King County Environmental Laboratory

WORK GROUP REPORT (wk02)

Dec 14 2006, 04:28 pm

Work Group: WG89087 (BL#676 PCBLL) for Department: 7 - Organics, Trace

Created: 16-NOV-06 PrepDate: 08-NOV-06 Due: Operator: JG

Sample	Project Number	Project Description	Pkey	C	Product	Matrix	Stat	UA	Workdate	Duedate
L40900-1	423589-090-1	Lower Duwamish Phthalate Studies	S		PCBLL	STORM WTR	PREP	U	08-NOV-06	01-DEC-06
L40900-2	423589-090-1	Lower Duwamish Phthalate Studies	S		PCBLL	STORM WTR	PREP	U	08-NOV-06	01-DEC-06
L40900-3	423589-090-1	Lower Duwamish Phthalate Studies	S		PCBLL	STORM WTR	PREP	U	08-NOV-06	01-DEC-06
L40900-4	423589-090-1	Lower Duwamish Phthalate Studies	S		PCBLL	STORM WTR	PREP	U	08-NOV-06	01-DEC-06
L40900-5	423589-090-1	Lower Duwamish Phthalate Studies	S		PCBLL	STORM WTR	PREP	U	08-NOV-06	01-DEC-06
WG89087-1	SB		S		PCBLL	BLANK WTR	PREP	U	16-NOV-06	
WG89087-2	MB		S		PCBLL	BLANK WTR	PREP	U	16-NOV-06	
WG89087-3	SBD		S		PCBLL	BLANK WTR	PREP	U	16-NOV-06	
WG89087-4	MB		S		PCBLL	BLANK WTR	PREP	U	16-NOV-06	

Comments:

L40900-1	carboys
L40900-2	carboys
L40900-3	carboys
L40900-4	carboys
L40900-5	carboys
WG89087-1	WG89087-2
WG89087-2	MB061107
WG89087-3	WG89087-1 WG89087-2
WG89087-4	MB061108

KCSlip4 58718

SEA425017

Rand 13- Samples

Acetone Lot* 065490

LIQUID SAMPLE EXTRACTION RECORD FOR BNA ANALYSIS
TRACE ORGANICS LABORATORY

MeCL2 Lot# CR332
QC BATCH NO.: BL #676
EPA SW-846 EXTRACTION METHOD:
CONT. L-L EPA 3520 SEP. FUNNEL EPA 3510

PHPAHSOURCE/PCBLL via SPE

WORKGROUP NO.: { PHPAHSOURCE = WG89086 / PCBLL = WG89087
BNA SURROGATE SPIKE: 1315 + 1205 (DMCs)
BNA MATRIX SPIKE: 1246

PCB Field Surr = 121
PCB House Surr = 121
PCBLL MS = 126

Date/ Analyst	Sample Number	Project Number	Sample Description	coc	pH	Initial Amt. (ml)	Spike Amount (ul)	Vf (ml)	Conc. Anlyst	Turn Over Date	Comments	
JG 11/07/06	WG89086-1 WG89087-1	QC	SB		6	3000	1205-25µl 1315-100µl 1216-100µl 1217-100µl 1261-100µl 1246-50µl	1.0	JG JG	12/13/06 12/14/06	15 ml MeOH. ~~MeOH~~ JG 11/07/06	12.[illegible]
	WG89086-2 WG89087-2	QC	MB		6	3000	1205-25µl 1315-100µl 1216-100µl 1217-100µl	1.0	JG JG	12/13/06 12/14/06	15 ml MeOH.	14.4
	L40900-5	423589-090-001	SPCC-01-092806-110106 Lower Duwamish Source		5	2850	*	1.0	JG JG	12/13/06 12/14/06	14 ml MeOH.* Stds 1205 & 1217 spiked pre-deployment. pH 5-6	18.4
	L40900-3	423589-090-001	DZ-01-092806-110106 Lower Duwamish Source		5	2780	*	1.0	JG JG	12/13/06 12/14/06	13 ml MeOH.* Stds 1205 & 1217 spiked pre-deployment. pH 5-6	16.[illegible]
JG 11/08/06	WG89086-3 WG89087-3	QC	SBD		6	3000	1205-25µl 1315-100µl 1216-100µl 1217-100µl 1261-100µl 1246-50µl	1.0	JG JG	12/13/06 12/14/06	15 ml MeOH.	15.[illegible]
	WG89086-4 WG89087-4	QC	MB		6	3000	1205-25µl 1315-100µl 1216-100µl 1217-100µl	1.0	JG JG	12/13/06 12/14/06	15 ml MeOH.	14.[illegible]
	L40900-1	423589-090-001	BWR-01-092806-110106 Lower Duwamish Source		6	2680	*	1.0	JG JG	12/13/06 12/14/06	13 ml MeOH.* Stds 1205 & 1217 spiked pre-deployment.	19.7
	L40900-2		CGR-01-092806-110106 Lower Duwamish Source		6	2690	*		JG JG	12/13/06 12/14/06	15 ml MeOH.* Stds 1205 & 1217 spiked pre-deployment.	16.[illegible]
	L40900-4		KCIA-01-092806-110106 Lower Duwamish Source		5	2800	*		JG JG	12/13/06 12/14/06	15 ml MeOH. * Stds 1205 & 1217 spiked pre-deployment.	13.[illegible]
*	Post-SPE Blank	421176	~~SPE Blank~~ JG 12/13/06 Post-SPE Blank		–	2800	—	1.0	JG JG	12/13/06 12/14/06	~40 ml acetone, ~120 ml MeCl2 - to four (4) VOA vials. Processed through Na_2SO_4 and K-D. No SPE disk used. No surrogate added	

