1	05/05/11	05/13/11	KWG1103990	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	05/05/11	05/13/11	KWG1103990	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	05/05/11	05/13/11	KWG1103990	
Hexachlorobenzene	ND	U	0.20	0.022	1	05/05/11	05/13/11	KWG1103990	
Pentachlorophenol	ND	U	1.0	0.34	1	05/05/11	05/13/11	KWG1103990	
Carbazole	ND	U	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
Di-n-butyl Phthalate	**0.099**	J	0.20	0.023	1	05/05/11	05/13/11	KWG1103990	
Butyl Benzyl Phthalate	**0.15**	J	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	05/05/11	05/13/11	KWG1103990	*
Bis(2-ethylhexyl) Phthalate	**0.91**	J	1.0	0.13	1	05/05/11	05/13/11	KWG1103990	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	84	12-109	05/13/11	Acceptable
Phenol-d6	88	23-106	05/13/11	Acceptable
Nitrobenzene-d5	89	26-110	05/13/11	Acceptable
2-Fluorobiphenyl	75	31-94	05/13/11	Acceptable
2,4,6-Tribromophenol	93	23-127	05/13/11	Acceptable
Terphenyl-d14	81	40-127	05/13/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.1	0.43	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethyl) Ether	ND	U	0.21	0.036	1	05/05/11	05/13/11	KWG1103990	
Phenol	**0.097**	J	0.52	0.065	1	05/05/11	05/13/11	KWG1103990	
2-Chlorophenol	ND	U	0.52	0.056	1	05/05/11	05/13/11	KWG1103990	
1,3-Dichlorobenzene	ND	U	0.21	0.022	1	05/05/11	05/13/11	KWG1103990	
1,4-Dichlorobenzene	ND	U	0.21	0.030	1	05/05/11	05/13/11	KWG1103990	
1,2-Dichlorobenzene	ND	U	0.21	0.023	1	05/05/11	05/13/11	KWG1103990	
Benzyl Alcohol	ND	U	0.52	0.075	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroisopropyl) Ether	ND	U	0.21	0.027	1	05/05/11	05/13/11	KWG1103990	
2-Methylphenol	ND	U	0.52	0.12	1	05/05/11	05/13/11	KWG1103990	
Hexachloroethane	ND	U	0.21	0.025	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodi-n-propylamine	ND	U	0.21	0.038	1	05/05/11	05/13/11	KWG1103990	
4-Methylphenol†	ND	U	0.52	0.13	1	05/05/11	05/13/11	KWG1103990	
Nitrobenzene	**0.070**	J	0.21	0.029	1	05/05/11	05/13/11	KWG1103990	
Isophorone	ND	U	0.21	0.017	1	05/05/11	05/13/11	KWG1103990	
2-Nitrophenol	ND	U	0.52	0.065	1	05/05/11	05/13/11	KWG1103990	
2,4-Dimethylphenol	ND	U	4.1	2.3	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethoxy)methane	ND	U	0.21	0.025	1	05/05/11	05/13/11	KWG1103990	
2,4-Dichlorophenol	ND	U	0.52	0.048	1	05/05/11	05/13/11	KWG1103990	
Benzoic Acid	ND	U	5.2	1.2	1	05/05/11	05/13/11	KWG1103990	
1,2,4-Trichlorobenzene	ND	U	0.21	0.017	1	05/05/11	05/13/11	KWG1103990	
4-Chloroaniline	ND	U	0.21	0.026	1	05/05/11	05/13/11	KWG1103990	*
Hexachlorobutadiene	ND	U	0.21	0.028	1	05/05/11	05/13/11	KWG1103990	
4-Chloro-3-methylphenol	ND	U	0.52	0.038	1	05/05/11	05/13/11	KWG1103990	
Hexachlorocyclopentadiene	ND	U	1.1	0.20	1	05/05/11	05/13/11	KWG1103990	
2,4,6-Trichlorophenol	ND	U	0.52	0.060	1	05/05/11	05/13/11	KWG1103990	
2,4,5-Trichlorophenol	ND	U	0.52	0.032	1	05/05/11	05/13/11	KWG1103990	
2-Chloronaphthalene	ND	U	0.21	0.042	1	05/05/11	05/13/11	KWG1103990	
2-Nitroaniline	ND	U	0.21	0.025	1	05/05/11	05/13/11	KWG1103990	
Dimethyl Phthalate	**0.058**	J	0.21	0.022	1	05/05/11	05/13/11	KWG1103990	
2,6-Dinitrotoluene	ND	U	0.21	0.034	1	05/05/11	05/13/11	KWG1103990	
3-Nitroaniline	ND	U	1.1	0.030	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrophenol	ND	U	4.1	0.18	1	05/05/11	05/13/11	KWG1103990	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
4-Nitrophenol	ND	U	2.1	0.29	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrotoluene	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
4-Chlorophenyl Phenyl Ether	ND	U	0.21	0.028	1	05/05/11	05/13/11	KWG1103990	
Diethyl Phthalate	**0.066**	J	0.21	0.013	1	05/05/11	05/13/11	KWG1103990	
4-Nitroaniline	ND	U	1.1	0.020	1	05/05/11	05/13/11	KWG1103990	
2-Methyl-4,6-dinitrophenol	ND	U	2.1	0.026	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodiphenylamine	ND	U	0.21	0.049	1	05/05/11	05/13/11	KWG1103990	
4-Bromophenyl Phenyl Ether	ND	U	0.21	0.027	1	05/05/11	05/13/11	KWG1103990	
Hexachlorobenzene	ND	U	0.21	0.023	1	05/05/11	05/13/11	KWG1103990	
Pentachlorophenol	ND	U	1.1	0.35	1	05/05/11	05/13/11	KWG1103990	
Carbazole	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
Di-n-butyl Phthalate	**0.093**	J	0.21	0.024	1	05/05/11	05/13/11	KWG1103990	
Butyl Benzyl Phthalate	**0.12**	J	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
3,3'-Dichlorobenzidine	ND	U	2.1	0.44	1	05/05/11	05/13/11	KWG1103990	*
Bis(2-ethylhexyl) Phthalate	**0.35**	J	1.1	0.14	1	05/05/11	05/13/11	KWG1103990	
Di-n-octyl Phthalate	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	74	12-109	05/13/11	Acceptable
Phenol-d6	75	23-106	05/13/11	Acceptable
Nitrobenzene-d5	77	26-110	05/13/11	Acceptable
2-Fluorobiphenyl	65	31-94	05/13/11	Acceptable
2,4,6-Tribromophenol	81	23-127	05/13/11	Acceptable
Terphenyl-d14	83	40-127	05/13/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1103990-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	05/05/11	05/18/11	KWG1103990	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	05/05/11	05/18/11	KWG1103990	
Phenol	ND	U	0.48	0.063	1	05/05/11	05/18/11	KWG1103990	
2-Chlorophenol	ND	U	0.48	0.054	1	05/05/11	05/18/11	KWG1103990	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	05/05/11	05/18/11	KWG1103990	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	05/05/11	05/18/11	KWG1103990	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	05/05/11	05/18/11	KWG1103990	
Benzyl Alcohol	ND	U	0.48	0.073	1	05/05/11	05/18/11	KWG1103990	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	05/05/11	05/18/11	KWG1103990	
2-Methylphenol	ND	U	0.48	0.11	1	05/05/11	05/18/11	KWG1103990	
Hexachloroethane	ND	U	0.20	0.024	1	05/05/11	05/18/11	KWG1103990	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	05/05/11	05/18/11	KWG1103990	
4-Methylphenol†	ND	U	0.48	0.12	1	05/05/11	05/18/11	KWG1103990	
Nitrobenzene	ND	U	0.20	0.028	1	05/05/11	05/18/11	KWG1103990	
Isophorone	ND	U	0.20	0.016	1	05/05/11	05/18/11	KWG1103990	
2-Nitrophenol	ND	U	0.48	0.063	1	05/05/11	05/18/11	KWG1103990	
2,4-Dimethylphenol	ND	U	3.9	2.2	1	05/05/11	05/18/11	KWG1103990	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	05/05/11	05/18/11	KWG1103990	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	05/05/11	05/18/11	KWG1103990	
Benzoic Acid	ND	U	4.8	1.1	1	05/05/11	05/18/11	KWG1103990	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	05/05/11	05/18/11	KWG1103990	
4-Chloroaniline	ND	U	0.20	0.025	1	05/05/11	05/18/11	KWG1103990	*
Hexachlorobutadiene	ND	U	0.20	0.027	1	05/05/11	05/18/11	KWG1103990	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	05/05/11	05/18/11	KWG1103990	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	05/05/11	05/18/11	KWG1103990	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	05/05/11	05/18/11	KWG1103990	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	05/05/11	05/18/11	KWG1103990	
2-Chloronaphthalene	ND	U	0.20	0.041	1	05/05/11	05/18/11	KWG1103990	
2-Nitroaniline	ND	U	0.20	0.024	1	05/05/11	05/18/11	KWG1103990	
Dimethyl Phthalate	ND	U	0.20	0.021	1	05/05/11	05/18/11	KWG1103990	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	05/05/11	05/18/11	KWG1103990	
3-Nitroaniline	ND	U	0.96	0.029	1	05/05/11	05/18/11	KWG1103990	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	05/05/11	05/18/11	KWG1103990	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1103990-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	05/05/11	05/18/11	KWG1103990	
4-Nitrophenol	ND	U	2.0	0.28	1	05/05/11	05/18/11	KWG1103990	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	05/05/11	05/18/11	KWG1103990	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	05/05/11	05/18/11	KWG1103990	
Diethyl Phthalate	**0.019**	J	0.20	0.012	1	05/05/11	05/18/11	KWG1103990	
4-Nitroaniline	ND	U	0.96	0.019	1	05/05/11	05/18/11	KWG1103990	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	05/05/11	05/18/11	KWG1103990	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	05/05/11	05/18/11	KWG1103990	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	05/05/11	05/18/11	KWG1103990	
Hexachlorobenzene	ND	U	0.20	0.022	1	05/05/11	05/18/11	KWG1103990	
Pentachlorophenol	ND	U	0.96	0.34	1	05/05/11	05/18/11	KWG1103990	
Carbazole	ND	U	0.20	0.018	1	05/05/11	05/18/11	KWG1103990	
Di-n-butyl Phthalate	**0.031**	J	0.20	0.023	1	05/05/11	05/18/11	KWG1103990	
Butyl Benzyl Phthalate	**0.037**	J	0.20	0.018	1	05/05/11	05/18/11	KWG1103990	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	05/05/11	05/18/11	KWG1103990	*
Bis(2-ethylhexyl) Phthalate	ND	U	0.96	0.13	1	05/05/11	05/18/11	KWG1103990	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	05/05/11	05/18/11	KWG1103990	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	82	12-109	05/18/11	Acceptable
Phenol-d6	80	23-106	05/18/11	Acceptable
Nitrobenzene-d5	92	26-110	05/18/11	Acceptable
2-Fluorobiphenyl	78	31-94	05/18/11	Acceptable
2,4,6-Tribromophenol	80	23-127	05/18/11	Acceptable
Terphenyl-d14	102	40-127	05/18/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
SPI-1-W-042811	K1103713-001	84	88	89	75	93	81
SPI-2-W-042811	K1103713-002	74	75	77	65	81	83
Method Blank	KWG1103990-3	82	80	92	78	80	102
Lab Control Sample	KWG1103990-1	82	80	90	74	84	93
Duplicate Lab Control Sample	KWG1103990-2	83	81	91	76	88	98

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	12-109	Sur5 = 2,4,6-Tribromophenol	23-127
Sur2 = Phenol-d6	23-106	Sur6 = Terphenyl-d14	40-127
Sur3 = Nitrobenzene-d5	26-110		
Sur4 = 2-Fluorobiphenyl	31-94		

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Extracted: 05/05/2011
Date Analyzed: 05/18/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1103990

	Lab Control Sample KWG1103990-1 Lab Control Spike			Duplicate Lab Control Sample KWG1103990-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
N-Nitrosodimethylamine	4.50	5.00	90	4.40	5.00	88	26-119	2	30
Bis(2-chloroethyl) Ether	4.23	5.00	85	4.02	5.00	80	37-109	5	30
Phenol	4.14	5.00	83	3.80	5.00	76	35-114	8	30
2-Chlorophenol	4.38	5.00	88	4.13	5.00	83	37-110	6	30
1,3-Dichlorobenzene	2.98	5.00	60	2.70	5.00	54	14-68	10	30
1,4-Dichlorobenzene	3.10	5.00	62	2.76	5.00	55	15-71	11	30
1,2-Dichlorobenzene	3.35	5.00	67	2.94	5.00	59	17-76	13	30
Benzyl Alcohol	4.21	5.00	84	3.99	5.00	80	32-115	5	30
Bis(2-chloroisopropyl) Ether	4.43	5.00	89	4.12	5.00	82	29-110	7	30
2-Methylphenol	4.21	5.00	84	3.82	5.00	76	21-109	9	30
Hexachloroethane	2.62	5.00	52	2.37	5.00	47	10-59	10	30
N-Nitrosodi-n-propylamine	4.62	5.00	92	4.46	5.00	89	32-112	3	30
4-Methylphenol	4.16	5.00	83	3.96	5.00	79	19-114	5	30
Nitrobenzene	4.76	5.00	95	4.38	5.00	88	36-110	8	30
Isophorone	4.18	5.00	84	4.00	5.00	80	38-106	4	30
2-Nitrophenol	4.61	5.00	92	4.47	5.00	89	41-112	3	30
2,4-Dimethylphenol	3.25	5.00	65	2.94	5.00	59	10-106	10	30
Bis(2-chloroethoxy)methane	4.41	5.00	88	4.25	5.00	85	39-109	4	30
2,4-Dichlorophenol	4.64	5.00	93	4.49	5.00	90	37-111	3	30
Benzoic Acid	9.94	15.0	66	10.7	15.0	72	10-83	8	30
1,2,4-Trichlorobenzene	3.33	5.00	67	2.97	5.00	59	18-76	12	30
4-Chloroaniline	3.23	5.00	65	0.479	5.00	10 *	14-108	148 *	30
Hexachlorobutadiene	2.56	5.00	51	2.34	5.00	47	10-59	9	30
4-Chloro-3-methylphenol	4.42	5.00	88	4.22	5.00	84	33-115	5	30
Hexachlorocyclopentadiene	0.830	5.00	17	0.826	5.00	17	10-37	1	30
2,4,6-Trichlorophenol	4.33	5.00	87	4.14	5.00	83	36-113	5	30
2,4,5-Trichlorophenol	4.39	5.00	88	4.21	5.00	84	41-112	4	30
2-Chloronaphthalene	4.41	5.00	88	4.07	5.00	81	31-95	8	30
2-Nitroaniline	4.28	5.00	86	4.14	5.00	83	40-118	3	30
Dimethyl Phthalate	4.34	5.00	87	4.16	5.00	83	46-111	4	30
2,6-Dinitrotoluene	4.49	5.00	90	4.37	5.00	87	44-116	3	30
3-Nitroaniline	3.97	5.00	79	2.94	5.00	59	34-118	30	30
2,4-Dinitrophenol	3.83	5.00	77	3.54	5.00	71	10-116	8	30
Dibenzofuran	4.09	5.00	82	3.87	5.00	77	37-103	5	30
4-Nitrophenol	4.49	5.00	90	4.38	5.00	88	38-125	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Extracted: 05/05/2011
Date Analyzed: 05/18/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1103990

	Lab Control Sample KWG1103990-1 Lab Control Spike			Duplicate Lab Control Sample KWG1103990-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
2,4-Dinitrotoluene	4.63	5.00	93	4.40	5.00	88	47-119	5	30
4-Chlorophenyl Phenyl Ether	4.00	5.00	80	3.74	5.00	75	37-103	7	30
Diethyl Phthalate	4.35	5.00	87	4.27	5.00	85	47-113	2	30
4-Nitroaniline	3.81	5.00	76	3.72	5.00	74	38-119	2	30
2-Methyl-4,6-dinitrophenol	4.19	5.00	84	3.92	5.00	78	10-125	7	30
N-Nitrosodiphenylamine	3.92	5.00	78	3.62	5.00	72	36-111	8	30
4-Bromophenyl Phenyl Ether	4.13	5.00	83	3.96	5.00	79	42-105	4	30
Hexachlorobenzene	4.18	5.00	84	3.93	5.00	79	42-102	6	30
Pentachlorophenol	3.76	5.00	75	3.60	5.00	72	10-119	4	30
Carbazole	4.26	5.00	85	3.99	5.00	80	49-114	7	30
Di-n-butyl Phthalate	4.41	5.00	88	4.22	5.00	84	44-126	4	30
Butyl Benzyl Phthalate	4.62	5.00	92	4.47	5.00	89	48-115	3	30
3,3'-Dichlorobenzidine	2.92	5.00	58	0.0822	5.00	2 *	13-108	189 *	30
Bis(2-ethylhexyl) Phthalate	4.64	5.00	93	4.55	5.00	91	45-122	2	30
Di-n-octyl Phthalate	4.77	5.00	95	4.38	5.00	88	48-119	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Polynuclear Aromatic Hydrocarbons

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.075**		0.020	0.0030	1	05/02/11	05/10/11	KWG1103859	
2-Methylnaphthalene	**0.12**		0.020	0.0023	1	05/02/11	05/10/11	KWG1103859	
Acenaphthylene	**0.020**	J	0.020	0.0034	1	05/02/11	05/10/11	KWG1103859	
Acenaphthene	**0.010**	J	0.020	0.0044	1	05/02/11	05/10/11	KWG1103859	
Fluorene	**0.025**		0.020	0.0038	1	05/02/11	05/10/11	KWG1103859	
Phenanthrene	**0.035**		0.020	0.0050	1	05/02/11	05/10/11	KWG1103859	
Anthracene	ND	U	0.020	0.0036	1	05/02/11	05/10/11	KWG1103859	
Fluoranthene	**0.020**		0.020	0.0044	1	05/02/11	05/10/11	KWG1103859	
Pyrene	**0.040**		0.020	0.0035	1	05/02/11	05/10/11	KWG1103859	
Benz(a)anthracene	**0.0099**	J	0.020	0.0026	1	05/02/11	05/10/11	KWG1103859	
Chrysene	**0.010**	J	0.020	0.0034	1	05/02/11	05/10/11	KWG1103859	
Benzo(b)fluoranthene	**0.014**	J	0.020	0.0023	1	05/02/11	05/10/11	KWG1103859	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	05/02/11	05/10/11	KWG1103859	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	05/02/11	05/10/11	KWG1103859	
Indeno(1,2,3-cd)pyrene	**0.0075**	J	0.020	0.0026	1	05/02/11	05/10/11	KWG1103859	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	05/02/11	05/10/11	KWG1103859	
Benzo(g,h,i)perylene	**0.014**	J	0.020	0.0029	1	05/02/11	05/10/11	KWG1103859	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	28-98	05/10/11	Acceptable
Fluoranthene-d10	75	31-105	05/10/11	Acceptable
Terphenyl-d14	85	27-112	05/10/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.043**		0.021	0.0031	1	05/02/11	05/11/11	KWG1103859	
2-Methylnaphthalene	**0.026**		0.021	0.0024	1	05/02/11	05/11/11	KWG1103859	
Acenaphthylene	ND	U	0.021	0.0035	1	05/02/11	05/11/11	KWG1103859	
Acenaphthene	**0.0085**	J	0.021	0.0045	1	05/02/11	05/11/11	KWG1103859	
Fluorene	**0.011**	J	0.021	0.0039	1	05/02/11	05/11/11	KWG1103859	
Phenanthrene	**0.019**	J	0.021	0.0051	1	05/02/11	05/11/11	KWG1103859	
Anthracene	ND	U	0.021	0.0037	1	05/02/11	05/11/11	KWG1103859	
Fluoranthene	**0.011**	J	0.021	0.0045	1	05/02/11	05/11/11	KWG1103859	
Pyrene	**0.021**	J	0.021	0.0036	1	05/02/11	05/11/11	KWG1103859	
Benz(a)anthracene	ND	U	0.021	0.0027	1	05/02/11	05/11/11	KWG1103859	
Chrysene	ND	U	0.021	0.0035	1	05/02/11	05/11/11	KWG1103859	
Benzo(b)fluoranthene	ND	U	0.021	0.0024	1	05/02/11	05/11/11	KWG1103859	
Benzo(k)fluoranthene	ND	U	0.021	0.0026	1	05/02/11	05/11/11	KWG1103859	
Benzo(a)pyrene	ND	U	0.021	0.0044	1	05/02/11	05/11/11	KWG1103859	
Indeno(1,2,3-cd)pyrene	ND	U	0.021	0.0027	1	05/02/11	05/11/11	KWG1103859	
Dibenz(a,h)anthracene	ND	U	0.021	0.0026	1	05/02/11	05/11/11	KWG1103859	
Benzo(g,h,i)perylene	**0.0041**	J	0.021	0.0030	1	05/02/11	05/11/11	KWG1103859	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	76	28-98	05/11/11	Acceptable
Fluoranthene-d10	71	31-105	05/11/11	Acceptable
Terphenyl-d14	78	27-112	05/11/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1103859-5	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.019	0.0030	1	05/02/11	05/05/11	KWG1103859	
2-Methylnaphthalene	ND	U	0.019	0.0023	1	05/02/11	05/05/11	KWG1103859	
Acenaphthylene	ND	U	0.019	0.0034	1	05/02/11	05/05/11	KWG1103859	
Acenaphthene	ND	U	0.019	0.0044	1	05/02/11	05/05/11	KWG1103859	
Fluorene	ND	U	0.019	0.0038	1	05/02/11	05/05/11	KWG1103859	
Phenanthrene	ND	U	0.019	0.0050	1	05/02/11	05/05/11	KWG1103859	
Anthracene	ND	U	0.019	0.0036	1	05/02/11	05/05/11	KWG1103859	
Fluoranthene	ND	U	0.019	0.0044	1	05/02/11	05/05/11	KWG1103859	
Pyrene	ND	U	0.019	0.0035	1	05/02/11	05/05/11	KWG1103859	
Benz(a)anthracene	ND	U	0.019	0.0026	1	05/02/11	05/05/11	KWG1103859	
Chrysene	ND	U	0.019	0.0034	1	05/02/11	05/05/11	KWG1103859	
Benzo(b)fluoranthene	ND	U	0.019	0.0023	1	05/02/11	05/05/11	KWG1103859	
Benzo(k)fluoranthene	ND	U	0.019	0.0025	1	05/02/11	05/05/11	KWG1103859	
Benzo(a)pyrene	ND	U	0.019	0.0043	1	05/02/11	05/05/11	KWG1103859	
Indeno(1,2,3-cd)pyrene	ND	U	0.019	0.0026	1	05/02/11	05/05/11	KWG1103859	
Dibenz(a,h)anthracene	ND	U	0.019	0.0025	1	05/02/11	05/05/11	KWG1103859	
Benzo(g,h,i)perylene	ND	U	0.019	0.0029	1	05/02/11	05/05/11	KWG1103859	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	73	28-98	05/05/11	Acceptable
Fluoranthene-d10	75	31-105	05/05/11	Acceptable
Terphenyl-d14	98	27-112	05/05/11	Acceptable

Comments:

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270C SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
SPI-1-W-042811	K1103713-001	78	75	85
SPI-2-W-042811	K1103713-002	76	71	78
Method Blank	KWG1103859-5	73	75	98
Lab Control Sample	KWG1103859-3	79	82	92
Duplicate Lab Control Sample	KWG1103859-4	85	88	101

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	28-98
Sur2 =	Fluoranthene-d10	31-105
Sur3 =	Terphenyl-d14	27-112

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Extracted:**	05/02/2011
Sample Matrix:	Water	**Date Analyzed:**	05/05/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3520C	**Units:**	ug/L
Analysis Method:	8270C SIM	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1103859

	Lab Control Sample KWG1103859-3 Lab Control Spike			Duplicate Lab Control Sample KWG1103859-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	1.92	2.50	77	2.04	2.50	82	39-110	6	30
2-Methylnaphthalene	1.89	2.50	76	1.99	2.50	79	39-115	5	30
Acenaphthylene	2.12	2.50	85	2.24	2.50	90	44-115	6	30
Acenaphthene	2.03	2.50	81	2.14	2.50	86	44-113	6	30
Fluorene	2.04	2.50	81	2.19	2.50	88	48-118	7	30
Phenanthrene	2.09	2.50	84	2.30	2.50	92	47-120	10	30
Anthracene	1.89	2.50	75	2.08	2.50	83	44-117	10	30
Fluoranthene	2.30	2.50	92	2.49	2.50	99	48-128	8	30
Pyrene	2.56	2.50	102	2.83	2.50	113	42-133	10	30
Benz(a)anthracene	2.08	2.50	83	2.29	2.50	92	48-125	10	30
Chrysene	2.16	2.50	86	2.37	2.50	95	50-128	9	30
Benzo(b)fluoranthene	2.40	2.50	96	2.64	2.50	106	49-131	10	30
Benzo(k)fluoranthene	2.30	2.50	92	2.53	2.50	101	54-131	9	30
Benzo(a)pyrene	2.28	2.50	91	2.51	2.50	100	43-134	10	30
Indeno(1,2,3-cd)pyrene	2.18	2.50	87	2.36	2.50	95	45-133	8	30
Dibenz(a,h)anthracene	2.16	2.50	86	2.35	2.50	94	49-133	8	30
Benzo(g,h,i)perylene	2.27	2.50	91	2.48	2.50	99	51-124	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

MEMORANDUM

TO: Project File **DATE:** June 2, 2011

FROM: Jerry Harris

SUBJECT: Laboratory Data Validation Review

PROJECT: Univar Portland

PROJECT #: 816.001.01(048)

TASK: April 28, 2011 Stormwater Sampling

LAB: Columbia Analytical Services Report K1103713

Two water samples were collected on April 28, 2011 from the Univar USA Inc. facility in Portland, Oregon. The samples were identified as SPI-1-W-042811 and SPI-2-W-042811.

The samples were analyzed by one or more of the following methods (Table 1):

Method 1664 (Oil & Grease)

Method 1631E (Mercury)

Method 200.7 (dissolved Fe)

Method 200.8 (total Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn)

Method 300.0 (Sulfate)

Method 350.1 (Ammonia)

Method 415.1 (Total Organic Carbon [TOC])

Method 8081A (Pesticides [PEST])

Method 8082 (PCB Congeners [PCBs])

Method 8151A (Herbicides [HERB])

Method 8260 (Volatile Organic Compounds [VOCs])

Method 8270C (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

Method 9014 (Free Cyanide)

Method 9030M (Total Sulfide)

NWTPH-Dx (Diesel Range Organics [DRO] and Residual Range Organics [RRO])

SM 2540D (Total Suspended Sediments [TSS])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

Laboratory analyses were conducted by Columbia Analytical Services (CAS) of Kelso, Washington. CAS project number: K1103713.

The quality assurance review of the water sample data is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 2004).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested. The laboratory noted that although a trip blank was identified on the chain-of-custody (COC), trip blank bottles were not included in the samples received by the laboratory. PES was notified by the laboratory that they had inadvertently not included trip blank bottles with the bottle order. PES requested that the laboratory proceed with the analyses of the samples. No other issues were noted.

Sample Collection and Preservation

The laboratory cooler receipt log provided by the analytical laboratory was reviewed. All sample bottles were contained in three coolers that were hand-delivered to the laboratory by a courier on the day of collection. The samples were stored and delivered on water ice. The coolers were received at cooler temperatures of -0.2, 3.0, and 2.7 degrees Centigrade (°C), respectively. A temperature blank was included in each cooler and the blank temperatures were 0.7, 0.4, and 2.3°C. The recommended temperature preservation range is 2 °C +/- 4°C.

The cooler and temperature blank temperatures of the first cooler were below the recommended range. The temperature blank temperature of the second cooler was below the recommended range while the cooler temperature was within the recommended range. The preservation temperatures of the third cooler were within the recommended range. The laboratory receipt log indicated that the samples were received on water ice with no damage or anomalies noted (e.g. cracked containers or frozen samples). Based upon this information, the low, but not freezing temperatures noted above are not considered sufficient cause to qualify the data. No data was qualified due to temperature considerations.

Holding Times

Table 2 provides a summary of the extraction times (where appropriate) and analysis holding times. All extractions and analyses were performed within the recommended holding times.

No data was qualified.

Initial Calibration

Hard copies of the initial calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in initial calibration results associated with the project analyses. The laboratory reported the following initial calibration issues:

No significant initial calibration issues were noted in the case narrative; therefore no data qualifications were required.

Continuing Calibration

Hard copies of the continuing calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in continuing calibration results associated with the project analyses.

Method 8081A (PESTs): The laboratory reported that the secondary (confirmation) column primary evaluation criteria were not met for decachlorobiphenyl in CCV 0519F004. The laboratory reported the CCV results from the primary column and concluded the data was not affected.

Method 8151A (HERBs): The laboratory reported that the confirmation comparison criteria of 40% was exceeded for 2,4-D in sample SP-1-W-042811. Per laboratory protocol, the laboratory reported the lower result after determining that there was no evidence of matrix interference in the data. No qualification of the data was warranted.

Method 8260B (VOCs): The laboratory reported that the CCV lower control criterion was not met for trichlorofluoromethane, 1,1-dichloroethene, carbon disulfide, carbon tetrachloride, 1,1,1-trichloroethane, tetrachloroethene, isopropylbenzene, ethylbenzene, n-propylbenzene, and butylbenzene in CCV J:\MS05\0503F005.D. The method requires that 80 percent of analytes are within 20 percent of the true CCV value and allows the remaining analytes to be within 40 percent of the CCV value. The data met this criteria; therefore, the data was not significantly affected. No qualifications were warranted.

No other significant continuing calibration issues relating to the remaining analyses were noted in the case narrative; therefore no data qualifications were required.

Method Blank Results

At least one laboratory method blank was analyzed for each analytical method and extraction group that included the project sample. The method blank results are summarized in Table 3. Target compounds were detected in the method blanks for the following methods:

Method 1631E (mercury): Hg was detected in two of the three method blanks run for this method. The detected concentrations were 0.1 and 0.07 nanograms per liter (ng/l). The concentrations of mercury detected in the project samples were 5.62 and 4.11 ng/l. Because the sample concentrations were more than five times the blank concentrations, the data is not affected by the detections in the blanks. No qualifications were warranted.

Method 200.8 (aluminum and chromium only): Aluminum was detected in the method blank run for this method. The detected concentration was 0.3 micrograms per liter (µg/l). The concentrations of aluminum detected in the project samples were 1200 and 523 µg/l. Because the sample concentrations were more than five times the blank concentration, the aluminum data is not affected by the detection in the blank. Chromium was detected in the method blank run for this method. The detected concentration was 0.06 micrograms per liter (µg/l). The concentrations of chromium detected in the project samples were 2.09 and 1.34 µg/l. Because the sample concentrations were more than five times the blank concentration, the chromium data is not affected by the detection in the blank. No qualifications were warranted.

Method 8270C (butyl benzyl phthalate, diethyl phthalate, and di-n-butyl phthalate only): Butyl benzyl phthalate was detected in the method blank at a concentration of 0.037 µg/l. Butyl benzyl phthalate was detected in the project samples SPI-1-W-042811 and SPI-2-W-0428011 at concentrations of 0.15 and 0.12 µg/l. These concentrations had been qualified by the laboratory as estimated because the reported concentrations were greater than the MDL but less than the MRL. This phthalate is a common laboratory contaminant. Per Section V, paragraph E(2) of the *Functional Guidelines* for semivolatile compounds (USEPA, 1999), because the concentrations of this compound detected in the samples are less than 10 times the concentration detected in the blank, the detection limit for only these detections is raised to the concentration detected in these samples (i.e. for SPI-1-W-042811, the butyl benzyl phthalate result changed to undetected at a MDL of 0.15 µg/l and the concentration of this compound in SPI-2-W-042811 is changed to undetected at a MDL of 0.12 µg/l). Laboratory report pages showing these changes are attached. The data is not qualified.

Diethyl phthalate was detected in the method blank at a concentration of 0.019 µg/l. Diethyl phthalate was detected in the project samples SPI-1-W-042811 and SPI-2-W-042811 at concentrations of 0.079 and 0.066 µg/l. These concentrations had been qualified by the laboratory as estimated because the reported concentrations were greater than the method detection limit (MDL) but less than the method reporting limit (MRL). This phthalate is a common laboratory contaminant. Per Section V, paragraph E(2) of the *Functional Guidelines* for semivolatile compounds (USEPA, 1999), because the concentrations of this compound detected in the samples are less than 10 times the concentration detected in the blank, the detection limit for only these detections is raised to the concentration detected in these samples (i.e. for SPI-1-W-042811, the diethyl phthalate result is changed to undetected at a MDL of 0.079 µg/l and the concentration of this compound in SPI-2-W-042811 is changed to undetected

at a MDL of 0.066 µg/l). Laboratory report pages showing these changes are attached. The data is not qualified.

Di-n-butyl phthalate was detected in the method blank at a concentration of 0.031 µg/l. Di-n-butyl phthalate was detected in the project samples SPI-1-W-042811 and SPI-2-W-0428011 at concentrations of 0.099 and 0.093 µg/l. These concentrations had been qualified by the laboratory as estimated because the reported concentrations were greater than the MDL but less than the MRL. This phthalate is a common laboratory contaminant. Per Section V, paragraph E(2) of the *Functional Guidelines* for semivolatile compounds (USEPA, 1999), because the concentrations of this compound detected in the samples are less than 10 times the concentration detected in the blank, the detection limit for only these detections is raised to the concentration detected in these samples (i.e. for SPI-1-W-042811, the di-n-butyl phthalate result is changed to undetected at a MDL of 0.099 µg/l and the concentration of this compound in SPI-2-W-042811 is changed to undetected at a MDL of 0.093 µg/l). Laboratory report pages showing these changes are attached. The data is not qualified.

NWTPH-Dx (Residual Range Organics only): Residual range organics was detected in the method blank at a concentration of 38 µg/l and in the project samples at concentrations of 810 (SPI-1-W-042811) and 600 (SPI-2-W-042811) µg/l. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Target compounds were not detected in the method blanks for any of the remaining methods. No data qualifications were required.

Trip Blank Results

The laboratory noted that although a trip blank was identified on the COC, trip blank bottles were not included in the samples received by the laboratory. PES was notified by the laboratory that they had inadvertently not included trip blank bottles with the bottle order. No technical data validation qualifications were warranted based upon the lack of trip blank analysis.

Field Blank Results

A field blank was not required for this sampling event. No qualifications were warranted due to the lack of a field blank analysis.

Field Duplicate Analyses

A field duplicate was not required for this sampling event. No qualifications were warranted due to the lack of field duplicate sample.

Laboratory Duplicate Analyses

The laboratory prepared duplicates for the following analyses:

Method 200 (Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn): A batch (non-project) duplicate was prepared. The RPDs for all metals were within the control limits. No qualifications were warranted based upon the batch duplicate results.

Method 300.0 (Sulfate): A batch (non-project) duplicate was prepared. The RPDs for all target analytes were within the control limits. No qualifications were warranted based upon the batch duplicate results.

Method 350.1 (Ammonia): The RPD between the primary and the duplicate of project sample SPI-1-W- 042811 sample was within the control criteria. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): The RPD between the primary and the duplicate sample was two. No qualifications were warranted.

Method 9014 (Free Cyanide): The RPD between the primary and the duplicate sample was not calculated because the primary sample result and the duplicate result were not detected at a detection limit of 0.010 mg/l. No qualifications were warranted.

Method 1664 (Oil & Grease): A batch (non-project) duplicate was prepared. The RPDs for all target analytes were within the control limits. No qualifications were warranted based upon the batch duplicate results.

Method 9030M (Total Sulfide): Total sulfide was not detected in the primary or duplicate samples. The RPD between the primary and the duplicate sample was not calculated. No qualifications were warranted.

SM 2540D (Total Suspended Sediments [TSS]): The relative percent difference (RPD) between the primary and duplicate sample was 40, indicating potential poor accuracy in reported results. The TSS results for the project samples were qualified as estimated and assigned a J flag due to the duplicate results. Laboratory report pages showing these changes are attached. No other qualifications were warranted.

SM 4500CNE (Total Cyanide and Amenable Cyanide): The RPD between the primary and the duplicate sample results for both total cyanide and amenable cyanide was not calculated because the total cyanide primary sample result was not detected at a MRL of 0.010 and the duplicate result had a detection below the MRL. The amenable cyanide RPD was within the control criteria. No qualifications were warranted.

NWTPH-Dx (DRO and HRO): A batch (non-project) duplicate was prepared. The RPDs for all target analytes were within the control limits. No qualifications were warranted based upon the batch duplicate results.

For the remaining methods, either a duplicate was not required or the laboratory prepared matrix spike or laboratory control samples duplicates. These results are discussed in the Matrix Spike and Laboratory Control Sample sections of this report.

Laboratory Control Samples

One laboratory control sample (LCS) was run for each analytical method performed on the project samples. For some methods, an LCS duplicate (LCSD) was analyzed in lieu of a sample or matrix spike duplicate. This is an acceptable substitution. The LCS' were run at the appropriate frequency for this project. The LCS %R and LCS/LCSD (where appropriate) RPD

results are summarized in Table 4. The %Rs and RPDs for all methods and control compounds met the %R acceptance criteria with the following exceptions:

Method 8082A (PCBs): The 2,2',3,4',5,5',6-Heptachlorobiphenyl %R in the method LCS was above the upper control limit indicating a potential high bias in sample results; however, the LCSD %R for this compound was within the control limit. The remaining LCS target analytes were within the control limits for %R and the LCS/LCSD RPDs for all target analytes were within the control limits. 2,2',3,4',5,5',6-Heptachlorobiphenyl was not detected in the project samples. No qualifications were warranted.

Method 8270C (SVOCs): The 3,3-dichlorobenzidine and 4-chloroaniline %Rs in the method LCSD were below the lower control limit, indicating a potential low bias in sample results. The LCS %Rs for 3,3-dichlorobenzidine and 4-chloroaniline were within the control limit. The remaining LCS target analytes were within the control limits for %R. The LCS/LCSD RPDs for all target analytes except 3,3-dichlorobenzidine and 4-chloroaniline were within the control limits. 3,3-dichlorobenzidine and 4-chloroaniline were not detected in the project samples. The laboratory case narrative indicated that these two compounds are not used to control the analysis and were reported for advisory purposes. Based upon the information from the laboratory and the 'in-control' results for these compounds in the LCS, the 3,3-dichlorobenzidine and 4-chloroaniline results are qualified as estimated and assigned an J flag. There is insufficient cause to warrant rejection of this data. Laboratory report pages showing these changes are attached. No other SVOC qualifications were warranted.

Surrogate Recoveries

Surrogates were injected into all samples, field duplicates, method blanks, matrix spike and matrix spike duplicates (MS/MSDs), and laboratory control samples (LCSs) that were analyzed for organic compounds. The surrogate recoveries (%Rs) are summarized in Table 5. The %Rs for all analyses were within the control limits. No qualifications of the data were warranted.

Surrogates were not required for non-organic analyses.

Matrix Spike/Matrix Spike Duplicates

One MS analysis is required for each twenty samples of a given matrix/project; therefore MS were run at the appropriate frequency for this project. Sample duplicates or MSDs are also run by the laboratory at this frequency. The MS/MSD %R and MS/MSD (where appropriate) RPD results are summarized in Table 6 for all MS/MSD samples prepared from project samples. For selected analyses, the laboratory used batch (non-project) MS/MSD samples. In instances where there was insufficient sample to prepare a project or batch MS/MSD, the laboratory may omit the MS and analyze a LCSD in lieu of a MSD.

MS analyses were conducted for each of the each of the following analytical methods performed on the project sample:

Method 350.1 (Ammonia): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): The MS %R was within the control limits. No qualifications were warranted.

Method 9014 (Free Cyanide): The MS %R was above the upper control limit, indicating a potential matrix-related high bias in sample results. Free cyanide was not detected in the project samples; therefore the high bias was not realized. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 9030M (Total Sulfide): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Batch (non-project) MSs and MSDs were prepared by the laboratory for selected methods. Because the MS and MSD samples were prepared from a non-project sample, the batch MS/MSD results do not apply to the project sample data. However, the reporting of the batch results are requested to confirm that the laboratory is following the property QA/QC protocols. Methods that used a batch MS and MSD (if required) are:

Method 1631E (mercury)

Method 1664 (Oil & Grease)

Method 200 (Metals)

Method 300.0 (Sulfate)

Method 8260 (Volatile Organic Compounds [VOCs])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

For the following methods, a LCS/LCS duplicate analysis was performed in lieu of a MS/MSD due to lack of sufficient project sample. This substitution is considered acceptable and the LCS/LCSD results are discussed in the LCS section above:

Method 8081B (Pesticides [PEST])

Method 8151A (Herbicides [HERB])

Method 8082A (PCBs)

Method 8270C (Semi-Volatile Organic Compounds [SVOCs])

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

A MS is not required for the following methods:

SM 2540D (Total Suspended Sediments [TSS])

Due to insufficient sample, neither a batch nor project MS/MSD was prepared for the NWTPH-Dx (DRO and RRO) method. The laboratory analyzed a batch sample duplicate in lieu of these

analyses. This is an acceptable substitution in these types of cases. No qualifications were warranted. The sample duplicate result is discussed in the laboratory duplicates section.

Other Quality Control Issues

No other significant quality control issues were identified.

Quantitation Limits

The laboratory analytical results were reported based on laboratory MRLs for routine analytical services (RAS). The MRLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The MRLs are dependent upon sample concentration, sample volume, and dilutions, if required. MDL were also reported for selected analytes. In some cases, the laboratory reported a concentration between the MRL and MDL and qualified these results as estimated. These qualifiers are retained for validation purposes. No other data qualifiers were assigned based on MRLs or MDLs.

Data Assessment

Data were qualified as estimated. Laboratory report pages showing the data qualifications are attached (excluding data qualifiers assigned due to detections between the MDL and MRL). All data, including the data qualified as estimated, are judged to be acceptable for their intended use.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	05/05/11	05/13/11	KWG1103990	
Phenol	**0.091**	J	0.50	0.063	1	05/05/11	05/13/11	KWG1103990	
2-Chlorophenol	ND	U	0.50	0.054	1	05/05/11	05/13/11	KWG1103990	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	05/05/11	05/13/11	KWG1103990	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	05/05/11	05/13/11	KWG1103990	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	05/05/11	05/13/11	KWG1103990	
Benzyl Alcohol	**0.12**	J	0.50	0.073	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	05/05/11	05/13/11	KWG1103990	
2-Methylphenol	ND	U	0.50	0.11	1	05/05/11	05/13/11	KWG1103990	
Hexachloroethane	ND	U	0.20	0.024	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	05/05/11	05/13/11	KWG1103990	
4-Methylphenol†	**0.14**	J	0.50	0.12	1	05/05/11	05/13/11	KWG1103990	
Nitrobenzene	**0.095**	J	0.20	0.028	1	05/05/11	05/13/11	KWG1103990	
Isophorone	ND	U	0.20	0.016	1	05/05/11	05/13/11	KWG1103990	
2-Nitrophenol	ND	U	0.50	0.063	1	05/05/11	05/13/11	KWG1103990	
2,4-Dimethylphenol	ND	U	4.0	2.2	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	05/05/11	05/13/11	KWG1103990	
2,4-Dichlorophenol	ND	U	0.50	0.047	1	05/05/11	05/13/11	KWG1103990	
Benzoic Acid	ND	U	5.0	1.1	1	05/05/11	05/13/11	KWG1103990	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	05/05/11	05/13/11	KWG1103990	
4-Chloroaniline	ND	U J	0.20	0.025	1	05/05/11	05/13/11	KWG1103990	*
Hexachlorobutadiene	ND	U	0.20	0.027	1	05/05/11	05/13/11	KWG1103990	
4-Chloro-3-methylphenol	ND	U	0.50	0.037	1	05/05/11	05/13/11	KWG1103990	
Hexachlorocyclopentadiene	ND	U	1.0	0.19	1	05/05/11	05/13/11	KWG1103990	
2,4,6-Trichlorophenol	ND	U	0.50	0.058	1	05/05/11	05/13/11	KWG1103990	
2,4,5-Trichlorophenol	ND	U	0.50	0.031	1	05/05/11	05/13/11	KWG1103990	
2-Chloronaphthalene	ND	U	0.20	0.041	1	05/05/11	05/13/11	KWG1103990	
2-Nitroaniline	ND	U	0.20	0.024	1	05/05/11	05/13/11	KWG1103990	
Dimethyl Phthalate	**0.068**	J	0.20	0.021	1	05/05/11	05/13/11	KWG1103990	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	05/05/11	05/13/11	KWG1103990	
3-Nitroaniline	ND	U	1.0	0.029	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrophenol	ND	U	4.0	0.17	1	05/05/11	05/13/11	KWG1103990	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-042811	**Units:**	ug/L
Lab Code:	K1103713-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	**0.025**	J	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
4-Nitrophenol	ND	U	2.0	0.28	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	05/05/11	05/13/11	KWG1103990	
Diethyl Phthalate	ND ~~**0.079**~~	~~J~~	0.20	~~0.012~~ 0.079		05/05/11	05/13/11	KWG1103990	
4-Nitroaniline	ND	U	1.0	0.019	1	05/05/11	05/13/11	KWG1103990	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	05/05/11	05/13/11	KWG1103990	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	05/05/11	05/13/11	KWG1103990	
Hexachlorobenzene	ND	U	0.20	0.022	1	05/05/11	05/13/11	KWG1103990	
Pentachlorophenol	ND	U	1.0	0.34	1	05/05/11	05/13/11	KWG1103990	
Carbazole	ND	U	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	
Di-n-butyl Phthalate	ND ~~**0.099**~~	~~J~~	0.20	~~0.023~~ 0.099		05/05/11	05/13/11	KWG1103990	
Butyl Benzyl Phthalate	ND ~~**0.15**~~	~~J~~	0.20	~~0.018~~ 0.15		05/05/11	05/13/11	KWG1103990	
3,3'-Dichlorobenzidine	ND	U J	2.0	0.43	1	05/05/11	05/13/11	KWG1103990	*
Bis(2-ethylhexyl) Phthalate	**0.91**	J	1.0	0.13	1	05/05/11	05/13/11	KWG1103990	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	05/05/11	05/13/11	KWG1103990	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	84	12-109	05/13/11	Acceptable
Phenol-d6	88	23-106	05/13/11	Acceptable
Nitrobenzene-d5	89	26-110	05/13/11	Acceptable
2-Fluorobiphenyl	75	31-94	05/13/11	Acceptable
2,4,6-Tribromophenol	93	23-127	05/13/11	Acceptable
Terphenyl-d14	81	40-127	05/13/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility/165
Sample Matrix: Water

Service Request: K1103713
Date Collected: 04/28/2011
Date Received: 04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-W-042811
Lab Code: K1103713-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.1	0.43	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethyl) Ether	ND	U	0.21	0.036	1	05/05/11	05/13/11	KWG1103990	
Phenol	**0.097**	J	0.52	0.065	1	05/05/11	05/13/11	KWG1103990	
2-Chlorophenol	ND	U	0.52	0.056	1	05/05/11	05/13/11	KWG1103990	
1,3-Dichlorobenzene	ND	U	0.21	0.022	1	05/05/11	05/13/11	KWG1103990	
1,4-Dichlorobenzene	ND	U	0.21	0.030	1	05/05/11	05/13/11	KWG1103990	
1,2-Dichlorobenzene	ND	U	0.21	0.023	1	05/05/11	05/13/11	KWG1103990	
Benzyl Alcohol	ND	U	0.52	0.075	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroisopropyl) Ether	ND	U	0.21	0.027	1	05/05/11	05/13/11	KWG1103990	
2-Methylphenol	ND	U	0.52	0.12	1	05/05/11	05/13/11	KWG1103990	
Hexachloroethane	ND	U	0.21	0.025	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodi-n-propylamine	ND	U	0.21	0.038	1	05/05/11	05/13/11	KWG1103990	
4-Methylphenol†	ND	U	0.52	0.13	1	05/05/11	05/13/11	KWG1103990	
Nitrobenzene	**0.070**	J	0.21	0.029	1	05/05/11	05/13/11	KWG1103990	
Isophorone	ND	U	0.21	0.017	1	05/05/11	05/13/11	KWG1103990	
2-Nitrophenol	ND	U	0.52	0.065	1	05/05/11	05/13/11	KWG1103990	
2,4-Dimethylphenol	ND	U	4.1	2.3	1	05/05/11	05/13/11	KWG1103990	
Bis(2-chloroethoxy)methane	ND	U	0.21	0.025	1	05/05/11	05/13/11	KWG1103990	
2,4-Dichlorophenol	ND	U	0.52	0.048	1	05/05/11	05/13/11	KWG1103990	
Benzoic Acid	ND	U	5.2	1.2	1	05/05/11	05/13/11	KWG1103990	
1,2,4-Trichlorobenzene	ND	U	0.21	0.017	1	05/05/11	05/13/11	KWG1103990	
4-Chloroaniline	ND	U J	0.21	0.026	1	05/05/11	05/13/11	KWG1103990	*
Hexachlorobutadiene	ND	U	0.21	0.028	1	05/05/11	05/13/11	KWG1103990	
4-Chloro-3-methylphenol	ND	U	0.52	0.038	1	05/05/11	05/13/11	KWG1103990	
Hexachlorocyclopentadiene	ND	U	1.1	0.20	1	05/05/11	05/13/11	KWG1103990	
2,4,6-Trichlorophenol	ND	U	0.52	0.060	1	05/05/11	05/13/11	KWG1103990	
2,4,5-Trichlorophenol	ND	U	0.52	0.032	1	05/05/11	05/13/11	KWG1103990	
2-Chloronaphthalene	ND	U	0.21	0.042	1	05/05/11	05/13/11	KWG1103990	
2-Nitroaniline	ND	U	0.21	0.025	1	05/05/11	05/13/11	KWG1103990	
Dimethyl Phthalate	**0.058**	J	0.21	0.022	1	05/05/11	05/13/11	KWG1103990	
2,6-Dinitrotoluene	ND	U	0.21	0.034	1	05/05/11	05/13/11	KWG1103990	
3-Nitroaniline	ND	U	1.1	0.030	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrophenol	ND	U	4.1	0.18	1	05/05/11	05/13/11	KWG1103990	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	04/28/2011
Sample Matrix:	Water	**Date Received:**	04/29/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-042811	**Units:**	ug/L
Lab Code:	K1103713-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
4-Nitrophenol	ND	U	2.1	0.29	1	05/05/11	05/13/11	KWG1103990	
2,4-Dinitrotoluene	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
4-Chlorophenyl Phenyl Ether	ND	U	0.21	0.028	1	05/05/11	05/13/11	KWG1103990	
Diethyl Phthalate	ND ~~0.066~~	~~J~~	0.21	~~0.013~~ 0.066		05/05/11	05/13/11	KWG1103990	
4-Nitroaniline	ND	U	1.1	0.020	1	05/05/11	05/13/11	KWG1103990	
2-Methyl-4,6-dinitrophenol	ND	U	2.1	0.026	1	05/05/11	05/13/11	KWG1103990	
N-Nitrosodiphenylamine	ND	U	0.21	0.049	1	05/05/11	05/13/11	KWG1103990	
4-Bromophenyl Phenyl Ether	ND	U	0.21	0.027	1	05/05/11	05/13/11	KWG1103990	
Hexachlorobenzene	ND	U	0.21	0.023	1	05/05/11	05/13/11	KWG1103990	
Pentachlorophenol	ND	U	1.1	0.35	1	05/05/11	05/13/11	KWG1103990	
Carbazole	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	
Di-n-butyl Phthalate	ND ~~0.093~~	~~J~~	0.21	~~0.024~~ 0.093		05/05/11	05/13/11	KWG1103990	
Butyl Benzyl Phthalate	ND ~~0.12~~	~~J~~	0.21	~~0.019~~ 0.12		05/05/11	05/13/11	KWG1103990	
3,3'-Dichlorobenzidine	ND	U J	2.1	0.44	1	05/05/11	05/13/11	KWG1103990	*
Bis(2-ethylhexyl) Phthalate	**0.35**	J	1.1	0.14	1	05/05/11	05/13/11	KWG1103990	
Di-n-octyl Phthalate	ND	U	0.21	0.019	1	05/05/11	05/13/11	KWG1103990	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	74	12-109	05/13/11	Acceptable
Phenol-d6	75	23-106	05/13/11	Acceptable
Nitrobenzene-d5	77	26-110	05/13/11	Acceptable
2-Fluorobiphenyl	65	31-94	05/13/11	Acceptable
2,4,6-Tribromophenol	81	23-127	05/13/11	Acceptable
Terphenyl-d14	83	40-127	05/13/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1103713
Project:	Portland Facility/165	**Date Collected:**	4/28/11
Sample Matrix:	Water	**Date Received:**	4/29/11
		Units:	mg/L
Analysis Method:	SM 2540 D	**Basis:**	NA

Solids, Total Suspended (TSS)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-W-042811	K1103713-001	**25.0**	J	5.0	5.0	1	NA	5/4/11 14:30	
SPI-2-W-042811	K1103713-002	**12.0**	J	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB1	ND	U	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB2	ND	U	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB3	ND	U	5.0	5.0	1	NA	5/4/11 14:30	
Method Blank	K1103713-MB4	ND	U	5.0	5.0	1	NA	5/4/11 14:30	

Table 1. Sample Summary

SAMP_ID	SAMP_DATE	METHOD_ID
SPI-1-W-042811		
	4/28/2011	1631E
	4/28/2011	1664
	4/28/2011	200.7
	4/28/2011	200.8
	4/28/2011	300.0
	4/28/2011	350.1
	4/28/2011	415.1
	4/28/2011	4500-CNE
	4/28/2011	8081B
	4/28/2011	8082A
	4/28/2011	8151A
	4/28/2011	8260C
	4/28/2011	8270C
	4/28/2011	8270C SIM
	4/28/2011	9014
	4/28/2011	9030M
	4/28/2011	NWTPH-Dx
	4/28/2011	SM 2540 D
SPI-2-W-042811		
	4/28/2011	1631E
	4/28/2011	1664
	4/28/2011	200.7
	4/28/2011	200.8
	4/28/2011	300.0
	4/28/2011	350.1
	4/28/2011	415.1
	4/28/2011	4500-CNE
	4/28/2011	8081B
	4/28/2011	8082A
	4/28/2011	8151A
	4/28/2011	8260C
	4/28/2011	8270C
	4/28/2011	8270C SIM
	4/28/2011	9014
	4/28/2011	9030M
	4/28/2011	NWTPH-Dx
	4/28/2011	SM 2540 D

Table 2. HOLD TIME SUMMARY

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	1631E	4/28/2011	5/2/2011	5/6/2011	NA	OK
	200.7	4/28/2011	5/12/2011	5/14/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/18/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	300.0	4/28/2011		4/29/2011	NA	OK
	350.1	4/28/2011		5/4/2011	NA	OK
	415.1	4/28/2011		5/5/2011	NA	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-1-W-042811	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/10/2011	OK	OK
	9014	4/28/2011		5/11/2011	NA	OK
	9030M	4/28/2011	5/4/2011	5/4/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	SM 2540 D	4/28/2011		5/4/2011	NA	OK
SPI-2-W-042811	1631E	4/28/2011	5/2/2011	5/6/2011	NA	OK
	200.7	4/28/2011	5/12/2011	5/14/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/18/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	200.8	4/28/2011	5/12/2011	5/17/2011	NA	OK
	300.0	4/28/2011		4/29/2011	NA	OK
	350.1	4/28/2011		5/4/2011	NA	OK
	415.1	4/28/2011		4/29/2011	NA	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8081B	4/28/2011	5/4/2011	5/17/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8082A	4/28/2011	5/3/2011	5/5/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8151A	4/28/2011	5/2/2011	5/23/2011	OK	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8260C	4/28/2011	5/3/2011	5/3/2011	NA	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C	4/28/2011	5/5/2011	5/13/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	8270C SIM	4/28/2011	5/2/2011	5/11/2011	OK	OK
	9014	4/28/2011		5/11/2011	NA	OK
	9030M	4/28/2011	5/4/2011	5/4/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI-2-W-042811	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	NWTPH-Dx	4/28/2011	5/5/2011	5/9/2011	NA	OK
	SM 2540 D	4/28/2011		5/4/2011	NA	OK

