SCS ENGINEERS

June 11, 2012 File No. 04209040.00

Ms. Maura O'Brien Washington State Department of Ecology 3910 160th Avenue Southeast Bellevue, Washington 98008

Subject: Wet-Season Monitoring 2012, Kenmore Industrial Park

Dear Maura:

This letter report documents 2012 wet-season groundwater monitoring at the Kenmore Industrial Park, Ecology site No. 2348. This monitoring event was conducted at the request of the Washington Department of Ecology to evaluate groundwater conditions related to deferred industrial maintenance work at the site.

Groundwater monitoring was conducted on April 3 and 27, 2012. Samples were collected from four monitoring wells on April 3 (AW-6, AW-9, AW-10R, and AW-12) and from one well on April 27 (AW-11R). A duplicate sample was collected at well AW-6. The groundwater samples were collected by SCS Engineers and analyzed by OnSite Environmental, Inc., of Redmond, Washington. Field procedures consisted of using low-flow sampling techniques following the guidelines outlined in the *Groundwater Monitoring Work Plan, Kenmore Industrial Park*, July 21, 2009. Field parameters measured at the time of sampling included temperature, pH, conductivity, dissolved oxygen, and turbidity. Laboratory analyses included semi-volatile organic compounds (SVOCs), dissolved arsenic, dissolved barium, dissolved lead, and total petroleum hydrocarbon (TPH) products in the diesel and oil ranges. In addition, monitoring wells AW-6 and AW-11 were analyzed for dissolved copper, dissolved cadmium, and dissolved zinc.

During the original monitoring event, well AW-11 was found to be damaged and required replacement. The replacement well, AW-11R, was drilled and installed to a depth of 20 feet below ground surface on April 20 by Cascade Drilling. A copy of the well log for AW-11R is attached.

Depth to groundwater level measurements were collected on April 3 and April 27. On April 3, a water level measurement was not obtained in damaged well AW-11. On April 27, a water level measurement was not obtained in well AW-12 due to access restrictions. Groundwater level measurements were compared to Lake Washington surface water elevations recorded by the U.S. Army Corps of Engineers at a gage located in Kenmore. The surface water level measurements collected by the Corps of Engineers are relative to the mean lower low water (MLLW) datum.

Ms. Maura O'Brien June 12, 2012 Page 2

The monitoring well elevations at the site are relative to the King County Aerial Survey Datum, which uses the North American Vertical Datum of 1988 (NAVD 88). The vertical difference in the datums is 2.44 feet. Therefore, Lake Washington surface water elevations reported by the Corps of Engineers need to be corrected by -2.44 feet to be on the same datum as the Kenmore Industrial Park monitoring wells (see attached information published by the Corps of Engineers).

On April 3, 2012 the lake level was reported at 19.17 feet (see attached Lake Washington gage data). The lake elevation was 0.93 to 3.83 feet lower than the groundwater elevations measured at wells AW-9 and AW-10, and 0.76 to 0.83 feet higher than the groundwater elevations measured at wells AW-6 and AW-12. Therefore, the groundwater gradient beneath the site was from the upland to the lake, with a slightly inward gradient at AW-6, AW-11 (assumed), and AW-12 (see Figure 3). A similar water level relationship was present on April 27.

The laboratory results are considered acceptable without qualifiers. Samples were preserved on ice until delivered to the laboratory the same day as collected. Samples were analyzed at the laboratory within USEPA recommended holding times. No detections were reported in the laboratory method blanks, which were analyzed for each method. Results for laboratory duplicate analyses, surrogate recovery analyses, and spike analyses met USEPA recommendations. Laboratory results for the duplicate samples were acceptable. Test results were generally within 20% relative percent difference or five times the method reporting limit (see Table 3).

The analytical results for this sampling event are presented on Tables 1 through 3. Analytical results are consistent with previous results and none of the analytical results exceeded the cleanup standards listed in the Cleanup Action Plan. These results indicate that deferred maintenance work at the facility has not adversely impacted groundwater quality. A dry-season monitoring event will be conducted in September 2012.

Test results were input into the Ecology Environmental Information Management (EIM) database. Copies of the field sampling data sheets and laboratory reports are attached.

If you have any questions regarding the sampling program or test results please do not hesitate to call me at (425) 746-4600.

Sincerely,

Hydrogeologist
1751

Proced Geologist

Kevin Lakey, LHG, PEKEVIN G. LAKEY

Project Director

SCS ENGINEERS

Sam Adlington

Associate Staff Engineer

SCS ENGINEERS

Attachments: Figure 1: Site Location Map

Figure 2: Site Map

Figure 3: Water Level Map Table 1: Field Parameters

Table 2: Groundwater Monitoring Results Table 3: Groundwater Monitoring Results

Laboratory Reports

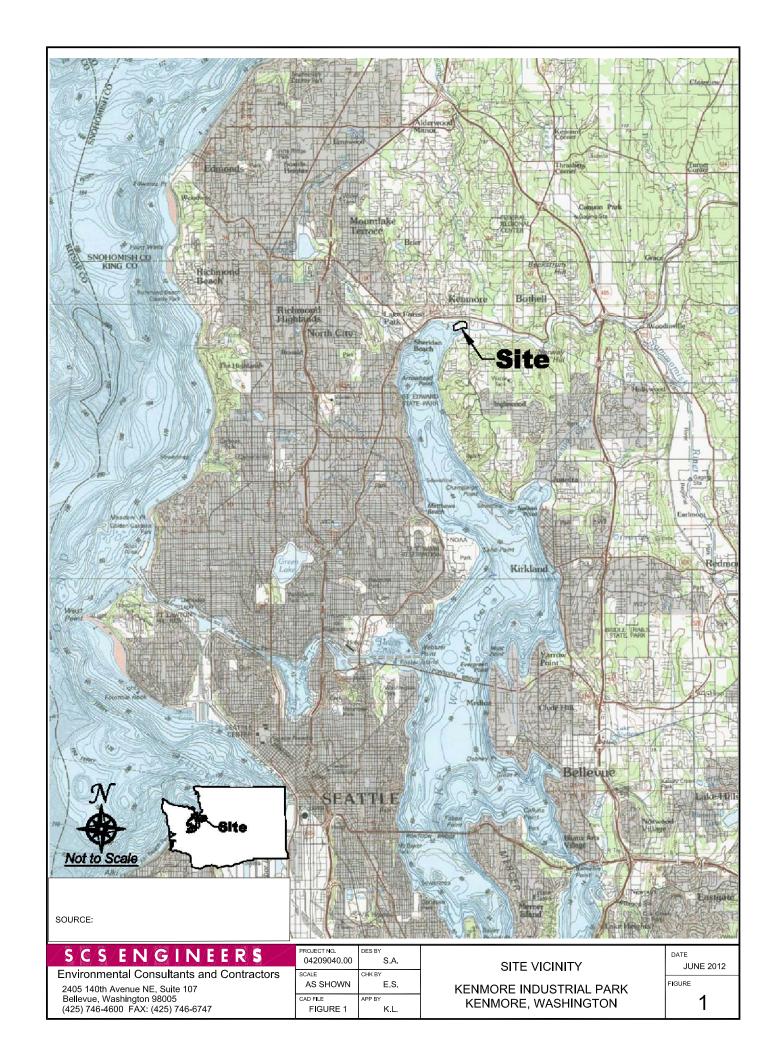
Field Sampling Data Sheets

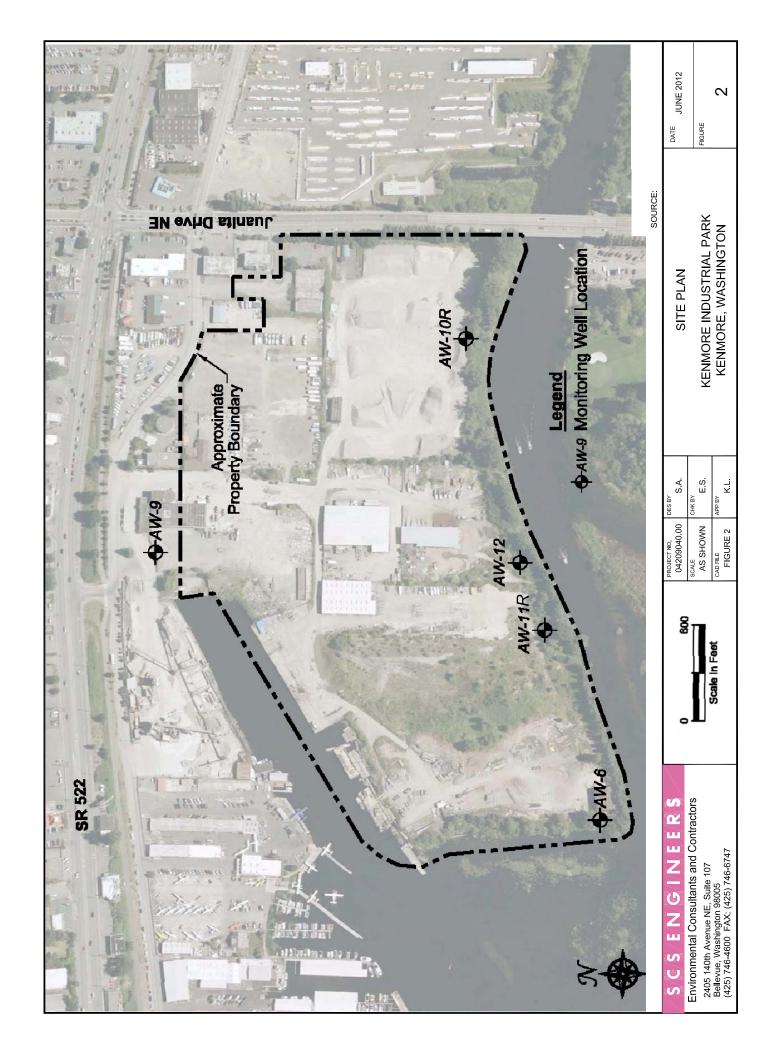
AW-11R Boring Log

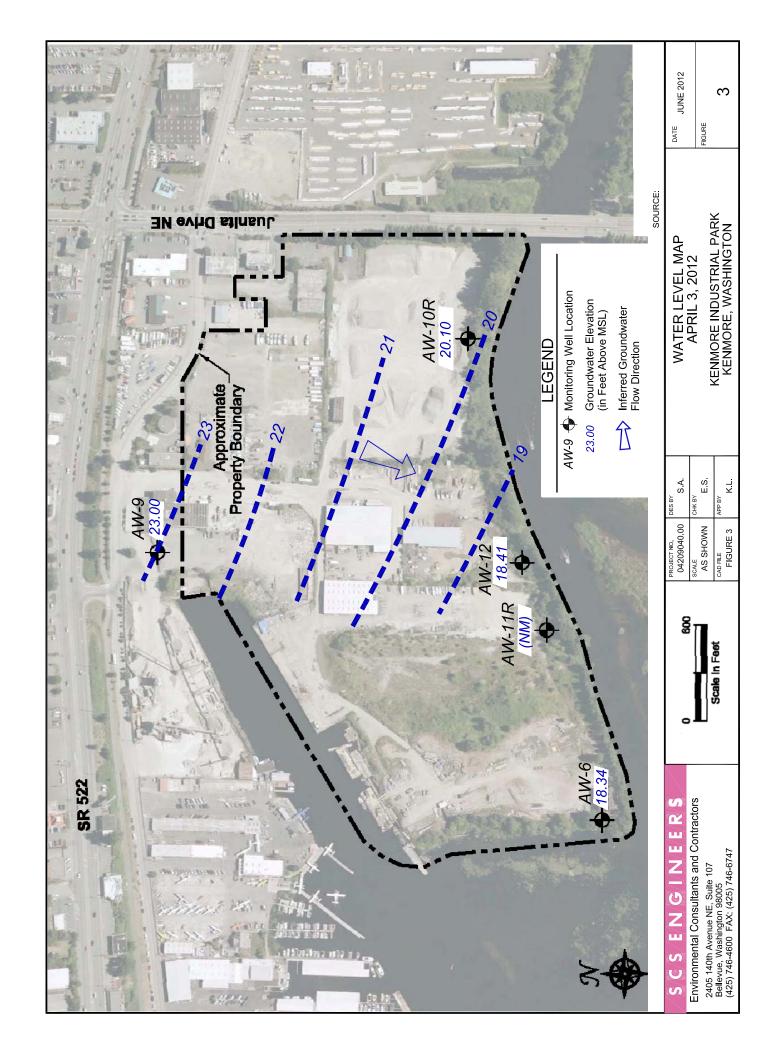
Lake Washington Surface Elevations for April 3, 2012