* Post-SPE Blank not included in WG89086/087.
* 5 samples for PCBLL cleaned via alumina then H_2SO_4.
* Vial vol all samples = 0.5 ml.

All samples (except Post-SPE Blank) processed using SPE Lot* C03N14.

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SEA425018

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab QC Report - 12/15/06 11:48
Run ID: R117803 Workgroup: WG89087 (BL#676 PCBLL)

SBD:WG89087-3 SB:WG89087-1 MB:WG89087-2 Matrix: BLANK WTR Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: STD
(Spiked Blank Duplicate, Spike Blank, Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Truevalue	SB Value	% Rec.	Qual	LabLimit	Truevalue	SBD Value	% Rec.	Qual	LabLimit	RPD	Qual	LabLimit
Aroclor 1016	.017	.0333	ug/L	<MDL	0.100	.0637	64	*	65-129	0.100	.0691	69		65-129	8		
Aroclor 1260	.017	.0333	ug/L	<MDL	0.100	.0622	62	*	72-128	0.100	.0703	70	*	72-128	12		

MB:WG89087-2 Matrix: BLANK WTR Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: STD
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Aroclor 1016	.017	.0333	ug/L	<MDL	
Aroclor 1221	.017	.0333	ug/L	<MDL	
Aroclor 1232	.017	.0333	ug/L	<MDL	
Aroclor 1242	.017	.0333	ug/L	<MDL	
Aroclor 1248	.017	.0333	ug/L	<MDL	
Aroclor 1254	.017	.0333	ug/L	<MDL	
Aroclor 1260	.017	.0333	ug/L	<MDL	

MB:WG89087-4 Matrix: BLANK WTR Listtype: ORPCBLL Method: EPA 8081A/8082 (7-3-03-002) Project: Pkey: STD
(Method Blank)

Parameter	Mdl	Rdl	Units	MB Value	Qual
Aroclor 1016	.017	.0333	ug/L	<MDL	
Aroclor 1221	.017	.0333	ug/L	<MDL	
Aroclor 1232	.017	.0333	ug/L	<MDL	
Aroclor 1242	.017	.0333	ug/L	<MDL	
Aroclor 1248	.017	.0333	ug/L	<MDL	
Aroclor 1254	.017	.0333	ug/L	<MDL	
Aroclor 1260	.017	.0333	ug/L	<MDL	

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SEA425019

Sample # (Lab Limits)	Decachlorobiph- enyl 12-158	2,4,5,6-Tetrac- hloro-m-xylene 10-118
L40900-1	73	55
L40900-2	68	53
L40900-3	60	61
L40900-4	67	53
L40900-5	69	56
WG89087-1	80	21
WG89087-2	79	24
WG89087-3	80	19
WG89087-4	81	23

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If the following parameters are reported, values in the RPD column are their Absolute Differences:

pH
pH, Field
Salinity
Salinity, Field
Sample Depth
Sample Temperature, Field

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SEA425020

Data File Name	Sample Name	Date Acquired	Vial Numbe	Sample Amount	Sample Multiplie	Isodrin (RT)	Isodrin (Height)	Leptophos (RT)	Leptophos (Height)	Isodrin #2 (RT)	Isodrin #2 (Height)	Leptoph (RT)	Leptophos #2 (Height)	Misc Info	Data File Path
COND-01.D	conditioner	12/14/2006 15:28	1	0	1										S:\MSDCHEM\2\DATA\061214\
BLANK-01.D	blank	12/14/2006 16:04	2	0	1										S:\MSDCHEM\2\DATA\061214\
PCB-01.D	1218D 1016/1260 500/50	12/14/2006 16:41	3	0	1	14.253	164213154	22.469	341822640	12.947	326188678	19.352	539727877		S:\MSDCHEM\2\DATA\061214\
PCB-02.D	1209.2 1248 500/50	12/14/2006 17:18	4	0	1	14.254	159819599	22.468	339385765	12.946	327028727	19.351	524424903		S:\MSDCHEM\2\DATA\061214\
PCB-03.D	1210.1 1254 500/50	12/14/2006 17:54	5	0	1	14.253	133076303	22.469	251649220	12.947	259947663	19.351	412142694		S:\MSDCHEM\2\DATA\061214\
PCB-04.D	1206.1 1221 500/50	12/14/2006 18:31	6	0	1	14.254	139070985	22.470	276391342	12.946	292797957	19.350	454151981		S:\MSDCHEM\2\DATA\061214\
PCB-05.D	1207.1 1232 500/50	12/14/2006 19:08	7	0	1	14.253	143747918	22.470	298607639	12.950	292677115	19.356	463380242		S:\MSDCHEM\2\DATA\061214\
PCB-06.D	1208.1 1242 500/50	12/14/2006 19:45	8	0	1	14.257	148994484	22.473	297449181	12.946	303446104	19.350	481206806		S:\MSDCHEM\2\DATA\061214\
WG89087-1.D	SB	12/14/2006 20:21	9	3000	1	14.252	123212672	22.469	247054702	12.946	247045564	19.349	388324351	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
WG89087-2.D	MB	12/14/2006 20:58	10	3000	1	14.252	115589731	22.467	235847246	12.944	232214160	19.347	370169194	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
WG89087-3.D	SB	12/14/2006 21:35	11	3000	1	14.252	116637402	22.469	243894215	12.945	234840801	19.350	373525092	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
WG89087-4.D	MB	12/14/2006 22:12	12	3000	1	14.254	119221086	22.470	240897780	12.946	236546832	19.351	368453220	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
L40900-1.D	L40900-1	12/14/2006 22:48	13	2680	1	14.253	118175579	22.473	273995741	12.944	238845549	19.351	395371886	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
L40900-2.D	L40900-2	12/14/2006 23:25	14	2690	1	14.252	113705794	22.472	266533149	12.947	216308607	19.356	377871745	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
L40900-3.D	L40900-3	12/15/2006 12:02	15	2780	1	14.254	114121777	22.473	251283308	12.947	220571356	19.355	373621910	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
L40900-4.D	L40900-4	12/15/2006 12:39	16	2800	1	14.254	113415957	22.473	264009995	12.947	215472969	19.356	359612852	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
L40900-5.D	L40900-5	12/15/2006 1:15	17	2850	1	14.254	116058137	22.474	272106039	12.948	226836014	19.357	388310442	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
SPEBLANK-01.D	POST SPE BLANK	12/15/2006 1:52	18	2000	1	14.255	120002124	22.471	241514931	12.945	222790764	19.349	359768203	BL676 PCBLL DUWAMISH PHTHALATES	S:\MSDCHEM\2\DATA\061214\
PCB-07.D	1218D 1016/1260 500/50	12/15/2006 2:29	3	0	1	14.252	165090503	22.466	360107815						S:\MSDCHEM\2\DATA\061214\
PCB-08.D	1209.2 1248 500/50	12/15/2006 3:05	4	0	1	14.252	164483841	22.467	356426164	12.945	332795088	19.348	533441708		S:\MSDCHEM\2\DATA\061214\
					Ave.	14.253	132702059	22.470	281054271	12.946	260373762	19.352	421381592		
					Std. Dev.	0.001	19949370	0.002	41842175	0.001	42354615	0.003	64248089		
					%RSD		15%		15%		16%		15%		

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KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#: WG89087-1	Matrix:	BLANK WTR	List Type:	ORPCBLL	
	Project:		Run ID:	R117803	Col. Date:
	Locator:	SB	Work Group:	WG89087	Rec. Date: 16-NOV-06
	Site:	NONE	QC Type:	SB	Due Date:
	Method Code:	EPA 8081A/8082 (7-3-03-002)			

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016	.0637	ug/L		.017	.0333	
Aroclor 1221		ug/L	<MDL	.017	.0333	
Aroclor 1232		ug/L	<MDL	.017	.0333	
Aroclor 1242		ug/L	<MDL	.017	.0333	
Aroclor 1248		ug/L	<MDL	.017	.0333	
Aroclor 1254		ug/L	<MDL	.017	.0333	
Aroclor 1260	.0622	ug/L		.017	.0333	
Decachlorobiphenyl	.0265	ug/L		.0017	.00333	
2,4,5,6-Tetrachloro-m-xylene	.007	ug/L		.0017	.00333	
Amount Analyzed	3000	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METRO53/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	80	12-158
2,4,5,6-Tetrachloro-m-xylene	21	10-118

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#: WG89087-2	Matrix:	BLANK WTR	List Type:	ORPCBLL	
	Project:		Run ID:	R117803	Col. Date:
	Locator:	MB	Work Group:	WG89087	Rec. Date: 16-NOV-06
	Site:	NONE	QC Type:	MB	Due Date:
	Method Code:	EPA 8081A/8082 (7-3-03-002)			