Table 3. METHOD BLANK SUMMARY

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
1631E	K1103713	133048	Mercury, Total	METHOD BLANK	0.07	0.06	1.0	ng/L
1631E	K1103713	133048	Mercury, Total	METHOD BLANK		0.06	1.0	ng/L
1631E	K1103713	133048	Mercury, Total	METHOD BLANK	0.1	0.06	1.0	ng/L
1664	K1103713	133616	Oil and Grease	METHOD BLANK		0.8	5.0	mg/L
200.7	K1103713	133657	Iron, Total	METHOD BLANK		3.0	10.0	ug/L
200.8	K1103713	133656	Aluminum, Total	METHOD BLANK	0.3	0.3	2.0	ug/L
200.8	K1103713	133656	Antimony, Total	METHOD BLANK		0.02	0.05	ug/L
200.8	K1103713	133656	Arsenic, Total	METHOD BLANK		0.07	0.50	ug/L
200.8	K1103713	133656	Cadmium, Total	METHOD BLANK		0.003	0.020	ug/L
200.8	K1103713	133656	Chromium, Total	METHOD BLANK	0.06	0.04	0.20	ug/L
200.8	K1103713	133656	Copper, Total	METHOD BLANK		0.02	0.10	ug/L
200.8	K1103713	133656	Lead, Total	METHOD BLANK		0.005	0.020	ug/L
200.8	K1103713	133656	Manganese, Total	METHOD BLANK		0.01	0.05	ug/L
200.8	K1103713	133656	Molybdenum, Total	METHOD BLANK		0.008	0.050	ug/L
200.8	K1103713	133656	Nickel, Total	METHOD BLANK		0.03	0.20	ug/L
200.8	K1103713	133656	Selenium, Total	METHOD BLANK		0.3	1.0	ug/L
200.8	K1103713	133656	Silver, Total	METHOD BLANK		0.004	0.020	ug/L
200.8	K1103713	133656	Zinc, Total	METHOD BLANK		0.20	0.50	ug/L
300.0	K1103713	244211	Sulfate	METHOD BLANK		0.01	0.20	mg/L
350.1	K1103713	244704	Ammonia as Nitrogen	METHOD BLANK		0.020	0.050	mg/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
415.1	K1103713	244297	Carbon, Total Organic	METHOD BLANK		0.07	0.50	mg/L
415.1	K1103713	244975	Carbon, Total Organic	METHOD BLANK		0.07	0.50	mg/L
4500-CNE	K1103713	132972	Cyanide, Total	METHOD BLANK		0.003	0.010	mg/L
4500-CNE	K1103713	133381	Cyanide, Amenable to Chlorination	METHOD BLANK		0.003	0.010	mg/L
8081B	K1103713	KWG1104292	2,4'-DDD	METHOD BLANK		0.093	0.50	ng/L
8081B	K1103713	KWG1104292	2,4'-DDE	METHOD BLANK		0.12	0.50	ng/L
8081B	K1103713	KWG1104292	2,4'-DDT	METHOD BLANK		0.13	0.50	ng/L
8081B	K1103713	KWG1104292	4,4'-DDD	METHOD BLANK		0.21	0.50	ng/L
8081B	K1103713	KWG1104292	4,4'-DDE	METHOD BLANK		0.19	0.50	ng/L
8081B	K1103713	KWG1104292	4,4'-DDT	METHOD BLANK		0.17	0.50	ng/L
8081B	K1103713	KWG1104292	Aldrin	METHOD BLANK		0.11	0.50	ng/L
8081B	K1103713	KWG1104292	alpha-BHC	METHOD BLANK		0.21	0.50	ng/L
8081B	K1103713	KWG1104292	alpha-Chlordane	METHOD BLANK		0.27	0.50	ng/L
8081B	K1103713	KWG1104292	beta-BHC	METHOD BLANK		0.41	0.50	ng/L
8081B	K1103713	KWG1104292	Chlordane	METHOD BLANK		2.0	10	ng/L
8081B	K1103713	KWG1104292	cis-Nonachlor	METHOD BLANK		0.14	0.50	ng/L
8081B	K1103713	KWG1104292	Decachlorobiphenyl	METHOD BLANK				%
8081B	K1103713	KWG1104292	delta-BHC	METHOD BLANK		0.14	0.50	ng/L
8081B	K1103713	KWG1104292	Dieldrin	METHOD BLANK		0.37	0.50	ng/L
8081B	K1103713	KWG1104292	Endosulfan I	METHOD BLANK		0.25	0.50	ng/L
8081B	K1103713	KWG1104292	Endosulfan II	METHOD BLANK		0.35	0.50	ng/L
8081B	K1103713	KWG1104292	Endosulfan Sulfate	METHOD BLANK		0.28	0.50	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8081B	K1103713	KWG1104292	Endrin	METHOD BLANK		0.49	0.50	ng/L
8081B	K1103713	KWG1104292	Endrin Aldehyde	METHOD BLANK		0.21	0.50	ng/L
8081B	K1103713	KWG1104292	Endrin Ketone	METHOD BLANK		0.32	0.50	ng/L
8081B	K1103713	KWG1104292	gamma-BHC	METHOD BLANK		0.47	0.50	ng/L
8081B	K1103713	KWG1104292	gamma-Chlordane	METHOD BLANK		0.31	0.50	ng/L
8081B	K1103713	KWG1104292	Heptachlor	METHOD BLANK		0.18	0.50	ng/L
8081B	K1103713	KWG1104292	Heptachlor Epoxide	METHOD BLANK		0.21	0.50	ng/L
8081B	K1103713	KWG1104292	Hexachlorobenzene	METHOD BLANK		0.27	0.50	ng/L
8081B	K1103713	KWG1104292	Methoxychlor	METHOD BLANK		0.28	0.50	ng/L
8081B	K1103713	KWG1104292	Oxychlordane	METHOD BLANK		0.069	0.50	ng/L
8081B	K1103713	KWG1104292	Tetrachloro-m-xylene	METHOD BLANK				%
8081B	K1103713	KWG1104292	Toxaphene	METHOD BLANK		9.0	25	ng/L
8081B	K1103713	KWG1104292	trans-Nonachlor	METHOD BLANK		0.11	0.50	ng/L
8082A	K1103713	KWG1104023	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	METHOD BLANK		0.55	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,3',4,4',5,6-Octachlorobiphenyl	METHOD BLANK		0.33	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,3',4,4',5-Heptachlorobiphenyl	METHOD BLANK		0.12	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,3',4,4'-Hexachlorobiphenyl	METHOD BLANK		0.57	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.37	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,4,4',5',6-Heptachlorobiphenyl	METHOD BLANK		0.77	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.62	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,4,4',6,6'-Heptachlorobiphenyl	METHOD BLANK		0.34	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,4',5,5',6-Heptachlorobiphenyl	METHOD BLANK		0.27	5.0	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8082A	K1103713	KWG1104023	2,2',3,4',5-Pentachlorobiphenyl	METHOD BLANK		0.33	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,4,5'-Pentachlorobiphenyl	METHOD BLANK		0.35	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',3,5'-Tetrachlorobiphenyl	METHOD BLANK		0.31	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.48	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',4,5,5'-Pentachlorobiphenyl	METHOD BLANK		0.25	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',5,5'-Tetrachlorobiphenyl	METHOD BLANK		0.32	5.0	ng/L
8082A	K1103713	KWG1104023	2,2',5-Trichlorobiphenyl	METHOD BLANK		5.0	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,3',4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.23	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,3',4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.13	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,3',4,4',5-Hexachlorobiphenyl	METHOD BLANK		0.34	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,3',4,4',6-Hexachlorobiphenyl	METHOD BLANK		0.30	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,3',4,4'-Pentachlorobiphenyl	METHOD BLANK		0.27	5.0	ng/L
8082A	K1103713	KWG1104023	2,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.29	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,4,4',5,6-Hexachlorobiphenyl	METHOD BLANK		0.33	5.0	ng/L
8082A	K1103713	KWG1104023	2',3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.19	5.0	ng/L
8082A	K1103713	KWG1104023	2,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.099	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.20	5.0	ng/L
8082A	K1103713	KWG1104023	2,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.30	5.0	ng/L
8082A	K1103713	KWG1104023	2,3,4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.39	5.0	ng/L
8082A	K1103713	KWG1104023	2,4,4'-Trichlorobiphenyl	METHOD BLANK		0.34	5.0	ng/L
8082A	K1103713	KWG1104023	2,4'-Dichlorobiphenyl	METHOD BLANK		0.84	5.0	ng/L
8082A	K1103713	KWG1104023	3,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.34	5.0	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8082A	K1103713	KWG1104023	3,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.37	5.0	ng/L
8082A	K1103713	KWG1104023	3,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.29	5.0	ng/L
8082A	K1103713	KWG1104023	3,4,4',5-Tetrachlorobiphenyl	METHOD BLANK		0.34	5.0	ng/L
8082A	K1103713	KWG1104023	Decachlorobiphenyl	METHOD BLANK		0.48	5.0	ng/L
8082A	K1103713	KWG1104023	Tetrachloro-m-xylene	METHOD BLANK				%
8151A	K1103713	KWG1104406	2,4,5-T	METHOD BLANK		0.058	0.20	ug/L
8151A	K1103713	KWG1104406	2,4,5-TP	METHOD BLANK		0.054	0.20	ug/L
8151A	K1103713	KWG1104406	2,4-D	METHOD BLANK		0.054	0.40	ug/L
8151A	K1103713	KWG1104406	2,4-DB	METHOD BLANK		0.17	0.40	ug/L
8151A	K1103713	KWG1104406	2,4-Dichlorophenylacetic Acid	METHOD BLANK				%
8151A	K1103713	KWG1104406	Dalapon	METHOD BLANK		0.095	0.40	ug/L
8151A	K1103713	KWG1104406	Dicamba	METHOD BLANK		0.10	0.20	ug/L
8151A	K1103713	KWG1104406	Dichlorprop	METHOD BLANK		0.060	0.40	ug/L
8151A	K1103713	KWG1104406	Dinoseb	METHOD BLANK		0.050	0.20	ug/L
8151A	K1103713	KWG1104406	MCPA	METHOD BLANK		35	100	ug/L
8151A	K1103713	KWG1104406	MCPP	METHOD BLANK		31	100	ug/L
8260C	K1103713	KWG1103928	1,1,1,2-Tetrachloroethane	METHOD BLANK		0.11	0.50	ug/L
8260C	K1103713	KWG1103928	1,1,1-Trichloroethane	METHOD BLANK		0.075	0.50	ug/L
8260C	K1103713	KWG1103928	1,1,2,2-Tetrachloroethane	METHOD BLANK		0.16	0.50	ug/L
8260C	K1103713	KWG1103928	1,1,2-Trichloroethane	METHOD BLANK		0.14	0.50	ug/L
8260C	K1103713	KWG1103928	1,1-Dichloroethane	METHOD BLANK		0.077	0.50	ug/L
8260C	K1103713	KWG1103928	1,1-Dichloroethene	METHOD BLANK		0.074	0.50	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8260C	K1103713	KWG1103928	1,2,3-Trichloropropane	METHOD BLANK		0.20	0.50	ug/L
8260C	K1103713	KWG1103928	1,2,4-Trimethylbenzene	METHOD BLANK		0.069	2.0	ug/L
8260C	K1103713	KWG1103928	1,2-Dibromoethane	METHOD BLANK		0.10	2.0	ug/L
8260C	K1103713	KWG1103928	1,2-Dichloroethane	METHOD BLANK		0.080	0.50	ug/L
8260C	K1103713	KWG1103928	1,2-Dichloropropane	METHOD BLANK		0.095	0.50	ug/L
8260C	K1103713	KWG1103928	1,3,5-Trimethylbenzene	METHOD BLANK		0.089	2.0	ug/L
8260C	K1103713	KWG1103928	1,3-Dichloropropane	METHOD BLANK		0.14	0.50	ug/L
8260C	K1103713	KWG1103928	2,2-Dichloropropane	METHOD BLANK		0.060	0.50	ug/L
8260C	K1103713	KWG1103928	2-Butanone	METHOD BLANK		1.9	20	ug/L
8260C	K1103713	KWG1103928	2-Chloroethyl Vinyl Ether	METHOD BLANK		0.16	5.0	ug/L
8260C	K1103713	KWG1103928	2-Hexanone	METHOD BLANK		2.7	20	ug/L
8260C	K1103713	KWG1103928	4-Bromofluorobenzene	METHOD BLANK				%
8260C	K1103713	KWG1103928	4-Isopropyltoluene	METHOD BLANK		0.051	2.0	ug/L
8260C	K1103713	KWG1103928	4-Methyl-2-pentanone	METHOD BLANK		2.6	20	ug/L
8260C	K1103713	KWG1103928	Acetone	METHOD BLANK		3.3	20	ug/L
8260C	K1103713	KWG1103928	Acrolein	METHOD BLANK		0.96	50	ug/L
8260C	K1103713	KWG1103928	Acrylonitrile	METHOD BLANK		0.26	5.0	ug/L
8260C	K1103713	KWG1103928	Benzene	METHOD BLANK		0.054	0.50	ug/L
8260C	K1103713	KWG1103928	Bromochloromethane	METHOD BLANK		0.16	0.50	ug/L
8260C	K1103713	KWG1103928	Bromodichloromethane	METHOD BLANK		0.091	0.50	ug/L
8260C	K1103713	KWG1103928	Bromoform	METHOD BLANK		0.16	0.50	ug/L
8260C	K1103713	KWG1103928	Bromomethane	METHOD BLANK		0.090	0.50	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8260C	K1103713	KWG1103928	Carbon Disulfide	METHOD BLANK		0.055	0.50	ug/L
8260C	K1103713	KWG1103928	Carbon Tetrachloride	METHOD BLANK		0.096	0.50	ug/L
8260C	K1103713	KWG1103928	Chlorobenzene	METHOD BLANK		0.11	0.50	ug/L
8260C	K1103713	KWG1103928	Chloroethane	METHOD BLANK		0.16	0.50	ug/L
8260C	K1103713	KWG1103928	Chloroform	METHOD BLANK		0.072	0.50	ug/L
8260C	K1103713	KWG1103928	Chloromethane	METHOD BLANK		0.068	0.50	ug/L
8260C	K1103713	KWG1103928	cis-1,2-Dichloroethene	METHOD BLANK		0.067	0.50	ug/L
8260C	K1103713	KWG1103928	cis-1,3-Dichloropropene	METHOD BLANK		0.18	0.50	ug/L
8260C	K1103713	KWG1103928	Dibromochloromethane	METHOD BLANK		0.14	0.50	ug/L
8260C	K1103713	KWG1103928	Dibromofluoromethane	METHOD BLANK				%
8260C	K1103713	KWG1103928	Dibromomethane	METHOD BLANK		0.15	0.50	ug/L
8260C	K1103713	KWG1103928	Dichlorodifluoromethane	METHOD BLANK		0.13	0.50	ug/L
8260C	K1103713	KWG1103928	Dichlorofluoromethane	METHOD BLANK		0.053	0.50	ug/L
8260C	K1103713	KWG1103928	Dichloromethane	METHOD BLANK		0.10	2.0	ug/L
8260C	K1103713	KWG1103928	Ethylbenzene	METHOD BLANK		0.050	0.50	ug/L
8260C	K1103713	KWG1103928	Iodomethane	METHOD BLANK		0.11	5.0	ug/L
8260C	K1103713	KWG1103928	Isopropylbenzene	METHOD BLANK		0.051	2.0	ug/L
8260C	K1103713	KWG1103928	m,p-Xylenes	METHOD BLANK		0.091	0.50	ug/L
8260C	K1103713	KWG1103928	Naphthalene	METHOD BLANK		0.088	2.0	ug/L
8260C	K1103713	KWG1103928	n-Butylbenzene	METHOD BLANK		0.044	2.0	ug/L
8260C	K1103713	KWG1103928	n-Propylbenzene	METHOD BLANK		0.051	2.0	ug/L
8260C	K1103713	KWG1103928	o-Xylene	METHOD BLANK		0.074	0.50	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8260C	K1103713	KWG1103928	sec-Butylbenzene	METHOD BLANK		0.062	2.0	ug/L
8260C	K1103713	KWG1103928	Styrene	METHOD BLANK		0.089	0.50	ug/L
8260C	K1103713	KWG1103928	Tetrachloroethene	METHOD BLANK		0.099	0.50	ug/L
8260C	K1103713	KWG1103928	Toluene	METHOD BLANK		0.052	0.50	ug/L
8260C	K1103713	KWG1103928	Toluene-d8	METHOD BLANK				%
8260C	K1103713	KWG1103928	trans-1,2-Dichloroethene	METHOD BLANK		0.057	0.50	ug/L
8260C	K1103713	KWG1103928	trans-1,3-Dichloropropene	METHOD BLANK		0.068	0.50	ug/L
8260C	K1103713	KWG1103928	trans-1,4-Dichloro-2-butene	METHOD BLANK		0.35	10	ug/L
8260C	K1103713	KWG1103928	Trichloroethene	METHOD BLANK		0.10	0.50	ug/L
8260C	K1103713	KWG1103928	Trichlorofluoromethane	METHOD BLANK		0.12	0.50	ug/L
8260C	K1103713	KWG1103928	Vinyl Acetate	METHOD BLANK		0.43	5.0	ug/L
8260C	K1103713	KWG1103928	Vinyl Chloride	METHOD BLANK		0.075	0.50	ug/L
8270C	K1103713	KWG1103990	1,2,4-Trichlorobenzene	METHOD BLANK		0.016	0.20	ug/L
8270C	K1103713	KWG1103990	1,2-Dichlorobenzene	METHOD BLANK		0.022	0.20	ug/L
8270C	K1103713	KWG1103990	1,3-Dichlorobenzene	METHOD BLANK		0.021	0.20	ug/L
8270C	K1103713	KWG1103990	1,4-Dichlorobenzene	METHOD BLANK		0.029	0.20	ug/L
8270C	K1103713	KWG1103990	2,4,5-Trichlorophenol	METHOD BLANK		0.031	0.48	ug/L
8270C	K1103713	KWG1103990	2,4,6-Tribromophenol	METHOD BLANK				%
8270C	K1103713	KWG1103990	2,4,6-Trichlorophenol	METHOD BLANK		0.058	0.48	ug/L
8270C	K1103713	KWG1103990	2,4-Dichlorophenol	METHOD BLANK		0.047	0.48	ug/L
8270C	K1103713	KWG1103990	2,4-Dimethylphenol	METHOD BLANK		2.2	3.9	ug/L
8270C	K1103713	KWG1103990	2,4-Dinitrophenol	METHOD BLANK		0.17	3.9	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1103713	KWG1103990	2,4-Dinitrotoluene	METHOD BLANK		0.018	0.20	ug/L
8270C	K1103713	KWG1103990	2,6-Dinitrotoluene	METHOD BLANK		0.033	0.20	ug/L
8270C	K1103713	KWG1103990	2-Chloronaphthalene	METHOD BLANK		0.041	0.20	ug/L
8270C	K1103713	KWG1103990	2-Chlorophenol	METHOD BLANK		0.054	0.48	ug/L
8270C	K1103713	KWG1103990	2-Fluorobiphenyl	METHOD BLANK				%
8270C	K1103713	KWG1103990	2-Fluorophenol	METHOD BLANK				%
8270C	K1103713	KWG1103990	2-Methylphenol	METHOD BLANK		0.11	0.48	ug/L
8270C	K1103713	KWG1103990	2-Nitroaniline	METHOD BLANK		0.024	0.20	ug/L
8270C	K1103713	KWG1103990	2-Nitrophenol	METHOD BLANK		0.063	0.48	ug/L
8270C	K1103713	KWG1103990	3,3'-Dichlorobenzidine	METHOD BLANK		0.43	2.0	ug/L
8270C	K1103713	KWG1103990	3-Nitroaniline	METHOD BLANK		0.029	0.96	ug/L
8270C	K1103713	KWG1103990	4,6-Dinitro-2-methylphenol	METHOD BLANK		0.025	2.0	ug/L
8270C	K1103713	KWG1103990	4-Bromophenyl Phenyl Ether	METHOD BLANK		0.026	0.20	ug/L
8270C	K1103713	KWG1103990	4-Chloro-3-methylphenol	METHOD BLANK		0.037	0.48	ug/L
8270C	K1103713	KWG1103990	4-Chloroaniline	METHOD BLANK		0.025	0.20	ug/L
8270C	K1103713	KWG1103990	4-Chlorophenyl Phenyl Ether	METHOD BLANK		0.027	0.20	ug/L
8270C	K1103713	KWG1103990	4-Methylphenol	METHOD BLANK		0.12	0.48	ug/L
8270C	K1103713	KWG1103990	4-Nitroaniline	METHOD BLANK		0.019	0.96	ug/L
8270C	K1103713	KWG1103990	4-Nitrophenol	METHOD BLANK		0.28	2.0	ug/L
8270C	K1103713	KWG1103990	Benzoic Acid	METHOD BLANK		1.1	4.8	ug/L
8270C	K1103713	KWG1103990	Benzyl Alcohol	METHOD BLANK		0.073	0.48	ug/L
8270C	K1103713	KWG1103990	Bis(2-chloroethoxy)methane	METHOD BLANK		0.024	0.20	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1103713	KWG1103990	Bis(2-chloroethyl) Ether	METHOD BLANK		0.035	0.20	ug/L
8270C	K1103713	KWG1103990	Bis(2-chloroisopropyl) Ether	METHOD BLANK		0.026	0.20	ug/L
8270C	K1103713	KWG1103990	Bis(2-ethylhexyl) Phthalate	METHOD BLANK		0.13	0.96	ug/L
8270C	K1103713	KWG1103990	Butyl Benzyl Phthalate	METHOD BLANK	0.037	0.018	0.20	ug/L
8270C	K1103713	KWG1103990	Carbazole	METHOD BLANK		0.018	0.20	ug/L
8270C	K1103713	KWG1103990	Dibenzofuran	METHOD BLANK		0.018	0.20	ug/L
8270C	K1103713	KWG1103990	Diethyl Phthalate	METHOD BLANK	0.019	0.012	0.20	ug/L
8270C	K1103713	KWG1103990	Dimethyl Phthalate	METHOD BLANK		0.021	0.20	ug/L
8270C	K1103713	KWG1103990	Di-n-butyl Phthalate	METHOD BLANK	0.031	0.023	0.20	ug/L
8270C	K1103713	KWG1103990	Di-n-octyl Phthalate	METHOD BLANK		0.018	0.20	ug/L
8270C	K1103713	KWG1103990	Hexachlorobenzene	METHOD BLANK		0.022	0.20	ug/L
8270C	K1103713	KWG1103990	Hexachlorobutadiene	METHOD BLANK		0.027	0.20	ug/L
8270C	K1103713	KWG1103990	Hexachlorocyclopentadiene	METHOD BLANK		0.19	0.96	ug/L
8270C	K1103713	KWG1103990	Hexachloroethane	METHOD BLANK		0.024	0.20	ug/L
8270C	K1103713	KWG1103990	Isophorone	METHOD BLANK		0.016	0.20	ug/L
8270C	K1103713	KWG1103990	Nitrobenzene	METHOD BLANK		0.028	0.20	ug/L
8270C	K1103713	KWG1103990	Nitrobenzene-d5	METHOD BLANK				%
8270C	K1103713	KWG1103990	N-Nitrosodimethylamine	METHOD BLANK		0.42	2.0	ug/L
8270C	K1103713	KWG1103990	N-Nitrosodi-n-propylamine	METHOD BLANK		0.037	0.20	ug/L
8270C	K1103713	KWG1103990	N-Nitrosodiphenylamine	METHOD BLANK		0.048	0.20	ug/L
8270C	K1103713	KWG1103990	Pentachlorophenol	METHOD BLANK		0.34	0.96	ug/L
8270C	K1103713	KWG1103990	Phenol	METHOD BLANK		0.063	0.48	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1103713	KWG1103990	Phenol-d6	METHOD BLANK				%
8270C	K1103713	KWG1103990	p-Terphenyl-d14	METHOD BLANK				%
8270C SIM	K1103713	KWG1103859	2-Methylnaphthalene	METHOD BLANK		0.0023	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Acenaphthene	METHOD BLANK		0.0044	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Acenaphthylene	METHOD BLANK		0.0034	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Anthracene	METHOD BLANK		0.0036	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Benz(a)anthracene	METHOD BLANK		0.0026	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Benzo(a)pyrene	METHOD BLANK		0.0043	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Benzo(b)fluoranthene	METHOD BLANK		0.0023	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Benzo(g,h,i)perylene	METHOD BLANK		0.0029	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Benzo(k)fluoranthene	METHOD BLANK		0.0025	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Chrysene	METHOD BLANK		0.0034	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Dibenz(a,h)anthracene	METHOD BLANK		0.0025	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Fluoranthene	METHOD BLANK		0.0044	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Fluoranthene-d10	METHOD BLANK				%
8270C SIM	K1103713	KWG1103859	Fluorene	METHOD BLANK		0.0038	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Fluorene-d10	METHOD BLANK				%
8270C SIM	K1103713	KWG1103859	Indeno(1,2,3-cd)pyrene	METHOD BLANK		0.0026	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Naphthalene	METHOD BLANK		0.0030	0.019	ug/L
8270C SIM	K1103713	KWG1103859	Phenanthrene	METHOD BLANK		0.0050	0.019	ug/L
8270C SIM	K1103713	KWG1103859	p-Terphenyl-d14	METHOD BLANK				%
8270C SIM	K1103713	KWG1103859	Pyrene	METHOD BLANK		0.0035	0.019	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
9014	K1103713	245069	Cyanide, Free	METHOD BLANK		0.010	0.010	mg/L
9030M	K1103713	133207	Sulfide, Total	METHOD BLANK		0.03	0.10	mg/L
NWTPH-Dx	K1103713	KWG1104052	Diesel Range Organics	METHOD BLANK		11	100	ug/L
NWTPH-Dx	K1103713	KWG1104052	n-Triacontane	METHOD BLANK				%
NWTPH-Dx	K1103713	KWG1104052	o-Terphenyl	METHOD BLANK				%
NWTPH-Dx	K1103713	KWG1104052	Residual Range Organics	METHOD BLANK	38	19	100	ug/L
SM 2540 D	K1103713	244810	Solids, Total Suspended	METHOD BLANK		5.0	5.0	mg/L

Table 4. LCS SUMMARY

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1631E	Mercury, Total	CK11	K1103713	133048	OK	NA	NA
	Mercury, Total	CK12	K1103713	133048	OK	NA	NA
1664	Oil and Grease	CK11	K1103713	133616	OK	NA	NA
	Oil and Grease	DK11	K1103713	133616	NA	OK	OK
200.7	Iron, Total	CK11	K1103713	133657	OK	NA	NA
200.8	Aluminum, Total	CK11	K1103713	133656	OK	NA	NA
	Antimony, Total	CK11	K1103713	133656	OK	NA	NA
	Arsenic, Total	CK11	K1103713	133656	OK	NA	NA
	Cadmium, Total	CK11	K1103713	133656	OK	NA	NA
	Chromium, Total	CK11	K1103713	133656	OK	NA	NA
	Copper, Total	CK11	K1103713	133656	OK	NA	NA
	Lead, Total	CK11	K1103713	133656	OK	NA	NA
	Manganese, Total	CK11	K1103713	133656	OK	NA	NA
	Molybdenum, Total	CK11	K1103713	133656	OK	NA	NA
	Nickel, Total	CK11	K1103713	133656	OK	NA	NA
	Selenium, Total	CK11	K1103713	133656	OK	NA	NA
	Silver, Total	CK11	K1103713	133656	OK	NA	NA
	Zinc, Total	CK11	K1103713	133656	OK	NA	NA
300.0	Sulfate	CK11	K1103713	244211	OK	NA	NA
350.1	Ammonia as Nitrogen	CK11	K1103713	244704	OK	NA	NA
	Ammonia as Nitrogen	CK11	K1103713	244704	OK	NA	NA
415.1	Carbon, Total Organic	CK11	K1103713	244975	OK	NA	NA
	Carbon, Total Organic	CK11	K1103713	244297	OK	NA	NA
	Carbon, Total Organic	DK11	K1103713	244975	NA	OK	OK
4500-CNE	Cyanide, Amenable to Chl	CK11	K1103713	133381	OK	NA	NA
	Cyanide, Total	CK11	K1103713	132972	OK	NA	NA
8081B	2,4'-DDD	CK11	K1103713	KWG1104292	OK	NA	NA
	2,4'-DDD	DK11	K1103713	KWG1104292	NA	OK	OK
	2,4'-DDE	CK11	K1103713	KWG1104292	OK	NA	NA
	2,4'-DDE	DK11	K1103713	KWG1104292	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	2,4'-DDT	CK11	K1103713	KWG1104292	OK	NA	NA
	2,4'-DDT	DK11	K1103713	KWG1104292	NA	OK	OK
	4,4'-DDD	CK11	K1103713	KWG1104292	OK	NA	NA
	4,4'-DDD	DK11	K1103713	KWG1104292	NA	OK	OK
	4,4'-DDE	CK11	K1103713	KWG1104292	OK	NA	NA
	4,4'-DDE	DK11	K1103713	KWG1104292	NA	OK	OK
	4,4'-DDT	CK11	K1103713	KWG1104292	OK	NA	NA
	4,4'-DDT	DK11	K1103713	KWG1104292	NA	OK	OK
	Aldrin	CK11	K1103713	KWG1104292	OK	NA	NA
	Aldrin	DK11	K1103713	KWG1104292	NA	OK	OK
	alpha-BHC	CK11	K1103713	KWG1104292	OK	NA	NA
	alpha-BHC	DK11	K1103713	KWG1104292	NA	OK	OK
	alpha-Chlordane	CK11	K1103713	KWG1104292	OK	NA	NA
	alpha-Chlordane	DK11	K1103713	KWG1104292	NA	OK	OK
	beta-BHC	CK11	K1103713	KWG1104292	OK	NA	NA
	beta-BHC	DK11	K1103713	KWG1104292	NA	OK	OK
	Chlordane	CK11	K1103713	KWG1104292	OK	NA	NA
	Chlordane	DK11	K1103713	KWG1104292	NA	OK	OK
	cis-Nonachlor	CK11	K1103713	KWG1104292	OK	NA	NA
	cis-Nonachlor	DK11	K1103713	KWG1104292	NA	OK	OK
	delta-BHC	CK11	K1103713	KWG1104292	OK	NA	NA
	delta-BHC	DK11	K1103713	KWG1104292	NA	OK	OK
	Dieldrin	CK11	K1103713	KWG1104292	OK	NA	NA
	Dieldrin	DK11	K1103713	KWG1104292	NA	OK	OK
	Endosulfan I	CK11	K1103713	KWG1104292	OK	NA	NA
	Endosulfan I	DK11	K1103713	KWG1104292	NA	OK	OK
	Endosulfan II	CK11	K1103713	KWG1104292	OK	NA	NA
	Endosulfan II	DK11	K1103713	KWG1104292	NA	OK	OK
	Endosulfan Sulfate	CK11	K1103713	KWG1104292	OK	NA	NA
	Endosulfan Sulfate	DK11	K1103713	KWG1104292	NA	OK	OK
	Endrin	CK11	K1103713	KWG1104292	OK	NA	NA
	Endrin	DK11	K1103713	KWG1104292	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	Endrin Aldehyde	CK11	K1103713	KWG1104292	OK	NA	NA
	Endrin Aldehyde	DK11	K1103713	KWG1104292	NA	OK	OK
	Endrin Ketone	CK11	K1103713	KWG1104292	OK	NA	NA
	Endrin Ketone	DK11	K1103713	KWG1104292	NA	OK	OK
	gamma-BHC	CK11	K1103713	KWG1104292	OK	NA	NA
	gamma-BHC	DK11	K1103713	KWG1104292	NA	OK	OK
	gamma-Chlordane	CK11	K1103713	KWG1104292	OK	NA	NA
	gamma-Chlordane	DK11	K1103713	KWG1104292	NA	OK	OK
	Heptachlor	CK11	K1103713	KWG1104292	OK	NA	NA
	Heptachlor	DK11	K1103713	KWG1104292	NA	OK	OK
	Heptachlor Epoxide	CK11	K1103713	KWG1104292	OK	NA	NA
	Heptachlor Epoxide	DK11	K1103713	KWG1104292	NA	OK	OK
	Hexachlorobenzene	CK11	K1103713	KWG1104292	OK	NA	NA
	Hexachlorobenzene	DK11	K1103713	KWG1104292	NA	OK	OK
	Methoxychlor	CK11	K1103713	KWG1104292	OK	NA	NA
	Methoxychlor	DK11	K1103713	KWG1104292	NA	OK	OK
	Oxychlordane	CK11	K1103713	KWG1104292	OK	NA	NA
	Oxychlordane	DK11	K1103713	KWG1104292	NA	OK	OK
	Toxaphene	CK11	K1103713	KWG1104292	OK	NA	NA
	Toxaphene	DK11	K1103713	KWG1104292	NA	OK	OK
	trans-Nonachlor	CK11	K1103713	KWG1104292	OK	NA	NA
	trans-Nonachlor	DK11	K1103713	KWG1104292	NA	OK	OK
8082A	2,2',3,3',4,4',5,5',6-Nonac	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,3',4,4',5,5',6-Nonac	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,3',4,4',5,6-Octachlor	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,3',4,4',5,6-Octachlor	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,3',4,4',5-Heptachlor	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,3',4,4',5-Heptachlor	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,3',4,4'-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,3',4,4'-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,4,4',5,5'-Heptachlor	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,4,4',5,5'-Heptachlor	DK11	K1103713	KWG1104023	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2,2',3,4,4',5',6-Heptachlor	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,4,4',5',6-Heptachlor	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,4,4',5'-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,4,4',5'-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,4,4',6,6'-Heptachlor	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,4,4',6,6'-Heptachlor	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,4',5,5',6-Heptachlor	CK11	K1103713	KWG1104023	EXCEEDS HIGH	NA	NA
	2,2',3,4',5,5',6-Heptachlor	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,4',5-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,4',5-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,4,5'-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,4,5'-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',3,5'-Tetrachlorobiphe	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',3,5'-Tetrachlorobiphe	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',4,4',5,5'-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',4,4',5,5'-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',5,5'-Tetrachlorobiphe	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',5,5'-Tetrachlorobiphe	DK11	K1103713	KWG1104023	NA	OK	OK
	2,2',5-Trichlorobiphenyl	CK11	K1103713	KWG1104023	OK	NA	NA
	2,2',5-Trichlorobiphenyl	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,3',4,4',5,5'-Heptachlor	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,3',4,4',5,5'-Heptachlor	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,3',4,4',5'-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,3',4,4',5'-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,3',4,4',5-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,3',4,4',5-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,3',4,4',6-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,3',4,4',6-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,3',4,4'-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,3',4,4'-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3',4,4',5,5'-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3',4,4',5,5'-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2',3,4,4',5-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	2',3,4,4',5-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3',4,4',5-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3',4,4',5-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,4,4',5-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,4,4',5-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3',4,4'-Tetrachlorobiphe	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3',4,4'-Tetrachlorobiphe	DK11	K1103713	KWG1104023	NA	OK	OK
	2,3,4,4'-Tetrachlorobiphe	CK11	K1103713	KWG1104023	OK	NA	NA
	2,3,4,4'-Tetrachlorobiphe	DK11	K1103713	KWG1104023	NA	OK	OK
	2,4,4'-Trichlorobiphenyl	CK11	K1103713	KWG1104023	OK	NA	NA
	2,4,4'-Trichlorobiphenyl	DK11	K1103713	KWG1104023	NA	OK	OK
	2,4'-Dichlorobiphenyl	CK11	K1103713	KWG1104023	OK	NA	NA
	2,4'-Dichlorobiphenyl	DK11	K1103713	KWG1104023	NA	OK	OK
	3,3',4,4',5,5'-Hexachlorobi	CK11	K1103713	KWG1104023	OK	NA	NA
	3,3',4,4',5,5'-Hexachlorobi	DK11	K1103713	KWG1104023	NA	OK	OK
	3,3',4,4',5-Pentachlorobip	CK11	K1103713	KWG1104023	OK	NA	NA
	3,3',4,4',5-Pentachlorobip	DK11	K1103713	KWG1104023	NA	OK	OK
	3,3',4,4'-Tetrachlorobiphe	CK11	K1103713	KWG1104023	OK	NA	NA
	3,3',4,4'-Tetrachlorobiphe	DK11	K1103713	KWG1104023	NA	OK	OK
	3,4,4',5-Tetrachlorobiphe	CK11	K1103713	KWG1104023	OK	NA	NA
	3,4,4',5-Tetrachlorobiphe	DK11	K1103713	KWG1104023	NA	OK	OK
	Decachlorobiphenyl	CK11	K1103713	KWG1104023	OK	NA	NA
	Decachlorobiphenyl	DK11	K1103713	KWG1104023	NA	OK	OK
8151A	2,4,5-T	CK11	K1103713	KWG1104406	OK	NA	NA
	2,4,5-T	DK11	K1103713	KWG1104406	NA	OK	OK
	2,4,5-TP	CK11	K1103713	KWG1104406	OK	NA	NA
	2,4,5-TP	DK11	K1103713	KWG1104406	NA	OK	OK
	2,4-D	CK11	K1103713	KWG1104406	OK	NA	NA
	2,4-D	DK11	K1103713	KWG1104406	NA	OK	OK
	2,4-DB	CK11	K1103713	KWG1104406	OK	NA	NA
	2,4-DB	DK11	K1103713	KWG1104406	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8151A	Dalapon	CK11	K1103713	KWG1104406	OK	NA	NA
	Dalapon	DK11	K1103713	KWG1104406	NA	OK	OK
	Dicamba	CK11	K1103713	KWG1104406	OK	NA	NA
	Dicamba	DK11	K1103713	KWG1104406	NA	OK	OK
	Dichlorprop	CK11	K1103713	KWG1104406	OK	NA	NA
	Dichlorprop	DK11	K1103713	KWG1104406	NA	OK	OK
	Dinoseb	CK11	K1103713	KWG1104406	OK	NA	NA
	Dinoseb	DK11	K1103713	KWG1104406	NA	OK	OK
	MCPA	CK11	K1103713	KWG1104406	OK	NA	NA
	MCPA	DK11	K1103713	KWG1104406	NA	OK	OK
	MCPP	CK11	K1103713	KWG1104406	OK	NA	NA
	MCPP	DK11	K1103713	KWG1104406	NA	OK	OK
8260C	1,1,1,2-Tetrachloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,1,1-Trichloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,1,2,2-Tetrachloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,1,2-Trichloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,1-Dichloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,1-Dichloroethene	CK11	K1103713	KWG1103928	OK	NA	NA
	1,2,3-Trichloropropane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,2,4-Trimethylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	1,2-Dibromoethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,2-Dichloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,2-Dichloropropane	CK11	K1103713	KWG1103928	OK	NA	NA
	1,3,5-Trimethylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	1,3-Dichloropropane	CK11	K1103713	KWG1103928	OK	NA	NA
	2,2-Dichloropropane	CK11	K1103713	KWG1103928	OK	NA	NA
	2-Butanone	CK11	K1103713	KWG1103928	OK	NA	NA
	2-Chloroethyl Vinyl Ether	CK11	K1103713	KWG1103928	OK	NA	NA
	2-Hexanone	CK11	K1103713	KWG1103928	OK	NA	NA
	4-Isopropyltoluene	CK11	K1103713	KWG1103928	OK	NA	NA
	4-Methyl-2-pentanone	CK11	K1103713	KWG1103928	OK	NA	NA
	Acetone	CK11	K1103713	KWG1103928	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	Acrolein	CK11	K1103713	KWG1103928	OK	NA	NA
	Acrylonitrile	CK11	K1103713	KWG1103928	OK	NA	NA
	Benzene	CK11	K1103713	KWG1103928	OK	NA	NA
	Bromochloromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Bromodichloromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Bromoform	CK11	K1103713	KWG1103928	OK	NA	NA
	Bromomethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Carbon Disulfide	CK11	K1103713	KWG1103928	OK	NA	NA
	Carbon Tetrachloride	CK11	K1103713	KWG1103928	OK	NA	NA
	Chlorobenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	Chloroethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Chloroform	CK11	K1103713	KWG1103928	OK	NA	NA
	Chloromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	cis-1,2-Dichloroethene	CK11	K1103713	KWG1103928	OK	NA	NA
	cis-1,3-Dichloropropene	CK11	K1103713	KWG1103928	OK	NA	NA
	Dibromochloromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Dibromomethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Dichlorodifluoromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Dichlorofluoromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Dichloromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Ethylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	Iodomethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Isopropylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	m,p-Xylenes	CK11	K1103713	KWG1103928	OK	NA	NA
	Naphthalene	CK11	K1103713	KWG1103928	OK	NA	NA
	n-Butylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	n-Propylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	o-Xylene	CK11	K1103713	KWG1103928	OK	NA	NA
	sec-Butylbenzene	CK11	K1103713	KWG1103928	OK	NA	NA
	Styrene	CK11	K1103713	KWG1103928	OK	NA	NA
	Tetrachloroethene	CK11	K1103713	KWG1103928	OK	NA	NA
	Toluene	CK11	K1103713	KWG1103928	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	trans-1,2-Dichloroethene	CK11	K1103713	KWG1103928	OK	NA	NA
	trans-1,3-Dichloropropen	CK11	K1103713	KWG1103928	OK	NA	NA
	trans-1,4-Dichloro-2-bute	CK11	K1103713	KWG1103928	OK	NA	NA
	Trichloroethene	CK11	K1103713	KWG1103928	OK	NA	NA
	Trichlorofluoromethane	CK11	K1103713	KWG1103928	OK	NA	NA
	Vinyl Acetate	CK11	K1103713	KWG1103928	OK	NA	NA
	Vinyl Chloride	CK11	K1103713	KWG1103928	OK	NA	NA
8270C	1,2,4-Trichlorobenzene	CK11	K1103713	KWG1103990	OK	NA	NA
	1,2,4-Trichlorobenzene	DK11	K1103713	KWG1103990	NA	OK	OK
	1,2-Dichlorobenzene	CK11	K1103713	KWG1103990	OK	NA	NA
	1,2-Dichlorobenzene	DK11	K1103713	KWG1103990	NA	OK	OK
	1,3-Dichlorobenzene	CK11	K1103713	KWG1103990	OK	NA	NA
	1,3-Dichlorobenzene	DK11	K1103713	KWG1103990	NA	OK	OK
	1,4-Dichlorobenzene	CK11	K1103713	KWG1103990	OK	NA	NA
	1,4-Dichlorobenzene	DK11	K1103713	KWG1103990	NA	OK	OK
	2,4,5-Trichlorophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2,4,5-Trichlorophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2,4,6-Trichlorophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2,4,6-Trichlorophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2,4-Dichlorophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2,4-Dichlorophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2,4-Dimethylphenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2,4-Dimethylphenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2,4-Dinitrophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2,4-Dinitrophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2,4-Dinitrotoluene	CK11	K1103713	KWG1103990	OK	NA	NA
	2,4-Dinitrotoluene	DK11	K1103713	KWG1103990	NA	OK	OK
	2,6-Dinitrotoluene	CK11	K1103713	KWG1103990	OK	NA	NA
	2,6-Dinitrotoluene	DK11	K1103713	KWG1103990	NA	OK	OK
	2-Chloronaphthalene	CK11	K1103713	KWG1103990	OK	NA	NA
	2-Chloronaphthalene	DK11	K1103713	KWG1103990	NA	OK	OK
	2-Chlorophenol	CK11	K1103713	KWG1103990	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	2-Chlorophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2-Methylphenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2-Methylphenol	DK11	K1103713	KWG1103990	NA	OK	OK
	2-Nitroaniline	CK11	K1103713	KWG1103990	OK	NA	NA
	2-Nitroaniline	DK11	K1103713	KWG1103990	NA	OK	OK
	2-Nitrophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	2-Nitrophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	3,3'-Dichlorobenzidine	CK11	K1103713	KWG1103990	OK	NA	NA
	3,3'-Dichlorobenzidine	DK11	K1103713	KWG1103990	NA	EXCEEDS LOW	EXCEEDS RPD
	3-Nitroaniline	CK11	K1103713	KWG1103990	OK	NA	NA
	3-Nitroaniline	DK11	K1103713	KWG1103990	NA	OK	OK
	4,6-Dinitro-2-methylphen	CK11	K1103713	KWG1103990	OK	NA	NA
	4,6-Dinitro-2-methylphen	DK11	K1103713	KWG1103990	NA	OK	OK
	4-Bromophenyl Phenyl Et	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Bromophenyl Phenyl Et	DK11	K1103713	KWG1103990	NA	OK	OK
	4-Chloro-3-methylphenol	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Chloro-3-methylphenol	DK11	K1103713	KWG1103990	NA	OK	OK
	4-Chloroaniline	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Chloroaniline	DK11	K1103713	KWG1103990	NA	EXCEEDS LOW	EXCEEDS RPD
	4-Chlorophenyl Phenyl Et	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Chlorophenyl Phenyl Et	DK11	K1103713	KWG1103990	NA	OK	OK
	4-Methylphenol	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Methylphenol	DK11	K1103713	KWG1103990	NA	OK	OK
	4-Nitroaniline	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Nitroaniline	DK11	K1103713	KWG1103990	NA	OK	OK
	4-Nitrophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	4-Nitrophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	Benzoic Acid	CK11	K1103713	KWG1103990	OK	NA	NA
	Benzoic Acid	DK11	K1103713	KWG1103990	NA	OK	OK
	Benzyl Alcohol	CK11	K1103713	KWG1103990	OK	NA	NA
	Benzyl Alcohol	DK11	K1103713	KWG1103990	NA	OK	OK
	Bis(2-chloroethoxy)metha	CK11	K1103713	KWG1103990	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Bis(2-chloroethoxy)metha	DK11	K1103713	KWG1103990	NA	OK	OK
	Bis(2-chloroethyl) Ether	CK11	K1103713	KWG1103990	OK	NA	NA
	Bis(2-chloroethyl) Ether	DK11	K1103713	KWG1103990	NA	OK	OK
	Bis(2-chloroisopropyl) Eth	CK11	K1103713	KWG1103990	OK	NA	NA
	Bis(2-chloroisopropyl) Eth	DK11	K1103713	KWG1103990	NA	OK	OK
	Bis(2-ethylhexyl) Phthalat	CK11	K1103713	KWG1103990	OK	NA	NA
	Bis(2-ethylhexyl) Phthalat	DK11	K1103713	KWG1103990	NA	OK	OK
	Butyl Benzyl Phthalate	CK11	K1103713	KWG1103990	OK	NA	NA
	Butyl Benzyl Phthalate	DK11	K1103713	KWG1103990	NA	OK	OK
	Carbazole	CK11	K1103713	KWG1103990	OK	NA	NA
	Carbazole	DK11	K1103713	KWG1103990	NA	OK	OK
	Dibenzofuran	CK11	K1103713	KWG1103990	OK	NA	NA
	Dibenzofuran	DK11	K1103713	KWG1103990	NA	OK	OK
	Diethyl Phthalate	CK11	K1103713	KWG1103990	OK	NA	NA
	Diethyl Phthalate	DK11	K1103713	KWG1103990	NA	OK	OK
	Dimethyl Phthalate	CK11	K1103713	KWG1103990	OK	NA	NA
	Dimethyl Phthalate	DK11	K1103713	KWG1103990	NA	OK	OK
	Di-n-butyl Phthalate	CK11	K1103713	KWG1103990	OK	NA	NA
	Di-n-butyl Phthalate	DK11	K1103713	KWG1103990	NA	OK	OK
	Di-n-octyl Phthalate	CK11	K1103713	KWG1103990	OK	NA	NA
	Di-n-octyl Phthalate	DK11	K1103713	KWG1103990	NA	OK	OK
	Hexachlorobenzene	CK11	K1103713	KWG1103990	OK	NA	NA
	Hexachlorobenzene	DK11	K1103713	KWG1103990	NA	OK	OK
	Hexachlorobutadiene	CK11	K1103713	KWG1103990	OK	NA	NA
	Hexachlorobutadiene	DK11	K1103713	KWG1103990	NA	OK	OK
	Hexachlorocyclopentadie	CK11	K1103713	KWG1103990	OK	NA	NA
	Hexachlorocyclopentadie	DK11	K1103713	KWG1103990	NA	OK	OK
	Hexachloroethane	CK11	K1103713	KWG1103990	OK	NA	NA
	Hexachloroethane	DK11	K1103713	KWG1103990	NA	OK	OK
	Isophorone	CK11	K1103713	KWG1103990	OK	NA	NA
	Isophorone	DK11	K1103713	KWG1103990	NA	OK	OK
	Nitrobenzene	CK11	K1103713	KWG1103990	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Nitrobenzene	DK11	K1103713	KWG1103990	NA	OK	OK
	N-Nitrosodimethylamine	CK11	K1103713	KWG1103990	OK	NA	NA
	N-Nitrosodimethylamine	DK11	K1103713	KWG1103990	NA	OK	OK
	N-Nitrosodi-n-propylamin	CK11	K1103713	KWG1103990	OK	NA	NA
	N-Nitrosodi-n-propylamin	DK11	K1103713	KWG1103990	NA	OK	OK
	N-Nitrosodiphenylamine	CK11	K1103713	KWG1103990	OK	NA	NA
	N-Nitrosodiphenylamine	DK11	K1103713	KWG1103990	NA	OK	OK
	Pentachlorophenol	CK11	K1103713	KWG1103990	OK	NA	NA
	Pentachlorophenol	DK11	K1103713	KWG1103990	NA	OK	OK
	Phenol	CK11	K1103713	KWG1103990	OK	NA	NA
	Phenol	DK11	K1103713	KWG1103990	NA	OK	OK
8270C SIM	2-Methylnaphthalene	CK11	K1103713	KWG1103859	OK	NA	NA
	2-Methylnaphthalene	DK11	K1103713	KWG1103859	NA	OK	OK
	Acenaphthene	CK11	K1103713	KWG1103859	OK	NA	NA
	Acenaphthene	DK11	K1103713	KWG1103859	NA	OK	OK
	Acenaphthylene	CK11	K1103713	KWG1103859	OK	NA	NA
	Acenaphthylene	DK11	K1103713	KWG1103859	NA	OK	OK
	Anthracene	CK11	K1103713	KWG1103859	OK	NA	NA
	Anthracene	DK11	K1103713	KWG1103859	NA	OK	OK
	Benz(a)anthracene	CK11	K1103713	KWG1103859	OK	NA	NA
	Benz(a)anthracene	DK11	K1103713	KWG1103859	NA	OK	OK
	Benzo(a)pyrene	CK11	K1103713	KWG1103859	OK	NA	NA
	Benzo(a)pyrene	DK11	K1103713	KWG1103859	NA	OK	OK
	Benzo(b)fluoranthene	CK11	K1103713	KWG1103859	OK	NA	NA
	Benzo(b)fluoranthene	DK11	K1103713	KWG1103859	NA	OK	OK
	Benzo(g,h,i)perylene	CK11	K1103713	KWG1103859	OK	NA	NA
	Benzo(g,h,i)perylene	DK11	K1103713	KWG1103859	NA	OK	OK
	Benzo(k)fluoranthene	CK11	K1103713	KWG1103859	OK	NA	NA
	Benzo(k)fluoranthene	DK11	K1103713	KWG1103859	NA	OK	OK
	Chrysene	CK11	K1103713	KWG1103859	OK	NA	NA
	Chrysene	DK11	K1103713	KWG1103859	NA	OK	OK
	Dibenz(a,h)anthracene	CK11	K1103713	KWG1103859	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C SIM	Dibenz(a,h)anthracene	DK11	K1103713	KWG1103859	NA	OK	OK
	Fluoranthene	CK11	K1103713	KWG1103859	OK	NA	NA
	Fluoranthene	DK11	K1103713	KWG1103859	NA	OK	OK
	Fluorene	CK11	K1103713	KWG1103859	OK	NA	NA
	Fluorene	DK11	K1103713	KWG1103859	NA	OK	OK
	Indeno(1,2,3-cd)pyrene	CK11	K1103713	KWG1103859	OK	NA	NA
	Indeno(1,2,3-cd)pyrene	DK11	K1103713	KWG1103859	NA	OK	OK
	Naphthalene	CK11	K1103713	KWG1103859	OK	NA	NA
	Naphthalene	DK11	K1103713	KWG1103859	NA	OK	OK
	Phenanthrene	CK11	K1103713	KWG1103859	OK	NA	NA
	Phenanthrene	DK11	K1103713	KWG1103859	NA	OK	OK
	Pyrene	CK11	K1103713	KWG1103859	OK	NA	NA
	Pyrene	DK11	K1103713	KWG1103859	NA	OK	OK
9014	Cyanide, Free	CK11	K1103713	245069	OK	NA	NA
9030M	Sulfide, Total	CK11	K1103713	133207	OK	NA	NA
	Sulfide, Total	DK11	K1103713	133207	NA	OK	OK
NWTPH-Dx	Diesel Range Organics	CK11	K1103713	KWG1104052	OK	NA	NA
	Residual Range Organics	CK11	K1103713	KWG1104052	OK	NA	NA
SM 2540 D	Solids, Total Suspended	CK11	K1103713	244810	OK	NA	NA
	Solids, Total Suspended	CK11	K1103713	244810	OK	NA	NA

Table 5. SURROGATE SUMMARY

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8081B	K1103713	Decachlorobiphenyl	SPI-1-W-042811	PP01	KWG1104292	70	35	128	OK
	K1103713	Decachlorobiphenyl	SPI-2-W-042811	PP01	KWG1104292	65	35	128	OK
	K1103713	Tetrachloro-m-xylene	SPI-2-W-042811	PP01	KWG1104292	72	20	102	OK
	K1103713	Tetrachloro-m-xylene	SPI-1-W-042811	PP01	KWG1104292	76	20	102	OK
8082A	K1103713	Tetrachloro-m-xylene	SPI-2-W-042811	PP01	KWG1104023	71	26	100	OK
	K1103713	Tetrachloro-m-xylene	SPI-1-W-042811	PP01	KWG1104023	82	26	100	OK
8151A	K1103713	2,4-Dichlorophenylacetic Acid	SPI-1-W-042811	PP01	KWG1104406	54	10	136	OK
	K1103713	2,4-Dichlorophenylacetic Acid	SPI-2-W-042811	PP01	KWG1104406	53	10	136	OK
8260C	K1103713	4-Bromofluorobenzene	SPI-1-W-042811	PP01	KWG1103928	104	68	117	OK
	K1103713	4-Bromofluorobenzene	SPI-2-W-042811	PP01	KWG1103928	103	68	117	OK
	K1103713	Dibromofluoromethane	SPI-2-W-042811	PP01	KWG1103928	111	73	122	OK
	K1103713	Dibromofluoromethane	SPI-1-W-042811	PP01	KWG1103928	111	73	122	OK
	K1103713	Toluene-d8	SPI-2-W-042811	PP01	KWG1103928	115	78	129	OK
	K1103713	Toluene-d8	SPI-1-W-042811	PP01	KWG1103928	117	78	129	OK
8270C	K1103713	2,4,6-Tribromophenol	SPI-2-W-042811	PP01	KWG1103990	81	23	127	OK
	K1103713	2,4,6-Tribromophenol	SPI-1-W-042811	PP01	KWG1103990	93	23	127	OK
	K1103713	2-Fluorobiphenyl	SPI-2-W-042811	PP01	KWG1103990	65	31	94	OK
	K1103713	2-Fluorobiphenyl	SPI-1-W-042811	PP01	KWG1103990	75	31	94	OK
	K1103713	2-Fluorophenol	SPI-2-W-042811	PP01	KWG1103990	74	12	109	OK
	K1103713	2-Fluorophenol	SPI-1-W-042811	PP01	KWG1103990	84	12	109	OK
	K1103713	Nitrobenzene-d5	SPI-1-W-042811	PP01	KWG1103990	89	26	110	OK
	K1103713	Nitrobenzene-d5	SPI-2-W-042811	PP01	KWG1103990	77	26	110	OK
	K1103713	Phenol-d6	SPI-1-W-042811	PP01	KWG1103990	88	23	106	OK
	K1103713	Phenol-d6	SPI-2-W-042811	PP01	KWG1103990	75	23	106	OK
	K1103713	p-Terphenyl-d14	SPI-1-W-042811	PP01	KWG1103990	81	40	127	OK
	K1103713	p-Terphenyl-d14	SPI-2-W-042811	PP01	KWG1103990	83	40	127	OK
8270C SIM	K1103713	Fluoranthene-d10	SPI-1-W-042811	PP01	KWG1103859	75	31	105	OK

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8270C SIM	K1103713	Fluoranthene-d10	SPI-2-W-042811	PP01	KWG1103859	71	31	105	OK
	K1103713	Fluorene-d10	SPI-1-W-042811	PP01	KWG1103859	78	28	98	OK
	K1103713	Fluorene-d10	SPI-2-W-042811	PP01	KWG1103859	76	28	98	OK
	K1103713	p-Terphenyl-d14	SPI-2-W-042811	PP01	KWG1103859	78	27	112	OK
	K1103713	p-Terphenyl-d14	SPI-1-W-042811	PP01	KWG1103859	85	27	112	OK
NWTPH-Dx	K1103713	n-Triacontane	SPI-1-W-042811	PP01	KWG1104052	91	50	150	OK
	K1103713	n-Triacontane	SPI-2-W-042811	PP01	KWG1104052	81	50	150	OK
	K1103713	o-Terphenyl	SPI-2-W-042811	PP01	KWG1104052	77	50	150	OK
	K1103713	o-Terphenyl	SPI-1-W-042811	PP01	KWG1104052	87	50	150	OK

Table 6. MS SUMMARY

METHOD	RES_	LAB_CHEM	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
350.1	SL11	Ammonia as Nitrogen	K1103713	244704	OK	NA	NA
	DL11	Ammonia as Nitrogen	K1103713	244704	NA	OK	NA
415.1	SL11	Carbon, Total Organic	K1103713	244975	OK	NA	NA
9014	SL11	Cyanide, Free	K1103713	245069	EXCEEDS HIGH	NA	NA
	DL11	Cyanide, Free	K1103713	245069	NA	OK	OK
9030M	SL11	Sulfide, Total	K1103713	133207	OK	NA	NA
	DL11	Sulfide, Total	K1103713	133207	NA	OK	OK

Columbia Analytical Services INC
1317 S. 13th Avenue, Kelso, WA 98626 360.577.7222 360.636.1068 (fax) www.caslab.com

June 10, 2011

Analytical Report for Service Request No: K1104431
Revised Service Request No: K11044431.01

Brian O' Neal
PES Environmental
1215 Fourth Avenue, Suite 1350
P.O. Box 108
Seattle, WA 98161

RE: Portland Facility

Dear Brian:

Enclosed are the revised pages for the samples submitted to our laboratory on January 19, 2011. For your reference, these analyses have been assigned our service request number K1104431.

Carbazole has been added to the 8270SVO list.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at HHolmes@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Howard Holmes
Project Chemist

HH/afs

REVISED
12:48 pm, Jun 24, 2011

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ	WA100010
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	PES Environmental	**Service Request No.:**	K1104431
Project:	Univar Portland	**Date Received:**	5/18/11
Sample Matrix:	Sediment		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), and Laboratory Control Sample (LCS).

Sample Receipt

Two sediment composite samples were received for analysis at Columbia Analytical Services on 5/18/11. The samples were composites of sediments with sample dates: 1/19/11, 3/10/11, & 4/28/11. The samples were received in good condition and consistent with the accompanying chain of custody forms. The samples were originally stored in a freezer at –20°C upon receipt at the laboratory. After the composites were made, the samples were stored in a refrigerator at 4C.

General Chemistry Parameters

No anomalies associated with the analysis of these samples were observed.

Total Metals

Matrix Spike Recovery Exceptions:
The control criteria for matrix spike recovery of Aluminum, Iron and Manganese for the Batch QC sample were not applicable. The analyzed concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Organochlorine Pesticides by EPA Method 8081A

Sample Confirmation Notes:
The confirmation comparison criteria of 40% difference for a few analytes were exceeded in these field samples. The lower of the two values was reported when there was an apparent interference on the alternate column that produced the higher value.

Elevated Detection Limits:
The detection limit was elevated for several analytes in these field samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

No other anomalies associated with the analysis of these samples were observed.

Approved by Stanley Holum **Date** 6-10-11

PCB Congeners by EPA Method 8082

Elevated Detection Limits:
The detection limit was elevated for a few analytes in these field samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

Sample Confirmation Notes:
The confirmation comparison criterion of 40% difference for a few analytes was exceeded in these field samples. The lower of the two values was reported when there was an apparent interference on the alternate column that produced the higher value.

Matrix Spike Recovery Exceptions:
The matrix spike recovery of PCB 81 for sample Batch QC was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Semivolatile Organic Compounds by EPA Method 8270C

Surrogate Exceptions:
The control criteria for 2-Fluorophenol, Phenol-d6, and 2,4,6-Tribromophenol in samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011 were not applicable. The analysis of the samples required a dilution, which resulted in surrogate concentrations below the reporting limit. No further corrective action was appropriate.

The control criteria were exceeded for Terphenyl-d14 in sample SPI-2-S-2010/2011 due to matrix interference. The presence of non-target background components prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for Benzoic Acid in the replicate Laboratory Control Samples (LCS/DLCS) KWG1104595-3 and KWG1104595-4 was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

Elevated Detection Limits:
The detection limits were elevated in samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011. The sample extracts were diluted prior to instrumental analysis due to relatively high levels of non-target background components. The extracts were highly colored which indicated the possible need to perform dilutions prior to injection into the instrument. Clean-up of the extracts was performed within the scope of the method, but did not eliminate enough of the background components to prevent dilutions. Semi-quantitative screens were performed prior to final analysis. The results of the screening indicated the need to perform dilutions.

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Dioxins and Furans by EPA Method 1613

Separate report from CAS-Houston

Approved by Howard Holmes **Date** 6-10-11

Chain of Custody

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature: Kelly Rankich

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	NUMBER OF CONTAINERS	PCB Congeners by 8082	TOC by 415.1	Metals by 6010/6020 *	Org. Chl. Pesticides by 8081	Mercury by 7471M	SVOCs by 8270C**	Dioxins and Furans by 1613B	REMARKS:
SPI-1-S-2010/2011	5/10/11			Soil		X	X	X	X	X	X	X	Composite #1 - see below
SPI-2-S-2010/2011	5/10/11			Soil		X	X	X	X	X	X	X	Composite #2 - see below

Relinquished by/date:	/
Received by/date:	CHS 5/18/11
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

- Soil Investigation/Remediation
- Water Investigation/Remediation 165
- Air-Soil Investigation or Remediation
- Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

* Metals = Al, As, Sb, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Ag, Se, Zn
** See analyte list
report on a dry-weight basis
#1 = SPI-1-S-011911, SPI-1-S-031011, SPI-1-S-042811
#2 = SPI-2-S-011911, SPI-2-S-031011, SPI-2-S-042811
cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Total Solids

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
SPI-1-S-2010/2011	K1104431-004	05/10/2011	05/18/2011	05/19/2011	62.4	
SPI-2-S-2010/2011	K1104431-008	05/10/2011	05/18/2011	05/19/2011	69.6	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011
		Date Analyzed:	05/19/2011

Duplicate Sample Summary

Total Solids

Prep Method:	NONE	**Units:**	PERCENT
Analysis Method:	160.3M	**Basis:**	Wet
Test Notes:			

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
SPI-2-S-2010/2011	K1104431-008	69.6	72.7	71.2	4	

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Prep Method:	CAS SOP	**Units:**	Percent
Analysis Method:	ASTM D4129-82M	**Basis:**	Dry per method

Carbon, Total Organic (TOC)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-1-S-2010/2011	K1104431-004	**11.2**		0.050	0.020	1	5/24/11	5/27/11 08:20	
SPI-2-S-2010/2011	K1104431-008	**4.68**		0.050	0.020	1	5/24/11	5/27/11 08:20	
Method Blank	K1104431-MB	ND	U	0.050	0.020	1	NA	5/27/11 08:20	
Method Blank	K1104431-MB	ND	U	0.050	0.020	1	NA	5/27/11 08:20	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: NA
Date Received: NA
Date Analyzed: 5/27/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: KQ1105045-01

Units: Percent
Basis: Dry per method

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1104431-DUP Result	Average	RPD	RPD Limit
Carbon, Total Organic (TOC)	ASTM D4129-82M	0.050	0.020	2.91	2.89	2.90	<1	27

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: NA
Date Received: NA
Date Analyzed: 5/27/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: KQ1105045-01

Units: Percent
Basis: Dry per method

Analytical Method: ASTM D4129-82M
Prep Method: CAS SOP

		Batch QCMS Matrix Spike K1104431-MS			Batch QCDMS Duplicate Matrix Spike KQ1105045-01DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Total Organic (TOC)	2.91	10.5	7.69	99	7.57	5.19	90	69 - 123	10	27

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Analyzed: 5/27/11

Lab Control Sample Summary
General Chemistry Parameters

Units: Percent
Basis: Dry per method

Analyte Name	Method	Lab Control Sample K1104431-LCS Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	ASTM D4129-82M	0.275	0.280	98	74 - 118
Carbon, Total Organic (TOC)	ASTM D4129-82M	0.315	0.280	113	74 - 118

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Metals

Columbia Analytical Services

- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

Client: PES Environmental
Project Name: Portland Facility
Project No.:

Service Request: K1104431

Sample Name:	Lab Code:
Batch QC1D	K1103974-001D
Batch QC1S	K1103974-001S
SPI-1-S-2010/2011	K1104431-004
SPI-2-S-2010/2011	K1104431-008
Method Blank	K1104431-MB
Batch QC2D	K1104538-001D
Batch QC2S	K1104538-001S

Comments:

Approved By: SC **Date:** 6/6/11

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Date Collected:**	05/10/11
Project Name:	Portland Facility	**Date Received:**	05/18/11
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: SPI-1-S-2010/2011 **Lab Code:** K1104431-004

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010C	15.6	9.4	2.0	05/31/11	06/02/11	13200		
Antimony	6020A	0.078	0.014	5.0	05/31/11	06/02/11	9.410		N
Arsenic	6020A	1.57	0.16	10.0	05/31/11	06/02/11	3.45		
Cadmium	6020A	0.063	0.013	10.0	05/31/11	06/02/11	6.360		
Chromium	6020A	0.63	0.05	10.0	05/31/11	06/02/11	46.6		
Copper	6020A	0.31	0.25	10.0	05/31/11	06/02/11	126		
Iron	6010C	6.2	0.5	2.0	05/31/11	06/02/11	37100		
Lead	6020A	0.157	0.019	10.0	05/31/11	06/02/11	138		
Manganese	6010C	3.12	0.06	2.0	05/31/11	06/02/11	386		
Mercury	7471B	0.019	0.002	1.0	06/02/11	06/02/11	0.086		
Molybdenum	6020A	0.16	0.06	10.0	05/31/11	06/02/11	6.66		
Nickel	6020A	0.63	0.06	10.0	05/31/11	06/02/11	34.0		
Selenium	6020A	3.1	0.6	10.0	05/31/11	06/02/11	0.9	J	
Silver	6020A	0.031	0.012	5.0	05/31/11	06/02/11	0.446		
Zinc	6010C	3.1	0.5	2.0	05/31/11	06/02/11	820		

% Solids: 62.4

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Date Collected:**	05/10/11
Project Name:	Portland Facility	**Date Received:**	05/18/11
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: SPI-2-S-2010/2011 **Lab Code:** K1104431-008

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010C	12.7	7.6	2.0	05/31/11	06/02/11	10700		
Antimony	6020A	0.063	0.011	5.0	05/31/11	06/02/11	2.250		N
Arsenic	6020A	1.39	0.14	10.0	05/31/11	06/02/11	3.38		
Cadmium	6020A	0.056	0.011	10.0	05/31/11	06/02/11	5.340		
Chromium	6020A	0.56	0.04	10.0	05/31/11	06/02/11	51.8		
Copper	6020A	0.28	0.22	10.0	05/31/11	06/02/11	118		
Iron	6010C	5.1	0.4	2.0	05/31/11	06/02/11	30200		
Lead	6020A	0.139	0.017	10.0	05/31/11	06/02/11	370		
Manganese	6010C	2.54	0.05	2.0	05/31/11	06/02/11	363		
Mercury	7471B	0.019	0.002	1.0	06/02/11	06/02/11	0.117		
Molybdenum	6020A	0.14	0.06	10.0	05/31/11	06/02/11	3.25		
Nickel	6020A	0.56	0.06	10.0	05/31/11	06/02/11	39.6		
Selenium	6020A	2.8	0.6	10.0	05/31/11	06/02/11	0.6	J	
Silver	6020A	0.025	0.010	5.0	05/31/11	06/02/11	0.258		
Zinc	6010C	2.5	0.4	2.0	05/31/11	06/02/11	563		

% Solids: 69.6

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Date Collected:**	
Project Name:	Portland Facility	**Date Received:**	
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: Method Blank **Lab Code:** K1104431-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010C	10.0	6.0	2.0	05/31/11	06/02/11	6.0	U	
Antimony	6020A	0.050	0.009	5.0	05/31/11	06/02/11	0.009	U	N
Arsenic	6020A	0.50	0.05	5.0	05/31/11	06/02/11	0.05	U	
Cadmium	6020A	0.020	0.004	5.0	05/31/11	06/02/11	0.006	J	
Chromium	6020A	0.20	0.02	5.0	05/31/11	06/02/11	0.05	J	
Copper	6020A	0.10	0.08	5.0	05/31/11	06/02/11	0.08	U	
Iron	6010C	4.0	0.3	2.0	05/31/11	06/02/11	0.3	J	
Lead	6020A	0.050	0.006	5.0	05/31/11	06/02/11	0.039	J	
Manganese	6010C	2.00	0.04	2.0	05/31/11	06/02/11	0.04	U	
Mercury	7471B	0.020	0.002	1.0	06/02/11	06/02/11	0.002	U	
Molybdenum	6020A	0.05	0.02	5.0	05/31/11	06/02/11	0.02	J	
Nickel	6020A	0.20	0.02	5.0	05/31/11	06/02/11	0.02	J	
Selenium	6020A	1.0	0.2	5.0	05/31/11	06/02/11	0.2	U	
Silver	6020A	0.020	0.008	5.0	05/31/11	06/02/11	0.008	U	
Zinc	6010C	2.0	0.3	2.0	05/31/11	06/02/11	0.3	U	

% Solids: 100.0

Comments:

Metals

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SPIKE SAMPLE RECOVERY

Client: PES Environmental

Service Request: K1104431

Project No.: NA

Units: MG/KG

Project Name: Portland Facility

Basis: DRY

Matrix: SEDIMENT

% Solids: 47.4

Sample Name: Batch QC1S

Lab Code: K1103974-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum		22100		22600		395.08	-126.6		6010C
Antimony	75 - 125	20.9		0.142		98.77	21.0	N	6020A
Arsenic	75 - 125	109		10.1		99.51	99.4		6020A
Cadmium	75 - 125	11.2		0.266		9.95	109.9		6020A
Chromium	75 - 125	113		75.0		39.81	95.5		6020A
Copper	75 - 125	92.3		41.1		49.76	102.9		6020A
Iron		39900		39700		197.54	101.2		6010C
Lead	75 - 125	122		21.1		99.51	101.4		6020A
Manganese		765		664		98.77	102.3		6010C
Molybdenum	75 - 125	81.1		0.45		99.51	81.0		6020A
Nickel	75 - 125	178		74.6		99.51	103.9		6020A
Selenium	75 - 125	109		1.2	J	99.51	108.3		6020A
Silver	75 - 125	10.0		0.229		9.88	98.9		6020A
Zinc	44 - 132	201		106		98.77	96.2		6010C

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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SPIKE SAMPLE RECOVERY

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Units:**	MG/KG
Project Name:	Portland Facility	**Basis:**	DRY
Matrix:	SEDIMENT	**% Solids:**	45.5

Sample Name: Batch QC2S **Lab Code:** K1104538-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Mercury	60 - 135	0.502		0.216		0.28	102.1		7471B

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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DUPLICATES

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Units:**	MG/KG
Project Name:	Portland Facility	**Basis:**	DRY
Matrix:	SEDIMENT	**% Solids:**	47.4

Sample Name: Batch QC1D **Lab Code:** K1103974-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	20	22600		22200		1.8		6010C
Antimony		0.142		0.123		14.3		6020A
Arsenic	20	10.1		10.0		1.0		6020A
Cadmium	20	0.266		0.250		6.2		6020A
Chromium	20	75.0		73.7		1.7		6020A
Copper	20	41.1		41.0		0.2		6020A
Iron	20	39700		40700		2.5		6010C
Lead	20	21.1		20.4		3.4		6020A
Manganese	20	664		670		0.9		6010C
Molybdenum		0.45		0.43		4.5		6020A
Nickel	20	74.6		74.3		0.4		6020A
Selenium		1.2	J	1.2	J	0.0		6020A
Silver	20	0.229		0.217		5.4		6020A
Zinc	20	106		108		1.9		6010C

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

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DUPLICATES

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Units:**	MG/KG
Project Name:	Portland Facility	**Basis:**	DRY
Matrix:	SEDIMENT	**% Solids:**	45.5

Sample Name: Batch QC2D **Lab Code:** K1104538-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	30	0.216		0.217		0.5		7471B

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

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LABORATORY CONTROL SAMPLE

Client: PES Environmental **Service Request:** K1104431

Project No.: NA

Project Name: Portland Facility

Aqueous LCS Source: **Solid LCS Source:** ERA D065540

Analyte	Aqueous: ug/L True	Found	%R	Solid: mg/kg True	Found	C Limits		%R
Aluminum				10500	8090	41	158	77.0
Antimony				105	66.3	50	150	63.1
Arsenic				88.3	89.6	78	122	101.5
Cadmium				91	98.8	81	119	108.6
Chromium				144	148	80	119	102.8
Copper				237	237	83	116	100.0
Iron				18900	17400	50	149	92.1
Lead				104	102	79	121	98.1
Manganese				497	555	81	119	111.7
Mercury				6.8	6.80	71	128	100.0
Molybdenum				59.8	62.8	75	125	105.0
Nickel				200	220	81	118	110.0
Selenium				192	203	80	120	105.7
Silver				76.4	72.1	66	134	94.4
Zinc				292	305	73	121	104.5

Columbia Analytical Services™ **Preparation Information Benchsheet**

Prep Run: 134901 **Prep Workflow**: MetDigSICP **Status**: Prepped **Prep Date**: 05/31/2011 13:30
Team: Metals **Prep Method**: EPA 3050B **Current Step**: Digestion
Analyst: BHALL **Rush/NPDES**: N/A **Due Date**: 05/27/2011

Lab Code	Client ID	Bottle #	Initial Amt	Initial Basis	Final Volume	Spike Amt	Spike ID	Comments
KQ1105056-04	Method Blank				100			10% HNO3, 10% HCL
KQ1105056-03	Lab Control Sample		1.003		100			10% HNO3, 10% HCL
K1103974-001	3/4-Comp	.02	2.173 g		100 mL			10% HNO3, 10% HCL
K1103974-001: KQ1105056-05	Duplicate	.02	2.126 g		100 mL			10% HNO3, 10% HCL
K1103974-001: KQ1105056-06	Matrix Spike	.02	2.136 g		100 mL	1 mL 2 mL 1 mL 1 mL	28373 28451 28474 29031	10% HNO3, 10% HCL
K1103974-002	5/A-Comp	.02	2.256 g		100 mL			10% HNO3, 10% HCL
K1103974-003	1/2-Comp	.02	2.247 g		100 mL			10% HNO3, 10% HCL
K1103974-004	B-I-Comp	.02	2.166 g		100 mL			10% HNO3, 10% HCL
K1103974-005	B-II-Comp	.02	2.179 g		100 mL			10% HNO3, 10% HCL
K1103974-006	B-Comp	.02	2.124 g		100 mL			10% HNO3, 10% HCL
K1103974-007	BSA-Comp	.02	2.123 g		100 mL			10% HNO3, 10% HCL
K1103974-008	BD-042711	.02	2.146 g		100 mL			10% HNO3, 10% HCL
K1103974-009	Alcatraz-Comp	.02	1.130 g		100 mL			10% HNO3, 10% HCL
K1104131-013	Composite	.01	2.418 g		100 mL			10% HNO3, 10% HCL
K1104431-004	SPI-1-S-2010/2011	.01	0.257 g		25 mL			10% HNO3, 10% HCL
K1104431-008	SPI-2-S-2010/2011	.01	0.283 g		25 mL			10% HNO3, 10% HCL

16 Total Samples consisting of 12 Client Samples, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET SS1	Spike	28451	9/27/2011	K-MET SS4	Spike	28373	9/26/2011
K-MET SS3	Spike	28474	9/27/2011	K-MET SS5	Spike	29031	10/19/2011

Preparation Materials

Step	Name	ID	Step	Name	ID
Digestion	K-MET 100ml Centrifuge Tube	19603	Digestion	K-MET H2O2	29294
Digestion	K-MET HNO3	26990	Digestion	K-MET HCL	29832

Preparation Hardware / Equipment

Step	Name	Property	Value	
Digestion	K-Balance-37	Date Calibrated	5/31/2011	

Step	Name	Property	Value	
Digestion	K-BlockDigester-03	Temperature	95.0	deg C

Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	31-MAY-11 13:30	31-MAY-11 16:00	BHALL		N	

Comments

Review

Reviewed by: _____ Date: 6/1/11

Columbia Analytical Services™ **Preparation Information Benchsheet**

Prep Run: 134897
Team: Metals
Analyst: BHALL

Prep Workflow: MetDigSMS
Prep Method: EPA 3050B,EPA CLP-METALS ILM05.3
Rush/NPDES: N/A

Status: Prepped
Current Step: Digestion

Prep Date: 05/31/2011 13:30
Due Date: 05/27/2011

Lab Code	Client ID	Bottle #	Initial Amt	Initial Basis	Final Volume	Spike Amt	Spike ID	Comments
KQ1105053-04	Method Blank				100			10% HNO3
KQ1105053-03	Lab Control Sample		1.002		100			10% HNO3
K1103974-001	3/4-Comp	.02	2.150 g		100 mL			10% HNO3
K1103974-001: KQ1105053-05	Duplicate	.02	2.129 g		100 mL			10% HNO3
K1103974-001: KQ1105053-06	Matrix Spike	.02	2.120 g		100 mL	1 mL 2 mL 1 mL 1 mL	28373 28451 28474 29031	10% HNO3
K1103974-002	5/A-Comp	.02	2.241 g		100 mL			10% HNO3
K1103974-003	1/2-Comp	.02	2.230 g		100 mL			10% HNO3
K1103974-004	B-I-Comp	.02	2.168 g		100 mL			10% HNO3
K1103974-005	B-II-Comp	.02	2.204 g		100 mL			10% HNO3
K1103974-006	B-Comp	.02	2.128 g		100 mL			10% HNO3
K1103974-007	BSA-Comp	.02	2.114 g		100 mL			10% HNO3
K1103974-008	BD-042711	.02	2.162 g		100 mL			10% HNO3
K1103974-009	Alcatraz-Comp	.02	1.124 g		100 mL			10% HNO3
K1104131-013	Composite	.01	2.433 g		100 mL			10% HNO3
K1104431-004	SPI-1-S-2010/2011	.01	0.255 g		25 mL			10% HNO3
K1104431-008	SPI-2-S-2010/2011	.01	0.258 g		25 mL			10% HNO3

16 Total Samples consisting of 12 Client Samples, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET SS1	Spike	28451	9/27/2011	K-MET SS4	Spike	28373	9/26/2011
K-MET SS3	Spike	28474	9/27/2011	K-MET SS5	Spike	29031	10/19/2011

Preparation Materials

Step	Name	ID
Digestion	K-MET 100ml Centrifuge Tube	19603
Digestion	K-MET HNO3	26990
Digestion	K-MET H2O2	29294

Preparation Hardware / Equipment

Step	Name	Property	Value	
Digestion	K-Balance-37	Date Calibrated	5/31/2011	
Digestion	K-BlockDigester-01	Temperature	95.0	deg C

Preparation Steps

Step	Started	Finished	By	Assisted By	Training?	Comments
Digestion	31-MAY-11 13:30	31-MAY-11 16:00	BHALL		N	

Comments

Review

Reviewed by: _____ Date: 6/1/11

METALS SPIKING SOLUTIONS CONCENTRATIONS FORM

Solution Name	Element	mLs of 1000ppm Solution	Final Volume	Solution Conc. mg/L	Enter mls Added
	HNO3	50.0	1000ml	-	
	Al	100*	1000ml	200	
	Ag	100*	1000ml	5	
	Ba	100*	1000ml	200	
	Be	100*	1000ml	5	
	Cd	100*	1000ml	5	
	Co	100*	1000ml	50	
K-MET SS1	Cr	100*	1000ml	20	
28451	Cu	100*	1000ml	25	2.00
	Fe	100*	1000ml	100	
	Pb	100*	1000ml	50	
	Mn	100*	1000ml	50	
	Ni	100*	1000ml	50	
	Sb	50	1000ml	50	
	V	100*	1000ml	50	
	Zn	100*	1000ml	50	
	HNO3	25.0	500ml	-	
K-MET SS2	As	2.0	500ml	4	
	Cd	2.0	500ml	4	
	Pb	2.0	500ml	4	
	Se	2.0	500ml	4	
	Tl	2.0	500ml	4	
	Cu	2.0	500ml	4	
K-MET SS3	HNO3	25.0	500ml	-	
28474	As	50.0	500ml	100	1.00
	Se	50.0	500ml	100	
	Tl	50.0	500ml	100	
	HNO3	25	500ml	-	
K-MET SS4	B	50	500ml	100	
28373	Mo	50	500ml	100	1.00
K-MET SS5	HNO3	10.0	200ml	-	
29031	K**	20	200ml	1000	1.00
	Na**	20	200ml	1000	
	Mg**	20	200ml	1000	
	Ca**	20	200ml	1000	
K-MET GFLCSW	HNO3	10.0	1000ml	-	
	As, Pb, Se, Tl	5.0	1000ml	2.5	
	Cd	-	-	1.25	
	Cu	2.5	1000ml	2.5	
K-MET QCP-CICV-1	Ca, Mg, Na, K	no dilution	-	2500	
	Al, Ba	no dilution	-	1000	
	Fe	no dilution	-	500	
	Co, Mn, Ni, V, Zn	no dilution	-	250	
	Cu, Ag	no dilution	-	125	
	Cr	no dilution	-	100	
	Be	no dilution	-	25	
K-MET QCP-CICV-2	Sb	no dilution	-	500	
K-MET QCP-CICV-3	As, Pb, Se, Tl	no dilution	-	500	
	Cd	no dilution	-	250	

* Denotes volume of mixed stock standard.