cc: Gary Sergeant, Pioneer Towing Paul Beveridge, Beveridge Law

Kate Snider, Floyd & Snider







Kenmore Industrial Park, Groundwater Monitoring Results Field Parameters Table 1

IIƏM	Sample No.	Sample Date	Depth to Water	Water Level Elevation	рН	Conductivity (µS)	Dissolved Oxygen (mg/L)	Temperature (°C)
AW-9 Background	KIP-0909-01	9/9/2009	8.56	21.66	5.99	165	1.31	19.6
AW-9 Background	KIP-0110-01	1/18/2010	7.01	23.21	5.26	224	0.26	13.1
AW-9 Background	KIP-0412-01	4/3/2012	7.22	23.00	90.9	190	0.27	12.2
AW-9 Background	KIP-0412-01	4/27/2012	7.46	22.76	I	I	I	I
AW-6	KIP-0909-05R	6/8/2009	10.96	17.50	6.53	1252	1.52	15.6
AW-6	KIP-0110-05	1/19/2010	11.08	17.38	6.29	1429	0.25	11.9
AW-6	KIP-0412-01	4/3/2012	10.12	18.34	6.52	1127	0.18	11.0
AW-6	KIP-0412-01	4/27/2012	9.67	18.79	_	1	—	
AW-10R	KIP-0909-02	6/6/2008	10.75	19.3	6.73	1059	1.05	12.6
AW-10R	KIP-0110-02	1/18/2010	10.15	19.9	6.17	525	0.20	9.6
AW-10R	KIP-0412-01	4/3/2012	98.6	20.1	6.19	306	0.10	7.7
AW-10R	KIP-0412-01	4/27/2012	9.84	20.2	1	1		
AW-11	KIP-0909-04	6/6/5009	11.76	17.83	6.54	1314	1.17	14.8
AW-11	KIP-0110-04	1/18/2010	11.75	17.84	6.39	806	0.14	9.5
AW-11R	KIP-0412-05'	4/3/2027	I	I	l	1	1	1
AW-11R	KIP-0412-05'	4/27/2012	15.51	1	6.37	1140	0.14	11.2
AW-12	KIP-0909-03	6/6/5009	12.11	17.71	6.51	1042	0.51	14.0
AW-12	KIP-0110-03	1/18/2010	12.07	17.75	6.38	1081	0.19	12.6
AW-12	KIP-0412-01	4/3/2012	11.41	18.41	6.49	942	0.19	11.2
AW-12	KIP-0412-01	4/27/2012	Ι	1	1	1	1	1

Notes: (-) indicates not measured. Water level elevations for AW-10R are approximate, based on an assumed elevation from abandoned well AW-10.

Kenmore Industrial Park, Groundwater Monitoring Results Dissolved Metals and Total petroleum Products (TPH) All concentrations are presented in milligrams per liter (mg/l) Table 2

			F	ТРН			Dissolved Metals	d Metals		
			Diesel	liO	V	Č	2	2	ë	7.5
Well	Sample No.	Sample Date	Range	Range	AS	Ба	d G	כם	no Cn	2 n
6-MY										
Background	KIP-0909-01	9/9/2009	<0.25	<0.40	<0.003	<0.025	<0.001	I	I	I
AW-9										
Background	KIP-0110-01	1/18/2010	<0.27	<0.43	<0.003	<0.025	<0.001	I	I	_
6-WA										
Background	KIP-0412-01	4/3/2012	<0.27	<0.43	<0.003	<0.025	<0.001	1	1	_
9-WA		1/18/2001	<0.25	<0.75	I	I	I	I	I	I
AW-6		3/26/2001	I	ı	0.001	0.54	0.002	I	I	ı
AW-6	KIP-0909-5R	9/10/2009	<0.27	<0.43	<0.003	0.86	<0.001	I	I	ı
AW-6 DUPL	KIP-0909-06	9/10/2009	<0.25	<0.40	<0.003	0.89	<0.001	I	I	ı
AW-6	KIP-0110-05	1/19/2010	<0.26	<0.41	<0.003	0.54	<0.001	I	I	ı
AW-6 DUPL	KIP-0110-06	1/19/2010	<0.26	<0.42	<0.003	0.55	<0.001	I	I	I
9-MY	KIP-0412-04	4/3/2012	<0.28	<0.44	<0.003	0.41	0.002	<0.004	<0.010	<0.025
AW-6 DUPL	KIP-0412-05	4/3/2012	<0.26	<0.42	<0.003	0.40	0.002	<0.004	<0.010	<0.025
AW-10R	KIP-0909-02	6/02/6/6	<0.25	<0.40	<0.003	0.25	<0.001	I	1	1
AW-10R	KIP-0110-02	1/18/2010	<0.26	<0.41	<0.003	0.12	0.003	I	I	I
AW-10R	KIP-0412-02	4/3/2012	<0.26	<0.42	<0.003	0.11	0.001	I	1	1
AW-11		3/26/2001	<.25	<.75	0.001	0.86	<0.001	I	I	I
AW-11	KIP-0909-04	6/8/2009	<0.25	<0.40	<0.003	0.87	<0.001	I	I	I
AW-11	KIP-0110-04	1/18/2010	<0.28	<0.45	<0.003	0.49	<0.001	I	I	I
AW-11R	KIP-0412-05'	4/27/2012	<0.28	<0.45	<0.003	0.55	0.002	<0.004	<0.010	<0.025
AW-12		3/26/2001	<0.25	<0.75	0.002	0.19	<0.001	I	I	I
AW-12	KIP-0909-03	9/9/2009	<0.25	<0.40	<0.003	0.24	<0.001	I	I	I
AW-12	KIP-0110-03	1/18/2010	<0.27	<0.43	<0.003	0.12	<0.001	I	I	I
AW-12	KIP-0412-03	4/3/2012	<0.27	<0.42	<0.003	0.12	<0.001	1	1	_
	Site	Site Cleanup Levels	0.50	0.50	0.005	1.0	0.014	I	l	I

Notes:DUPL = duplicate sample

Table 3 Kenmore Industrial Park, Groundwater Monitoring Results Polynuclear Aromatic Hydrocarbons All concentrations are presented in micrograms per liter (µg/l)

TEE-Corrected	Total cPAH	0.054	0.027	0.001	0.000	0.011	0.001	0.038	0.058	0.079	0.1*
Total	сРАН	0.262	0.116	0.011	0.000	0.184	0.014	0.174	0.255	0.369	1
Total	PAH	3.35	3.32	1.80	1.98	1.26	0.94	2.37	2.48	1.88	1
	B(ghi)P	0.020	0.015	<0.01	<0.01	0.017	<0.01	0.018	0.032	0.071	1
	DB(ah)A	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.050	1
	I(1,2,3- cd)P	0.018	0.013	<0.01	<0.01	0.019	<0.01	0.016	0.026	0.055	1
	B(a)P	0.038	0.021	<0.01	<0.01	<0.01	<0.01	0.028	0.044	0.057	-
	B(jk)F	0.019	<0.01	<0.01	<0.01	0.012	<0.01	0.012	0.030	0.057	-
arbons	B(b)F	0.060	0.025	<0.01	<0.01	0.052	<0.01	0.036	0.044	0.077	-
Polynuclear Aromatic Hydrocarbons	CHRY	0.054	0.019	<0.01	<0.01	0.059	<0.01	0.031	0.039	0.022	-
lear Aroma	B(a)A	0.053	0.023	0.011	<0.01	0.025	0.014	0.033	0.040	0:030	1
Polynuc	PYR	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	0.15	<0.099	_
	FLUORA	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	0.20	<0.099	1
	ANTH	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	<0.099	-
	PHEN	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.099	-
	FLUOR	0.73	1.00	0.59	0.68	0.34	0.29	0.64	0.78	0.51	_
	ACE	2.10	2.20	1.20	1.30	0.74	0.64	1.30	0.99	1.00	_
	ACEN	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.099	_
	1-MN	0.19	0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	
	2-MN	0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	160
	NAPH	0.20	0.19	<0.10	<0.10	0.10	<0.10	<0.10	<0.10	0.23	
	Sample Date	9/10/2009	9/10/2009	1/19/2010	1/19/2010	4/3/2012	4/3/2012	9/9/2009	1/18/2010	4/27/2012	MTCA Method A Unrestricted Use Groundwater Cleanup Levels
	Sample No.	KIP-0909-5R	KIP-0909-6	KIP-0110-05	KIP-0110-06	KIP-0412-04	KIP-0412-05	KIP-0909-4	KIP-0110-04	KIP-0412-05'	MTCA Methoc Use Groun
	Well	AW-6	AW-6 DUPL	AW-6	AW-6 DUPL	AW-6	AW-6 Dupl	AW-11	AW-11	AW-11R	

Notes:

DUP!— duplicate sample
PAH = polynuclear aromatic hydrocarbons
PAHs analyzed by EFA Method 8270
ACE = acenaphthyene
ACE = acenaphthyene
ACE = acenaphthyene
ACE = acenaphthyene
B(a) = Berozo(a)/Puracene
B(a) = Berozo(a)/Puracene
B(b) = Berozo(b)/Purachene
B(b) = Berozo(b)/Purachene
B(b) = Berozo(b)/Purachene
B(b) = Berozo(b)/Purachene

B(g,h,l)P = Benzo(g,h,l)Perylene B(ik)F = Benzo(g,k)Fluoranthene CHKY = Chrysene DB(a,h)A = Dibenz(a,h)Anthracene FLUOR = Fluorene FLUORA = Fluoranthene

(11.23-cd)P = Indeno(1.23-cd)Pyrene NAPH = Naphthalene 1-4Mn = 1-Methylnaphthylene 2-4Mn = 2-Methylnaphthylene PHEN = Phene PYR = Pyrene