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.017	.0333	
Aroclor 1221		ug/L	<MDL	.017	.0333	
Aroclor 1232		ug/L	<MDL	.017	.0333	
Aroclor 1242		ug/L	<MDL	.017	.0333	
Aroclor 1248		ug/L	<MDL	.017	.0333	
Aroclor 1254		ug/L	<MDL	.017	.0333	
Aroclor 1260		ug/L	<MDL	.017	.0333	
Decachlorobiphenyl	.0262	ug/L		.0017	.00333	
2,4,5,6-Tetrachloro-m-xylene	.00804	ug/L		.0017	.00333	
Amount Analyzed	3000	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METRO63/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	79	12-158
2,4,5,6-Tetrachloro-m-xylene	24	10-118

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SEA425023

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 Data Source: ELD

Sample#:	WG89087-3	Matrix:	BLANK WTR	List Type:	ORPCBLL		
		Project:		Run ID:	R117803	Col. Date:	
		Locator:	SBD	Work Group:	WG89087	Rec. Date:	16-NOV-06
		Site:	NONE	QC Type:	SBD	Due Date:	
		Method Code:	EPA 8081A/8082 (7-3-03-002)				

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016	.0691	ug/L		.017	.0333	
Aroclor 1221		ug/L	<MDL	.017	.0333	
Aroclor 1232		ug/L	<MDL	.017	.0333	
Aroclor 1242		ug/L	<MDL	.017	.0333	
Aroclor 1248		ug/L	<MDL	.017	.0333	
Aroclor 1254		ug/L	<MDL	.017	.0333	
Aroclor 1260	.0703	ug/L		.017	.0333	
Decachlorobiphenyl	.0266	ug/L		.0017	.00333	
2,4,5,6-Tetrachloro-m-xylene	.00623	ug/L		.0017	.00333	
Amount Analyzed	3000	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METROS3/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	80	12-158
2,4,5,6-Tetrachloro-m-xylene	19	10-118

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KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#: WG89087-4	Matrix:	BLANK WTR	List Type:	ORPCBLL	
	Project:		Run ID:	R117803	Col. Date:
	Locator:	MB	Work Group:	WG89087	Rec. Date: 16-NOV-06
	Site:	NONE	QC Type:	MB	Due Date:
	Method Code:	EPA 8081A/8082 (7-3-03-002)			

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.017	.0333	
Aroclor 1221		ug/L	<MDL	.017	.0333	
Aroclor 1232		ug/L	<MDL	.017	.0333	
Aroclor 1242		ug/L	<MDL	.017	.0333	
Aroclor 1248		ug/L	<MDL	.017	.0333	
Aroclor 1254		ug/L	<MDL	.017	.0333	
Aroclor 1260		ug/L	<MDL	.017	.0333	
Decachlorobiphenyl	.0271	ug/L		.0017	.00333	
2,4,5,6-Tetrachloro-m-xylene	.00779	ug/L		.0017	.00333	
Amount Analyzed	3000	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METROS3/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	81	12-158
2,4,5,6-Tetrachloro-m-xylene	23	10-118

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#: L40900-1	Matrix:	STORM WTR	List Type:	ORPCBLL	
	Project:	423589-090-1	Run ID:	R117803	Col. Date: 01-NOV-06
	Locator:	BWR	Work Group:	WG89087	Rec. Date: 01-NOV-06
	Site:	METRO	QC Type:		Due Date: 01-DEC-06
	Method Code:	EPA 8081A/8082 (7-3-03-002)			

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.019	.0373	
Aroclor 1221		ug/L	<MDL	.019	.0373	
Aroclor 1232		ug/L	<MDL	.019	.0373	
Aroclor 1242		ug/L	<MDL	.019	.0373	
Aroclor 1248		ug/L	<MDL	.019	.0373	
Aroclor 1254		ug/L	<MDL	.019	.0373	
Aroclor 1260		ug/L	<MDL	.019	.0373	
Decachlorobiphenyl	.0273	ug/L		.0019	.00373	
2,4,5,6-Tetrachloro-m-xylene	.0204	ug/L		.0019	.00373	
Amount Analyzed	2680	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METROS3/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	73	12-158
2,4,5,6-Tetrachloro-m-xylene	55	10-118

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#:	L40900-2	Matrix:	STORM WTR	List Type:	ORPCBLL		
		Project:	423589-090-1	Run ID:	R117803	Col. Date:	01-NOV-06
		Locator:	CER	Work Group:	WG89087	Rec. Date:	01-NOV-06
		Site:	METRO	QC Type:		Due Date:	01-DEC-06
		Method Code:	EPA 8081A/8082 (7-3-03-002)				

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.019	.0372	
Aroclor 1221		ug/L	<MDL	.019	.0372	
Aroclor 1232		ug/L	<MDL	.019	.0372	
Aroclor 1242		ug/L	<MDL	.019	.0372	
Aroclor 1248		ug/L	<MDL	.019	.0372	
Aroclor 1254		ug/L	<MDL	.019	.0372	
Aroclor 1260	.019	ug/L	<RDL	.019	.0372	
Decachlorobiphenyl	.0252	ug/L		.0019	.00372	
2,4,5,6-Tetrachloro-m-xylene	.0198	ug/L		.0019	.00372	
Amount Analyzed	2690	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METRO83/file 8/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	68	12-158
2,4,5,6-Tetrachloro-m-xylene	53	10-118

