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January 20, 2012

Mr. Jason Shira
Site Manager
Toxics Cleanup Program
Department of Ecology
15 W. Yakima Avenue, Suite 200
Yakima, Washington 98902-3452

UPSS10118.02

Re: ***Third Quarterly Groundwater Monitoring Report, December 2011, UPS Union Gap (FSID #14724678, UST #3704), 501 West Valley Mall Boulevard, Union Gap, Yakima County, Washington***

Dear Mr. Shira:

Enclosed are three copies of the Third Quarterly Groundwater Monitoring Report, for the third round of quarterly sampling at the UPS facility in Union Gap, Washington. An electronic copy has also been forwarded to your email.

Should you have any questions, please contact me at ***770-874-4056.***

Sincerely,
Sierra Piedmont®, Inc.

Terri L. Drabek, PE
Senior Environmental Engineer

Robert Mangum
Project Operations Manager

Scott Pate
Washington PG #C-112

12045 Highway 92 • Woodstock, GA 30188 • Phone (770) 792-6200 • Toll Free (800) 805-6002 • Fax (770) 792-6005

Privately owned and headquartered in Woodstock, Georgia, Sierra Piedmont is a national leader in

environmental consulting, site assessments, compliance and remediation.

Our commitment to clients, client relationships, the markets we serve and proven solutions to environmental problems has been

our focus since 1996. Businesses from Fortune 100 companies to regional firms in 50 states rely on our advice, guidance and support to solve their environmental problems and limit liability. Our services have recently expanded to include strategic

planning and consultation with clients on environmental issues in addition to our core business of environmental site assessments, remediation and compliance work.

THIRD QUARTERLY GROUNDWATER MONITORING REPORT, DECEMBER 2011

AT
UPS UNION GAP
501 WEST VALLEY MALL BOULEVARD
UNION GAP, YAKIMA COUNTY, WASHINGTON
FACILITY ID #14724678
UST SITE ID #3704

January 20, 2012

PREPARED FOR:

Mr. Jason Shira
Site Manager
Toxics Cleanup Program
Washington Department of Ecology
15 W. Yakima Avenue, Suite 200
Yakima, WA 98902-3452

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1.0 INTRODUCTION AND BACKGROUND

Sierra Piedmont®, Inc. (Sierra) has previously completed a Limited Subsurface Investigation (LSI) and two of four quarterly groundwater monitoring events at the UPS, Union Gap, Washington site. A Work Plan outlining the LSI was provided to the Washington Department of Ecology (WDOE) for review and the WDOE approved the Work Plan (with two minor revisions) via correspondence dated April 26, 2010.

The LSI was conducted in response to a previous Early Notice Letter issued by the WDOE on October 29, 2007. The purpose of the LSI was to evaluate current subsurface soil and groundwater conditions in relation to a former gasoline underground storage tank (UST) and to properly abandon two groundwater monitoring wells located on-site.

This report documents the findings of the third quarter sampling event.

2.0 FIELD METHODS

On Thursday, December 15, 2011, Sierra personnel were present at the UPS, Union Gap, Washington, facility to commence groundwater purging and sampling activities at the three onsite groundwater monitoring wells (Figures 1 and 2).

Initially, each well cap was removed and the well allowed to equilibrate for no less than 30 minutes. Each well was opened and a groundwater level measurement was obtained using a decontaminated ORS® Small Diameter Interface Probe. Prior to and between measurements, the probe was decontaminated using a distilled water and Alconox® surfactant scrub and triple-distilled-water rinse. Groundwater levels were recorded on field notes presented in Table 1 and Attachment A. Top of casing elevations are taken from the *Limited Subsurface Investigation* report for this facility.

Table 1 – Groundwater Levels

Depth to Water (feet)	Total Well Depth (feet)	Top of Casing Elevation – Relative (feet)	Well	Top of Casing Elevation Reference to USGS Map (feet)	Groundwater Elevation (feet)
8.17	14.52	99.25	MW-1	999.25	991.08
7.35	13.10	98.61	MW-2	998.61	991.26
7.67	13.34	98.97	MW-3	998.97	991.30

Groundwater purging was conducted using a non-contact, peristaltic electric pump (Solinst 410) and new tubing. Groundwater collected during purging was placed in five-gallon buckets and temporarily stored within a designated area of the UPS site. It is stored pending laboratory analytical results for waste characterization.

A Horiba® U-22 Multi-Parameter Meter was placed into a flow-through cell and attached to the effluent side of the pump tubing. This device was used to measure pH, temperature, and conductivity. Parameter readings were obtained initially and at five-minute intervals thereafter. Groundwater purge data is presented in Tables 2 through 4 and Attachment A.

Table 2 – Groundwater Purging Parameters
Monitoring Well MW-1

Time	pH	Temperature (Celsius)	Conductivity (mS/cm)	Oxidation-Reduction Potential (mv)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
10:00	7.16	15.31	0.273	155	4.98	0.0
10:05	6.81	15.25	0.261	156	5.01	0.0
10:10	6.64	15.21	0.251	166	4.46	0.0
10:15	6.56	15.22	0.247	171	5.07	3.7
10:20	6.53	15.05	0.236	177	5.01	0.0
10:25	6.51	15.12	0.240	182	5.08	0.0
10:30	6.51	15.08	0.239	181	5.06	0.0
10:35	6.52	15.11	0.240	181	5.08	0.0

(mS/cm) = milliSiemens per centimeter
NTU = nephelometric turbidity units

Table 3 – Groundwater Purging Parameters
Monitoring Well MW-2

Time	pH	Temperature (Celsius)	Conductivity (mS/cm)	Oxidation-Reduction Potential (mv)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
12:45	7.23	15.7	0.225	147	5.37	0.0
12:50	6.42	15.8	0.229	183	4.99	0.0
12:55	6.37	15.8	0.230	191	4.84	0.0
13:00	6.38	15.8	0.230	193	4.86	0.0
13:05	6.37	15.8	0.230	195	4.88	0.0
13:10	6.37	15.8	0.230	195	4.87	0.0
13:15	6.37	15.8	0.230	194	4.87	0.0

(mS/cm) = milliSiemens per centimeter
NTU = nephelometric turbidity units

Table 4 – Groundwater Purging Parameters
Monitoring Well MW-3

Time	pH	Temperature (Celsius)	Conductivity (mS/cm)	Oxidation-Reduction Potential (mv)	Dissolved Oxygen (mg/L)	Turbidity (NTU)
11:30	6.95	14.9	0.228	155	6.58	0.0
11:35	6.88	15.6	0.231	160	6.62	0.0
11:40	6.91	15.8	0.230	168	6.70	0.0
11:45	6.57	16.0	0.230	170	5.25	0.0
11:50	6.56	16.0	0.230	171	5.20	0.0
11:55	6.57	16.0	0.229	170	5.15	0.0
12:00	6.57	16.0	0.228	171	5.10	0.0
12:20	6.56	16.1	0.229	171	5.09	0.0
12:25	6.56	16.0	0.229	172	5.10	0.0
12:30	6.56	16.0	0.228	171	5.09	0.0