ENGINEERS

BORING LOG

2405 140th Avenue NE, Suite 107 Bellevue, Washington 98005-1877

BORING NUMBER: AW-11R

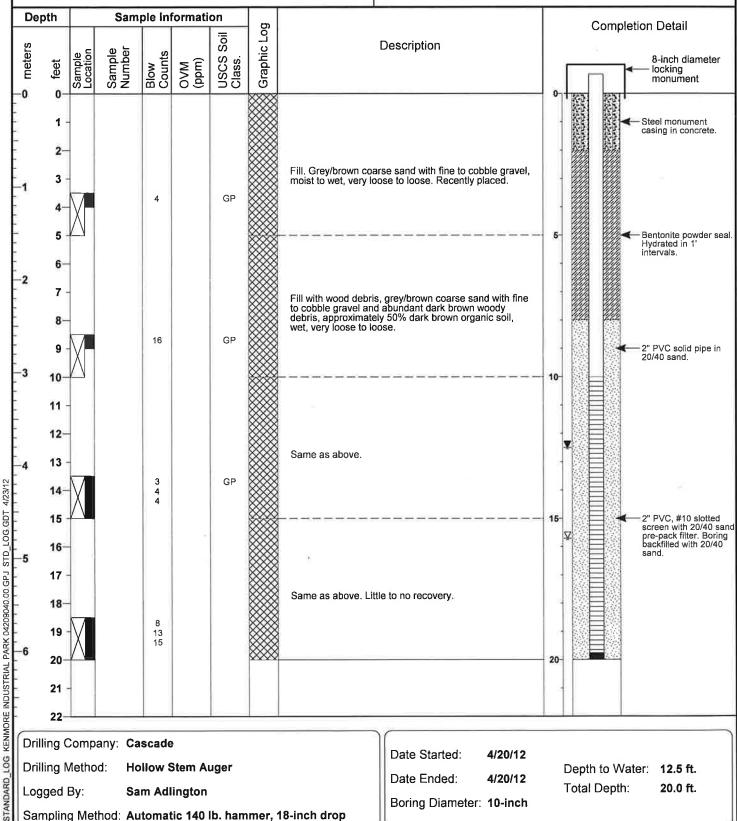
Page 1 of 1

Kenmore Industrial Park AW-11 Replacement Well Kenmore, Washington

JOB NUMBER: 04209040.00

REMARKS:

Start card number BHM-200



Drilling Company: Cascade

Drilling Method: Hollow Stem Auger

Logged By:

Sam Adlington

Sampling Method: Automatic 140 lb. hammer, 18-inch drop

Date Started:

4/20/12

Date Ended:

4/20/12

Total Depth:

Depth to Water: 12.5 ft.

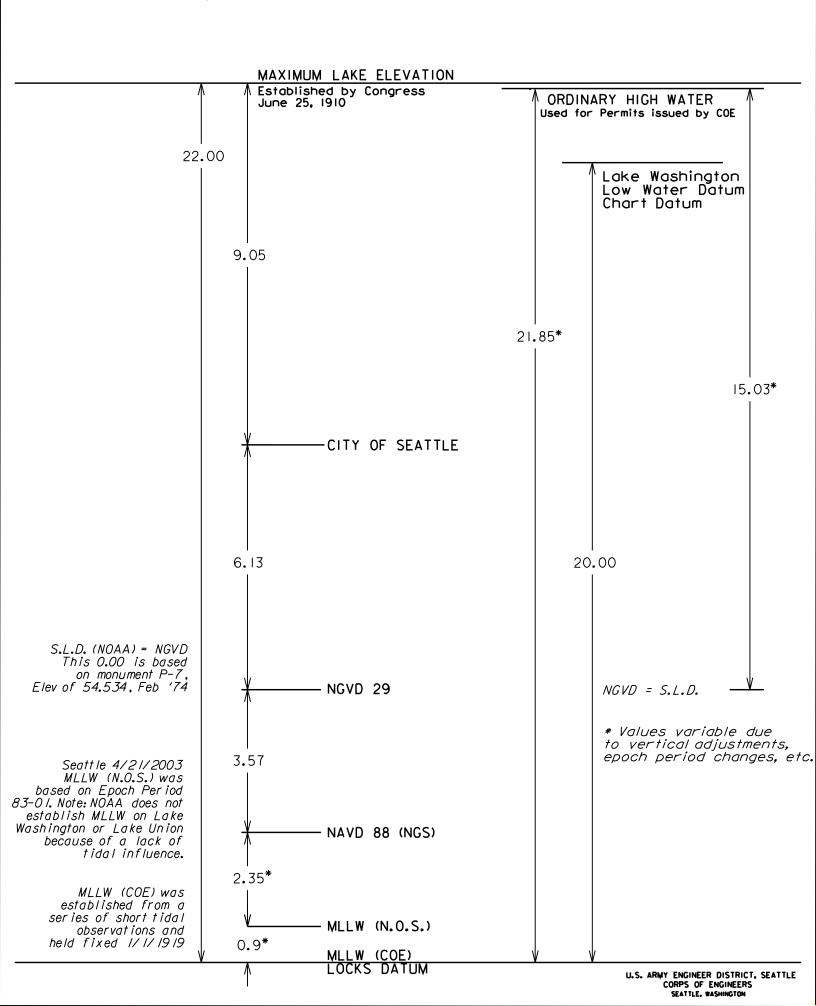
Boring Diameter: 10-inch

20.0 ft.

Lake Washington Elevation; April 3 & 4, 2012 Kenmore Station

	Surface Elevation	Average (MLLW	Datum	Average (NAVD
Date-Time	(MLLW datum)	datum)	Adjustment	88 datum)
4/3/2012 1:00	21.58			
4/3/2012 2:00	21.58			
4/3/2012 3:00	21.58			
4/3/2012 4:00	21.57			
4/3/2012 5:00	21.61			
4/3/2012 6:00	21.58			
4/3/2012 7:00	21.6			
4/3/2012 8:00	21.6			
4/3/2012 9:00	21.64			
4/3/2012 10:00	21.6			
4/3/2012 11:00	21.62			
4/3/2012 12:00	21.64			
4/3/2012 13:00	21.67			
4/3/2012 14:00	21.65			
4/3/2012 15:00	21.63			
4/3/2012 16:00	21.65			
4/3/2012 17:00	21.65			
4/3/2012 18:00	21.63			
4/3/2012 19:00	21.61			
4/3/2012 20:00	21.62			
4/3/2012 21:00	21.61			
4/3/2012 22:00	21.57			
4/3/2012 23:00	21.57			
4/3/2012 24:00	21.58	21.61	-2.44	19.17
4/4/2012 1:00	21.57			
4/4/2012 2:00	21.57			
4/4/2012 3:00	21.57			
4/4/2012 4:00	21.55			
4/4/2012 5:00	21.55			
4/4/2012 6:00	21.54			
4/4/2012 7:00	21.55			
4/4/2012 8:00	21.55			
4/4/2012 9:00	21.53			
4/4/2012 10:00	21.52			
4/4/2012 11:00 4/4/2012 12:00	21.54 21.55	•		
4/4/2012 12:00	21.55			
4/4/2012 13:00	21.55			
4/4/2012 15:00	21.56			
4/4/2012 16:00	21.56			
4/4/2012 17:00	21.56			
4/4/2012 17:00	21.56			
4/4/2012 19:00	21.57			
4/4/2012 19:00	21.57			
4/4/2012 20:00	21.57			
4/4/2012 21:00	21.57			
4/4/2012 22:00	21.56			
4/4/2012 23:00	21.57		-2.44	19.12
7/7/2012 24.00	21.57	21.50	-2.44	13.12

DATUM PLANES VICINITY OF LAKE WASHINGTON



SCS ENGINEERS 2405

140th ave NE #107 Bellevue Wa

TAKEN BY MAURA O'BRIAN (ECY) DISOLKED METALS (FILTERED) **Groundwater Sampling Data Sheet PERISTALTIC** TOTAL METALS AND FOR SAMPLES Sampling Method: Spilt Notes: 1000 ml Amber Damage? Y (N) 125 ml Poly CONTROL SETTINGS Pressure Refill Discharge 12, S7 Total Depth 250 ml Poly 40 ml VOA Intake BOS 7.22 DTW Water in Protector? MN 2 x 500ms 500 ml H2SO4: 500 ml Poly N (425)746-4600 Kenmore Industrial Park Locked? Y KIP-0412- Oì 1000 ml Poly 500 ml HNO3 April 3 . 2012 125 ml NaOH 04209040.00 OVERCAST Sample Containers: Filtered? 🔇 N Project #: Weather: Date: Well ID: Sample ID:

MTG

TIME

0915

0921

0924 0927 0930

Observations (color, odor, anomalies, etc) PいPにも STAPT レン干			
Q / Vol.	350		
Turbidity	2.00	20.00	
됩			
Hd	6.09 116	999	
8	0.30		
Sp.Cond.	P803	189	
Temp.	12,22	12.17	

Stabilization Parameters: pH/DO \pm 0.2, SpC \pm 10%, Temp \pm 0.5°C, Turb, \pm 10% or \leq 5

Sam Adlington Printed Name SAMPLER:

SCS ENGINEERS 2405 140th ave NE #107 Bellevue Wa 98005

(425)746-4600

Groundwater Sampling Data Sheet

Sampling Method: SP	TAKEN FOR	TOTAL & DISSOLVED METALS			Observations (color, odor, anomalies, etc) PO AGE STRRT		(Am)
HINGS:	3.8	25	125 ml Poly	1000 ml Amber	Q / Vol.	200	\\\\\
CONTROL SETTINGS:	Refill_ Discharge	Pressure	Damage? Y		Turbidity	74.84 54.21 54.21 52.73 52.73	Signature
WTQ	TOS	BOS	r G N 250 ml Polv	40 ml VOA) E	2000 m	
9.86	1 1	3	in Protector N	1 7C	Hd	200 th the contract of the con	
D			- Water in Protect			20.00 20.00 20.00 20.00	irb, ± 10% or ≤ 5
trial Park					Sp.Cond.	10000000000000000000000000000000000000	Temp ± 0.5°C, Tu
04209040.00 Kenmore Industrial Park	AW-10 R KP-0412- 02	April 3, 2012	Locked? Y N	500 ml HNO3 125 ml NaOH	Temp.	7.62 7.63 7.63 7.63 7.64 7.64	. 0.2, SpC ± 10%,
	AW	QA C		Ŋ.	MTQ		meters: pH/DO ± Sam Adlington Printed Name
Project #:	Well ID:	Date:	Weather: Filtered? (©) N Sample Containers:		TIME	1027 1033 1033 1034 1034 1034	Stabilization Parameters: pH/DO ± 0.2, SpC ± 10%, Temp ± 0.5°C, Turb. ± 10% or ≤ 5 SAMPLER: Sam Addington Printed Name