** Denotes 10,000 ppm individual stock standards.

Standard	mls of standard	ppm	Logbook #	Exp. Date

Columbia Analytical Services™ **Preparation Information Benchsheet**

Prep Run: 134897
Team: Metals
Analyst: BSHELDON

Prep Workflow: MetDigSMS EPA 3050B,EPA
Prep Method: CLP-METALS ILM05.3
Rush/NPDES: N/A

Status: Draft
Current Step: Digestion

Prep Date: 05/31/2011 09:25
Due Date: 05/27/2011

Lab Code	Client ID	Bottle #	Target Amt	Initial Amt	Initial Basis	Final Volume	Spike Amt	Spike ID	Comments
KQ1105053-04	Method Blank		1 g						
KQ1105053-03	Lab Control Sample		1 g	1.007					
K1103974-001	3/4-Comp	.02	2.11 g	~~2.153~~ 2.150	#4 5-31-11				
K1103974-001: KQ1105053-05	Duplicate	.02	1.00 g	2.129					
K1103974-001: KQ1105053-06	Matrix Spike	.02	1.00 g	2.120			1 mL 2 mL 1 mL 1 mL	28373 28451 28474 29031	
K1103974-002	5/A-Comp	.02	2.22 g	2.241					
K1103974-003	1/2-Comp	.02	2.22 g	2.230					
K1103974-004	B-I-Comp	.02	2.16 g	2.168					
K1103974-005	B-II-Comp	.02	2.15 g	2.204					
K1103974-006	B-Comp	.02	2.11 g	2.128					
K1103974-007	BSA-Comp	.02	2.11 g	2.114					
K1103974-008	BD-042711	.02	2.14 g	2.162					
K1103974-009	Alcatraz-Comp	.02	1.12 g	1.124					
K1104131-013	Composite	.01	2.40 g	2.433					
K1104431-004	SPI-1-S-2010/2011	.01	~~1.60 g~~ 0.25	0.255		25			
K1104431-008	SPI-2-S-2010/2011	.01	~~1.44 g~~ 0.25	0.258		25			

16 Total Samples consisting of 12 Client Samples, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET SS1	Spike	28451	9/27/2011	K-MET SS4	Spike	28373	9/26/2011
K-MET SS3	Spike	28474	9/27/2011	K-MET SS5	Spike	29031	10/19/2011

Columbia Analytical Services™ **Preparation Information Benchsheet**

Prep Run: 134901 **Prep Workflow**: MetDigSICP **Status**: Draft **Prep Date**: 05/31/2011 09:34
Team: Metals **Prep Method**: EPA 3050B **Current Step**: Digestion
Analyst: BSHELDON **Rush/NPDES**: N/A **Due Date**: 05/27/2011

Lab Code	Client ID	Bottle #	Target Amt	Initial Amt	Initial Basis	Final Volume	Spike Amt	Spike ID	Comments
KQ1105056-04	Method Blank								
KQ1105056-03	Lab Control Sample		~~1.003~~ AL 5-31-11	1.003					
K1103974-001	3/4-Comp	.02	2.11 g	2.173					
K1103974-001: KQ1105056-05	Duplicate	.02	1 g	2.126					
K1103974-001: KQ1105056-06	Matrix Spike	.02	1 g	2.136			1 mL 2 mL 1 mL 1 mL	28373 28451 28474 29031	
K1103974-002	5/A-Comp	.02	2.22 g	2.256					
K1103974-003	1/2-Comp	.02	2.22 g	2.247					
K1103974-004	B-I-Comp	.02	2.16 g	2.166					
K1103974-005	B-II-Comp	.02	2.15 g	2.179					
K1103974-006	B-Comp	.02	2.11 g	2.124					
K1103974-007	BSA-Comp	.02	2.11 g	2.123					
K1103974-008	BD-042711	.02	2.14 g	2.146					
K1103974-009	Alcatraz-Comp	.02	1.12 g	1.130					
K1104431-004	SPI-1-S-2010/2011	.01	0.25	0.257		25			
K1104431-008	SPI-2-S-2010/2011	.01	0.25	0.283		25			
K1104131-03			2.40	2.418					

15 Total Samples consisting of 11 Client Samples, 2 Client QC Samples, 2 Batch QC Samples associated with the current Prep Run.

Spiking Solutions

Name	Type	ID	Expires	Name	Type	ID	Expires
K-MET SS1	Spike	28451	9/27/2011	K-MET SS4	Spike	28373	9/26/2011
K-MET SS3	Spike	28474	9/27/2011	K-MET SS5	Spike	29031	10/19/2011

Preparation Materials

Step	Name	ID	Step	Name	ID
Digestion	K-MET 100ml Centrifuge Tube	19603	Digestion	K-MET H2O2	29294
Digestion	K-MET HNO3	26990	Digestion	K-MET HCL	29832

Organochlorine Pesticides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Organochlorine Pesticides

Sample Name: SPI-1-S-2010/2011
Lab Code: K1104431-004

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	**0.64**	JP	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
Hexachlorobenzene	ND	Ui	3.3	0.89	1	05/24/11	06/09/11	KWG1104909	
beta-BHC	ND	U	3.3	0.58	1	05/24/11	06/09/11	KWG1104909	
gamma-BHC (Lindane)	**2.1**	JP	3.3	0.26	1	05/24/11	06/09/11	KWG1104909	
delta-BHC	ND	Ui	3.3	0.88	1	05/24/11	06/09/11	KWG1104909	
Heptachlor	ND	Ui	4.7	4.7	1	05/24/11	06/09/11	KWG1104909	
Aldrin	ND	Ui	3.3	1.6	1	05/24/11	06/09/11	KWG1104909	
Heptachlor Epoxide	ND	Ui	3.3	0.41	1	05/24/11	06/09/11	KWG1104909	
gamma-Chlordane†	**8.3**		3.3	0.29	1	05/24/11	06/09/11	KWG1104909	
Endosulfan I	ND	Ui	5.1	5.1	1	05/24/11	06/09/11	KWG1104909	
alpha-Chlordane	**3.6**	P	3.3	0.33	1	05/24/11	06/09/11	KWG1104909	
Dieldrin	ND	Ui	3.3	2.0	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDE	**4.6**	P	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
Endrin	ND	Ui	3.3	0.34	1	05/24/11	06/09/11	KWG1104909	
Endosulfan II	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDD	**3.3**	P	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
Endrin Aldehyde	**1.6**	J	3.3	0.39	1	05/24/11	06/09/11	KWG1104909	
Endosulfan Sulfate	**3.9**	P	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDT	ND	Ui	5.4	5.4	1	05/24/11	06/09/11	KWG1104909	
Endrin Ketone	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
Methoxychlor	**8.0**	P	3.3	0.61	1	05/24/11	06/09/11	KWG1104909	
Toxaphene	ND	Ui	200	200	1	05/24/11	06/09/11	KWG1104909	
Chlordane	**110**		33	6.1	1	05/24/11	06/09/11	KWG1104909	
Oxychlordane	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDE	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
cis-Nonachlor	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDD	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
trans-Nonachlor	**2.7**	JP	3.3	0.28	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDT	**2.0**	JP	3.3	0.19	1	05/24/11	06/09/11	KWG1104909	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Organochlorine Pesticides

Sample Name:	SPI-1-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-004	**Basis:**	Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	79	21-112	06/09/11	Acceptable

† **Analyte Comments**

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Organochlorine Pesticides

Sample Name: SPI-2-S-2010/2011
Lab Code: K1104431-008

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	Ui	3.0	0.49	1	05/24/11	06/09/11	KWG1104909	
Hexachlorobenzene	**4.6**		3.0	0.59	1	05/24/11	06/09/11	KWG1104909	
beta-BHC	**8.2**		3.0	0.54	1	05/24/11	06/09/11	KWG1104909	
gamma-BHC (Lindane)	**1.3**	JP	3.0	0.24	1	05/24/11	06/09/11	KWG1104909	
delta-BHC	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
Heptachlor	**2.8**	JP	3.0	0.36	1	05/24/11	06/09/11	KWG1104909	
Aldrin	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
Heptachlor Epoxide	ND	U	3.0	0.25	1	05/24/11	06/09/11	KWG1104909	
gamma-Chlordane†	**18**		3.0	0.27	1	05/24/11	06/09/11	KWG1104909	
Endosulfan I	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
alpha-Chlordane	**5.4**		3.0	0.30	1	05/24/11	06/09/11	KWG1104909	
Dieldrin	**1.0**	J	3.0	0.42	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDE	**4.2**	P	3.0	0.33	1	05/24/11	06/09/11	KWG1104909	
Endrin	ND	U	3.0	0.28	1	05/24/11	06/09/11	KWG1104909	
Endosulfan II	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDD	**6.9**		3.0	0.33	1	05/24/11	06/09/11	KWG1104909	
Endrin Aldehyde	**2.9**	J	3.0	0.36	1	05/24/11	06/09/11	KWG1104909	
Endosulfan Sulfate	**0.87**	JP	3.0	0.33	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDT	ND	Ui	8.2	8.2	1	05/24/11	06/09/11	KWG1104909	
Endrin Ketone	ND	Ui	5.8	5.8	1	05/24/11	06/09/11	KWG1104909	
Methoxychlor	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
Toxaphene	ND	Ui	240	240	1	05/24/11	06/09/11	KWG1104909	
Chlordane	**110**		30	5.6	1	05/24/11	06/09/11	KWG1104909	
Oxychlordane	**5.3**	P	3.0	0.26	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDE	ND	Ui	3.0	2.4	1	05/24/11	06/09/11	KWG1104909	
cis-Nonachlor	ND	Ui	4.1	4.1	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDD	**7.6**		3.0	0.39	1	05/24/11	06/09/11	KWG1104909	
trans-Nonachlor	**4.1**		3.0	0.26	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDT	**3.7**	P	3.0	0.18	1	05/24/11	06/09/11	KWG1104909	

Comments:

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Organochlorine Pesticides

Sample Name: SPI-2-S-2010/2011
Lab Code: K1104431-008

Units: ug/Kg
Basis: Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	65	21-112	06/09/11	Acceptable

† **Analyte Comments**

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Sediment

Service Request: K1104431
Date Collected: NA
Date Received: NA

Organochlorine Pesticides

Sample Name: Method Blank
Lab Code: KWG1104909-13

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.50	0.11	1	05/24/11	06/08/11	KWG1104909	
Hexachlorobenzene	ND	U	0.50	0.20	1	05/24/11	06/08/11	KWG1104909	
beta-BHC	ND	U	0.50	0.18	1	05/24/11	06/08/11	KWG1104909	
gamma-BHC (Lindane)	ND	U	0.50	0.080	1	05/24/11	06/08/11	KWG1104909	
delta-BHC	ND	U	0.50	0.074	1	05/24/11	06/08/11	KWG1104909	
Heptachlor	ND	U	0.50	0.12	1	05/24/11	06/08/11	KWG1104909	
Aldrin	ND	U	0.50	0.16	1	05/24/11	06/08/11	KWG1104909	
Heptachlor Epoxide	ND	U	0.50	0.084	1	05/24/11	06/08/11	KWG1104909	
gamma-Chlordane†	ND	U	0.50	0.090	1	05/24/11	06/08/11	KWG1104909	
Endosulfan I	ND	U	0.50	0.063	1	05/24/11	06/08/11	KWG1104909	
alpha-Chlordane	ND	U	0.50	0.10	1	05/24/11	06/08/11	KWG1104909	
Dieldrin	ND	U	0.50	0.14	1	05/24/11	06/08/11	KWG1104909	
4,4'-DDE	ND	U	0.50	0.11	1	05/24/11	06/08/11	KWG1104909	
Endrin	ND	U	0.50	0.094	1	05/24/11	06/08/11	KWG1104909	
Endosulfan II	ND	U	0.50	0.14	1	05/24/11	06/08/11	KWG1104909	
4,4'-DDD	ND	U	0.50	0.11	1	05/24/11	06/08/11	KWG1104909	
Endrin Aldehyde	ND	U	0.50	0.12	1	05/24/11	06/08/11	KWG1104909	
Endosulfan Sulfate	ND	U	0.50	0.11	1	05/24/11	06/08/11	KWG1104909	
4,4'-DDT	ND	U	0.50	0.17	1	05/24/11	06/08/11	KWG1104909	
Endrin Ketone	ND	U	0.50	0.093	1	05/24/11	06/08/11	KWG1104909	
Methoxychlor	ND	U	0.50	0.19	1	05/24/11	06/08/11	KWG1104909	
Toxaphene	ND	U	25	4.8	1	05/24/11	06/08/11	KWG1104909	
Chlordane	ND	U	5.0	1.9	1	05/24/11	06/08/11	KWG1104909	
Oxychlordane	ND	U	0.50	0.085	1	05/24/11	06/08/11	KWG1104909	
2,4'-DDE	ND	U	0.50	0.16	1	05/24/11	06/08/11	KWG1104909	
cis-Nonachlor	ND	U	0.50	0.12	1	05/24/11	06/08/11	KWG1104909	
2,4'-DDD	ND	U	0.50	0.13	1	05/24/11	06/08/11	KWG1104909	
trans-Nonachlor	ND	U	0.50	0.087	1	05/24/11	06/08/11	KWG1104909	
2,4'-DDT	ND	U	0.50	0.058	1	05/24/11	06/08/11	KWG1104909	

Comments:

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1104909-13	**Basis:**	Dry

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	68	21-112	06/08/11	Acceptable

† **Analyte Comments**

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431

Surrogate Recovery Summary
Organochlorine Pesticides

Extraction Method: EPA 3541
Analysis Method: 8081B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-S-2010/2011	K1104431-004	79
SPI-2-S-2010/2011	K1104431-008	65
Batch QC	K1104538-001	62
Batch QC	K1104538-002	63
Batch QC	K1104538-003	64
Method Blank	KWG1104909-13	68
Batch QCMS	KWG1104909-1	60
Batch QCDMS	KWG1104909-2	56
Batch QCMS	KWG1104909-4	66
Batch QCDMS	KWG1104909-5	57
Batch QCMS	KWG1104909-7	48
Batch QCDMS	KWG1104909-8	62
Lab Control Sample	KWG1104909-3	69

Surrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene 21-112

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Extracted:**	05/24/2011
Sample Matrix:	Sediment	**Date Analyzed:**	06/09/2011

Matrix Spike/Duplicate Matrix Spike Summary
Organochlorine Pesticides

Sample Name:	Batch QC	**Units:**	ug/Kg
Lab Code:	K1104538-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8081B	**Extraction Lot:**	KWG1104909

		Batch QCMS KWG1104909-1 Matrix Spike			Batch QCDMS KWG1104909-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	ND	14.3	21.9	65	12.5	21.9	57	23-133	13	40
Hexachlorobenzene	ND	14.7	21.9	67	12.9	21.9	59	11-118	13	40
beta-BHC	ND	14.6	21.9	67	13.1	21.9	60	22-142	11	40
gamma-BHC (Lindane)	ND	15.1	21.9	69	13.3	21.9	61	26-135	13	40
delta-BHC	ND	15.9	21.9	73	14.1	21.9	64	25-148	12	40
Heptachlor	ND	15.2	21.9	69	13.4	21.9	61	21-136	13	40
Aldrin	ND	14.3	21.9	65	12.5	21.9	57	22-135	13	40
Heptachlor Epoxide	0.12	13.9	21.9	63	12.4	21.9	56	25-129	12	40
gamma-Chlordane	ND	13.7	21.9	63	12.1	21.9	55	24-133	12	40
Endosulfan I	ND	12.3	21.9	56	10.9	21.9	50	15-119	12	40
alpha-Chlordane	ND	13.1	21.9	60	12.1	21.9	55	24-132	8	40
Dieldrin	ND	14.0	21.9	64	12.5	21.9	57	26-133	12	40
4,4'-DDE	0.62	15.4	21.9	68	14.1	21.9	62	22-142	9	40
Endrin	ND	13.1	21.9	60	11.5	21.9	53	22-145	13	40
Endosulfan II	ND	11.9	21.9	55	10.7	21.9	49	13-129	11	40
4,4'-DDD	ND	11.3	21.9	51	9.72	21.9	44	19-143	15	40
Endrin Aldehyde	ND	12.1	21.9	55	11.0	21.9	50	10-129	9	40
Endosulfan Sulfate	ND	13.0	21.9	60	11.7	21.9	53	20-134	11	40
4,4'-DDT	0.34	15.3	21.9	68	13.6	21.9	60	19-154	12	40
Endrin Ketone	0.24	14.4	21.9	65	12.9	21.9	58	19-139	11	40
Methoxychlor	0.92	14.1	21.9	60	12.1	21.9	51	24-151	15	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Extracted:**	05/24/2011
Sample Matrix:	Sediment	**Date Analyzed:**	06/09/2011

Matrix Spike/Duplicate Matrix Spike Summary
Organochlorine Pesticides

Sample Name:	Batch QC	**Units:**	ug/Kg
Lab Code:	K1104538-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8081B	**Extraction Lot:**	KWG1104909

		Batch QCMS KWG1104909-4 Matrix Spike			Batch QCDMS KWG1104909-5 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Oxychlordane	0.26	14.5	22.3	64	13.4	22.3	59	22-118	8	40
cis-Nonachlor	0.39	13.2	22.3	58	12.2	22.3	53	18-139	8	40
trans-Nonachlor	ND	14.7	22.3	66	13.3	22.3	60	24-120	10	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Sediment

Service Request: K1104431
Date Extracted: 05/24/2011
Date Analyzed: 06/09/2011

Matrix Spike/Duplicate Matrix Spike Summary
Organochlorine Pesticides

Sample Name: Batch QC
Lab Code: K1104538-003

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8081B

Level: Low
Extraction Lot: KWG1104909

Analyte Name	Sample Result	Batch QCMS KWG1104909-7 Matrix Spike			Batch QCDMS KWG1104909-8 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
2,4'-DDE	ND	9.48	20.0	47	11.3	20.0	56	24-141	17	40
2,4'-DDD	0.30	11.3	20.0	55	13.0	20.0	64	12-147	14	40
2,4'-DDT	0.15	12.2	20.0	60	14.2	20.0	71	15-141	16	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Extracted:**	05/24/2011
Sample Matrix:	Sediment	**Date Analyzed:**	06/08/2011 - 06/09/2011

Lab Control Spike Summary
Organochlorine Pesticides

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8081B	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1104909

	Lab Control Sample KWG1104909-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
alpha-BHC	13.5	20.0	67	36-139
Hexachlorobenzene	13.0	20.0	65	21-100
beta-BHC	13.1	20.0	65	38-142
gamma-BHC (Lindane)	14.0	20.0	70	40-142
delta-BHC	14.7	20.0	73	48-145
Heptachlor	13.9	20.0	69	39-135
Aldrin	13.1	20.0	65	37-134
Heptachlor Epoxide	13.3	20.0	67	45-118
gamma-Chlordane	12.9	20.0	64	41-135
Endosulfan I	11.6	20.0	58	35-121
alpha-Chlordane	13.1	20.0	65	41-134
Dieldrin	13.7	20.0	68	46-136
4,4'-DDE	14.2	20.0	71	46-141
Endrin	12.8	20.0	64	40-152
Endosulfan II	12.3	20.0	61	39-128
4,4'-DDD	12.5	20.0	62	46-146
Endrin Aldehyde	12.4	20.0	62	32-132
Endosulfan Sulfate	13.3	20.0	66	43-138
4,4'-DDT	14.6	20.0	73	46-151
Endrin Ketone	14.4	20.0	72	47-135
Methoxychlor	14.2	20.0	71	42-147
Toxaphene	121	200	60	53-133
Chlordane	124	200	62	52-140
Oxychlordane	12.0	20.0	60	37-119
2,4'-DDE	10.7	20.0	54	49-112
cis-Nonachlor	12.6	20.0	63	51-119
2,4'-DDD	12.8	20.0	64	53-115
trans-Nonachlor	12.0	20.0	60	39-123
2,4'-DDT	13.3	20.0	67	44-120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Congener Specific PCBs

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Congener Specific PCBs

Sample Name: SPI-1-S-2010/2011
Lab Code: K1104431-004

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	1.7	0.68	1	05/24/11	06/02/11	KWG1104907	
PCB 18	ND	Ui	3.9	3.9	1	05/24/11	06/02/11	KWG1104907	
PCB 28	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 44	**3.4**	P	1.7	0.21	1	05/24/11	06/02/11	KWG1104907	
PCB 52	**3.5**		1.7	0.19	1	05/24/11	06/02/11	KWG1104907	
PCB 66	**2.7**	P	1.7	0.12	1	05/24/11	06/02/11	KWG1104907	
PCB 87	ND	Ui	3.0	3.0	1	05/24/11	06/02/11	KWG1104907	
PCB 101	**7.5**	P	1.7	0.16	1	05/24/11	06/02/11	KWG1104907	
PCB 114	ND	Ui	1.7	0.15	1	05/24/11	06/02/11	KWG1104907	
PCB 123	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 138	**9.9**		1.7	0.21	1	05/24/11	06/02/11	KWG1104907	
PCB 156	**1.5**	J	1.7	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 167	ND	Ui	2.0	2.0	1	05/24/11	06/02/11	KWG1104907	
PCB 180	ND	Ui	7.5	7.5	1	05/24/11	06/02/11	KWG1104907	
PCB 183	**2.4**		1.7	0.26	1	05/24/11	06/02/11	KWG1104907	
PCB 184	ND	U	1.7	0.17	1	05/24/11	06/02/11	KWG1104907	
PCB 187	**3.2**		1.7	0.16	1	05/24/11	06/02/11	KWG1104907	
PCB 189	ND	U	1.7	0.093	1	05/24/11	06/02/11	KWG1104907	
PCB 195	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 206	**0.72**	J	1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 209	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 60	ND	Ui	12	12	1	05/24/11	06/02/11	KWG1104907	
PCB 77	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 81	**9.0**	P	1.7	0.17	1	05/24/11	06/02/11	KWG1104907	
PCB 90	ND	Ui	1.8	1.8	1	05/24/11	06/02/11	KWG1104907	
PCB 105	ND	Ui	4.6	4.6	1	05/24/11	06/02/11	KWG1104907	
PCB 118	**4.7**		1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 126	**0.54**	JP	1.7	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 128	**1.5**	J	1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 153	**7.4**	P	1.7	0.13	1	05/24/11	06/02/11	KWG1104907	
PCB 157	ND	U	1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 158	ND	Ui	3.9	3.9	1	05/24/11	06/02/11	KWG1104907	
PCB 166	ND	Ui	2.0	2.0	1	05/24/11	06/02/11	KWG1104907	

Comments:

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Congener Specific PCBs

Sample Name: SPI-1-S-2010/2011
Lab Code: K1104431-004

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	**0.51**	JP	1.7	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 170	**2.9**		1.7	0.084	1	05/24/11	06/02/11	KWG1104907	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	106	10-135	06/02/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Congener Specific PCBs

Sample Name:	SPI-2-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-008	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	**12**		1.5	0.62	1	05/24/11	06/02/11	KWG1104907	
PCB 18	ND	Ui	13	13	1	05/24/11	06/02/11	KWG1104907	
PCB 28	ND	Ui	2.1	2.1	1	05/24/11	06/02/11	KWG1104907	
PCB 44	**4.2**		1.5	0.20	1	05/24/11	06/02/11	KWG1104907	
PCB 52	**6.2**		1.5	0.18	1	05/24/11	06/02/11	KWG1104907	
PCB 66	**4.4**		1.5	0.11	1	05/24/11	06/02/11	KWG1104907	
PCB 87	ND	Ui	2.4	2.4	1	05/24/11	06/02/11	KWG1104907	
PCB 101	ND	Ui	11	11	1	05/24/11	06/02/11	KWG1104907	
PCB 114	ND	Ui	1.5	1.5	1	05/24/11	06/02/11	KWG1104907	
PCB 123	**4.7**	P	1.5	0.20	1	05/24/11	06/02/11	KWG1104907	
PCB 138	**8.4**		1.5	0.19	1	05/24/11	06/02/11	KWG1104907	
PCB 156	ND	Ui	1.6	1.6	1	05/24/11	06/02/11	KWG1104907	
PCB 167	ND	Ui	1.5	1.5	1	05/24/11	06/02/11	KWG1104907	
PCB 180	**8.8**	P	1.5	0.28	1	05/24/11	06/02/11	KWG1104907	
PCB 183	**3.2**		1.5	0.24	1	05/24/11	06/02/11	KWG1104907	
PCB 184	ND	U	1.5	0.16	1	05/24/11	06/02/11	KWG1104907	
PCB 187	**6.5**		1.5	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 189	ND	U	1.5	0.086	1	05/24/11	06/02/11	KWG1104907	
PCB 195	**0.85**	J	1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 206	**5.6**		1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 209	**1.4**	J	1.5	0.13	1	05/24/11	06/02/11	KWG1104907	
PCB 60	ND	Ui	30	30	1	05/24/11	06/02/11	KWG1104907	
PCB 77	ND	Ui	7.2	7.2	1	05/24/11	06/02/11	KWG1104907	
PCB 81	**8.8**	P	1.5	0.15	1	05/24/11	06/02/11	KWG1104907	
PCB 90	ND	Ui	2.3	2.3	1	05/24/11	06/02/11	KWG1104907	
PCB 105	**2.4**	P	1.5	0.098	1	05/24/11	06/02/11	KWG1104907	
PCB 118	**4.3**		1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 126	**4.7**	P	1.5	0.13	1	05/24/11	06/02/11	KWG1104907	
PCB 128	**0.77**	JP	1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 153	**9.3**		1.5	0.12	1	05/24/11	06/02/11	KWG1104907	
PCB 157	**0.80**	J	1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 158	**2.2**	P	1.5	0.083	1	05/24/11	06/02/11	KWG1104907	
PCB 166	ND	Ui	2.6	2.6	1	05/24/11	06/02/11	KWG1104907	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Congener Specific PCBs

Sample Name:	SPI-2-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-008	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	Ui	1.5	1.5	1	05/24/11	06/02/11	KWG1104907	
PCB 170	ND	Ui	2.7	2.7	1	05/24/11	06/02/11	KWG1104907	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	92	10-135	06/02/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Sediment

Service Request: K1104431
Date Collected: NA
Date Received: NA

Congener Specific PCBs

Sample Name: Method Blank
Lab Code: KWG1104907-4

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	0.25	0.21	1	05/24/11	06/02/11	KWG1104907	
PCB 18	ND	U	0.25	0.096	1	05/24/11	06/02/11	KWG1104907	
PCB 28	ND	U	0.25	0.064	1	05/24/11	06/02/11	KWG1104907	
PCB 44	ND	U	0.25	0.065	1	05/24/11	06/02/11	KWG1104907	
PCB 52	ND	U	0.25	0.059	1	05/24/11	06/02/11	KWG1104907	
PCB 66	ND	U	0.25	0.035	1	05/24/11	06/02/11	KWG1104907	
PCB 87	ND	U	0.25	0.038	1	05/24/11	06/02/11	KWG1104907	
PCB 101	ND	U	0.25	0.049	1	05/24/11	06/02/11	KWG1104907	
PCB 114	ND	U	0.25	0.023	1	05/24/11	06/02/11	KWG1104907	
PCB 123	ND	U	0.25	0.067	1	05/24/11	06/02/11	KWG1104907	
PCB 138	ND	U	0.25	0.064	1	05/24/11	06/02/11	KWG1104907	
PCB 156	ND	U	0.25	0.042	1	05/24/11	06/02/11	KWG1104907	
PCB 167	ND	U	0.25	0.046	1	05/24/11	06/02/11	KWG1104907	
PCB 180	ND	U	0.25	0.095	1	05/24/11	06/02/11	KWG1104907	
PCB 183	ND	U	0.25	0.081	1	05/24/11	06/02/11	KWG1104907	
PCB 184	ND	U	0.25	0.052	1	05/24/11	06/02/11	KWG1104907	
PCB 187	ND	U	0.25	0.047	1	05/24/11	06/02/11	KWG1104907	
PCB 189	ND	U	0.25	0.029	1	05/24/11	06/02/11	KWG1104907	
PCB 195	ND	U	0.25	0.031	1	05/24/11	06/02/11	KWG1104907	
PCB 206	ND	U	0.25	0.031	1	05/24/11	06/02/11	KWG1104907	
PCB 209	ND	U	0.25	0.041	1	05/24/11	06/02/11	KWG1104907	
PCB 60	ND	U	0.25	0.039	1	05/24/11	06/02/11	KWG1104907	
PCB 77	ND	U	0.25	0.047	1	05/24/11	06/02/11	KWG1104907	
PCB 81	ND	U	0.25	0.050	1	05/24/11	06/02/11	KWG1104907	
PCB 90	ND	U	0.25	0.035	1	05/24/11	06/02/11	KWG1104907	
PCB 105	ND	U	0.25	0.033	1	05/24/11	06/02/11	KWG1104907	
PCB 118	ND	U	0.25	0.031	1	05/24/11	06/02/11	KWG1104907	
PCB 126	ND	U	0.25	0.043	1	05/24/11	06/02/11	KWG1104907	
PCB 128	ND	U	0.25	0.031	1	05/24/11	06/02/11	KWG1104907	
PCB 153	ND	U	0.25	0.038	1	05/24/11	06/02/11	KWG1104907	
PCB 157	ND	U	0.25	0.031	1	05/24/11	06/02/11	KWG1104907	
PCB 158	ND	U	0.25	0.028	1	05/24/11	06/02/11	KWG1104907	
PCB 166	ND	U	0.25	0.030	1	05/24/11	06/02/11	KWG1104907	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Sediment	**Date Received:**	NA

Congener Specific PCBs

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1104907-4	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	ND	U	0.25	0.041	1	05/24/11	06/02/11	KWG1104907	
PCB 170	ND	U	0.25	0.026	1	05/24/11	06/02/11	KWG1104907	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	81	10-135	06/02/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431

Surrogate Recovery Summary
Congener Specific PCBs

Extraction Method: EPA 3541
Analysis Method: 8082A

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
SPI-1-S-2010/2011	K1104431-004	106
SPI-2-S-2010/2011	K1104431-008	92
Batch QC	K1104539-001	78
Method Blank	KWG1104907-4	81
Batch QCMS	KWG1104907-1	82
Batch QCDMS	KWG1104907-2	65
Lab Control Sample	KWG1104907-3	84

Surrogate Recovery Control Limits (%)

Sur1 = Tetrachloro-m-xylene 10-135

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Extracted:**	05/24/2011
Sample Matrix:	Sediment	**Date Analyzed:**	06/02/2011

Matrix Spike/Duplicate Matrix Spike Summary
Congener Specific PCBs

Sample Name:	Batch QC	**Units:**	ug/Kg
Lab Code:	K1104539-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082A	**Extraction Lot:**	KWG1104907

		Batch QCMS KWG1104907-1 Matrix Spike			Batch QCDMS KWG1104907-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
PCB 8	ND	10.1	10.0	101	7.52	10.0	75	41-140	30	40
PCB 18	ND	8.05	10.0	80	6.55	10.0	65	36-123	21	40
PCB 28	0.096	9.03	10.0	89	7.54	10.0	74	47-144	18	40
PCB 44	0.24	8.25	10.0	80	6.58	10.0	63	40-134	23	40
PCB 52	0.47	8.50	10.0	80	6.40	10.0	59	32-130	28	40
PCB 66	0.43	9.61	10.0	92	7.85	10.0	74	29-136	20	40
PCB 87	ND	8.76	10.0	87	7.68	10.0	77	20-137	13	40
PCB 114	0.076	7.42	10.0	73	5.99	10.0	59	39-123	21	40
PCB 123	0.90	8.35	10.0	74	6.48	10.0	56	48-119	25	40
PCB 138	1.4	8.91	10.0	74	6.62	10.0	52	31-131	30	40
PCB 156	0.30	7.78	10.0	75	6.29	10.0	60	40-132	21	40
PCB 167	0.32	7.88	10.0	76	6.17	10.0	58	39-122	24	40
PCB 180	1.1	8.40	10.0	72	6.73	10.0	56	40-139	22	40
PCB 183	0.48	6.81	10.0	63	5.88	10.0	54	30-141	15	40
PCB 184	1.4	8.14	10.0	67	5.91	10.0	45	44-117	32	40
PCB 187	0.71	8.81	10.0	81	7.38	10.0	67	31-139	18	40
PCB 189	ND	7.48	10.0	75	6.17	10.0	62	51-121	19	40
PCB 195	0.14	7.76	10.0	76	6.54	10.0	64	33-134	17	40
PCB 206	0.13	6.96	10.0	68	5.77	10.0	56	39-130	19	40
PCB 209	0.10	8.25	10.0	81	8.10	10.0	80	38-131	2	40
PCB 60	0.093	7.49	10.0	74	6.40	10.0	63	19-180	16	40
PCB 77	1.7	8.79	10.0	70	6.58	10.0	48	30-142	29	40
PCB 81	1.9	18.8	10.0	169 *	15.1	10.0	132	30-133	22	40
PCB 90	1.0	13.6	10.0	125	11.1	10.0	101	45-191	20	40
PCB 105	0.20	8.02	10.0	78	6.43	10.0	62	31-135	22	40
PCB 118	0.70	8.11	10.0	74	6.10	10.0	54	28-152	28	40
PCB 126	0.23	7.86	10.0	76	6.41	10.0	62	34-144	20	40
PCB 128	0.19	7.30	10.0	71	5.83	10.0	56	22-141	22	40
PCB 153	1.3	7.75	10.0	64	6.68	10.0	53	20-139	15	40
PCB 157	0.054	6.88	10.0	68	5.67	10.0	56	41-133	19	40
PCB 158	0.14	7.75	10.0	76	6.31	10.0	62	29-138	20	40
PCB 169	ND	6.93	10.0	69	5.72	10.0	57	27-152	19	40
PCB 170	0.41	7.42	10.0	70	6.05	10.0	56	19-144	20	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Extracted:**	05/24/2011
Sample Matrix:	Sediment	**Date Analyzed:**	06/02/2011

Lab Control Spike Summary
Congener Specific PCBs

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8082A	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1104907

	Lab Control Sample KWG1104907-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
PCB 8	9.31	10.0	93	48-129
PCB 18	7.83	10.0	78	41-116
PCB 28	8.93	10.0	89	49-142
PCB 44	8.37	10.0	84	48-126
PCB 52	7.84	10.0	78	44-115
PCB 66	9.04	10.0	90	44-121
PCB 87	8.33	10.0	83	39-118
PCB 114	7.78	10.0	78	42-121
PCB 123	8.14	10.0	81	42-126
PCB 138	7.94	10.0	79	41-124
PCB 156	8.34	10.0	83	45-133
PCB 167	8.43	10.0	84	35-131
PCB 180	8.73	10.0	87	48-135
PCB 183	7.65	10.0	76	34-134
PCB 184	8.59	10.0	86	42-123
PCB 187	9.05	10.0	90	38-141
PCB 189	8.46	10.0	85	43-129
PCB 195	8.69	10.0	87	45-124
PCB 206	7.78	10.0	78	45-125
PCB 209	9.17	10.0	92	45-128
PCB 60	7.53	10.0	75	35-182
PCB 77	7.07	10.0	71	36-135
PCB 81	7.79	10.0	78	25-147
PCB 90	7.21	10.0	72	45-191
PCB 105	7.76	10.0	78	37-133
PCB 118	7.45	10.0	74	34-151
PCB 126	8.36	10.0	84	40-136
PCB 128	7.43	10.0	74	23-145
PCB 153	7.18	10.0	72	32-128
PCB 157	7.72	10.0	77	34-134
PCB 158	8.32	10.0	83	29-134
PCB 169	7.70	10.0	77	31-148
PCB 170	8.05	10.0	80	28-134

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Semi-Volatile Organic Compounds

REVISED
12:49 pm, Jun 24, 2011

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	8800	540	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethyl) Ether	ND	U	880	170	20	05/23/11	06/06/11	KWG1104595	
Phenol	ND	U	2700	180	20	05/23/11	06/06/11	KWG1104595	
2-Chlorophenol	ND	U	880	180	20	05/23/11	06/06/11	KWG1104595	
1,3-Dichlorobenzene	ND	U	880	270	20	05/23/11	06/06/11	KWG1104595	
1,4-Dichlorobenzene	ND	U	880	260	20	05/23/11	06/06/11	KWG1104595	
1,2-Dichlorobenzene	ND	U	880	260	20	05/23/11	06/06/11	KWG1104595	
Benzyl Alcohol	ND	U	1800	190	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroisopropyl) Ether	ND	U	880	230	20	05/23/11	06/06/11	KWG1104595	
2-Methylphenol	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
Hexachloroethane	ND	U	880	280	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodi-n-propylamine	ND	U	880	220	20	05/23/11	06/06/11	KWG1104595	
4-Methylphenol†	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
Nitrobenzene	ND	U	880	200	20	05/23/11	06/06/11	KWG1104595	
Isophorone	ND	U	880	88	20	05/23/11	06/06/11	KWG1104595	
2-Nitrophenol	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
2,4-Dimethylphenol	ND	U	4400	490	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethoxy)methane	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
2,4-Dichlorophenol	ND	U	880	88	20	05/23/11	06/06/11	KWG1104595	
Benzoic Acid	ND	U	18000	8500	20	05/23/11	06/06/11	KWG1104595	
1,2,4-Trichlorobenzene	ND	U	880	230	20	05/23/11	06/06/11	KWG1104595	
4-Chloroaniline	ND	U	880	170	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobutadiene	ND	U	880	220	20	05/23/11	06/06/11	KWG1104595	
4-Chloro-3-methylphenol	ND	U	880	130	20	05/23/11	06/06/11	KWG1104595	
Hexachlorocyclopentadiene	ND	U	4400	2600	20	05/23/11	06/06/11	KWG1104595	
2,4,6-Trichlorophenol	ND	U	880	130	20	05/23/11	06/06/11	KWG1104595	
2,4,5-Trichlorophenol	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
2-Chloronaphthalene	ND	U	880	150	20	05/23/11	06/06/11	KWG1104595	
2-Nitroaniline	ND	U	1800	290	20	05/23/11	06/06/11	KWG1104595	
Dimethyl Phthalate	**140**	JD	880	88	20	05/23/11	06/06/11	KWG1104595	
2,6-Dinitrotoluene	ND	U	880	180	20	05/23/11	06/06/11	KWG1104595	
3-Nitroaniline	ND	U	1800	220	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrophenol	ND	U	18000	1500	20	05/23/11	06/06/11	KWG1104595	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	880	110	20	05/23/11	06/06/11	KWG1104595	
4-Nitrophenol	ND	U	8800	1600	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrotoluene	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
4-Chlorophenyl Phenyl Ether	ND	U	880	130	20	05/23/11	06/06/11	KWG1104595	
Diethyl Phthalate	ND	U	880	120	20	05/23/11	06/06/11	KWG1104595	
4-Nitroaniline	ND	U	1800	160	20	05/23/11	06/06/11	KWG1104595	
2-Methyl-4,6-dinitrophenol	ND	U	8800	130	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodiphenylamine	ND	U	880	150	20	05/23/11	06/06/11	KWG1104595	
4-Bromophenyl Phenyl Ether	ND	U	880	150	20	05/23/11	06/06/11	KWG1104595	
Carbazole	ND	U	880	120	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobenzene	ND	U	880	110	20	05/23/11	06/06/11	KWG1104595	
Pentachlorophenol	ND	U	8800	1800	20	05/23/11	06/06/11	KWG1104595	
Di-n-butyl Phthalate	ND	U	1800	700	20	05/23/11	06/06/11	KWG1104595	
Butyl Benzyl Phthalate	**1600**	D	880	290	20	05/23/11	06/06/11	KWG1104595	
3,3'-Dichlorobenzidine	ND	U	8800	330	20	05/23/11	06/06/11	KWG1104595	
Bis(2-ethylhexyl) Phthalate	**28000**	D	8800	620	20	05/23/11	06/06/11	KWG1104595	
Di-n-octyl Phthalate	**1300**	D	880	150	20	05/23/11	06/06/11	KWG1104595	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	68	11-80	06/06/11	Acceptable
Phenol-d6	58	20-86	06/06/11	Acceptable
Nitrobenzene-d5	67	27-91	06/06/11	Acceptable
2-Fluorobiphenyl	70	25-97	06/06/11	Acceptable
2,4,6-Tribromophenol	95	10-119	06/06/11	Acceptable
Terphenyl-d14	109	33-129	06/06/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-S-2010/2011
Lab Code: K1104431-008

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	7800	480	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethyl) Ether	ND	U	780	150	20	05/23/11	06/06/11	KWG1104595	
Phenol	ND	U	2400	160	20	05/23/11	06/06/11	KWG1104595	
2-Chlorophenol	ND	U	780	160	20	05/23/11	06/06/11	KWG1104595	
1,3-Dichlorobenzene	ND	U	780	240	20	05/23/11	06/06/11	KWG1104595	
1,4-Dichlorobenzene	ND	U	780	230	20	05/23/11	06/06/11	KWG1104595	
1,2-Dichlorobenzene	ND	U	780	230	20	05/23/11	06/06/11	KWG1104595	
Benzyl Alcohol	ND	U	1600	170	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroisopropyl) Ether	ND	U	780	210	20	05/23/11	06/06/11	KWG1104595	
2-Methylphenol	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
Hexachloroethane	ND	U	780	250	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodi-n-propylamine	ND	U	780	190	20	05/23/11	06/06/11	KWG1104595	
4-Methylphenol†	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
Nitrobenzene	ND	U	780	180	20	05/23/11	06/06/11	KWG1104595	
Isophorone	ND	U	780	78	20	05/23/11	06/06/11	KWG1104595	
2-Nitrophenol	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
2,4-Dimethylphenol	ND	U	3900	430	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethoxy)methane	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
2,4-Dichlorophenol	ND	U	780	78	20	05/23/11	06/06/11	KWG1104595	
Benzoic Acid	ND	U	16000	7500	20	05/23/11	06/06/11	KWG1104595	
1,2,4-Trichlorobenzene	ND	U	780	210	20	05/23/11	06/06/11	KWG1104595	
4-Chloroaniline	ND	U	780	150	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobutadiene	ND	U	780	200	20	05/23/11	06/06/11	KWG1104595	
4-Chloro-3-methylphenol	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
Hexachlorocyclopentadiene	ND	U	3900	2300	20	05/23/11	06/06/11	KWG1104595	
2,4,6-Trichlorophenol	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
2,4,5-Trichlorophenol	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
2-Chloronaphthalene	ND	U	780	130	20	05/23/11	06/06/11	KWG1104595	
2-Nitroaniline	ND	U	1600	250	20	05/23/11	06/06/11	KWG1104595	
Dimethyl Phthalate	**110**	JD	780	78	20	05/23/11	06/06/11	KWG1104595	
2,6-Dinitrotoluene	ND	U	780	160	20	05/23/11	06/06/11	KWG1104595	
3-Nitroaniline	ND	U	1600	200	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrophenol	ND	U	16000	1400	20	05/23/11	06/06/11	KWG1104595	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-008	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	780	94	20	05/23/11	06/06/11	KWG1104595	
4-Nitrophenol	ND	U	7800	1400	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrotoluene	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
4-Chlorophenyl Phenyl Ether	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
Diethyl Phthalate	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
4-Nitroaniline	ND	U	1600	140	20	05/23/11	06/06/11	KWG1104595	
2-Methyl-4,6-dinitrophenol	ND	U	7800	110	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodiphenylamine	ND	U	780	130	20	05/23/11	06/06/11	KWG1104595	
4-Bromophenyl Phenyl Ether	ND	U	780	130	20	05/23/11	06/06/11	KWG1104595	
Carbazole	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobenzene	ND	U	780	94	20	05/23/11	06/06/11	KWG1104595	
Pentachlorophenol	ND	U	7800	1600	20	05/23/11	06/06/11	KWG1104595	
Di-n-butyl Phthalate	**1000**	JD	1600	620	20	05/23/11	06/06/11	KWG1104595	
Butyl Benzyl Phthalate	ND	U	780	250	20	05/23/11	06/06/11	KWG1104595	
3,3'-Dichlorobenzidine	ND	U	7800	290	20	05/23/11	06/06/11	KWG1104595	
Bis(2-ethylhexyl) Phthalate	**15000**	D	7800	550	20	05/23/11	06/06/11	KWG1104595	
Di-n-octyl Phthalate	**480**	JD	780	140	20	05/23/11	06/06/11	KWG1104595	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	69	11-80	06/06/11	Acceptable
Phenol-d6	75	20-86	06/06/11	Acceptable
Nitrobenzene-d5	84	27-91	06/06/11	Acceptable
2-Fluorobiphenyl	89	25-97	06/06/11	Acceptable
2,4,6-Tribromophenol	103	10-119	06/06/11	Acceptable
Terphenyl-d14	136	33-129	06/06/11	Outside Control Limits

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG1104595-5

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	100	6.1	1	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethyl) Ether	ND	U	10	1.9	1	05/23/11	06/06/11	KWG1104595	
Phenol	ND	U	30	2.0	1	05/23/11	06/06/11	KWG1104595	
2-Chlorophenol	ND	U	10	2.0	1	05/23/11	06/06/11	KWG1104595	
1,3-Dichlorobenzene	ND	U	10	3.0	1	05/23/11	06/06/11	KWG1104595	
1,4-Dichlorobenzene	ND	U	10	2.9	1	05/23/11	06/06/11	KWG1104595	
1,2-Dichlorobenzene	ND	U	10	2.9	1	05/23/11	06/06/11	KWG1104595	
Benzyl Alcohol	ND	U	20	2.1	1	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroisopropyl) Ether	ND	U	10	2.6	1	05/23/11	06/06/11	KWG1104595	
2-Methylphenol	ND	U	10	1.5	1	05/23/11	06/06/11	KWG1104595	
Hexachloroethane	ND	U	10	3.1	1	05/23/11	06/06/11	KWG1104595	
N-Nitrosodi-n-propylamine	ND	U	10	2.4	1	05/23/11	06/06/11	KWG1104595	
4-Methylphenol†	ND	U	10	1.5	1	05/23/11	06/06/11	KWG1104595	
Nitrobenzene	ND	U	10	2.2	1	05/23/11	06/06/11	KWG1104595	
Isophorone	ND	U	10	1.0	1	05/23/11	06/06/11	KWG1104595	
2-Nitrophenol	ND	U	10	1.5	1	05/23/11	06/06/11	KWG1104595	
2,4-Dimethylphenol	ND	U	50	5.5	1	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethoxy)methane	ND	U	10	1.5	1	05/23/11	06/06/11	KWG1104595	
2,4-Dichlorophenol	ND	U	10	1.0	1	05/23/11	06/06/11	KWG1104595	
Benzoic Acid	ND	U	200	96	1	05/23/11	06/06/11	KWG1104595	
1,2,4-Trichlorobenzene	ND	U	10	2.6	1	05/23/11	06/06/11	KWG1104595	
4-Chloroaniline	ND	U	10	1.9	1	05/23/11	06/06/11	KWG1104595	
Hexachlorobutadiene	ND	U	10	2.5	1	05/23/11	06/06/11	KWG1104595	
4-Chloro-3-methylphenol	ND	U	10	1.4	1	05/23/11	06/06/11	KWG1104595	
Hexachlorocyclopentadiene	ND	U	50	29	1	05/23/11	06/06/11	KWG1104595	
2,4,6-Trichlorophenol	ND	U	10	1.4	1	05/23/11	06/06/11	KWG1104595	
2,4,5-Trichlorophenol	ND	U	10	1.5	1	05/23/11	06/06/11	KWG1104595	
2-Chloronaphthalene	ND	U	10	1.6	1	05/23/11	06/06/11	KWG1104595	
2-Nitroaniline	ND	U	20	3.2	1	05/23/11	06/06/11	KWG1104595	
Dimethyl Phthalate	**3.5**	J	10	1.0	1	05/23/11	06/06/11	KWG1104595	
2,6-Dinitrotoluene	ND	U	10	2.0	1	05/23/11	06/06/11	KWG1104595	
3-Nitroaniline	ND	U	20	2.5	1	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrophenol	ND	U	200	17	1	05/23/11	06/06/11	KWG1104595	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1104595-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	10	1.2	1	05/23/11	06/06/11	KWG1104595	
4-Nitrophenol	ND	U	100	18	1	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrotoluene	ND	U	10	1.5	1	05/23/11	06/06/11	KWG1104595	
4-Chlorophenyl Phenyl Ether	ND	U	10	1.4	1	05/23/11	06/06/11	KWG1104595	
Diethyl Phthalate	**1.7**	J	10	1.3	1	05/23/11	06/06/11	KWG1104595	
4-Nitroaniline	ND	U	20	1.8	1	05/23/11	06/06/11	KWG1104595	
2-Methyl-4,6-dinitrophenol	ND	U	100	1.4	1	05/23/11	06/06/11	KWG1104595	
N-Nitrosodiphenylamine	ND	U	10	1.6	1	05/23/11	06/06/11	KWG1104595	
4-Bromophenyl Phenyl Ether	ND	U	10	1.6	1	05/23/11	06/06/11	KWG1104595	
Carbazole	ND	U	10	1.3	1	05/23/11	06/06/11	KWG1104595	
Hexachlorobenzene	ND	U	10	1.2	1	05/23/11	06/06/11	KWG1104595	
Pentachlorophenol	ND	U	100	20	1	05/23/11	06/06/11	KWG1104595	
Di-n-butyl Phthalate	ND	U	20	7.9	1	05/23/11	06/06/11	KWG1104595	
Butyl Benzyl Phthalate	ND	U	10	3.2	1	05/23/11	06/06/11	KWG1104595	
3,3'-Dichlorobenzidine	ND	U	100	3.7	1	05/23/11	06/06/11	KWG1104595	
Bis(2-ethylhexyl) Phthalate	**13**	J	100	7.0	1	05/23/11	06/06/11	KWG1104595	
Di-n-octyl Phthalate	ND	U	10	1.7	1	05/23/11	06/06/11	KWG1104595	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	51	11-80	06/06/11	Acceptable
Phenol-d6	56	20-86	06/06/11	Acceptable
Nitrobenzene-d5	65	27-91	06/06/11	Acceptable
2-Fluorobiphenyl	65	25-97	06/06/11	Acceptable
2,4,6-Tribromophenol	76	10-119	06/06/11	Acceptable
Terphenyl-d14	90	33-129	06/06/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
SPI-1-S-2010/2011	K1104431-004	68 D #	58 D #	67 D	70 D	95 D #	109 D
SPI-2-S-2010/2011	K1104431-008	69 D #	75 D #	84 D	89 D	103 D #	136 D *
Method Blank	KWG1104595-5	51	56	65	65	76	90
Lab Control Sample	KWG1104595-3	48	52	59	61	74	80
Duplicate Lab Control Sample	KWG1104595-4	58	58	68	65	78	88

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	11-80	Sur5 = 2,4,6-Tribromophenol	10-119
Sur2 = Phenol-d6	20-86	Sur6 = Terphenyl-d14	33-129
Sur3 = Nitrobenzene-d5	27-91		
Sur4 = 2-Fluorobiphenyl	25-97		

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Extracted: 05/23/2011
Date Analyzed: 06/06/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1104595

	Lab Control Sample KWG1104595-3 Lab Control Spike			Duplicate Lab Control Sample KWG1104595-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
N-Nitrosodimethylamine	151	250	60	168	250	67	18-91	11	40
Bis(2-chloroethyl) Ether	148	250	59	164	250	66	29-86	10	40
Phenol	140	250	56	161	250	64	28-91	14	40
2-Chlorophenol	132	250	53	147	250	59	31-83	11	40
1,3-Dichlorobenzene	121	250	48	140	250	56	27-82	14	40
1,4-Dichlorobenzene	126	250	50	144	250	58	27-82	14	40
1,2-Dichlorobenzene	130	250	52	141	250	56	29-83	8	40
Benzyl Alcohol	139	250	56	152	250	61	27-88	9	40
Bis(2-chloroisopropyl) Ether	129	250	51	148	250	59	23-88	14	40
2-Methylphenol	114	250	45	129	250	52	14-79	13	40
Hexachloroethane	130	250	52	144	250	57	25-84	10	40
N-Nitrosodi-n-propylamine	136	250	54	150	250	60	24-89	10	40
4-Methylphenol	135	250	54	142	250	57	14-82	5	40
Nitrobenzene	141	250	57	154	250	61	29-87	8	40
Isophorone	156	250	62	174	250	69	33-83	11	40
2-Nitrophenol	142	250	57	162	250	65	33-89	13	40
2,4-Dimethylphenol	86.3	250	35	74.5	250	30	10-63	15	40
Bis(2-chloroethoxy)methane	156	250	62	171	250	69	33-85	10	40
2,4-Dichlorophenol	146	250	59	159	250	64	33-83	8	40
Benzoic Acid	140	750	19	309	750	41	10-48	76 *	40
1,2,4-Trichlorobenzene	148	250	59	162	250	65	31-83	9	40
4-Chloroaniline	143	250	57	150	250	60	19-78	5	40
Hexachlorobutadiene	152	250	61	169	250	68	28-87	11	40
4-Chloro-3-methylphenol	157	250	63	164	250	66	28-87	4	40
Hexachlorocyclopentadiene	126	250	50	132	250	53	10-66	5	40
2,4,6-Trichlorophenol	162	250	65	178	250	71	31-86	9	40
2,4,5-Trichlorophenol	155	250	62	173	250	69	34-89	11	40
2-Chloronaphthalene	143	250	57	153	250	61	31-86	7	40
2-Nitroaniline	174	250	69	191	250	76	32-97	10	40
Dimethyl Phthalate	164	250	65	172	250	69	38-91	5	40
2,6-Dinitrotoluene	195	250	78	205	250	82	36-94	5	40
3-Nitroaniline	165	250	66	169	250	67	31-91	2	40
2,4-Dinitrophenol	145	250	58	175	250	70	10-100	19	40
Dibenzofuran	147	250	59	158	250	63	35-85	7	40
4-Nitrophenol	186	250	74	200	250	80	32-110	7	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Extracted: 05/23/2011
Date Analyzed: 06/06/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry
Level: Low
Extraction Lot: KWG1104595

	Lab Control Sample KWG1104595-3 Lab Control Spike			Duplicate Lab Control Sample KWG1104595-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
2,4-Dinitrotoluene	167	250	67	175	250	70	40-98	5	40
4-Chlorophenyl Phenyl Ether	160	250	64	173	250	69	34-87	8	40
Diethyl Phthalate	169	250	67	174	250	70	39-98	3	40
4-Nitroaniline	178	250	71	184	250	74	33-99	3	40
2-Methyl-4,6-dinitrophenol	174	250	70	204	250	82	27-102	16	40
N-Nitrosodiphenylamine	152	250	61	162	250	65	29-92	6	40
4-Bromophenyl Phenyl Ether	159	250	64	160	250	64	38-90	1	40
Carbazole	154	250	62	170	250	68	43-101	10	40
Hexachlorobenzene	155	250	62	160	250	64	39-90	4	40
Pentachlorophenol	144	250	58	150	250	60	21-97	3	40
Di-n-butyl Phthalate	170	250	68	188	250	75	40-116	10	40
Butyl Benzyl Phthalate	180	250	72	195	250	78	41-114	8	40
3,3'-Dichlorobenzidine	151	250	60	161	250	64	13-98	6	40
Bis(2-ethylhexyl) Phthalate	180	250	72	193	250	77	40-122	7	40
Di-n-octyl Phthalate	177	250	71	186	250	74	43-119	5	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans

Columbia Analytical Services™ 19408 Park Row, Suite 320, Houston, TX 77084 | 713.266.1599 | www.caslab.com

June 09, 2011 Service Request No: K1104431

Howard Holmes

Columbia Analytical Services Inc
1317 South 13th Avenue
Kelso, WA 98626

Laboratory Results for: Portland Facility.

Dear Howard:

Enclosed are the results of the sample(s) submitted to our laboratory on May 20, 2011. For Your reference, these analyses have been assigned our service request number: **K1104431**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided.
All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My direct number is 281-994-2954.

Respectfully submitted,

Columbia Analytical Services, Inc.

Darren Biles
Project Manager

Page 1 of _____

For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com.

Columbia Analytical Services™

Certificate of Analysis

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COLUMBIA ANALYTICAL SERVICES, INC

Client:	PES Environmental	**Service Request No.:**	K1104431
Project:	Portland Facility	**Date Received:**	5/20/11
Sample Matrix:	Soil		

CASE NARRATIVE

All analyses were performed in adherence to the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two soil samples were received for analysis at Columbia Analytical Services on 5/20/11.

The samples were received at 3°C in good condition and are consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Please note the reporting forms are currently referencing the date CAS- Kelso received the samples (1/19-5/18/11) and not the date CAS-Houston received the samples (5/20/11).

Data Validation Notes and Discussion

B flags – Method Blanks

The Method Blank EQ1100244-01 contained low levels of 1234678-HpCDD, OCDD, and OCDF at or below the Method Reporting Limit (MRL).

The associated compounds in the samples are flagged with 'B' flags.

MS/DMS

EQ1100244: Laboratory Control Spike/Duplicate Laboratory Control Spike (LCS/DLCS) samples were analyzed and reported in lieu of an MS/DMS for this extraction batch. The batch quality control criteria were met.

C flags – 2378-TCDF Confirmation

Confirmation of the TCDF compound: When 2378-TCDF is detected on the DB-5 column, confirmation analyses are performed on a second column (DB-225.) The results from both the DB-5 column and the DB-225 column are included in this data package.

The valid result for the 2378-TCDF compound is reported from the confirmation column.

The confirmation results have been included on the TEQ summary pages.

Approved by: Dawn Biles for XL **Date:** 6/10/11

Xiangqiu Liang, Laboratory Director

K flags

CAS/Houston reports EMPC results that comply with Section 11.2.6 of the DLM02.2 SOW. An EMPC result is flagged with a 'K' flag.

Detection Limits

Detection limits are calculated for each congener in each sample by measuring the height of the noise level for each quantitation ion for the associated labeled standard. The concentration equivalent to 2.5 times the height of the noise is then calculated using the appropriate response factor and the weight of the sample. The calculated concentration equals the detection limit.

The TEQ results for each sample have been calculated by CAS/Houston to include:

- WHO-2005 TEFs ("The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds", M. Van den Berg et al., Toxicological Sciences 93(2):223-241, 2006)
- 2378-TCDF from the DB-225 column, when confirmation required
- Non-detected compounds are not included in the 'Total'

Use of Columbia Analytical Services, Inc. (CAS) Name. Client shall not use CAS's name or trademark in any marketing or reporting materials, press releases or in any other manner ("Materials") whatsoever and shall not attribute to CAS any test result, tolerance or specification derived from CAS's data ("Attribution") without CAS's prior written consent, which may be withheld by CAS for any reason in its sole discretion. To request CAS's consent, Client shall provide copies of the proposed Materials or Attribution and describe in writing Client's proposed use of such Materials or Attribution. If CAS has not provided written approval of the Materials or Attribution within ten (10) days of receipt from Client, Client's request to use CAS's name or trademark in any Materials or Attribution shall be deemed denied. CAS may, in its discretion, reasonably charge Client for its time in reviewing Materials or Attribution requests. Client acknowledges and agrees that the unauthorized use of CAS's name or trademark may cause CAS to incur irreparable harm for which the recovery of money damages will be inadequate. Accordingly, Client acknowledges and agrees that a violation shall justify preliminary injunctive relief. For questions contact the laboratory.

Approved by: Dawn Biles for XL **Date:** 6/10/11

Xiangqiu Liang, Laboratory Director

Client: PES Environmental
Project: Portland Facility

Service Request: K1104431

SAMPLE CROSS-REFERENCE

SAMPLE #	CLIENT SAMPLE ID	DATE	TIME
K1104431-001	SPI-1-S-011911	1/19/11	10:00
K1104431-002	SPI-1-S-031011	3/10/11	13:15
K1104431-003	SPI-1-S-042811	4/28/11	10:30
K1104431-004	SPI-1-S-2010/2011	5/10/11	
K1104431-005	SPI-2-S-011911	1/19/11	10:30
K1104431-006	SPI-2-S-031011	3/10/11	12:15
K1104431-007	SPI-2-S-042811	4/28/11	09:45
K1104431-008	SPI-2-S-2010/2011	5/10/11	

Laboratory Certifications
2011-2012

STATE/PROGRAM	AGENCY	CERT#	EXP DATE	CERTIFIED?
DoD ELAP	A2LA	2897.01	11/30/11	Yes
ISO 17025	A2LA	2897.01	11/30/11	Yes
Arizona	AZ-DHS	AZ0725	05/27/11	Yes
Arkansas	ADEQ	10-035-0	06/16/11	Yes
California	CA-ELAP	2452	02/28/13	Yes
Florida/NELAP	FL-DOHS	E87611	06/30/11	Yes
Hawaii	HI-DOH	N/A	06/30/11	Yes
Illinois/NELAP	IL-EPA	002611	10/06/11	Yes
Louisiana/NELAP	LELAP	03048	06/30/11	Yes
Louisiana/NELAP	LDHH	LA100032	12/31/11	Yes
Maine	ME-DOHS	2010041	06/05/12	Yes
Michigan	MIDEQ	9971	06/30/11	Yes
Minnesota	MDH	048-999-427	12/31/11	Yes
Nevada	NDEP	TX014112010A	07/31/10	Yes (Extension)
New Jersey	NJDEP	TX008	06/30/11	Yes
New Mexico	NMED-DWB	N/A	06/30/11	Yes
New York/NELAP	NY-DOH	11707	04/1/12	Yes
Oklahoma	OKDEQ	2010-022	08/31/11	Yes
Oregon/NELAP	ORELAP	TX200002-006	03/24/12	Yes
Pennsylvania/NELAP	PLAP	002	06/30/11	Yes
Tennessee	TNDEC	04016	06/30/11	Yes
Texas/NELAP	TCEQ	T104704216-10-1	06/30/11	Yes
UTAH/NELAP	UTELCP	COLU2	06/30/11	Yes
Soil Import Permit	USDA	P330-09-00067	03/27/12	Yes
Washington/NELAP	WA-Ecology	C819-10	11/14/11	Yes
West Virginia	WVDEP	347	06/30/11	Yes

Abbreviations, Acronyms & Definitions

Cal	Calibration
Conc	CONCentration
Dioxin(s)	Polychlorinated dibenzo-p-dioxin(s)
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
Flags	Data qualifiers
Furan(s)	Polychlorinated dibenzofuran(s)
g	Grams
ICAL	Initial CALibration
ID	IDentifier
Ions	Masses monitored for the analyte during data acquisition
L	Liter (s)
LCS	Laboratory Control Sample
DLCS	Duplicate Laboratory Control Sample
MB	Method Blank
MCL	Method Calibration Limit
MDL	Method Detection Limit
MRL	Method Reporting Limit
mL	Milliliters
MS	Matrix Spiked sample
DMS	Duplicate Matrix Spiked sample
NO	Number of peaks meeting all identification criteria
PCDD(s)	Polychlorinated dibenzo-p-dioxin(s)
PCDF(s)	Polychlorinated dibenzofuran(s)
ppb	Parts per billion
ppm	Parts per million
ppq	Parts per quadrillion
ppt	Parts per trillion
QA	Quality Assurance
QC	Quality Control
Ratio	Ratio of areas from monitored ions for an analyte
% Rec.	Percent Recovery
RPD	Relative Percent Difference
RRF	Relative Response Factor
RT	Retention Time
RRT	Relative Retention Time
SDG	Sample Delivery Group
S/N	Signal-to-Noise ratio
TEF	Toxicity Equivalence Factor
TEQ	Toxicity Equivalence Quotient

Data Qualifier Flags – Dioxin/Furans

- **B** Indicates the associated analyte is found in the method blank, as well as in the sample.