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#:	L40900-3	Matrix:	STORM WTR	List Type:	ORPCBLL		
		Project:	423589-090-1	Run ID:	R117803	Col. Date:	01-NOV-06
		Locator:	DZ	Work Group:	WG89087	Rec. Date:	01-NOV-06
		Site:	METRO	QC Type:		Due Date:	01-DEC-06
		Method Code:	EPA 8081A/8082 (7-3-03-002)				

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.018	.036	
Aroclor 1221		ug/L	<MDL	.018	.036	
Aroclor 1232		ug/L	<MDL	.018	.036	
Aroclor 1242		ug/L	<MDL	.018	.036	
Aroclor 1248		ug/L	<MDL	.018	.036	
Aroclor 1254	.021	ug/L	<RDL	.018	.036	
Aroclor 1260	.019	ug/L	<RDL	.018	.036	
Decachlorobiphenyl	.0216	ug/L		.0018	.0036	
2,4,5,6-Tetrachloro-m-xylene	.022	ug/L		.0018	.0036	
Amount Analyzed	2780	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METROS1/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	60	12-158
2,4,5,6-Tetrachloro-m-xylene	61	10-118

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#:	L40900-4	Matrix:	STORM WTR	List Type:	ORPCELL		
		Project:	423589-090-1	Run ID:	R117803	Col. Date:	01-NOV-06
		Locator:	KCIA	Work Group:	WG89087	Rec. Date:	01-NOV-06
		Site:	METRO	QC Type:		Due Date:	01-DEC-06
		Method Code:	EPA 8081A/8082 (7-3-03-002)				

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.018	.0357	
Aroclor 1221		ug/L	<MDL	.018	.0357	
Aroclor 1232		ug/L	<MDL	.018	.0357	
Aroclor 1242		ug/L	<MDL	.018	.0357	
Aroclor 1248		ug/L	<MDL	.018	.0357	
Aroclor 1254		ug/L	<MDL	.018	.0357	
Aroclor 1260		ug/L	<MDL	.018	.0357	
Decachlorobiphenyl	.024	ug/L		.0018	.00357	
2,4,5,6-Tetrachloro-m-xylene	.019	ug/L		.0018	.00357	
Amount Analyzed	2800	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METROS3/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	67	12-158
2,4,5,6-Tetrachloro-m-xylene	53	10-118

KING COUNTY METRO ENVIRONMENTAL LABORATORY
Lab Review Report - 01/03/07 03:52 - Data Source: ELD

Sample#:	L40900-5	Matrix:	STORM WTR	List Type:	ORPCBLL		
		Project:	423589-090-1	Run ID:	R117803	Col. Date:	01-NOV-06
		Locator:	SPCC	Work Group:	WG89087	Rec. Date:	01-NOV-06
		Site:	METRO	QC Type:		Due Date:	01-DEC-06
		Method Code:	EPA 8081A/8082 (7-3-03-002)				

Parameter	Value	Units	Valq	Mdl	Rdl	Textvalue
Aroclor 1016		ug/L	<MDL	.018	.0351	
Aroclor 1221		ug/L	<MDL	.018	.0351	
Aroclor 1232		ug/L	<MDL	.018	.0351	
Aroclor 1242		ug/L	<MDL	.018	.0351	
Aroclor 1248		ug/L	<MDL	.018	.0351	
Aroclor 1254		ug/L	<MDL	.018	.0351	
Aroclor 1260		ug/L	<MDL	.018	.0351	
Decachlorobiphenyl	.0244	ug/L		.0018	.00351	
2,4,5,6-Tetrachloro-m-xylene	.0197	ug/L		.0018	.00351	
Amount Analyzed	2850	ml				
Standard Amount	1	ml				
Dilution Factor	1	none				
Date Analyzed						14-DEC-06
Operator ID						JSF
Porthandler File						/usr/users/seed2/METRO63/files/gc/wg89087.txt
Instrument ID						HP6890ECD-G
Prep Date						08-NOV-06

SURROGATE RECOVERY INFORMATION

Parameter	% Rec	Lab Limits
Decachlorobiphenyl	69	12-158
2,4,5,6-Tetrachloro-m-xylene	56	10-118

Quantitation Report (QT Reviewed)

Data Path : S:\MSDCHEM\2\DATA\061214\
Data File : SPEBLANK-01.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Dec 2006 1:52 am (#1); 15 Dec 2006 2:29 am (#2)
Operator : jsf
Sample : POST SPE BLANK
Misc : BL676 PCBLL DUWAMISH PHTHALATES
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: AUTOINT2.E
Quant Time: Dec 15 10:56:38 2006
Quant Method : S:\MSDCHEM\2\DATA\061214\PCB_NEW.M
Quant Title : PCB
QLast Update : Fri Nov 03 09:34:48 2006
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : RTx-CLPest 2 30m Signal #2 Phase: RTx-CLPest 30m x .25mm x .25um
Signal #1 Info : s/n: 189074 Signal #2 Info : s/n: 136361