SCS ENGINEERS 2405

140th ave NE #107 Bellevue Wa 98005

(425)746-4600

Groundwater Sampling Data Sheet

Project #:		04209040.00		[,				Sampling Method:
Site		Kenmore Industrial Park	ıstrial Park	N	7	WTO	CONTROL SETTINGS:		あられていっ
Well ID:	AW-12	-12				TOS	Refill	1	Notes:
Sample ID:		KIP-0412- 03	65	ш		Intake	Discharge	1	4 CASING
Date:		April 3, 2012	12	ш		BOS	Pressure		Sourts antected fire
Weather:	RAIR]	14.30	Total Depth		,	0
Filtered? ØN	<u>.</u>	Locked? Y	8	Water in Protector? Y N	ector? Y 🚱	250 ml Poly	Damage? Y	Y CO 125 ml Poly	
	V	500 ml HNO3	\bigcap	500 MI H2SO4	1	40 ml VOA	10	1000 ml Amber	
		125 ml NaOH		2 x 1000 ml	27 75	\wedge		•	
TIME	WTO	Temp.	Sp.Cond.	00	Hd	둅	Turbidity	Q / Vol.	Observations (color, odor, anomalies, etc)
131									PURGE START LVB
1157		10.98		0.00	44.9		138.0		
1200		21. 01		0.29		÷	100.4		
502		11.02		0.22			43.4		
1206		11.00		0.20			46.20		
1209		11.14		0,19			34,48		
212		11.05		0,19	=1	±21-	32,01		
1215		11.15	- 4	0.19			32.07		
		75 00 +	1 700 0 + + 7	7901					
Stabilization Parameters: $pH/DO \pm 0.2$, $spC \pm 10\%$, $lemp \pm 0.5\%$, $lurb$, $\pm 10\%$ or ≤ 5	eters: pH/UL	1 ± 0.2, spc ± 107	", lemp ± 0.5 €,	lurb. I I U% or ≥	n				

Signature

Sam Adlington Printed Name

SAMPLER:

SCS ENGINEERS 2405 140th ave NE #107 Bellevue Wa 98005

(425)746-4600

Groundwater Sampling Data Sheet

Sampling Method:		Notes:	Sieteo 18 8 9.45	TOTAL BORING 14			1×1		Observations (color, odor, anomalies, etc)							
	TINGS:					N 25 m 2012	4000 ml Amber		Q / Vol.							
	CONTROL SETTINGS:	Refill	Discharge_	Pressure		Damage? Y N	J		Turbidity)		of length		
	WTO	TOS	Intake	BOS	Total Depth	oeo m look	40 ml VOA		믑			1861				
					9,95 Total Depth	tor? Y N	HCL		Hd			F				
I	N	ļ	Ш	Ш	l	Water in Protector? Y N	500 mil PSO4		OD	1		710	}			
	trial Park		T						Sp.Cond.	C	1	SAMA	5			
04209040.00	Kenmore Industrial Park	11-0		April 3 , 2012	3	Locked? Y N	500 ml HNO3 125 ml NaOH		Тетр.	+	→	2	3			
0	x	mw-11	+	Ą	ZAIN		U	l _i	WTG							
Project #:	Site	Well ID:	Sample ID:	Date:	Weather	Filtered? Y N	sample containers:		TIME							

Stabilization Parameters: pH/DO \pm 0.2, SpC \pm 10%, Temp \pm 0.5°C, Turb. \pm 10% or ≤ 5

Sam Adlington Printed Name SAMPLER:

SCS ENGINEERS 2405

140th ave NE #107 Bellevue Wa 98005

(425)746-4600

Groundwater Sampling Data Sheet

Sampling Method:		Notes:	DUP TAKEN AS	K12-0412-05	60	0-7×	DISSIVED MATARS UTIBEL	1		
	CONTROL SETTINGS:	Refill	Discharge	Pressure		Damage? Y	125 ml Poly	CT000 ml Amberl X:Z		
	(0.12 DTW	TOS	Intake	BOS	16.40 Total Depth	ctor? Y	250 ml Poly	40.ml.VOA	LL AMBER HCL	
[\ \					Water in Protector? Y(N)	500 ml Poly	500 mLH2SO	12×1000 in	
04209040.00	Kenmore Industrial Park	A.C Co	KIP-0412- 🔾 🕯	April 3 , 2012	RAIN	Locked? Y	1000 ml Poly	500 ml HNO3	125 ml NaOH	
Project #:	Site	Well ID:	Sample ID:	Date	Weather:	Filtered?	Sample Containers:			

12 200

Observations (color, odor, anomalies, etc) Puage ST的にて レイタ														
Q / Vol.														
Turbidity		4114	3.46	3.80	60 60									
HJ.	6.53 -149	-156	091-	-(6.3	ار نونو م									
Hd	6.53	6.49	6.57	Ú.50	6,52									
DO					81.0									
Sp.Cond.	11116	0	130	1126	十211									
Тетр.	10.96	11.03	11,00	11.04	11.04									
WTQ														
TIME 1328	1334	1334	1340	1343	1346									

Srabilization Parameters: pH/DO \pm 0.2, SpC \pm 10%, Temp \pm 0.5°C, Turb. \pm 10% or \leq 5

Sam Adlington Printed Name SAMPLER:

SCS ENGINEERS 2405

140th ave NE #107 Bellevue Wa 98005

(425)746-4600

Groundwater Sampling Data Sheet

S. のこのこのできる O'BRIAN FROM Sport Samples TAREN DEPARTMENT OF Sampling Method: Peristaltic MAUCA Notes: 1000 ml Amber ×2 Damage? Y 🕦 125 ml Poly CONTROL SETTINGS: Refill N/A Discharge N/A Pressure N/A 250 ml Poly 23.49 Total Depth 40 ml VOA Scome HCLAMPER x2 ~ 20° Intake 15.51 DTW 13.44 TOS 23.49 BOS Water in Protector? Y 500 ml H2SO4 500 ml Poly D KID-0412-05 4/27/12 Locked? Y 500 ml HNO3 125 ml NaOH 1000 ml Poly 70,010 Project #Ch200010 Well ID: AW-11R Site Kir Sample Containers: Filtered? MN Date: Weather: Sample ID:

띲

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8

Sp.Cond.

Temp.

S.5i

0928 TIME

Observations (color, odor, anomalies, etc) Pいれらら START		~3 gar forgeo	
2/Vol. Obs			U
Turbidity	13.40 16.22 19.49 18.48	7,0,7 7,0,7	€55ABK

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66.38 34 34

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		pH/DO
		1 Parameters: pH/DO \pm 0.2, SpC \pm 10%, Temp \pm 0.5°C, Tu
		ation Par
		Stabilizo

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16.83 15.75

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NOTE

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1027

Sam Adlington Printed Name

SAMPLER:



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

April 9, 2012

Kevin Lakey SCS Engineers 2405 140th Avenue NE, Suite 107 Bellevue, WA 98005

Re: Analytical Data for Project 04209040.00

Laboratory Reference No. 1204-009

Dear Kevin:

Enclosed are the analytical results and associated quality control data for samples submitted on April 3, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures

Project: 04209040.00

Case Narrative

Samples were collected on April 3, 2012 and received by the laboratory on April 3, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Project: 04209040.00

NWTPH-Dx (with acid/silica gel clean-up)

Matrix: Water
Units: mg/L (ppm)

5 (11)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	KIP-0412-01					
Laboratory ID:	04-009-01					
Diesel Range Organics	ND	0.27	NWTPH-Dx	4-5-12	4-5-12	
Lube Oil Range Organics	ND -	0.43	NWTPH-Dx	4-5-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	92	50-150				
Client ID:	KIP-0412-02					
Laboratory ID:	04-009-02					
Diesel Range Organics	ND	0.26	NWTPH-Dx	4-5-12	4-5-12	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	4-5-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	101	50-150				
Client ID:	KIP-0412-03					
Laboratory ID:	04-009-03					
Diesel Range Organics	ND	0.27	NWTPH-Dx	4-5-12	4-5-12	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	4-5-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				
Client ID:	KIP-0412-04					
Laboratory ID:	04-009-04					
Diesel Range Organics	ND	0.28	NWTPH-Dx	4-5-12	4-5-12	
Lube Oil Range Organics	ND	0.44	NWTPH-Dx	4-5-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	90	50-150				
Client ID:	KIP-0412-05					
Laboratory ID:	04-009-05					
Diesel Range Organics	ND	0.26	NWTPH-Dx	4-5-12	4-5-12	
Lube Oil Range Organics	ND	0.42	NWTPH-Dx	4-5-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits		<u> </u>	.	
o-Terphenyl	92	50-150				
1	-					

Project: 04209040.00

NWTPH-Dx QUALITY CONTROL (with acid/silica gel clean-up)

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK				-	-	
Laboratory ID:	MB0405W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	4-5-12	4-5-12	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	4-5-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				

				Per	cent	Recovery		RPD	
Analyte	Res	sult		Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-00	09-01							
	ORIG	DUP							
Diesel Range Organics	ND	ND					NA	NA	
Lube Oil Range Organics	ND	ND					NA	NA	
Surrogate:	•		_				•		
o-Terphenyl				92	104	50-150			

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM page 1 of 2

Matrix: Water Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	KIP-0412-04	1 & _	Metriou	Перагеи	Analyzeu	i iags
Laboratory ID:	04-009-04					
n-Nitrosodimethylamine	ND	0.98	EPA 8270	4-4-12	4-6-12	
Pyridine	ND	0.98	EPA 8270	4-4-12	4-6-12	
Phenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
Aniline	ND	4.9	EPA 8270	4-4-12	4-6-12	
bis(2-Chloroethyl)ether	ND	0.98	EPA 8270	4-4-12	4-6-12	
2-Chlorophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,3-Dichlorobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,4-Dichlorobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Benzyl alcohol	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,2-Dichlorobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
2-Methylphenol (o-Cresol)	ND	0.98	EPA 8270	4-4-12	4-6-12	
bis(2-Chloroisopropyl)ether	ND	0.98	EPA 8270	4-4-12	4-6-12	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.98	EPA 8270	4-4-12	4-6-12	
n-Nitroso-di-n-propylamine	ND	0.98	EPA 8270	4-4-12	4-6-12	
Hexachloroethane	ND	0.98	EPA 8270	4-4-12	4-6-12	
Nitrobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Isophorone	ND	0.98	EPA 8270	4-4-12	4-6-12	
2-Nitrophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,4-Dimethylphenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
bis(2-Chloroethoxy)methane	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,4-Dichlorophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,2,4-Trichlorobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Naphthalene	0.10	0.098	EPA 8270/SIM	4-4-12	4-5-12	
4-Chloroaniline	ND	0.98	EPA 8270	4-4-12	4-6-12	
Hexachlorobutadiene	ND	0.98	EPA 8270	4-4-12	4-6-12	
4-Chloro-3-methylphenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
2-Methylnaphthalene	ND	0.098	EPA 8270/SIM	4-4-12	4-5-12	
1-Methylnaphthalene	ND	0.098	EPA 8270/SIM	4-4-12	4-5-12	
Hexachlorocyclopentadiene	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,4,6-Trichlorophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,3-Dichloroaniline	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,4,5-Trichlorophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
2-Chloronaphthalene	ND	0.98	EPA 8270	4-4-12	4-6-12	
2-Nitroaniline	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,4-Dinitrobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Dimethylphthalate	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,3-Dinitrobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,6-Dinitrotoluene	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,2-Dinitrobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Acenaphthylene	ND	0.098	EPA 8270/SIM	4-4-12	4-5-12	
3-Nitroaniline	ND	0.98	EPA 8270	4-4-12	4-6-12	
3-Mitroariiii le	ND	0.30	LI A 0270	7-7-12	7-0-12	