- **C** Confirmation of the TCDF compound: When 2378-TCDF is detected on the DB-5 column, confirmation analyses are performed on a second column (DB-225). The results from both the DB-5 column and the DB-225 column are included in this data package. The results from the DB-225 analyses should be used to evaluate the 2378-TCDF in the samples. The confirmed result should be used in determining the TEQ value for TCDF.

- **E** Indicates an estimated value – used when the analyte concentration exceeds the upper end of the linear calibration range.

- **J** Indicates an estimated value – used when the analyte concentration is below the method reporting limit (MRL) and above the estimated detection limit (EDL).

- **K** EMPC - When the ion abundance ratios associated with a particular compound are outside the QC limits, samples are flagged with a 'K' flag. A 'K' flag indicates an estimated maximum possible concentration for the associated compound.

- **U** Indicates the compound was analyzed and not detected.

- **Y** Samples that had recoveries of labeled standards outside the acceptance limits are flagged with 'Y'. In all cases, the signal-to-noise ratios are greater than 10:1, making these data acceptable.

- **ND** Indicates concentration is reported as 'Not Detected.'

- **S** Peak is saturated; data not reportable.

- **P** Indicates chlorodiphenyl ether interference present at the retention time of the target compound.

- **Q** Lock-mass interference by chlorodiphenyl ether compounds.

COLUMBIA ANALYTICAL SERVICES, INC. – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID K1104431 DB-5 DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date: 06/01/11 Analyst: [signature] Samples: 004,008

Second Level - Data Review – to be filled by person doing peer review

Date: 06/02/11 Analyst: [signature] Samples: 004,008

PEER REVIEW PAGE

COLUMBIA ANALYTICAL SERVICES, INC. – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID K1104431 DB-5 DB-225 SPB-Octyl

First Level - Data Processing - to be filled by person generating the forms

Date: 06/02/11 Analyst: mc Samples: 004

Second Level - Data Review – to be filled by person doing peer review

Date: 06/09/11 Analyst: [illegible] Samples: 004

PEER REVIEW PAGE

COLUMBIA ANALYTICAL SERVICES, INC. – Houston
Data Processing/Form Production and Peer Review Signatures

SR# Unique ID K1104431 DB-5 DB-225 SPB-Octyl

First Level - Data Processing – to be filled by person generating the forms

Date:	06/02/11	Analyst:	MC	Samples:	008

Second Level - Data Review – to be filled by person doing peer review

Date:	06/03/11	Analyst:	84	Samples:	008

PEER REVIEW PAGE

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Analytical Results

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Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-1-S-2010/2011	**Units:**	ng/Kg
Lab Code:	K1104431-004	**Basis:**	Dry
		Percent Solids:	62.4

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	5/31/11 2326
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	9.789g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213107	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**1.59**		0.142	0.327	0.66	1.000	1
1,2,3,7,8-PeCDD	**17.2**		0.273	1.64	1.58	1.000	1
1,2,3,4,7,8-HxCDD	**34.8**		0.266	1.64	1.29	1.000	1
1,2,3,6,7,8-HxCDD	**112**		0.324	1.64	1.25	1.000	1
1,2,3,7,8,9-HxCDD	**78.7**		0.287	1.64	1.25	1.008	1
1,2,3,4,6,7,8-HpCDD	**2970**	B	0.950	1.64	1.03	1.000	1
OCDD	**25000**	B	1.28	3.27	0.89	1.000	1
2,3,7,8-TCDF	**11.3**	C	0.302	0.327	0.72	1.001	1
1,2,3,7,8-PeCDF	**4.33**		0.213	1.64	1.32	1.001	1
2,3,4,7,8-PeCDF	**4.50**		0.219	1.64	1.32	1.000	1
1,2,3,4,7,8-HxCDF	**25.4**		0.785	1.64	1.14	1.000	1
1,2,3,6,7,8-HxCDF	**14.4**		0.758	1.64	1.16	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.983	1.64			1
2,3,4,6,7,8-HxCDF	**8.67**	K	0.871	1.64	0.98	1.000	1
1,2,3,4,6,7,8-HpCDF	**516**		2.25	2.25	1.02	1.000	1
1,2,3,4,7,8,9-HpCDF	**39.3**		2.98	2.98	0.99	1.000	1
OCDF	**3890**	B	1.01	3.27	0.88	1.004	1
Total Tetra-Dioxins	**11.8**		0.142	0.327	0.75		1
Total Penta-Dioxins	**66.1**		0.273	1.64	1.34		1
Total Hexa-Dioxins	**595**		0.266	1.64	1.23		1
Total Hepta-Dioxins	**5390**		0.950	1.64	1.02		1
Total Tetra-Furans	**68.9**		0.302	0.327	0.83		1
Total Penta-Furans	**184**		0.219	1.64	1.48		1
Total Hexa-Furans	**379**		0.785	1.64	1.17		1
Total Hepta-Furans	**2080**		2.25	2.25	1.02		1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-1-S-2010/2011	**Units:**	Percent
Lab Code:	K1104431-004	**Basis:**	Dry
		Percent Solids:	62.4

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	5/31/11 2326
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	9.789g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213107	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1301.844	65		25-164	0.77	1.008
13C-1,2,3,7,8-PeCDD	2000	795.805	40		25-181	1.57	1.165
13C-1,2,3,4,7,8-HxCDD	2000	1401.555	70		32-141	1.31	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1172.381	59		28-130	1.14	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	859.693	43		23-140	1.05	1.069
13C-OCDD	4000	1127.990	28		17-157	0.90	1.150
13C-2,3,7,8-TCDF	2000	935.578	47		24-169	0.78	0.980
13C-1,2,3,7,8-PeCDF	2000	884.093	44		24-185	1.55	1.128
13C-2,3,4,7,8-PeCDF	2000	832.376	42		21-178	1.54	1.153
13C-1,2,3,4,7,8-HxCDF	2000	1447.116	72		26-152	0.51	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1279.806	64		26-123	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1362.285	68		29-147	0.51	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1288.703	64		28-136	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	957.841	48		28-143	0.43	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1018.623	51		26-138	0.45	1.080
37Cl-2,3,7,8-TCDD	800	495.948	62		35-197	NA	1.008

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-1-S-2010/2011	**Units:**	ng/Kg
Lab Code:	K1104431-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 1613B
Prep Method: Method

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**1.59**	0.142	0.327	1	1	1.59
1,2,3,7,8-PeCDD	**17.2**	0.273	1.64	1	1	17.2
1,2,3,4,7,8-HxCDD	**34.8**	0.266	1.64	1	0.1	3.48
1,2,3,6,7,8-HxCDD	**112**	0.324	1.64	1	0.1	11.2
1,2,3,7,8,9-HxCDD	**78.7**	0.287	1.64	1	0.1	7.87
1,2,3,4,6,7,8-HpCDD	**2970**	0.950	1.64	1	0.01	29.7
OCDD	**25000**	1.28	3.27	1	0.0003	7.50
2,3,7,8-TCDF	**6.37**	1.04	1.04	1	0.1	0.637
1,2,3,7,8-PeCDF	**4.33**	0.213	1.64	1	0.03	0.130
2,3,4,7,8-PeCDF	**4.50**	0.219	1.64	1	0.3	1.35
1,2,3,4,7,8-HxCDF	**25.4**	0.785	1.64	1	0.1	2.54
1,2,3,6,7,8-HxCDF	**14.4**	0.758	1.64	1	0.1	1.44
1,2,3,7,8,9-HxCDF	ND	0.983	1.64	1	0.1	
2,3,4,6,7,8-HxCDF	**8.67**	0.871	1.64	1	0.1	0.867
1,2,3,4,6,7,8-HpCDF	**516**	2.25	2.25	1	0.01	5.16
1,2,3,4,7,8,9-HpCDF	**39.3**	2.98	2.98	1	0.01	0.393
OCDF	**3890**	1.01	3.27	1	0.0003	1.17
		Total TEQ				92.2

2005 WHO TEFs, ND = 0

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-1-S-2010/2011	**Units:**	ng/Kg
Lab Code:	K1104431-004	**Basis:**	Dry
		Percent Solids:	62.4

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 1603
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	9.789g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-225
Data File Name:	U140513	**Blank File Name:**	U140511
ICAL Date:	03/31/11	**Cal Ver. File Name:**	U140506

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	**6.37**		1.04	1.04	0.80	1.001	1

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	976.118	49		24-169	0.78	1.061
37Cl-2,3,7,8-TCDD	800	592.357	74		35-197	NA	0.991

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-2-S-2010/2011	**Units:**	ng/Kg
Lab Code:	K1104431-008	**Basis:**	Dry
		Percent Solids:	69.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 0015
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	9.244g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213108	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**0.966**		0.0775	0.311	0.69	1.001	1
1,2,3,7,8-PeCDD	**7.52**		0.109	1.55	1.40	1.000	1
1,2,3,4,7,8-HxCDD	**13.1**		0.219	1.55	1.15	1.000	1
1,2,3,6,7,8-HxCDD	**57.1**		0.277	1.55	1.24	1.000	1
1,2,3,7,8,9-HxCDD	**33.4**		0.240	1.55	1.20	1.008	1
1,2,3,4,6,7,8-HpCDD	**1350**	B	0.672	1.55	1.02	1.000	1
OCDD	**12700**	B	0.432	3.11	0.89	1.000	1
2,3,7,8-TCDF	**7.30**	C	0.156	0.311	0.74	1.001	1
1,2,3,7,8-PeCDF	**3.03**		0.193	1.55	1.50	1.001	1
2,3,4,7,8-PeCDF	**3.78**		0.185	1.55	1.42	1.000	1
1,2,3,4,7,8-HxCDF	**17.5**		0.500	1.55	1.29	1.000	1
1,2,3,6,7,8-HxCDF	**13.2**		0.508	1.55	1.14	1.000	1
1,2,3,7,8,9-HxCDF	ND	U	0.569	1.55			1
2,3,4,6,7,8-HxCDF	**35.3**		0.549	1.55	1.19	0.999	1
1,2,3,4,6,7,8-HpCDF	**611**		0.225	1.55	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	**17.1**		0.281	1.55	0.98	1.000	1
OCDF	**1820**	B	0.363	3.11	0.88	1.004	1
Total Tetra-Dioxins	**5.81**		0.0775	0.311	0.67		1
Total Penta-Dioxins	**31.4**		0.109	1.55	1.47		1
Total Hexa-Dioxins	**283**		0.219	1.55	1.24		1
Total Hepta-Dioxins	**2560**		0.672	1.55	1.03		1
Total Tetra-Furans	**68.9**		0.156	0.311	0.74		1
Total Penta-Furans	**258**		0.185	1.55	1.52		1
Total Hexa-Furans	**1160**		0.500	1.55	1.23		1
Total Hepta-Furans	**2260**		0.225	1.55	1.01		1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-2-S-2010/2011	**Units:**	Percent
Lab Code:	K1104431-008	**Basis:**	Dry
		Percent Solids:	69.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 0015
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	9.244g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213108	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1561.116	78		25-164	0.79	1.007
13C-1,2,3,7,8-PeCDD	2000	1146.859	57		25-181	1.54	1.165
13C-1,2,3,4,7,8-HxCDD	2000	1503.896	75		32-141	1.22	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1199.739	60		28-130	1.25	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1024.572	51		23-140	1.05	1.068
13C-OCDD	4000	1331.781	33		17-157	0.89	1.150
13C-2,3,7,8-TCDF	2000	1008.214	50		24-169	0.76	0.979
13C-1,2,3,7,8-PeCDF	2000	1177.546	59		24-185	1.55	1.127
13C-2,3,4,7,8-PeCDF	2000	1162.906	58		21-178	1.55	1.153
13C-1,2,3,4,7,8-HxCDF	2000	1454.740	73		26-152	0.52	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1250.598	63		26-123	0.51	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1498.281	75		29-147	0.51	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1339.664	67		28-136	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1081.431	54		28-143	0.44	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	1212.245	61		26-138	0.44	1.079
37Cl-2,3,7,8-TCDD	800	597.624	75		35-197	NA	1.008

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-2-S-2010/2011	**Units:**	ng/Kg
Lab Code:	K1104431-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 1613B
Prep Method: Method

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**0.966**	0.0775	0.311	1	1	0.966
1,2,3,7,8-PeCDD	**7.52**	0.109	1.55	1	1	7.52
1,2,3,4,7,8-HxCDD	**13.1**	0.219	1.55	1	0.1	1.31
1,2,3,6,7,8-HxCDD	**57.1**	0.277	1.55	1	0.1	5.71
1,2,3,7,8,9-HxCDD	**33.4**	0.240	1.55	1	0.1	3.34
1,2,3,4,6,7,8-HpCDD	**1350**	0.672	1.55	1	0.01	13.5
OCDD	**12700**	0.432	3.11	1	0.0003	3.81
2,3,7,8-TCDF	**4.26**	0.873	0.873	1	0.1	0.426
1,2,3,7,8-PeCDF	**3.03**	0.193	1.55	1	0.03	0.0909
2,3,4,7,8-PeCDF	**3.78**	0.185	1.55	1	0.3	1.13
1,2,3,4,7,8-HxCDF	**17.5**	0.500	1.55	1	0.1	1.75
1,2,3,6,7,8-HxCDF	**13.2**	0.508	1.55	1	0.1	1.32
1,2,3,7,8,9-HxCDF	ND	0.569	1.55	1	0.1	
2,3,4,6,7,8-HxCDF	**35.3**	0.549	1.55	1	0.1	3.53
1,2,3,4,6,7,8-HpCDF	**611**	0.225	1.55	1	0.01	6.11
1,2,3,4,7,8,9-HpCDF	**17.1**	0.281	1.55	1	0.01	0.171
OCDF	**1820**	0.363	3.11	1	0.0003	0.546
		Total TEQ				51.2

2005 WHO TEFs, ND = 0

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	5/10/11
Sample Matrix:	Soil	**Date Received:**	5/18/11
Sample Name:	SPI-2-S-2010/2011	**Units:**	ng/Kg
Lab Code:	K1104431-008	**Basis:**	Dry
		Percent Solids:	69.6

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 1917
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	9.244g	**Instrument Name:**	E-HRMS-01
		GC Column:	DB-225
Data File Name:	U140517	**Blank File Name:**	U140516
ICAL Date:	03/31/11	**Cal Ver. File Name:**	U140514

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDF	**4.26**		0.873	0.873	0.86	1.001	1

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDF	2000	1146.778	57		24-169	0.79	1.061
37Cl-2,3,7,8-TCDD	800	626.483	78		35-197	NA	0.991

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ1100244-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	5/31/11 1924
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213102	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0619	0.200			1
1,2,3,7,8-PeCDD	ND	U	0.0482	1.00			1
1,2,3,4,7,8-HxCDD	ND	U	0.0361	1.00			1
1,2,3,6,7,8-HxCDD	ND	U	0.0451	1.00			1
1,2,3,7,8,9-HxCDD	ND	U	0.0395	1.00			1
1,2,3,4,6,7,8-HpCDD	**0.164**	JK	0.0386	1.00	1.84	1.000	1
OCDD	**1.42**	J	0.121	2.00	0.84	1.000	1
2,3,7,8-TCDF	ND	U	0.112	0.200			1
1,2,3,7,8-PeCDF	ND	U	0.0360	1.00			1
2,3,4,7,8-PeCDF	ND	U	0.0342	1.00			1
1,2,3,4,7,8-HxCDF	ND	U	0.0531	1.00			1
1,2,3,6,7,8-HxCDF	ND	U	0.0517	1.00			1
1,2,3,7,8,9-HxCDF	ND	U	0.0660	1.00			1
2,3,4,6,7,8-HxCDF	ND	U	0.0535	1.00			1
1,2,3,4,6,7,8-HpCDF	ND	U	0.0449	1.00			1
1,2,3,4,7,8,9-HpCDF	ND	U	0.0502	1.00			1
OCDF	**0.425**	J	0.105	2.00	0.99	1.004	1
Total Tetra-Dioxins	ND	U	0.0619	0.200			1
Total Penta-Dioxins	ND	U	0.0482	1.00			1
Total Hexa-Dioxins	ND	U	0.0361	1.00			1
Total Hepta-Dioxins	ND	U	0.0386	1.00			1
Total Tetra-Furans	ND	U	0.112	0.200			1
Total Penta-Furans	ND	U	0.0342	1.00			1
Total Hexa-Furans	ND	U	0.0531	1.00			1
Total Hepta-Furans	ND	U	0.0449	1.00			1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ1100244-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	5/31/11 1924
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213102	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1872.960	94		25-164	0.77	1.007
13C-1,2,3,7,8-PeCDD	2000	1755.036	88		25-181	1.57	1.165
13C-1,2,3,4,7,8-HxCDD	2000	2175.821	109		32-141	1.33	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1909.955	95		28-130	1.17	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1883.062	94		23-140	1.01	1.069
13C-OCDD	4000	3352.978	84		17-157	0.91	1.150
13C-2,3,7,8-TCDF	2000	1416.150	71		24-169	0.76	0.979
13C-1,2,3,7,8-PeCDF	2000	1654.876	83		24-185	1.57	1.128
13C-2,3,4,7,8-PeCDF	2000	1670.916	84		21-178	1.55	1.153
13C-1,2,3,4,7,8-HxCDF	2000	1887.324	94		26-152	0.51	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1772.727	89		26-123	0.52	0.975
13C-1,2,3,7,8,9-HxCDF	2000	1968.082	98		29-147	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1915.891	96		28-136	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1818.771	91		28-143	0.44	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	2246.759	112		26-138	0.44	1.080
37Cl-2,3,7,8-TCDD	800	686.158	86		35-197	NA	1.008

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Analyzed: 6/ 1/11

Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method: 1613B
Prep Method: Method

Units: ng/Kg
Basis: Dry

Extraction Lot: 133967

	Lab Control Sample EQ1100244-02			Duplicate Lab Control Sample EQ1100244-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
2,3,7,8-TCDD	16.8	20.0	84	17.2	20.0	86	67 - 158	2	50
1,2,3,7,8-PeCDD	96.3	100	96	94.3	100	94	70 - 142	2	50
1,2,3,4,7,8-HxCDD	92.6	100	93	92.4	100	92	70 - 164	1	50
1,2,3,6,7,8-HxCDD	98.9	100	99	98.3	100	98	76 - 134	1	50
1,2,3,7,8,9-HxCDD	92.1	100	92	95.2	100	95	64 - 162	3	50
1,2,3,4,6,7,8-HpCDD	98.0	100	98	98.3	100	98	70 - 140	<1	50
OCDD	198	200	99	199	200	99	78 - 144	<1	50
2,3,7,8-TCDF	20.9	20.0	104	21.3	20.0	107	75 - 158	3	50
1,2,3,7,8-PeCDF	90.7	100	91	90.9	100	91	80 - 134	<1	50
2,3,4,7,8-PeCDF	88.7	100	89	88.8	100	89	68 - 160	<1	50
1,2,3,4,7,8-HxCDF	97.4	100	97	96.5	100	97	72 - 134	<1	50
1,2,3,6,7,8-HxCDF	97.2	100	97	96.7	100	97	84 - 130	<1	50
1,2,3,7,8,9-HxCDF	98.5	100	98	97.9	100	98	78 - 130	<1	50
2,3,4,6,7,8-HxCDF	97.8	100	98	98.8	100	99	70 - 156	1	50
1,2,3,4,6,7,8-HpCDF	102	100	102	106	100	106	82 - 122	4	50
1,2,3,4,7,8,9-HpCDF	88.7	100	89	88.6	100	89	78 - 138	<1	50
OCDF	201	200	101	197	200	98	63 - 170	3	50

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1100244-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 0417
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213113	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**16.8**		0.0282	0.200	0.75	1.001	1
1,2,3,7,8-PeCDD	**96.3**		0.0393	1.00	1.53	1.000	1
1,2,3,4,7,8-HxCDD	**92.6**		0.0367	1.00	1.24	1.000	1
1,2,3,6,7,8-HxCDD	**98.9**		0.0467	1.00	1.24	1.000	1
1,2,3,7,8,9-HxCDD	**92.1**		0.0404	1.00	1.23	1.008	1
1,2,3,4,6,7,8-HpCDD	**98.0**		0.0417	1.00	1.04	1.000	1
OCDD	**198**		0.0485	2.00	0.88	1.000	1
2,3,7,8-TCDF	**20.9**		0.0369	0.200	0.77	1.001	1
1,2,3,7,8-PeCDF	**90.7**		0.0368	1.00	1.52	1.001	1
2,3,4,7,8-PeCDF	**88.7**		0.0358	1.00	1.53	1.000	1
1,2,3,4,7,8-HxCDF	**97.4**		0.0309	1.00	1.23	1.000	1
1,2,3,6,7,8-HxCDF	**97.2**		0.0300	1.00	1.24	1.000	1
1,2,3,7,8,9-HxCDF	**98.5**		0.0372	1.00	1.24	1.000	1
2,3,4,6,7,8-HxCDF	**97.8**		0.0321	1.00	1.20	1.000	1
1,2,3,4,6,7,8-HpCDF	**102**		0.0958	1.00	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	**88.7**		0.110	1.00	1.00	1.000	1
OCDF	**201**		0.0425	2.00	0.89	1.004	1
Total Tetra-Dioxins	**17.0**		0.0282	0.200	0.75		1
Total Penta-Dioxins	**96.3**		0.0393	1.00	1.53		1
Total Hexa-Dioxins	**284**		0.0367	1.00	1.24		1
Total Hepta-Dioxins	**98.0**		0.0417	1.00	1.04		1
Total Tetra-Furans	**21.9**		0.0369	0.200	0.84		1
Total Penta-Furans	**181**		0.0358	1.00	1.60		1
Total Hexa-Furans	**391**		0.0309	1.00	1.23		1
Total Hepta-Furans	**190**		0.0958	1.00	1.00		1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1100244-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 0417
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213113	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1955.255	98		20-175	0.78	1.007
13C-1,2,3,7,8-PeCDD	2000	1785.515	89		21-227	1.56	1.165
13C-1,2,3,4,7,8-HxCDD	2000	2160.734	108		21-193	1.24	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1797.241	90		25-163	1.24	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1878.282	94		26-166	1.05	1.069
13C-OCDD	4000	3456.144	86		13-199	0.90	1.150
13C-2,3,7,8-TCDF	2000	1476.549	74		22-152	0.77	0.979
13C-1,2,3,7,8-PeCDF	2000	1784.812	89		21-192	1.56	1.128
13C-2,3,4,7,8-PeCDF	2000	1681.757	84		13-328	1.55	1.153
13C-1,2,3,4,7,8-HxCDF	2000	1837.892	92		19-202	0.51	0.972
13C-1,2,3,6,7,8-HxCDF	2000	1730.499	87		21-159	0.51	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1997.068	100		17-205	0.52	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1868.439	93		22-176	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1860.460	93		21-158	0.43	1.045
13C-1,2,3,4,7,8,9-HpCDF	2000	2301.510	115		20-186	0.44	1.080
37Cl-2,3,7,8-TCDD	800	721.534	90		31-191	NA	1.008

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ1100244-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 0505
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213114	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	**17.2**		0.0335	0.200	0.76	1.001	1
1,2,3,7,8-PeCDD	**94.3**		0.0418	1.00	1.54	1.000	1
1,2,3,4,7,8-HxCDD	**92.4**		0.0385	1.00	1.23	1.000	1
1,2,3,6,7,8-HxCDD	**98.3**		0.0504	1.00	1.25	1.000	1
1,2,3,7,8,9-HxCDD	**95.2**		0.0432	1.00	1.24	1.009	1
1,2,3,4,6,7,8-HpCDD	**98.3**		0.0307	1.00	1.04	1.000	1
OCDD	**199**		0.0556	2.00	0.89	1.000	1
2,3,7,8-TCDF	**21.3**		0.0533	0.200	0.74	1.001	1
1,2,3,7,8-PeCDF	**90.9**		0.0257	1.00	1.50	1.000	1
2,3,4,7,8-PeCDF	**88.8**		0.0261	1.00	1.50	1.000	1
1,2,3,4,7,8-HxCDF	**96.5**		0.0395	1.00	1.22	1.000	1
1,2,3,6,7,8-HxCDF	**96.7**		0.0393	1.00	1.23	1.000	1
1,2,3,7,8,9-HxCDF	**97.9**		0.0444	1.00	1.25	1.000	1
2,3,4,6,7,8-HxCDF	**98.8**		0.0391	1.00	1.21	1.000	1
1,2,3,4,6,7,8-HpCDF	**106**		0.107	1.00	1.02	1.000	1
1,2,3,4,7,8,9-HpCDF	**88.6**		0.116	1.00	1.00	1.000	1
OCDF	**197**		0.0623	2.00	0.89	1.004	1
Total Tetra-Dioxins	**17.2**		0.0335	0.200	0.76		1
Total Penta-Dioxins	**94.5**		0.0418	1.00	1.54		1
Total Hexa-Dioxins	**286**		0.0385	1.00	1.23		1
Total Hepta-Dioxins	**98.3**		0.0307	1.00	1.04		1
Total Tetra-Furans	**21.5**		0.0533	0.200	0.85		1
Total Penta-Furans	**181**		0.0261	1.00	1.53		1
Total Hexa-Furans	**390**		0.0395	1.00	1.22		1
Total Hepta-Furans	**195**		0.107	1.00	1.02		1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ1100244-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analytical Method:	1613B	**Date Analyzed:**	6/1/11 0505
Prep Method:	Method	**Date Extracted:**	5/23/11
Sample Amount:	10.000g	**Instrument Name:**	E-HRMS-04
		GC Column:	DB-5
Data File Name:	P213114	**Blank File Name:**	P213102
ICAL Date:	04/07/11	**Cal Ver. File Name:**	P213100

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	%Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1831.441	92		20-175	0.79	1.007
13C-1,2,3,7,8-PeCDD	2000	1755.029	88		21-227	1.57	1.165
13C-1,2,3,4,7,8-HxCDD	2000	1922.731	96		21-193	1.24	0.990
13C-1,2,3,6,7,8-HxCDD	2000	1675.877	84		25-163	1.24	0.992
13C-1,2,3,4,6,7,8-HpCDD	2000	1761.392	88		26-166	1.03	1.068
13C-OCDD	4000	3290.473	82		13-199	0.90	1.149
13C-2,3,7,8-TCDF	2000	1389.154	69		22-152	0.77	0.979
13C-1,2,3,7,8-PeCDF	2000	1714.153	86		21-192	1.53	1.128
13C-2,3,4,7,8-PeCDF	2000	1637.305	82		13-328	1.57	1.152
13C-1,2,3,4,7,8-HxCDF	2000	1601.016	80		19-202	0.51	0.971
13C-1,2,3,6,7,8-HxCDF	2000	1565.502	78		21-159	0.52	0.974
13C-1,2,3,7,8,9-HxCDF	2000	1852.035	93		17-205	0.51	1.006
13C-2,3,4,6,7,8-HxCDF	2000	1702.005	85		22-176	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1693.865	85		21-158	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	2162.649	108		20-186	0.44	1.079
37Cl-2,3,7,8-TCDD	800	665.943	83		31-191	NA	1.008

Columbia Analytical Services™

Chain of Custody

19408 Park Row, Suite 320, Houston, TX 77084
Phone (713)266-1599 Fax (713)266-0130
www.caslab.com

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Intra-Network Chain of Custody

1317 South 13th Avenue • Kelso, WA 98626 • 1-360-577-7222 • FAX 1-360-636-1068

CAS Contact: Howard Holmes

Project Name: Portland Facility
Project Number:
Project Manager: Brian O' Neal
Company: PES Environmental

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample Date	Sample Time	Date Received	Send To	Dioxins Furans 1613B
K1104431-004	SPI-1-S-2010/2011	1	Soil	5/10/11		5/18/11	HOUSTON	V (H)
K1104431-008	SPI-2-S-2010/2011	1	Soil	5/10/11		5/18/11	HOUSTON	V (H)

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Folder Comments:
Samples re-issued from SR K1100539,K1102169,K1103715.

Kelso will provide % Solids. (Very Limited Sample)

Special Instructions/Comments
Please provide the electronic (PDF and EDD) report to the following e-mail address:
kelso_data@caslab.com

opened @ 1009
2 front seals
b-wrap, blue ice
2°C/3°C

Turnaround Requirements
____RUSH (Surcharges Apply)
PLEASE CIRCLE WORK DAYS
1 2 3 4 5
____STANDARD
Requested FAX Date: _____
Requested Report Date: ~~05/11/11~~ 6/6/11

Report Requirements
____ I. Results Only
✓ II. Results + QC Summaries
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
PQL/MDL/J Y
EDD Y

Invoice Information
PO# K1104431
Bill to

Relinquished By: [signature] 5/19/11 K1104431
Received By: Cindy Denen 5/20/11 1007
Airbill Number: 1Z973A590164533470

Columbia Analytical Services

Cooler Receipt Form

Project Chemist: DB

Client/Project: PES Environmental; Portland Facility

Service Request: K1104431

Date/Time Received: 5/20/11 10:07:00

Date/Time Logged in: 5/20/11 10:30:00

Technician: CD

Technician: CD

1. Method of delivery: ○ US Mail ○ Fed Ex ● UPS ○ DHL ○ Courier ○ Client

2. Samples received in: ● Cooler ○ Box ○ Envelope ○ Other

3. Were custody seals on coolers? ● Yes ○ No ○ N/A
   Were they intact? ● Yes ○ No ○ N/A
   Were they signed and dated? ● Yes ○ No ○ N/A
   If yes, how many and where? 2-front

4. Method of delivery: ○ Inserts ○ Baggies ☑ Bubble Wrap ☑ Gel Packs ○ Wet Ice ○ Sleeves ○ Other

5. Foreign or Regulated Soil? ○ Yes ● No Location of Sampling:

Cooler Tracking Number	COC ID	Date Opened	Time Opened	Opened By	Temp. °C	Temp Blank?	Filed
1Z9736590164533170		May 20, 2011	1009	CD	2/3	☒	☒
						☐	☐
						☐	☐
						☐	☐
						☐	☐

6. Were custody papers properly filled out (ink, signed, dated, etc)? ● Yes ○ No ○ N/A
7. Did all bottles arrive in good condition (not broken, no signs of leakage)? ● Yes ○ No ○ N/A
8. Were all sample labels complete (i.e., sample ID, analysis, preservation, etc)? ● Yes ○ No ○ N/A
9. Were appropriate bottles/containers and volumes received for the requested tests? ● Yes ○ No ○ N/A
10. Did sample labels and tags agree with custody documents? ● Yes ○ No ○ N/A

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Out of Temp	Broken	Date	Technician
			☐	☐		
			☐	☐		
			☐	☐		
			☐	☐		

Notes, Discrepancies, & Resolutions:

Print Form

Reset Form

Columbia Analytical Services™

Sample Acceptance Policy

This policy outlines the criteria samples must meet to be accepted by CAS/ Houston.

Cooler Custody Seals (desirable, mandatory if specified in SAP):

- ✓ Intact on outside of cooler, signed and dated

Chain-of-Custody (COC) documentation (mandatory):

The following is required on each COC:

- ✓ Sample ID, the location, date and time of collection, collector's name, preservation type, sample type, and any other special remarks concerning the sample
- ✓ The COC must be completed in ink.
- ✓ Signature and date of relinquishing party.

In the absence of a COC at sample receipt, CAS/Houston will complete a COC, which must be approved by the client, in writing, prior to proceeding with the analysis.

Sample Integrity (mandatory):

Samples are inspected upon arrival to ensure that sample integrity was not compromised during transfer to the laboratory.

- ✓ Sample containers must arrive in good condition (not broken or leaking).
- ✓ Samples must be labeled appropriately, including Sample IDs, and requested test using durable labels and indelible ink.
- ✓ The correct type of sample bottle must be used for the method requested.
- ✓ An appropriate sample volume, or weight, must be received.
- ✓ Sample IDs and number of containers must reconcile with the COC.
- ✓ Samples must be received within the method defined holding time.

Temperature Requirement (varies by sample matrix):

- ✓ Aqueous and Non-aqueous samples must be shipped and stored cold, at 0 to 6°C.
- ✓ Tissue samples must be shipped and stored frozen, at -20 to -10°C.
- ✓ Air samples can be shipped and stored at ambient temperature, ~23°C.
- ✓ The sample temperature must be recorded on the COC

All cooler inspections are documented on the Cooler Receipt Form (CRF). A separate CRF is completed for each service request. Any samples not meeting the above criteria are noted on the CRF and the Project Manager notified. The Project Manager must resolve any sample integrity issues with the client prior to proceeding with the analysis. Such resolutions are documented in writing and filed with the project folder.

Service Request Summary

Folder #: **K1104431**
Client Name: PES Environmental
Project Name: Portland Facility
Project Number:

Report To: Brian O' Neal
PES Environmental
1215 Fourth Avenue, Suite 1350
P.O. Box 108
Seattle, WA 98161
Phone Number: 206-529-3980
Cell Number:
Fax Number: 206-529-3985
E-mail: boneal@pesenv.com

Project Chemist: Darren Biles
Originating Lab: KELSO
Logged By: AJUELL
Date Received: 1/19 - 5/18/11
Internal Due Date: 5/11/11
QAP: LAB QAP
Qualifier Set: CAS Standard
Formset: CAS Standard
Merged?: N,Y
Report to MDL?: Y
P.O. Number:
EDD: GISKEY 2.2, BASIC_WQC_CASNo

6 - 4 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
6 - 8 oz-Glass Jar WM CLEAR Teflon Liner Unpreserved
2 - 2 oz-Glass Jar WM CLEAR Teflon Liner 4-deg C
2 - 20 mL-Glass Vial NM CLEAR Unpreserved

Location: K-Delilah-80, E-Disposed

CAS Samp No	Client Samp No.	Matrix	Collected		KELSO	KELSO	KELSO	KELSO	KELSO	KELSO	KELSO	KELSO	KELSO	KELSO	SVM
					ASTM D4129-82M/ TOC	6010C/ Metals T	6020A/ Metals T	6020A/ Sb Ag T	7471B/ Hg	None/ MISC_MET1	8081A/ PEST_OC_LL	8082A/ PCB Congeners	8270C/ SVO_LL	TS-MET1/ Total Solids	1613B/ Dioxins Furans
K1104431-001	SPI-1-S-011911	Soil	1/19/11	1000						V					
K1104431-002	SPI-1-S-031011	Soil	3/10/11	1315						V					
K1104431-003	SPI-1-S-042811	Soil	4/28/11	1030						V					
K1104431-004	SPI-1-S-2010/2011	Soil	5/10/11		V	V	V	V	V		V	V	V	V	II
K1104431-005	SPI-2-S-011911	Soil	1/19/11	1030						V					
K1104431-006	SPI-2-S-031011	Soil	3/10/11	1215						V					
K1104431-007	SPI-2-S-042811	Soil	4/28/11	0945						V					
K1104431-008	SPI-2-S-2010/2011	Soil	5/10/11		V	V	V	V	V		V	V	V	V	II

Folder Comments:

Samples re-issued from SR K1100539,K1102169,K1103715.

Test Comments:

Group	Test/Method	Samples	Comments
Metals	Metals T/6010C	4, 8	Al,Fe
Metals	Metals T/6020A	4, 8	As,Cd,Cr,Cu,Pb,Mn,Mo,Ni,Se,Zn
Metals	MISC_MET1/None	1-3, 5-7	Lance to composite/homogenize & aliquot samples for each test.
Metals	Sb Ag T/6020A	4, 8	Sb,Ag

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Preparation Information Benchsheet

Prep Run#: 133967 **Prep WorkFlow:** OrgExtS(365) **Status:** Prepped
Team: Semivoa GCMS/AKODUR **Prep Method:** Method **Prep Date/Time:** 5/23/11 09:50 AM

#	Lab Code	Client ID	B#	Method /Test	pH	Matrix	Amt. Ext.	Sample Description
1	E1100539-001	1105129-001D	.01	1613B/Dioxins Furans		Sludge, Solid	10.041g	black sludge
2	E1100549-001	Sludge	.01	1613B/Dioxins Furans		Sludge, Solid	10.186g	brown sludge
3	E1100550-001	Sludge #1-3	.01	1613B/Dioxins Furans		Sludge, Solid	10.119g	brown sludge
4	E1100553-001	AWE 12831 SH2A1106 SFM4MegaVir P	.01	1613B/Dioxins Furans		Misc. Solid	10.172g	Yellow Powder
5	E1100554-001	13313/2011 - 2.0	.01	1613B/Dioxins Furans		Misc. Solid	5.115g	yellow solid
6	EQ1100244-01	MB		1613B/Dioxins Furans		Solid	10.000g	
7	EQ1100244-02	LCS		1613B/Dioxins Furans		Solid	10.000g	
8	EQ1100244-03	DLCS		1613B/Dioxins Furans		Solid	10.000g	
9	K1104431-004	SPI-1-S-2010/2011	.01	1613B/Dioxins Furans		Soil	9.789g	brown soil
10	K1104431-008	SPI-2-S-2010/2011	.01	1613B/Dioxins Furans		Soil	9.244g	brown sludge

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 27643 Logbook Ref: D12-1-2B Expires On: 03/09/2012

EQ1100244-02	100.00µL	EQ1100244-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 30152 Logbook Ref: D12-22-3A/B (30152) Expires On: 05/20/2012

E1100539-001	100.00µL	E1100549-001	100.00µL	E1100550-001	100.00µL	E1100553-001	100.00µL	E1100554-001	100.00µL	EQ1100244-01	100.00µL
EQ1100244-02	100.00µL	EQ1100244-03	100.00µL	K1104431-004	100.00µL						

Name: 1613B Labeled Working Standard Inventory ID 30230 Logbook Ref: D12-22-4B (30230) Expires On: 05/23/2012

E1100539-001	1,000.00µL	E1100549-001	1,000.00µL	E1100550-001	1,000.00µL	E1100553-001	1,000.00µL	E1100554-001	1,000.00µL	EQ1100244-01	1,000.00µL
EQ1100244-02	1,000.00µL	EQ1100244-03	1,000.00µL	K1104431-004	1,000.00µL	K1104431-008	1,000.00µL				

Name: 8290/1613B Cleanup Working Standard Inventory ID 30376 Logbook Ref: D12-23-4A/B (30376) Expires On: 05/26/2012

K1104431-008	100.00µL

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Preparation Information Benchsheet

Prep Run#: 133967 **Prep WorkFlow:** OrgExtS(365) **Status:** Prepped

Team: Semivoa GCMS/AKODUR **Prep Method:** Method **Prep Date/Time:** 5/23/11 09:50 AM

Preparation Materials

Acetone 99.5% Minimum	C2-34-1 (15539)	Carbon, High Purity	C2-55-4 (29680)	Ethyl Acetate 99.9% Minimum EtOAc	29100 (29100)
Extraction Thimbles 43 x 123 mm	(1577)	Glass Wool	C2-47-6 (24744)	Sulfuric Acid Reagent Grade H2SO4	29341 (29341)
Dichloromethane (Methylene Chloride) 99.9% MeCl2	29098 (29098)	Sodium Chloride Reagent Grade NaCl	C2-41-7 (19652)	Sodium Hydroxide Reagent Grade NaOH	C2-40-5 (19149)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	C2-50-2 (25293)	Tridecane (n-Tridecane)	C2-52-6 (27631)	Hexane (n-Hexane) 98.5% Minimum	29097 (29097)
Nonane (n-Nonane) 99%	C2-26-001 (13942)	Silica Gel Reagent Grade	C2-52-4 (27099)	Toluene 99.9% Minimum	29099 (29099)

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	5/23/11 09:50	Started:	5/26/11 09:10	Started:	5/27/11 07:30	Started:	5/31/11 06:00
Finished:	5/24/11 07:04	Finished:	5/26/11 09:46	Finished:	5/27/11 10:30	Finished:	5/31/11 09:40
By:	AKODUR	By:	AKODUR	By:	AKODUR	By:	AKODUR

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Comments: _____

Reviewed By: ak Date: 5/31/11

Chain of Custody

Relinquished By: _____ Date: _____ Extracts Examined

Received By: _____ Date: _____ Yes No

MEMORANDUM

TO: Project File **DATE:** June 17, 2011

FROM: Jerry Harris

SUBJECT: Laboratory Data Validation Review

PROJECT: Univar Portland

PROJECT #: 816.001.01(048)

TASK: May 10, 2011 Stormwater Sediment Sampling

LAB: Columbia Analytical Services Report K1104431

Two stormwater sediment samples were composited by the analytical laboratory on May 10, 2011. The samples were identified as SPI-1-S-2010/2011 and SPI-2-S-2010/2011. These samples were composited from aliquots collected on January 19, 2011, March 10, 2011, and April 28, 2011 from the Univar USA Inc. facility in Portland, Oregon.

The samples were analyzed by the following methods (Table 1):

Method D4129-82M (Total Organic Carbon)

Method 1613B (Dioxins/Furans)

Methods 6010C/6020A (total Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn)

Method 7471B (mercury)

Method 8081B (Pesticides [PEST])

Method 8082A (PCB Congeners [PCBs])

Method 8270C (Semi-Volatile Organic Compounds [SVOCs])

Method 160.3M (Total Solids)

Laboratory analyses for each sample are summarized in Table 1. All analyses except dioxins/furans (Method 1613B) were conducted by Columbia Analytical Services (CAS) of Kelso, Washington. The Method 1613B analyses were conducted by CAS's laboratory in Houston, Texas. All results were reported in CAS laboratory report K1104431.

The quality assurance review of the sediment sample data is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting

the quality control criteria outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 2004).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested. No issues were noted.

Sample Collection and Preservation

The two composite samples were prepared from aliquots collected during January, March, and April, 2011. The aliquots were collected and filtered, and the compositing was performed, consistent with protocols developed specifically for these samples. The aliquot laboratory cooler receipt logs provided by the analytical laboratory were reviewed.

For the January aliquots, all sample bottles were contained in one cooler that was delivered to the laboratory via overnight courier. The samples were stored on water ice in properly preserved, laboratory-provided containers. The cooler was received at a cooler temperature of 3.1 degrees Centigrade (°C). A temperature blank was included in the cooler and the blank temperature was 5.6°C. The recommended temperature preservation range is 2 °C +/- 4°C. No qualifications were warranted for the January aliquots.

For the March aliquots, all sample bottles were contained in three coolers that were delivered to the laboratory via overnight courier. The samples were stored on water ice in properly preserved, laboratory-provided containers. Two of the coolers had cooler and temperature blank temperatures within the recommended temperature preservation range. The third cooler was received at a cooler temperature of 4.1°C and a temperature blank temperature of 1.6°C. As indicated above, the samples were properly preserved on water ice. The receipt log for the March aliquots did not indicate that any of the containers were damaged (e.g. frozen or cracked) as a result of the apparently low blank temperature. Based upon this information, the low blank temperature is not considered sufficient cause to warrant qualification of the data. No qualifications were made to the March aliquots.

For the April aliquots, all sample bottles were contained in one cooler that was delivered to the laboratory via overnight courier. The samples were stored on water ice in properly preserved, laboratory-provided containers. The cooler was received at a cooler temperature of -0.7°C and a temperature blank temperature of 0.7°C. As indicated above, the samples were properly preserved on water ice. The receipt log for the April aliquots did not indicate that any of the containers were damaged (e.g. frozen or cracked) as a result of the apparently low cooler and blank temperatures. Based upon this information, the temperatures are not considered sufficient cause to warrant qualification of the data. No qualifications were made to the April aliquots.

Upon receipt of each aliquot delivery, the laboratory filtered and stored the aliquots in a freezer at -20ºC. Upon receipt of the final aliquot delivery in April, the aliquots were allowed to thaw at 4ºC and were composited. The composite samples were stored at 4ºC pending analysis. The

aliquot holding, storage, and compositing were performed consistent with approved protocols. No qualifications were warranted.

Holding Times

Table 2 provides a summary of the extraction times (where appropriate) and analysis holding times. Extraction and analyses times were based upon date of compositing of the aliquots. All extractions and analyses were performed within the recommended holding times. No data was qualified.

Initial Calibration

Hard copies of the initial calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in initial calibration results associated with the project analyses. No significant initial calibration issues were noted in the case narrative; therefore no data qualifications were required.

Continuing Calibration

Hard copies of the continuing calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in continuing calibration results associated with the project analyses. No significant continuing calibration issues relating to the remaining analyses were noted in the case narrative; therefore no data qualifications were required.

Method Blank Results

At least one laboratory method blank was analyzed for each analytical method and extraction group that included the project sample. The method blank results are summarized in Table 3. Target compounds were detected in the method blanks for the following methods:

Methods 6010C/6020A (metals): Iron, cadmium, chromium, lead, molybdenum, and nickel were detected in the method blanks run for these methods. The detected concentrations were less than the method reporting limit (MRL) but greater than the method detection limit (MDL). Concentrations reported between the MRL and MDL are qualified by the laboratory as estimates. For all the metals detected in the method blanks, the concentrations reported in the associated samples were more than 100 times greater than the blank concentrations. Because the sample concentrations were more than five times the blank concentrations, the data is not affected by the detections in the blanks. No qualifications were warranted.

Method 1613B (dioxins/furans): 1,2,3,4,6,7,8-HpCCD, octachlorodibenzofuran, and octachlorodibenzo-p-dioxin were detected in the method blank at concentrations of 0.164, 0.425 and 1.42 nanograms per kilogram (ng/Kg), respectively. The detected concentrations in the method blank were below the MRL but above the MDL.

1,2,3,4,6,7,8-HpCCD was detected in project samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011 at concentrations of 2970 and 1350 ng/Kg, respectively. Because this compound was

detected in the project samples at concentrations greater than 10 times the blank concentration, the project sample results are unaffected. No qualifications of the 1,2,3,4,6,7,8-HpCCD results were warranted.

Octachlorodibenzofuran was detected in project samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011 at concentrations of 3890 and 1820 ng/Kg, respectively. Because this compound was detected in the project samples at concentrations greater than 10 times the blank concentration, the project sample results are unaffected. No qualifications of the octachlorodibenzofuran results were warranted.

Octachlorodibenzo-p-dioxin was detected in project samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011 at concentrations of 25,000 and 12,700 ng/Kg, respectively. Because this compound was detected in the project samples at concentrations greater than 10 times the blank concentration, the project sample results are unaffected. No qualifications of the octachlorodibenzo-p-dioxin results were warranted.

Method 8270C (diethyl phthalate, dimethyl phthalate, bis[2-ethylhexyl]phthalate): Diethyl phthalate was detected in the method blank at a concentration of 1.7 micrograms per kilogram (µg/Kg). Diethyl phthalate was not detected in the project samples at MDLs of 110 and 120 µg/Kg, respectively. This phthalate is a common laboratory contaminant. Because this compound was not detected in the project samples and the MDL for the project samples was greater than 10 times the concentration detected in the blank, the project samples are not affected. No qualifications of the diethyl phthalate results were warranted.

Dimethyl phthalate was detected in the method blank at a concentration of 3.5 µg/l. Dimethyl phthalate was detected in the project samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011 at concentrations of 140 and 110 µg/Kg, respectively. This phthalate is a common laboratory contaminant. Because this compound was detected in the project samples at concentrations greater than 10 times the blank concentration, the project sample results are unaffected. No qualifications of the dimethyl phthalate results were warranted.

Bis(2-ethylhexyl) phthalate was detected in the method blank at a concentration of 13 µg/Kg. Bis(2-ethylhexyl) phthalate was detected in the project samples SPI-1-S-2010/2011 and SPI-2-S-2010/2011 at concentrations of 28,000 and 15,000 µg/Kg, respectively. This phthalate is a common laboratory contaminant. Because this compound was detected in the project samples at concentrations greater than 10 times the blank concentration, the project sample results are unaffected. No qualifications of the bis(2-ethylhexyl) phthalate results were warranted.

Target compounds were not detected in the method blanks for any of the remaining methods. No data qualifications were required.

Trip Blank Results

A trip blank was not required for the project. No qualifications were warranted due to the lack of a trip blank.

Field Blank Results

A field blank was not required for the project. No qualifications were warranted due to the lack of a field blank.

Field Duplicate Analyses

A field duplicate was not required for the project. No qualifications were warranted due to the lack of a field duplicate.

Laboratory Duplicate Analyses

The laboratory prepared sample duplicates for the following analyses:

Method D4129-82M (TOC): A batch (non-project) duplicate was prepared. The RPD for TOC was within the control limits. No qualifications were warranted based upon the batch duplicate results.

Methods 6010C/6020A (Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn): A batch (non-project) duplicate was prepared. The RPDs for all metals were within the control limits. No qualifications were warranted based upon the batch duplicate results.

Method 7471A (mercury): A batch (non-project) duplicate was prepared. The RPD for mercury was within the control limits. No qualifications were warranted based upon the batch duplicate results.

For the remaining methods, either a duplicate was not required or the laboratory prepared a matrix spike (MS) duplicate (MSD) or a laboratory control sample (LCS) duplicate (LCSD). These results are discussed in the Matrix Spike and Laboratory Control Sample sections of this report.

Surrogate Recoveries

Surrogates were injected into all samples, laboratory duplicates, method blanks, MS/MSDs, and LCS/LCSDs that were analyzed for organic compounds. The surrogate recoveries (%Rs) are summarized in Table 4. The %Rs for all analytical methods except Method 8270C were within the control limits. No qualifications of the data from the in-control methods were warranted.

Method 8270C: The p-terphenyl d-14 surrogate in SPI-2-S-2010/2011exceeded the upper control limit, indicating a potential high bias in associated compounds in this sample. The remaining acid and base/neutral surrogates in this sample were within the control limits. Two out-of-control surrogates within the same fraction (acid or base/neutral) are generally required to warrant qualification of the associated acid or base/neutral compounds. Based upon this guidance, the p-terphenyl surrogate exceedance is not considered sufficient cause to warrant qualification of the data.

Surrogates were not required for remaining, non-organic, analytical methods.

Labeled Compound Recoveries (Dioxins/Furans only)

The recoveries of labeled compounds are the critical measure of the laboratory's ability to extract and analyze the dioxin/furan target analytes. For samples SPI-1-S-2010/2011, SPI- 2-S-2010/2011, the analysis method blank, the LCS, and the LCSD, the %Rs for all labeled compounds were within the laboratory control criteria. No qualifications were warranted.

Labeled compounds were not required for remaining analytical methods.

Laboratory Control Samples

One LCS was run for each analytical method performed on the project samples. For some methods, an LCSD was analyzed in lieu of a sample or matrix spike duplicate. This is an acceptable substitution. The LCS' were run at the appropriate frequency for this project. The LCS %R and LCS/LCSD (where appropriate) RPD results are summarized in Table 5. The %Rs and RPDs for all methods and control compounds met the %R acceptance criteria with the following exceptions:

Method 8270C (SVOCs): The benzoic acid RPD for the LCS/LCSD exceeded the RPD control limit. The benzoic acid %Rs were both within the control limits. The laboratory case narrative indicated that the benzoic acid concentration in the LCS and LCSD was not significantly greater than the detection limit. The laboratory concluded that the RPD evaluation criterion for benzoic acid was not applicable in under this circumstance. Based upon the information above, the benzoic acid RPD exceedance is not considered sufficient cause to warrant qualification of the data.

Matrix Spike/Matrix Spike Duplicates

Due to sampling conditions, there was insufficient sample to prepare project a MS and MSD from a project sample. For the organic analyses, batch (non-project) MS/MSD information was provided or LCS/LCSDs were prepared in lieu of MSs and MSDs. This is an acceptable substitution. For the non-organic analyses, batch (non-project) MS information was provided. The MS/MSD results are summarized below:

Method D4129-82M (TOC): The batch (non-project) MS %R was within the control limits for TOC. No qualifications were warranted. A sample duplicate was prepared in lieu of a MSD. This is an acceptable substitution.

Methods 6010C/6020A (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn): The batch (non-project) MS %Rs were within the control limits for all spiked analytes except aluminum and antimony. Because the MS was created from non-project sample, the results are not applicable to the project sample. No qualifications were warranted.

Method 7471A (Mercury): The batch (non-project) MS %R was within the control limits. A batch MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 8081B (*Pesticides [PEST]):* Three batch (non-project) MS/MSD pairs were prepared and analyzed. The MS and MSD %Rs were within the control limits. The MS/MSD RPDs were also within the control limits. No qualifications were warranted.

Method 8082A (*PCBs):* A batch (non-project) MS/MSD pair was prepared and analyzed. The MS %Rs were within the control limits except for PCB 81, which exceeded the upper control limit. A MSD was also prepared and analyzed. The MSD %Rs were within the control limits and the MS/MSD RPDs were within the control limits. Because the MS was created from non-project sample, the results are not applicable to the project sample. No qualifications were warranted.

Method 8270C *(Semi-Volatile Organic Compounds [SVOCs]):* A LCS/LCS duplicate analysis was performed in lieu of a MS/MSD due to lack of sufficient project sample. This substitution is considered acceptable and the LCS/LCSD results are discussed in the LCS section above.

Method 1613B *(Dioxins/Furans):* A LCS/LCS duplicate analysis was performed in lieu of a MS/MSD due to lack of sufficient project sample. This substitution is considered acceptable and the LCS/LCSD results are discussed in the LCS section above.

Other Quality Control Issues

The laboratory case narrative indicated that the dual column confirmation criteria of 40% difference was exceeded for several analytes report for Methods 8081B and 8082A. In these cases, the laboratory reported the lower result of the two columns due to apparent interferences in the second column that produced the higher result. No qualifications were warranted under these conditions. No other significant quality control issues were identified.

Quantitation Limits

The laboratory analytical results were reported based on laboratory MRLs for routine analytical services (RAS). The MRLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The MRLs are dependent upon sample concentration, sample volume, and dilutions, if required. MDLs were also reported for selected analytes. In some cases, the laboratory reported a concentration between the MRL and MDL and qualified these results as estimated. These qualifiers are retained for validation purposes. No other data qualifiers were assigned based on MRLs or MDLs.

In addition, in some cases the laboratory raised the MDL and MRL due to matrix interferences from non-target background components. The raised limits do not warrant qualification of the data.

Data Assessment

Data results reported at concentrations between the MRL and MDL were qualified as estimated and assigned a J flag. Laboratory report pages showing the qualified data are attached. No data were rejected. All data, including the data qualified as estimated, are judged to be acceptable for their intended use.

Table 1. Sample Summary

SAMP_ID	SAMP_DATE	METHOD_ID
SPI1S2010/2011		
	5/10/2011	160.3M
	5/10/2011	1613B
	5/10/2011	6010C
	5/10/2011	6020A
	5/10/2011	7471B
	5/10/2011	8081B
	5/10/2011	8082A
	5/10/2011	8270C
	5/10/2011	D4129-82M
SPI2S2010/2011		
	5/10/2011	160.3M
	5/10/2011	1613B
	5/10/2011	6010C
	5/10/2011	6020A
	5/10/2011	7471B
	5/10/2011	8081B
	5/10/2011	8082A
	5/10/2011	8270C
	5/10/2011	D4129-82M

Table 2. HOLD TIME SUMMARY

SAMP_ID	METHOD_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
SPI1S2010/2011	160.3M	5/10/2011		5/19/2011	NA	OK
	1613B	5/10/2011	5/23/2011	5/31/2011	NA	OK
	1613B	5/10/2011	5/23/2011	6/1/2011	NA	OK
	6010C	5/10/2011	5/31/2011	6/2/2011	NA	OK
	6020A	5/10/2011	5/31/2011	6/2/2011	NA	OK
	7471B	5/10/2011	6/2/2011	6/2/2011	NA	OK
	8081B	5/10/2011	5/24/2011	6/9/2011	OK	OK
	8082A	5/10/2011	5/24/2011	6/2/2011	OK	OK
	8270C	5/10/2011	5/23/2011	6/6/2011	OK	OK
	D4129-82M	5/10/2011	5/24/2011	5/27/2011	NA	OK
SPI2S2010/2011	160.3M	5/10/2011		5/19/2011	NA	OK
	1613B	5/10/2011	5/23/2011	6/1/2011	NA	OK
	6010C	5/10/2011	5/31/2011	6/2/2011	NA	OK
	6020A	5/10/2011	5/31/2011	6/2/2011	NA	OK
	7471B	5/10/2011	6/2/2011	6/2/2011	NA	OK
	8081B	5/10/2011	5/24/2011	6/9/2011	OK	OK
	8082A	5/10/2011	5/24/2011	6/2/2011	OK	OK
	8270C	5/10/2011	5/23/2011	6/6/2011	OK	OK
	D4129-82M	5/10/2011	5/24/2011	5/27/2011	NA	OK

Table 3. METHOD BLANK SUMMARY

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
1613B	K1104431	133967	1,2,3,4,6,7,8-Heptachlorodibenzofuran	METHOD BLANK		0.0449	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,4,6,7,8-HpCDD	METHOD BLANK	0.164	0.0386	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,4,7,8,9-Heptachlorodibenzofuran	METHOD BLANK		0.0502	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,4,7,8-Hexachlorodibenzofuran	METHOD BLANK		0.0531	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	METHOD BLANK		0.0361	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,6,7,8-Hexachlorodibenzofuran	METHOD BLANK		0.0517	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	METHOD BLANK		0.0451	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,7,8,9-Hexachlorodibenzofuran	METHOD BLANK		0.0660	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	METHOD BLANK		0.0395	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,7,8-Pentachlorodibenzofuran	METHOD BLANK		0.0360	1.00	ng/Kg
1613B	K1104431	133967	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	METHOD BLANK		0.0482	1.00	ng/Kg
1613B	K1104431	133967	2,3,4,6,7,8-Hexachlorodibenzofuran	METHOD BLANK		0.0535	1.00	ng/Kg
1613B	K1104431	133967	2,3,4,7,8-Pentachlorodibenzofuran	METHOD BLANK		0.0342	1.00	ng/Kg
1613B	K1104431	133967	2,3,7,8-Tetrachlorodibenzofuran	METHOD BLANK		0.112	0.200	ng/Kg
1613B	K1104431	133967	2,3,7,8-Tetrachlorodibenzo-p-dioxin	METHOD BLANK		0.0619	0.200	ng/Kg
1613B	K1104431	133967	Heptachlorodibenzofurans (HpCDF), Total	METHOD BLANK		0.0449	1.00	ng/Kg
1613B	K1104431	133967	Hexachlorodibenzofurans (HxCDF), Total	METHOD BLANK		0.0531	1.00	ng/Kg
1613B	K1104431	133967	Octachlorodibenzofuran	METHOD BLANK	0.425	0.105	2.00	ng/Kg
1613B	K1104431	133967	Octachlorodibenzo-p-dioxin	METHOD BLANK	1.42	0.121	2.00	ng/Kg
1613B	K1104431	133967	Pentachlorodibenzofurans (PeCDF), Total	METHOD BLANK		0.0342	1.00	ng/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
1613B	K1104431	133967	Tetrachlorodibenzofurans (TCDF), Total	METHOD BLANK		0.112	0.200	ng/Kg
1613B	K1104431	133967	Total Hepta-Dioxins	METHOD BLANK		0.0386	1.00	ng/Kg
1613B	K1104431	133967	Total Hexa-Dioxins	METHOD BLANK		0.0361	1.00	ng/Kg
1613B	K1104431	133967	Total Penta-Dioxins	METHOD BLANK		0.0482	1.00	ng/Kg
1613B	K1104431	133967	Total Tetra-Dioxins	METHOD BLANK		0.0619	0.200	ng/Kg
6010C	K1104431	134901	Aluminum, Total	METHOD BLANK		6.0	10.0	mg/Kg
6010C	K1104431	134901	Iron, Total	METHOD BLANK	0.3	0.3	4.0	mg/Kg
6010C	K1104431	134901	Manganese, Total	METHOD BLANK		0.04	2.00	mg/Kg
6010C	K1104431	134901	Zinc, Total	METHOD BLANK		0.3	2.0	mg/Kg
6020A	K1104431	134897	Arsenic, Total	METHOD BLANK		0.05	0.50	mg/Kg
6020A	K1104431	134897	Cadmium, Total	METHOD BLANK	0.006	0.004	0.020	mg/Kg
6020A	K1104431	134897	Chromium, Total	METHOD BLANK	0.05	0.02	0.20	mg/Kg
6020A	K1104431	134897	Copper, Total	METHOD BLANK		0.08	0.10	mg/Kg
6020A	K1104431	134897	Lead, Total	METHOD BLANK	0.039	0.006	0.050	mg/Kg
6020A	K1104431	134897	Molybdenum, Total	METHOD BLANK	0.02	0.02	0.05	mg/Kg
6020A	K1104431	134897	Nickel, Total	METHOD BLANK	0.02	0.02	0.20	mg/Kg
6020A	K1104431	134897	Selenium, Total	METHOD BLANK		0.2	1.0	mg/Kg
6020A	K1104431	134901M	Antimony, Total	METHOD BLANK		0.009	0.050	mg/Kg
6020A	K1104431	134901M	Silver, Total	METHOD BLANK		0.008	0.020	mg/Kg
7471B	K1104431	135041	Mercury, Total	METHOD BLANK		0.002	0.020	mg/Kg
8081B	K1104431	KWG1104909	2,4'-DDD	METHOD BLANK		0.13	0.50	ug/Kg
8081B	K1104431	KWG1104909	2,4'-DDE	METHOD BLANK		0.16	0.50	ug/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8081B	K1104431	KWG1104909	2,4'-DDT	METHOD BLANK		0.058	0.50	ug/Kg
8081B	K1104431	KWG1104909	4,4'-DDD	METHOD BLANK		0.11	0.50	ug/Kg
8081B	K1104431	KWG1104909	4,4'-DDE	METHOD BLANK		0.11	0.50	ug/Kg
8081B	K1104431	KWG1104909	4,4'-DDT	METHOD BLANK		0.17	0.50	ug/Kg
8081B	K1104431	KWG1104909	Aldrin	METHOD BLANK		0.16	0.50	ug/Kg
8081B	K1104431	KWG1104909	alpha-BHC	METHOD BLANK		0.11	0.50	ug/Kg
8081B	K1104431	KWG1104909	alpha-Chlordane	METHOD BLANK		0.10	0.50	ug/Kg
8081B	K1104431	KWG1104909	beta-BHC	METHOD BLANK		0.18	0.50	ug/Kg
8081B	K1104431	KWG1104909	Chlordane	METHOD BLANK		1.9	5.0	ug/Kg
8081B	K1104431	KWG1104909	cis-Nonachlor	METHOD BLANK		0.12	0.50	ug/Kg
8081B	K1104431	KWG1104909	delta-BHC	METHOD BLANK		0.074	0.50	ug/Kg
8081B	K1104431	KWG1104909	Dieldrin	METHOD BLANK		0.14	0.50	ug/Kg
8081B	K1104431	KWG1104909	Endosulfan I	METHOD BLANK		0.063	0.50	ug/Kg
8081B	K1104431	KWG1104909	Endosulfan II	METHOD BLANK		0.14	0.50	ug/Kg
8081B	K1104431	KWG1104909	Endosulfan Sulfate	METHOD BLANK		0.11	0.50	ug/Kg
8081B	K1104431	KWG1104909	Endrin	METHOD BLANK		0.094	0.50	ug/Kg
8081B	K1104431	KWG1104909	Endrin Aldehyde	METHOD BLANK		0.12	0.50	ug/Kg
8081B	K1104431	KWG1104909	Endrin Ketone	METHOD BLANK		0.093	0.50	ug/Kg
8081B	K1104431	KWG1104909	gamma-BHC	METHOD BLANK		0.080	0.50	ug/Kg
8081B	K1104431	KWG1104909	gamma-Chlordane	METHOD BLANK		0.090	0.50	ug/Kg
8081B	K1104431	KWG1104909	Heptachlor	METHOD BLANK		0.12	0.50	ug/Kg
8081B	K1104431	KWG1104909	Heptachlor Epoxide	METHOD BLANK		0.084	0.50	ug/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8081B	K1104431	KWG1104909	Hexachlorobenzene	METHOD BLANK		0.20	0.50	ug/Kg
8081B	K1104431	KWG1104909	Methoxychlor	METHOD BLANK		0.19	0.50	ug/Kg
8081B	K1104431	KWG1104909	Oxychlordane	METHOD BLANK		0.085	0.50	ug/Kg
8081B	K1104431	KWG1104909	Toxaphene	METHOD BLANK		4.8	25	ug/Kg
8081B	K1104431	KWG1104909	trans-Nonachlor	METHOD BLANK		0.087	0.50	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	METHOD BLANK		0.031	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,3',4,4',5,6-Octachlorobiphenyl	METHOD BLANK		0.031	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,3',4,4',5-Heptachlorobiphenyl	METHOD BLANK		0.026	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,3',4,4'-Hexachlorobiphenyl	METHOD BLANK		0.031	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.095	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4,4',5',6-Heptachlorobiphenyl	METHOD BLANK		0.081	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.064	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4,4',6,6'-Heptachlorobiphenyl	METHOD BLANK		0.052	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4',5,5',6-Heptachlorobiphenyl	METHOD BLANK		0.047	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4',5-Pentachlorobiphenyl	METHOD BLANK		0.035	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,4,5'-Pentachlorobiphenyl	METHOD BLANK		0.038	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',3,5'-Tetrachlorobiphenyl	METHOD BLANK		0.065	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.038	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',4,5,5'-Pentachlorobiphenyl	METHOD BLANK		0.049	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',5,5'-Tetrachlorobiphenyl	METHOD BLANK		0.059	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,2',5-Trichlorobiphenyl	METHOD BLANK		0.096	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,3',4,4',5,5'-Heptachlorobiphenyl	METHOD BLANK		0.029	0.25	ug/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8082A	K1104431	KWG1104907	2,3,3',4,4',5'-Hexachlorobiphenyl	METHOD BLANK		0.031	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,3',4,4',5-Hexachlorobiphenyl	METHOD BLANK		0.042	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,3',4,4',6-Hexachlorobiphenyl	METHOD BLANK		0.028	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,3',4,4'-Pentachlorobiphenyl	METHOD BLANK		0.033	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.046	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,4,4',5,6-Hexachlorobiphenyl	METHOD BLANK		0.030	0.25	ug/Kg
8082A	K1104431	KWG1104907	2',3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.067	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.031	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.023	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.035	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,3,4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.039	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,4,4'-Trichlorobiphenyl	METHOD BLANK		0.064	0.25	ug/Kg
8082A	K1104431	KWG1104907	2,4'-Dichlorobiphenyl	METHOD BLANK		0.21	0.25	ug/Kg
8082A	K1104431	KWG1104907	3,3',4,4',5,5'-Hexachlorobiphenyl	METHOD BLANK		0.041	0.25	ug/Kg
8082A	K1104431	KWG1104907	3,3',4,4',5-Pentachlorobiphenyl	METHOD BLANK		0.043	0.25	ug/Kg
8082A	K1104431	KWG1104907	3,3',4,4'-Tetrachlorobiphenyl	METHOD BLANK		0.047	0.25	ug/Kg
8082A	K1104431	KWG1104907	3,4,4',5-Tetrachlorobiphenyl	METHOD BLANK		0.050	0.25	ug/Kg
8082A	K1104431	KWG1104907	Decachlorobiphenyl	METHOD BLANK		0.041	0.25	ug/Kg
8270C	K1104431	KWG1104595	1,2,4-Trichlorobenzene	METHOD BLANK		2.6	10	ug/Kg
8270C	K1104431	KWG1104595	1,2-Dichlorobenzene	METHOD BLANK		2.9	10	ug/Kg
8270C	K1104431	KWG1104595	1,3-Dichlorobenzene	METHOD BLANK		3.0	10	ug/Kg
8270C	K1104431	KWG1104595	1,4-Dichlorobenzene	METHOD BLANK		2.9	10	ug/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1104431	KWG1104595	2,4,5-Trichlorophenol	METHOD BLANK		1.5	10	ug/Kg
8270C	K1104431	KWG1104595	2,4,6-Trichlorophenol	METHOD BLANK		1.4	10	ug/Kg
8270C	K1104431	KWG1104595	2,4-Dichlorophenol	METHOD BLANK		1.0	10	ug/Kg
8270C	K1104431	KWG1104595	2,4-Dimethylphenol	METHOD BLANK		5.5	50	ug/Kg
8270C	K1104431	KWG1104595	2,4-Dinitrophenol	METHOD BLANK		17	200	ug/Kg
8270C	K1104431	KWG1104595	2,4-Dinitrotoluene	METHOD BLANK		1.5	10	ug/Kg
8270C	K1104431	KWG1104595	2,6-Dinitrotoluene	METHOD BLANK		2.0	10	ug/Kg
8270C	K1104431	KWG1104595	2-Chloronaphthalene	METHOD BLANK		1.6	10	ug/Kg
8270C	K1104431	KWG1104595	2-Chlorophenol	METHOD BLANK		2.0	10	ug/Kg
8270C	K1104431	KWG1104595	2-Methylphenol	METHOD BLANK		1.5	10	ug/Kg
8270C	K1104431	KWG1104595	2-Nitroaniline	METHOD BLANK		3.2	20	ug/Kg
8270C	K1104431	KWG1104595	2-Nitrophenol	METHOD BLANK		1.5	10	ug/Kg
8270C	K1104431	KWG1104595	3,3'-Dichlorobenzidine	METHOD BLANK		3.7	100	ug/Kg
8270C	K1104431	KWG1104595	3-Nitroaniline	METHOD BLANK		2.5	20	ug/Kg
8270C	K1104431	KWG1104595	4,6-Dinitro-2-methylphenol	METHOD BLANK		1.4	100	ug/Kg
8270C	K1104431	KWG1104595	4-Bromophenyl Phenyl Ether	METHOD BLANK		1.6	10	ug/Kg
8270C	K1104431	KWG1104595	4-Chloro-3-methylphenol	METHOD BLANK		1.4	10	ug/Kg
8270C	K1104431	KWG1104595	4-Chloroaniline	METHOD BLANK		1.9	10	ug/Kg
8270C	K1104431	KWG1104595	4-Chlorophenyl Phenyl Ether	METHOD BLANK		1.4	10	ug/Kg
8270C	K1104431	KWG1104595	4-Methylphenol	METHOD BLANK		1.5	10	ug/Kg
8270C	K1104431	KWG1104595	4-Nitroaniline	METHOD BLANK		1.8	20	ug/Kg
8270C	K1104431	KWG1104595	4-Nitrophenol	METHOD BLANK		18	100	ug/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1104431	KWG1104595	Benzoic Acid	METHOD BLANK		96	200	ug/Kg
8270C	K1104431	KWG1104595	Benzyl Alcohol	METHOD BLANK		2.1	20	ug/Kg
8270C	K1104431	KWG1104595	Bis(2-chloroethoxy)methane	METHOD BLANK		1.5	10	ug/Kg
8270C	K1104431	KWG1104595	Bis(2-chloroethyl) Ether	METHOD BLANK		1.9	10	ug/Kg
8270C	K1104431	KWG1104595	Bis(2-chloroisopropyl) Ether	METHOD BLANK		2.6	10	ug/Kg
8270C	K1104431	KWG1104595	Bis(2-ethylhexyl) Phthalate	METHOD BLANK	13	7.0	100	ug/Kg
8270C	K1104431	KWG1104595	Butyl Benzyl Phthalate	METHOD BLANK		3.2	10	ug/Kg
8270C	K1104431	KWG1104595	Dibenzofuran	METHOD BLANK		1.2	10	ug/Kg
8270C	K1104431	KWG1104595	Diethyl Phthalate	METHOD BLANK	1.7	1.3	10	ug/Kg
8270C	K1104431	KWG1104595	Dimethyl Phthalate	METHOD BLANK	3.5	1.0	10	ug/Kg
8270C	K1104431	KWG1104595	Di-n-butyl Phthalate	METHOD BLANK		7.9	20	ug/Kg
8270C	K1104431	KWG1104595	Di-n-octyl Phthalate	METHOD BLANK		1.7	10	ug/Kg
8270C	K1104431	KWG1104595	Hexachlorobenzene	METHOD BLANK		1.2	10	ug/Kg
8270C	K1104431	KWG1104595	Hexachlorobutadiene	METHOD BLANK		2.5	10	ug/Kg
8270C	K1104431	KWG1104595	Hexachlorocyclopentadiene	METHOD BLANK		29	50	ug/Kg
8270C	K1104431	KWG1104595	Hexachloroethane	METHOD BLANK		3.1	10	ug/Kg
8270C	K1104431	KWG1104595	Isophorone	METHOD BLANK		1.0	10	ug/Kg
8270C	K1104431	KWG1104595	Nitrobenzene	METHOD BLANK		2.2	10	ug/Kg
8270C	K1104431	KWG1104595	N-Nitrosodimethylamine	METHOD BLANK		6.1	100	ug/Kg
8270C	K1104431	KWG1104595	N-Nitrosodi-n-propylamine	METHOD BLANK		2.4	10	ug/Kg
8270C	K1104431	KWG1104595	N-Nitrosodiphenylamine	METHOD BLANK		1.6	10	ug/Kg
8270C	K1104431	KWG1104595	Pentachlorophenol	METHOD BLANK		20	100	ug/Kg