(mS/cm) = milliSiemens per centimeter
NTU = nephelometric turbidity units

Stabilization of parameters such as pH, conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity were used to determine when formation water is accessed during purging. The stabilization criterion is based on three successive readings of the water quality field parameters, except for temperature, which is recorded, but not used as a stabilization parameter. The following are the criteria which were used:

Table 5 – Stabilization Parameters

Parameter	Stabilization Criteria
pH	+/- 0.1 pH Units
Conductivity	+/- 3% mS/cm
Oxidation-Reduction Potential	+/- 10 millivolts
Turbidity	+/- 10% NTUs (when turbidity is greater than 10 NTUs)
Dissolved Oxygen	+/-10% mg/L

Groundwater samples from each well were collected immediately after purging for analysis for the presence of the following: volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), 1,2-dichloroethane (EDC), and naphthalene, by EPA-approved Method 8260C; 1,2dibromoethane (EDB) by EPA approved Method 504.1; total petroleum hydrocarbons (TPH) gasoline range organics (GRO), by Method Northwest (NW) NWTPH-Gx; TPH diesel range organics (DR)), by Method NWTPH-Dx; and total lead, by EPA-approved Method 6010. A blind duplicate sample (MW-11) was collected from MW-1, to be analyzed for the same parameters for quality assurance purposes.

Chain-of-custody protocol was followed in sample collection, handling, transport, and receipt by the laboratory, Columbia Analytical Services, 1317 South 13th Avenue, Kelso, Washington. All groundwater samples were transported via UPS to Columbia. All reporting forms, including the Certificate of Analysis and Chain-of-Custody form are presented in Attachment B.

3.0 ANALYTICAL RESULTS

The analytical results for groundwater samples collected during the December 2011 sampling event are presented in Table 6 and Attachment B.

Quality assurance/quality control (QA/QC) groundwater samples were obtained. One blind duplicate sample, MW-11, as well as matrix spike/matrix spike duplicates (MS/MSC) and a trip blank were laboratory analyzed. Additionally, the laboratory reported matrix interference in all NWTPH-Dx samples, which elevated the method reporting limit (MRL).

Laboratory analytical results for the first, second, and third quarterly sampling events are presented in Table 7.

Table 6 – Summary of Analytical Results for Groundwater Samples

Analytical Parameter	**Analytical Method**	**Method A Groundwater Quality Standard** (µg/L)	**Method Reporting Limit (MRL)** (µg/L)	**MW-1** (µg/L)	**MW-11 (Blind Duplicate of MW-1)** (µg/L)	**MW-2** (µg/L)	**MW-3** (µg/L)
Diesel Range Organics (DRO)	NWTPH-Dx	500	240	ND	ND	ND	ND
Gasoline Range Organics (GRO)	NWTPH-Gx	1,000+	250	ND	ND	ND	ND
Benzene	EPA Method 8260C	5	0.5	ND	ND	ND	ND
Toluene	EPA Method 8260C	1,000	0.5	ND	ND	ND	ND
Ethylbenzene	EPA Method 8260C	700	0.5	ND	ND	ND	ND
M,p-Xylenes	EPA Method 8260C	1,000*	0.5	ND	ND	ND	ND
o-Xylenes	EPA Method 8260C	1,000*	0.5	ND	ND	ND	ND
Methyl tert-Butyl Ether (MTBE)	EPA Method 8260C	20	0.5	ND	ND	ND	ND
1,2-Dichloroethane (EDC)	EPA Method 8260C	5	0.5	ND	ND	ND	ND
1,2-Dibromomethane (EDB)	EPA Method 504.1	0.01(1)	0.0096	ND	ND	ND	ND
Naphthalene	EPA Method 8260C	160(2)	2.0	ND	ND	ND	ND
Lead	EPA Method 6010C	15(3)	0.02	0.18	0.08	ND	0.03

Notes:

* = The standard is for total xylenes
µg/L = micrograms per liter
ND = non-detect
+ = Cleanup level with no benzene detected in groundwater
(1) = Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit
(2) = This is the value for total naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene
(3) = Cleanup level based on applicable State and Federal regulations (40 CFR §141.80)

4.0 CONCLUSIONS

Findings for the December 2011 groundwater monitoring event are as follows:

- NWTPH-DRO and NWTPH-GRO were not detected above the laboratory reporting limits in any sample.
- VOCs were not detected above the laboratory reporting limits in any sample.
- Total lead was detected in concentrations below the method groundwater quality standard, in MW-1 and MW-3.

Sierra will schedule the next quarterly groundwater monitoring event for March 2012. UPS will be contacted prior to mobilization to finalize coordination of scheduling.

5.0 RECOMMENDATIONS

This is the report for the third quarterly sampling at UPS, Union Gap, Washington. It is recommended to continue with the final quarterly sampling event that is scheduled for March 2012. A request for No Further Action, if appropriate, will be made after the March event.