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM

page 2 of 2

Analyta	Popult	PQL	Method	Date	Date	Elogo
Analyte Client ID:	Result KIP-0412-04	FQL	Metriou	Prepared	Analyzed	Flags
Laboratory ID:	04-009-04					
2,4-Dinitrophenol	ND	4.9	EPA 8270	4-4-12	4-6-12	
Acenaphthene	0.74	0.098	EPA 8270/SIM	4-4-12	4-5-12	
4-Nitrophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,4-Dinitrotoluene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Dibenzofuran	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,3,5,6-Tetrachlorophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
2,3,4,6-Tetrachlorophenol	ND	0.98	EPA 8270	4-4-12	4-6-12	
Diethylphthalate	ND	0.98	EPA 8270	4-4-12	4-6-12	
4-Chlorophenyl-phenylether		0.98	EPA 8270	4-4-12	4-6-12	
4-Nitroaniline	ND	0.98	EPA 8270	4-4-12	4-6-12	
Fluorene	0.34	0.098	EPA 8270/SIM	4-4-12	4-5-12	
4,6-Dinitro-2-methylphenol	ND	4.9	EPA 8270	4-4-12	4-6-12	
n-Nitrosodiphenylamine	ND	0.98	EPA 8270	4-4-12	4-6-12	
1,2-Diphenylhydrazine	ND	0.98	EPA 8270	4-4-12	4-6-12	
4-Bromophenyl-phenylether		0.98	EPA 8270	4-4-12	4-6-12	
Hexachlorobenzene	ND	0.98	EPA 8270	4-4-12	4-6-12	
Pentachlorophenol	ND	4.9	EPA 8270	4-4-12	4-6-12	
Phenanthrene	ND	0.098	EPA 8270/SIM	4-4-12	4-5-12	
Anthracene	ND	0.098	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Carbazole	ND	0.98	EPA 8270	4-4-12 4-4-12	4-6-12	
Di-n-butylphthalate	ND	0.98	EPA 8270	4-4-12	4-6-12	
Fluoranthene	ND	0.098	EPA 8270/SIM	4-4-12	4-5-12 4-5-12	
Benzidine	ND	4.9	EPA 8270	4-4-12 4-4-12	4-6-12	
Pyrene	ND	0.098	EPA 8270/SIM	4-4-12	4-5-12	
Butylbenzylphthalate	ND	0.98	EPA 8270	4-4-12 4-4-12	4-6-12	
bis-2-Ethylhexyladipate	ND	4.9	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
3,3'-Dichlorobenzidine	ND	0.98	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Benzo[a]anthracene	0.025	0.0098	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Chrysene	0.059	0.0098	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
bis(2-Ethylhexyl)phthalate	ND	0.0098	EPA 8270	4-4-12 4-4-12	4-6-12	
Di-n-octylphthalate	ND	0.98	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Benzo[b]fluoranthene	0.052		EPA 8270/SIM	4-4-12 4-4-12		
	0.032	0.0098 0.0098	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Benzo(j,k)fluoranthene	0.012 ND	0.0098	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Benzo[a]pyrene						
Indeno[1,2,3-cd]pyrene	0.019 ND	0.0098	EPA 8270/SIM EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Dibenz[a,h]anthracene		0.0098 0.0098				
Benzo[g,h,i]perylene	0.017 Percent Recovery	Control Limits	EPA 8270/SIM	4-4-12	4-5-12	
Surrogate: 2-Fluorophenol	43	18 - 86				
Phenol-d6	43 36	10 - 88				
Nitrobenzene-d5		10 - 88 37 - 112				
2-Fluorobiphenyl	66 72	37 - 112 42 - 108				
2,4,6-Tribromophenol	72 67	42 - 108 39 - 118				
Terphenyl-d14	67 78	39 - 116 49 - 122				
i eipiieilyi-u i 4	70	43 - 122				

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM page 1 of 2

Matrix: Water Units: ug/L

Result PQL Method Prepared Analyzed	Flags
Laboratory ID:	ı iags
n-Nitrosodimethylamine ND 0.97 EPA 8270 4-4-12 4-6-12 Pyridine ND 0.97 EPA 8270 4-4-12 4-6-12 Phenol ND 0.97 EPA 8270 4-4-12 4-6-12 Aniline ND 4.9 EPA 8270 4-4-12 4-6-12 bis(2-Chloroethyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 2-Chlorophenol ND 0.97 EPA 8270 4-4-12 4-6-12 1,3-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12	
Pyridine	
Phenol ND 0.97 EPA 8270 4-4-12 4-6-12 Aniline ND 4.9 EPA 8270 4-4-12 4-6-12 bis(2-Chloroethyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 2-Chlorophenol ND 0.97 EPA 8270 4-4-12 4-6-12 1,3-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 Benzyl alcohol ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,3-Dichloroseporpyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 <td< td=""><td></td></td<>	
Aniline ND 4.9 EPA 8270 4-4-12 4-6-12 bis(2-Chloroethyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 2-Chlorophenol ND 0.97 EPA 8270 4-4-12 4-6-12 1,3-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorospropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorospropylospr	
bis(2-Chloroethyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 2-Chlorophenol ND 0.97 EPA 8270 4-4-12 4-6-12 1,3-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 Benzyl alcohol ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Methylphenol (m.p-Cresol) ND 0.97 EPA 8270 4-4-12 4-6-12 1-Waxachloroethane ND 0.97 EPA 8270 4-4-12 4-6-12 Nb (robenzene ND 0.97 EPA 8270 4-4-12 4-6-1	
2-Chlorophenol ND 0.97 EPA 8270 4-4-12 4-6-12 1,3-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorosopropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorosopropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorosodi-n-propylamine ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorosodi-n-propylamine ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorosopropylether ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorophenol ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlor	
1,3-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 Benzyl alcohol ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 2-Methylphenol (o-Cresol) ND 0.97 EPA 8270 4-4-12 4-6-12 bis(2-Chloroisopropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 his(2-Chloroisopropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 his(2-Chloroisopropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 n-Nitroso-di-n-propylamine ND 0.97 EPA 8270 4-4-12 4-6-12 Hexachloroethane ND 0.97 EPA 8270 4-4-12 4-6-12 Nitrobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 ND 0.97 EPA 8270 4-4-12 4-6-12 <	
1,4-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 Benzyl alcohol ND 0.97 EPA 8270 4-4-12 4-6-12 1,2-Dichlorobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 2-Methylphenol (o-Cresol) ND 0.97 EPA 8270 4-4-12 4-6-12 bis(2-Chloroisopropyl)ether ND 0.97 EPA 8270 4-4-12 4-6-12 (3+4)-Methylphenol (m,p-Cresol) ND 0.97 EPA 8270 4-4-12 4-6-12 n-Nitroso-di-n-propylamine ND 0.97 EPA 8270 4-4-12 4-6-12 Hexachloroethane ND 0.97 EPA 8270 4-4-12 4-6-12 Nitrobenzene ND 0.97 EPA 8270 4-4-12 4-6-12 Isophorone ND 0.97 EPA 8270 4-4-12 4-6-12 2,4-Dimethylphenol ND 0.97 EPA 8270 4-4-12 4-6-12 2,4-Dimethylphenol ND 0.97 EPA 8270 4-4-12	
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2-Chloronaphthalene ND 0.97 EPA 8270 4-4-12 4-6-12	
2-Nitroaniline ND 0.97 EPA 8270 4-4-12 4-6-12	
1,4-Dinitrobenzene ND 0.97 EPA 8270 4-4-12 4-6-12	
Dimethylphthalate ND 0.97 EPA 8270 4-4-12 4-6-12	
1,3-Dinitrobenzene ND 0.97 EPA 8270 4-4-12 4-6-12	
2,6-Dinitrotoluene ND 0.97 EPA 8270 4-4-12 4-6-12	
1,2-Dinitrobenzene ND 0.97 EPA 8270 4-4-12 4-6-12	
Acenaphthylene ND 0.097 EPA 8270/SIM 4-4-12 4-5-12	
3-Nitroaniline ND 0.97 EPA 8270 4-4-12 4-6-12	

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SEMIVOLATILES by EPA 8270D/SIM

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Analyta	Decult	DOL	Mathad	Date	Date	Flores
Analyte Client ID:	Result KIP-0412-05	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	04-009-05					
2,4-Dinitrophenol	ND	4.9	EPA 8270	4-4-12	4-6-12	
Acenaphthene	0.64	0.097	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
	ND	0.097	EPA 8270/SIW	4-4-12 4-4-12	4-6-12	
4-Nitrophenol 2,4-Dinitrotoluene	ND ND	0.97	EPA 8270 EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Dibenzofuran	ND	0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
2,3,5,6-Tetrachlorophenol	ND	0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
2,3,4,6-Tetrachlorophenol	ND	0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Diethylphthalate	ND	0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
4-Chlorophenyl-phenylether		0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
4-Nitroaniline	ND ND	0.97	EPA 8270 EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Fluorene	0.29	0.097	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
	ND	4.9	EPA 8270/31M	4-4-12 4-4-12	4-6-12	
4,6-Dinitro-2-methylphenol	ND ND	0.97		4-4-12 4-4-12	4-6-12 4-6-12	
n-Nitrosodiphenylamine	ND ND	0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
1,2-Diphenylhydrazine4-Bromophenyl-phenylether		0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Hexachlorobenzene	ND ND	0.97	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Pentachlorophenol	ND ND	4.9	EPA 8270 EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Phenanthrene	ND ND	0.097	EPA 8270/SIM	4-4-12 4-4-12	4-6-12 4-5-12	
Anthracene	ND ND	0.097	EPA 8270/SIM	4-4-12	4-5-12	
Carbazole	ND ND	0.97	EPA 8270	4-4-12	4-6-12	
Di-n-butylphthalate	ND	0.97	EPA 8270	4-4-12	4-6-12	
Fluoranthene	ND	0.097	EPA 8270/SIM	4-4-12	4-5-12	
Benzidine	ND	4.9	EPA 8270	4-4-12	4-6-12	
Pyrene Duty the annual path plate	ND	0.097	EPA 8270/SIM	4-4-12	4-5-12	
Butylbenzylphthalate	ND	0.97	EPA 8270	4-4-12	4-6-12	
bis-2-Ethylhexyladipate	ND	4.9	EPA 8270	4-4-12	4-6-12	
3,3'-Dichlorobenzidine	ND	0.97	EPA 8270	4-4-12	4-6-12	
Benzo[a]anthracene	0.014	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Chrysene	ND	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
bis(2-Ethylhexyl)phthalate	ND	0.97	EPA 8270	4-4-12	4-6-12	
Di-n-octylphthalate	ND	0.97	EPA 8270	4-4-12	4-6-12	
Benzo[b]fluoranthene	ND	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Benzo(j,k)fluoranthene	ND	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Benzo[a]pyrene	ND	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Indeno[1,2,3-cd]pyrene	ND ND	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Dibenz[a,h]anthracene		0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Benzo[g,h,i]perylene	ND	0.0097	EPA 8270/SIM	4-4-12	4-5-12	
Surrogate:	Percent Recovery					
2-Fluorophenol	38	18 - 86				
Phenol-d6	32	10 - 88				
Nitrobenzene-d5	58 65	37 - 112 42 - 109				
2-Fluorobiphenyl	65	42 - 108 20 - 118				
2,4,6-Tribromophenol	62 75	39 - 118 40 - 122				
Terphenyl-d14	75	49 - 122				