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1104431	KWG1104595	Phenol	METHOD BLANK		2.0	30	ug/Kg

Table 4. SURROGATE SUMMARY

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
1613B	K1104431	1,2,3,4,7,8-Hexachlorodibenzofura	SPI1S2010/2011	PP01	133967	72	26	152	OK
	K1104431	1,2,3,4,7,8-Hexachlorodibenzofura	SPI2S2010/2011	PP01	133967	73	26	152	OK
	K1104431	1,2,3,6,7,8-Hexachlorodibenzofura	SPI2S2010/2011	PP01	133967	63	26	123	OK
	K1104431	1,2,3,6,7,8-Hexachlorodibenzofura	SPI1S2010/2011	PP01	133967	64	26	123	OK
	K1104431	1,2,3,7,8,9-Hexachlorodibenzofura	SPI2S2010/2011	PP01	133967	75	29	147	OK
	K1104431	1,2,3,7,8,9-Hexachlorodibenzofura	SPI1S2010/2011	PP01	133967	68	29	147	OK
	K1104431	1,2,3,7,8-Pentachlorodibenzofuran	SPI1S2010/2011	PP01	133967	44	24	185	OK
	K1104431	1,2,3,7,8-Pentachlorodibenzofuran	SPI2S2010/2011	PP01	133967	59	24	185	OK
	K1104431	13C-1,2,3,4,6,7,8-HpCDD	SPI1S2010/2011	PP01	133967	43	23	140	OK
	K1104431	13C-1,2,3,4,6,7,8-HpCDD	SPI2S2010/2011	PP01	133967	51	23	140	OK
	K1104431	13C-1,2,3,4,6,7,8-HpCDF	SPI1S2010/2011	PP01	133967	48	28	143	OK
	K1104431	13C-1,2,3,4,6,7,8-HpCDF	SPI2S2010/2011	PP01	133967	54	28	143	OK
	K1104431	13C-1,2,3,4,7,8,9-HpCDF	SPI1S2010/2011	PP01	133967	51	26	138	OK
	K1104431	13C-1,2,3,4,7,8,9-HpCDF	SPI2S2010/2011	PP01	133967	61	26	138	OK
	K1104431	13C-1,2,3,4,7,8-HxCDD	SPI1S2010/2011	PP01	133967	70	32	141	OK
	K1104431	13C-1,2,3,4,7,8-HxCDD	SPI2S2010/2011	PP01	133967	75	32	141	OK
	K1104431	13C-1,2,3,6,7,8-HxCDD	SPI1S2010/2011	PP01	133967	59	28	130	OK
	K1104431	13C-1,2,3,6,7,8-HxCDD	SPI2S2010/2011	PP01	133967	60	28	130	OK
	K1104431	13C-1,2,3,7,8-PeCDD	SPI1S2010/2011	PP01	133967	40	25	181	OK
	K1104431	13C-1,2,3,7,8-PeCDD	SPI2S2010/2011	PP01	133967	57	25	181	OK
	K1104431	2,3,4,6,7,8-Hexachlorodibenzofura	SPI1S2010/2011	PP01	133967	64	28	136	OK
	K1104431	2,3,4,6,7,8-Hexachlorodibenzofura	SPI2S2010/2011	PP01	133967	67	28	136	OK
	K1104431	2,3,4,7,8-Pentachlorodibenzofuran	SPI1S2010/2011	PP01	133967	42	21	178	OK
	K1104431	2,3,4,7,8-Pentachlorodibenzofuran	SPI2S2010/2011	PP01	133967	58	21	178	OK
	K1104431	2,3,7,8-Tetrachlorodibenzofuran-C	SPI2S2010/2011	PP01	133967	57	24	169	OK
	K1104431	2,3,7,8-Tetrachlorodibenzofuran-C	SPI1S2010/2011	PP01	133967	49	24	169	OK
	K1104431	2,3,7,8-Tetrachlorodibenzo-p-dioxi	SPI2S2010/2011	PP01	133967	78	25	164	OK

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
1613B	K1104431	2,3,7,8-Tetrachlorodibenzo-p-dioxi	SPI1S2010/2011	PP01	133967	65	25	164	OK
	K1104431	Octachlorodibenzo-p-dioxin-C13	SPI1S2010/2011	PP01	133967	28	17	157	OK
	K1104431	Octachlorodibenzo-p-dioxin-C13	SPI2S2010/2011	PP01	133967	33	17	157	OK
8081B	K1104431	Tetrachloro-m-xylene	SPI1S2010/2011	PP01	KWG1104909	79	21	112	OK
	K1104431	Tetrachloro-m-xylene	SPI2S2010/2011	PP01	KWG1104909	65	21	112	OK
8082A	K1104431	Tetrachloro-m-xylene	SPI1S2010/2011	PP01	KWG1104907	106	10	135	OK
	K1104431	Tetrachloro-m-xylene	SPI2S2010/2011	PP01	KWG1104907	92	10	135	OK
8270C	K1104431	2,4,6-Tribromophenol	SPI1S2010/2011	PP01	KWG1104595	95	10	119	OK
	K1104431	2,4,6-Tribromophenol	SPI2S2010/2011	PP01	KWG1104595	103	10	119	OK
	K1104431	2-Fluorobiphenyl	SPI1S2010/2011	PP01	KWG1104595	70	25	97	OK
	K1104431	2-Fluorobiphenyl	SPI2S2010/2011	PP01	KWG1104595	89	25	97	OK
	K1104431	2-Fluorophenol	SPI1S2010/2011	PP01	KWG1104595	68	11	80	OK
	K1104431	2-Fluorophenol	SPI2S2010/2011	PP01	KWG1104595	69	11	80	OK
	K1104431	Nitrobenzene-d5	SPI2S2010/2011	PP01	KWG1104595	84	27	91	OK
	K1104431	Nitrobenzene-d5	SPI1S2010/2011	PP01	KWG1104595	67	27	91	OK
	K1104431	Phenol-d6	SPI1S2010/2011	PP01	KWG1104595	58	20	86	OK
	K1104431	Phenol-d6	SPI2S2010/2011	PP01	KWG1104595	75	20	86	OK
	K1104431	p-Terphenyl-d14	SPI2S2010/2011	PP01	KWG1104595	136	33	129	FAIL
	K1104431	p-Terphenyl-d14	SPI1S2010/2011	PP01	KWG1104595	109	33	129	OK

Table 5. LCS SUMMARY

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1613B	1,2,3,4,6,7,8-Heptachloro	CK11	K1104431	133967	OK	NA	NA
	1,2,3,4,6,7,8-Heptachloro	DK11	K1104431	133967	NA	OK	OK
	1,2,3,4,6,7,8-HpCDD	CK11	K1104431	133967	OK	NA	NA
	1,2,3,4,6,7,8-HpCDD	DK11	K1104431	133967	NA	OK	NA
	1,2,3,4,7,8,9-Heptachloro	CK11	K1104431	133967	OK	NA	NA
	1,2,3,4,7,8,9-Heptachloro	DK11	K1104431	133967	NA	OK	NA
	1,2,3,4,7,8-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	1,2,3,4,7,8-Hexachlorodib	DK11	K1104431	133967	NA	OK	NA
	1,2,3,4,7,8-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	1,2,3,4,7,8-Hexachlorodib	DK11	K1104431	133967	NA	OK	OK
	1,2,3,6,7,8-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	1,2,3,6,7,8-Hexachlorodib	DK11	K1104431	133967	NA	OK	NA
	1,2,3,6,7,8-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	1,2,3,6,7,8-Hexachlorodib	DK11	K1104431	133967	NA	OK	OK
	1,2,3,7,8,9-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	1,2,3,7,8,9-Hexachlorodib	DK11	K1104431	133967	NA	OK	NA
	1,2,3,7,8,9-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	1,2,3,7,8,9-Hexachlorodib	DK11	K1104431	133967	NA	OK	OK
	1,2,3,7,8-Pentachlorodibe	CK11	K1104431	133967	OK	NA	NA
	1,2,3,7,8-Pentachlorodibe	DK11	K1104431	133967	NA	OK	NA
	1,2,3,7,8-Pentachlorodibe	CK11	K1104431	133967	OK	NA	NA
	1,2,3,7,8-Pentachlorodibe	DK11	K1104431	133967	NA	OK	OK
	2,3,4,6,7,8-Hexachlorodib	CK11	K1104431	133967	OK	NA	NA
	2,3,4,6,7,8-Hexachlorodib	DK11	K1104431	133967	NA	OK	OK
	2,3,4,7,8-Pentachlorodibe	CK11	K1104431	133967	OK	NA	NA
	2,3,4,7,8-Pentachlorodibe	DK11	K1104431	133967	NA	OK	NA
	2,3,7,8-Tetrachlorodibenz	CK11	K1104431	133967	OK	NA	NA
	2,3,7,8-Tetrachlorodibenz	DK11	K1104431	133967	NA	OK	OK
	2,3,7,8-Tetrachlorodibenz	CK11	K1104431	133967	OK	NA	NA
	2,3,7,8-Tetrachlorodibenz	DK11	K1104431	133967	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1613B	Octachlorodibenzofuran	CK11	K1104431	133967	OK	NA	NA
	Octachlorodibenzofuran	DK11	K1104431	133967	NA	OK	OK
	Octachlorodibenzo-p-diox	CK11	K1104431	133967	OK	NA	NA
	Octachlorodibenzo-p-diox	DK11	K1104431	133967	NA	OK	NA
6010C	Aluminum, Total	CK11	K1104431	134901	OK	NA	NA
	Iron, Total	CK11	K1104431	134901	OK	NA	NA
	Manganese, Total	CK11	K1104431	134901	OK	NA	NA
	Zinc, Total	CK11	K1104431	134901	OK	NA	NA
6020A	Antimony, Total	CK11	K1104431	134901M	OK	NA	NA
	Arsenic, Total	CK11	K1104431	134897	OK	NA	NA
	Cadmium, Total	CK11	K1104431	134897	OK	NA	NA
	Chromium, Total	CK11	K1104431	134897	OK	NA	NA
	Copper, Total	CK11	K1104431	134897	OK	NA	NA
	Lead, Total	CK11	K1104431	134897	OK	NA	NA
	Molybdenum, Total	CK11	K1104431	134897	OK	NA	NA
	Nickel, Total	CK11	K1104431	134897	OK	NA	NA
	Selenium, Total	CK11	K1104431	134897	OK	NA	NA
	Silver, Total	CK11	K1104431	134901M	OK	NA	NA
7471B	Mercury, Total	CK11	K1104431	135041	OK	NA	NA
8081B	2,4'-DDD	CK11	K1104431	KWG1104909	OK	NA	NA
	2,4'-DDE	CK11	K1104431	KWG1104909	OK	NA	NA
	2,4'-DDT	CK11	K1104431	KWG1104909	OK	NA	NA
	4,4'-DDD	CK11	K1104431	KWG1104909	OK	NA	NA
	4,4'-DDE	CK11	K1104431	KWG1104909	OK	NA	NA
	4,4'-DDT	CK11	K1104431	KWG1104909	OK	NA	NA
	Aldrin	CK11	K1104431	KWG1104909	OK	NA	NA
	alpha-BHC	CK11	K1104431	KWG1104909	OK	NA	NA
	alpha-Chlordane	CK11	K1104431	KWG1104909	OK	NA	NA
	beta-BHC	CK11	K1104431	KWG1104909	OK	NA	NA
	Chlordane	CK11	K1104431	KWG1104909	OK	NA	NA
	cis-Nonachlor	CK11	K1104431	KWG1104909	OK	NA	NA
	delta-BHC	CK11	K1104431	KWG1104909	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	Dieldrin	CK11	K1104431	KWG1104909	OK	NA	NA
	Endosulfan I	CK11	K1104431	KWG1104909	OK	NA	NA
	Endosulfan II	CK11	K1104431	KWG1104909	OK	NA	NA
	Endosulfan Sulfate	CK11	K1104431	KWG1104909	OK	NA	NA
	Endrin	CK11	K1104431	KWG1104909	OK	NA	NA
	Endrin Aldehyde	CK11	K1104431	KWG1104909	OK	NA	NA
	Endrin Ketone	CK11	K1104431	KWG1104909	OK	NA	NA
	gamma-BHC	CK11	K1104431	KWG1104909	OK	NA	NA
	gamma-Chlordane	CK11	K1104431	KWG1104909	OK	NA	NA
	Heptachlor	CK11	K1104431	KWG1104909	OK	NA	NA
	Heptachlor Epoxide	CK11	K1104431	KWG1104909	OK	NA	NA
	Hexachlorobenzene	CK11	K1104431	KWG1104909	OK	NA	NA
	Methoxychlor	CK11	K1104431	KWG1104909	OK	NA	NA
	Oxychlordane	CK11	K1104431	KWG1104909	OK	NA	NA
	Toxaphene	CK11	K1104431	KWG1104909	OK	NA	NA
	trans-Nonachlor	CK11	K1104431	KWG1104909	OK	NA	NA
8082A	2,2',3,3',4,4',5,5',6-Nonac	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,3',4,4',5,6-Octachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,3',4,4',5-Heptachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,3',4,4'-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4,4',5,5'-Heptachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4,4',5',6-Heptachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4,4',5'-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4,4',6,6'-Heptachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4',5,5',6-Heptachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4',5-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,4,5'-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',3,5'-Tetrachlorobiphe	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',4,4',5,5'-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',4,5,5'-Pentachlorobip	CK11	K1104431	KWG1104907	NA	NA	NA
	2,2',5,5'-Tetrachlorobiphe	CK11	K1104431	KWG1104907	OK	NA	NA
	2,2',5-Trichlorobiphenyl	CK11	K1104431	KWG1104907	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8082A	2,3,3',4,4',5,5'-Heptachlor	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,3',4,4',5'-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,3',4,4',5-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,3',4,4',6-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,3',4,4'-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3',4,4',5,5'-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,4,4',5,6-Hexachlorobip	CK11	K1104431	KWG1104907	NA	NA	NA
	2',3,4,4',5-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3',4,4',5-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,4,4',5-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3',4,4'-Tetrachlorobiphe	CK11	K1104431	KWG1104907	OK	NA	NA
	2,3,4,4'-Tetrachlorobiphe	CK11	K1104431	KWG1104907	OK	NA	NA
	2,4,4'-Trichlorobiphenyl	CK11	K1104431	KWG1104907	OK	NA	NA
	2,4'-Dichlorobiphenyl	CK11	K1104431	KWG1104907	OK	NA	NA
	3,3',4,4',5,5'-Hexachlorobi	CK11	K1104431	KWG1104907	OK	NA	NA
	3,3',4,4',5-Pentachlorobip	CK11	K1104431	KWG1104907	OK	NA	NA
	3,3',4,4'-Tetrachlorobiphe	CK11	K1104431	KWG1104907	OK	NA	NA
	3,4,4',5-Tetrachlorobiphe	CK11	K1104431	KWG1104907	OK	NA	NA
	Decachlorobiphenyl	CK11	K1104431	KWG1104907	OK	NA	NA
8270C	1,2,4-Trichlorobenzene	CK11	K1104431	KWG1104595	OK	NA	NA
	1,2,4-Trichlorobenzene	DK11	K1104431	KWG1104595	NA	OK	OK
	1,2-Dichlorobenzene	CK11	K1104431	KWG1104595	OK	NA	NA
	1,2-Dichlorobenzene	DK11	K1104431	KWG1104595	NA	OK	OK
	1,3-Dichlorobenzene	CK11	K1104431	KWG1104595	OK	NA	NA
	1,3-Dichlorobenzene	DK11	K1104431	KWG1104595	NA	OK	OK
	1,4-Dichlorobenzene	CK11	K1104431	KWG1104595	OK	NA	NA
	1,4-Dichlorobenzene	DK11	K1104431	KWG1104595	NA	OK	OK
	2,4,5-Trichlorophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2,4,5-Trichlorophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2,4,6-Trichlorophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2,4,6-Trichlorophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2,4-Dichlorophenol	CK11	K1104431	KWG1104595	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	2,4-Dichlorophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2,4-Dimethylphenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2,4-Dimethylphenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2,4-Dinitrophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2,4-Dinitrophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2,4-Dinitrotoluene	CK11	K1104431	KWG1104595	OK	NA	NA
	2,4-Dinitrotoluene	DK11	K1104431	KWG1104595	NA	OK	OK
	2,6-Dinitrotoluene	CK11	K1104431	KWG1104595	OK	NA	NA
	2,6-Dinitrotoluene	DK11	K1104431	KWG1104595	NA	OK	OK
	2-Chloronaphthalene	CK11	K1104431	KWG1104595	OK	NA	NA
	2-Chloronaphthalene	DK11	K1104431	KWG1104595	NA	OK	OK
	2-Chlorophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2-Chlorophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2-Methylphenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2-Methylphenol	DK11	K1104431	KWG1104595	NA	OK	OK
	2-Nitroaniline	CK11	K1104431	KWG1104595	OK	NA	NA
	2-Nitroaniline	DK11	K1104431	KWG1104595	NA	OK	OK
	2-Nitrophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	2-Nitrophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	3,3'-Dichlorobenzidine	CK11	K1104431	KWG1104595	OK	NA	NA
	3,3'-Dichlorobenzidine	DK11	K1104431	KWG1104595	NA	OK	OK
	3-Nitroaniline	CK11	K1104431	KWG1104595	OK	NA	NA
	3-Nitroaniline	DK11	K1104431	KWG1104595	NA	OK	OK
	4,6-Dinitro-2-methylphen	CK11	K1104431	KWG1104595	OK	NA	NA
	4,6-Dinitro-2-methylphen	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Bromophenyl Phenyl Et	CK11	K1104431	KWG1104595	OK	NA	NA
	4-Bromophenyl Phenyl Et	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Chloro-3-methylphenol	CK11	K1104431	KWG1104595	OK	NA	NA
	4-Chloro-3-methylphenol	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Chloroaniline	CK11	K1104431	KWG1104595	OK	NA	NA
	4-Chloroaniline	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Chlorophenyl Phenyl Et	CK11	K1104431	KWG1104595	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	4-Chlorophenyl Phenyl Et	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Methylphenol	CK11	K1104431	KWG1104595	OK	NA	NA
	4-Methylphenol	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Nitroaniline	CK11	K1104431	KWG1104595	OK	NA	NA
	4-Nitroaniline	DK11	K1104431	KWG1104595	NA	OK	OK
	4-Nitrophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	4-Nitrophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	Benzoic Acid	CK11	K1104431	KWG1104595	OK	NA	NA
	Benzoic Acid	DK11	K1104431	KWG1104595	NA	OK	EXCEEDS RPD
	Benzyl Alcohol	CK11	K1104431	KWG1104595	OK	NA	NA
	Benzyl Alcohol	DK11	K1104431	KWG1104595	NA	OK	OK
	Bis(2-chloroethoxy)metha	CK11	K1104431	KWG1104595	OK	NA	NA
	Bis(2-chloroethoxy)metha	DK11	K1104431	KWG1104595	NA	OK	OK
	Bis(2-chloroethyl) Ether	CK11	K1104431	KWG1104595	OK	NA	NA
	Bis(2-chloroethyl) Ether	DK11	K1104431	KWG1104595	NA	OK	OK
	Bis(2-chloroisopropyl) Eth	CK11	K1104431	KWG1104595	OK	NA	NA
	Bis(2-chloroisopropyl) Eth	DK11	K1104431	KWG1104595	NA	OK	OK
	Bis(2-ethylhexyl) Phthalat	CK11	K1104431	KWG1104595	OK	NA	NA
	Bis(2-ethylhexyl) Phthalat	DK11	K1104431	KWG1104595	NA	OK	OK
	Butyl Benzyl Phthalate	CK11	K1104431	KWG1104595	OK	NA	NA
	Butyl Benzyl Phthalate	DK11	K1104431	KWG1104595	NA	OK	OK
	Dibenzofuran	CK11	K1104431	KWG1104595	OK	NA	NA
	Dibenzofuran	DK11	K1104431	KWG1104595	NA	OK	OK
	Diethyl Phthalate	CK11	K1104431	KWG1104595	OK	NA	NA
	Diethyl Phthalate	DK11	K1104431	KWG1104595	NA	OK	OK
	Dimethyl Phthalate	CK11	K1104431	KWG1104595	OK	NA	NA
	Dimethyl Phthalate	DK11	K1104431	KWG1104595	NA	OK	OK
	Di-n-butyl Phthalate	CK11	K1104431	KWG1104595	OK	NA	NA
	Di-n-butyl Phthalate	DK11	K1104431	KWG1104595	NA	OK	OK
	Di-n-octyl Phthalate	CK11	K1104431	KWG1104595	OK	NA	NA
	Di-n-octyl Phthalate	DK11	K1104431	KWG1104595	NA	OK	OK
	Hexachlorobenzene	CK11	K1104431	KWG1104595	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Hexachlorobenzene	DK11	K1104431	KWG1104595	NA	OK	OK
	Hexachlorobutadiene	CK11	K1104431	KWG1104595	OK	NA	NA
	Hexachlorobutadiene	DK11	K1104431	KWG1104595	NA	OK	OK
	Hexachlorocyclopentadie	CK11	K1104431	KWG1104595	OK	NA	NA
	Hexachlorocyclopentadie	DK11	K1104431	KWG1104595	NA	OK	OK
	Hexachloroethane	CK11	K1104431	KWG1104595	OK	NA	NA
	Hexachloroethane	DK11	K1104431	KWG1104595	NA	OK	OK
	Isophorone	CK11	K1104431	KWG1104595	OK	NA	NA
	Isophorone	DK11	K1104431	KWG1104595	NA	OK	OK
	Nitrobenzene	CK11	K1104431	KWG1104595	OK	NA	NA
	Nitrobenzene	DK11	K1104431	KWG1104595	NA	OK	OK
	N-Nitrosodimethylamine	CK11	K1104431	KWG1104595	OK	NA	NA
	N-Nitrosodimethylamine	DK11	K1104431	KWG1104595	NA	OK	OK
	N-Nitrosodi-n-propylamin	CK11	K1104431	KWG1104595	OK	NA	NA
	N-Nitrosodi-n-propylamin	DK11	K1104431	KWG1104595	NA	OK	OK
	N-Nitrosodiphenylamine	CK11	K1104431	KWG1104595	OK	NA	NA
	N-Nitrosodiphenylamine	DK11	K1104431	KWG1104595	NA	OK	OK
	Pentachlorophenol	CK11	K1104431	KWG1104595	OK	NA	NA
	Pentachlorophenol	DK11	K1104431	KWG1104595	NA	OK	OK
	Phenol	CK11	K1104431	KWG1104595	OK	NA	NA
	Phenol	DK11	K1104431	KWG1104595	NA	OK	OK

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Date Collected:**	05/10/11
Project Name:	Portland Facility	**Date Received:**	05/18/11
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: SPI-1-S-2010/2011 **Lab Code:** K1104431-004

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010C	15.6	9.4	2.0	05/31/11	06/02/11	13200		
Antimony	6020A	0.078	0.014	5.0	05/31/11	06/02/11	9.410		N
Arsenic	6020A	1.57	0.16	10.0	05/31/11	06/02/11	3.45		
Cadmium	6020A	0.063	0.013	10.0	05/31/11	06/02/11	6.360		
Chromium	6020A	0.63	0.05	10.0	05/31/11	06/02/11	46.6		
Copper	6020A	0.31	0.25	10.0	05/31/11	06/02/11	126		
Iron	6010C	6.2	0.5	2.0	05/31/11	06/02/11	37100		
Lead	6020A	0.157	0.019	10.0	05/31/11	06/02/11	138		
Manganese	6010C	3.12	0.06	2.0	05/31/11	06/02/11	386		
Mercury	7471B	0.019	0.002	1.0	06/02/11	06/02/11	0.086		
Molybdenum	6020A	0.16	0.06	10.0	05/31/11	06/02/11	6.66		
Nickel	6020A	0.63	0.06	10.0	05/31/11	06/02/11	34.0		
Selenium	6020A	3.1	0.6	10.0	05/31/11	06/02/11	0.9	J	J
Silver	6020A	0.031	0.012	5.0	05/31/11	06/02/11	0.446		
Zinc	6010C	3.1	0.5	2.0	05/31/11	06/02/11	820		

% Solids: 62.4

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1104431
Project No.:	NA	**Date Collected:**	05/10/11
Project Name:	Portland Facility	**Date Received:**	05/18/11
Matrix:	SOIL	**Units:**	mg/Kg
		Basis:	DRY

Sample Name: SPI-2-S-2010/2011 **Lab Code:** K1104431-008

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	6010C	12.7	7.6	2.0	05/31/11	06/02/11	10700		
Antimony	6020A	0.063	0.011	5.0	05/31/11	06/02/11	2.250		N
Arsenic	6020A	1.39	0.14	10.0	05/31/11	06/02/11	3.38		
Cadmium	6020A	0.056	0.011	10.0	05/31/11	06/02/11	5.340		
Chromium	6020A	0.56	0.04	10.0	05/31/11	06/02/11	51.8		
Copper	6020A	0.28	0.22	10.0	05/31/11	06/02/11	118		
Iron	6010C	5.1	0.4	2.0	05/31/11	06/02/11	30200		
Lead	6020A	0.139	0.017	10.0	05/31/11	06/02/11	370		
Manganese	6010C	2.54	0.05	2.0	05/31/11	06/02/11	363		
Mercury	7471B	0.019	0.002	1.0	06/02/11	06/02/11	0.117		
Molybdenum	6020A	0.14	0.06	10.0	05/31/11	06/02/11	3.25		
Nickel	6020A	0.56	0.06	10.0	05/31/11	06/02/11	39.6		
Selenium	6020A	2.8	0.6	10.0	05/31/11	06/02/11	0.6	J	J
Silver	6020A	0.025	0.010	5.0	05/31/11	06/02/11	0.258		
Zinc	6010C	2.5	0.4	2.0	05/31/11	06/02/11	563		

% Solids: 69.6

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Organochlorine Pesticides

Sample Name: SPI-1-S-2010/2011
Lab Code: K1104431-004

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	**0.64**	JP J	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
Hexachlorobenzene	ND	Ui	3.3	0.89	1	05/24/11	06/09/11	KWG1104909	
beta-BHC	ND	U	3.3	0.58	1	05/24/11	06/09/11	KWG1104909	
gamma-BHC (Lindane)	**2.1**	JP J	3.3	0.26	1	05/24/11	06/09/11	KWG1104909	
delta-BHC	ND	Ui	3.3	0.88	1	05/24/11	06/09/11	KWG1104909	
Heptachlor	ND	Ui	4.7	4.7	1	05/24/11	06/09/11	KWG1104909	
Aldrin	ND	Ui	3.3	1.6	1	05/24/11	06/09/11	KWG1104909	
Heptachlor Epoxide	ND	Ui	3.3	0.41	1	05/24/11	06/09/11	KWG1104909	
gamma-Chlordane†	**8.3**		3.3	0.29	1	05/24/11	06/09/11	KWG1104909	
Endosulfan I	ND	Ui	5.1	5.1	1	05/24/11	06/09/11	KWG1104909	
alpha-Chlordane	**3.6**	P	3.3	0.33	1	05/24/11	06/09/11	KWG1104909	
Dieldrin	ND	Ui	3.3	2.0	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDE	**4.6**	P	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
Endrin	ND	Ui	3.3	0.34	1	05/24/11	06/09/11	KWG1104909	
Endosulfan II	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDD	**3.3**	P	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
Endrin Aldehyde	**1.6**	J J	3.3	0.39	1	05/24/11	06/09/11	KWG1104909	
Endosulfan Sulfate	**3.9**	P	3.3	0.36	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDT	ND	Ui	5.4	5.4	1	05/24/11	06/09/11	KWG1104909	
Endrin Ketone	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
Methoxychlor	**8.0**	P	3.3	0.61	1	05/24/11	06/09/11	KWG1104909	
Toxaphene	ND	Ui	200	200	1	05/24/11	06/09/11	KWG1104909	
Chlordane	**110**		33	6.1	1	05/24/11	06/09/11	KWG1104909	
Oxychlordane	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDE	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
cis-Nonachlor	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDD	ND	Ui	3.3	3.3	1	05/24/11	06/09/11	KWG1104909	
trans-Nonachlor	**2.7**	JP J	3.3	0.28	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDT	**2.0**	JP J	3.3	0.19	1	05/24/11	06/09/11	KWG1104909	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Organochlorine Pesticides

Sample Name: SPI-2-S-2010/2011
Lab Code: K1104431-008

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	Ui	3.0	0.49	1	05/24/11	06/09/11	KWG1104909	
Hexachlorobenzene	**4.6**		3.0	0.59	1	05/24/11	06/09/11	KWG1104909	
beta-BHC	**8.2**		3.0	0.54	1	05/24/11	06/09/11	KWG1104909	
gamma-BHC (Lindane)	**1.3**	JP J	3.0	0.24	1	05/24/11	06/09/11	KWG1104909	
delta-BHC	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
Heptachlor	**2.8**	JP J	3.0	0.36	1	05/24/11	06/09/11	KWG1104909	
Aldrin	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
Heptachlor Epoxide	ND	U	3.0	0.25	1	05/24/11	06/09/11	KWG1104909	
gamma-Chlordane†	**18**		3.0	0.27	1	05/24/11	06/09/11	KWG1104909	
Endosulfan I	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
alpha-Chlordane	**5.4**		3.0	0.30	1	05/24/11	06/09/11	KWG1104909	
Dieldrin	**1.0**	J J	3.0	0.42	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDE	**4.2**	P	3.0	0.33	1	05/24/11	06/09/11	KWG1104909	
Endrin	ND	U	3.0	0.28	1	05/24/11	06/09/11	KWG1104909	
Endosulfan II	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDD	**6.9**		3.0	0.33	1	05/24/11	06/09/11	KWG1104909	
Endrin Aldehyde	**2.9**	J J	3.0	0.36	1	05/24/11	06/09/11	KWG1104909	
Endosulfan Sulfate	**0.87**	JP J	3.0	0.33	1	05/24/11	06/09/11	KWG1104909	
4,4'-DDT	ND	Ui	8.2	8.2	1	05/24/11	06/09/11	KWG1104909	
Endrin Ketone	ND	Ui	5.8	5.8	1	05/24/11	06/09/11	KWG1104909	
Methoxychlor	ND	Ui	3.0	3.0	1	05/24/11	06/09/11	KWG1104909	
Toxaphene	ND	Ui	240	240	1	05/24/11	06/09/11	KWG1104909	
Chlordane	**110**		30	5.6	1	05/24/11	06/09/11	KWG1104909	
Oxychlordane	**5.3**	P	3.0	0.26	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDE	ND	Ui	3.0	2.4	1	05/24/11	06/09/11	KWG1104909	
cis-Nonachlor	ND	Ui	4.1	4.1	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDD	**7.6**		3.0	0.39	1	05/24/11	06/09/11	KWG1104909	
trans-Nonachlor	**4.1**		3.0	0.26	1	05/24/11	06/09/11	KWG1104909	
2,4'-DDT	**3.7**	P	3.0	0.18	1	05/24/11	06/09/11	KWG1104909	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Congener Specific PCBs

Sample Name: SPI-1-S-2010/2011
Lab Code: K1104431-004

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8082A

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	ND	U	1.7	0.68	1	05/24/11	06/02/11	KWG1104907	
PCB 18	ND	Ui	3.9	3.9	1	05/24/11	06/02/11	KWG1104907	
PCB 28	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 44	**3.4**	P	1.7	0.21	1	05/24/11	06/02/11	KWG1104907	
PCB 52	**3.5**		1.7	0.19	1	05/24/11	06/02/11	KWG1104907	
PCB 66	**2.7**	P	1.7	0.12	1	05/24/11	06/02/11	KWG1104907	
PCB 87	ND	Ui	3.0	3.0	1	05/24/11	06/02/11	KWG1104907	
PCB 101	**7.5**	P	1.7	0.16	1	05/24/11	06/02/11	KWG1104907	
PCB 114	ND	Ui	1.7	0.15	1	05/24/11	06/02/11	KWG1104907	
PCB 123	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 138	**9.9**		1.7	0.21	1	05/24/11	06/02/11	KWG1104907	
PCB 156	**1.5**	J J	1.7	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 167	ND	Ui	2.0	2.0	1	05/24/11	06/02/11	KWG1104907	
PCB 180	ND	Ui	7.5	7.5	1	05/24/11	06/02/11	KWG1104907	
PCB 183	**2.4**		1.7	0.26	1	05/24/11	06/02/11	KWG1104907	
PCB 184	ND	U	1.7	0.17	1	05/24/11	06/02/11	KWG1104907	
PCB 187	**3.2**		1.7	0.16	1	05/24/11	06/02/11	KWG1104907	
PCB 189	ND	U	1.7	0.093	1	05/24/11	06/02/11	KWG1104907	
PCB 195	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 206	**0.72**	J J	1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 209	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 60	ND	Ui	12	12	1	05/24/11	06/02/11	KWG1104907	
PCB 77	ND	Ui	1.7	1.7	1	05/24/11	06/02/11	KWG1104907	
PCB 81	**9.0**	P	1.7	0.17	1	05/24/11	06/02/11	KWG1104907	
PCB 90	ND	Ui	1.8	1.8	1	05/24/11	06/02/11	KWG1104907	
PCB 105	ND	Ui	4.6	4.6	1	05/24/11	06/02/11	KWG1104907	
PCB 118	**4.7**		1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 126	**0.54**	JP J	1.7	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 128	**1.5**	J J	1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 153	**7.4**	P	1.7	0.13	1	05/24/11	06/02/11	KWG1104907	
PCB 157	ND	U	1.7	0.10	1	05/24/11	06/02/11	KWG1104907	
PCB 158	ND	Ui	3.9	3.9	1	05/24/11	06/02/11	KWG1104907	
PCB 166	ND	Ui	2.0	2.0	1	05/24/11	06/02/11	KWG1104907	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Congener Specific PCBs

Sample Name:	SPI-1-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 169	**0.51**	JP J	1.7	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 170	**2.9**		1.7	0.084	1	05/24/11	06/02/11	KWG1104907	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	106	10-135	06/02/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1104431
Project:	Portland Facility	**Date Collected:**	05/10/2011
Sample Matrix:	Soil	**Date Received:**	05/18/2011

Congener Specific PCBs

Sample Name:	SPI-2-S-2010/2011	**Units:**	ug/Kg
Lab Code:	K1104431-008	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8082A		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
PCB 8	**12**		1.5	0.62	1	05/24/11	06/02/11	KWG1104907	
PCB 18	ND	Ui	13	13	1	05/24/11	06/02/11	KWG1104907	
PCB 28	ND	Ui	2.1	2.1	1	05/24/11	06/02/11	KWG1104907	
PCB 44	**4.2**		1.5	0.20	1	05/24/11	06/02/11	KWG1104907	
PCB 52	**6.2**		1.5	0.18	1	05/24/11	06/02/11	KWG1104907	
PCB 66	**4.4**		1.5	0.11	1	05/24/11	06/02/11	KWG1104907	
PCB 87	ND	Ui	2.4	2.4	1	05/24/11	06/02/11	KWG1104907	
PCB 101	ND	Ui	11	11	1	05/24/11	06/02/11	KWG1104907	
PCB 114	ND	Ui	1.5	1.5	1	05/24/11	06/02/11	KWG1104907	
PCB 123	**4.7**	P	1.5	0.20	1	05/24/11	06/02/11	KWG1104907	
PCB 138	**8.4**		1.5	0.19	1	05/24/11	06/02/11	KWG1104907	
PCB 156	ND	Ui	1.6	1.6	1	05/24/11	06/02/11	KWG1104907	
PCB 167	ND	Ui	1.5	1.5	1	05/24/11	06/02/11	KWG1104907	
PCB 180	**8.8**	P	1.5	0.28	1	05/24/11	06/02/11	KWG1104907	
PCB 183	**3.2**		1.5	0.24	1	05/24/11	06/02/11	KWG1104907	
PCB 184	ND	U	1.5	0.16	1	05/24/11	06/02/11	KWG1104907	
PCB 187	**6.5**		1.5	0.14	1	05/24/11	06/02/11	KWG1104907	
PCB 189	ND	U	1.5	0.086	1	05/24/11	06/02/11	KWG1104907	
PCB 195	**0.85**	J J	1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 206	**5.6**		1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 209	**1.4**	J J	1.5	0.13	1	05/24/11	06/02/11	KWG1104907	
PCB 60	ND	Ui	30	30	1	05/24/11	06/02/11	KWG1104907	
PCB 77	ND	Ui	7.2	7.2	1	05/24/11	06/02/11	KWG1104907	
PCB 81	**8.8**	P	1.5	0.15	1	05/24/11	06/02/11	KWG1104907	
PCB 90	ND	Ui	2.3	2.3	1	05/24/11	06/02/11	KWG1104907	
PCB 105	**2.4**	P	1.5	0.098	1	05/24/11	06/02/11	KWG1104907	
PCB 118	**4.3**		1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 126	**4.7**	P	1.5	0.13	1	05/24/11	06/02/11	KWG1104907	
PCB 128	**0.77**	JP J	1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 153	**9.3**		1.5	0.12	1	05/24/11	06/02/11	KWG1104907	
PCB 157	**0.80**	J J	1.5	0.092	1	05/24/11	06/02/11	KWG1104907	
PCB 158	**2.2**	P	1.5	0.083	1	05/24/11	06/02/11	KWG1104907	
PCB 166	ND	Ui	2.6	2.6	1	05/24/11	06/02/11	KWG1104907	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-1-S-2010/2011
Lab Code: K1104431-004

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	8800	540	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethyl) Ether	ND	U	880	170	20	05/23/11	06/06/11	KWG1104595	
Phenol	ND	U	2700	180	20	05/23/11	06/06/11	KWG1104595	
2-Chlorophenol	ND	U	880	180	20	05/23/11	06/06/11	KWG1104595	
1,3-Dichlorobenzene	ND	U	880	270	20	05/23/11	06/06/11	KWG1104595	
1,4-Dichlorobenzene	ND	U	880	260	20	05/23/11	06/06/11	KWG1104595	
1,2-Dichlorobenzene	ND	U	880	260	20	05/23/11	06/06/11	KWG1104595	
Benzyl Alcohol	ND	U	1800	190	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroisopropyl) Ether	ND	U	880	230	20	05/23/11	06/06/11	KWG1104595	
2-Methylphenol	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
Hexachloroethane	ND	U	880	280	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodi-n-propylamine	ND	U	880	220	20	05/23/11	06/06/11	KWG1104595	
4-Methylphenol†	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
Nitrobenzene	ND	U	880	200	20	05/23/11	06/06/11	KWG1104595	
Isophorone	ND	U	880	88	20	05/23/11	06/06/11	KWG1104595	
2-Nitrophenol	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
2,4-Dimethylphenol	ND	U	4400	490	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethoxy)methane	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
2,4-Dichlorophenol	ND	U	880	88	20	05/23/11	06/06/11	KWG1104595	
Benzoic Acid	ND	U	18000	8500	20	05/23/11	06/06/11	KWG1104595	
1,2,4-Trichlorobenzene	ND	U	880	230	20	05/23/11	06/06/11	KWG1104595	
4-Chloroaniline	ND	U	880	170	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobutadiene	ND	U	880	220	20	05/23/11	06/06/11	KWG1104595	
4-Chloro-3-methylphenol	ND	U	880	130	20	05/23/11	06/06/11	KWG1104595	
Hexachlorocyclopentadiene	ND	U	4400	2600	20	05/23/11	06/06/11	KWG1104595	
2,4,6-Trichlorophenol	ND	U	880	130	20	05/23/11	06/06/11	KWG1104595	
2,4,5-Trichlorophenol	ND	U	880	140	20	05/23/11	06/06/11	KWG1104595	
2-Chloronaphthalene	ND	U	880	150	20	05/23/11	06/06/11	KWG1104595	
2-Nitroaniline	ND	U	1800	290	20	05/23/11	06/06/11	KWG1104595	
Dimethyl Phthalate	**140**	JD	880	88	20	05/23/11	06/06/11	KWG1104595	J
2,6-Dinitrotoluene	ND	U	880	180	20	05/23/11	06/06/11	KWG1104595	
3-Nitroaniline	ND	U	1800	220	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrophenol	ND	U	18000	1500	20	05/23/11	06/06/11	KWG1104595	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-S-2010/2011
Lab Code: K1104431-008

Extraction Method: EPA 3541
Analysis Method: 8270C

Units: ug/Kg
Basis: Dry

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	7800	480	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethyl) Ether	ND	U	780	150	20	05/23/11	06/06/11	KWG1104595	
Phenol	ND	U	2400	160	20	05/23/11	06/06/11	KWG1104595	
2-Chlorophenol	ND	U	780	160	20	05/23/11	06/06/11	KWG1104595	
1,3-Dichlorobenzene	ND	U	780	240	20	05/23/11	06/06/11	KWG1104595	
1,4-Dichlorobenzene	ND	U	780	230	20	05/23/11	06/06/11	KWG1104595	
1,2-Dichlorobenzene	ND	U	780	230	20	05/23/11	06/06/11	KWG1104595	
Benzyl Alcohol	ND	U	1600	170	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroisopropyl) Ether	ND	U	780	210	20	05/23/11	06/06/11	KWG1104595	
2-Methylphenol	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
Hexachloroethane	ND	U	780	250	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodi-n-propylamine	ND	U	780	190	20	05/23/11	06/06/11	KWG1104595	
4-Methylphenol†	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
Nitrobenzene	ND	U	780	180	20	05/23/11	06/06/11	KWG1104595	
Isophorone	ND	U	780	78	20	05/23/11	06/06/11	KWG1104595	
2-Nitrophenol	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
2,4-Dimethylphenol	ND	U	3900	430	20	05/23/11	06/06/11	KWG1104595	
Bis(2-chloroethoxy)methane	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
2,4-Dichlorophenol	ND	U	780	78	20	05/23/11	06/06/11	KWG1104595	
Benzoic Acid	ND	U	16000	7500	20	05/23/11	06/06/11	KWG1104595	
1,2,4-Trichlorobenzene	ND	U	780	210	20	05/23/11	06/06/11	KWG1104595	
4-Chloroaniline	ND	U	780	150	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobutadiene	ND	U	780	200	20	05/23/11	06/06/11	KWG1104595	
4-Chloro-3-methylphenol	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
Hexachlorocyclopentadiene	ND	U	3900	2300	20	05/23/11	06/06/11	KWG1104595	
2,4,6-Trichlorophenol	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
2,4,5-Trichlorophenol	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
2-Chloronaphthalene	ND	U	780	130	20	05/23/11	06/06/11	KWG1104595	
2-Nitroaniline	ND	U	1600	250	20	05/23/11	06/06/11	KWG1104595	
Dimethyl Phthalate	**110**	JD J	780	78	20	05/23/11	06/06/11	KWG1104595	
2,6-Dinitrotoluene	ND	U	780	160	20	05/23/11	06/06/11	KWG1104595	
3-Nitroaniline	ND	U	1600	200	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrophenol	ND	U	16000	1400	20	05/23/11	06/06/11	KWG1104595	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Portland Facility
Sample Matrix: Soil

Service Request: K1104431
Date Collected: 05/10/2011
Date Received: 05/18/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-S-2010/2011
Lab Code: K1104431-008

Units: ug/Kg
Basis: Dry

Extraction Method: EPA 3541
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	780	94	20	05/23/11	06/06/11	KWG1104595	
4-Nitrophenol	ND	U	7800	1400	20	05/23/11	06/06/11	KWG1104595	
2,4-Dinitrotoluene	ND	U	780	120	20	05/23/11	06/06/11	KWG1104595	
4-Chlorophenyl Phenyl Ether	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
Diethyl Phthalate	ND	U	780	110	20	05/23/11	06/06/11	KWG1104595	
4-Nitroaniline	ND	U	1600	140	20	05/23/11	06/06/11	KWG1104595	
2-Methyl-4,6-dinitrophenol	ND	U	7800	110	20	05/23/11	06/06/11	KWG1104595	
N-Nitrosodiphenylamine	ND	U	780	130	20	05/23/11	06/06/11	KWG1104595	
4-Bromophenyl Phenyl Ether	ND	U	780	130	20	05/23/11	06/06/11	KWG1104595	
Hexachlorobenzene	ND	U	780	94	20	05/23/11	06/06/11	KWG1104595	
Pentachlorophenol	ND	U	7800	1600	20	05/23/11	06/06/11	KWG1104595	
Di-n-butyl Phthalate	**1000**	JD	1600	620	20	05/23/11	06/06/11	KWG1104595	J
Butyl Benzyl Phthalate	ND	U	780	250	20	05/23/11	06/06/11	KWG1104595	
3,3'-Dichlorobenzidine	ND	U	7800	290	20	05/23/11	06/06/11	KWG1104595	
Bis(2-ethylhexyl) Phthalate	**15000**	D	7800	550	20	05/23/11	06/06/11	KWG1104595	
Di-n-octyl Phthalate	**480**	JD	780	140	20	05/23/11	06/06/11	KWG1104595	J

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	69	11-80	06/06/11	Acceptable
Phenol-d6	75	20-86	06/06/11	Acceptable
Nitrobenzene-d5	84	27-91	06/06/11	Acceptable
2-Fluorobiphenyl	89	25-97	06/06/11	Acceptable
2,4,6-Tribromophenol	103	10-119	06/06/11	Acceptable
Terphenyl-d14	136	33-129	06/06/11	Outside Control Limits

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

Columbia Analytical Services™ 1317 S. 13th Avenue, Kelso, WA 98626 360.577.7222 360.636.1068 (fax) www.caslab.com

July 26, 2011 Analytical Report for Service Request No: K1105818

Brian O' Neal
PES Environmental
1215 Fourth Avenue, Suite 1350
P.O. Box 108
Seattle, WA 98161

RE: Univar Portland/165

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on June 28, 2011. For your reference, these analyses have been assigned our service request number K1105818.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3364. You may also contact me via Email at HHolmes@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Howard Holmes
Project Chemist

HH/lg

100% Recycled Paper

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.1 definition*: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

Columbia Analytical Services, Inc.
Kelso, WA
State Certifications, Accreditations, and Licenses

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
Florida DOH	E87412
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
Louisiana DEQ	3016
Louisiana DHH	LA050010
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon - DEQ	WA100010
South Carolina DHEC	61002
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	PES Environmental	**Service Request No.:**	K1105818
Project:	Univar Portland	**Date Received:**	6/28/11
Sample Matrix:	Water		

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), and Laboratory Control Sample (LCS).

Sample Receipt

Four water samples were received for analysis at Columbia Analytical Services on 6/28/11. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

Cyanide, Amenable to Chlorination by Standard Method 4500-CN G, E:
Total Cyanide was not detected in the field samples analyzed in this delivery group. The result reported for Cyanide Amenable to Chlorination is based on inference from the Total Cyanide determination (i.e. Cyanide Amenable to Chlorination is a subcomponent of the Total Cyanide). Since Total Cyanide was not detected, the Cyanide Amenable to Chlorination could not be present in the sample.

Free Cyanide by Method 9014:
The spike recovery of Free Cyanide for Laboratory Control Sample (LCS) was outside the lower control criterion. The analyte in question was not detected in the associated field samples. The error associated with reduced recovery indicated a potential low bias. Additional analysis of the Laboratory Control Sample was performed and yielded similar results. The data was flagged to indicate the problem.

No other anomalies associated with the analysis of these samples were observed.

Total and Dissolved Metals

No anomalies associated with the analysis of these samples were observed.

Diesel Range Organics by NWTPH-Dx

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for the replicate analysis of Diesel Range Organics (DRO) and Residual Range Organics (RRO) in samples SPI-564-W-062711 and SPI-3-W-6062711 was not applicable because the analyte concentration was not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

No other anomalies associated with the analysis of these samples were observed.

Approved by Howard Holmes **Date** 7-26-11

Organochlorine Pesticides by EPA Method 8081

Holding Time Exceptions and Lab Control Sample Exceptions:
The control criterion was exceeded for several analytes in Laboratory Control Sample (LCS). Since the problem may indicate a potential bias in the analytical batch, all associated field samples were re-extracted and re-analyzed 11 days past the recommended hold time. The LCS met control criteria for the reanalysis. However, the sample results from the reanalysis did not agree with the initial analysis. Since the reanalysis was in control, those results are reported. The data is flagged to indicate the problem.

Sample Confirmation Notes:
The confirmation comparison criteria of 40% difference for at least one analyte was exceeded in several samples. The lower of the two values was reported when no evidence of matrix interference was observed

Elevated Detection Limits:
The detection limit was elevated for several analytes in all samples. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

Matrix Spike Recovery Exceptions:
The control criteria for the matrix spike recovery of several analytes for sample Batch QC were not applicable. The chromatogram indicated non-target matrix background components contributed to the reported matrix spike concentrations. Thus, the reported recoveries contained a high bias. Based on the magnitude of background contribution, the interference appeared to be minimal.
The matrix spike recovery of Endrin Ketone for sample Batch QC was outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

No other anomalies associated with the analysis of these samples were observed.

Volatile Organic Compounds by EPA Method 8260

Calibration Verification Exceptions:
The following analytes were flagged as outside the lower control criterion for Continuing Calibration Verification (CCV) J:\MS13\0630F003.D: Bromomethane, Iodomethane, 2,2-Dichloropropane, trans-1,3-Dichloropropane, and Bromoform. In accordance with the EPA Method, 80% or more of the CCV analytes must pass within 20% of the true value. The CAS SOP allows for 40% difference for the remaining analytes. The CCV met these criteria. The quality of the sample data was not significantly affected. No further corrective action was required.

Sample Notes and Discussion:
The client requested 2-Chloroethyl Vinyl Ether (2-CVE) be included in the reported analyte list for sample Trip Blanks, no unpreserved vial was received for this sample. The analysis of 2-CVE in water by method 8260 requires the collection of an unpreserved sample. 2-Chloroethyl Vinyl Ether is highly reactive and preservation may accelerate loss by polymerization or other rapid chemical reaction. Therefore, the accuracy of results from a preserved sample cannot be guaranteed. In the future, if the client requires this analyte, both preserved an unpreserved samples need to be collected to accurately report 2-CVE and prevent missed holding times.

No other anomalies associated with the analysis of these samples were observed.

Semivolatile Organic Compounds by EPA Method 8270

Sample Notes and Discussion:
Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Approved by Howard Holmes **Date** 7-26-11

Lab Control Sample Exceptions:
The advisory criterion was exceeded for 3,3'-Dichlorobenzidine in Laboratory Control Sample (LCS) KWG1105973-1 and 2,4-Dimethylphenol in Duplicate Laboratory Control Sample (DLCS) KWG1105973-2. As per the CAS/Kelso Standard Operating Procedure (SOP) for this method, these compounds are not included in the subset of analytes used to control the analysis. The recovery information reported for these analytes is for advisory purposes only (i.e. to provide additional detail related to the performance of each individual compound). No further corrective action was required.

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) for 2,4-Dimethylphenol and 3,3'-Dichlorobenzidine in the replicate Laboratory Control Sample (LCS) analyses (KWG1105973-1 and KWG1105973-2) was outside control criteria. Reanalysis of the associated field samples was not performed because insufficient sample remained for additional testing. The data was flagged to indicate the problem.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

Surrogate Exceptions:
The upper control criterion was exceeded for Terphenyl-d14 in samples SPI-564-W-062711 and Method Blank. Target analytes associated with this surrogate were not detected in the samples above the MRL. The error associated with an elevated recovery equated to a high bias. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

Elevated Detection Limits:
The detection limit was elevated for Anthracene in sample SPI-564-W-062711and Benz(a)anthracene in samples SPI-1-W-062711, SPI-2-W-062711, SPI-3-W-062711. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

No other anomalies associated with the analysis of these samples were observed.