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
Internal Standards						
1) Ixyz Isodrin	14.255	12.945	120.0E6	222.8E6	140.000	140.000
System Monitoring Compounds						
2) xS TCX	0.000	0.000	0	0	N.D. d	N.D.
Spiked Amount 100.000 Range 85 - 115 Recovery =					0.000%#	0.000%#
32) xS DCB	0.000	23.201f	0	703757	N.D.	0.438 #
Spiked Amount 100.000 Range 85 - 115 Recovery =					0.000%#	0.438%#
Target Compounds						
3) uL1 Aroclor-1221	7.263f	0.000	468532	0	65.188	N.D. #
4) uL1 Aroclor-1221(2)	0.000	8.320f	0	21366675	N.D.	1115.515 #
5) uL1 Aroclor-1221 (3)	0.000	8.767f	0	493342	N.D.	40.212 #
Sum Aroclor-1221			468532	21860017	65.188	1155.727
Average Aroclor-1221					65.188	577.863
6) vL1 Aroclor-1232	0.000	10.170f	0	1060431	N.D.	111.326 #
7) vL1 Aroclor-1232 (2)	0.000	0.000	0	0	N.D.	N.D.
8) vL1 Aroclor-1232 (3)	0.000	10.718	0	23029331	N.D.	3117.352 #
Sum Aroclor-1232			0	24089762	N.D.	3228.679
Average Aroclor-1232					0.000	1614.339
9) wL1 Aroclor-1242	0.000	11.417	0	1011116	N.D.	33.033 #
10) wL1 Aroclor-1242 (2)	13.228	0.000	1442738	0	143.086	N.D. #
11) wL1 Aroclor-1242 (3)	0.000	12.590	0	3382672	N.D.	162.097 #
Sum Aroclor-1242			1442738	4393788	143.086	195.129
Average Aroclor-1242					143.086	97.565
12) xL1 Aroclor-1016	0.000	8.867f	0	723691	N.D.	24.090 #
13) xL1 Aroclor-1016 (2)	0.000	9.707f	0	6305865	N.D.	132.342 #
14) xL1 Aroclor-1016 (3)	12.126f	10.862	16933033	1606225	446.414	23.352 #
15) xL1 Aroclor-1016 (4)	12.126	10.947f	16933033	20216909	374.597	243.838 #
16) xL1 Aroclor-1016 (5)	0.000	0.000	0	0	N.D.	N.D.
Sum Aroclor-1016			33866065	28852691	821.011	423.622
Average Aroclor-1016					410.506	105.905
17) yL2 Aroclor-1248	0.000	0.000	0	0	N.D.	N.D.
18) yL2 Aroclor-1248 (2)	0.000	11.800f	0	3595333	N.D.	92.016 #
19) yL2 Aroclor-1248 (3)	13.689	12.296f	262201	2826621	7.605	46.281 #
20) yL2 Aroclor-1248 (4)	13.969	12.458	191313	1470140	7.037	35.984 #
21) yL2 Aroclor-1248 (5)	0.000	13.256f	0	1870496	N.D.	26.284 #
Sum Aroclor-1248			453514	9762590	14.842	200.566
Average Aroclor-1248					7.421	50.141
22) zL3 Aroclor-1254	0.000	14.479	0	383483	N.D.	6.228 #

Quantitation Report (QT Reviewed)

Data Path : S:\MSDCHEM\2\DATA\061214\
Data File : SPEBLANK-01.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Dec 2006 1:52 am (#1); 15 Dec 2006 2:29 am (#2)
Operator : jsf
Sample : POST SPE BLANK
Misc : BL676 PCBLL DUWAMISH PHTHALATES
ALS Vial : 18 Sample Multiplier: 1

Integration File signal 1: EVENTS.E
Integration File signal 2: AUTOINT2.E
Quant Time: Dec 15 10:56:38 2006
Quant Method : S:\MSDCHEM\2\DATA\061214\PCB_NEW.M
Quant Title : PCB
QLast Update : Fri Nov 03 09:34:48 2006
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Large solvent peaks clipped

Volume Inj. : 1 ul
Signal #1 Phase : RTx-CLPest 2 30m Signal #2 Phase: RTx-CLPest 30m x .25mm x .25um
Signal #1 Info : s/n: 189074 Signal #2 Info : s/n: 136361