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SEMIVOLATILES by EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

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Matrix: Water Units: ug/L

A 1 4 .	5	DO 1	BB . 41 1	Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0404W1					
n-Nitrosodimethylamine	ND	1.0	EPA 8270	4-4-12	4-6-12	
Pyridine	ND	1.0	EPA 8270	4-4-12	4-6-12	
Phenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
Aniline	ND	5.0	EPA 8270	4-4-12	4-6-12	
bis(2-Chloroethyl)ether	ND	1.0	EPA 8270	4-4-12	4-6-12	
2-Chlorophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Benzyl alcohol	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
2-Methylphenol (o-Cresol)	ND	1.0	EPA 8270	4-4-12	4-6-12	
bis(2-Chloroisopropyl)ether	ND	1.0	EPA 8270	4-4-12	4-6-12	
(3+4)-Methylphenol (m,p-Cresol)	ND	1.0	EPA 8270	4-4-12	4-6-12	
n-Nitroso-di-n-propylamine	ND	1.0	EPA 8270	4-4-12	4-6-12	
Hexachloroethane	ND	1.0	EPA 8270	4-4-12	4-6-12	
Nitrobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Isophorone	ND	1.0	EPA 8270	4-4-12	4-6-12	
2-Nitrophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,4-Dimethylphenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
bis(2-Chloroethoxy)methane	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,4-Dichlorophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Naphthalene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
4-Chloroaniline	ND	1.0	EPA 8270	4-4-12	4-6-12	
Hexachlorobutadiene	ND	1.0	EPA 8270	4-4-12	4-6-12	
4-Chloro-3-methylphenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
2-Methylnaphthalene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
1-Methylnaphthalene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
Hexachlorocyclopentadiene	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,4,6-Trichlorophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,3-Dichloroaniline	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,4,5-Trichlorophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
2-Chloronaphthalene	ND	1.0	EPA 8270	4-4-12	4-6-12	
2-Nitroaniline	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,4-Dinitrobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Dimethylphthalate	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,3-Dinitrobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,6-Dinitrotoluene	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,2-Dinitrobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Acenaphthylene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
3-Nitroaniline	ND	1.0	EPA 8270	4-4-12	4-6-12	

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0404W1					
2,4-Dinitrophenol	ND	5.0	EPA 8270	4-4-12	4-6-12	
Acenaphthene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
4-Nitrophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,4-Dinitrotoluene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Dibenzofuran	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,3,5,6-Tetrachlorophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
2,3,4,6-Tetrachlorophenol	ND	1.0	EPA 8270	4-4-12	4-6-12	
Diethylphthalate	ND	1.0	EPA 8270	4-4-12	4-6-12	
4-Chlorophenyl-phenylether	ND	1.0	EPA 8270	4-4-12	4-6-12	
4-Nitroaniline	ND	1.0	EPA 8270	4-4-12	4-6-12	
Fluorene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
4,6-Dinitro-2-methylphenol	ND	5.0	EPA 8270	4-4-12	4-6-12	
n-Nitrosodiphenylamine	ND	1.0	EPA 8270	4-4-12	4-6-12	
1,2-Diphenylhydrazine	ND	1.0	EPA 8270	4-4-12	4-6-12	
4-Bromophenyl-phenylether	ND	1.0	EPA 8270	4-4-12	4-6-12	
Hexachlorobenzene	ND	1.0	EPA 8270	4-4-12	4-6-12	
Pentachlorophenol	ND ND	5.0	EPA 8270	4-4-12 4-4-12	4-6-12 4-6-12	
Phenanthrene	ND ND	0.10	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Anthracene	ND ND	0.10	EPA 8270/SIM	4-4-12 4-4-12	4-5-12 4-5-12	
Carbazole	ND ND	1.0	EPA 8270/31W	4-4-12 4-4-12	4-6-12	
					4-6-12 4-6-12	
Di-n-butylphthalate	ND	1.0	EPA 8270	4-4-12		
Fluoranthene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
Benzidine	ND	5.0	EPA 8270	4-4-12	4-6-12	
Pyrene	ND	0.10	EPA 8270/SIM	4-4-12	4-5-12	
Butylbenzylphthalate	ND	1.0	EPA 8270	4-4-12	4-6-12	
bis-2-Ethylhexyladipate	ND	5.0	EPA 8270	4-4-12	4-6-12	
3,3'-Dichlorobenzidine	ND	1.0	EPA 8270	4-4-12	4-6-12	
Benzo[a]anthracene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Chrysene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
bis(2-Ethylhexyl)phthalate	ND	1.0	EPA 8270	4-4-12	4-6-12	
Di-n-octylphthalate	ND	1.0	EPA 8270	4-4-12	4-6-12	
Benzo[b]fluoranthene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Benzo(j,k)fluoranthene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Benzo[a]pyrene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270/SIM	4-4-12	4-5-12	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	57	18 - 86				
Phenol-d6	45	10 - 88				
Nitrobenzene-d5	80	37 - 112				
2-Fluorobiphenyl	80	42 - 108				
2,4,6-Tribromophenol	69	39 - 118				
Terphenyl-d14	83	49 - 122				

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

					Per	cent	Recovery		RPD	
Analyte	Re	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB04	04W1								
	SB	SBD	SB	SBD	SB	SBD				
Phenol	18.8	20.5	40.0	40.0	47	51	26 - 70	9	29	
2-Chlorophenol	32.6	35.9	40.0	40.0	82	90	46 - 104	10	34	
1,4-Dichlorobenzene	15.0	16.8	20.0	20.0	75	84	46 - 92	11	29	
n-Nitroso-di-n-propylamine	15.2	16.4	20.0	20.0	76	82	30 - 102	8	25	
1,2,4-Trichlorobenzene	15.9	17.3	20.0	20.0	80	87	45 - 92	8	25	
4-Chloro-3-methylphenol	34.5	36.9	40.0	40.0	86	92	53 - 108	7	18	
Acenaphthene	17.0	18.0	20.0	20.0	85	90	57 - 103	6	15	
4-Nitrophenol	22.0	22.7	40.0	40.0	55	57	21 - 85	3	33	
2,4-Dinitrotoluene	17.2	18.1	20.0	20.0	86	91	60 - 118	5	20	
Pentachlorophenol	34.3	36.3	40.0	40.0	86	91	48 - 119	6	31	
Pyrene	18.5	19.7	20.0	20.0	93	99	62 - 111	6	19	
Surrogate:										
2-Fluorophenol					53	60	18 - 86			
Phenol-d6					44	48	10 - 88			
Nitrobenzene-d5					76	82	37 - 112			
2-Fluorobiphenyl					78	82	<i>42 - 108</i>			
2,4,6-Tribromophenol					68	74	39 - 118			
Terphenyl-d14					80	86	49 - 122			

Project: 04209040.00

DISSOLVED METALS EPA 200.8

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID: Client ID:	04-009-01 KIP-0412-01					
Arsenic	ND	3.0	200.8		4-4-12	
Barium	ND	25	200.8		4-4-12	
Lead	ND	1.0	200.8		4-4-12	
Lab ID:	04-009-02					
Client ID:	KIP-0412-02					
Arsenic	ND	3.0	200.8		4-4-12	
Barium	110	25	200.8		4-4-12	
Lead	1.3	1.0	200.8		4-4-12	
Lab ID:	04-009-03					
Client ID:	KIP-0412-03					
Arsenic	ND	3.0	200.8		4-4-12	
Barium	120	25	200.8		4-4-12	
Lead	ND	1.0	200.8		4-4-12	

Project: 04209040.00

DISSOLVED METALS EPA 200.8

Matrix: Water
Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	04-009-04					
Client ID:	KIP-0412-04					
Arsenic	ND	3.0	200.8		4-4-12	
Barium	410	25	200.8		4-4-12	
Cadmium	ND	4.0	200.8		4-4-12	
Copper	ND	10	200.8		4-4-12	
Lead	1.8	1.0	200.8		4-4-12	
Zinc	ND	25	200.8		4-4-12	
Lab ID:	04-009-05					
Client ID:	KIP-0412-05					
Arsenic	ND	3.0	200.8		4-4-12	
Barium	400	25	200.8		4-4-12	
Cadmium	ND	4.0	200.8		4-4-12	
Copper	ND	10	200.8		4-4-12	
Lead	2.0	1.0	200.8		4-4-12	
Zinc	ND	25	200.8		4-4-12	

Project: 04209040.00

DISSOLVED METALS EPA 200.8 METHOD BLANK QUALITY CONTROL

Date Analyzed: 4-4-12

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0404D1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Barium	200.8	ND	25
Cadmium	200.8	ND	4.0
Copper	200.8	ND	10
Lead	200.8	ND	1.0
Zinc	200.8	ND	25

Project: 04209040.00

DISSOLVED METALS EPA 200.8 DUPLICATE QUALITY CONTROL

Date Analyzed: 4-4-12

Matrix: Water
Units: ug/L (ppb)

Lab ID: 04-009-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.0	
Barium	ND	ND	NA	25	
Cadmium	ND	ND	NA	4.0	
Copper	ND	ND	NA	10	
Lead	ND	ND	NA	1.0	
Zinc	ND	ND	NA	25	

Project: 04209040.00

DISSOLVED METALS EPA 200.8 MS/MSD QUALITY CONTROL

Date Analyzed: 4-4-12

Matrix: Water
Units: ug/L (ppb)

Lab ID: 04-009-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	210	105	211	105	0	
Barium	200	207	103	208	104	1	
Cadmium	200	198	99	197	99	1	
Copper	200	199	99	198	99	0	
Lead	200	196	98	200	100	2	
Zinc	200	222	111	203	102	9	



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- Y Sample extract treated with an acid/silica gel cleanup procedure.