Approved by Howard Holmes **Date** 7-26-11

Chain of Custody

UNIVAR

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4153

Univar Chain of Custody/Laboratory Analysis Request Form

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility

Contractor Project Manager: Brian O'Neal

Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980

Sampler's Signature:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX		TSS by 2540D	TOC by 415.1	Total Metals by 200.8 *	Dissolved Iron by 200.7	Mercury by 1631M	VOCs by 8260B	SVOCs-LL by 8270C	REMARKS
SPI-564-W-062711	6/27/11	1000		H_2O	21	X	X	X	X	X	X	X	4 coolers total
SPI-1-W-062711	6/27/11	1100		H_2O	19	X	X	X	X	X	X	X	
SPI-2-W-062711	6/27/11	1300		H_2O	20	X	X	X	X	X	X	X	
SPI-3-W-062711	6/27/11	1430		H_2O	19	X	X	X	X	X	X	X	
Trip Blanks				H_2O	2						X		

Relinquished by/date:	/ 6/27/11
Received by/date:	/ 6/28/11 1345
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/
Relinquished by/date:	/
Received by/date:	/

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation	
Water Investigation/Remediation	165
Air-Soil Investigation or Remediation	
Waste	

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4153

* Metals = Al, As, Sb, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Ag, Se, Zn
Dissolved Fe NOT Field Filtered

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

10

UNIVAR

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Univar Chain of Custody/Laboratory Analysis Request Form

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility
Contractor Project Manager: Brian O'Neal
Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980
Sampler's Signature:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX	[redacted]	PAHs by 8270C-SIM	PCB Cogeners by 8082	Chl. Herbicides by 8151A	Org. Chl. Pesticides by 8081 (ULL)	Cyanide**	Oil & Grease by 1664	Diesel & Residual TPH by NTWPH-Dx	REMARKS:
SPI-SG4-W-062711	6/27	1000		H_2O	21	X			X	X	X	X	
SPI-1-W-062711	6/27	1100		H_2O	19	X			X	X	X	X	
SPI-2-W-062711	6/27	1300		H_2O	20	X			X	X	X	X	
SPI-3-W-062711	6/27	1430		H_2O	19	X			X	X	X	X	

Relinquished by/date:	[signature]	/ 6/27/11
Received by/date:	[signature]	/ 6/28/11 1340
Relinquished by/date:		/
Received by/date:		/
Relinquished by/date:		/
Received by/date:		/
Relinquished by/date:		/
Received by/date:		/

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation	
Water Investigation/Remediation	165
Air-Soil Investigation or Remediation	
Waste	

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

** total and amenable by 4500CNE; free by 9014

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Univar Chain of Custody/Laboratory Analysis Request Form

Univar USA Inc.
Univar Environmental Affairs
Tel 425/889-3715 Fax 425/889-4133

Bill to: Jennifer Thompson
Univar USA Inc.
PO Box 34325
Seattle, WA 98124-1325

Lab Name: Columbia Analytical Services
Address: Kelso, WA
Telephone: 360-577-7222

Univar Project Site: Portland Facility

Contractor Project Manager: Brian O'Neal

Firm: PES Environmental
Address: 1215 4th Avenue South, Ste. 1350
Seattle, WA 98161
Tel: 206-529-3980

Sampler's Signature:

REMARKS:

SAMPLE I.D.	DATE	TIME	LAB I.D.	MATRIX		Sulfides by 9030b	Sulfate by 300/9056	Ammonia as N by 350.1				
SPI-SG4-W-062711	6/27	1000		H_2O	21	X	X	X				
SPI-1-W-062711	6/27	1100		H_2O	19	X	X	X				
SPI-2-W-062711	6/27	1300		H_2O	20	X	X	X				
SPI-3-W-062711	6/27	1430		H_2O	19	X	X	X				

Relinquished by/date: / 6/27/11
Received by/date: / 6/28/11 0815
Relinquished by/date: /
Received by/date: /
Relinquished by/date: /
Received by/date: /
Relinquished by/date: /
Received by/date: /

Invoice Instructions – Univar to provide to Sampler
(Circle code. If multiple codes apply, note in Remarks)

Soil Investigation/Remediation
Water Investigation/Remediation 165
Air-Soil Investigation or Remediation
Waste

SPECIAL INSTRUCTIONS & COMMENTS:
Fax copy of lab results to Envir. Affairs Dept., 425/889-4133

see attached for details and priorities

cc Jennifer Thompson, Univar

REPORT REQUIREMENTS: (circle) I. Routine Report II. Report III. Data Validation Report IV. CLP Deliverable Report

//Requested Report Date: _____

TURNAROUND TIME: ____ 24 hr ____ 48 hr ____ 5 day X Standard (7-10 working days) ____ Provide Verbal Prelim. Results ____ Fax Prelim. Results

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

PC H2

Client / Project: PES Env. / Univar Service Request *K11* 5818

Received: 6/28/11 Opened: 6/28/11 By: SJ Unloaded: 6/28/11 By: SJ

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
5.8	3.6	297			
4.9	3.8	281			
5.8	3.3	290			
5.4	5.2	274			

7. Packing material used. *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Sleeves* *Other* _____
8. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
10. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
12. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
14. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
15. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

SHORT HOLD TIME

Notes, Discrepancies, & Resolutions: _____

General Chemistry Parameters

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
		Units:	mg/L
Analysis Method:	SM 2540 D	**Basis:**	NA

Solids, Total Suspended (TSS)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	ND	U	5.0	5.0	1	NA	6/29/11 05:30	
SPI-1-W-062711	K1105818-002	**5.5**		5.0	5.0	1	NA	6/29/11 05:30	
SPI-2-W-062711	K1105818-003	**9.0**		5.0	5.0	1	NA	6/29/11 05:30	
SPI-3-W-062711	K1105818-004	**10.5**		5.0	5.0	1	NA	6/29/11 05:30	
Method Blank	K1105818-MB1	ND	U	5.0	5.0	1	NA	6/29/11 05:30	
Method Blank	K1105818-MB2	ND	U	5.0	5.0	1	NA	6/29/11 05:30	
Method Blank	K1105818-MB3	ND	U	5.0	5.0	1	NA	6/29/11 05:30	
Method Blank	K1105818-MB4	ND	U	5.0	5.0	1	NA	6/29/11 05:30	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: NA
Date Received: NA
Date Analyzed: 6/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1105752-003

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1105752-003DUP1 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	6.7	6.7	141	131	136	8	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	6/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1105788-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1105788-001DUP3 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	20.0	18.5	19.3	8	10

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	6/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	Batch QC	**Units:**	mg/L
Lab Code:	K1105816-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1105816-001DUP4 Result	Average	RPD		RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	10.5	18.5	14.5	55	*	10

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: NA
Date Received: NA
Date Analyzed: 6/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: Batch QC
Lab Code: K1105867-001

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	Batch QCDUP Duplicate Sample K1105867-001DUP9 Result	Average	RPD	RPD Limit
Solids, Total Suspended (TSS)	SM 2540 D	5.0	5.0	15.0	15.0	15.0	<1	10

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 6/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	236	240	98	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 6/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	232	240	97	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 6/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS4 Result	Spike Amount	% Rec	% Rec Limits
Solids, Total Suspended (TSS)	SM 2540 D	234	240	98	80 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
Prep Method:	Method	**Units:**	mg/L
Analysis Method:	1664	**Basis:**	NA

Oil and Grease, Total (HEM)

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	ND	U	4.7	0.8	1	7/ 6/11	7/6/11 14:40	
SPI-1-W-062711	K1105818-002	**0.9**	J	4.8	0.8	1	7/ 6/11	7/6/11 14:40	
SPI-2-W-062711	K1105818-003	**0.8**	J	4.7	0.8	1	7/ 6/11	7/6/11 14:40	
SPI-3-W-062711	K1105818-004	ND	U	4.8	0.8	1	7/ 6/11	7/6/11 14:40	
Method Blank	K1105818-MB1	ND	U	5.0	0.8	1	7/ 6/11	7/6/11 14:40	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 6/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1105818-LCS1			Duplicate Lab Control Sample K1105818-DLCS1					
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Oil and Grease, Total (HEM)	1664	52.7	60.0	88	55.6	60.0	93	78 - 114	5	20

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11

Analysis Method: 300.0

Units: mg/L
Basis: NA

Sulfate

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	**0.36**	J	0.40	0.02	2	NA	6/28/11 22:38	
SPI-1-W-062711	K1105818-002	**1.17**		0.40	0.02	2	NA	6/28/11 22:52	
SPI-2-W-062711	K1105818-003	**15.3**		0.40	0.02	2	NA	6/29/11 12:00	
SPI-3-W-062711	K1105818-004	**15.9**		0.40	0.02	2	NA	6/29/11 12:14	
Method Blank	K1105818-MB1	ND	U	0.20	0.01	1	NA	6/28/11 11:16	
Method Blank	K1105818-MB2	ND	U	0.20	0.01	1	NA	6/29/11 00:03	
Method Blank	K1105818-MB3	ND	U	0.20	0.01	1	NA	6/29/11 09:52	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
		Date Analyzed:	6/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-2-W-062711	**Units:**	mg/L
Lab Code:	K1105818-003	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-062711DUP Duplicate Sample K1105818-003DUP7 Result	Average	RPD	RPD Limit
Sulfate	300.0	0.40	0.02	15.3	15.4	15.4	<1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 6/29/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: mg/L
Basis: NA

Analytical Method: 300.0

		SPI-2-W-062711MS Matrix Spike K1105818-003MS4			SPI-2-W-062711DMS Duplicate Matrix Spike K1105818-003DMS4					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfate	15.3	24.6	10.0	92	24.5	10.0	91	80 - 120	<1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 6/28/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1105818-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Sulfate	300.0	4.63	5.00	93	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 6/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Sulfate	300.0	4.61	5.00	92	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11

Analysis Method: 350.1

Units: mg/L
Basis: NA

Ammonia as Nitrogen

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	**0.176**		0.050	0.020	1	NA	7/7/11 08:55	
SPI-1-W-062711	K1105818-002	**0.454**		0.050	0.020	1	NA	7/7/11 08:55	
SPI-2-W-062711	K1105818-003	**1.50**		0.050	0.020	1	NA	7/7/11 08:55	
SPI-3-W-062711	K1105818-004	**1.57**		0.050	0.020	1	NA	7/7/11 08:55	
Method Blank	K1105818-MB1	**0.020**	J	0.050	0.020	1	NA	7/7/11 08:55	
Method Blank	K1105818-MB2	ND	U	0.050	0.020	1	NA	7/7/11 08:55	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
		Date Analyzed:	7/ 7/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-564-W-062711	**Units:**	mg/L
Lab Code:	K1105818-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-564-W-062711DUP Duplicate Sample K1105818-001DUP5 Result	Average	RPD	RPD Limit
Ammonia as Nitrogen	350.1	0.050	0.020	0.176	0.171	0.174	3	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 7/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analytical Method: 350.1

		SPI-564-W-062711MS Matrix Spike K1105818-001MS2			SPI-564-W-062711DMS Duplicate Matrix Spike K1105818-001DMS2					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ammonia as Nitrogen	0.176	2.23	2.00	103	2.21	2.00	102	90 - 110	<1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 7/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1105818-LCS2			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Ammonia as Nitrogen	350.1	13.5	13.9	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 7/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Ammonia as Nitrogen	350.1	13.5	13.9	97	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11

Units: mg/L
Analysis Method: 415.1
Basis: NA

Carbon, Total Organic

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	**0.85**		0.50	0.07	1	NA	7/8/11 14:59	
SPI-1-W-062711	K1105818-002	**2.34**		0.50	0.07	1	NA	7/8/11 14:59	
SPI-2-W-062711	K1105818-003	**3.78**		0.50	0.07	1	NA	7/8/11 14:59	
SPI-3-W-062711	K1105818-004	**3.85**		0.50	0.07	1	NA	7/8/11 14:59	
Method Blank	K1105818-MB1	ND	U	0.50	0.07	1	NA	7/8/11 14:59	
Method Blank	K1105818-MB2	ND	U	0.50	0.07	1	NA	7/8/11 14:59	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 8/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-564-W-062711DUP Duplicate Sample K1105818-001DUP5 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	0.85	0.73	0.789	14	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 8/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-1-W-062711
Lab Code: K1105818-002

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-1-W-062711DUP Duplicate Sample K1105818-002DUP6 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	2.34	2.20	2.27	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 8/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-2-W-062711DUP Duplicate Sample K1105818-003DUP7 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	3.78	3.82	3.80	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 8/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-3-W-062711
Lab Code: K1105818-004

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-3-W-062711DUP Duplicate Sample K1105818-004DUP8 Result	Average	RPD	RPD Limit
Carbon, Total Organic	415.1	0.50	0.07	3.85	3.85	3.85	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 8/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analytical Method: 415.1

SPI-564-W-062711MS
Matrix Spike
K1105818-001MS3

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	0.85	27.2	25.0	105	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 8/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic	415.1	24.9	26.0	96	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 8/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

		Lab Control Sample K1105818-LCS3			
Analyte Name	**Method**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**
Carbon, Total Organic	415.1	24.7	26.0	95	83 - 117

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
Prep Method:	EPA 9030B Modified	**Units:**	mg/L
Analysis Method:	9030M	**Basis:**	NA

Sulfide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	ND	U	0.10	0.03	1	7/ 1/11	7/1/11 17:24	
SPI-1-W-062711	K1105818-002	ND	U	0.10	0.03	1	7/ 1/11	7/1/11 17:24	
SPI-2-W-062711	K1105818-003	ND	U	0.10	0.03	1	7/ 1/11	7/1/11 17:24	
SPI-3-W-062711	K1105818-004	ND	U	0.10	0.03	1	7/ 1/11	7/1/11 17:24	
Method Blank	K1105818-MB1	ND	U	0.10	0.03	1	7/ 1/11	7/1/11 17:24	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
		Date Analyzed:	7/ 1/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-564-W-062711	**Units:**	mg/L
Lab Code:	K1105818-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-564-W-062711DUP Duplicate Sample K1105818-001DUP5 Result	Average	RPD	RPD Limit
Sulfide, Total	9030M	0.10	0.03	ND U	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 1/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analytical Method: 9030M
Prep Method: EPA 9030B Modified

		SPI-564-W-062711MS Matrix Spike K1105818-001MS2			SPI-564-W-062711DMS Duplicate Matrix Spike K1105818-001DMS2					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Sulfide, Total	ND	72.1	71	101	72.1	71	101	34 - 166	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 1/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Sulfide, Total	9030M	1.45	1.42	102	55 - 130

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
Prep Method:	SM 4500-CN-C	**Units:**	mg/L
Analysis Method:	SM 4500-CN- E	**Basis:**	NA

Cyanide, Total

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	ND	U	0.010	0.003	1	6/29/11	6/29/11 15:00	
SPI-1-W-062711	K1105818-002	ND	U	0.010	0.003	1	6/29/11	6/29/11 15:00	
SPI-2-W-062711	K1105818-003	ND	U	0.010	0.003	1	6/29/11	6/29/11 15:00	
SPI-3-W-062711	K1105818-004	ND	U	0.010	0.003	1	6/29/11	6/29/11 15:00	
Method Blank	K1105818-MB1	ND	U	0.010	0.003	1	6/29/11	6/29/11 15:00	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/11
Sample Matrix:	Water	**Date Received:**	6/28/11
		Date Analyzed:	6/29/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name:	SPI-564-W-062711	**Units:**	mg/L
Lab Code:	K1105818-001	**Basis:**	NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-564-W-062711DUP Duplicate Sample K1105818-001DUP5 Result	Average	RPD	RPD Limit
Cyanide, Total	SM 4500-CN-E	0.010	0.003	ND U	ND U	NC	NC	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 6/29/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analytical Method: SM 4500-CN- E
Prep Method: SM 4500-CN-C

		SPI-564-W-062711MS Matrix Spike K1105818-001MS2			SPI-564-W-062711DMS Duplicate Matrix Spike K1105818-001DMS2					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Total	ND	0.0890	0.100	89	0.0915	0.100	91	23 - 148	3	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 6/29/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Cyanide, Total	SM 4500-CN-E	0.698	0.73	96	84 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	6/27/2011
Sample Matrix:	Water	**Date Received:**	6/28/2011

Cyanide, Amenable to Chlorination

Prep Method:	Calculation	Units:	mg/L (ppm)
Analysis Method:	SM 4500-CN-E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Analyzed	Result	Result Notes
SPI-564-W-062711	K1105818-001	0.010	0.003	1	7/1/2011	ND	
SPI-1-W-062711	K1105818-002	0.010	0.003	1	7/1/2011	ND	
SPI-2-W-062711	K1105818-003	0.010	0.003	1	7/1/2011	ND	
SPI-3-W-062711	K1105818-004	0.010	0.003	1	7/1/2011	ND	
Method Blank	K1105818-MB	0.010	0.003	1	7/1/2011	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11

Units: mg/L
Analysis Method: 9014
Basis: NA

Cyanide, Free

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	ND	U	0.010	0.010	1	NA	7/7/11 10:15	
SPI-1-W-062711	K1105818-002	ND	U	0.010	0.010	1	NA	7/7/11 10:15	
SPI-2-W-062711	K1105818-003	ND	U	0.010	0.010	1	NA	7/7/11 10:15	
SPI-3-W-062711	K1105818-004	ND	U	0.010	0.010	1	NA	7/7/11 10:15	
Method Blank	K1105818-MB1	ND	U	0.010	0.010	1	NA	7/7/11 10:15	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 7/11

Replicate Sample Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analyte Name	Method	MRL	MDL	Sample Result	SPI-564-W-062711DUP Duplicate Sample K1105818-001DUP5 Result	Average	RPD	RPD Limit
Cyanide, Free	9014	0.010	0.010	ND U	ND U	NC	NC	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11
Date Analyzed: 7/ 7/11

Matrix Spike Summary
General Chemistry Parameters

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: mg/L
Basis: NA

Analytical Method: 9014

		SPI-564-W-062711MS Matrix Spike K1105818-001MS2			SPI-564-W-062711DMS Duplicate Matrix Spike K1105818-001DMS2					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Cyanide, Free	ND	0.270	0.250	108	0.277	0.250	111	75 - 125	3	20

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COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Analyzed: 7/ 7/11

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample K1105818-LCS2 Result	Spike Amount	% Rec		% Rec Limits
Cyanide, Free	9014	0.260	0.310	84	*	85 - 115

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Metals

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/11
Sample Matrix:	Water	**Date Received:**	06/28/11

Mercury, Total

Prep Method:	METHOD	Units:	ng/L
Analysis Method:	1631E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-564-W-062711	K1105818-001	1.0	0.06	1	06/30/11	07/05/11	2.04	
SPI-1-W-062711	K1105818-002	1.0	0.06	1	06/30/11	07/05/11	1.73	
SPI-2-W-062711	K1105818-003	1.0	0.06	1	06/30/11	07/05/11	2.11	
SPI-3-W-062711	K1105818-004	1.0	0.06	1	06/30/11	07/05/11	2.87	
Method Blank1	K1105818-MB1	1.0	0.06	1	06/30/11	07/05/11	ND	
Method Blank2	K1105818-MB2	1.0	0.06	1	06/30/11	07/05/11	ND	
Method Blank3	K1105818-MB3	1.0	0.06	1	06/30/11	07/05/11	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	06/30/11
		Date Analyzed:	07/05/11

Matrix Spike/Duplicate Matrix Spike Summary
Total Metals

Sample Name:	Batch QC		Units:	ng/L
Lab Code:	K1105855-002MS,	K1105855-002MSD	Basis:	NA
Test Notes:				

Analyte	Prep Method	Analysis Method	MRL	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Percent Recovery MS	Percent Recovery DMS	CAS Acceptance Limits	Relative Percent Difference	Result Notes
Mercury	METHOD	1631E	1.0	25	25	0.83	26.0	25.7	101	99	71-125	1	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	07/05/11

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Initial)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	5.16	103	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	07/05/11

Ongoing Precision and Recovery (OPR) Sample Summary
Total Metals

Sample Name: Ongoing Precision and Recovery (Final)

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	4.83	97	77-123	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
LCS Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	07/05/11

Quality Control Sample (QCS) Summary
Total Metals

Sample Name: Quality Control Sample

Units: ng/L
Basis: NA

Test Notes:

Analyte	Prep Method	Analysis Method	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Mercury	METHOD	1631E	5.00	4.52	90	77-123	

Metals

Columbia Analytical Services

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INORGANIC ANALYSIS DATA PACKAGE

Client: PES Environmental
Project Name: Univar Portland
Project No.: 165

Service Request: K1105818

Sample Name:	Lab Code:
SPI-564-W-062711	K1105818-001
SPI-564-W-062711D	K1105818-001D
SPI-564-W-062711D	K1105818-001DDISS
SPI-564-W-062711	K1105818-001DISS
SPI-564-W-062711S	K1105818-001S
SPI-564-W-062711S	K1105818-001SDISS
SPI-1-W-062711	K1105818-002
SPI-1-W-062711	K1105818-002DISS
SPI-2-W-062711	K1105818-003
SPI-2-W-062711	K1105818-003DISS
SPI-3-W-062711	K1105818-004
SPI-3-W-062711	K1105818-004DISS
Method Blank	K1105818-MB

Comments:

Approved By: 3C **Date:** 7/21/11

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-564-W-062711 **Lab Code:** K1105818-001

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	06/30/11	07/05/11	23.4		
Antimony	200.8	0.05	0.02	1.0	06/30/11	07/05/11	0.02	U	
Arsenic	200.8	0.50	0.07	1.0	06/30/11	07/05/11	0.07	U	
Cadmium	200.8	0.020	0.003	1.0	06/30/11	07/05/11	0.003	U	
Chromium	200.8	0.20	0.04	1.0	06/30/11	07/05/11	0.28		
Copper	200.8	0.10	0.02	1.0	06/30/11	07/05/11	0.42		
Lead	200.8	0.020	0.005	1.0	06/30/11	07/05/11	0.053		
Manganese	200.8	0.05	0.01	1.0	06/30/11	07/05/11	4.50		
Molybdenum	200.8	0.050	0.008	1.0	06/30/11	07/05/11	0.025	J	
Nickel	200.8	0.20	0.03	1.0	06/30/11	07/05/11	0.11	J	
Selenium	200.8	1.0	0.3	1.0	06/30/11	07/05/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	06/30/11	07/05/11	0.005	J	
Zinc	200.8	0.50	0.20	1.0	06/30/11	07/05/11	1.28		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-564-W-062711 **Lab Code:** K1105818-001DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	20.0	6.0	1.0	07/15/11	07/20/11	32.4		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-062711 **Lab Code:** K1105818-002

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	06/30/11	07/05/11	131		
Antimony	200.8	0.05	0.02	1.0	06/30/11	07/05/11	4.49		
Arsenic	200.8	0.50	0.07	1.0	06/30/11	07/05/11	0.52		
Cadmium	200.8	0.020	0.003	1.0	06/30/11	07/05/11	1.500		
Chromium	200.8	0.20	0.04	1.0	06/30/11	07/05/11	0.59		
Copper	200.8	0.10	0.02	1.0	06/30/11	07/05/11	6.44		
Lead	200.8	0.020	0.005	1.0	06/30/11	07/05/11	5.960		
Manganese	200.8	0.05	0.01	1.0	06/30/11	07/05/11	62.0		
Molybdenum	200.8	0.050	0.008	1.0	06/30/11	07/05/11	0.837		
Nickel	200.8	0.20	0.03	1.0	06/30/11	07/05/11	3.12		
Selenium	200.8	1.0	0.3	1.0	06/30/11	07/05/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	06/30/11	07/05/11	0.015	J	
Zinc	200.8	0.50	0.20	1.0	06/30/11	07/05/11	73.5		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-1-W-062711 **Lab Code:** K1105818-002DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	07/15/11	07/20/11	25.4		

% Solids: 0.0

Comments:

Metals

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INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-062711 **Lab Code:** K1105818-003

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	06/30/11	07/05/11	48.6		
Antimony	200.8	0.05	0.02	1.0	06/30/11	07/05/11	0.30		
Arsenic	200.8	0.50	0.07	1.0	06/30/11	07/05/11	3.26		
Cadmium	200.8	0.020	0.003	1.0	06/30/11	07/05/11	0.130		
Chromium	200.8	0.20	0.04	1.0	06/30/11	07/05/11	1.02		
Copper	200.8	0.10	0.02	1.0	06/30/11	07/05/11	4.14		
Lead	200.8	0.020	0.005	1.0	06/30/11	07/05/11	0.882		
Manganese	200.8	0.05	0.01	1.0	06/30/11	07/05/11	635		
Molybdenum	200.8	0.050	0.008	1.0	06/30/11	07/05/11	0.437		
Nickel	200.8	0.20	0.03	1.0	06/30/11	07/05/11	17.8		
Selenium	200.8	1.0	0.3	1.0	06/30/11	07/05/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	06/30/11	07/05/11	0.004	J	
Zinc	200.8	0.50	0.20	1.0	06/30/11	07/05/11	24.4		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-2-W-062711 **Lab Code:** K1105818-003DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	07/15/11	07/20/11	552		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-3-W-062711 **Lab Code:** K1105818-004

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	06/30/11	07/05/11	43.5		
Antimony	200.8	0.05	0.02	1.0	06/30/11	07/05/11	0.27		
Arsenic	200.8	0.50	0.07	1.0	06/30/11	07/05/11	3.42		
Cadmium	200.8	0.020	0.003	1.0	06/30/11	07/05/11	0.110		
Chromium	200.8	0.20	0.04	1.0	06/30/11	07/05/11	0.79		
Copper	200.8	0.10	0.02	1.0	06/30/11	07/05/11	3.86		
Lead	200.8	0.020	0.005	1.0	06/30/11	07/05/11	0.776		
Manganese	200.8	0.05	0.01	1.0	06/30/11	07/05/11	681		
Molybdenum	200.8	0.050	0.008	1.0	06/30/11	07/05/11	0.418		
Nickel	200.8	0.20	0.03	1.0	06/30/11	07/05/11	18.7		
Selenium	200.8	1.0	0.3	1.0	06/30/11	07/05/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	06/30/11	07/05/11	0.004	U	
Zinc	200.8	0.50	0.20	1.0	06/30/11	07/05/11	21.7		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	06/27/11
Project Name:	Univar Portland	**Date Received:**	06/28/11
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: SPI-3-W-062711 **Lab Code:** K1105818-004DISS

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Iron	200.7	10.0	3.0	1.0	07/15/11	07/20/11	530		

% Solids: 0.0

Comments:

Metals

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Date Collected:**	
Project Name:	Univar Portland	**Date Received:**	
Matrix:	WATER	**Units:**	ug/L
		Basis:	NA

Sample Name: Method Blank **Lab Code:** K1105818-MB

Analyte	Analysis Method	MRL	MDL	Dil. Factor	Date Extracted	Date Analyzed	Result	C	Q
Aluminum	200.8	2.0	0.3	1.0	06/30/11	07/05/11	0.3	U	
Antimony	200.8	0.05	0.02	1.0	06/30/11	07/05/11	0.02	U	
Arsenic	200.8	0.50	0.07	1.0	06/30/11	07/05/11	0.07	U	
Cadmium	200.8	0.020	0.003	1.0	06/30/11	07/05/11	0.003	U	
Chromium	200.8	0.20	0.04	1.0	06/30/11	07/05/11	0.04	U	
Copper	200.8	0.10	0.02	1.0	06/30/11	07/05/11	0.02	U	
Iron	200.7	10.0	3.0	1.0	07/15/11	07/20/11	3.0	U	
Lead	200.8	0.020	0.005	1.0	06/30/11	07/05/11	0.005	U	
Manganese	200.8	0.05	0.01	1.0	06/30/11	07/05/11	0.01	U	
Molybdenum	200.8	0.050	0.008	1.0	06/30/11	07/05/11	0.008	U	
Nickel	200.8	0.20	0.03	1.0	06/30/11	07/05/11	0.03	U	
Selenium	200.8	1.0	0.3	1.0	06/30/11	07/05/11	0.3	U	
Silver	200.8	0.020	0.004	1.0	06/30/11	07/05/11	0.004	U	
Zinc	200.8	0.50	0.20	1.0	06/30/11	07/05/11	0.20	U	

% Solids: 0.0

Comments:

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client: PES Environmental

Service Request: K1105818

Project No.: 165

Units: UG/L

Project Name: Univar Portland

Basis: NA

Matrix: WATER

% Solids: 0.0

Sample Name: SPI-564-W-062711S

Lab Code: K1105818-001S

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Aluminum	70 - 130	42.4		23.4		20.00	95.0		200.8
Antimony	70 - 130	16.7		0.02	U	20.00	83.4		200.8
Arsenic	70 - 130	16.7		0.07	U	20.00	83.5		200.8
Cadmium	70 - 130	16.7		0.003	U	20.00	83.5		200.8
Chromium	70 - 130	16.5		0.28		20.00	81.1		200.8
Copper	70 - 130	17.0		0.42		20.00	82.9		200.8
Lead	70 - 130	17.0		0.053		20.00	84.7		200.8
Manganese	70 - 130	21.0		4.50		20.00	82.5		200.8
Molybdenum	70 - 130	16.3		0.025	J	20.00	81.4		200.8
Nickel	70 - 130	16.6		0.11	J	20.00	82.4		200.8
Selenium	70 - 130	16.7		0.3	U	20.00	83.5		200.8
Silver	70 - 130	19.7		0.005	J	20.00	98.5		200.8
Zinc	70 - 130	18.3		1.28		20.00	85.1		200.8

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

- 5A -

SPIKE SAMPLE RECOVERY

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Units:**	UG/L
Project Name:	Univar Portland	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: SPI-564-W-062711S **Lab Code:** K1105818-001SDISS

Analyte	Control Limit %R	Spike Result	C	Sample Result	C	Spike Added	%R	Q	Method
Iron	70 - 130	2040		32.4		2000.00	100.4		200.7

An empty field in the Control Limit column indicates the control limit is not applicable

Metals

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DUPLICATES

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Units:**	UG/L
Project Name:	Univar Portland	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: SPI-564-W-062711D **Lab Code:** K1105818-001D

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	20	23.4		23.5		0.4		200.8
Antimony		0.02	U	0.02	U			200.8
Arsenic		0.07	U	0.07	U			200.8
Cadmium		0.003	U	0.003	U			200.8
Chromium		0.28		0.28		0.0		200.8
Copper		0.42		0.42		0.0		200.8
Lead		0.053		0.051		3.8		200.8
Manganese	20	4.50		4.55		1.1		200.8
Molybdenum		0.025	J	0.017	J	38.1		200.8
Nickel		0.11	J	0.10	J	9.5		200.8
Selenium		0.3	U	0.3	U			200.8
Silver		0.005	J	0.004	U	200.0		200.8
Zinc		1.28		1.17		9.0		200.8

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

- 6 -

DUPLICATES

Client:	PES Environmental	**Service Request:**	K1105818
Project No.:	165	**Units:**	UG/L
Project Name:	Univar Portland	**Basis:**	NA
Matrix:	WATER	**% Solids:**	0.0

Sample Name: SPI-564-W-062711D **Lab Code:** K1105818-001DDISS

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron		32.4		31.0		4.4		200.7

An empty field in the Control Limit column indicates the control limit is not applicable.

Metals

LABORATORY CONTROL SAMPLE

Client: PES Environmental **Service Request:** K1105818

Project No.: 165

Project Name: Univar Portland

Aqueous LCS Source: CAS MIXED **Solid LCS Source:**

Analyte	Aqueous: ug/L			Solid: mg/kg				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	20	19.2	96.0					
Antimony	20	19.5	97.5					
Arsenic	20	19.2	96.0					
Cadmium	20	19.7	98.5					
Chromium	20	18.9	94.5					
Copper	20	19.7	98.5					
Iron	2500	2660	106.4					
Lead	20	20.3	101.5					
Manganese	20	19.3	96.5					
Molybdenum	20	19.0	95.0					
Nickel	20	19.2	96.0					
Selenium	20	19.8	99.0					
Silver	20	19.4	97.0					
Zinc	20	20.1	100.5					

Diesel and Residual Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**12**	J	110	12	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**24**	J	110	20	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	97	50-150	07/04/11	Acceptable
n-Triacontane	91	50-150	07/06/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**140**	Z	110	12	1	07/01/11	07/18/11	KWG1106148	
Residual Range Organics (RRO)	**120**	Z	110	20	1	07/01/11	07/18/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	91	50-150	07/18/11	Acceptable
n-Triacontane	96	50-150	07/18/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-2-W-062711	**Units:**	ug/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**110**	Z	110	12	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**120**	Z	110	20	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	100	50-150	07/04/11	Acceptable
n-Triacontane	98	50-150	07/06/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**110**	Z	110	12	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**120**	Z	110	20	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	99	50-150	07/04/11	Acceptable
n-Triacontane	101	50-150	07/06/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1106148-4	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	100	11	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**26**	J	100	19	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	96	50-150	07/04/11	Acceptable
n-Triacontane	93	50-150	07/06/11	Acceptable

Comments:

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-564-W-062711	K1105818-001	97	91
SPI-1-W-062711	K1105818-002	91	96
SPI-2-W-062711	K1105818-003	100	98
SPI-3-W-062711	K1105818-004	99	101
SPI-564-W-062711DUP	KWG1106148-1	93	80
SPI-3-W-062711DUP	KWG1106148-2	92	86
Method Blank	KWG1106148-4	96	93
Lab Control Sample	KWG1106148-3	97	88

Surrogate Recovery Control Limits (%)

Sur1 =	o-Terphenyl	50-150
Sur2 =	n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Extracted:**	07/01/2011
Sample Matrix:	Water	**Date Analyzed:**	07/04/2011

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1106148

Analyte Name	MRL	MDL	Sample Result	SPI-564-W-062711DUP KWG1106148-1 Duplicate Sample Result	Average	Relative Percent Difference	RPD Limit
Diesel Range Organics (DRO)	110	12	12	12	12	2 #	30
Residual Range Organics (RRO)	110	20	24	29	26	17 #	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Extracted:**	07/01/2011
Sample Matrix:	Water	**Date Analyzed:**	07/04/2011

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1106148

Analyte Name	MRL	MDL	Sample Result	SPI-3-W-062711DUP KWG1106148-2 Duplicate Sample Result	Average	Relative Percent Difference	RPD Limit
Diesel Range Organics (DRO)	110	12	110	120	120	6 #	30
Residual Range Organics (RRO)	110	20	120	130	120	12 #	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Extracted:**	07/01/2011
Sample Matrix:	Water	**Date Analyzed:**	07/04/2011

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	NWTPH-Dx	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1106148

	Lab Control Sample KWG1106148-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	1670	1600	104	46-140
Residual Range Organics (RRO)	802	800	100	45-159

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Organochlorine Pesticides

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-564-W-062711	**Units:**	ng/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.50	0.21	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	U	0.50	0.27	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	U	0.50	0.41	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	ND	U	0.50	0.47	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	U	0.50	0.14	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	1.9	1.9	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	ND	Ui	0.50	0.35	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	ND	U	0.50	0.21	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	U	0.50	0.31	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	U	0.50	0.25	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.50	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	U	0.50	0.37	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	U	0.50	0.19	1	07/15/11	07/18/11	KWG1106709	*
Endrin	ND	U	0.50	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui	0.50	0.41	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	U	0.50	0.21	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**0.35**	J	0.50	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	U	0.50	0.28	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	U	0.50	0.17	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	U	0.50	0.32	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	U	0.50	0.28	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	35	35	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	10	5.6	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	U	0.50	0.069	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.50	0.25	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	ND	Ui	0.50	0.43	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	U	0.50	0.068	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	Ui	0.50	0.14	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	**0.49**	JP	0.50	0.13	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-564-W-062711	**Units:**	ng/L
Lab Code:	K1105818-001	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	87	20-102	07/18/11	Acceptable
Decachlorobiphenyl	58	35-128	07/18/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-1-W-062711	**Units:**	ng/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	Ui	2.3	2.3	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	**1.7**	P	0.49	0.47	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	Ui	2.3	2.3	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	1.2	1.2	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	**0.35**	J	0.49	0.11	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	ND	Ui	0.49	0.31	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	Ui	0.86	0.86	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.49	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	Ui	0.85	0.85	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endrin	**1.1**	P	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui	3.7	3.7	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	Ui	0.81	0.81	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**1.3**	P	0.49	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	Ui	0.81	0.81	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	Ui	0.86	0.86	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	U	0.49	0.28	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	190	190	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	18	18	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	Ui	2.9	2.9	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.56	0.56	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	**0.48**	JP	0.49	0.14	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	Ui	1.5	1.5	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	Ui	0.71	0.71	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	ND	U	0.49	0.13	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-1-W-062711	**Units:**	ng/L
Lab Code:	K1105818-002	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	44	20-102	07/18/11	Acceptable
Decachlorobiphenyl	67	35-128	07/18/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-062711	**Units:**	ng/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	Ui	1.1	1.1	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	U	0.48	0.41	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	ND	Ui	0.58	0.58	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	Ui	0.80	0.80	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	0.94	0.94	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	ND	U	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	U	0.48	0.31	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	U	0.48	0.25	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.48	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	U	0.48	0.37	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
Endrin	ND	U	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui	0.93	0.93	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	U	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**0.29**	JP	0.48	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	Ui	0.48	0.29	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	Ui	0.97	0.97	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	U	0.48	0.32	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	U	0.48	0.28	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	77	77	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	9.5	5.7	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	U	0.48	0.069	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.90	0.90	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	ND	U	0.48	0.14	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	U	0.48	0.068	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	ND	Ui	0.48	0.19	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-062711	**Units:**	ng/L
Lab Code:	K1105818-003	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	77	20-102	07/18/11	Acceptable
Decachlorobiphenyl	62	35-128	07/18/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-3-W-062711	**Units:**	ng/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	U	0.48	0.27	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	U	0.48	0.41	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	**0.89**	P	0.48	0.47	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	Ui	0.87	0.87	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	1.9	1.9	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	**0.29**	J	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	Ui	0.48	0.33	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	U	0.48	0.25	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.48	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	U	0.48	0.37	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
Endrin	ND	U	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui	0.80	0.80	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	U	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**0.45**	JP	0.48	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	U	0.48	0.28	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	Ui	1.2	1.2	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	U	0.48	0.32	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	82	82	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	9.5	9.5	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	U	0.48	0.069	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	ND	Ui	0.48	0.16	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	U	0.48	0.068	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	ND	Ui	0.48	0.25	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-3-W-062711	**Units:**	ng/L
Lab Code:	K1105818-004	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	87	20-102	07/18/11	Acceptable
Decachlorobiphenyl	69	35-128	07/18/11	Acceptable

† **Analyte Comments**

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1106709-11	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.48	0.21	1	07/15/11	07/19/11	KWG1106709	
Hexachlorobenzene	ND	U	0.48	0.27	1	07/15/11	07/19/11	KWG1106709	
beta-BHC	ND	U	0.48	0.41	1	07/15/11	07/19/11	KWG1106709	
gamma-BHC (Lindane)	ND	U	0.48	0.47	1	07/15/11	07/19/11	KWG1106709	
delta-BHC	ND	Ui	0.48	0.23	1	07/15/11	07/19/11	KWG1106709	
Heptachlor	ND	Ui	1.9	1.9	1	07/15/11	07/19/11	KWG1106709	
Aldrin	ND	U	0.48	0.11	1	07/15/11	07/19/11	KWG1106709	
Heptachlor Epoxide	ND	U	0.48	0.21	1	07/15/11	07/19/11	KWG1106709	
gamma-Chlordane†	ND	U	0.48	0.31	1	07/15/11	07/19/11	KWG1106709	
Endosulfan I	ND	U	0.48	0.25	1	07/15/11	07/19/11	KWG1106709	
alpha-Chlordane	ND	U	0.48	0.27	1	07/15/11	07/19/11	KWG1106709	
Dieldrin	ND	U	0.48	0.37	1	07/15/11	07/19/11	KWG1106709	
4,4'-DDE	ND	U	0.48	0.19	1	07/15/11	07/19/11	KWG1106709	
Endrin	ND	U	0.49	0.49	1	07/15/11	07/19/11	KWG1106709	
Endosulfan II	ND	U	0.48	0.35	1	07/15/11	07/21/11	KWG1106709	
4,4'-DDD	ND	U	0.48	0.21	1	07/15/11	07/19/11	KWG1106709	
Endrin Aldehyde	**0.28**	J	0.48	0.21	1	07/15/11	07/21/11	KWG1106709	
Endosulfan Sulfate	ND	U	0.48	0.28	1	07/15/11	07/19/11	KWG1106709	
4,4'-DDT	ND	U	0.48	0.17	1	07/15/11	07/19/11	KWG1106709	
Endrin Ketone	ND	U	0.48	0.32	1	07/15/11	07/19/11	KWG1106709	
Methoxychlor	ND	U	0.48	0.28	1	07/15/11	07/19/11	KWG1106709	
Toxaphene	ND	Ui	24	20	1	07/15/11	07/19/11	KWG1106709	
Chlordane	ND	Ui	9.5	3.5	1	07/15/11	07/19/11	KWG1106709	
Oxychlordane	ND	U	0.48	0.069	1	07/15/11	07/19/11	KWG1106709	
2,4'-DDE	ND	U	0.48	0.12	1	07/15/11	07/19/11	KWG1106709	
cis-Nonachlor	ND	U	0.48	0.14	1	07/15/11	07/19/11	KWG1106709	
2,4'-DDD	ND	U	0.48	0.068	1	07/15/11	07/19/11	KWG1106709	
trans-Nonachlor	ND	U	0.48	0.11	1	07/15/11	07/19/11	KWG1106709	
2,4'-DDT	ND	U	0.48	0.13	1	07/15/11	07/19/11	KWG1106709	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Organochlorine Pesticides

Sample Name:	Method Blank	**Units:**	ng/L
Lab Code:	KWG1106709-11	**Basis:**	NA

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Tetrachloro-m-xylene	62	20-102	07/19/11	Acceptable
Decachlorobiphenyl	78	35-128	07/19/11	Acceptable

† Analyte Comments

gamma-Chlordane	For this analyte (CAS Registry No. 5103-74-2), USEPA has corrected the name to be beta-Chlordane, also known as trans-Chlordane.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818

Surrogate Recovery Summary
Organochlorine Pesticides

Extraction Method: EPA 3535A
Analysis Method: 8081B

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
SPI-564-W-062711	K1105818-001	87	58
SPI-1-W-062711	K1105818-002	44	67
SPI-2-W-062711	K1105818-003	77	62
SPI-3-W-062711	K1105818-004	87	69
Batch QC	K1106335-011	63	77
Method Blank	KWG1106709-11	62	78
Batch QCMS	KWG1106709-1	62	72
Batch QCDMS	KWG1106709-2	59	72
Lab Control Sample	KWG1106709-3	59	81
Duplicate Lab Control Sample	KWG1106709-4	59	82

Surrogate Recovery Control Limits (%)

Sur1 =	Tetrachloro-m-xylene	20-102
Sur2 =	Decachlorobiphenyl	35-128

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Extracted:**	07/15/2011
Sample Matrix:	Water	**Date Analyzed:**	07/19/2011

Matrix Spike/Duplicate Matrix Spike Summary
Organochlorine Pesticides

Sample Name:	Batch QC	**Units:**	ng/L
Lab Code:	K1106335-011	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B	**Extraction Lot:**	KWG1106709

Analyte Name	Sample Result	Batch QCMS KWG1106709-1 Matrix Spike			Batch QCDMS KWG1106709-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
alpha-BHC	ND	9.59	10.0	96	8.95	10.0	89	31-123	7	30
Hexachlorobenzene	ND	8.60	10.0	86	8.33	10.0	83	10-131	3	30
beta-BHC	ND	9.61	10.0	96	9.09	10.0	91	31-118	6	30
gamma-BHC (Lindane)	ND	10.2	10.0	102	9.64	10.0	96	31-123	5	30
delta-BHC	ND	10.6	10.0	106 #	10.2	10.0	102 #	40-129	4	30
Heptachlor	ND	10.5	10.0	105 #	10.1	10.0	101 #	23-124	3	30
Aldrin	ND	8.91	10.0	89	8.71	10.0	87	18-111	2	30
Heptachlor Epoxide	ND	9.97	10.0	100	9.37	10.0	94	28-122	6	30
gamma-Chlordane	ND	10.1	10.0	101	9.70	10.0	97	35-119	4	30
Endosulfan I	0.39	9.66	10.0	93	8.95	10.0	86	17-118	8	30
alpha-Chlordane	ND	10.1	10.0	101	9.45	10.0	94	34-120	6	30
Dieldrin	ND	10.4	10.0	104	9.85	10.0	98	32-121	6	30
4,4'-DDE	ND	10.2	10.0	102	9.59	10.0	96	24-129	7	30
Endrin	ND	10.2	10.0	102	9.49	10.0	95	34-133	7	30
Endosulfan II	ND	10.6	10.0	106 #	9.94	10.0	99 #	19-122	6	30
4,4'-DDD	ND	10.9	10.0	109	10.4	10.0	104	29-125	5	30
Endrin Aldehyde	0.63	8.75	10.0	81	7.95	10.0	73	10-108	10	30
Endosulfan Sulfate	ND	10.5	10.0	105	9.86	10.0	99	30-120	6	30
4,4'-DDT	ND	12.2	10.0	122	11.5	10.0	115	28-139	7	30
Endrin Ketone	ND	11.7	10.0	117 *	10.9	10.0	109	34-113	7	30
Methoxychlor	ND	9.36	10.0	94 #	9.46	10.0	95 #	30-137	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Extracted:**	07/15/2011
Sample Matrix:	Water	**Date Analyzed:**	07/19/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Organochlorine Pesticides

Extraction Method:	EPA 3535A	**Units:**	ng/L
Analysis Method:	8081B	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1106709

	Lab Control Sample KWG1106709-3 Lab Control Spike			Duplicate Lab Control Sample KWG1106709-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
alpha-BHC	9.56	10.0	96	9.45	10.0	95	36-122	1	30
Hexachlorobenzene	8.69	10.0	87	8.71	10.0	87	31-95	0	30
beta-BHC	9.28	10.0	93	9.61	10.0	96	42-125	4	30
gamma-BHC (Lindane)	10.0	10.0	100	10.0	10.0	100	44-117	0	30
delta-BHC	10.3	10.0	103	10.5	10.0	105	48-123	3	30
Heptachlor	10.2	10.0	102	9.92	10.0	99	40-115	3	30
Aldrin	8.84	10.0	88	8.92	10.0	89	10-102	1	30
Heptachlor Epoxide	10.0	10.0	100	10.1	10.0	101	49-109	1	30
gamma-Chlordane	9.89	10.0	99	10.1	10.0	101	47-113	2	30
Endosulfan I	9.36	10.0	94	9.61	10.0	96	35-115	3	30
alpha-Chlordane	9.89	10.0	99	10.1	10.0	101	45-115	3	30
Dieldrin	10.2	10.0	102	10.4	10.0	104	50-115	2	30
4,4'-DDE	10.3	10.0	103	10.4	10.0	104	41-116	0	30
Endrin	10.1	10.0	101	10.2	10.0	102	48-126	1	30
Endosulfan II	9.88	10.0	99	10.3	10.0	103	28-128	4	30
4,4'-DDD	10.6	10.0	106	11.2	10.0	112	33-132	5	30
Endrin Aldehyde	8.73	10.0	87	8.89	10.0	89	27-104	2	30
Endosulfan Sulfate	10.1	10.0	101	10.6	10.0	106	38-118	5	30
4,4'-DDT	12.3	10.0	123	12.3	10.0	123	42-143	1	30
Endrin Ketone	11.2	10.0	112	11.7	10.0	117	30-124	4	30
Methoxychlor	10.6	10.0	106	11.0	10.0	110	43-143	4	30
Toxaphene	185	200	93	205	200	102	36-137	10	30
Chlordane	80.6	100	81	90.5	100	91	45-148	12	30
Oxychlordane	7.98	10.0	80	7.62	10.0	76	40-126	5	30
2,4'-DDE	7.77	10.0	78	8.35	10.0	84	29-126	7	30
cis-Nonachlor	7.06	10.0	71	6.84	10.0	68	42-125	3	30
2,4'-DDD	7.59	10.0	76	7.92	10.0	79	51-112	4	30
trans-Nonachlor	7.31	10.0	73	6.96	10.0	70	47-123	5	30
2,4'-DDT	7.76	10.0	78	8.52	10.0	85	51-117	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Volatile Organic Compounds

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	06/30/11	06/30/11	KWG1106046	
Chloromethane	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	
Vinyl Chloride	ND	U	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Bromomethane	ND	U	0.50	0.090	1	06/30/11	06/30/11	KWG1106046	*
Chloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	06/30/11	06/30/11	KWG1106046	
Trichlorofluoromethane	ND	U	0.50	0.12	1	06/30/11	06/30/11	KWG1106046	
Acrolein	ND	U	50	0.96	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Acetone	ND	U	20	3.3	1	06/30/11	06/30/11	KWG1106046	
Iodomethane	ND	U	5.0	0.11	1	06/30/11	06/30/11	KWG1106046	*
Carbon Disulfide	ND	U	0.50	0.055	1	06/30/11	06/30/11	KWG1106046	
Methylene Chloride	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Acrylonitrile	ND	U	5.0	0.26	1	06/30/11	06/30/11	KWG1106046	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethane	**0.15**	J	0.50	0.077	1	06/30/11	06/30/11	KWG1106046	
Vinyl Acetate	ND	U	5.0	0.43	1	06/30/11	06/30/11	KWG1106046	
2,2-Dichloropropane	ND	U	0.50	0.060	1	06/30/11	06/30/11	KWG1106046	*
cis-1,2-Dichloroethene	**1.1**		0.50	0.067	1	06/30/11	06/30/11	KWG1106046	
2-Butanone (MEK)	ND	U	20	1.9	1	06/30/11	06/30/11	KWG1106046	
Bromochloromethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Chloroform	**16**		0.50	0.072	1	06/30/11	06/30/11	KWG1106046	
1,1,1-Trichloroethane (TCA)	**0.54**		0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Carbon Tetrachloride	ND	U	0.50	0.096	1	06/30/11	06/30/11	KWG1106046	
Benzene	ND	U	0.50	0.054	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	06/30/11	06/30/11	KWG1106046	
Trichloroethene (TCE)	**1.6**		0.50	0.10	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloropropane	ND	U	0.50	0.095	1	06/30/11	06/30/11	KWG1106046	
Dibromomethane	ND	U	0.50	0.15	1	06/30/11	06/30/11	KWG1106046	
Bromodichloromethane	**0.59**		0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	06/30/11	06/30/11	KWG1106046	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	06/30/11	06/30/11	KWG1106046	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	06/30/11	06/30/11	KWG1106046	
Toluene	ND	U	0.50	0.052	1	06/30/11	06/30/11	KWG1106046	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Volatile Organic Compounds

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	*
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Tetrachloroethene (PCE)	**22**		0.50	0.099	1	06/30/11	06/30/11	KWG1106046	
2-Hexanone	ND	U	20	2.7	1	06/30/11	06/30/11	KWG1106046	
1,3-Dichloropropane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Dibromochloromethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Chlorobenzene	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
Ethylbenzene	ND	U	0.50	0.050	1	06/30/11	06/30/11	KWG1106046	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
m,p-Xylenes	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
o-Xylene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Styrene	ND	U	0.50	0.089	1	06/30/11	06/30/11	KWG1106046	
Bromoform	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	*
Isopropylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	06/30/11	06/30/11	KWG1106046	
n-Propylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	06/30/11	06/30/11	KWG1106046	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	06/30/11	06/30/11	KWG1106046	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	06/30/11	06/30/11	KWG1106046	
sec-Butylbenzene	ND	U	2.0	0.062	1	06/30/11	06/30/11	KWG1106046	
4-Isopropyltoluene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
n-Butylbenzene	ND	U	2.0	0.044	1	06/30/11	06/30/11	KWG1106046	
Naphthalene	**0.15**	J	2.0	0.088	1	06/30/11	06/30/11	KWG1106046	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	73-122	06/30/11	Acceptable
Toluene-d8	101	78-129	06/30/11	Acceptable
4-Bromofluorobenzene	91	68-117	06/30/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Volatile Organic Compounds

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	06/30/11	06/30/11	KWG1106046	
Chloromethane	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	
Vinyl Chloride	ND	U	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Bromomethane	ND	U	0.50	0.090	1	06/30/11	06/30/11	KWG1106046	*
Chloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	06/30/11	06/30/11	KWG1106046	
Trichlorofluoromethane	ND	U	0.50	0.12	1	06/30/11	06/30/11	KWG1106046	
Acrolein	ND	U	50	0.96	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Acetone	ND	U	20	3.3	1	06/30/11	06/30/11	KWG1106046	
Iodomethane	ND	U	5.0	0.11	1	06/30/11	06/30/11	KWG1106046	*
Carbon Disulfide	ND	U	0.50	0.055	1	06/30/11	06/30/11	KWG1106046	
Methylene Chloride	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Acrylonitrile	ND	U	5.0	0.26	1	06/30/11	06/30/11	KWG1106046	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethane	**0.22**	J	0.50	0.077	1	06/30/11	06/30/11	KWG1106046	
Vinyl Acetate	ND	U	5.0	0.43	1	06/30/11	06/30/11	KWG1106046	
2,2-Dichloropropane	ND	U	0.50	0.060	1	06/30/11	06/30/11	KWG1106046	*
cis-1,2-Dichloroethene	**2.0**		0.50	0.067	1	06/30/11	06/30/11	KWG1106046	
2-Butanone (MEK)	ND	U	20	1.9	1	06/30/11	06/30/11	KWG1106046	
Bromochloromethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Chloroform	**2.4**		0.50	0.072	1	06/30/11	06/30/11	KWG1106046	
1,1,1-Trichloroethane (TCA)	**0.19**	J	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Carbon Tetrachloride	ND	U	0.50	0.096	1	06/30/11	06/30/11	KWG1106046	
Benzene	ND	U	0.50	0.054	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	06/30/11	06/30/11	KWG1106046	
Trichloroethene (TCE)	**0.46**	J	0.50	0.10	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloropropane	ND	U	0.50	0.095	1	06/30/11	06/30/11	KWG1106046	
Dibromomethane	ND	U	0.50	0.15	1	06/30/11	06/30/11	KWG1106046	
Bromodichloromethane	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	06/30/11	06/30/11	KWG1106046	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	06/30/11	06/30/11	KWG1106046	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	06/30/11	06/30/11	KWG1106046	
Toluene	ND	U	0.50	0.052	1	06/30/11	06/30/11	KWG1106046	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Volatile Organic Compounds

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	*
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Tetrachloroethene (PCE)	**0.31**	J	0.50	0.099	1	06/30/11	06/30/11	KWG1106046	
2-Hexanone	ND	U	20	2.7	1	06/30/11	06/30/11	KWG1106046	
1,3-Dichloropropane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Dibromochloromethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Chlorobenzene	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
Ethylbenzene	ND	U	0.50	0.050	1	06/30/11	06/30/11	KWG1106046	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
m,p-Xylenes	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
o-Xylene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Styrene	ND	U	0.50	0.089	1	06/30/11	06/30/11	KWG1106046	
Bromoform	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	*
Isopropylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	06/30/11	06/30/11	KWG1106046	
n-Propylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	06/30/11	06/30/11	KWG1106046	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	06/30/11	06/30/11	KWG1106046	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	06/30/11	06/30/11	KWG1106046	
sec-Butylbenzene	ND	U	2.0	0.062	1	06/30/11	06/30/11	KWG1106046	
4-Isopropyltoluene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
n-Butylbenzene	ND	U	2.0	0.044	1	06/30/11	06/30/11	KWG1106046	
Naphthalene	ND	U	2.0	0.088	1	06/30/11	06/30/11	KWG1106046	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	73-122	06/30/11	Acceptable
Toluene-d8	102	78-129	06/30/11	Acceptable
4-Bromofluorobenzene	93	68-117	06/30/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	06/30/11	06/30/11	KWG1106046	
Chloromethane	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	
Vinyl Chloride	**19**		0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Bromomethane	ND	U	0.50	0.090	1	06/30/11	06/30/11	KWG1106046	*
Chloroethane	**7.0**		0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	06/30/11	06/30/11	KWG1106046	
Trichlorofluoromethane	ND	U	0.50	0.12	1	06/30/11	06/30/11	KWG1106046	
Acrolein	ND	U	50	0.96	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethene	**2.6**		0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Acetone	ND	U	20	3.3	1	06/30/11	06/30/11	KWG1106046	
Iodomethane	ND	U	5.0	0.11	1	06/30/11	06/30/11	KWG1106046	*
Carbon Disulfide	ND	U	0.50	0.055	1	06/30/11	06/30/11	KWG1106046	
Methylene Chloride	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Acrylonitrile	ND	U	5.0	0.26	1	06/30/11	06/30/11	KWG1106046	
trans-1,2-Dichloroethene	**2.7**		0.50	0.057	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethane	**35**		0.50	0.077	1	06/30/11	06/30/11	KWG1106046	
Vinyl Acetate	ND	U	5.0	0.43	1	06/30/11	06/30/11	KWG1106046	
2,2-Dichloropropane	ND	U	0.50	0.060	1	06/30/11	06/30/11	KWG1106046	*
cis-1,2-Dichloroethene	**200**	D	2.5	0.34	5	06/30/11	06/30/11	KWG1106046	
2-Butanone (MEK)	ND	U	20	1.9	1	06/30/11	06/30/11	KWG1106046	
Bromochloromethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Chloroform	**3.0**		0.50	0.072	1	06/30/11	06/30/11	KWG1106046	
1,1,1-Trichloroethane (TCA)	**81**	D	2.5	0.38	5	06/30/11	06/30/11	KWG1106046	
Carbon Tetrachloride	ND	U	0.50	0.096	1	06/30/11	06/30/11	KWG1106046	
Benzene	**2.1**		0.50	0.054	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloroethane (EDC)	**0.090**	J	0.50	0.080	1	06/30/11	06/30/11	KWG1106046	
Trichloroethene (TCE)	**100**	D	2.5	0.50	5	06/30/11	06/30/11	KWG1106046	
1,2-Dichloropropane	ND	U	0.50	0.095	1	06/30/11	06/30/11	KWG1106046	
Dibromomethane	ND	U	0.50	0.15	1	06/30/11	06/30/11	KWG1106046	
Bromodichloromethane	**0.11**	J	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	06/30/11	06/30/11	KWG1106046	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	06/30/11	06/30/11	KWG1106046	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	06/30/11	06/30/11	KWG1106046	
Toluene	**8.2**		0.50	0.052	1	06/30/11	06/30/11	KWG1106046	

Comments:

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Volatile Organic Compounds

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	*
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Tetrachloroethene (PCE)	**86**	D	2.5	0.50	5	06/30/11	06/30/11	KWG1106046	
2-Hexanone	ND	U	20	2.7	1	06/30/11	06/30/11	KWG1106046	
1,3-Dichloropropane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Dibromochloromethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Chlorobenzene	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
Ethylbenzene	**0.090**	J	0.50	0.050	1	06/30/11	06/30/11	KWG1106046	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
m,p-Xylenes	**0.67**		0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
o-Xylene	**3.4**		0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Styrene	ND	U	0.50	0.089	1	06/30/11	06/30/11	KWG1106046	
Bromoform	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	*
Isopropylbenzene	**0.070**	J	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	06/30/11	06/30/11	KWG1106046	
n-Propylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	06/30/11	06/30/11	KWG1106046	
1,3,5-Trimethylbenzene	**0.45**	J	2.0	0.089	1	06/30/11	06/30/11	KWG1106046	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	06/30/11	06/30/11	KWG1106046	
sec-Butylbenzene	ND	U	2.0	0.062	1	06/30/11	06/30/11	KWG1106046	
4-Isopropyltoluene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
n-Butylbenzene	ND	U	2.0	0.044	1	06/30/11	06/30/11	KWG1106046	
Naphthalene	**0.18**	J	2.0	0.088	1	06/30/11	06/30/11	KWG1106046	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	06/30/11	Acceptable
Toluene-d8	102	78-129	06/30/11	Acceptable
4-Bromofluorobenzene	92	68-117	06/30/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Volatile Organic Compounds

Sample Name: SPI-3-W-062711
Lab Code: K1105818-004

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	06/30/11	06/30/11	KWG1106046	
Chloromethane	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	
Vinyl Chloride	**19**		0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Bromomethane	ND	U	0.50	0.090	1	06/30/11	06/30/11	KWG1106046	*
Chloroethane	**6.7**		0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	06/30/11	06/30/11	KWG1106046	
Trichlorofluoromethane	ND	U	0.50	0.12	1	06/30/11	06/30/11	KWG1106046	
Acrolein	ND	U	50	0.96	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethene	**2.6**		0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Acetone	ND	U	20	3.3	1	06/30/11	06/30/11	KWG1106046	
Iodomethane	ND	U	5.0	0.11	1	06/30/11	06/30/11	KWG1106046	*
Carbon Disulfide	ND	U	0.50	0.055	1	06/30/11	06/30/11	KWG1106046	
Methylene Chloride	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Acrylonitrile	ND	U	5.0	0.26	1	06/30/11	06/30/11	KWG1106046	
trans-1,2-Dichloroethene	**2.6**		0.50	0.057	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethane	**35**		0.50	0.077	1	06/30/11	06/30/11	KWG1106046	
Vinyl Acetate	ND	U	5.0	0.43	1	06/30/11	06/30/11	KWG1106046	
2,2-Dichloropropane	ND	U	0.50	0.060	1	06/30/11	06/30/11	KWG1106046	*
cis-1,2-Dichloroethene	**200**	D	2.5	0.34	5	06/30/11	06/30/11	KWG1106046	
2-Butanone (MEK)	ND	U	20	1.9	1	06/30/11	06/30/11	KWG1106046	
Bromochloromethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Chloroform	**3.1**		0.50	0.072	1	06/30/11	06/30/11	KWG1106046	
1,1,1-Trichloroethane (TCA)	**80**	D	2.5	0.38	5	06/30/11	06/30/11	KWG1106046	
Carbon Tetrachloride	ND	U	0.50	0.096	1	06/30/11	06/30/11	KWG1106046	
Benzene	**2.1**		0.50	0.054	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloroethane (EDC)	**0.080**	J	0.50	0.080	1	06/30/11	06/30/11	KWG1106046	
Trichloroethene (TCE)	**100**	D	2.5	0.50	5	06/30/11	06/30/11	KWG1106046	
1,2-Dichloropropane	ND	U	0.50	0.095	1	06/30/11	06/30/11	KWG1106046	
Dibromomethane	ND	U	0.50	0.15	1	06/30/11	06/30/11	KWG1106046	
Bromodichloromethane	**0.11**	J	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	06/30/11	06/30/11	KWG1106046	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	06/30/11	06/30/11	KWG1106046	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	06/30/11	06/30/11	KWG1106046	
Toluene	**7.8**		0.50	0.052	1	06/30/11	06/30/11	KWG1106046	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Volatile Organic Compounds

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	*
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Tetrachloroethene (PCE)	**86**	D	2.5	0.50	5	06/30/11	06/30/11	KWG1106046	
2-Hexanone	ND	U	20	2.7	1	06/30/11	06/30/11	KWG1106046	
1,3-Dichloropropane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Dibromochloromethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Chlorobenzene	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
Ethylbenzene	**0.080**	J	0.50	0.050	1	06/30/11	06/30/11	KWG1106046	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
m,p-Xylenes	**0.59**		0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
o-Xylene	**3.4**		0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Styrene	ND	U	0.50	0.089	1	06/30/11	06/30/11	KWG1106046	
Bromoform	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	*
Isopropylbenzene	**0.070**	J	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	06/30/11	06/30/11	KWG1106046	
n-Propylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	06/30/11	06/30/11	KWG1106046	
1,3,5-Trimethylbenzene	**0.40**	J	2.0	0.089	1	06/30/11	06/30/11	KWG1106046	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	06/30/11	06/30/11	KWG1106046	
sec-Butylbenzene	ND	U	2.0	0.062	1	06/30/11	06/30/11	KWG1106046	
4-Isopropyltoluene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
n-Butylbenzene	ND	U	2.0	0.044	1	06/30/11	06/30/11	KWG1106046	
Naphthalene	**0.15**	J	2.0	0.088	1	06/30/11	06/30/11	KWG1106046	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	06/30/11	Acceptable
Toluene-d8	102	78-129	06/30/11	Acceptable
4-Bromofluorobenzene	93	68-117	06/30/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Volatile Organic Compounds

Sample Name: Trip Blanks
Lab Code: K1105818-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	06/30/11	06/30/11	KWG1106046	
Chloromethane	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	
Vinyl Chloride	ND	U	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Bromomethane	ND	U	0.50	0.090	1	06/30/11	06/30/11	KWG1106046	*
Chloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	06/30/11	06/30/11	KWG1106046	
Trichlorofluoromethane	ND	U	0.50	0.12	1	06/30/11	06/30/11	KWG1106046	
Acrolein	ND	U	50	0.96	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Acetone	ND	U	20	3.3	1	06/30/11	06/30/11	KWG1106046	
Iodomethane	ND	U	5.0	0.11	1	06/30/11	06/30/11	KWG1106046	*
Carbon Disulfide	ND	U	0.50	0.055	1	06/30/11	06/30/11	KWG1106046	
Methylene Chloride	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Acrylonitrile	ND	U	5.0	0.26	1	06/30/11	06/30/11	KWG1106046	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethane	ND	U	0.50	0.077	1	06/30/11	06/30/11	KWG1106046	
Vinyl Acetate	ND	U	5.0	0.43	1	06/30/11	06/30/11	KWG1106046	
2,2-Dichloropropane	ND	U	0.50	0.060	1	06/30/11	06/30/11	KWG1106046	*
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	06/30/11	06/30/11	KWG1106046	
2-Butanone (MEK)	**2.0**	J	20	1.9	1	06/30/11	06/30/11	KWG1106046	
Bromochloromethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Chloroform	ND	U	0.50	0.072	1	06/30/11	06/30/11	KWG1106046	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Carbon Tetrachloride	ND	U	0.50	0.096	1	06/30/11	06/30/11	KWG1106046	
Benzene	ND	U	0.50	0.054	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	06/30/11	06/30/11	KWG1106046	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloropropane	ND	U	0.50	0.095	1	06/30/11	06/30/11	KWG1106046	
Dibromomethane	ND	U	0.50	0.15	1	06/30/11	06/30/11	KWG1106046	
Bromodichloromethane	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	06/30/11	06/30/11	KWG1106046	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	06/30/11	06/30/11	KWG1106046	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	06/30/11	06/30/11	KWG1106046	
Toluene	ND	U	0.50	0.052	1	06/30/11	06/30/11	KWG1106046	

Comments:

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Volatile Organic Compounds

Sample Name: Trip Blanks
Lab Code: K1105818-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	*
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	06/30/11	06/30/11	KWG1106046	
2-Hexanone	ND	U	20	2.7	1	06/30/11	06/30/11	KWG1106046	
1,3-Dichloropropane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Dibromochloromethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Chlorobenzene	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
Ethylbenzene	ND	U	0.50	0.050	1	06/30/11	06/30/11	KWG1106046	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
m,p-Xylenes	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
o-Xylene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Styrene	ND	U	0.50	0.089	1	06/30/11	06/30/11	KWG1106046	
Bromoform	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	*
Isopropylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	06/30/11	06/30/11	KWG1106046	
n-Propylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	06/30/11	06/30/11	KWG1106046	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	06/30/11	06/30/11	KWG1106046	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	06/30/11	06/30/11	KWG1106046	
sec-Butylbenzene	ND	U	2.0	0.062	1	06/30/11	06/30/11	KWG1106046	
4-Isopropyltoluene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
n-Butylbenzene	ND	U	2.0	0.044	1	06/30/11	06/30/11	KWG1106046	
Naphthalene	ND	U	2.0	0.088	1	06/30/11	06/30/11	KWG1106046	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	06/30/11	Acceptable
Toluene-d8	101	78-129	06/30/11	Acceptable
4-Bromofluorobenzene	92	68-117	06/30/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1106046-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dichlorodifluoromethane	ND	U	0.50	0.13	1	06/30/11	06/30/11	KWG1106046	
Chloromethane	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	
Vinyl Chloride	ND	U	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Bromomethane	ND	U	0.50	0.090	1	06/30/11	06/30/11	KWG1106046	*
Chloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Dichlorofluoromethane (CFC 21)	ND	U	0.50	0.053	1	06/30/11	06/30/11	KWG1106046	
Trichlorofluoromethane	ND	U	0.50	0.12	1	06/30/11	06/30/11	KWG1106046	
Acrolein	ND	U	50	0.96	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Acetone	ND	U	20	3.3	1	06/30/11	06/30/11	KWG1106046	
Iodomethane	ND	U	5.0	0.11	1	06/30/11	06/30/11	KWG1106046	*
Carbon Disulfide	ND	U	0.50	0.055	1	06/30/11	06/30/11	KWG1106046	
Methylene Chloride	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Acrylonitrile	ND	U	5.0	0.26	1	06/30/11	06/30/11	KWG1106046	
trans-1,2-Dichloroethene	ND	U	0.50	0.057	1	06/30/11	06/30/11	KWG1106046	
1,1-Dichloroethane	ND	U	0.50	0.077	1	06/30/11	06/30/11	KWG1106046	
Vinyl Acetate	ND	U	5.0	0.43	1	06/30/11	06/30/11	KWG1106046	
2,2-Dichloropropane	ND	U	0.50	0.060	1	06/30/11	06/30/11	KWG1106046	*
cis-1,2-Dichloroethene	ND	U	0.50	0.067	1	06/30/11	06/30/11	KWG1106046	
2-Butanone (MEK)	ND	U	20	1.9	1	06/30/11	06/30/11	KWG1106046	
Bromochloromethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
Chloroform	ND	U	0.50	0.072	1	06/30/11	06/30/11	KWG1106046	
1,1,1-Trichloroethane (TCA)	ND	U	0.50	0.075	1	06/30/11	06/30/11	KWG1106046	
Carbon Tetrachloride	ND	U	0.50	0.096	1	06/30/11	06/30/11	KWG1106046	
Benzene	ND	U	0.50	0.054	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloroethane (EDC)	ND	U	0.50	0.080	1	06/30/11	06/30/11	KWG1106046	
Trichloroethene (TCE)	ND	U	0.50	0.10	1	06/30/11	06/30/11	KWG1106046	
1,2-Dichloropropane	ND	U	0.50	0.095	1	06/30/11	06/30/11	KWG1106046	
Dibromomethane	ND	U	0.50	0.15	1	06/30/11	06/30/11	KWG1106046	
Bromodichloromethane	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
2-Chloroethyl Vinyl Ether	ND	U	5.0	0.16	1	06/30/11	06/30/11	KWG1106046	
cis-1,3-Dichloropropene	ND	U	0.50	0.18	1	06/30/11	06/30/11	KWG1106046	
4-Methyl-2-pentanone (MIBK)	ND	U	20	2.6	1	06/30/11	06/30/11	KWG1106046	
Toluene	ND	U	0.50	0.052	1	06/30/11	06/30/11	KWG1106046	

Comments:

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1106046-4

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
trans-1,3-Dichloropropene	ND	U	0.50	0.068	1	06/30/11	06/30/11	KWG1106046	*
1,1,2-Trichloroethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Tetrachloroethene (PCE)	ND	U	0.50	0.099	1	06/30/11	06/30/11	KWG1106046	
2-Hexanone	ND	U	20	2.7	1	06/30/11	06/30/11	KWG1106046	
1,3-Dichloropropane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
Dibromochloromethane	ND	U	0.50	0.14	1	06/30/11	06/30/11	KWG1106046	
1,2-Dibromoethane (EDB)	ND	U	2.0	0.10	1	06/30/11	06/30/11	KWG1106046	
Chlorobenzene	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
Ethylbenzene	ND	U	0.50	0.050	1	06/30/11	06/30/11	KWG1106046	
1,1,1,2-Tetrachloroethane	ND	U	0.50	0.11	1	06/30/11	06/30/11	KWG1106046	
m,p-Xylenes	ND	U	0.50	0.091	1	06/30/11	06/30/11	KWG1106046	
o-Xylene	ND	U	0.50	0.074	1	06/30/11	06/30/11	KWG1106046	
Styrene	ND	U	0.50	0.089	1	06/30/11	06/30/11	KWG1106046	
Bromoform	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	*
Isopropylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,1,2,2-Tetrachloroethane	ND	U	0.50	0.16	1	06/30/11	06/30/11	KWG1106046	
trans-1,4-Dichloro-2-butene	ND	U	10	0.35	1	06/30/11	06/30/11	KWG1106046	
n-Propylbenzene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
1,2,3-Trichloropropane	ND	U	0.50	0.20	1	06/30/11	06/30/11	KWG1106046	
1,3,5-Trimethylbenzene	ND	U	2.0	0.089	1	06/30/11	06/30/11	KWG1106046	
1,2,4-Trimethylbenzene	ND	U	2.0	0.069	1	06/30/11	06/30/11	KWG1106046	
sec-Butylbenzene	ND	U	2.0	0.062	1	06/30/11	06/30/11	KWG1106046	
4-Isopropyltoluene	ND	U	2.0	0.051	1	06/30/11	06/30/11	KWG1106046	
n-Butylbenzene	ND	U	2.0	0.044	1	06/30/11	06/30/11	KWG1106046	
Naphthalene	ND	U	2.0	0.088	1	06/30/11	06/30/11	KWG1106046	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	06/30/11	Acceptable
Toluene-d8	101	78-129	06/30/11	Acceptable
4-Bromofluorobenzene	92	68-117	06/30/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
SPI-564-W-062711	K1105818-001	96	101	91
SPI-1-W-062711	K1105818-002	96	102	93
SPI-2-W-062711	K1105818-003	99	102	92
SPI-3-W-062711	K1105818-004	101	102	93
Trip Blanks	K1105818-005	94	101	92
Method Blank	KWG1106046-4	93	101	92
SPI-2-W-062711MS	KWG1106046-1	95	104	97
SPI-2-W-062711DMS	KWG1106046-2	95	105	96
Lab Control Sample	KWG1106046-3	96	105	97

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	73-122
Sur2 =	Toluene-d8	78-129
Sur3 =	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Extracted:**	06/30/2011
Sample Matrix:	Water	**Date Analyzed:**	06/30/2011

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	SPI-2-W-062711	**Units:**	ug/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1106046

		SPI-2-W-062711MS KWG1106046-1 Matrix Spike			SPI-2-W-062711DMS KWG1106046-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Vinyl Chloride	19	53.3	50.0	69	50.7	50.0	64	52-151	5	30
1,1-Dichloroethene	2.6	56.7	50.0	108	55.2	50.0	105	67-147	3	30
Chloroform	3.0	55.7	50.0	105	53.9	50.0	102	65-125	3	30
Carbon Tetrachloride	ND	46.9	50.0	94	45.4	50.0	91	56-143	3	30
Benzene	2.1	55.1	50.0	106	53.6	50.0	103	69-126	3	30
Trichloroethene (TCE)	100	153	50.0	101	147	50.0	88	56-137	4	30
Bromodichloromethane	0.11	49.6	50.0	99	47.7	50.0	95	69-131	4	30
Toluene	8.2	61.7	50.0	107	59.4	50.0	102	66-128	4	30
1,1,2-Trichloroethane	ND	55.7	50.0	111	54.5	50.0	109	68-125	2	30
2-Hexanone	ND	249	250	99	252	250	101	44-135	1	30
Chlorobenzene	ND	52.0	50.0	104	49.7	50.0	99	68-120	5	30
Ethylbenzene	0.090	53.2	50.0	106	50.0	50.0	100	65-126	6	30
1,2,3-Trichloropropane	ND	49.2	50.0	98	50.8	50.0	102	65-122	3	30
Naphthalene	0.18	43.3	50.0	86	44.4	50.0	88	61-137	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Extracted: 06/30/2011
Date Analyzed: 06/30/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1106046