FIGURES

Figure 1 – Area Map
Figure 2 – Potentiometric Surface Map

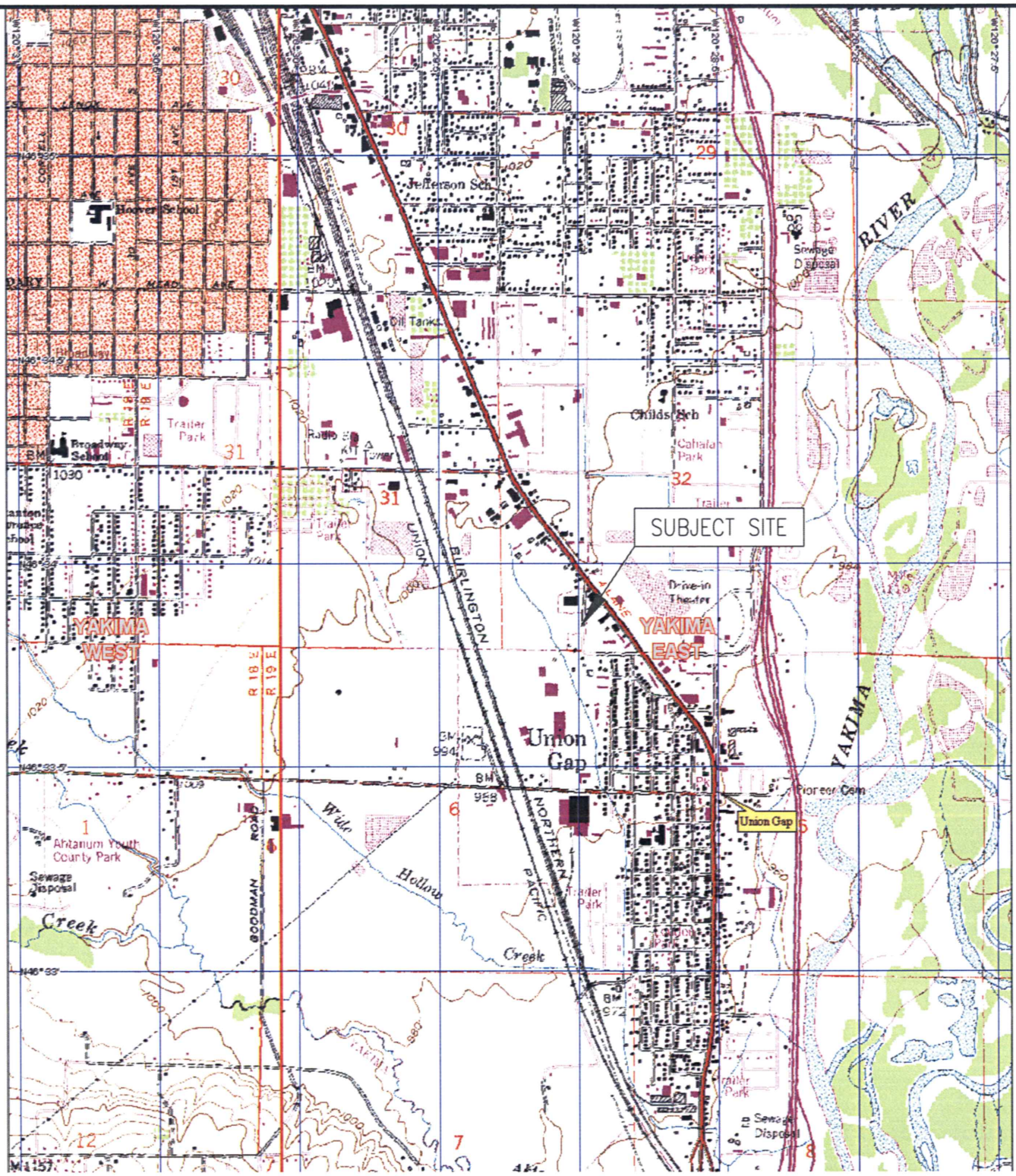
TABLE

Table 7 – Summary of Analytical Results for Groundwater Samples for Completed Events

ATTACHMENTS

Attachment A – Field Notes
Attachment B – Laboratory Analytical Report and Chain-of-Custody

FIGURES



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UPS UNION GAP PACKAGE CENTER
501 WEST VALLEY MALL BOULEVARD
UNION GAP, YAKIMA COUNTY, WASHINGTON 98903

AREA MAP
YAKIMA EAST (WA) – ORIG. DATE 1985

SCALE: NTS	DRAWN BY: JRG	DRAWING NO. UPSS10118.02	REV. NO.
DATE: 1/18/2012	CHECKED BY: RM	FIGURE 1	0
REVISION DATE:	APPROVED BY: TLD		

N

SOUTH OLD TOWN ROAD

ASPHALT PARKING LOT

UPS FACILITY

WEST VALLEY MALL BLVD

ENLARGED AREA A

MW-03

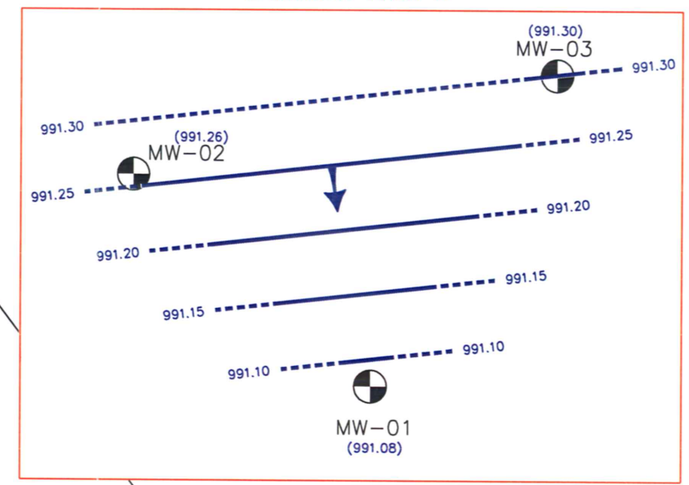
MW-02

MW-01

LEGEND:

MW-01	GROUNDWATER MONITORING WELL
	CONCRETE SURFACE
	INTERPRETED GROUNDWATER CONTOUR
	INFERRED GROUNDWATER CONTOUR
	INTERPRETED GROUNDWATER FLOW DIRECTION
(991.30)	GROUNDWATER ELEVATION, FT
991.10	GROUNDWATER CONTOUR ELEVATION, FT

ENLARGED AREA A



0 40' 80'

SCALE: 1"=40'

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UNION GAP, YAKIMA COUNTY, WASHINGTON

POTENTIOMETRIC SURFACE MAP
12/15/2011

SCALE: AS SHOWN	DRAWN BY: JRG	DRAWING NO. UPSS10118.02	REV. NO.
DATE: 1/18/2012	CHECKED BY: RM	FIGURE 2	1
REVISION DATE:	APPROVED BY:		

TABLE

Table 7 - Summary of Analytical Results for Groundwater Samples for Completed Sampling Events

Analytical Parameter	Analytical Method	Method A Groundwater Quality Standard (µg/L)	MW-1 (µg/L)	MW-11 (blind duplicate of MW-1) (µg/L)	MW-2 (µg/L)	MW-3 (µg/L)	MW-1 (µg/L)	MW-11 (blind duplicate of MW-2) (µg/L)	MW-2 (µg/L)	MW-3 (µg/L)	MW-1 (µg/L)	MW-11 (blind duplicate of MW-1) (µg/L)	MW-2 (µg/L)	MW-3 (µg/L)
			June-11				September-11				December-11			
Diesel Range Organics (DRO)	NWTPH-Dx	500	<780	<780	<780	<780	<520	<520	<520	<520	<240	<240	<240	<240
Gasoline Range Organics (GRO)	NWTPH-Gx	1000[+]	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
Benzene	EPA Method 8260C	5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	EPA Method 8260C	1,000	<0.50	<0.50	<0.50	<0.50	0.11[(4)]	0.11[(4)]	0.12[(4)]	0.13[(4)]	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	EPA Method 8260C	700	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
M p-Xylenes	EPA Method 8260C	1000*	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
0-Xylenes	EPA Method 8260C	1000*	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl tert-Butyl Ether (MTBE)	EPA Method 8260C	20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane (EDC)	EPA Method 8260C	5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromomethane (EDB)	EPA Method 504.1	0.01[(1)]	<2.0	<2.0	<2.0	<2.0	<0.0095	<0.0095	<0.0095	<0.0095	<0.0096	<0.0096	<0.0096	<0.0096
Naphthalene	EPA Method 8260C	160[(2)]	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Lead	EPA Method 8260C	15[(3)]	<50	<50	<50	<50	<10	<10	<10	<10	0.18	0.08	<0.02	0.03

Notes:

* = The standard is for total xylenes

µg/L = micrograms per liter

ND = non-detect

[+] = Cleanup level with no benzene detected in groundwater

[(1)] = Cleanup level based on concentration derived using Equation 720-2, adjusted for the practical quantitation limit

[(2)] = This is the value for total naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene

[(3)] = Cleanup level based on applicable State and Federal regulations (40 CFR§ 141.80)

[(4)] = The result is an estimated value which was recorded under the MRL

ATTACHMENT A

APPENDIX C
EXAMPLE (Minimum Requirements)
WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) UPS-Union Gap, WA
Well Number MW-01 Date 12-15-2011
Field Personnel R. Mangum
Sampling Organization Sierra Piedmont
Identify MP Black Mark North Side Top of Casing

Depth to (below MP) top 4.52' 4.83' / bottom 14.52' 14.83' ft/m 12/15/11 of screen
Pump Intake at (ft. below MP) 9.50'
Purging Device; (pump type) Peristaltic
Total Volume Purged ≅ .4 gallons

Total Calculated 3 volumes = 3 3.24 gallons

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	APPROX Purge Rate ml/min	APPROX. Cum. Volume Purged liters	Temp. °C	Spec. Cond.[2] µS/cm mS/cm	pH	ORP[3] mv	DO mg/L	Turb-idity NTU	Comments
~~1000~~ 0800	8.17'	1/2	100 ml/min	0	15.3	0.273	7.16	~~NM~~ 155 Rzm	4.98	0.0	Initial
1005	8.17'	1/2	100 ml/min	500	15.5	0.261	6.81	156	5.01	0.0	
1010	8.17'	Full	200 ml/min	~~1,500~~ 1500 Rzm	15.8	0.251	6.64	166	4.96	0.0	
1015	8.17'	Full	200 ml/min	~~2,000~~ 3,500 Rzm	15.8	0.247	6.56	171	5.07	3.7	
1020	8.17'	Full	200 ml/min	3,500 ~~2,000~~ Rzm	15.6	0.236	6.53	177	5.01	0.0	
1025	8.17'	Full	200 ml/min	6,500	15.8	0.240	6.51	182	5.08	0.0	
1030	8.17'	Full	200 ml/min	7,500	15.8	0.234	6.51	181	5.06	0.0	
1035	8.17'	Full	200 ml/min	8,500	15.7	0.240	6.52	181	5.08	0.0	
Stabilization Criteria					3%	3%	±0.1	± 10 mv	10%	10%	

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25 °C.
3. Oxidation reduction potential (ORP)

Specific Conductance (3%),
Temperature (3%),
pH (± 0.1 unit),

Turbidity (10% for values greater than 5 NTUs; if three Turbidity values are les than 5 NTUs, consider the values as stabilized),
Dissolved Oxygen (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),

APPENDIX C
EXAMPLE (Minimum Requirements)
WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) UPS-Union Gap
Well Number MW-02 Date 12-15-2011
Field Personnel R. Mangum
Sampling Organization Stewa Piedmont
Identify MP Black Mark North Side Top of Casing

Depth to 3.10, 3.48 / 13.10, 13.48 Rem 12-15-11 of screen
(below MP) top bottom
Pump Intake at (ft. below MP) 8.00'
Purging Device; (pump type) Peristaltic
Total Volume Purged ≈ 3 gallons

Total Calculated 3 volumes is 2.94 gallons

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged liters	Temp. °C	Spec. Cond.[2] µS/cm	pH	ORP[3] mv	DO mg/L	Turb-idity NTU	Comments
~~0810~~ 1245 Rem	7.35'	Full	≈ 1 pint/min	0	15.7	0.225	7.23	147	5.37	0.0	Initial
1250	7.35'	Full	≈ 1 pint/min	½ gallon	15.8	0.229	6.42	183	4.99	0.0	
1255	7.35'	Full	≈ 1 pint/min	1 gallon	15.8	0.230	6.37	191	4.84	0.0	
1300	7.35'	Full	≈ 1 pint/min	1 ½ gallon	15.8	0.230	6.38	193	4.86	0.0	
1305	7.35'	Full	≈ 1 pint/min	2 gallon	15.8	0.230	6.37	195	4.88	0.0	
1310	7.35'	Full	≈ 1 pint/min	2 ½ gallon	15.8	0.230	6.37	195	4.87	0.0	
1315	7.35'	Full	≈ 1 pint/min	3 gallon	15.8	0.230	6.37	194	4.87	0.0	
Stabilization Criteria					3%	3%	±0.1	± 10 mv	10%	10%	

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25 °C.
3. Oxidation reduction potential (ORP)

Specific Conductance (3%),
Temperature (3%),
pH (± 0.1 unit),
Turbidity (10% for values greater than 5 NTUs; if three Turbidity values are les than 5 NTUs, consider the values as stabilized),
Dissolved Oxygen (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),

APPENDIX C
EXAMPLE (Minimum Requirements)
WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) UPS-Union Gap, WA
Well Number MW-03 Date 12-15-2011
Field Personnel R. Mangum
Sampling Organization Sierra Piedmont
Identify MP Black Mark on north side top of casing

Depth to 3.34' / 13.34' of screen (below MP) top bottom
Pump Intake at (ft. below MP) 8.50'
Purging Device; (pump type) Peristaltic
Total Volume Purged ≅ 3 gallons

Total Calculated 3 volumes ;3 2.88 gallons

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged liters	Temp. °C	Spec. Cond.[2] µS/cm	pH	ORP[3] mv	DO mg/L	Turb-idity NTU	Comments
~~1130~~ ~~0815~~	7.67'	1/2	≅ 1 cup per min	—	14.9	0.228	6.45	155	6.58	0.0	Initial
1135	7.65	Full	≅ 1 pint per min	≅ 1/4 gallon	15.6	0.231	6.88	160	6.62	0.0	
1140	7.65	Full	≅ 1 pint/min	≅ 1/2 gallon	15.8	0.230	6.91	168	6.70	0.0	
1145	7.65'	Full	≅ 1 pint/min	≅ 3/4 gallon	16.0	0.230	6.57	170	5.25	0.0	
1150	7.65'	Full	≅ 1 pint/min	≅ 1 gallon	16.0	0.230	6.56	171	5.20	0.0	
1155	7.65'	Full	≅ 1 pint/min	≅ 1 1/4 gallon	16.0	0.229	6.57	170	5.15	0.0	
1200	7.65'	Full	≅ 1 pint/min	≅ 1 1/2 gallons	16.0	0.228	6.57	171	5.10	0.0	
1220	7.65'	Full	≅ 1 pint/min	≅ 2 gallons	16.1	0.229	6.56	171	5.09	0.0	
1225	7.65'	Full	≅ 1 pint/min	≅ 2 1/4 gallons	16.0	0.229	6.56	172	5.10	0.0	
1230	7.65'	Full	≅ 1 pint/min	≅ 2 1/2 gallons	16.0	0.228	6.56	171	5.09	0.0	Purged ≅ 1/2 gallon additional
Stabilization Criteria					3%	3%	±0.1	± 10 mv	10%	10%	

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25 °C.
3. Oxidation reduction potential (ORP)

Turbidity (10% for values greater than 5 NTUs; if three Turbidity values are le than 5 NTUs, consider the values as stabilized),
Dissolved Oxygen (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),
Specific Conductance (3%),
Temperature (3%),
pH (± 0.1 unit),
Oxidation/Reduction Potential (±10 millivolts).

ATTACHMENT B

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

January 12, 2012

Analytical Report for Service Request No: K1112203
Revised Service Request No: K1112203.01

Terri Drabek
Sierra Piedmont
12045 Highway 92
Woodstock, GA 30188

RE: UPS Union Gap, WA

Dear Terri:

Enclosed are the revised pages for the samples submitted to our laboratory on December 16, 2011. For your reference, these analyses have been assigned our service request number K1112203.

Report revised to reflect a lower reporting limit for Method NWTPH-Dx.

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

We apologize for any inconvenience this may have created.

Please call if you have any questions. My extension is 3363. You may also contact me via Email at LDomenighini@caslab.com.

Respectfully submitted,

Columbia Analytical Services, Inc.

Lisa Domenighini
Project Chemist

LD/ln

REVISED
9:52 am, Jan 16, 2012

Acronyms

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

Inorganic Data Qualifiers

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

Metals Data Qualifiers

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

Organic Data Qualifiers

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

Additional Petroleum Hydrocarbon Specific Qualifiers

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

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

Agency	Number
Alaska DEC UST	UST-040
Arizona DHS	AZ0339
Arkansas - DEQ	88-0637
California DHS	2286
DOD ELAP	L11-119
Florida DOH	E87412
Georgia DNR	881
Hawaii DOH	-
Idaho DHW	-
Indiana DOH	C-WA-01
ISO 17025	L11-118
Louisiana DEQ	3016
Louisiana DHH	LA080001
Maine DHS	WA0035
Michigan DEQ	9949
Minnesota DOH	053-999-368
Montana DPHHS	CERT0047
Nevada DEP	WA35
New Jersey DEP	WA005
New Mexico ED	-
North Carolina DWQ	605
Oklahoma DEQ	9801
Oregon – DEQ (NELAP)	WA100010
South Carolina DHEC	61002
Texas CEQ	04704427-08-TX
Washington DOE	C1203
Wisconsin DNR	998386840
Wyoming (EPA Region 8)	-

Case Narrative

COLUMBIA ANALYTICAL SERVICES, INC.

Client:	Sierra Piedmont	**Service Request No.:**	K1112203
Project:	UPS Union Gap, WA	**Date Received:**	12/16/11
Sample Matrix:	Water		

CASE NARRATIVE
Revision .01

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

Sample Receipt

Four water samples and a trip blank were received for analysis at Columbia Analytical Services on 12/16/11. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Total Metals

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

Diesel Range Organics and Organic Range Organics by NWTPH Dx

On January 12, 2011 Terri Drabek with Sierra Piedmont requested that the NWTPH Dx method be evaluated to a lower reporting limit. Terri Drabek was requested by Jason Shira with Washington State Department of Ecology to report the sum of the diesel and residual range organics under the NWTPH-Dx as one reported value.
The data was evaluated and determined that the method reporting limit could be lowered. Due to limitations in the laboratorie's reporting systems the combined value was not reported in this revised report.
Terri Drabek stated that Sierra Piedmont would sum the diesel and residual organic range values on the final submission to Washington State Department of Ecology.

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

Gasoline Range Organics by NWTPH Gx

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

Volatile Organic Compounds by EPA Method 8260

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

EDB and DBCP by EPA Method 504.1

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

REVISED
9:52 am, Jan 16, 2012

Approved by Lisa A Domenighini **Date** 1/12/12

Chain of Custody

Columbia Analytical Services

28085 CHAIN OF CUSTODY

SR# K1112203

COC Set ____ of ____

Page 1 OF 1 COC# ____

1317 South 13th Ave, Kelso, WA 98626 | 360.577.7222 | 800.695.7222 | 360.636.1068 (fax)

Project Name	UPS Union Gap, WA
Project Number	
Project Manager	T. Drabek
Company Name	Sierra Piedmont
Company Address	12045 Highway 92
City/State/Zip	Woodstock GA 30188
E-Mail Address	rmangum@sierrapiedmont.com
Phone #	770-874-4055
FAX #	
Sampler Signature	Robert Mangum

	Sample ID	Date	Time	Lab ID	Matrix	Number of Containers	14D: 8260B / VOC_FP	14D: NWTPH-Dx / NW_TPH	14D: NWTPH-Gx / NW_GAS	28D: 504.1 / EDB DBCP	180D: 200.8 / Metals T	Remarks
1	MW-01	12/15/11	1045		GW	9	✓	✓	✓	✓	✓	1
2	MW-11	12/15/11	1100		GW	9	✓	✓	✓	✓	✓	2
3	MW-02	12/15/11	1415		GW	13	✓	✓	✓	✓	✓	3 Incl. Separate Volumes for MS/MSD on Method 8260B + EDB (504.1)
4	MW-03	12/15/11	1230		GW	9	✓	✓	✓	✓	✓	4
5	*											5
6												6
7												7
8												8
9												9
10												10
11												11

Report Requirements

- ___ I. Routine Report: Method Blank, Surrogate, as required
- ✓ II. Report Dup, MS, MSD as required
- ___ III. Data Validation Report (includes all raw data)
- ___ IV. CLP Deliverable Report
- ___ V. EDD

Invoice Information

P.O.# ____

Bill To: ____

Turnaround Requirements

- ___ 24 hr. ___ 48 hr.
- ___ 5 Day
- ___ Standard (10-15 working days)
- ___ Provide Fax Results

Requested Report Date ____

Circle which metals are to be analyzed

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Special Instructions/Comments: *Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other____ (Circle One)

See Attached Page for detection limits specified by WDOE for specific analyses.

* Rec'd 2 trip blanks - BT 12/16/11

☐ Sample Shipment contains USDA regulated soil samples (check box if applicable)

Relinquished By:	Received By:	Relinquished By:	Received By:
Signature:	Signature: J223698471S	Signature:	Signature:
Date/Time: 12/15/11 1433	Date/Time: 12/15/11 1433	Date/Time:	Date/Time: 12/16/11 1050
Printed Name: Robert Mangum	Printed Name: UPS	Printed Name:	Printed Name:
Firm: Sierra Piedmont	Firm: UPS	Firm:	Firm: CAS

8

We would like for you to provide a list of Test Methods accredited by the Washington Department of Ecology (DOE) to analyze the constituents at the detection limits set forth below. Your list should include the corresponding detection limit for that method, and the price per sample.

Constituents to Analyze	Detection Limit
Benzene	5 µg/L
Toluene	1,000 µg/L
Ethylbenzene	700 µg/L
Xylenes	1,000 µg/L
Methyl tert-butyl ether (MTBE)	20 µg/L
Ethylene Dibromide/1,2-dibromomethane (EDB)	0.01 µg/L
1,2-dichloroethane (EDC)	5 µg/L
Naphthalenes (Included in 8260B)	160 µg/L
1-methylnaphthalene	
2-methylnaphthalene	
naphthalene	
Lead	15 µg/L
NWTPH-Gx	800 µg/L
NWTPH-Dx (Diesel Range Organics)	500 µg/L
(Heavy Oils)	500 µg/L

For reporting purposes, we will need the analytical data results submitted to us via hard copy and in a spreadsheet format compatible with Washington DOE electronic information management (EIM) requirements.

PC Lisa

Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form

Client / Project: Sierra Piedmont Service Request *K11* 12203

Received: 12/16/11 Opened: 12/16/11 By: BT Unloaded: 12/16/11 By: BT

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

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID (NA)	Tracking Number	NA	Filed
-0.6	0.7	265		J223609847 24		
-0.5	0.5	318		J223609847 15		

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

Sample ID on Bottle	Sample ID on COC	Identified by:
MW -	MW-03	Time | process of elimination *

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

Notes, Discrepancies, & Resolutions: * Client wrote "MW-" on the 500 mL glass HCL bottle - placed by process of elimination

** Rec'd 2 trip blanks not listed on COC

Metals

COLUMBIA ANALYTICAL SERVICES, INC.

- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

Client : Sierra Piedmont, Inc.
Project Name : UPS Union Gap, WA
Project No. : NA

Service Request : K1112203

Sample Name :	Lab Code :
MW-01	K1112203-001
MW-11	K1112203-002
MW-02	K1112203-003
MW-02	K1112203-003D
MW-02	K1112203-003S
MW-03	K1112203-004
Laboratory Control Sample	K1112203-LCS
Method Blank	K1112203-MB

Comments:

Approved By: SC Date: 1/4/12

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client :	Sierra Piedmont, Inc.	**Service Request :**	K1112203
Project Name :	UPS Union Gap, WA	**Date Collected :**	12/15/11
Project No. :	NA	**Date Received :**	12/16/11
Matrix :	Water	**Date Extracted :**	12/27/11

Total Metals
Units: ug/L (ppb)

Analyte:	Lead
Analysis Method:	200.8
Method Reporting Limit:	0.02
Date Analyzed:	12/29/11

Sample Name	Lab Code	
MW-01	K1112203-001	0.18
MW-11	K1112203-002	0.08
MW-02	K1112203-003	ND
MW-03	K1112203-004	0.03
Method Blank	K1112203-MB	ND

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client : Sierra Piedmont, Inc.
Project Name : UPS Union Gap, WA
Project No. : NA
Matrix : Water

Service Request : K1112203
Date Collected : 12/15/11
Date Received : 12/16/11
Date Extracted : 12/27/11
Date Analyzed : 12/29/11

Duplicate Summary
Total Metals

Sample Name : MW-02
Lab Code : K1112203-003D

Units : ug/L (ppb)
Basis : NA

Analyte	Analysis	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
Lead	200.8	0.02	ND	ND	ND	-	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Sierra Piedmont, Inc.	**Service Request :**	K1112203
Project Name :	UPS Union Gap, WA	**Date Collected :**	12/15/11
Project No. :	NA	**Date Received :**	12/16/11
Matrix :	Water	**Date Extracted :**	12/27/11
		Date Analyzed :	12/29/11

Matrix Spike Summary
Total Metals

Sample Name :	MW-02	**Units :**	ug/L (ppb)
Lab Code :	K1112203-003S	**Basis :**	NA

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits	Result Notes
Lead	0.02	50.0	ND	49.3	99	70-130	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client :	Sierra Piedmont, Inc.	**Service Request :**	K1112203
Project Name :	UPS Union Gap, WA	**Date Collected :**	NA
Project No. :	NA	**Date Received :**	NA
Matrix :	Water	**Date Extracted :**	12/27/11
		Date Analyzed :	12/29/11

Laboratory Control Sample Summary
Total Metals

Sample Name :	Laboratory Control Sample	**Units :**	ug/L (ppb)
Lab Code :	K1112203-LCS	**Basis :**	NA

Analyte	Analysis Method	True Value	Result	Percent	CAS Percent Recovery Acceptance Limits	Result Notes
Lead	200.8	50.0	49.8	100	85-115	

Comments:

Diesel and Residual Range Organics

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Diesel and Residual Range Organics

Sample Name:	MW-01	**Units:**	ug/L
Lab Code:	K1112203-001	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	120	1	12/19/11	12/21/11	KWG1112766	
Residual Range Organics (RRO)	ND	U	120	1	12/19/11	12/21/11	KWG1112766	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	112	50-150	12/21/11	Acceptable
n-Triacontane	118	50-150	12/21/11	Acceptable

REVISED
9:53 am, Jan 16, 2012

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Diesel and Residual Range Organics

Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	K1112203-002	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	110	1	12/19/11	12/21/11	KWG1112766	
Residual Range Organics (RRO)	ND	U	110	1	12/19/11	12/21/11	KWG1112766	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	113	50-150	12/21/11	Acceptable
n-Triacontane	115	50-150	12/21/11	Acceptable

REVISED
9:53 am, Jan 16, 2012

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Diesel and Residual Range Organics

Sample Name:	MW-02	**Units:**	ug/L
Lab Code:	K1112203-003	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	110	1	12/19/11	12/21/11	KWG1112766	
Residual Range Organics (RRO)	ND	U	110	1	12/19/11	12/21/11	KWG1112766	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	111	50-150	12/21/11	Acceptable
n-Triacontane	111	50-150	12/21/11	Acceptable

REVISED
9:53 am, Jan 16, 2012

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Diesel and Residual Range Organics

Sample Name:	MW-03	**Units:**	ug/L
Lab Code:	K1112203-004	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	110	1	12/19/11	12/21/11	KWG1112766	
Residual Range Organics (RRO)	ND	U	110	1	12/19/11	12/21/11	KWG1112766	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	101	50-150	12/21/11	Acceptable
n-Triacontane	105	50-150	12/21/11	Acceptable

REVISED
9:53 am, Jan 16, 2012

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1112766-3	**Basis:**	NA
Extraction Method:	EPA 3510C	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	100	1	12/19/11	12/21/11	KWG1112766	
Residual Range Organics (RRO)	ND	U	100	1	12/19/11	12/21/11	KWG1112766	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	91	50-150	12/21/11	Acceptable
n-Triacontane	93	50-150	12/21/11	Acceptable

REVISED
9:53 am, Jan 16, 2012

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3510C
Analysis Method: NWTPH-Dx

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2
MW-01	K1112203-001	112	118
MW-11	K1112203-002	113	115
MW-02	K1112203-003	111	111
MW-03	K1112203-004	101	105
Method Blank	KWG1112766-3	91	93
Lab Control Sample	KWG1112766-1	105	104
Duplicate Lab Control Sample	KWG1112766-2	104	101

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9:53 am, Jan 16, 2012

Surrogate Recovery Control Limits (%)

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

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

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Extracted:**	12/19/2011
Sample Matrix:	Water	**Date Analyzed:**	12/21/2011

Lab Control Spike/Duplicate Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	EPA 3510C	**Units:**	ug/L
Analysis Method:	NWTPH-Dx	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1112766

	Lab Control Sample KWG1112766-1 Lab Control Spike			Duplicate Lab Control Sample KWG1112766-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Expected**	**%Rec**	**Result**	**Expected**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Diesel Range Organics (DRO)	1920	1600	120	1860	1600	116	46-140	3	30
Residual Range Organics (RRO)	841	800	105	792	800	99	45-159	6	30

REVISED
9:53 am, Jan 16, 2012

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

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

Gasoline Range Organics

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Gasoline Range Organics

Sample Name:	MW-01	**Units:**	ug/L
Lab Code:	K1112203-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	NWTPH-Gx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	12/20/11	12/20/11	KWG1112886	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	86	50-150	12/20/11	Acceptable

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Gasoline Range Organics

Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	K1112203-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	NWTPH-Gx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	12/20/11	12/20/11	KWG1112886	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	86	50-150	12/20/11	Acceptable

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Gasoline Range Organics

Sample Name:	MW-02	**Units:**	ug/L
Lab Code:	K1112203-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	NWTPH-Gx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	12/20/11	12/20/11	KWG1112886	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	86	50-150	12/20/11	Acceptable

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Gasoline Range Organics

Sample Name:	MW-03	**Units:**	ug/L
Lab Code:	K1112203-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	NWTPH-Gx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	12/20/11	12/20/11	KWG1112886	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	85	50-150	12/20/11	Acceptable

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Gasoline Range Organics

Sample Name:	Trip Blank	**Units:**	ug/L
Lab Code:	K1112203-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	NWTPH-Gx		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	12/20/11	12/20/11	KWG1112886	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	86	50-150	12/20/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Collected: NA
Date Received: NA

Gasoline Range Organics

Sample Name: Method Blank
Lab Code: KWG1112886-3

Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Gasoline Range Organics-NWTPH	ND	U	250	1	12/20/11	12/20/11	KWG1112886	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
1,4-Difluorobenzene	86	50-150	12/20/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203

Surrogate Recovery Summary
Gasoline Range Organics

Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1
MW-01	K1112203-001	86
MW-11	K1112203-002	86
MW-02	K1112203-003	86
MW-03	K1112203-004	85
Trip Blank	K1112203-005	86
MW-02DUP	KWG1112886-1	86
Method Blank	KWG1112886-3	86
Lab Control Sample	KWG1112886-2	89

Surrogate Recovery Control Limits (%)

Sur1 =	1,4-Difluorobenzene	50-150

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

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Extracted: 12/20/2011
Date Analyzed: 12/20/2011

Duplicate Sample Summary
Gasoline Range Organics

Sample Name: MW-02
Lab Code: K1112203-003

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: NWTPH-Gx

Level: Low
Extraction Lot: KWG1112886

Analyte Name	MRL	Sample Result	MW-02DUP KWG1112886-1 Duplicate Sample Result	Average	Relative Percent Difference	RPD Limit
Gasoline Range Organics-NWTPH	250	ND	ND	ND	-	30

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

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

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

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Extracted:**	12/20/2011
Sample Matrix:	Water	**Date Analyzed:**	12/20/2011

Lab Control Spike Summary
Gasoline Range Organics

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	NWTPH-Gx	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1112886

	Lab Control Sample KWG1112886-2 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
Gasoline Range Organics-NWTPH	436	500	87	80-119

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

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

EPA Method 504.1

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

EPA Method 504.1

Sample Name:	MW-01	**Units:**	ug/L
Lab Code:	K1112203-001	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	504.1		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0096	1	12/21/11	12/21/11	KWG1112883	

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

EPA Method 504.1

Sample Name:	MW-11	**Units:**	ug/L
Lab Code:	K1112203-002	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	504.1		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0096	1	12/21/11	12/21/11	KWG1112883	

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

EPA Method 504.1

Sample Name:	MW-02	**Units:**	ug/L
Lab Code:	K1112203-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	504.1		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0096	1	12/21/11	12/21/11	KWG1112883	

Comments:

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Results

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

EPA Method 504.1

Sample Name:	MW-03	**Units:**	ug/L
Lab Code:	K1112203-004	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	504.1		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.0097	1	12/21/11	12/21/11	KWG1112883	

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	NA
Sample Matrix:	Drinking water	**Date Received:**	NA

EPA Method 504.1

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1112883-3	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	504.1		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
1,2-Dibromoethane (EDB)	ND	U	0.010	1	12/21/11	12/21/11	KWG1112883	

Comments:

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Extracted:**	12/21/2011
Sample Matrix:	Water	**Date Analyzed:**	12/21/2011

Matrix Spike Summary
EPA Method 504.1

Sample Name:	MW-02	**Units:**	ug/L
Lab Code:	K1112203-003	**Basis:**	NA
Extraction Method:	METHOD	**Level:**	Low
Analysis Method:	504.1	**Extraction Lot:**	KWG1112883

Analyte Name	Sample Result	MW-02MS KWG1112883-2 Matrix Spike Result	Expected	%Rec	%Rec Limits
1,2-Dibromoethane (EDB)	ND	0.246	0.243	101	65-135

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Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Extracted:**	12/21/2011
Sample Matrix:	Drinking water	**Date Analyzed:**	12/21/2011

Lab Control Spike Summary
EPA Method 504.1

Extraction Method:	METHOD	**Units:**	ug/L
Analysis Method:	504.1	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1112883

	Lab Control Sample KWG1112883-1 Lab Control Spike			
Analyte Name	**Result**	**Expected**	**%Rec**	**%Rec Limits**
1,2-Dibromoethane (EDB)	0.240	0.250	96	70-130

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

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

Volatile Organic Compounds

Client:	Sierra Piedmont, Inc.	**Service Request:**	K1112203
Project:	UPS Union Gap, WA	**Date Collected:**	12/15/2011
Sample Matrix:	Water	**Date Received:**	12/16/2011

Volatile Organic Compounds

Sample Name:	MW-01	**Units:**	ug/L
Lab Code:	K1112203-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Benzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Toluene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Ethylbenzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
m,p-Xylenes	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
o-Xylene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Naphthalene	ND	U	2.0	1	12/22/11	12/22/11	KWG1112943	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	12/22/11	Acceptable
Toluene-d8	114	65-144	12/22/11	Acceptable
4-Bromofluorobenzene	105	68-117	12/22/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Collected: 12/15/2011
Date Received: 12/16/2011

Volatile Organic Compounds

Sample Name: MW-11
Lab Code: K1112203-002

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Benzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Toluene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Ethylbenzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
m,p-Xylenes	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
o-Xylene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Naphthalene	ND	U	2.0	1	12/22/11	12/22/11	KWG1112943	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	12/22/11	Acceptable
Toluene-d8	116	65-144	12/22/11	Acceptable
4-Bromofluorobenzene	106	68-117	12/22/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Collected: 12/15/2011
Date Received: 12/16/2011

Volatile Organic Compounds

Sample Name: MW-02
Lab Code: K1112203-003

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Benzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Toluene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Ethylbenzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
m,p-Xylenes	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
o-Xylene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Naphthalene	ND	U	2.0	1	12/22/11	12/22/11	KWG1112943	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	12/22/11	Acceptable
Toluene-d8	115	65-144	12/22/11	Acceptable
4-Bromofluorobenzene	104	68-117	12/22/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Collected: 12/15/2011
Date Received: 12/16/2011

Volatile Organic Compounds

Sample Name: MW-03
Lab Code: K1112203-004

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Benzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Toluene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Ethylbenzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
m,p-Xylenes	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
o-Xylene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Naphthalene	ND	U	2.0	1	12/22/11	12/22/11	KWG1112943	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	12/22/11	Acceptable
Toluene-d8	116	65-144	12/22/11	Acceptable
4-Bromofluorobenzene	105	68-117	12/22/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Collected: 12/15/2011
Date Received: 12/16/2011

Volatile Organic Compounds

Sample Name: Trip Blank
Lab Code: K1112203-005

Units: ug/L
Basis: NA

Extraction Method: EPA 5030B
Analysis Method: 8260C

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Benzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Toluene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Ethylbenzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
m,p-Xylenes	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
o-Xylene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Naphthalene	ND	U	2.0	1	12/22/11	12/22/11	KWG1112943	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	102	73-122	12/22/11	Acceptable
Toluene-d8	117	65-144	12/22/11	Acceptable
4-Bromofluorobenzene	105	68-117	12/22/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1112943-4

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Methyl tert-Butyl Ether	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Benzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
1,2-Dichloroethane (EDC)	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Toluene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Ethylbenzene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
m,p-Xylenes	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
o-Xylene	ND	U	0.50	1	12/22/11	12/22/11	KWG1112943	
Naphthalene	ND	U	2.0	1	12/22/11	12/22/11	KWG1112943	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	101	73-122	12/22/11	Acceptable
Toluene-d8	116	65-144	12/22/11	Acceptable
4-Bromofluorobenzene	104	68-117	12/22/11	Acceptable

Comments:

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
MW-01	K1112203-001	99	114	105
MW-11	K1112203-002	102	116	106
MW-02	K1112203-003	101	115	104
MW-03	K1112203-004	101	116	105
Trip Blank	K1112203-005	102	117	105
Method Blank	KWG1112943-4	101	116	104
MW-02MS	KWG1112943-1	103	116	105
MW-02DMS	KWG1112943-2	91	114	98
Lab Control Sample	KWG1112943-3	101	115	105

Surrogate Recovery Control Limits (%)

Sur1 =	Dibromofluoromethane	73-122
Sur2 =	Toluene-d8	65-144
Sur3 =	4-Bromofluorobenzene	68-117

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

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

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Extracted: 12/22/2011
Date Analyzed: 12/22/2011

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name: MW-02
Lab Code: K1112203-003

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA

Level: Low
Extraction Lot: KWG1112943

Analyte Name	Sample Result	MW-02MS KWG1112943-1 Matrix Spike			MW-02DMS KWG1112943-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Methyl tert-Butyl Ether	ND	8.86	10.0	89	8.34	10.0	83	54-126	6	30
Benzene	ND	8.83	10.0	88	9.56	10.0	96	63-144	8	30
1,2-Dichloroethane (EDC)	ND	8.77	10.0	88	7.99	10.0	80	56-141	9	30
Toluene	ND	8.57	10.0	86	9.36	10.0	94	71-136	9	30
Ethylbenzene	ND	7.85	10.0	79	9.64	10.0	96	66-136	20	30
m,p-Xylenes	ND	16.4	20.0	82	19.7	20.0	99	67-135	19	30
o-Xylene	ND	8.22	10.0	82	9.42	10.0	94	67-127	14	30
Naphthalene	ND	7.36	10.0	74	9.76	10.0	98	52-147	28	30

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

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

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

Client: Sierra Piedmont, Inc.
Project: UPS Union Gap, WA
Sample Matrix: Water

Service Request: K1112203
Date Extracted: 12/22/2011
Date Analyzed: 12/22/2011

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1112943

Analyte Name	Lab Control Sample KWG1112943-3 Lab Control Spike Result	Expected	%Rec	%Rec Limits
Methyl tert-Butyl Ether	8.73	10.0	87	54-126
Benzene	9.02	10.0	90	69-124
1,2-Dichloroethane (EDC)	8.96	10.0	90	56-142
Toluene	8.71	10.0	87	69-124
Ethylbenzene	8.05	10.0	81	67-121
m,p-Xylenes	16.5	20.0	83	69-121
o-Xylene	8.37	10.0	84	71-119
Naphthalene	7.30	10.0	73	64-126

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

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