Z -

- ND Not Detected at PQL
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference



Chain of Custody

Page ____ of ___

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Reviewed/Date	Received	Relinquished	Received	Relinquished	Received	Relinquished	Signature				5 kip-0412-05	4 kip-0412-04	3 Kip-0412-03	2 kip-0412-02	1 KIP-6412-01	Lab ID Sample Identification	SAM ADINGTON	KENIN LAKEY	KENMORE INDSTRIAL PARK	04269040.00	Project Number:		Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052			
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Data Package: Level III
Level IV

Electronic Data Deliverables (EDDs)



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

May 8, 2012

Kevin Lakey SCS Engineers 2405 140th Avenue NE, Suite 107 Bellevue, WA 98005

Re: Analytical Data for Project 04209040.00

Laboratory Reference No. 1204-174

Dear Kevin:

Enclosed are the analytical results and associated quality control data for samples submitted on April 27, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister Project Manager

Enclosures

Project: 04209040.00

Case Narrative

Samples were collected on April 27, 2012 and received by the laboratory on April 27, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Semivolatiles EPA 8270D/SIM Analysis

The matrix spike dup had one surrogate recovery out of control limits. This is within allowance of our standard operating procedure as long as the recovery is above 10%.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Project: 04209040.00

NWTPH-Dx (with acid/silica gel clean-up)

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	KIP-0412-05			•	•	
Laboratory ID:	04-174-01					
Diesel Range Organics	ND	0.28	NWTPH-Dx	5-2-12	5-2-12	
Lube Oil Range Organics	ND	0.45	NWTPH-Dx	5-2-12	5-2-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	84	50-150				

Project: 04209040.00

NWTPH-Dx QUALITY CONTROL (with acid/silica gel clean-up)

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0502W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	5-2-12	5-2-12	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	5-2-12	5-2-12	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	104	50-150				

	_			Perd		Recovery		RPD	
Analyte	Res	sult		Reco	very	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	04-17	⁷ 4-01							
	ORIG	DUP							
Diesel Range Organics	ND	ND	'				NA	NA	_
Lube Oil Range Organics	ND	ND					NA	NA	
Surrogate:			'					•	
o-Terphenyl				84	83	50-150			

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM

page 1 of 2

Matrix: Water Units: ug/L

Analyte Result PQL Method Prepared Analyzed Flags Client ID: KIP-0412-05 Laboratory ID: 04-174-01 <					Date	Date	
Laboratory ID:	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
n-Nitrosodimethylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Pyridine ND 0.99 EPA 8270 4-27-12 4-28-12 Phenol ND 0.99 EPA 8270 4-27-12 4-28-12 Aniline ND 5.0 EPA 8270 4-27-12 4-28-12 Aniline ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 2-Chlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12 1,3-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 <	Client ID:	KIP-0412-05					
Pyridine ND 0.99 EPA 8270 4-27-12 4-28-12 Phenol ND 0.99 EPA 8270 4-27-12 4-28-12 Aniline ND 5.0 EPA 8270 4-27-12 4-28-12 bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 2-Chlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12 1,3-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 1sis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12	Laboratory ID:	04-174-01					
Phenol ND 0.99 EPA 8270 4-27-12 4-28-12 Aniline ND 5.0 EPA 8270 4-27-12 4-28-12 bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 2-Chlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12 1,3-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 Henzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 <td>n-Nitrosodimethylamine</td> <td>ND</td> <td>0.99</td> <td>EPA 8270</td> <td>4-27-12</td> <td>4-28-12</td> <td></td>	n-Nitrosodimethylamine	ND	0.99	EPA 8270	4-27-12	4-28-12	
Aniline ND 5.0 EPA 8270 4-27-12 4-28-12 bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 2-Chlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12 1,3-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Nb 0.99 EPA 8270 4-27-12 4	Pyridine	ND	0.99	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroethyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 2-Chlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12 1,3-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 ND 0.99 EPA 8270 4-27-12	Phenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
2-ChlorophenolND0.99EPA 82704-27-124-28-121,3-DichlorobenzeneND0.99EPA 82704-27-124-28-121,4-DichlorobenzeneND0.99EPA 82704-27-124-28-12Benzyl alcoholND0.99EPA 82704-27-124-28-121,2-DichlorobenzeneND0.99EPA 82704-27-124-28-122-Methylphenol (o-Cresol)ND0.99EPA 82704-27-124-28-12bis(2-Chloroisopropyl)etherND0.99EPA 82704-27-124-28-12(3+4)-Methylphenol (m,p-Cresol)6.50.99EPA 82704-27-124-28-12n-Nitroso-di-n-propylamineND0.99EPA 82704-27-124-28-12HexachloroethaneND0.99EPA 82704-27-124-28-12NitrobenzeneND0.99EPA 82704-27-124-28-12IsophoroneND0.99EPA 82704-27-124-28-122-NitrophenolND0.99EPA 82704-27-124-28-12	Aniline	ND	5.0	EPA 8270	4-27-12	4-28-12	
1,3-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	bis(2-Chloroethyl)ether	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,4-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12		ND	0.99	EPA 8270	4-27-12	4-28-12	
Benzyl alcohol ND 0.99 EPA 8270 4-27-12 4-28-12 1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	1,3-Dichlorobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,2-Dichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	1,4-Dichlorobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
2-Methylphenol (o-Cresol) ND 0.99 EPA 8270 4-27-12 4-28-12 bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	Benzyl alcohol	ND	0.99	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	1,2-Dichlorobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroisopropyl)ether ND 0.99 EPA 8270 4-27-12 4-28-12 (3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	2-Methylphenol (o-Cresol)	ND	0.99	EPA 8270	4-27-12	4-28-12	
(3+4)-Methylphenol (m,p-Cresol) 6.5 0.99 EPA 8270 4-27-12 4-28-12 n-Nitroso-di-n-propylamine ND 0.99 EPA 8270 4-27-12 4-28-12 Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12		ND	0.99	EPA 8270	4-27-12	4-28-12	
Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12		6.5	0.99	EPA 8270	4-27-12	4-28-12	
Hexachloroethane ND 0.99 EPA 8270 4-27-12 4-28-12 Nitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12 Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	n-Nitroso-di-n-propylamine	ND	0.99	EPA 8270	4-27-12	4-28-12	
Isophorone ND 0.99 EPA 8270 4-27-12 4-28-12 2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12		ND	0.99	EPA 8270	4-27-12	4-28-12	
2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	Nitrobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
2-Nitrophenol ND 0.99 EPA 8270 4-27-12 4-28-12	Isophorone	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,4-Dimethylphenol ND 0.99 EPA 8270 4-27-12 4-28-12	2-Nitrophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
	2,4-Dimethylphenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroethoxy)methane ND 0.99 EPA 8270 4-27-12 4-28-12	bis(2-Chloroethoxy)methane	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,4-Dichlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12	2,4-Dichlorophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,2,4-Trichlorobenzene ND 0.99 EPA 8270 4-27-12 4-28-12	1,2,4-Trichlorobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
Naphthalene 0.23 0.099 EPA 8270/SIM 4-27-12 4-30-12	Naphthalene	0.23	0.099	EPA 8270/SIM	4-27-12	4-30-12	
4-Chloroaniline ND 0.99 EPA 8270 4-27-12 4-28-12	4-Chloroaniline	ND	0.99	EPA 8270	4-27-12	4-28-12	
Hexachlorobutadiene ND 0.99 EPA 8270 4-27-12 4-28-12	Hexachlorobutadiene	ND	0.99	EPA 8270	4-27-12	4-28-12	
4-Chloro-3-methylphenol ND 0.99 EPA 8270 4-27-12 4-28-12	4-Chloro-3-methylphenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
2-Methylnaphthalene 0.11 0.099 EPA 8270/SIM 4-27-12 4-30-12	2-Methylnaphthalene	0.11	0.099	EPA 8270/SIM	4-27-12	4-30-12	
1-Methylnaphthalene 0.16 0.099 EPA 8270/SIM 4-27-12 4-30-12	1-Methylnaphthalene	0.16	0.099	EPA 8270/SIM	4-27-12	4-30-12	
Hexachlorocyclopentadiene ND 0.99 EPA 8270 4-27-12 4-28-12	Hexachlorocyclopentadiene	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,4,6-Trichlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12	2,4,6-Trichlorophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,3-Dichloroaniline ND 0.99 EPA 8270 4-27-12 4-28-12	2,3-Dichloroaniline	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,4,5-Trichlorophenol ND 0.99 EPA 8270 4-27-12 4-28-12	2,4,5-Trichlorophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
2-Chloronaphthalene ND 0.99 EPA 8270 4-27-12 4-28-12	2-Chloronaphthalene	ND	0.99	EPA 8270	4-27-12	4-28-12	
2-Nitroaniline ND 0.99 EPA 8270 4-27-12 4-28-12	2-Nitroaniline	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,4-Dinitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12	1,4-Dinitrobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
Dimethylphthalate ND 0.99 EPA 8270 4-27-12 4-28-12	Dimethylphthalate	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,3-Dinitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12	1,3-Dinitrobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,6-Dinitrotoluene ND 0.99 EPA 8270 4-27-12 4-28-12	2,6-Dinitrotoluene	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,2-Dinitrobenzene ND 0.99 EPA 8270 4-27-12 4-28-12	1,2-Dinitrobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
Acenaphthylene ND 0.099 EPA 8270/SIM 4-27-12 4-30-12	Acenaphthylene	ND	0.099	EPA 8270/SIM	4-27-12	4-30-12	
3-Nitroaniline ND 0.99 EPA 8270 4-27-12 4-28-12	3-Nitroaniline	ND	0.99	EPA 8270	4-27-12	4-28-12	

Date of Report: May 8, 2012 Samples Submitted: April 27, 2012 Laboratory Reference: 1204-174 Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM

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				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	KIP-0412-05					
Laboratory ID:	04-174-01					
2,4-Dinitrophenol	ND	5.0	EPA 8270	4-27-12	4-28-12	
Acenaphthene	1.0	0.99	EPA 8270	4-27-12	4-28-12	
4-Nitrophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,4-Dinitrotoluene	ND	0.99	EPA 8270	4-27-12	4-28-12	
Dibenzofuran	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,3,5,6-Tetrachlorophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
2,3,4,6-Tetrachlorophenol	ND	0.99	EPA 8270	4-27-12	4-28-12	
Diethylphthalate	ND	0.99	EPA 8270	4-27-12	4-28-12	
4-Chlorophenyl-phenylether	ND	0.99	EPA 8270	4-27-12	4-28-12	
4-Nitroaniline	ND	0.99	EPA 8270	4-27-12	4-28-12	
Fluorene	0.51	0.099	EPA 8270/SIM	4-27-12	4-30-12	
4,6-Dinitro-2-methylphenol	ND	5.0	EPA 8270	4-27-12	4-28-12	
n-Nitrosodiphenylamine	ND	0.99	EPA 8270	4-27-12	4-28-12	
1,2-Diphenylhydrazine	ND	0.99	EPA 8270	4-27-12	4-28-12	
4-Bromophenyl-phenylether	ND	0.99	EPA 8270	4-27-12	4-28-12	
Hexachlorobenzene	ND	0.99	EPA 8270	4-27-12	4-28-12	
Pentachlorophenol	ND	5.0	EPA 8270	4-27-12	4-28-12	
Phenanthrene	ND	0.099	EPA 8270/SIM	4-27-12	4-30-12	
Anthracene	ND	0.099	EPA 8270/SIM	4-27-12	4-30-12	
Carbazole	ND	0.99	EPA 8270	4-27-12	4-28-12	
Di-n-butylphthalate	ND	0.99	EPA 8270	4-27-12	4-28-12	
Fluoranthene	ND	0.099	EPA 8270/SIM	4-27-12	4-30-12	
Benzidine	ND	5.0	EPA 8270	4-27-12	4-28-12	
Pyrene	ND	0.099	EPA 8270/SIM	4-27-12	4-30-12	
Butylbenzylphthalate	ND	0.99	EPA 8270	4-27-12	4-28-12	
bis-2-Ethylhexyladipate	ND	5.0	EPA 8270	4-27-12	4-28-12	
3,3'-Dichlorobenzidine	ND	0.99	EPA 8270	4-27-12	4-28-12	
Benzo[a]anthracene	0.030	0.0099	EPA 8270/SIM	4-27-12	4-30-12	
Chrysene	0.022	0.0099	EPA 8270/SIM	4-27-12	4-30-12	
bis(2-Ethylhexyl)phthalate	ND	0.99	EPA 8270	4-27-12	4-28-12	
Di-n-octylphthalate	ND	0.99	EPA 8270	4-27-12	4-28-12	
Benzo[b]fluoranthene	0.077	0.050	EPA 8270/SIM	4-27-12	4-30-12	
Benzo(j,k)fluoranthene	0.057	0.050	EPA 8270/SIM	4-27-12 4-27-12	4-30-12	
Benzo[a]pyrene	0.057					
2 2. 7		0.050	EPA 8270/SIM	4-27-12	4-30-12	
Indeno[1,2,3-cd]pyrene	0.055 ND	0.050	EPA 8270/SIM	4-27-12 4-27-12	4-30-12	
Dibenz[a,h]anthracene		0.050	EPA 8270/SIM		4-30-12	
Benzo[g,h,i]perylene	0.071	0.050	EPA 8270/SIM	4-27-12	4-30-12	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	49 46	18 - 86				
Phenol-d6	46	10 - 88				
Nitrobenzene-d5	99	37 - 112				
2-Fluorobiphenyl	<i>70</i>	42 - 108				
2,4,6-Tribromophenol	80	39 - 118				
Terphenyl-d14	90	49 - 122				