	Lab Control Sample KWG1106046-3 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Dichlorodifluoromethane	8.92	10.0	89	21-156
Chloromethane	9.15	10.0	92	45-135
Vinyl Chloride	7.17	10.0	72	59-135
Bromomethane	6.28	10.0	63	24-144
Chloroethane	9.16	10.0	92	60-128
Dichlorofluoromethane (CFC 21)	9.24	10.0	92	68-139
Trichlorofluoromethane	8.65	10.0	87	54-129
Acrolein	86.8	100	87	10-214
1,1-Dichloroethene	10.3	10.0	103	70-136
Acetone	57.4	50.0	115	53-129
Iodomethane	24.2	30.0	81	37-158
Carbon Disulfide	18.0	20.0	90	64-129
Methylene Chloride	10.5	10.0	105	64-137
Acrylonitrile	39.0	40.0	98	48-144
trans-1,2-Dichloroethene	10.3	10.0	103	70-121
1,1-Dichloroethane	10.1	10.0	101	72-122
Vinyl Acetate	36.7	50.0	73	10-193
2,2-Dichloropropane	7.41	10.0	74	48-133
cis-1,2-Dichloroethene	10.0	10.0	100	76-125
2-Butanone (MEK)	59.7	50.0	119	56-137
Bromochloromethane	10.5	10.0	105	72-123
Chloroform	10.5	10.0	105	71-118
1,1,1-Trichloroethane (TCA)	8.76	10.0	88	65-126
Carbon Tetrachloride	8.67	10.0	87	58-133
Benzene	10.4	10.0	104	74-118
1,2-Dichloroethane (EDC)	10.9	10.0	109	69-125
Trichloroethene (TCE)	10.2	10.0	102	71-122
1,2-Dichloropropane	10.0	10.0	100	73-123
Dibromomethane	10.1	10.0	101	71-124
Bromodichloromethane	9.83	10.0	98	72-127
2-Chloroethyl Vinyl Ether	9.39	10.0	94	10-192
cis-1,3-Dichloropropene	8.86	10.0	89	71-125
4-Methyl-2-pentanone (MIBK)	53.3	50.0	107	57-129
Toluene	10.4	10.0	104	74-117
trans-1,3-Dichloropropene	7.12	10.0	71	56-121
1,1,2-Trichloroethane	10.5	10.0	105	73-122

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Extracted: 06/30/2011
Date Analyzed: 06/30/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1106046

Analyte Name	Lab Control Sample KWG1106046-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Tetrachloroethene (PCE)	10.2	10.0	102	65-121
2-Hexanone	50.4	50.0	101	44-135
1,3-Dichloropropane	10.4	10.0	104	74-120
Dibromochloromethane	9.09	10.0	91	67-124
1,2-Dibromoethane (EDB)	9.99	10.0	100	71-120
Chlorobenzene	10.2	10.0	102	74-115
Ethylbenzene	10.1	10.0	101	71-118
1,1,1,2-Tetrachloroethane	8.86	10.0	89	71-118
m,p-Xylenes	20.2	20.0	101	73-119
o-Xylene	9.96	10.0	100	74-120
Styrene	9.88	10.0	99	75-123
Bromoform	8.71	10.0	87	57-135
Isopropylbenzene	10.7	10.0	107	65-110
1,1,2,2-Tetrachloroethane	10.0	10.0	100	63-126
trans-1,4-Dichloro-2-butene	25.6	30.0	85	28-174
n-Propylbenzene	10.1	10.0	101	69-122
1,2,3-Trichloropropane	10.4	10.0	104	67-123
1,3,5-Trimethylbenzene	10.4	10.0	104	70-120
1,2,4-Trimethylbenzene	10.1	10.0	101	72-121
sec-Butylbenzene	9.78	10.0	98	73-130
4-Isopropyltoluene	9.90	10.0	99	67-115
n-Butylbenzene	9.87	10.0	99	62-123
Naphthalene	8.80	10.0	88	58-132

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Semi-Volatile Organic Compounds

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	ND	U	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	ND	U	0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.6**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.022**	J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	**0.054**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	ND	U	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	**0.062**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.052**	J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	ND	U	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	72	12-109	07/08/11	Acceptable
Phenol-d6	67	23-106	07/08/11	Acceptable
Nitrobenzene-d5	76	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	68	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	71	23-127	07/08/11	Acceptable
Terphenyl-d14	107	40-127	07/08/11	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-1-W-062711
Lab Code: K1105818-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	ND	U	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	ND	U	0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.7**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.029**	J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	**0.067**	J	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.045**	J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.14**	J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	71	12-109	07/08/11	Acceptable
Phenol-d6	66	23-106	07/08/11	Acceptable
Nitrobenzene-d5	71	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	68	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	82	23-127	07/08/11	Acceptable
Terphenyl-d14	100	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	**0.12**	J	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	**0.24**	J	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	**0.60**		0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.7**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.028**	J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-062711	**Units:**	ug/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	ND	U	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	**0.029**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.096**	J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.13**	J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	77	12-109	07/08/11	Acceptable
Phenol-d6	74	23-106	07/08/11	Acceptable
Nitrobenzene-d5	79	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	72	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	81	23-127	07/08/11	Acceptable
Terphenyl-d14	100	40-127	07/08/11	Acceptable

† **Analyte Comments**

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-3-W-062711
Lab Code: K1105818-004

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	**0.14**	J	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	**0.26**	J	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	**0.61**		0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	**0.13**	J	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.7**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.043**	J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	**0.028**	J	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	**0.028**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.081**	J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.14**	J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	78	12-109	07/08/11	Acceptable
Phenol-d6	74	23-106	07/08/11	Acceptable
Nitrobenzene-d5	80	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	73	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	86	23-127	07/08/11	Acceptable
Terphenyl-d14	103	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: NA
Date Received: NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: KWG1105973-3

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	**0.24**	J	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	ND	U	0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	ND	U	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.026**	J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1105973-3	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	**0.025**	J	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.033**	J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.15**	J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	75	12-109	07/08/11	Acceptable
Phenol-d6	74	23-106	07/08/11	Acceptable
Nitrobenzene-d5	90	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	86	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	76	23-127	07/08/11	Acceptable
Terphenyl-d14	120	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818

Surrogate Recovery Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	Sur4	Sur5	Sur6
SPI-564-W-062711	K1105818-001	72	67	76	68	71	107
SPI-1-W-062711	K1105818-002	71	66	71	68	82	100
SPI-2-W-062711	K1105818-003	77	74	79	72	81	100
SPI-3-W-062711	K1105818-004	78	74	80	73	86	103
Method Blank	KWG1105973-3	75	74	90	86	76	120
Lab Control Sample	KWG1105973-1	87	79	90	79	92	105
Duplicate Lab Control Sample	KWG1105973-2	87	81	91	80	88	105

Surrogate Recovery Control Limits (%)

Sur1 = 2-Fluorophenol	12-109	Sur5 = 2,4,6-Tribromophenol	23-127
Sur2 = Phenol-d6	23-106	Sur6 = Terphenyl-d14	40-127
Sur3 = Nitrobenzene-d5	26-110		
Sur4 = 2-Fluorobiphenyl	31-94		

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Extracted: 06/29/2011
Date Analyzed: 07/08/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1105973

	Lab Control Sample KWG1105973-1 Lab Control Spike			Duplicate Lab Control Sample KWG1105973-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
N-Nitrosodimethylamine	4.38	5.00	88	4.39	5.00	88	26-119	0	30
Bis(2-chloroethyl) Ether	3.92	5.00	78	3.60	5.00	72	37-109	9	30
Phenol	4.25	5.00	85	4.22	5.00	84	35-114	1	30
2-Chlorophenol	4.50	5.00	90	4.28	5.00	86	37-110	5	30
1,3-Dichlorobenzene	2.73	5.00	55	2.57	5.00	51	14-68	6	30
1,4-Dichlorobenzene	2.74	5.00	55	2.58	5.00	52	15-71	6	30
1,2-Dichlorobenzene	2.88	5.00	58	2.88	5.00	58	17-76	0	30
Benzyl Alcohol	4.25	5.00	85	4.08	5.00	82	32-115	4	30
Bis(2-chloroisopropyl) Ether	4.07	5.00	81	3.87	5.00	77	29-110	5	30
2-Methylphenol	3.82	5.00	76	2.92	5.00	58	21-109	27	30
Hexachloroethane	2.28	5.00	46	2.13	5.00	43	10-59	7	30
N-Nitrosodi-n-propylamine	4.39	5.00	88	4.11	5.00	82	32-112	7	30
4-Methylphenol	4.34	5.00	87	3.30	5.00	66	19-114	27	30
Nitrobenzene	4.34	5.00	87	4.10	5.00	82	36-110	6	30
Isophorone	4.34	5.00	87	4.37	5.00	87	38-106	1	30
2-Nitrophenol	4.62	5.00	92	4.72	5.00	94	41-112	2	30
2,4-Dimethylphenol	2.94	5.00	59	0.409	5.00	8 *	10-106	151 *	30
Bis(2-chloroethoxy)methane	4.34	5.00	87	4.31	5.00	86	39-109	1	30
2,4-Dichlorophenol	4.48	5.00	90	4.35	5.00	87	37-111	3	30
Benzoic Acid	8.03	15.0	54	7.01	15.0	47	10-83	14	30
1,2,4-Trichlorobenzene	2.86	5.00	57	2.90	5.00	58	18-76	1	30
4-Chloroaniline	3.00	5.00	60	3.29	5.00	66	14-108	9	30
Hexachlorobutadiene	2.10	5.00	42	1.93	5.00	39	10-59	8	30
4-Chloro-3-methylphenol	4.31	5.00	86	3.84	5.00	77	33-115	12	30
Hexachlorocyclopentadiene	0.856	5.00	17	0.792	5.00	16	10-37	8	30
2,4,6-Trichlorophenol	4.31	5.00	86	4.09	5.00	82	36-113	5	30
2,4,5-Trichlorophenol	4.40	5.00	88	4.28	5.00	86	41-112	3	30
2-Chloronaphthalene	3.75	5.00	75	3.58	5.00	72	31-95	5	30
2-Nitroaniline	4.31	5.00	86	4.26	5.00	85	40-118	1	30
Dimethyl Phthalate	4.40	5.00	88	4.35	5.00	87	46-111	1	30
2,6-Dinitrotoluene	4.69	5.00	94	4.80	5.00	96	44-116	2	30
3-Nitroaniline	4.10	5.00	82	3.78	5.00	76	34-118	8	30
2,4-Dinitrophenol	4.02	5.00	80	3.70	5.00	74	10-116	8	30
Dibenzofuran	4.10	5.00	82	4.06	5.00	81	37-103	1	30
4-Nitrophenol	4.34	5.00	87	4.17	5.00	83	38-125	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Extracted: 06/29/2011
Date Analyzed: 07/08/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Semi-Volatile Organic Compounds by GC/MS

Extraction Method: EPA 3520C
Analysis Method: 8270C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1105973

	Lab Control Sample KWG1105973-1 Lab Control Spike			Duplicate Lab Control Sample KWG1105973-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
2,4-Dinitrotoluene	4.20	5.00	84	4.24	5.00	85	47-119	1	30
4-Chlorophenyl Phenyl Ether	3.99	5.00	80	3.89	5.00	78	37-103	3	30
Diethyl Phthalate	4.56	5.00	91	4.43	5.00	89	47-113	3	30
4-Nitroaniline	4.79	5.00	96	4.36	5.00	87	38-119	9	30
2-Methyl-4,6-dinitrophenol	4.32	5.00	86	4.16	5.00	83	10-125	4	30
N-Nitrosodiphenylamine	4.33	5.00	87	4.05	5.00	81	36-111	7	30
4-Bromophenyl Phenyl Ether	4.20	5.00	84	4.17	5.00	83	42-105	1	30
Hexachlorobenzene	4.20	5.00	84	4.14	5.00	83	42-102	1	30
Pentachlorophenol	4.23	5.00	85	4.21	5.00	84	10-119	1	30
Carbazole	4.44	5.00	89	4.50	5.00	90	49-114	1	30
Di-n-butyl Phthalate	4.50	5.00	90	4.55	5.00	91	44-126	1	30
Butyl Benzyl Phthalate	5.21	5.00	104	5.09	5.00	102	48-115	2	30
3,3'-Dichlorobenzidine	0.449	5.00	9 *	2.20	5.00	44	13-108	132 *	30
Bis(2-ethylhexyl) Phthalate	5.20	5.00	104	5.02	5.00	100	45-122	3	30
Di-n-octyl Phthalate	4.67	5.00	93	4.56	5.00	91	48-119	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Polynuclear Aromatic Hydrocarbons

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.21**		0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	**0.032**		0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	**0.051**		0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	**0.046**		0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	**0.13**		0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	ND	Ui	0.020	0.0076	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	**0.038**		0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	**0.017**	J	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	**0.0037**	J	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Chrysene	**0.0040**	J	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	**0.0035**	J	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	**0.0026**	J	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	**0.0028**	J	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	**0.0034**	J	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	**0.0045**	J	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	87	28-98	07/05/11	Acceptable
Fluoranthene-d10	86	31-105	07/05/11	Acceptable
Terphenyl-d14	113	27-112	07/05/11	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Polynuclear Aromatic Hydrocarbons

Sample Name: SPI-1-W-062711
Lab Code: K1105818-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270D SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.034**		0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	**0.0058**	J	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	ND	U	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	ND	U	0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	**0.0060**	J	0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	ND	U	0.020	0.0036	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	**0.0059**	J	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	**0.010**	J	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	ND	Ui	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Chrysene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	**0.0034**	J	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	**0.0035**	J	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	88	28-98	07/05/11	Acceptable
Fluoranthene-d10	78	31-105	07/05/11	Acceptable
Terphenyl-d14	83	27-112	07/05/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Polynuclear Aromatic Hydrocarbons

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270D SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.34**		0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	**0.13**		0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	**0.017**	J	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	**0.013**	J	0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	**0.017**	J	0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	**0.0059**	J	0.020	0.0036	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	**0.012**	J	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	**0.011**	J	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	ND	Ui	0.020	0.0049	1	06/29/11	07/05/11	KWG1105972	
Chrysene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	ND	U	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	ND	U	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	91	28-98	07/05/11	Acceptable
Fluoranthene-d10	92	31-105	07/05/11	Acceptable
Terphenyl-d14	100	27-112	07/05/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.42**		0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	**0.17**		0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	**0.021**		0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	**0.015**	J	0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	**0.020**		0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	**0.0059**	J	0.020	0.0036	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	**0.012**	J	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	**0.011**	J	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	ND	Ui	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Chrysene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	ND	U	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	ND	U	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	90	28-98	07/05/11	Acceptable
Fluoranthene-d10	88	31-105	07/05/11	Acceptable
Terphenyl-d14	101	27-112	07/05/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: NA
Date Received: NA

Polynuclear Aromatic Hydrocarbons

Sample Name: Method Blank
Lab Code: KWG1105972-3

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270D SIM

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	ND	U	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	ND	U	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	ND	U	0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	ND	U	0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	ND	U	0.020	0.0036	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	ND	U	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	ND	U	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	ND	U	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Chrysene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	ND	U	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	**0.0035**	J	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	93	28-98	07/05/11	Acceptable
Fluoranthene-d10	95	31-105	07/05/11	Acceptable
Terphenyl-d14	120	27-112	07/05/11	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270D SIM

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3	
SPI-564-W-062711	K1105818-001	87	86	113	*
SPI-1-W-062711	K1105818-002	88	78	83	
SPI-2-W-062711	K1105818-003	91	92	100	
SPI-3-W-062711	K1105818-004	90	88	101	
Method Blank	KWG1105972-3	93	95	120	*
Lab Control Sample	KWG1105972-1	92	90	93	
Duplicate Lab Control Sample	KWG1105972-2	92	88	92	

Surrogate Recovery Control Limits (%)

Sur1 =	Fluorene-d10	28-98
Sur2 =	Fluoranthene-d10	31-105
Sur3 =	Terphenyl-d14	27-112

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Extracted: 06/29/2011
Date Analyzed: 07/05/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
Analysis Method: 8270D SIM

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1105972

	Lab Control Sample KWG1105972-1 Lab Control Spike			Duplicate Lab Control Sample KWG1105972-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	1.75	2.50	70	1.77	2.50	71	39-110	1	30
2-Methylnaphthalene	1.75	2.50	70	1.81	2.50	72	39-115	3	30
Acenaphthylene	1.83	2.50	73	1.82	2.50	73	44-115	0	30
Acenaphthene	1.77	2.50	71	1.82	2.50	73	44-113	2	30
Fluorene	1.84	2.50	73	1.86	2.50	74	48-118	1	30
Phenanthrene	1.89	2.50	75	1.86	2.50	74	47-120	2	30
Anthracene	1.67	2.50	67	1.68	2.50	67	44-117	1	30
Fluoranthene	1.96	2.50	78	1.94	2.50	78	48-128	1	30
Pyrene	1.76	2.50	70	1.77	2.50	71	42-133	1	30
Benz(a)anthracene	1.77	2.50	71	1.78	2.50	71	48-125	0	30
Chrysene	1.89	2.50	75	1.88	2.50	75	50-128	0	30
Benzo(b)fluoranthene	2.09	2.50	84	2.09	2.50	84	49-131	0	30
Benzo(k)fluoranthene	2.02	2.50	81	2.02	2.50	81	54-131	0	30
Benzo(a)pyrene	1.83	2.50	73	1.83	2.50	73	43-134	0	30
Indeno(1,2,3-cd)pyrene	1.70	2.50	68	1.76	2.50	70	45-133	3	30
Dibenz(a,h)anthracene	1.79	2.50	72	1.86	2.50	74	49-133	3	30
Benzo(g,h,i)perylene	1.80	2.50	72	1.91	2.50	76	51-124	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

MEMORANDUM

TO: Project File **DATE:** August 4, 2011

FROM: Jerry Harris

SUBJECT: Laboratory Data Validation Review

PROJECT: Univar Portland

PROJECT #: 816.001.01(048)

TASK: June 27, 2011 Water Sampling

LAB: Columbia Analytical Services Report K1105818

Three stormwater samples were collected at the Univar USA Inc. facility in Portland, Oregon on June 27, 2011. The samples were identified as SPI-1-W-062711, SPI-2-W-062711, and SPI-564-062711. In addition, a blind field duplicate (SPI-3-W-062711) of SPI-2-062711 was collected. A trip blank was also included with the samples. The samples were analyzed by the following methods (Table 1):

Method 1631E (Mercury)

Method 200.7 (Fe)

Method 200.8 (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn)

Method 300.0 (Sulfate)

Method 350.1 (Ammonia)

Method 415.1 (Total Organic Carbon [TOC])

Method 8081B (Pesticides [PEST])

Method 8260 (Volatile Organic Compounds [VOCs]) – Note: Trip blank was only analyzed for VOCs

Method 8270D (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

Method 9014 (Free Cyanide)

Method 9030M (Total Sulfide)

Method 1664 (Oil and Grease [O&G])

NWTPH-Dx (Diesel Range Organics [DRO] and Residual Range Organics [RRO])

SM 2540D (Total Suspended Sediments [TSS])

SM 4500CNE (Total Cyanide and Amenable Cyanide)

Laboratory analyses were conducted by Columbia Analytical Services (CAS) of Kelso, Washington. CAS project number: K1105818.

The quality assurance review of the water sample data is summarized below.

DATA QUALIFICATIONS

Guidelines established by USEPA for review of analytical data were used to validate the data. The comments presented in this memorandum refer to the laboratory's performance in meeting the quality control criteria outlined in the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 2004).

DATA VALIDATION

Completeness

All samples were collected and analyzed as requested.

Sample Collection and Preservation

The laboratory report provided by the analytical laboratory was reviewed. All sample bottles were contained in four coolers that were hand-delivered to the laboratory by a courier. The samples were stored on water ice. The coolers were received at cooler temperatures of 4.9 to 5.9 degrees Centigrade (°C). Temperature blanks were included in all coolers and the blank temperatures ranged from 2.3 to 5.2 °C. The recommended temperature preservation range is 2 °C +/- 4°C.

The cooler and blank temperatures were within the control limits; therefore, no data was qualified due to temperature considerations.

Holding Times

Table 2 provides a summary of the extraction times (where appropriate) and analysis holding times. All extractions and analyses were performed within the recommended holding times except for the following:

Method 8081B (Pesticides [PEST]): All samples were extracted 18 days after sample collection. The case narrative indicated that the samples were originally extracted and analyzed within hold time limits; however, the LCS for that extraction batch was not in control and the extraction had to be performed again for all samples after the extraction holding time had expired. The laboratory also reported that the results from the re-extracted samples were significantly different from the results from the initial extracts. The laboratory reported the results from the re-extracted analyses. The re-extracted samples were stored in a refrigeration unit at 4°C and were properly preserved in the field. Based upon this information, and because of the low volatility

and generally low degradation rates for the PEST target analytes, all detected results for Method 8081B are qualified as estimated and assigned a J flag.

No other data was qualified due to holding time exceedances.

Initial Calibration

Hard copies of the initial calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in initial calibration results associated with the project analyses. No significant initial calibration issues were noted in the case narrative; therefore no data qualifications were required.

Continuing Calibration

Hard copies of the continuing calibration data for this project are not required in the data deliverable. The laboratory case narratives included in the data deliverable reports are required to discuss discrepancies in continuing calibration results associated with the project analyses.

Method 8260B (VOCs): The laboratory reported that the lower control criterion for bromomethane, idomethane, bromoform, 2,2-dichloropropane, and trans-1,3-dichloropropane were exceeded in CCV J:\MS13\0630F004, indicating a potential high bias in sample results for this compound. The laboratory reported that 80% of the CCV analytes passed within 20% of the true value. If this condition is met, then the remaining analytes are considered in control if they pass within 40% of the true value. These conditions were met in the CCV; therefore, the analysis was in control and no qualifications were warranted.

No other significant continuing calibration issues relating to the remaining analyses were noted in the case narrative; therefore no data qualifications were required.

Method Blank Results

At least one laboratory method blank was analyzed for each analytical method and extraction group that included the project sample. The method blank results are summarized in Table 3. Target compounds were detected in the method blanks for the following methods:

Method 350.1 (ammonia): Ammonia was detected in one of two method blanks run for this method. The detected concentration was 0.020 milligrams per liter (mg/L). For all project samples, the concentration of ammonia was greater than five times the blank concentration. Because the sample concentrations were more than five times the blank concentration, the data is not affected by the detection in the blank. No qualifications were warranted.

Method 8081B (endrin aldehyde only): Endrin aldehyde was detected in the method blank at a concentration of 0.28 nanograms per liter (ng/l). Endrin aldehyde was detected in all project samples at concentrations ranging from 0.29 to 1.3 ng/l. The method blank results indicate that sample data for endrin aldehyde may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The endrin aldehyde results for all samples

are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. No other qualifications were warranted.

Method 8270D (benzyl alcohol, bis-2-ethylhexyl phthalate [BEHP], diethyl phthalate[DEP], dimethyl phthalate [DMP] and di-n-butyl phthalate [DNBP]) only): Benzyl alcohol was detected in the method blank at a concentration of 0.24 micrograms per liter (µg/l) and in project samples SPI-2 and SPI-3 at concentrations of 0.24 and 0.26 µg/l. Because the samples concentrations were less than five times the blank concentrations, the sample data may be biased high by the blank detections. This benzyl alcohol results from SPI-2 and SPI-3 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

BEHP was detected in the method blank at a concentration of 0.15 µg/l and in project samples SPI-1, SPI-2, and SPI-3 at concentrations of 0.14, 0.13, and 0.14 µg/l, respectively. Because the sample concentrations in SPI-1, SPI-2, and SPI-3 were similar to the blank concentration, the SPI-1, SPI-2, and SPI-3 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The BEHP results for samples SPI-1, SPI-2, and SPI-3 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

DEP was detected in the method blank at a concentration of 0.025 µg/l and in project samples SPI-1 and SPI-3 at concentrations of 0.067 and 0.028 µg/l, respectively. Because the sample concentrations in SPI-1 and SPI-3 were similar to the blank concentration, the SPI-1 and SPI-3 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The DEP results for samples SPI-1 and SPI-3 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

DMP was detected in the method blank at a concentration of 0.026 µg/l and in all project samples at concentrations ranging from 0.022 to 0.043 µg/l. Because the sample concentrations in all project samples were similar to the blank concentration, the SPI-564, SPI-1, SPI-2, and SPI-3 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The DMP results for samples SPI-564, SPI-1, SPI-2, and SPI-3 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

DNBP was detected in the method blank at a concentration of 0.033 µg/l and in all project samples at concentrations ranging from 0.045 to 0.096 µg/l. Because the sample concentrations in all project samples were similar to the blank concentration, the SPI-564, SPI-1, SPI-2, and SPI-3 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The DNBP results for samples SPI-564, SPI-1, SPI-2, and SPI-3 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

Method 8270D SIM (Benzo(g,h,i)perylene only): Benzo(g,h,i)perylene was detected in the method blank at a concentration of 0.0035 µg/l and in project samples SPI-1 and SPI-564 at concentrations of 0.0035 and 0.0045 µg/l, respectively. Because the sample concentrations in SPI-1 and SPI-564 were similar to the blank concentration, the SPI-1 and SPI-564 results may be biased high due to potential cross-contamination during sample handling and preparation in the laboratory. The benzo(g,h,i)perylene results for samples SPI-1 and SPI-564 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

NWTPH-Dx (Residual Range Organics only): Residual range organics were detected in the method blank at a concentration of 26 µg/l. Residual range organics were detected in all project samples at concentrations less than five times the blank concentrations. Because the sample concentrations were less than five times the blank concentration, the data may be biased high due to cross-contamination during sample preparation and analysis. The residual range organics results for samples SPI-564, SPI-1, SPI-2, and SPI-3 are qualified as estimated and assigned a J flag. Laboratory pages showing the data qualifications are attached. Non-detect results are not affected and no other qualifications were warranted.

Target compounds were not detected in the method blanks for any of the remaining methods. No data qualifications were required.

Trip Blank Results

Method 8260B: A trip blank was prepared and analyzed for Method 8260B analysis (Table 7). 2-Butanone was detected in the trip blank at a concentration of 2.0 µg/l. 2-Butanone was not detected in the project samples. No qualifications were warranted.

The laboratory reported that the trip blank result for 2-chloroethyl vinyl ether was not valid due to lack of appropriate preservation for this analyte. The results do not affect the project samples. No qualifications were warranted.

No other trip blank analyses were required for this event.

Field Blank Results

No field blanks were required or collected during this field event.

Field Duplicate Analyses

A blind field duplicate was collected during this field event. The duplicate (SPI-3-W-062711) was collected with primary sample SPI-2-W-062711. The field duplicate results were evaluated based upon an acceptable control criteria of 30 RPD.

Method 1631E (Mercury): The field duplicate RPD for mercury was 30.2. Based upon this information, there is significant variability in the reported mercury results due to field sample collection conditions and/or matrix conditions. All mercury results from the project samples are qualified as estimated and assigned a J flag. Laboratory data sheets showing these qualifications are attached.

For the remaining analyses, the field duplicate RPDs were within the control criteria of 30 RPD. No qualifications were warranted.

Laboratory Duplicate Analyses

The laboratory prepared duplicates for the following analyses:

Method 200.7 (Fe): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

Method 200.8 (Al, Sb, As, Cd, Cr, Cu, Fe, Pb, Mn, Mo, Ni, Se, Ag, Zn): The RPDs for all metals were within the control limits of 20 RPD or +/- detection limit in the case of molybdenum and silver. No qualifications were warranted.

Method 300.0 (Sulfate): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

Method 350.1 (Ammonia): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

Method 415.1 (Total Organic Carbon [TOC]): Four duplicates were prepared and analyzed. The RPDs between the primary and the duplicate samples were within the control limit for all four duplicates. No qualifications were warranted.

Method 9014 (Free Cyanide): The RPD between the primary and the duplicate sample was within the control limits. No qualifications were warranted.

Method 9030M (Total Sulfide): The RPD between the primary and the duplicate sample was within the control limit. No qualifications were warranted.

SM 2540D (Total Suspended Sediments [TSS]): Four batch (non-project) duplicates were analyzed. The RPDs between three of the primary and the batch (non-project) duplicate samples were within the control limits. The RPD for the fourth duplicate pair was above the acceptance criteria. Because these are batch (non-project) duplicates, the results are not directly applicable to the project samples. No qualifications were warranted.

SM 4500CNE (Total Cyanide and Amenable Cyanide): The RPD between the primary and the duplicate sample results for both total cyanide and amenable cyanide were within the control limits. No qualifications were warranted.

NWTPH-Dx (TPH-Dx/TPH-HO): Two sample duplicates were prepared and analyzed. The RPDs between the primary and the duplicate sample results for both total TPHs were within the control limits. No qualifications were warranted.

For the remaining methods, either a duplicate was not required or the laboratory prepared matrix spike or laboratory control samples duplicates. These results are discussed in the Matrix Spike and Laboratory Control Sample sections of this report.

Surrogate Recoveries

Surrogates were injected into all samples, field duplicates, method blanks, matrix spike and matrix spike duplicates (MS/MSDs), and laboratory control samples (LCSs) that were analyzed for organic compounds. The surrogate recoveries (%Rs) are summarized in Table 4. The %Rs for all analyses were within the control limits with the following exceptions:

Method 8270D (Semi-Volatile Organic Compounds [SVOCs]): The p-terphenyl %R in project sample SPI-564 was above the upper %R limit. None of the target analytes associated with this surrogate were detected in the project samples and the remaining surrogates were in control. Because only one surrogate was outside the control limit, no qualifications were warranted.

Surrogates were not required for the remaining, non-organic analyses.

Laboratory Control Samples

One laboratory control sample (LCS) was run for each analytical method performed on the project samples. For some methods, an LCS duplicate (LCSD) was analyzed in lieu of a sample or matrix spike duplicate. This is an acceptable substitution. The LCS' were run at the appropriate frequency for this project. The LCS %R and LCS/LCSD (where appropriate) RPD results are summarized in Table 5. The %Rs and RPDs for all methods and control compounds met the %R acceptance criteria with the following exceptions:

Method 9014 (Free cyanide): The free cyanide %R in the LCS was below the lower control limit, indicating a potential low bias in sample results. Based upon this information, none of the associated sample results are rejected; however, all sample results for free cyanide are qualified as estimated and assigned a J flag. The laboratory report pages with the data qualifications shown are attached.

Method 8081B (PESTs): The LCS results for the reported PEST analyses were in control. However, as indicated in the case narrative, the reported results were from re-extracted samples that were re-extracted 11 days after the expiration of the 7-day extraction hold time. For this reason, all of the PEST results were qualified as estimated. The samples were re-extracted and analyzed because the initial analysis LCS failed to meet the LCS control criteria. The laboratory also reported that the sample results for the initial extracts varied significantly from the re-extracted results. Because the laboratory reported that there was a significant difference between the initial and re-extracted sample results, PES requested copies of the original PEST results for comparison. Based upon review of the original and re-extracted results, PES determined that the discrepancies indicated that additional qualifications of some of the PEST results were warranted as follows: For any given PEST target analyte, if the original result was a positive detection and the %R from the original LCS for that analyte was in control, and the result reported for this same analyte from the re-extraction analysis was 'not detected', then there was sufficient concern regarding the actual quantitation of this analyte to impair the quality of the data beyond use. The results from analytes that meet this criteria were qualified as rejected and assigned an R flag. For all other cases (i.e. both the original and re-extraction results for a given analyte were 'not detected', both the original and re-extraction results for a given analyte were detected, the original result was 'not detected' but the subsequent result was a detection, or the original result was a detection but the associated LCS was out of control and the re-extraction result was not

detected) the results from the re-extracted samples were considered to be sufficiently valid to be of use as an estimated value. The J qualifiers assigned due to holding time exceedances were retained in these cases but no rejections were warranted. The laboratory report pages with the data qualifications shown are attached, along with the laboratory-provided results from the original extractions for review purposes.

Method 8270D (SVOCs): The 2,4-dimethylphenol %R in the LCSD was below the lower control limit, indicating a potential low bias in sample results. The LCS %R for this compound and the RPD were within the control limit. The 3,3'-dichlorobenzidine %R in the LCS was below the lower control limit, indicating a potential low bias in sample results. The LCSD %R for this compound was within the control limit and the RPD was not in control. The remaining LCS and LCSD target analytes were within the control limits for %R and RPD. For the two compounds listed above, the companion LCS or LCSD results were within the control limit, indicating that the instrument was capable of accurately detecting the compounds. In addition, the laboratory case narrative stated that these compounds were not part of the group of control analytes for the method and were reported for information purposes only. Based upon this information, none of the associated sample results are rejected; however, all sample results for 3,3-dichlorobenzidiene, and 2,4-dimethylphenol are qualified as estimated and assigned a J flag. The RPD exceedances are not considered sufficient cause to qualify the data. No other SVOCs were qualified. The laboratory report pages with the data qualifications shown are attached.

The LCS results for the remaining analyses were in control. No qualifications were warranted.

Matrix Spike/Matrix Spike Duplicates

One MS analysis is required for each twenty samples of a given matrix/project; therefore MS were run at the appropriate frequency for this project. Sample duplicates or MSDs are also run by the laboratory at this frequency. The MS/MSD %R and MS/MSD (where appropriate) RPD results are summarized in Table 6.

MS analyses were conducted for each of the each of the following analytical methods performed on the project sample:

Method 415.1 (Total Organic Carbon [TOC]): The MS %R was within the control limits. No qualifications were warranted.

Method 350.1 (ammonia): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 9014 (Free Cyanide): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 9030M (Total Sulfide): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 200.7 (Fe): The MS %R was within the control limits. No qualifications were warranted.

Method 200.8 (Al, Sb, As, Cd, Cr, Cu, Pb, Mn, Mo, Ni, Se, Ag, Zn): The MS %Rs were within the control limits. No qualifications were warranted.

Method 300.0 (Sulfate): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method 8260C (VOCs): The MS %Rs were within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Method SM4500C (*Total cyanide*): The MS %R was within the control limits. A MSD was also prepared and analyzed. The MSD %R was within the control limits and the MS/MSD RPD was within the control limits. No qualifications were warranted.

Batch (non-project) MSs and MSDs were prepared by the laboratory for selected methods. Because the MS and MSD samples were prepared from a non-project sample, the batch MS/MSD results do not apply to the project sample data. However, the reporting of the batch results are requested to confirm that the laboratory is following the property QA/QC protocols. Methods that used a batch MS and MSD (if required) are:

Method 1631E (Mercury)

Method 8081B (Pesticides [PEST])

For the following methods, a LCS/LCS duplicate analysis was performed in lieu of a MS/MSD due to lack of sufficient project sample. This substitution is considered acceptable and the LCS/LCSD results are discussed in the LCS section above:

Method 1664 (Oil & Grease)

Method 8270D (Semi-Volatile Organic Compounds [SVOCs)

Method 8270/SIM (Polyaromatic Hydrocarbons [PAHs])

For the NWTPH-Dx method, two sample duplicates were analyzed in lieu of a MS or MSD. This is an acceptable substitution.

A MS is not required for the following methods:

SM 2540D (Total Suspended Sediments [TSS])

Other Quality Control Issues

No other significant quality control issues were identified.

Quantitation Limits

The laboratory analytical results were reported based on laboratory MRLs for routine analytical services (RAS). The MRLs indicate the minimum quantity of a target analyte that can be confidently determined by the reference method. The MRLs are dependent upon sample concentration, sample volume, and dilutions, if required. MDL were also reported for selected analytes. In some cases, the laboratory reported a concentration between the MRL and MDL and qualified these results as estimated. These qualifiers are retained for validation purposes. No other data qualifiers were assigned based on MRLs or MDLs.

Data Assessment

Data were qualified as estimated and selected data was rejected. The laboratory data pages showing the qualifiers are attached. The rejected data is considered unusable. All remaining data, including the data qualified as estimated, are judged to be acceptable for their intended use.

Table 1. Sample Summary

SAMP_ID	SAMP_DATE	METHOD_ID
SPI-1-W-062711		
	6/27/2011	1631E
	6/27/2011	1664
	6/27/2011	200.7
	6/27/2011	200.8
	6/27/2011	300.0
	6/27/2011	350.1
	6/27/2011	415.1
	6/27/2011	8081B
	6/27/2011	8260C
	6/27/2011	8270C
	6/27/2011	8270D SIM
	6/27/2011	9014
	6/27/2011	9030M
	6/27/2011	NWTPH-Dx
	6/27/2011	SM 2540 D
	6/27/2011	SM4500CNE
SPI-2-W-062711		
	6/27/2011	1631E
	6/27/2011	1664
	6/27/2011	200.7
	6/27/2011	200.8
	6/27/2011	300.0
	6/27/2011	350.1
	6/27/2011	415.1
	6/27/2011	8081B
	6/27/2011	8260C
	6/27/2011	8270C
	6/27/2011	8270D SIM
	6/27/2011	9014
	6/27/2011	9030M
	6/27/2011	NWTPH-Dx
	6/27/2011	SM 2540 D
	6/27/2011	SM4500CNE
SPI-3-W-062711		
	6/27/2011	1631E
	6/27/2011	1664
	6/27/2011	200.7
	6/27/2011	200.8

SAMP_ID	SAMP_DATE	METHOD_ID
	6/27/2011	300.0
	6/27/2011	350.1
	6/27/2011	415.1
	6/27/2011	8081B
	6/27/2011	8260C
	6/27/2011	8270C
	6/27/2011	8270D SIM
	6/27/2011	9014
	6/27/2011	9030M
	6/27/2011	NWTPH-Dx
	6/27/2011	SM 2540 D
	6/27/2011	SM4500CNE
SPI-564-W062711		
	6/27/2011	1631E
	6/27/2011	1664
	6/27/2011	200.7
	6/27/2011	200.8
	6/27/2011	300.0
	6/27/2011	350.1
	6/27/2011	415.1
	6/27/2011	8081B
	6/27/2011	8260C
	6/27/2011	8270C
	6/27/2011	8270D SIM
	6/27/2011	9014
	6/27/2011	9030M
	6/27/2011	NWTPH-Dx
	6/27/2011	SM 2540 D
	6/27/2011	SM4500CNE
TRIP BLANKS		
	6/27/2011	8260C

TABLE 2. HOLD TIME SUMMARY

METHOD_ID	SAMP_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
1631E						
	SPI-1-W-062711	6/27/2011	6/30/2011	7/5/2011	3	5
	SPI-2-W-062711	6/27/2011	6/30/2011	7/5/2011	3	5
	SPI-3-W-062711	6/27/2011	6/30/2011	7/5/2011	3	5
	SPI-564-W062711	6/27/2011	6/30/2011	7/5/2011	3	5
1664						
	SPI-1-W-062711	6/27/2011	7/6/2011	7/6/2011	9	0
	SPI-2-W-062711	6/27/2011	7/6/2011	7/6/2011	9	0
	SPI-3-W-062711	6/27/2011	7/6/2011	7/6/2011	9	0
	SPI-564-W062711	6/27/2011	7/6/2011	7/6/2011	9	0
200.7						
	SPI-1-W-062711	6/27/2011	7/15/2011	7/20/2011	18	5
	SPI-2-W-062711	6/27/2011	7/15/2011	7/20/2011	18	5
	SPI-3-W-062711	6/27/2011	7/15/2011	7/20/2011	18	5
	SPI-564-W062711	6/27/2011	7/15/2011	7/20/2011	18	5
200.8						
	SPI-1-W-062711	6/27/2011	6/30/2011	7/5/2011	3	5
	SPI-2-W-062711	6/27/2011	6/30/2011	7/5/2011	3	5
	SPI-3-W-062711	6/27/2011	6/30/2011	7/5/2011	3	5
	SPI-564-W062711	6/27/2011	6/30/2011	7/5/2011	3	5
300.0						
	SPI-1-W-062711	6/27/2011		6/28/2011	NA	1
	SPI-2-W-062711	6/27/2011		6/29/2011	NA	2
	SPI-3-W-062711	6/27/2011		6/29/2011	NA	2
	SPI-564-W062711	6/27/2011		6/28/2011	NA	1
350.1						
	SPI-1-W-062711	6/27/2011		7/7/2011	NA	10
	SPI-2-W-062711	6/27/2011		7/7/2011	NA	10
	SPI-3-W-062711	6/27/2011		7/7/2011	NA	10
	SPI-564-W062711	6/27/2011		7/7/2011	NA	10
415.1						
	SPI-1-W-062711	6/27/2011		7/8/2011	NA	11
	SPI-2-W-062711	6/27/2011		7/8/2011	NA	11
	SPI-3-W-062711	6/27/2011		7/8/2011	NA	11

METHOD_ID	SAMP_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
	SPI-564-W062711	6/27/2011		7/8/2011	NA	11
8081B						
	SPI-1-W-062711	6/27/2011	7/15/2011	7/18/2011	18	3
	SPI-1-W-062711	6/27/2011	7/15/2011	7/21/2011	18	6
	SPI-2-W-062711	6/27/2011	7/15/2011	7/18/2011	18	3
	SPI-2-W-062711	6/27/2011	7/15/2011	7/21/2011	18	6
	SPI-3-W-062711	6/27/2011	7/15/2011	7/21/2011	18	6
	SPI-3-W-062711	6/27/2011	7/15/2011	7/18/2011	18	3
	SPI-564-W062711	6/27/2011	7/15/2011	7/21/2011	18	6
	SPI-564-W062711	6/27/2011	7/15/2011	7/18/2011	18	3
8260C						
	SPI-1-W-062711	6/27/2011	6/30/2011	6/30/2011	3	0
	SPI-2-W-062711	6/27/2011	6/30/2011	6/30/2011	3	0
	SPI-3-W-062711	6/27/2011	6/30/2011	6/30/2011	3	0
	SPI-564-W062711	6/27/2011	6/30/2011	6/30/2011	3	0
	TRIP BLANKS	6/27/2011	6/30/2011	6/30/2011	3	0
8270C						
	SPI-1-W-062711	6/27/2011	6/29/2011	7/8/2011	2	9
	SPI-2-W-062711	6/27/2011	6/29/2011	7/8/2011	2	9
	SPI-3-W-062711	6/27/2011	6/29/2011	7/8/2011	2	9
	SPI-564-W062711	6/27/2011	6/29/2011	7/8/2011	2	9
8270D SIM						
	SPI-1-W-062711	6/27/2011	6/29/2011	7/5/2011	2	6
	SPI-2-W-062711	6/27/2011	6/29/2011	7/5/2011	2	6
	SPI-3-W-062711	6/27/2011	6/29/2011	7/5/2011	2	6
	SPI-564-W062711	6/27/2011	6/29/2011	7/5/2011	2	6
9014						
	SPI-1-W-062711	6/27/2011		7/7/2011	NA	10
	SPI-2-W-062711	6/27/2011		7/7/2011	NA	10
	SPI-3-W-062711	6/27/2011		7/7/2011	NA	10
	SPI-564-W062711	6/27/2011		7/7/2011	NA	10
9030M						
	SPI-1-W-062711	6/27/2011	7/1/2011	7/1/2011	4	0
	SPI-2-W-062711	6/27/2011	7/1/2011	7/1/2011	4	0
	SPI-3-W-062711	6/27/2011	7/1/2011	7/1/2011	4	0
	SPI-564-W062711	6/27/2011	7/1/2011	7/1/2011	4	0
NWTPH-Dx						

METHOD_ID	SAMP_ID	SAMP_DATE	PREPARED	TESTED	PREP_TIME	HOLD_TIME
	SPI-1-W-062711	6/27/2011	7/1/2011	7/18/2011	4	17
	SPI-2-W-062711	6/27/2011	7/1/2011	7/4/2011	4	3
	SPI-2-W-062711	6/27/2011	7/1/2011	7/6/2011	4	5
	SPI-3-W-062711	6/27/2011	7/1/2011	7/4/2011	4	3
	SPI-3-W-062711	6/27/2011	7/1/2011	7/6/2011	4	5
	SPI-564-W062711	6/27/2011	7/1/2011	7/4/2011	4	3
	SPI-564-W062711	6/27/2011	7/1/2011	7/6/2011	4	5
SM 2540 D						
	SPI-1-W-062711	6/27/2011		6/29/2011	NA	2
	SPI-2-W-062711	6/27/2011		6/29/2011	NA	2
	SPI-3-W-062711	6/27/2011		6/29/2011	NA	2
	SPI-564-W062711	6/27/2011		6/29/2011	NA	2
SM4500CNE						
	SPI-1-W-062711	6/27/2011		7/1/2011	NA	4
	SPI-1-W-062711	6/27/2011	6/29/2011	6/29/2011	2	0
	SPI-2-W-062711	6/27/2011	6/29/2011	6/29/2011	2	0
	SPI-2-W-062711	6/27/2011		7/1/2011	NA	4
	SPI-3-W-062711	6/27/2011		7/1/2011	NA	4
	SPI-3-W-062711	6/27/2011	6/29/2011	6/29/2011	2	0
	SPI-564-W062711	6/27/2011		7/1/2011	NA	4
	SPI-564-W062711	6/27/2011	6/29/2011	6/29/2011	2	0

Table 3. METHOD BLANK SUMMARY

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
1631E	K1105818	136900	Mercury, Total	METHOD BLANK		0.06	1.0	ng/L
1631E	K1105818	136900	Mercury, Total	METHOD BLANK		0.06	1.0	ng/L
1631E	K1105818	136900	Mercury, Total	METHOD BLANK		0.06	1.0	ng/L
1664	K1105818	137132	Oil and Grease	METHOD BLANK		0.8	5.0	mg/L
200.7	K1105818	136796R	Iron, Total	METHOD BLANK		3.0	10.0	ug/L
200.8	K1105818	136799	Aluminum, Total	METHOD BLANK		0.3	2.0	ug/L
200.8	K1105818	136799	Antimony, Total	METHOD BLANK		0.02	0.05	ug/L
200.8	K1105818	136799	Arsenic, Total	METHOD BLANK		0.07	0.50	ug/L
200.8	K1105818	136799	Cadmium, Total	METHOD BLANK		0.003	0.020	ug/L
200.8	K1105818	136799	Chromium, Total	METHOD BLANK		0.04	0.20	ug/L
200.8	K1105818	136799	Copper, Total	METHOD BLANK		0.02	0.10	ug/L
200.8	K1105818	136799	Lead, Total	METHOD BLANK		0.005	0.020	ug/L
200.8	K1105818	136799	Manganese, Total	METHOD BLANK		0.01	0.05	ug/L
200.8	K1105818	136799	Molybdenum, Total	METHOD BLANK		0.008	0.050	ug/L
200.8	K1105818	136799	Nickel, Total	METHOD BLANK		0.03	0.20	ug/L
200.8	K1105818	136799	Selenium, Total	METHOD BLANK		0.3	1.0	ug/L
200.8	K1105818	136799	Silver, Total	METHOD BLANK		0.004	0.020	ug/L
200.8	K1105818	136799	Zinc, Total	METHOD BLANK		0.20	0.50	ug/L
300.0	K1105818	251603	Sulfate	METHOD BLANK		0.01	0.20	mg/L
300.0	K1105818	251797	Sulfate	METHOD BLANK		0.01	0.20	mg/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
350.1	K1105818	252671	Ammonia as Nitrogen	METHOD BLANK		0.020	0.050	mg/L
350.1	K1105818	252671	Ammonia as Nitrogen	METHOD BLANK	0.020	0.020	0.050	mg/L
415.1	K1105818	252940	Carbon, Total Organic	METHOD BLANK		0.07	0.50	mg/L
8081B	K1105818	KWG1106709	2,4'-DDD	METHOD BLANK		0.068	0.48	ng/L
8081B	K1105818	KWG1106709	2,4'-DDE	METHOD BLANK		0.12	0.48	ng/L
8081B	K1105818	KWG1106709	2,4'-DDT	METHOD BLANK		0.13	0.48	ng/L
8081B	K1105818	KWG1106709	4,4'-DDD	METHOD BLANK		0.21	0.48	ng/L
8081B	K1105818	KWG1106709	4,4'-DDE	METHOD BLANK		0.19	0.48	ng/L
8081B	K1105818	KWG1106709	4,4'-DDT	METHOD BLANK		0.17	0.48	ng/L
8081B	K1105818	KWG1106709	Aldrin	METHOD BLANK		0.11	0.48	ng/L
8081B	K1105818	KWG1106709	alpha-BHC	METHOD BLANK		0.21	0.48	ng/L
8081B	K1105818	KWG1106709	alpha-Chlordane	METHOD BLANK		0.27	0.48	ng/L
8081B	K1105818	KWG1106709	beta-BHC	METHOD BLANK		0.41	0.48	ng/L
8081B	K1105818	KWG1106709	Chlordane	METHOD BLANK		3.5	9.5	ng/L
8081B	K1105818	KWG1106709	cis-Nonachlor	METHOD BLANK		0.14	0.48	ng/L
8081B	K1105818	KWG1106709	delta-BHC	METHOD BLANK		0.23	0.48	ng/L
8081B	K1105818	KWG1106709	Dieldrin	METHOD BLANK		0.37	0.48	ng/L
8081B	K1105818	KWG1106709	Endosulfan I	METHOD BLANK		0.25	0.48	ng/L
8081B	K1105818	KWG1106709	Endosulfan II	METHOD BLANK		0.35	0.48	ng/L
8081B	K1105818	KWG1106709	Endosulfan Sulfate	METHOD BLANK		0.28	0.48	ng/L
8081B	K1105818	KWG1106709	Endrin	METHOD BLANK		0.49	0.49	ng/L
8081B	K1105818	KWG1106709	Endrin Aldehyde	METHOD BLANK	0.28	0.21	0.48	ng/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8081B	K1105818	KWG1106709	Endrin Ketone	METHOD BLANK		0.32	0.48	ng/L
8081B	K1105818	KWG1106709	gamma-BHC	METHOD BLANK		0.47	0.48	ng/L
8081B	K1105818	KWG1106709	gamma-Chlordane	METHOD BLANK		0.31	0.48	ng/L
8081B	K1105818	KWG1106709	Heptachlor	METHOD BLANK		1.9	1.9	ng/L
8081B	K1105818	KWG1106709	Heptachlor Epoxide	METHOD BLANK		0.21	0.48	ng/L
8081B	K1105818	KWG1106709	Hexachlorobenzene	METHOD BLANK		0.27	0.48	ng/L
8081B	K1105818	KWG1106709	Methoxychlor	METHOD BLANK		0.28	0.48	ng/L
8081B	K1105818	KWG1106709	Oxychlordane	METHOD BLANK		0.069	0.48	ng/L
8081B	K1105818	KWG1106709	Toxaphene	METHOD BLANK		20	24	ng/L
8081B	K1105818	KWG1106709	trans-Nonachlor	METHOD BLANK		0.11	0.48	ng/L
8260C	K1105818	KWG1106046	1,1,1,2-Tetrachloroethane	METHOD BLANK		0.11	0.50	ug/L
8260C	K1105818	KWG1106046	1,1,1-Trichloroethane	METHOD BLANK		0.075	0.50	ug/L
8260C	K1105818	KWG1106046	1,1,2,2-Tetrachloroethane	METHOD BLANK		0.16	0.50	ug/L
8260C	K1105818	KWG1106046	1,1,2-Trichloroethane	METHOD BLANK		0.14	0.50	ug/L
8260C	K1105818	KWG1106046	1,1-Dichloroethane	METHOD BLANK		0.077	0.50	ug/L
8260C	K1105818	KWG1106046	1,1-Dichloroethene	METHOD BLANK		0.074	0.50	ug/L
8260C	K1105818	KWG1106046	1,2,3-Trichloropropane	METHOD BLANK		0.20	0.50	ug/L
8260C	K1105818	KWG1106046	1,2,4-Trimethylbenzene	METHOD BLANK		0.069	2.0	ug/L
8260C	K1105818	KWG1106046	1,2-Dibromoethane	METHOD BLANK		0.10	2.0	ug/L
8260C	K1105818	KWG1106046	1,2-Dichloroethane	METHOD BLANK		0.080	0.50	ug/L
8260C	K1105818	KWG1106046	1,2-Dichloropropane	METHOD BLANK		0.095	0.50	ug/L
8260C	K1105818	KWG1106046	1,3,5-Trimethylbenzene	METHOD BLANK		0.089	2.0	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8260C	K1105818	KWG1106046	1,3-Dichloropropane	METHOD BLANK		0.14	0.50	ug/L
8260C	K1105818	KWG1106046	2,2-Dichloropropane	METHOD BLANK		0.060	0.50	ug/L
8260C	K1105818	KWG1106046	2-Butanone	METHOD BLANK		1.9	20	ug/L
8260C	K1105818	KWG1106046	2-Chloroethyl Vinyl Ether	METHOD BLANK		0.16	5.0	ug/L
8260C	K1105818	KWG1106046	2-Hexanone	METHOD BLANK		2.7	20	ug/L
8260C	K1105818	KWG1106046	4-Isopropyltoluene	METHOD BLANK		0.051	2.0	ug/L
8260C	K1105818	KWG1106046	4-Methyl-2-pentanone	METHOD BLANK		2.6	20	ug/L
8260C	K1105818	KWG1106046	Acetone	METHOD BLANK		3.3	20	ug/L
8260C	K1105818	KWG1106046	Acrolein	METHOD BLANK		0.96	50	ug/L
8260C	K1105818	KWG1106046	Acrylonitrile	METHOD BLANK		0.26	5.0	ug/L
8260C	K1105818	KWG1106046	Benzene	METHOD BLANK		0.054	0.50	ug/L
8260C	K1105818	KWG1106046	Bromochloromethane	METHOD BLANK		0.16	0.50	ug/L
8260C	K1105818	KWG1106046	Bromodichloromethane	METHOD BLANK		0.091	0.50	ug/L
8260C	K1105818	KWG1106046	Bromoform	METHOD BLANK		0.16	0.50	ug/L
8260C	K1105818	KWG1106046	Bromomethane	METHOD BLANK		0.090	0.50	ug/L
8260C	K1105818	KWG1106046	Carbon Disulfide	METHOD BLANK		0.055	0.50	ug/L
8260C	K1105818	KWG1106046	Carbon Tetrachloride	METHOD BLANK		0.096	0.50	ug/L
8260C	K1105818	KWG1106046	Chlorobenzene	METHOD BLANK		0.11	0.50	ug/L
8260C	K1105818	KWG1106046	Chloroethane	METHOD BLANK		0.16	0.50	ug/L
8260C	K1105818	KWG1106046	Chloroform	METHOD BLANK		0.072	0.50	ug/L
8260C	K1105818	KWG1106046	Chloromethane	METHOD BLANK		0.068	0.50	ug/L
8260C	K1105818	KWG1106046	cis-1,2-Dichloroethene	METHOD BLANK		0.067	0.50	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8260C	K1105818	KWG1106046	cis-1,3-Dichloropropene	METHOD BLANK		0.18	0.50	ug/L
8260C	K1105818	KWG1106046	Dibromochloromethane	METHOD BLANK		0.14	0.50	ug/L
8260C	K1105818	KWG1106046	Dibromomethane	METHOD BLANK		0.15	0.50	ug/L
8260C	K1105818	KWG1106046	Dichlorodifluoromethane	METHOD BLANK		0.13	0.50	ug/L
8260C	K1105818	KWG1106046	Dichlorofluoromethane	METHOD BLANK		0.053	0.50	ug/L
8260C	K1105818	KWG1106046	Dichloromethane	METHOD BLANK		0.10	2.0	ug/L
8260C	K1105818	KWG1106046	Ethylbenzene	METHOD BLANK		0.050	0.50	ug/L
8260C	K1105818	KWG1106046	Iodomethane	METHOD BLANK		0.11	5.0	ug/L
8260C	K1105818	KWG1106046	Isopropylbenzene	METHOD BLANK		0.051	2.0	ug/L
8260C	K1105818	KWG1106046	m,p-Xylenes	METHOD BLANK		0.091	0.50	ug/L
8260C	K1105818	KWG1106046	Naphthalene	METHOD BLANK		0.088	2.0	ug/L
8260C	K1105818	KWG1106046	n-Butylbenzene	METHOD BLANK		0.044	2.0	ug/L
8260C	K1105818	KWG1106046	n-Propylbenzene	METHOD BLANK		0.051	2.0	ug/L
8260C	K1105818	KWG1106046	o-Xylene	METHOD BLANK		0.074	0.50	ug/L
8260C	K1105818	KWG1106046	sec-Butylbenzene	METHOD BLANK		0.062	2.0	ug/L
8260C	K1105818	KWG1106046	Styrene	METHOD BLANK		0.089	0.50	ug/L
8260C	K1105818	KWG1106046	Tetrachloroethene	METHOD BLANK		0.099	0.50	ug/L
8260C	K1105818	KWG1106046	Toluene	METHOD BLANK		0.052	0.50	ug/L
8260C	K1105818	KWG1106046	trans-1,2-Dichloroethene	METHOD BLANK		0.057	0.50	ug/L
8260C	K1105818	KWG1106046	trans-1,3-Dichloropropene	METHOD BLANK		0.068	0.50	ug/L
8260C	K1105818	KWG1106046	trans-1,4-Dichloro-2-butene	METHOD BLANK		0.35	10	ug/L
8260C	K1105818	KWG1106046	Trichloroethene	METHOD BLANK		0.10	0.50	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8260C	K1105818	KWG1106046	Trichlorofluoromethane	METHOD BLANK		0.12	0.50	ug/L
8260C	K1105818	KWG1106046	Vinyl Acetate	METHOD BLANK		0.43	5.0	ug/L
8260C	K1105818	KWG1106046	Vinyl Chloride	METHOD BLANK		0.075	0.50	ug/L
8270C	K1105818	KWG1105973	1,2,4-Trichlorobenzene	METHOD BLANK		0.016	0.20	ug/L
8270C	K1105818	KWG1105973	1,2-Dichlorobenzene	METHOD BLANK		0.022	0.20	ug/L
8270C	K1105818	KWG1105973	1,3-Dichlorobenzene	METHOD BLANK		0.021	0.20	ug/L
8270C	K1105818	KWG1105973	1,4-Dichlorobenzene	METHOD BLANK		0.029	0.20	ug/L
8270C	K1105818	KWG1105973	2,4,5-Trichlorophenol	METHOD BLANK		0.031	0.48	ug/L
8270C	K1105818	KWG1105973	2,4,6-Trichlorophenol	METHOD BLANK		0.058	0.48	ug/L
8270C	K1105818	KWG1105973	2,4-Dichlorophenol	METHOD BLANK		0.047	0.48	ug/L
8270C	K1105818	KWG1105973	2,4-Dimethylphenol	METHOD BLANK		2.2	3.9	ug/L
8270C	K1105818	KWG1105973	2,4-Dinitrophenol	METHOD BLANK		0.17	3.9	ug/L
8270C	K1105818	KWG1105973	2,4-Dinitrotoluene	METHOD BLANK		0.018	0.20	ug/L
8270C	K1105818	KWG1105973	2,6-Dinitrotoluene	METHOD BLANK		0.033	0.20	ug/L
8270C	K1105818	KWG1105973	2-Chloronaphthalene	METHOD BLANK		0.041	0.20	ug/L
8270C	K1105818	KWG1105973	2-Chlorophenol	METHOD BLANK		0.054	0.48	ug/L
8270C	K1105818	KWG1105973	2-Methylphenol	METHOD BLANK		0.11	0.48	ug/L
8270C	K1105818	KWG1105973	2-Nitroaniline	METHOD BLANK		0.024	0.20	ug/L
8270C	K1105818	KWG1105973	2-Nitrophenol	METHOD BLANK		0.063	0.48	ug/L
8270C	K1105818	KWG1105973	3,3'-Dichlorobenzidine	METHOD BLANK		0.43	2.0	ug/L
8270C	K1105818	KWG1105973	3-Nitroaniline	METHOD BLANK		0.029	0.96	ug/L
8270C	K1105818	KWG1105973	4,6-Dinitro-2-methylphenol	METHOD BLANK		0.025	2.0	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1105818	KWG1105973	4-Bromophenyl Phenyl Ether	METHOD BLANK		0.026	0.20	ug/L
8270C	K1105818	KWG1105973	4-Chloro-3-methylphenol	METHOD BLANK		0.037	0.48	ug/L
8270C	K1105818	KWG1105973	4-Chloroaniline	METHOD BLANK		0.025	0.20	ug/L
8270C	K1105818	KWG1105973	4-Chlorophenyl Phenyl Ether	METHOD BLANK		0.027	0.20	ug/L
8270C	K1105818	KWG1105973	4-Methylphenol	METHOD BLANK		0.12	0.48	ug/L
8270C	K1105818	KWG1105973	4-Nitroaniline	METHOD BLANK		0.019	0.96	ug/L
8270C	K1105818	KWG1105973	4-Nitrophenol	METHOD BLANK		0.28	2.0	ug/L
8270C	K1105818	KWG1105973	Benzoic Acid	METHOD BLANK		1.1	4.8	ug/L
8270C	K1105818	KWG1105973	Benzyl Alcohol	METHOD BLANK	0.24	0.073	0.48	ug/L
8270C	K1105818	KWG1105973	Bis(2-chloroethoxy)methane	METHOD BLANK		0.024	0.20	ug/L
8270C	K1105818	KWG1105973	Bis(2-chloroethyl) Ether	METHOD BLANK		0.035	0.20	ug/L
8270C	K1105818	KWG1105973	Bis(2-chloroisopropyl) Ether	METHOD BLANK		0.026	0.20	ug/L
8270C	K1105818	KWG1105973	Bis(2-ethylhexyl) Phthalate	METHOD BLANK	0.15	0.13	0.96	ug/L
8270C	K1105818	KWG1105973	Butyl Benzyl Phthalate	METHOD BLANK		0.018	0.20	ug/L
8270C	K1105818	KWG1105973	Carbazole	METHOD BLANK		0.018	0.20	ug/L
8270C	K1105818	KWG1105973	Dibenzofuran	METHOD BLANK		0.018	0.20	ug/L
8270C	K1105818	KWG1105973	Diethyl Phthalate	METHOD BLANK	0.025	0.012	0.20	ug/L
8270C	K1105818	KWG1105973	Dimethyl Phthalate	METHOD BLANK	0.026	0.021	0.20	ug/L
8270C	K1105818	KWG1105973	Di-n-butyl Phthalate	METHOD BLANK	0.033	0.023	0.20	ug/L
8270C	K1105818	KWG1105973	Di-n-octyl Phthalate	METHOD BLANK		0.018	0.20	ug/L
8270C	K1105818	KWG1105973	Hexachlorobenzene	METHOD BLANK		0.022	0.20	ug/L
8270C	K1105818	KWG1105973	Hexachlorobutadiene	METHOD BLANK		0.027	0.20	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270C	K1105818	KWG1105973	Hexachlorocyclopentadiene	METHOD BLANK		0.19	0.96	ug/L
8270C	K1105818	KWG1105973	Hexachloroethane	METHOD BLANK		0.024	0.20	ug/L
8270C	K1105818	KWG1105973	Isophorone	METHOD BLANK		0.016	0.20	ug/L
8270C	K1105818	KWG1105973	Nitrobenzene	METHOD BLANK		0.028	0.20	ug/L
8270C	K1105818	KWG1105973	N-Nitrosodimethylamine	METHOD BLANK		0.42	2.0	ug/L
8270C	K1105818	KWG1105973	N-Nitrosodi-n-propylamine	METHOD BLANK		0.037	0.20	ug/L
8270C	K1105818	KWG1105973	N-Nitrosodiphenylamine	METHOD BLANK		0.048	0.20	ug/L
8270C	K1105818	KWG1105973	Pentachlorophenol	METHOD BLANK		0.34	0.96	ug/L
8270C	K1105818	KWG1105973	Phenol	METHOD BLANK		0.063	0.48	ug/L
8270D SIM	K1105818	KWG1105972	2-Methylnaphthalene	METHOD BLANK		0.0023	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Acenaphthene	METHOD BLANK		0.0044	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Acenaphthylene	METHOD BLANK		0.0034	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Anthracene	METHOD BLANK		0.0036	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Benz(a)anthracene	METHOD BLANK		0.0026	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Benzo(a)pyrene	METHOD BLANK		0.0043	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Benzo(b)fluoranthene	METHOD BLANK		0.0023	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Benzo(g,h,i)perylene	METHOD BLANK	0.0035	0.0029	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Benzo(k)fluoranthene	METHOD BLANK		0.0025	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Chrysene	METHOD BLANK		0.0034	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Dibenz(a,h)anthracene	METHOD BLANK		0.0025	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Fluoranthene	METHOD BLANK		0.0044	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Fluorene	METHOD BLANK		0.0038	0.020	ug/L

METHOD_ID	SDG_ID	QAQC_ID	LAB_CHEM	SAMP_ID	CONC	LIMIT1	LIMIT2:	UNITS
8270D SIM	K1105818	KWG1105972	Indeno(1,2,3-cd)pyrene	METHOD BLANK		0.0026	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Naphthalene	METHOD BLANK		0.0030	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Phenanthrene	METHOD BLANK		0.0050	0.020	ug/L
8270D SIM	K1105818	KWG1105972	Pyrene	METHOD BLANK		0.0035	0.020	ug/L
9014	K1105818	253193	Cyanide, Free	METHOD BLANK		0.010	0.010	mg/L
9030M	K1105818	137000	Sulfide, Total	METHOD BLANK		0.03	0.10	mg/L
NWTPH-Dx	K1105818	KWG1106148	Diesel Range Organics	METHOD BLANK		11	100	ug/L
NWTPH-Dx	K1105818	KWG1106148	Residual Range Organics	METHOD BLANK	26	19	100	ug/L
SM 2540 D	K1105818	251837	Solids, Total Suspended	METHOD BLANK		5.0	5.0	mg/L
SM4500CNE	K1105818	136745	Cyanide, Total	METHOD BLANK		0.003	0.010	mg/L
SM4500CNE	K1105818	252146	Cyanide, Amenable to Chlorination	METHOD BLANK		0.003	0.010	mg/L