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
23) zL3 Aroclor-1254 {2}	0.000	14.789	0	724786	N.D.	6.563 #
24) zL3 Aroclor-1254 {3}	0.000	0.000	0	0	N.D.	N.D.
25) zL3 Aroclor-1254 {4}	0.000	15.923	0	177130	N.D.	3.244 #
26) zL3 Aroclor-1254 {5}	0.000	16.606	0	278040	N.D.	2.939 #
Sum Aroclor-1254			0	1563439	N.D.	18.974
Average Aroclor-1254					0.000	4.743
27) xL4M Aroclor-1260	0.000	16.860	0	1120022	N.D.	14.889 #
28) xL4M Aroclor-1260 {2}	0.000	17.507	0	493406	N.D.	7.462 #
29) xL4M Aroclor-1260 {3}	0.000	0.000	0	0	N.D.	N.D.
30) xL4M Aroclor-1260 {4}	0.000	0.000	0	0	N.D.	N.D.
31) xL4M Aroclor-1260 {5}	0.000	21.900f	0	274514	N.D.	6.417 #
Sum Aroclor-1260			0	1887942	N.D.	28.768
Average Aroclor-1260					0.000	9.589
33) xyz Leptophos	22.471	19.349	241.5E6	359.8E6	420.967	422.035

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

KCSlip4 58733

SEA425032

Quantitation Report (QT Reviewed)

Data Path : S:\MSDCHEM\2\DATA\061214\
Data File : SPEBLANK-01.D
Signal(s) : Signal #1: ECD1A.CH Signal #2: ECD2B.CH
Acq On : 15 Dec 2006 1:52 am (#1); 15 Dec 2006 2:29 am (#2)
Operator : jsf
Sample : POST SPE BLANK
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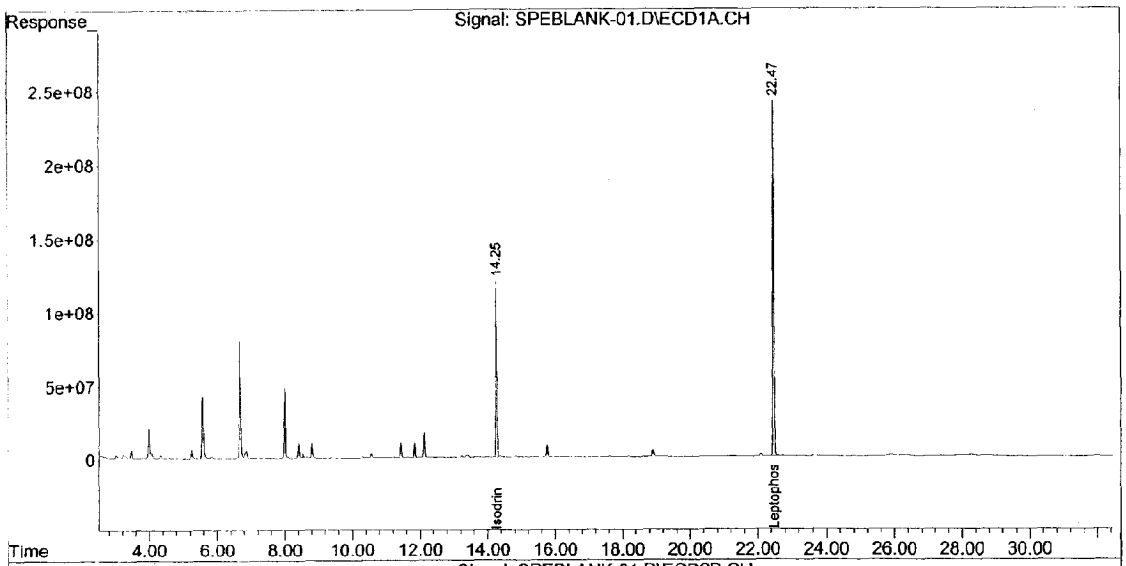
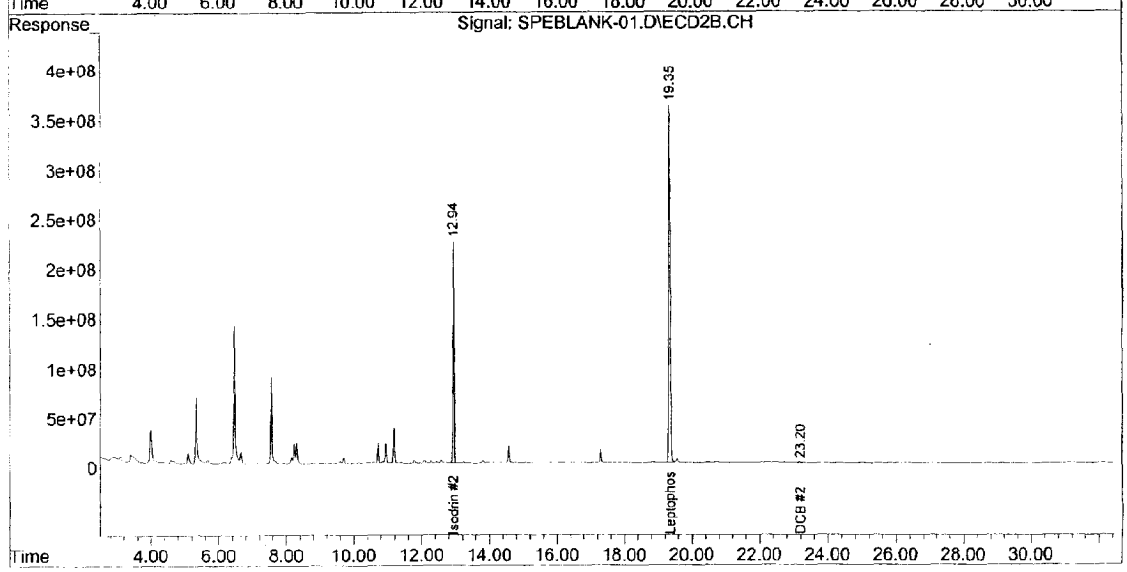
Signal #1 Phase : RTx-CLPest 2 30m Signal #2 Phase: RTx-CLPest 30m x .25mm x
Signal #1 Info : s/n: 189074 Signal #2 Info : s/n: 136361





Trace Organics Data Anomaly Form

Date(s) Occurred: *12-14-06*

WG #(s): *WG89087*

☒ **All samples in WKGP(s)** or ☐ **Sample #(s):**

Project #(s): *423589*

Matrix: ☒ **Liquid** ☐ **Solid** ☐ **Air** ☐ **Tissue** ☐ **Calibration** ☐ **Other:**

I. Analysis/Extraction

☐ BNA	☐ BNALL	☐ EDC	☐ EDC-LVI
☐ CLPESTPCB	☐ PEST	☒ PCB	☐ OPPEST
☐ VOA-GCMS	☐ NWTPH-GX	☐ NWTPH-DX	☐ NWTPH-HCID
☐ BUTYL TIN	☐ AIRTOX	☐ AIR-SULFUR	
☐ Other:			
☐ Subcontracted:			

II. Instrument

GC/ICP/MS:	☐ P						
GC/MS:	☐ D	☐ E	☐ J	☐ K	☐ L	☐ M	☐ N
GC:	☐ F ECD	☒ G ECD	☐ H FID	☐ H OI4450PID/FID			
	☐ I FID						
Extraction/Cleanup:	☐ PFE	☐ GPC					
	☐ Other:						

III. Type of Sample/Analytical Anomaly

☐ Values Outside of Control Limits:

1 ☐ Blank Contamination	8 ☐ Surrogate Spike Recoveries
2 ☒ SB/SBD Spike Recoveries	9 ☐ SB/SBD RPD
3 ☐ MS/MSD Spike Recoveries	10 ☐ MS/MSD RPD
4 ☐ LCS/SRM Recoveries	11 ☐ Sample/LD RPD
5 ☐ Initial Calibration	12 ☒ Continuing Calibration Checks
6 ☐ Performance Checks	13 ☐ Tuning Criteria
7 ☐ ISTD % Differences	

14 ☐ Holding time exceeded by:
15 ☐ Insufficient sample amount.
16 ☐ Inappropriate storage, container or preservation.
17 ☒ Other

Anomaly Description: *2. Three of the four SB recoveries for aroclors 1016/1260 are just under the lab limits for recoveries. 12. PCB-04,07 have surrogate recoveries for DCB that are <85% on the front column. 17a. WG89087-1,3 (SBs) had many interfering peaks that obscured 3 of the 5 congeners normally used to quantitate aroclor 1016 on the front column. 17b. PCB-07 (aroclor 1016/1260) had an injection error on the back column, no signal was acquired.*

IV. Type of Project Anomaly

- ☐ SAP/Work Plan specified MDLs not met.
- ☐ SAP/Work Plan specified QC frequency or QC type not met.
- ☐ SAP/Work Plan specified methodology not used.
- ☐ Sample exceeds regulatory and/or hazardous waste limits.
- ☐ Sample data results are unusual or inconsistent with expected results.
- ☐ Other

Anomaly Description:

V. Corrective Action Taken

- ☐ Sample(s) re-analyzed
- ☐ Sample(s) re-prepared and re-analyzed
- ☒ Sample(s) reported "AS IS"
- ☐ Data qualified with the following flags:
- ☐ Other

Corrective Action Description: *2. Lab limits were established before we had run many of these samples. I suspect they may need different limits as these normally have low recoveries. 12. All sample surrogate recoveries are within range. 17a. All responses are taken from the front column. 17b. All the recoveries for aroclors on the front column are within range.*

VI. Potential Effects on Data Quality:

- ☒ None; corrective action entirely corrected anomaly (explanation optional):
- ☐ Potential effect explanation (explanation mandatory):

	Signatures	Signature Dates
Reported By: *JSF*		12-15-06
Reviewer: *Gretchen Nerlin*		1/3/07
Supervisor: *Dana Walker*	Dana Walker	1/4/07
QA Officer: *Colin Elliott* (For QA1 only)		
cc: LPM:		