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

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Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0427W1					
n-Nitrosodimethylamine	ND	1.0	EPA 8270	4-27-12	4-28-12	
Pyridine	ND	1.0	EPA 8270	4-27-12	4-28-12	
Phenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
Aniline	ND	5.0	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroethyl)ether	ND	1.0	EPA 8270	4-27-12	4-28-12	
2-Chlorophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Benzyl alcohol	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
2-Methylphenol (o-Cresol)	ND	1.0	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroisopropyl)ether	ND	1.0	EPA 8270	4-27-12	4-28-12	
(3+4)-Methylphenol (m,p-Cresol)	ND	1.0	EPA 8270	4-27-12	4-28-12	
n-Nitroso-di-n-propylamine	ND	1.0	EPA 8270	4-27-12	4-28-12	
Hexachloroethane	ND	1.0	EPA 8270	4-27-12	4-28-12	
Nitrobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Isophorone	ND	1.0	EPA 8270	4-27-12	4-28-12	
2-Nitrophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,4-Dimethylphenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
bis(2-Chloroethoxy)methane	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,4-Dichlorophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Naphthalene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
4-Chloroaniline	ND	1.0	EPA 8270	4-27-12	4-28-12	
Hexachlorobutadiene	ND	1.0	EPA 8270	4-27-12	4-28-12	
4-Chloro-3-methylphenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
2-Methylnaphthalene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
1-Methylnaphthalene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
Hexachlorocyclopentadiene	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,4,6-Trichlorophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,3-Dichloroaniline	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,4,5-Trichlorophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
2-Chloronaphthalene	ND	1.0	EPA 8270	4-27-12	4-28-12	
2-Nitroaniline	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,4-Dinitrobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Dimethylphthalate	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,3-Dinitrobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,6-Dinitrotoluene	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,2-Dinitrobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Acenaphthylene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
3-Nitroaniline	ND	1.0	EPA 8270	4-27-12	4-28-12	

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM METHOD BLANK QUALITY CONTROL

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
					•	
Laboratory ID:	MB0427W1					
2,4-Dinitrophenol	ND	5.0	EPA 8270	4-27-12	4-28-12	
Acenaphthene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
4-Nitrophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,4-Dinitrotoluene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Dibenzofuran	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,3,5,6-Tetrachlorophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
2,3,4,6-Tetrachlorophenol	ND	1.0	EPA 8270	4-27-12	4-28-12	
Diethylphthalate	ND	1.0	EPA 8270	4-27-12	4-28-12	
4-Chlorophenyl-phenylether	ND	1.0	EPA 8270	4-27-12	4-28-12	
4-Nitroaniline	ND	1.0	EPA 8270	4-27-12	4-28-12	
Fluorene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
4,6-Dinitro-2-methylphenol	ND	5.0	EPA 8270	4-27-12	4-28-12	
n-Nitrosodiphenylamine	ND	1.0	EPA 8270	4-27-12	4-28-12	
1,2-Diphenylhydrazine	ND	1.0	EPA 8270	4-27-12	4-28-12	
4-Bromophenyl-phenylether		1.0	EPA 8270	4-27-12	4-28-12	
Hexachlorobenzene	ND	1.0	EPA 8270	4-27-12	4-28-12	
Pentachlorophenol	ND	5.0	EPA 8270	4-27-12	4-28-12	
Phenanthrene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
Anthracene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
Carbazole	ND	1.0	EPA 8270	4-27-12	4-28-12	
Di-n-butylphthalate	ND	1.0	EPA 8270	4-27-12	4-28-12	
Fluoranthene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
Benzidine	ND	5.0	EPA 8270	4-27-12	4-28-12	
Pyrene	ND	0.10	EPA 8270/SIM	4-27-12	4-27-12	
Butylbenzylphthalate	ND	1.0	EPA 8270	4-27-12	4-28-12	
bis-2-Ethylhexyladipate	ND	5.0	EPA 8270	4-27-12	4-28-12	
3,3'-Dichlorobenzidine	ND	1.0	EPA 8270			
	ND ND	0.010		4-27-12 4-27-12	4-28-12 4-27-12	
Benzo[a]anthracene	ND ND		EPA 8270/SIM			
Chrysene	ND ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
bis(2-Ethylhexyl)phthalate		1.0	EPA 8270	4-27-12	4-28-12	
Di-n-octylphthalate	ND ND	1.0	EPA 8270	4-27-12	4-28-12	
Benzo[b]fluoranthene	ND ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
Benzo(j,k)fluoranthene	ND ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
Benzo[a]pyrene	ND ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
Indeno[1,2,3-cd]pyrene	ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
Dibenz[a,h]anthracene	ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
Benzo[g,h,i]perylene	ND	0.010	EPA 8270/SIM	4-27-12	4-27-12	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	46	18 - 86				
Phenol-d6	<i>39</i>	10 - 88				
Nitrobenzene-d5	<i>73</i>	37 - 112				
2-Fluorobiphenyl	<i>68</i>	42 - 108				
2,4,6-Tribromophenol	62	39 - 118				
Terphenyl-d14	82	49 - 122				

Project: 04209040.00

SEMIVOLATILES by EPA 8270D/SIM MS/MSD QUALITY CONTROL

Matrix: Water Units: ug/L

					Source	Per	cent	Recovery		RPD	
Analyte	Re	sult	Spike	Level	Result	Rec	overy	Limits	RPD	Limit	Flags
MATRIX SPIKES											_
Laboratory ID:	04-1	66-06									
	MS	MSD	MS	MSD		MS	MSD				
Phenol	282	307	160	160	127	97	113	25 - 113	8	29	
2-Chlorophenol	141	148	160	160	ND	88	93	47 - 100	5	24	
1,4-Dichlorobenzene	42.2	56.1	80.0	80.0	ND	53	70	43 - 92	28	33	
n-Nitroso-di-n-propylamine	91.1	70.1	80.0	80.0	ND	114	88	29 - 127	26	29	
1,2,4-Trichlorobenzene	47.3	51.4	80.0	80.0	ND	59	64	43 - 96	8	22	
4-Chloro-3-methylphenol	145	163	160	160	ND	91	102	64 - 109	12	21	
Acenaphthene	83.6	89.7	80.0	80.0	ND	105	112	61 - 113	7	18	
4-Nitrophenol	141	160	160	160	ND	88	100	19 - 121	13	28	
2,4-Dinitrotoluene	82.7	87.9	80.0	80.0	ND	103	110	54 - 110	6	23	
Pentachlorophenol	206	211	160	160	ND	129	132	29 - 143	2	30	
Pyrene	87.1	98.7	80.0	80.0	ND	109	123	63 - 124	12	14	
Surrogate:											
2-Fluorophenol						64	68	18 - 86			
Phenol-d6						99	100	10 - 100			
Nitrobenzene-d5						112	148	37 - 112			Q
2-Fluorobiphenyl						83	91	42 - 108			
2,4,6-Tribromophenol						88	91	39 - 118			
Terphenyl-d14						114	120	49 - 122			

Project: 04209040.00

DISSOLVED METALS EPA 200.8

Matrix: Water Units: ug/L (ppb)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	04-174-01					
Client ID:	KIP-0412-05					
Arsenic	ND	3.0	200.8		4-30-12	
Barium	550	25	200.8		4-30-12	
Cadmium	ND	4.0	200.8		4-30-12	
Copper	ND	10	200.8		4-30-12	
Lead	1.8	1.0	200.8		4-30-12	
Zinc .	ND	25	200.8		4-30-12	

Project: 04209040.00

DISSOLVED METALS EPA 200.8 METHOD BLANK QUALITY CONTROL

Date Analyzed: 4-30-12

Matrix: Water Units: ug/L (ppb)

Lab ID: MB0425F1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Barium	200.8	ND	25
Cadmium	200.8	ND	4.0
Copper	200.8	ND	10
Lead	200.8	ND	1.0
Zinc	200.8	ND	25

Project: 04209040.00

DISSOLVED METALS EPA 200.8 DUPLICATE QUALITY CONTROL

Date Analyzed: 4-30-12

Matrix: Water Units: ug/L (ppb)

Lab ID: 04-138-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.0	
Barium	ND	ND	NA	25	
Cadmium	ND	ND	NA	4.0	
Copper	ND	ND	NA	10	
Lead	ND	ND	NA	1.0	
Zinc	40.0	42.1	5	25	

Project: 04209040.00

DISSOLVED METALS EPA 200.8 MS/MSD QUALITY CONTROL

Date Analyzed: 4-30-12

Matrix: Water Units: ug/L (ppb)

Lab ID: 04-138-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	197	98	199	99	1	
Barium	200	200	100	202	101	1	
Cadmium	200	195	97	196	98	0	
Copper	200	192	96	191	95	1	
Lead	200	195	97	194	97	0	
Zinc	200	240	100	236	98	2	



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.
- N Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 Hydrocarbons in diesel range are impacting lube oil range results.
- O Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P The RPD of the detected concentrations between the two columns is greater than 40.
- Q Surrogate recovery is outside of the control limits.
- S Surrogate recovery data is not available due to the necessary dilution of the sample.
- T The sample chromatogram is not similar to a typical _____
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 The practical quantitation limit is elevated due to interferences present in the sample.
- V Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X Sample extract treated with a mercury cleanup procedure.
- Y Sample extract treated with an acid/silica gel cleanup procedure.

Z -

- ND Not Detected at PQL
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference



Chain of Custody

Page _____ of ___

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Data Package: Level III 🗌 Level IV 🗍

Electronic Data Deliverables (EDDs)