Table 4. SURROGATE SUMMARY

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8081B	K1105818	Decachlorobiphenyl	SPI-3-W-062711	PP01	KWG1106709	69	35	128	OK
	K1105818	Decachlorobiphenyl	SPI-2-W-062711	PP01	KWG1106709	62	35	128	OK
	K1105818	Decachlorobiphenyl	SPI-1-W-062711	PP01	KWG1106709	67	35	128	OK
	K1105818	Decachlorobiphenyl	SPI-564-W062711	PP01	KWG1106709	58	35	128	OK
	K1105818	Tetrachloro-m-xylene	SPI-1-W-062711	PP01	KWG1106709	44	20	102	OK
	K1105818	Tetrachloro-m-xylene	SPI-2-W-062711	PP01	KWG1106709	77	20	102	OK
	K1105818	Tetrachloro-m-xylene	SPI-3-W-062711	PP01	KWG1106709	87	20	102	OK
	K1105818	Tetrachloro-m-xylene	SPI-564-W062711	PP01	KWG1106709	87	20	102	OK
8260C	K1105818	4-Bromofluorobenzene	TRIP BLANKS	PP01	KWG1106046	92	68	117	OK
	K1105818	4-Bromofluorobenzene	SPI-2-W-062711	PP01	KWG1106046	92	68	117	OK
	K1105818	4-Bromofluorobenzene	SPI-3-W-062711	PP01	KWG1106046	93	68	117	OK
	K1105818	4-Bromofluorobenzene	SPI-564-W062711	PP01	KWG1106046	91	68	117	OK
	K1105818	4-Bromofluorobenzene	SPI-1-W-062711	PP01	KWG1106046	93	68	117	OK
	K1105818	Dibromofluoromethane	SPI-3-W-062711	PP01	KWG1106046	101	73	122	OK
	K1105818	Dibromofluoromethane	SPI-2-W-062711	PP01	KWG1106046	99	73	122	OK
	K1105818	Dibromofluoromethane	SPI-564-W062711	PP01	KWG1106046	96	73	122	OK
	K1105818	Dibromofluoromethane	SPI-1-W-062711	PP01	KWG1106046	96	73	122	OK
	K1105818	Dibromofluoromethane	TRIP BLANKS	PP01	KWG1106046	94	73	122	OK
	K1105818	Toluene-d8	SPI-2-W-062711	PP01	KWG1106046	102	78	129	OK
	K1105818	Toluene-d8	SPI-1-W-062711	PP01	KWG1106046	102	78	129	OK
	K1105818	Toluene-d8	SPI-3-W-062711	PP01	KWG1106046	102	78	129	OK
	K1105818	Toluene-d8	TRIP BLANKS	PP01	KWG1106046	101	78	129	OK
	K1105818	Toluene-d8	SPI-564-W062711	PP01	KWG1106046	101	78	129	OK
8270C	K1105818	2,4,6-Tribromophenol	SPI-564-W062711	PP01	KWG1105973	71	23	127	OK
	K1105818	2,4,6-Tribromophenol	SPI-2-W-062711	PP01	KWG1105973	81	23	127	OK
	K1105818	2,4,6-Tribromophenol	SPI-3-W-062711	PP01	KWG1105973	86	23	127	OK
	K1105818	2,4,6-Tribromophenol	SPI-1-W-062711	PP01	KWG1105973	82	23	127	OK

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8270C	K1105818	2-Fluorobiphenyl	SPI-564-W062711	PP01	KWG1105973	68	31	94	OK
	K1105818	2-Fluorobiphenyl	SPI-2-W-062711	PP01	KWG1105973	72	31	94	OK
	K1105818	2-Fluorobiphenyl	SPI-3-W-062711	PP01	KWG1105973	73	31	94	OK
	K1105818	2-Fluorobiphenyl	SPI-1-W-062711	PP01	KWG1105973	68	31	94	OK
	K1105818	2-Fluorophenol	SPI-564-W062711	PP01	KWG1105973	72	12	109	OK
	K1105818	2-Fluorophenol	SPI-2-W-062711	PP01	KWG1105973	77	12	109	OK
	K1105818	2-Fluorophenol	SPI-1-W-062711	PP01	KWG1105973	71	12	109	OK
	K1105818	2-Fluorophenol	SPI-3-W-062711	PP01	KWG1105973	78	12	109	OK
	K1105818	Nitrobenzene-d5	SPI-3-W-062711	PP01	KWG1105973	80	26	110	OK
	K1105818	Nitrobenzene-d5	SPI-1-W-062711	PP01	KWG1105973	71	26	110	OK
	K1105818	Nitrobenzene-d5	SPI-564-W062711	PP01	KWG1105973	76	26	110	OK
	K1105818	Nitrobenzene-d5	SPI-2-W-062711	PP01	KWG1105973	79	26	110	OK
	K1105818	Phenol-d6	SPI-1-W-062711	PP01	KWG1105973	66	23	106	OK
	K1105818	Phenol-d6	SPI-564-W062711	PP01	KWG1105973	67	23	106	OK
	K1105818	Phenol-d6	SPI-3-W-062711	PP01	KWG1105973	74	23	106	OK
	K1105818	Phenol-d6	SPI-2-W-062711	PP01	KWG1105973	74	23	106	OK
	K1105818	p-Terphenyl-d14	SPI-2-W-062711	PP01	KWG1105973	100	40	127	OK
	K1105818	p-Terphenyl-d14	SPI-564-W062711	PP01	KWG1105973	107	40	127	OK
	K1105818	p-Terphenyl-d14	SPI-1-W-062711	PP01	KWG1105973	100	40	127	OK
	K1105818	p-Terphenyl-d14	SPI-3-W-062711	PP01	KWG1105973	103	40	127	OK
8270D SIM	K1105818	Fluoranthene-d10	SPI-2-W-062711	PP01	KWG1105972	92	31	105	OK
	K1105818	Fluoranthene-d10	SPI-3-W-062711	PP01	KWG1105972	88	31	105	OK
	K1105818	Fluoranthene-d10	SPI-564-W062711	PP01	KWG1105972	86	31	105	OK
	K1105818	Fluoranthene-d10	SPI-1-W-062711	PP01	KWG1105972	78	31	105	OK
	K1105818	Fluorene-d10	SPI-1-W-062711	PP01	KWG1105972	88	28	98	OK
	K1105818	Fluorene-d10	SPI-3-W-062711	PP01	KWG1105972	90	28	98	OK
	K1105818	Fluorene-d10	SPI-2-W-062711	PP01	KWG1105972	91	28	98	OK
	K1105818	Fluorene-d10	SPI-564-W062711	PP01	KWG1105972	87	28	98	OK
	K1105818	p-Terphenyl-d14	SPI-1-W-062711	PP01	KWG1105972	83	27	112	OK

METHOD_ID	SDG_ID	LAB_CHEM	SAMP_ID	RES_CODE	QAQC_ID	RECOVER	B_RECOVER	E_RECOVER	EVAL
8270D SIM	K1105818	p-Terphenyl-d14	SPI-2-W-062711	PP01	KWG1105972	100	27	112	OK
	K1105818	p-Terphenyl-d14	SPI-564-W062711	PP01	KWG1105972	113	27	112	FAIL
	K1105818	p-Terphenyl-d14	SPI-3-W-062711	PP01	KWG1105972	101	27	112	OK
NWTPH-Dx	K1105818	n-Triacontane	SPI-1-W-062711	PP01	KWG1106148	96	50	150	OK
	K1105818	n-Triacontane	SPI-564-W062711	PP01	KWG1106148	91	50	150	OK
	K1105818	n-Triacontane	SPI-3-W-062711	PP01	KWG1106148	101	50	150	OK
	K1105818	n-Triacontane	SPI-2-W-062711	PP01	KWG1106148	98	50	150	OK
	K1105818	o-Terphenyl	SPI-1-W-062711	PP01	KWG1106148	91	50	150	OK
	K1105818	o-Terphenyl	SPI-564-W062711	PP01	KWG1106148	97	50	150	OK
	K1105818	o-Terphenyl	SPI-2-W-062711	PP01	KWG1106148	100	50	150	OK
	K1105818	o-Terphenyl	SPI-3-W-062711	PP01	KWG1106148	99	50	150	OK

Table 5. LCS SUMMARY

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
1631E	Mercury, Total	CK11	K1105818	136900	OK	NA	NA
	Mercury, Total	CK12	K1105818	136900	OK	NA	NA
1664	Oil and Grease	CK11	K1105818	137132	OK	NA	NA
	Oil and Grease	DK11	K1105818	137132	NA	OK	OK
200.7	Iron, Total	CK11	K1105818	136796R	OK	NA	NA
200.8	Aluminum, Total	CK11	K1105818	136799	OK	NA	NA
	Antimony, Total	CK11	K1105818	136799	OK	NA	NA
	Arsenic, Total	CK11	K1105818	136799	OK	NA	NA
	Cadmium, Total	CK11	K1105818	136799	OK	NA	NA
	Chromium, Total	CK11	K1105818	136799	OK	NA	NA
	Copper, Total	CK11	K1105818	136799	OK	NA	NA
	Lead, Total	CK11	K1105818	136799	OK	NA	NA
	Manganese, Total	CK11	K1105818	136799	OK	NA	NA
	Molybdenum, Total	CK11	K1105818	136799	OK	NA	NA
	Nickel, Total	CK11	K1105818	136799	OK	NA	NA
	Selenium, Total	CK11	K1105818	136799	OK	NA	NA
	Silver, Total	CK11	K1105818	136799	OK	NA	NA
	Zinc, Total	CK11	K1105818	136799	OK	NA	NA
300.0	Sulfate	CK11	K1105818	251603	OK	NA	NA
	Sulfate	CK11	K1105818	251797	OK	NA	NA
350.1	Ammonia as Nitrogen	CK11	K1105818	252671	OK	NA	NA
	Ammonia as Nitrogen	CK11	K1105818	252671	OK	NA	NA
415.1	Carbon, Total Organic	CK11	K1105818	252940	OK	NA	NA
	Carbon, Total Organic	CK11	K1105818	252940	OK	NA	NA
8081B	2,4'-DDD	CK11	K1105818	KWG1106709	OK	NA	NA
	2,4'-DDD	DK11	K1105818	KWG1106709	NA	OK	OK
	2,4'-DDE	CK11	K1105818	KWG1106709	OK	NA	NA
	2,4'-DDE	DK11	K1105818	KWG1106709	NA	OK	OK
	2,4'-DDT	CK11	K1105818	KWG1106709	OK	NA	NA
	2,4'-DDT	DK11	K1105818	KWG1106709	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	4,4'-DDD	CK11	K1105818	KWG1106709	OK	NA	NA
	4,4'-DDD	DK11	K1105818	KWG1106709	NA	OK	OK
	4,4'-DDE	CK11	K1105818	KWG1106709	OK	NA	NA
	4,4'-DDE	DK11	K1105818	KWG1106709	NA	OK	OK
	4,4'-DDT	CK11	K1105818	KWG1106709	OK	NA	NA
	4,4'-DDT	DK11	K1105818	KWG1106709	NA	OK	OK
	Aldrin	CK11	K1105818	KWG1106709	OK	NA	NA
	Aldrin	DK11	K1105818	KWG1106709	NA	OK	OK
	alpha-BHC	CK11	K1105818	KWG1106709	OK	NA	NA
	alpha-BHC	DK11	K1105818	KWG1106709	NA	OK	OK
	alpha-Chlordane	CK11	K1105818	KWG1106709	OK	NA	NA
	alpha-Chlordane	DK11	K1105818	KWG1106709	NA	OK	OK
	beta-BHC	CK11	K1105818	KWG1106709	OK	NA	NA
	beta-BHC	DK11	K1105818	KWG1106709	NA	OK	OK
	Chlordane	CK11	K1105818	KWG1106709	OK	NA	NA
	Chlordane	DK11	K1105818	KWG1106709	NA	OK	OK
	cis-Nonachlor	CK11	K1105818	KWG1106709	OK	NA	NA
	cis-Nonachlor	DK11	K1105818	KWG1106709	NA	OK	OK
	delta-BHC	CK11	K1105818	KWG1106709	OK	NA	NA
	delta-BHC	DK11	K1105818	KWG1106709	NA	OK	OK
	Dieldrin	CK11	K1105818	KWG1106709	OK	NA	NA
	Dieldrin	DK11	K1105818	KWG1106709	NA	OK	OK
	Endosulfan I	CK11	K1105818	KWG1106709	OK	NA	NA
	Endosulfan I	DK11	K1105818	KWG1106709	NA	OK	OK
	Endosulfan II	CK11	K1105818	KWG1106709	OK	NA	NA
	Endosulfan II	DK11	K1105818	KWG1106709	NA	OK	OK
	Endosulfan Sulfate	CK11	K1105818	KWG1106709	OK	NA	NA
	Endosulfan Sulfate	DK11	K1105818	KWG1106709	NA	OK	OK
	Endrin	CK11	K1105818	KWG1106709	OK	NA	NA
	Endrin	DK11	K1105818	KWG1106709	NA	OK	OK
	Endrin Aldehyde	CK11	K1105818	KWG1106709	OK	NA	NA
	Endrin Aldehyde	DK11	K1105818	KWG1106709	NA	OK	OK

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8081B	Endrin Ketone	CK11	K1105818	KWG1106709	OK	NA	NA
	Endrin Ketone	DK11	K1105818	KWG1106709	NA	OK	OK
	gamma-BHC	CK11	K1105818	KWG1106709	OK	NA	NA
	gamma-BHC	DK11	K1105818	KWG1106709	NA	OK	OK
	gamma-Chlordane	CK11	K1105818	KWG1106709	OK	NA	NA
	gamma-Chlordane	DK11	K1105818	KWG1106709	NA	OK	OK
	Heptachlor	CK11	K1105818	KWG1106709	OK	NA	NA
	Heptachlor	DK11	K1105818	KWG1106709	NA	OK	OK
	Heptachlor Epoxide	CK11	K1105818	KWG1106709	OK	NA	NA
	Heptachlor Epoxide	DK11	K1105818	KWG1106709	NA	OK	OK
	Hexachlorobenzene	CK11	K1105818	KWG1106709	OK	NA	NA
	Hexachlorobenzene	DK11	K1105818	KWG1106709	NA	OK	OK
	Methoxychlor	CK11	K1105818	KWG1106709	OK	NA	NA
	Methoxychlor	DK11	K1105818	KWG1106709	NA	OK	OK
	Oxychlordane	CK11	K1105818	KWG1106709	OK	NA	NA
	Oxychlordane	DK11	K1105818	KWG1106709	NA	OK	OK
	Toxaphene	CK11	K1105818	KWG1106709	OK	NA	NA
	Toxaphene	DK11	K1105818	KWG1106709	NA	OK	OK
	trans-Nonachlor	CK11	K1105818	KWG1106709	OK	NA	NA
	trans-Nonachlor	DK11	K1105818	KWG1106709	NA	OK	OK
8260C	1,1,1,2-Tetrachloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,1,1-Trichloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,1,2,2-Tetrachloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,1,2-Trichloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,1-Dichloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,1-Dichloroethene	CK11	K1105818	KWG1106046	OK	NA	NA
	1,2,3-Trichloropropane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,2,4-Trimethylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	1,2-Dibromoethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,2-Dichloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,2-Dichloropropane	CK11	K1105818	KWG1106046	OK	NA	NA
	1,3,5-Trimethylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	1,3-Dichloropropane	CK11	K1105818	KWG1106046	OK	NA	NA
	2,2-Dichloropropane	CK11	K1105818	KWG1106046	OK	NA	NA
	2-Butanone	CK11	K1105818	KWG1106046	OK	NA	NA
	2-Chloroethyl Vinyl Ether	CK11	K1105818	KWG1106046	OK	NA	NA
	2-Hexanone	CK11	K1105818	KWG1106046	OK	NA	NA
	4-Isopropyltoluene	CK11	K1105818	KWG1106046	OK	NA	NA
	4-Methyl-2-pentanone	CK11	K1105818	KWG1106046	OK	NA	NA
	Acetone	CK11	K1105818	KWG1106046	OK	NA	NA
	Acrolein	CK11	K1105818	KWG1106046	OK	NA	NA
	Acrylonitrile	CK11	K1105818	KWG1106046	OK	NA	NA
	Benzene	CK11	K1105818	KWG1106046	OK	NA	NA
	Bromochloromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Bromodichloromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Bromoform	CK11	K1105818	KWG1106046	OK	NA	NA
	Bromomethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Carbon Disulfide	CK11	K1105818	KWG1106046	OK	NA	NA
	Carbon Tetrachloride	CK11	K1105818	KWG1106046	OK	NA	NA
	Chlorobenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	Chloroethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Chloroform	CK11	K1105818	KWG1106046	OK	NA	NA
	Chloromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	cis-1,2-Dichloroethene	CK11	K1105818	KWG1106046	OK	NA	NA
	cis-1,3-Dichloropropene	CK11	K1105818	KWG1106046	OK	NA	NA
	Dibromochloromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Dibromomethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Dichlorodifluoromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Dichlorofluoromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Dichloromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Ethylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	Iodomethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Isopropylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	m,p-Xylenes	CK11	K1105818	KWG1106046	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	Naphthalene	CK11	K1105818	KWG1106046	OK	NA	NA
	n-Butylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	n-Propylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	o-Xylene	CK11	K1105818	KWG1106046	OK	NA	NA
	sec-Butylbenzene	CK11	K1105818	KWG1106046	OK	NA	NA
	Styrene	CK11	K1105818	KWG1106046	OK	NA	NA
	Tetrachloroethene	CK11	K1105818	KWG1106046	OK	NA	NA
	Toluene	CK11	K1105818	KWG1106046	OK	NA	NA
	trans-1,2-Dichloroethene	CK11	K1105818	KWG1106046	OK	NA	NA
	trans-1,3-Dichloropropen	CK11	K1105818	KWG1106046	OK	NA	NA
	trans-1,4-Dichloro-2-bute	CK11	K1105818	KWG1106046	OK	NA	NA
	Trichloroethene	CK11	K1105818	KWG1106046	OK	NA	NA
	Trichlorofluoromethane	CK11	K1105818	KWG1106046	OK	NA	NA
	Vinyl Acetate	CK11	K1105818	KWG1106046	OK	NA	NA
	Vinyl Chloride	CK11	K1105818	KWG1106046	OK	NA	NA
8270C	1,2,4-Trichlorobenzene	CK11	K1105818	KWG1105973	OK	NA	NA
	1,2,4-Trichlorobenzene	DK11	K1105818	KWG1105973	NA	OK	OK
	1,2-Dichlorobenzene	CK11	K1105818	KWG1105973	OK	NA	NA
	1,2-Dichlorobenzene	DK11	K1105818	KWG1105973	NA	OK	OK
	1,3-Dichlorobenzene	CK11	K1105818	KWG1105973	OK	NA	NA
	1,3-Dichlorobenzene	DK11	K1105818	KWG1105973	NA	OK	OK
	1,4-Dichlorobenzene	CK11	K1105818	KWG1105973	OK	NA	NA
	1,4-Dichlorobenzene	DK11	K1105818	KWG1105973	NA	OK	OK
	2,4,5-Trichlorophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2,4,5-Trichlorophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	2,4,6-Trichlorophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2,4,6-Trichlorophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	2,4-Dichlorophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2,4-Dichlorophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	2,4-Dimethylphenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2,4-Dimethylphenol	DK11	K1105818	KWG1105973	NA	EXCEEDS LOW	EXCEEDS RPD
	2,4-Dinitrophenol	CK11	K1105818	KWG1105973	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	2,4-Dinitrophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	2,4-Dinitrotoluene	CK11	K1105818	KWG1105973	OK	NA	NA
	2,4-Dinitrotoluene	DK11	K1105818	KWG1105973	NA	OK	OK
	2,6-Dinitrotoluene	CK11	K1105818	KWG1105973	OK	NA	NA
	2,6-Dinitrotoluene	DK11	K1105818	KWG1105973	NA	OK	OK
	2-Chloronaphthalene	CK11	K1105818	KWG1105973	OK	NA	NA
	2-Chloronaphthalene	DK11	K1105818	KWG1105973	NA	OK	OK
	2-Chlorophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2-Chlorophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	2-Methylphenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2-Methylphenol	DK11	K1105818	KWG1105973	NA	OK	OK
	2-Nitroaniline	CK11	K1105818	KWG1105973	OK	NA	NA
	2-Nitroaniline	DK11	K1105818	KWG1105973	NA	OK	OK
	2-Nitrophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	2-Nitrophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	3,3'-Dichlorobenzidine	CK11	K1105818	KWG1105973	EXCEEDS LOW	NA	NA
	3,3'-Dichlorobenzidine	DK11	K1105818	KWG1105973	NA	OK	EXCEEDS RPD
	3-Nitroaniline	CK11	K1105818	KWG1105973	OK	NA	NA
	3-Nitroaniline	DK11	K1105818	KWG1105973	NA	OK	OK
	4,6-Dinitro-2-methylphen	CK11	K1105818	KWG1105973	OK	NA	NA
	4,6-Dinitro-2-methylphen	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Bromophenyl Phenyl Et	CK11	K1105818	KWG1105973	OK	NA	NA
	4-Bromophenyl Phenyl Et	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Chloro-3-methylphenol	CK11	K1105818	KWG1105973	OK	NA	NA
	4-Chloro-3-methylphenol	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Chloroaniline	CK11	K1105818	KWG1105973	OK	NA	NA
	4-Chloroaniline	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Chlorophenyl Phenyl Et	CK11	K1105818	KWG1105973	OK	NA	NA
	4-Chlorophenyl Phenyl Et	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Methylphenol	CK11	K1105818	KWG1105973	OK	NA	NA
	4-Methylphenol	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Nitroaniline	CK11	K1105818	KWG1105973	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	4-Nitroaniline	DK11	K1105818	KWG1105973	NA	OK	OK
	4-Nitrophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	4-Nitrophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	Benzoic Acid	CK11	K1105818	KWG1105973	OK	NA	NA
	Benzoic Acid	DK11	K1105818	KWG1105973	NA	OK	OK
	Benzyl Alcohol	CK11	K1105818	KWG1105973	OK	NA	NA
	Benzyl Alcohol	DK11	K1105818	KWG1105973	NA	OK	OK
	Bis(2-chloroethoxy)metha	CK11	K1105818	KWG1105973	OK	NA	NA
	Bis(2-chloroethoxy)metha	DK11	K1105818	KWG1105973	NA	OK	OK
	Bis(2-chloroethyl) Ether	CK11	K1105818	KWG1105973	OK	NA	NA
	Bis(2-chloroethyl) Ether	DK11	K1105818	KWG1105973	NA	OK	OK
	Bis(2-chloroisopropyl) Eth	CK11	K1105818	KWG1105973	OK	NA	NA
	Bis(2-chloroisopropyl) Eth	DK11	K1105818	KWG1105973	NA	OK	OK
	Bis(2-ethylhexyl) Phthalat	CK11	K1105818	KWG1105973	OK	NA	NA
	Bis(2-ethylhexyl) Phthalat	DK11	K1105818	KWG1105973	NA	OK	OK
	Butyl Benzyl Phthalate	CK11	K1105818	KWG1105973	OK	NA	NA
	Butyl Benzyl Phthalate	DK11	K1105818	KWG1105973	NA	OK	OK
	Carbazole	CK11	K1105818	KWG1105973	OK	NA	NA
	Carbazole	DK11	K1105818	KWG1105973	NA	OK	OK
	Dibenzofuran	CK11	K1105818	KWG1105973	OK	NA	NA
	Dibenzofuran	DK11	K1105818	KWG1105973	NA	OK	OK
	Diethyl Phthalate	CK11	K1105818	KWG1105973	OK	NA	NA
	Diethyl Phthalate	DK11	K1105818	KWG1105973	NA	OK	OK
	Dimethyl Phthalate	CK11	K1105818	KWG1105973	OK	NA	NA
	Dimethyl Phthalate	DK11	K1105818	KWG1105973	NA	OK	OK
	Di-n-butyl Phthalate	CK11	K1105818	KWG1105973	OK	NA	NA
	Di-n-butyl Phthalate	DK11	K1105818	KWG1105973	NA	OK	OK
	Di-n-octyl Phthalate	CK11	K1105818	KWG1105973	OK	NA	NA
	Di-n-octyl Phthalate	DK11	K1105818	KWG1105973	NA	OK	OK
	Hexachlorobenzene	CK11	K1105818	KWG1105973	OK	NA	NA
	Hexachlorobenzene	DK11	K1105818	KWG1105973	NA	OK	OK
	Hexachlorobutadiene	CK11	K1105818	KWG1105973	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270C	Hexachlorobutadiene	DK11	K1105818	KWG1105973	NA	OK	OK
	Hexachlorocyclopentadie	CK11	K1105818	KWG1105973	OK	NA	NA
	Hexachlorocyclopentadie	DK11	K1105818	KWG1105973	NA	OK	OK
	Hexachloroethane	CK11	K1105818	KWG1105973	OK	NA	NA
	Hexachloroethane	DK11	K1105818	KWG1105973	NA	OK	OK
	Isophorone	CK11	K1105818	KWG1105973	OK	NA	NA
	Isophorone	DK11	K1105818	KWG1105973	NA	OK	OK
	Nitrobenzene	CK11	K1105818	KWG1105973	OK	NA	NA
	Nitrobenzene	DK11	K1105818	KWG1105973	NA	OK	OK
	N-Nitrosodimethylamine	CK11	K1105818	KWG1105973	OK	NA	NA
	N-Nitrosodimethylamine	DK11	K1105818	KWG1105973	NA	OK	OK
	N-Nitrosodi-n-propylamin	CK11	K1105818	KWG1105973	OK	NA	NA
	N-Nitrosodi-n-propylamin	DK11	K1105818	KWG1105973	NA	OK	OK
	N-Nitrosodiphenylamine	CK11	K1105818	KWG1105973	OK	NA	NA
	N-Nitrosodiphenylamine	DK11	K1105818	KWG1105973	NA	OK	OK
	Pentachlorophenol	CK11	K1105818	KWG1105973	OK	NA	NA
	Pentachlorophenol	DK11	K1105818	KWG1105973	NA	OK	OK
	Phenol	CK11	K1105818	KWG1105973	OK	NA	NA
	Phenol	DK11	K1105818	KWG1105973	NA	OK	OK
8270D SIM	2-Methylnaphthalene	CK11	K1105818	KWG1105972	OK	NA	NA
	2-Methylnaphthalene	DK11	K1105818	KWG1105972	NA	OK	OK
	Acenaphthene	CK11	K1105818	KWG1105972	OK	NA	NA
	Acenaphthene	DK11	K1105818	KWG1105972	NA	OK	OK
	Acenaphthylene	CK11	K1105818	KWG1105972	OK	NA	NA
	Acenaphthylene	DK11	K1105818	KWG1105972	NA	OK	OK
	Anthracene	CK11	K1105818	KWG1105972	OK	NA	NA
	Anthracene	DK11	K1105818	KWG1105972	NA	OK	OK
	Benz(a)anthracene	CK11	K1105818	KWG1105972	OK	NA	NA
	Benz(a)anthracene	DK11	K1105818	KWG1105972	NA	OK	OK
	Benzo(a)pyrene	CK11	K1105818	KWG1105972	OK	NA	NA
	Benzo(a)pyrene	DK11	K1105818	KWG1105972	NA	OK	OK
	Benzo(b)fluoranthene	CK11	K1105818	KWG1105972	OK	NA	NA

METHOD_ID	LAB_CHEM	RES_	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8270D SIM	Benzo(b)fluoranthene	DK11	K1105818	KWG1105972	NA	OK	OK
	Benzo(g,h,i)perylene	CK11	K1105818	KWG1105972	OK	NA	NA
	Benzo(g,h,i)perylene	DK11	K1105818	KWG1105972	NA	OK	OK
	Benzo(k)fluoranthene	CK11	K1105818	KWG1105972	OK	NA	NA
	Benzo(k)fluoranthene	DK11	K1105818	KWG1105972	NA	OK	OK
	Chrysene	CK11	K1105818	KWG1105972	OK	NA	NA
	Chrysene	DK11	K1105818	KWG1105972	NA	OK	OK
	Dibenz(a,h)anthracene	CK11	K1105818	KWG1105972	OK	NA	NA
	Dibenz(a,h)anthracene	DK11	K1105818	KWG1105972	NA	OK	OK
	Fluoranthene	CK11	K1105818	KWG1105972	OK	NA	NA
	Fluoranthene	DK11	K1105818	KWG1105972	NA	OK	OK
	Fluorene	CK11	K1105818	KWG1105972	OK	NA	NA
	Fluorene	DK11	K1105818	KWG1105972	NA	OK	OK
	Indeno(1,2,3-cd)pyrene	CK11	K1105818	KWG1105972	OK	NA	NA
	Indeno(1,2,3-cd)pyrene	DK11	K1105818	KWG1105972	NA	OK	OK
	Naphthalene	CK11	K1105818	KWG1105972	OK	NA	NA
	Naphthalene	DK11	K1105818	KWG1105972	NA	OK	OK
	Phenanthrene	CK11	K1105818	KWG1105972	OK	NA	NA
	Phenanthrene	DK11	K1105818	KWG1105972	NA	OK	OK
	Pyrene	CK11	K1105818	KWG1105972	OK	NA	NA
	Pyrene	DK11	K1105818	KWG1105972	NA	OK	OK
9014	Cyanide, Free	CK11	K1105818	253193	EXCEEDS LOW	NA	NA
9030M	Sulfide, Total	CK11	K1105818	137000	OK	NA	NA
NWTPH-Dx	Diesel Range Organics	CK11	K1105818	KWG1106148	OK	NA	NA
	Residual Range Organics	CK11	K1105818	KWG1106148	OK	NA	NA
SM 2540 D	Solids, Total Suspended	CK11	K1105818	251837	OK	NA	NA
	Solids, Total Suspended	CK11	K1105818	251837	OK	NA	NA
	Solids, Total Suspended	CK11	K1105818	251837	OK	NA	NA
SM4500CNE	Cyanide, Total	CK11	K1105818	136745	OK	NA	NA

Table 6. MS SUMMARY

METHOD	RES_	LAB_CHEM	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
200.7	SL11	Iron, Dissolved	K1105818	136796R	OK	NA	NA
200.8	SL11	Aluminum, Total	K1105818	136799	OK	NA	NA
	SL11	Antimony, Total	K1105818	136799	OK	NA	NA
	SL11	Arsenic, Total	K1105818	136799	OK	NA	NA
	SL11	Cadmium, Total	K1105818	136799	OK	NA	NA
	SL11	Chromium, Total	K1105818	136799	OK	NA	NA
	SL11	Copper, Total	K1105818	136799	OK	NA	NA
	SL11	Lead, Total	K1105818	136799	OK	NA	NA
	SL11	Manganese, Total	K1105818	136799	OK	NA	NA
	SL11	Molybdenum, Total	K1105818	136799	OK	NA	NA
	SL11	Nickel, Total	K1105818	136799	OK	NA	NA
	SL11	Selenium, Total	K1105818	136799	OK	NA	NA
	SL11	Silver, Total	K1105818	136799	OK	NA	NA
	SL11	Zinc, Total	K1105818	136799	OK	NA	NA
300.0	SL11	Sulfate	K1105818	251797	OK	NA	NA
	DL11	Sulfate	K1105818	251797	NA	OK	NA
350.1	SL11	Ammonia as Nitrogen	K1105818	252671	OK	NA	NA
	DL11	Ammonia as Nitrogen	K1105818	252671	NA	OK	NA
415.1	SL11	Carbon, Total Organic	K1105818	252940	OK	NA	NA
8260C	SL11	1,1,2-Trichloroethane	K1105818	KWG1106046	OK	NA	NA
	SL11	1,1-Dichloroethene	K1105818	KWG1106046	OK	NA	NA
	SL11	1,2,3-Trichloropropane	K1105818	KWG1106046	OK	NA	NA
	SL11	2-Hexanone	K1105818	KWG1106046	OK	NA	NA
	SL11	Benzene	K1105818	KWG1106046	OK	NA	NA
	SL11	Bromodichloromethane	K1105818	KWG1106046	OK	NA	NA
	SL11	Carbon Tetrachloride	K1105818	KWG1106046	OK	NA	NA
	SL11	Chlorobenzene	K1105818	KWG1106046	OK	NA	NA

METHOD	RES_	LAB_CHEM	SDG_ID	QAQC_ID	OKRECOVER	OKDRECOVER	OKRPD
8260C	SL11	Chloroform	K1105818	KWG1106046	OK	NA	NA
	SL11	Ethylbenzene	K1105818	KWG1106046	OK	NA	NA
	SL11	Naphthalene	K1105818	KWG1106046	OK	NA	NA
	SL11	Toluene	K1105818	KWG1106046	OK	NA	NA
	SL11	Trichloroethene	K1105818	KWG1106046	OK	NA	NA
	SL11	Vinyl Chloride	K1105818	KWG1106046	OK	NA	NA
	DL11	1,1,2-Trichloroethane	K1105818	KWG1106046	NA	OK	OK
	DL11	1,1-Dichloroethene	K1105818	KWG1106046	NA	OK	OK
	DL11	1,2,3-Trichloropropane	K1105818	KWG1106046	NA	OK	OK
	DL11	2-Hexanone	K1105818	KWG1106046	NA	OK	OK
	DL11	Benzene	K1105818	KWG1106046	NA	OK	OK
	DL11	Bromodichloromethane	K1105818	KWG1106046	NA	OK	OK
	DL11	Carbon Tetrachloride	K1105818	KWG1106046	NA	OK	OK
	DL11	Chlorobenzene	K1105818	KWG1106046	NA	OK	OK
	DL11	Chloroform	K1105818	KWG1106046	NA	OK	OK
	DL11	Ethylbenzene	K1105818	KWG1106046	NA	OK	OK
	DL11	Naphthalene	K1105818	KWG1106046	NA	OK	OK
	DL11	Toluene	K1105818	KWG1106046	NA	OK	OK
	DL11	Trichloroethene	K1105818	KWG1106046	NA	OK	OK
	DL11	Vinyl Chloride	K1105818	KWG1106046	NA	OK	OK
9014	SL11	Cyanide, Free	K1105818	253193	OK	NA	NA
	DL11	Cyanide, Free	K1105818	253193	NA	OK	OK
9030M	SL11	Sulfide, Total	K1105818	137000	OK	NA	NA
	DL11	Sulfide, Total	K1105818	137000	NA	OK	NA
SM4500C	SL11	Cyanide, Total	K1105818	136745	OK	NA	NA
	DL11	Cyanide, Total	K1105818	136745	NA	OK	OK

Table 7. TRIP BLANK Summary

METHOD_ID	SAMP_ID	SDG_ID	QAQC_ID	LAB_CHEM	CONC	LIMIT1	LIMIT2	UNITS
8260C								
	TRIP BLANKS	K1105818	KWG1106046	1,1,1,2-Tetrachloroethane		0.11	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,1,1-Trichloroethane		0.075	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,1,2,2-Tetrachloroethane		0.16	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,1,2-Trichloroethane		0.14	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,1-Dichloroethane		0.077	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,1-Dichloroethene		0.074	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,2,3-Trichloropropane		0.20	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,2,4-Trimethylbenzene		0.069	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,2-Dibromoethane		0.10	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,2-Dichloroethane		0.080	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,2-Dichloropropane		0.095	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,3,5-Trimethylbenzene		0.089	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	1,3-Dichloropropane		0.14	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	2,2-Dichloropropane		0.060	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	2-Butanone	2	1.9	20	ug/L
	TRIP BLANKS	K1105818	KWG1106046	2-Chloroethyl Vinyl Ether		0.16	5.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	2-Hexanone		2.7	20	ug/L
	TRIP BLANKS	K1105818	KWG1106046	4-Isopropyltoluene		0.051	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	4-Methyl-2-pentanone		2.6	20	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Acetone		3.3	20	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Acrolein		0.96	50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Acrylonitrile		0.26	5.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Benzene		0.054	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Bromochloromethane		0.16	0.50	ug/L

METHOD_ID	SAMP_ID	SDG_ID	QAQC_ID	LAB_CHEM	CONC	LIMIT1	LIMIT2	UNITS
	TRIP BLANKS	K1105818	KWG1106046	Bromodichloromethane		0.091	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Bromoform		0.16	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Bromomethane		0.090	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Carbon Disulfide		0.055	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Carbon Tetrachloride		0.096	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Chlorobenzene		0.11	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Chloroethane		0.16	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Chloroform		0.072	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Chloromethane		0.068	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	cis-1,2-Dichloroethene		0.067	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	cis-1,3-Dichloropropene		0.18	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Dibromochloromethane		0.14	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Dibromomethane		0.15	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Dichlorodifluoromethane		0.13	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Dichlorofluoromethane		0.053	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Dichloromethane		0.10	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Ethylbenzene		0.050	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Iodomethane		0.11	5.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Isopropylbenzene		0.051	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	m,p-Xylenes		0.091	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Naphthalene		0.088	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	n-Butylbenzene		0.044	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	n-Propylbenzene		0.051	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	o-Xylene		0.074	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	sec-Butylbenzene		0.062	2.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Styrene		0.089	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Tetrachloroethene		0.099	0.50	ug/L

METHOD_ID	SAMP_ID	SDG_ID	QAQC_ID	LAB_CHEM	CONC	LIMIT1	LIMIT2	UNITS
	TRIP BLANKS	K1105818	KWG1106046	Toluene		0.052	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	trans-1,2-Dichloroethene		0.057	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	trans-1,3-Dichloropropene		0.068	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	trans-1,4-Dichloro-2-butene		0.35	10	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Trichloroethene		0.10	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Trichlorofluoromethane		0.12	0.50	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Vinyl Acetate		0.43	5.0	ug/L
	TRIP BLANKS	K1105818	KWG1106046	Vinyl Chloride		0.075	0.50	ug/L

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 6/27/11
Date Received: 6/28/11

Units: mg/L
Basis: NA

Analysis Method: 9014

Cyanide, Free

Sample Name	Lab Code	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Note
SPI-564-W-062711	K1105818-001	ND	U J	0.010	0.010	1	NA	7/7/11 10:15	
SPI-1-W-062711	K1105818-002	ND	U J	0.010	0.010	1	NA	7/7/11 10:15	
SPI-2-W-062711	K1105818-003	ND	U J	0.010	0.010	1	NA	7/7/11 10:15	
SPI-3-W-062711	K1105818-004	ND	U J	0.010	0.010	1	NA	7/7/11 10:15	
Method Blank	K1105818-MB1	ND	U	0.010	0.010	1	NA	7/7/11 10:15	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/11
Sample Matrix:	Water	**Date Received:**	06/28/11

Mercury, Total

Prep Method:	METHOD	Units:	ng/L
Analysis Method:	1631E	Basis:	NA
Test Notes:			

Sample Name	Lab Code	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
SPI-564-W-062711	K1105818-001	1.0	0.06	1	06/30/11	07/05/11	2.04 J	
SPI-1-W-062711	K1105818-002	1.0	0.06	1	06/30/11	07/05/11	1.73 J	
SPI-2-W-062711	K1105818-003	1.0	0.06	1	06/30/11	07/05/11	2.11 J	
SPI-3-W-062711	K1105818-004	1.0	0.06	1	06/30/11	07/05/11	2.87 J	
Method Blank1	K1105818-MB1	1.0	0.06	1	06/30/11	07/05/11	ND	
Method Blank2	K1105818-MB2	1.0	0.06	1	06/30/11	07/05/11	ND	
Method Blank3	K1105818-MB3	1.0	0.06	1	06/30/11	07/05/11	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**12**	J	110	12	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**24**	J J	110	20	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	97	50-150	07/04/11	Acceptable
n-Triacontane	91	50-150	07/06/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**140**	Z	110	12	1	07/01/11	07/18/11	KWG1106148	
Residual Range Organics (RRO)	**120**	Z J	110	20	1	07/01/11	07/18/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	91	50-150	07/18/11	Acceptable
n-Triacontane	96	50-150	07/18/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-2-W-062711	**Units:**	ug/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**110**	Z	110	12	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**120**	Z J	110	20	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	100	50-150	07/04/11	Acceptable
n-Triacontane	98	50-150	07/06/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Diesel and Residual Range Organics

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**110**	Z	110	12	1	07/01/11	07/04/11	KWG1106148	
Residual Range Organics (RRO)	**120**	Z J	110	20	1	07/01/11	07/04/11	KWG1106148	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	99	50-150	07/04/11	Acceptable
n-Triacontane	101	50-150	07/06/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-564-W-062711	**Units:**	ng/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U J	0.50	0.21	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	U	0.50	0.27	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	U	0.50	0.41	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	ND	U	0.50	0.47	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	U	0.50	0.14	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	1.9	1.9	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	ND	Ui	0.50	0.35	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	ND	U	0.50	0.21	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	U	0.50	0.31	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	U	0.50	0.25	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.50	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	U	0.50	0.37	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	U	0.50	0.19	1	07/15/11	07/18/11	KWG1106709	*
Endrin	ND	U	0.50	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui R	0.50	0.41	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	U J	0.50	0.21	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**0.35**	J	0.50	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	U	0.50	0.28	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	U	0.50	0.17	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	U	0.50	0.32	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	U	0.50	0.28	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	35	35	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	10	5.6	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	U	0.50	0.069	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.50	0.25	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	ND	Ui	0.50	0.43	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	U	0.50	0.068	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	Ui	0.50	0.14	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	**0.49**	JP	0.50	0.13	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Organochlorine Pesticides

Sample Name: SPI-1-W-062711
Lab Code: K1105818-002

Units: ng/L
Basis: NA

Extraction Method: EPA 3535A
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	Ui J	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	Ui	2.3	2.3	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	**1.7**	P	0.49	0.47	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	Ui	2.3	2.3	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	1.2	1.2	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	**0.35**	J	0.49	0.11	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	ND	Ui	0.49	0.31	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	Ui	0.86	0.86	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.49	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	Ui	0.85	0.85	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endrin	**1.1**	P	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui R	3.7	3.7	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	Ui J	0.81	0.81	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**1.3**	P	0.49	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	Ui	0.81	0.81	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	Ui	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	Ui	0.86	0.86	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	U	0.49	0.28	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	190	190	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	18	18	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	Ui	2.9	2.9	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui R	0.56	0.56	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	**0.48**	JP J	0.49	0.14	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	Ui	1.5	1.5	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	Ui	0.71	0.71	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	ND	U	0.49	0.13	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-2-W-062711	**Units:**	ng/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U R	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	Ui J	1.1	1.1	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	U	0.48	0.41	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	ND	Ui	0.58	0.58	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	Ui	0.80	0.80	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	0.94	0.94	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	ND	U	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	U	0.48	0.31	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	U	0.48	0.25	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.48	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	U	0.48	0.37	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
Endrin	ND	U	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui R	0.93	0.93	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	U J	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**0.29**	JP	0.48	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	Ui	0.48	0.29	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	Ui	0.97	0.97	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	U	0.48	0.32	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	U	0.48	0.28	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	77	77	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	9.5	5.7	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	U	0.48	0.069	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.90	0.90	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	ND	U R	0.48	0.14	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	U J	0.48	0.068	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	ND	Ui	0.48	0.19	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Organochlorine Pesticides

Sample Name: SPI-3-W-062711
Lab Code: K1105818-004

Units: ng/L
Basis: NA

Extraction Method: EPA 3535A
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U J	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Hexachlorobenzene	ND	U	0.48	0.27	1	07/15/11	07/18/11	KWG1106709	*
beta-BHC	ND	U	0.48	0.41	1	07/15/11	07/18/11	KWG1106709	*
gamma-BHC (Lindane)	**0.89**	P	0.48	0.47	1	07/15/11	07/18/11	KWG1106709	*
delta-BHC	ND	Ui	0.87	0.87	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor	ND	Ui	1.9	1.9	1	07/15/11	07/18/11	KWG1106709	*
Aldrin	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
Heptachlor Epoxide	**0.29**	J	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
gamma-Chlordane†	ND	Ui	0.48	0.33	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan I	ND	U	0.48	0.25	1	07/15/11	07/18/11	KWG1106709	*
alpha-Chlordane	ND	U	0.48	0.27	1	07/15/11	07/18/11	KWG1106709	*
Dieldrin	ND	U	0.48	0.37	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDE	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
Endrin	ND	U	0.49	0.49	1	07/15/11	07/18/11	KWG1106709	*
Endosulfan II	ND	Ui R	0.80	0.80	1	07/15/11	07/21/11	KWG1106709	*
4,4'-DDD	ND	U J	0.48	0.21	1	07/15/11	07/18/11	KWG1106709	*
Endrin Aldehyde	**0.45**	JP	0.48	0.21	1	07/15/11	07/21/11	KWG1106709	*
Endosulfan Sulfate	ND	U	0.48	0.28	1	07/15/11	07/18/11	KWG1106709	*
4,4'-DDT	ND	Ui	1.2	1.2	1	07/15/11	07/18/11	KWG1106709	*
Endrin Ketone	ND	U	0.48	0.32	1	07/15/11	07/18/11	KWG1106709	*
Methoxychlor	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
Toxaphene	ND	Ui	82	82	1	07/15/11	07/18/11	KWG1106709	*
Chlordane	ND	Ui	9.5	9.5	1	07/15/11	07/18/11	KWG1106709	*
Oxychlordane	ND	U	0.48	0.069	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDE	ND	Ui	0.48	0.48	1	07/15/11	07/18/11	KWG1106709	*
cis-Nonachlor	ND	Ui R	0.48	0.16	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDD	ND	U J	0.48	0.068	1	07/15/11	07/18/11	KWG1106709	*
trans-Nonachlor	ND	U	0.48	0.11	1	07/15/11	07/18/11	KWG1106709	*
2,4'-DDT	ND	Ui	0.48	0.25	1	07/15/11	07/18/11	KWG1106709	*

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-564-W-062711
Lab Code: K1105818-001

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	ND	U	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	ND	U	0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U J	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.6**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.022**	J J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	**0.054**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	ND	U	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	**0.062**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.052**	J J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U J	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	ND	U	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	72	12-109	07/08/11	Acceptable
Phenol-d6	67	23-106	07/08/11	Acceptable
Nitrobenzene-d5	76	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	68	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	71	23-127	07/08/11	Acceptable
Terphenyl-d14	107	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-1-W-062711
Lab Code: K1105818-002

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	ND	U	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	ND	U	0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U J	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.7**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.029**	J J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	**0.067**	J J	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.045**	J J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U J	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.14**	J J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	71	12-109	07/08/11	Acceptable
Phenol-d6	66	23-106	07/08/11	Acceptable
Nitrobenzene-d5	71	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	68	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	82	23-127	07/08/11	Acceptable
Terphenyl-d14	100	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	**0.12**	J	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	**0.24**	J J	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	**0.60**		0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	ND	U	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U J	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.7**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.028**	J J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-2-W-062711	**Units:**	ug/L
Lab Code:	K1105818-003	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	ND	U	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	**0.029**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.096**	J J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U J	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.13**	J J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	77	12-109	07/08/11	Acceptable
Phenol-d6	74	23-106	07/08/11	Acceptable
Nitrobenzene-d5	79	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	72	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	81	23-127	07/08/11	Acceptable
Terphenyl-d14	100	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name: SPI-3-W-062711
Lab Code: K1105818-004

Units: ug/L
Basis: NA

Extraction Method: EPA 3520C
Analysis Method: 8270C

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
N-Nitrosodimethylamine	ND	U	2.0	0.42	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroethyl) Ether	ND	U	0.20	0.035	1	06/29/11	07/08/11	KWG1105973	
Phenol	**0.14**	J	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2-Chlorophenol	ND	U	0.48	0.054	1	06/29/11	07/08/11	KWG1105973	
1,3-Dichlorobenzene	ND	U	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
1,4-Dichlorobenzene	ND	U	0.20	0.029	1	06/29/11	07/08/11	KWG1105973	
1,2-Dichlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Benzyl Alcohol	**0.26**	J J	0.48	0.073	1	06/29/11	07/08/11	KWG1105973	
Bis(2-chloroisopropyl) Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
2-Methylphenol	**0.61**		0.48	0.11	1	06/29/11	07/08/11	KWG1105973	
Hexachloroethane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodi-n-propylamine	ND	U	0.20	0.037	1	06/29/11	07/08/11	KWG1105973	
4-Methylphenol†	**0.13**	J	0.48	0.12	1	06/29/11	07/08/11	KWG1105973	
Nitrobenzene	ND	U	0.20	0.028	1	06/29/11	07/08/11	KWG1105973	
Isophorone	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
2-Nitrophenol	ND	U	0.48	0.063	1	06/29/11	07/08/11	KWG1105973	
2,4-Dimethylphenol	ND	U J	3.9	2.2	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-chloroethoxy)methane	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
2,4-Dichlorophenol	ND	U	0.48	0.047	1	06/29/11	07/08/11	KWG1105973	
Benzoic Acid	**1.7**	J	4.8	1.1	1	06/29/11	07/08/11	KWG1105973	
1,2,4-Trichlorobenzene	ND	U	0.20	0.016	1	06/29/11	07/08/11	KWG1105973	
4-Chloroaniline	ND	U	0.20	0.025	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobutadiene	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
4-Chloro-3-methylphenol	ND	U	0.48	0.037	1	06/29/11	07/08/11	KWG1105973	
Hexachlorocyclopentadiene	ND	U	0.96	0.19	1	06/29/11	07/08/11	KWG1105973	
2,4,6-Trichlorophenol	ND	U	0.48	0.058	1	06/29/11	07/08/11	KWG1105973	
2,4,5-Trichlorophenol	ND	U	0.48	0.031	1	06/29/11	07/08/11	KWG1105973	
2-Chloronaphthalene	ND	U	0.20	0.041	1	06/29/11	07/08/11	KWG1105973	
2-Nitroaniline	ND	U	0.20	0.024	1	06/29/11	07/08/11	KWG1105973	
Dimethyl Phthalate	**0.043**	J J	0.20	0.021	1	06/29/11	07/08/11	KWG1105973	
2,6-Dinitrotoluene	ND	U	0.20	0.033	1	06/29/11	07/08/11	KWG1105973	
3-Nitroaniline	ND	U	0.96	0.029	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrophenol	ND	U	3.9	0.17	1	06/29/11	07/08/11	KWG1105973	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Semi-Volatile Organic Compounds by GC/MS

Sample Name:	SPI-3-W-062711	**Units:**	ug/L
Lab Code:	K1105818-004	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Dibenzofuran	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Nitrophenol	ND	U	2.0	0.28	1	06/29/11	07/08/11	KWG1105973	
2,4-Dinitrotoluene	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
4-Chlorophenyl Phenyl Ether	ND	U	0.20	0.027	1	06/29/11	07/08/11	KWG1105973	
Diethyl Phthalate	**0.028**	J J	0.20	0.012	1	06/29/11	07/08/11	KWG1105973	
4-Nitroaniline	ND	U	0.96	0.019	1	06/29/11	07/08/11	KWG1105973	
2-Methyl-4,6-dinitrophenol	ND	U	2.0	0.025	1	06/29/11	07/08/11	KWG1105973	
N-Nitrosodiphenylamine	ND	U	0.20	0.048	1	06/29/11	07/08/11	KWG1105973	
4-Bromophenyl Phenyl Ether	ND	U	0.20	0.026	1	06/29/11	07/08/11	KWG1105973	
Hexachlorobenzene	ND	U	0.20	0.022	1	06/29/11	07/08/11	KWG1105973	
Pentachlorophenol	ND	U	0.96	0.34	1	06/29/11	07/08/11	KWG1105973	
Carbazole	**0.028**	J	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
Di-n-butyl Phthalate	**0.081**	J J	0.20	0.023	1	06/29/11	07/08/11	KWG1105973	
Butyl Benzyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	
3,3'-Dichlorobenzidine	ND	U J	2.0	0.43	1	06/29/11	07/08/11	KWG1105973	*
Bis(2-ethylhexyl) Phthalate	**0.14**	J J	0.96	0.13	1	06/29/11	07/08/11	KWG1105973	
Di-n-octyl Phthalate	ND	U	0.20	0.018	1	06/29/11	07/08/11	KWG1105973	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
2-Fluorophenol	78	12-109	07/08/11	Acceptable
Phenol-d6	74	23-106	07/08/11	Acceptable
Nitrobenzene-d5	80	26-110	07/08/11	Acceptable
2-Fluorobiphenyl	73	31-94	07/08/11	Acceptable
2,4,6-Tribromophenol	86	23-127	07/08/11	Acceptable
Terphenyl-d14	103	40-127	07/08/11	Acceptable

† Analyte Comments

4-Methylphenol	This analyte cannot be separated from 3-Methylphenol.

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-564-W-062711	**Units:**	ug/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.21**		0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	**0.032**		0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	**0.051**		0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	**0.046**		0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	**0.13**		0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	ND	Ui	0.020	0.0076	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	**0.038**		0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	**0.017**	J	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	**0.0037**	J	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Chrysene	**0.0040**	J	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	**0.0035**	J	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	**0.0026**	J	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	**0.0028**	J	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	**0.0034**	J	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	**0.0045**	J J	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	87	28-98	07/05/11	Acceptable
Fluoranthene-d10	86	31-105	07/05/11	Acceptable
Terphenyl-d14	113	27-112	07/05/11	Outside Control Limits

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Polynuclear Aromatic Hydrocarbons

Sample Name:	SPI-1-W-062711	**Units:**	ug/L
Lab Code:	K1105818-002	**Basis:**	NA
Extraction Method:	EPA 3520C	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.034**		0.020	0.0030	1	06/29/11	07/05/11	KWG1105972	
2-Methylnaphthalene	**0.0058**	J	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Acenaphthylene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Acenaphthene	ND	U	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Fluorene	ND	U	0.020	0.0038	1	06/29/11	07/05/11	KWG1105972	
Phenanthrene	**0.0060**	J	0.020	0.0050	1	06/29/11	07/05/11	KWG1105972	
Anthracene	ND	U	0.020	0.0036	1	06/29/11	07/05/11	KWG1105972	
Fluoranthene	**0.0059**	J	0.020	0.0044	1	06/29/11	07/05/11	KWG1105972	
Pyrene	**0.010**	J	0.020	0.0035	1	06/29/11	07/05/11	KWG1105972	
Benz(a)anthracene	ND	Ui	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Chrysene	ND	U	0.020	0.0034	1	06/29/11	07/05/11	KWG1105972	
Benzo(b)fluoranthene	**0.0034**	J	0.020	0.0023	1	06/29/11	07/05/11	KWG1105972	
Benzo(k)fluoranthene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	06/29/11	07/05/11	KWG1105972	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	06/29/11	07/05/11	KWG1105972	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	06/29/11	07/05/11	KWG1105972	
Benzo(g,h,i)perylene	**0.0035**	J J	0.020	0.0029	1	06/29/11	07/05/11	KWG1105972	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	88	28-98	07/05/11	Acceptable
Fluoranthene-d10	78	31-105	07/05/11	Acceptable
Terphenyl-d14	83	27-112	07/05/11	Acceptable

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Original Extraction Results

Client:	PES Environmental	**Service Request:**	K1105818
Project:	Univar Portland/165	**Date Collected:**	06/27/2011
Sample Matrix:	Water	**Date Received:**	06/28/2011

Organochlorine Pesticides

Sample Name:	SPI-564-W-062711	**Units:**	ng/L
Lab Code:	K1105818-001	**Basis:**	NA
Extraction Method:	EPA 3535A	**Level:**	Low
Analysis Method:	8081B		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.50	0.21	1	07/01/11	07/13/11	KWG1106489	
Hexachlorobenzene	ND	U	0.50	0.27	1	07/01/11	07/13/11	KWG1106489	*
beta-BHC	ND	U	0.50	0.41	1	07/01/11	07/13/11	KWG1106489	
gamma-BHC (Lindane)	ND	U	0.50	0.47	1	07/01/11	07/13/11	KWG1106489	
delta-BHC	ND	U	0.50	0.14	1	07/01/11	07/13/11	KWG1106489	
Heptachlor	ND	Ui	1.5	1.5	1	07/01/11	07/13/11	KWG1106489	*
Aldrin	ND	U	0.50	0.11	1	07/01/11	07/13/11	KWG1106489	*
Heptachlor Epoxide	ND	U	0.50	0.21	1	07/01/11	07/13/11	KWG1106489	*
gamma-Chlordane†	ND	U	0.50	0.31	1	07/01/11	07/13/11	KWG1106489	*
Endosulfan I	ND	U	0.50	0.25	1	07/01/11	07/13/11	KWG1106489	*
alpha-Chlordane	ND	U	0.50	0.27	1	07/01/11	07/13/11	KWG1106489	*
Dieldrin	ND	U	0.50	0.37	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDE	ND	U	0.50	0.19	1	07/01/11	07/13/11	KWG1106489	*
Endrin	ND	U	0.50	0.49	1	07/01/11	07/13/11	KWG1106489	
Endosulfan II	**0.49**	JP	0.50	0.35	1	07/01/11	07/13/11	KWG1106489	
4,4'-DDD	ND	U	0.50	0.21	1	07/01/11	07/13/11	KWG1106489	
Endrin Aldehyde	**0.26**	J	1.0	0.21	1	07/01/11	07/13/11	KWG1106489	
Endosulfan Sulfate	ND	U	0.50	0.28	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDT	ND	U	0.50	0.17	1	07/01/11	07/13/11	KWG1106489	*
Endrin Ketone	ND	U	0.50	0.32	1	07/01/11	07/13/11	KWG1106489	*
Methoxychlor	ND	U	0.50	0.28	1	07/01/11	07/13/11	KWG1106489	
Toxaphene	ND	Ui	47	47	1	07/01/11	07/13/11	KWG1106489	
Chlordane	ND	Ui	10	7.0	1	07/01/11	07/13/11	KWG1106489	
Oxychlordane	ND	Ui	0.50	0.19	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDE	ND	U	0.50	0.12	1	07/01/11	07/13/11	KWG1106489	
cis-Nonachlor	ND	U	0.50	0.14	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDD	ND	Ui	0.50	0.077	1	07/01/11	07/13/11	KWG1106489	
trans-Nonachlor	ND	U	0.50	0.11	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDT	ND	Ui	0.50	0.50	1	07/01/11	07/13/11	KWG1106489	

* See Case Narrative

Comments:

Original Extraction Results
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COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Organochlorine Pesticides

Sample Name: SPI-1-W-062711
Lab Code: K1105818-002

Units: ng/L
Basis: NA

Extraction Method: EPA 3535A
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	Ui	0.52	0.52	1	07/01/11	07/13/11	KWG1106489	
Hexachlorobenzene	ND	Ui	1.8	1.8	1	07/01/11	07/13/11	KWG1106489	*
beta-BHC	ND	U	0.52	0.42	1	07/01/11	07/13/11	KWG1106489	
gamma-BHC (Lindane)	ND	Ui	1.4	1.4	1	07/01/11	07/13/11	KWG1106489	
delta-BHC	ND	Ui	2.6	2.6	1	07/01/11	07/13/11	KWG1106489	
Heptachlor	ND	Ui	0.52	0.47	1	07/01/11	07/13/11	KWG1106489	*
Aldrin	**0.37**	JP	0.52	0.12	1	07/01/11	07/13/11	KWG1106489	*
Heptachlor Epoxide	**0.25**	JP	0.52	0.22	1	07/01/11	07/13/11	KWG1106489	*
gamma-Chlordane†	ND	U	0.52	0.32	1	07/01/11	07/13/11	KWG1106489	*
Endosulfan I	ND	Ui	0.75	0.75	1	07/01/11	07/13/11	KWG1106489	*
alpha-Chlordane	ND	Ui	0.52	0.38	1	07/01/11	07/13/11	KWG1106489	*
Dieldrin	ND	Ui	0.75	0.75	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDE	ND	U	0.52	0.20	1	07/01/11	07/13/11	KWG1106489	*
Endrin	**0.73**	P	0.52	0.50	1	07/01/11	07/13/11	KWG1106489	
Endosulfan II	**2.4**		0.52	0.36	1	07/01/11	07/13/11	KWG1106489	
4,4'-DDD	ND	Ui	0.61	0.61	1	07/01/11	07/13/11	KWG1106489	
Endrin Aldehyde	**1.5**		1.1	0.22	1	07/01/11	07/13/11	KWG1106489	
Endosulfan Sulfate	ND	Ui	0.96	0.96	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDT	ND	Ui	0.52	0.52	1	07/01/11	07/13/11	KWG1106489	*
Endrin Ketone	ND	Ui	0.87	0.87	1	07/01/11	07/13/11	KWG1106489	*
Methoxychlor	ND	Ui	0.52	0.51	1	07/01/11	07/13/11	KWG1106489	
Toxaphene	ND	Ui	200	200	1	07/01/11	07/13/11	KWG1106489	
Chlordane	ND	Ui	15	15	1	07/01/11	07/13/11	KWG1106489	
Oxychlordane	ND	Ui	1.1	1.1	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDE	**0.23**	JP	0.52	0.13	1	07/01/11	07/13/11	KWG1106489	
cis-Nonachlor	ND	Ui	0.52	0.47	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDD	ND	Ui	1.3	1.3	1	07/01/11	07/13/11	KWG1106489	
trans-Nonachlor	ND	U	0.52	0.12	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDT	ND	U	0.52	0.14	1	07/01/11	07/13/11	KWG1106489	

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Original Extraction Results
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Organochlorine Pesticides

Sample Name: SPI-2-W-062711
Lab Code: K1105818-003

Units: ng/L
Basis: NA

Extraction Method: EPA 3535A
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	**0.68**	P	0.52	0.22	1	07/01/11	07/13/11	KWG1106489	
Hexachlorobenzene	ND	U	0.52	0.28	1	07/01/11	07/13/11	KWG1106489	*
beta-BHC	ND	U	0.52	0.42	1	07/01/11	07/13/11	KWG1106489	
gamma-BHC (Lindane)	ND	Ui	0.65	0.65	1	07/01/11	07/13/11	KWG1106489	
delta-BHC	ND	U	0.52	0.15	1	07/01/11	07/13/11	KWG1106489	
Heptachlor	ND	Ui	1.1	1.1	1	07/01/11	07/13/11	KWG1106489	*
Aldrin	ND	U	0.52	0.12	1	07/01/11	07/13/11	KWG1106489	*
Heptachlor Epoxide	ND	U	0.52	0.22	1	07/01/11	07/13/11	KWG1106489	*
gamma-Chlordane†	ND	U	0.52	0.32	1	07/01/11	07/13/11	KWG1106489	*
Endosulfan I	ND	Ui	0.52	0.41	1	07/01/11	07/13/11	KWG1106489	*
alpha-Chlordane	ND	U	0.52	0.28	1	07/01/11	07/13/11	KWG1106489	*
Dieldrin	ND	U	0.52	0.38	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDE	ND	Ui	0.69	0.69	1	07/01/11	07/13/11	KWG1106489	*
Endrin	ND	U	0.52	0.50	1	07/01/11	07/13/11	KWG1106489	
Endosulfan II	**1.1**		0.52	0.36	1	07/01/11	07/13/11	KWG1106489	
4,4'-DDD	ND	U	0.52	0.22	1	07/01/11	07/13/11	KWG1106489	
Endrin Aldehyde	**0.78**	J	1.1	0.22	1	07/01/11	07/13/11	KWG1106489	
Endosulfan Sulfate	ND	Ui	0.52	0.30	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDT	ND	U	0.52	0.18	1	07/01/11	07/13/11	KWG1106489	*
Endrin Ketone	ND	U	0.52	0.33	1	07/01/11	07/13/11	KWG1106489	*
Methoxychlor	ND	Ui	0.52	0.52	1	07/01/11	07/13/11	KWG1106489	
Toxaphene	ND	Ui	54	54	1	07/01/11	07/13/11	KWG1106489	
Chlordane	ND	Ui	11	9.5	1	07/01/11	07/13/11	KWG1106489	
Oxychlordane	ND	Ui	0.52	0.082	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDE	ND	U	0.52	0.13	1	07/01/11	07/13/11	KWG1106489	
cis-Nonachlor	**0.55**	P	0.52	0.15	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDD	ND	U	0.52	0.070	1	07/01/11	07/13/11	KWG1106489	
trans-Nonachlor	ND	U	0.52	0.12	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDT	ND	Ui	0.52	0.21	1	07/01/11	07/13/11	KWG1106489	

* See Case Narrative

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client: PES Environmental
Project: Univar Portland/165
Sample Matrix: Water

Service Request: K1105818
Date Collected: 06/27/2011
Date Received: 06/28/2011

Original Extraction Results Pg 4 of 4

Organochlorine Pesticides

Sample Name: SPI-3-W-062711
Lab Code: K1105818-004

Units: ng/L
Basis: NA

Extraction Method: EPA 3535A
Analysis Method: 8081B

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
alpha-BHC	ND	U	0.50	0.21	1	07/01/11	07/13/11	KWG1106489	
Hexachlorobenzene	ND	U	0.50	0.27	1	07/01/11	07/13/11	KWG1106489	*
beta-BHC	ND	U	0.50	0.41	1	07/01/11	07/13/11	KWG1106489	
gamma-BHC (Lindane)	**1.2**	P	0.50	0.47	1	07/01/11	07/13/11	KWG1106489	
delta-BHC	ND	Ui	0.50	0.34	1	07/01/11	07/13/11	KWG1106489	
Heptachlor	ND	Ui	0.87	0.87	1	07/01/11	07/13/11	KWG1106489	*
Aldrin	ND	Ui	0.50	0.13	1	07/01/11	07/13/11	KWG1106489	*
Heptachlor Epoxide	ND	U	0.50	0.21	1	07/01/11	07/13/11	KWG1106489	*
gamma-Chlordane†	ND	U	0.50	0.31	1	07/01/11	07/13/11	KWG1106489	*
Endosulfan I	ND	Ui	0.50	0.47	1	07/01/11	07/13/11	KWG1106489	*
alpha-Chlordane	**0.45**	JP	0.50	0.27	1	07/01/11	07/13/11	KWG1106489	*
Dieldrin	ND	U	0.50	0.37	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDE	ND	Ui	0.50	0.50	1	07/01/11	07/13/11	KWG1106489	*
Endrin	ND	U	0.50	0.49	1	07/01/11	07/13/11	KWG1106489	
Endosulfan II	**0.97**	P	0.50	0.35	1	07/01/11	07/13/11	KWG1106489	
4,4'-DDD	ND	U	0.50	0.21	1	07/01/11	07/13/11	KWG1106489	
Endrin Aldehyde	**0.43**	JP	0.99	0.21	1	07/01/11	07/13/11	KWG1106489	
Endosulfan Sulfate	ND	Ui	0.50	0.30	1	07/01/11	07/13/11	KWG1106489	*
4,4'-DDT	ND	Ui	0.91	0.91	1	07/01/11	07/13/11	KWG1106489	*
Endrin Ketone	ND	U	0.50	0.32	1	07/01/11	07/13/11	KWG1106489	*
Methoxychlor	ND	Ui	0.98	0.98	1	07/01/11	07/13/11	KWG1106489	
Toxaphene	ND	Ui	110	110	1	07/01/11	07/13/11	KWG1106489	
Chlordane	ND	Ui	9.9	8.7	1	07/01/11	07/13/11	KWG1106489	
Oxychlordane	ND	Ui	0.50	0.15	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDE	ND	U	0.50	0.12	1	07/01/11	07/13/11	KWG1106489	
cis-Nonachlor	**0.37**	J	0.50	0.14	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDD	ND	U	0.50	0.068	1	07/01/11	07/13/11	KWG1106489	
trans-Nonachlor	ND	Ui	0.50	0.50	1	07/01/11	07/13/11	KWG1106489	
2,4'-DDT	ND	U	0.50	0.13	1	07/01/11	07/13/11	KWG1106489	

* See Case Narrative

Comments: