



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

November 2, 2009

Ron Hicks
Riverside Associates
1123 Pomona Road
Yakima, WA 98901

Re: Analytical Data for Project 809
Laboratory Reference No. 0910-176

Dear Ron:

Enclosed are the analytical results and associated quality control data for samples submitted on October 22, 2009.

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,

A handwritten signature in black ink, appearing to read 'DB', followed by a horizontal line.

David Baumeister
Project Manager

Enclosures

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

Case Narrative

Samples were collected on October 20, 2009, and received by the laboratory on October 22, 2009. They were maintained at the laboratory at a temperature of 2°C to 6°C except as noted below.

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.

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Laboratory Reference: 0910-176
 Project: 809

NWTPH-Dx

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Date	Date	Flags
			Prepared	Analyzed	
Lab ID:	10-176-01				
Client ID:	809B306				
Diesel Range	ND	0.25	10-23-09	10-23-09	Y
Lube Oil Range	ND	0.40	10-23-09	10-23-09	Y
Surrogate: o-terphenyl	101%	50-150			
Lab ID:	10-176-02				
Client ID:	809B307				
Diesel Range	ND	0.26	10-23-09	10-23-09	Y
Lube Oil Range	ND	0.42	10-23-09	10-23-09	Y
Surrogate: o-terphenyl	95%	50-150			
Lab ID:	10-176-03				
Client ID:	809B308				
Diesel Range	ND	0.26	10-23-09	10-23-09	Y
Lube Oil Range	ND	0.41	10-23-09	10-23-09	Y
Surrogate: o-terphenyl	106%	50-150			
Lab ID:	10-176-04				
Client ID:	809B309				
Diesel Range	ND	0.25	10-23-09	10-23-09	Y
Lube Oil Range	ND	0.40	10-23-09	10-23-09	Y
Surrogate: o-terphenyl	103%	50-150			
Lab ID:	10-176-05				
Client ID:	809B310				
Diesel Range	ND	0.25	10-23-09	10-23-09	Y
Lube Oil Range	ND	0.40	10-23-09	10-23-09	Y
Surrogate: o-terphenyl	96%	50-150			

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Date	Date	Flags
			Prepared	Analyzed	
Lab ID:	10-176-06				
Client ID:	809B311				
Diesel Range	ND	0.25	10-23-09	10-23-09	Y
Lube Oil Range	ND	0.41	10-23-09	10-23-09	Y
Surrogate: o-terphenyl	101%	50-150			

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

NWTPH-Dx
METHOD BLANK QUALITY CONTROL

Date Extracted: 10-23-09
Date Analyzed: 10-23-09

Matrix: Water
Units: mg/L (ppm)

Lab ID: MB1023W1

Diesel Range: **ND**
PQL: 0.25
Identification: ---

Lube Oil Range: **ND**
PQL: 0.40
Identification: ---

Surrogate Recovery
o-Terphenyl: 90%

Flags: Y

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted: 10-23-09
Date Analyzed: 10-23-09

Matrix: Water
Units: mg/L (ppm)

Lab ID: 10-177-02 10-177-02 DUP

Diesel Range: **ND** **ND**
PQL: 0.26 0.26

RPD: N/A

Surrogate Recovery
o-Terphenyl: 87% 91%

Flags: Y Y

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Laboratory Reference: 0910-176
 Project: 809

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	10-176-01					
Client ID:	809B306					
<hr/>						
Arsenic	6.2	3.3	200.8	10-29-09	10-29-09	
Barium	120	28	200.8	10-29-09	10-29-09	
Cadmium	ND	4.4	200.8	10-29-09	10-29-09	
Chromium	ND	11	200.8	10-29-09	10-29-09	
Lead	2.6	1.1	200.8	10-29-09	10-29-09	
Mercury	ND	0.50	7470A	10-30-09	10-30-09	
Selenium	ND	5.6	200.8	10-29-09	10-29-09	
Silver	ND	11	200.8	10-29-09	10-29-09	

Lab ID:	10-176-02					
Client ID:	809B307					
<hr/>						
Arsenic	15	3.3	200.8	10-29-09	10-29-09	
Barium	84	28	200.8	10-29-09	10-29-09	
Cadmium	ND	4.4	200.8	10-29-09	10-29-09	
Chromium	ND	11	200.8	10-29-09	10-29-09	
Lead	ND	1.1	200.8	10-29-09	10-29-09	
Mercury	ND	0.50	7470A	10-30-09	10-30-09	
Selenium	ND	5.6	200.8	10-29-09	10-29-09	
Silver	ND	11	200.8	10-29-09	10-29-09	

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Laboratory Reference: 0910-176
 Project: 809

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-176-03					
Client ID:	809B308					
Arsenic	12	3.3	200.8	10-29-09	10-29-09	
Barium	90	28	200.8	10-29-09	10-29-09	
Cadmium	ND	4.4	200.8	10-29-09	10-29-09	
Chromium	ND	11	200.8	10-29-09	10-29-09	
Lead	ND	1.1	200.8	10-29-09	10-29-09	
Mercury	ND	0.50	7470A	10-30-09	10-30-09	
Selenium	ND	5.6	200.8	10-29-09	10-29-09	
Silver	ND	11	200.8	10-29-09	10-29-09	

Lab ID:	10-176-04					
Client ID:	809B309					
Arsenic	16	3.3	200.8	10-29-09	10-29-09	
Barium	180	28	200.8	10-29-09	10-29-09	
Cadmium	ND	4.4	200.8	10-29-09	10-29-09	
Chromium	ND	11	200.8	10-29-09	10-29-09	
Lead	ND	1.1	200.8	10-29-09	10-29-09	
Mercury	ND	0.50	7470A	10-30-09	10-30-09	
Selenium	6.4	5.6	200.8	10-29-09	10-29-09	
Silver	ND	11	200.8	10-29-09	10-29-09	

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Laboratory Reference: 0910-176
 Project: 809

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	10-176-05					
Client ID:	809B310					
Arsenic	77	3.3	200.8	10-29-09	10-29-09	
Barium	74	28	200.8	10-29-09	10-29-09	
Cadmium	ND	4.4	200.8	10-29-09	10-29-09	
Chromium	ND	11	200.8	10-29-09	10-29-09	
Lead	ND	1.1	200.8	10-29-09	10-29-09	
Mercury	ND	0.50	7470A	10-30-09	10-30-09	
Selenium	6.4	5.6	200.8	10-29-09	10-29-09	
Silver	ND	11	200.8	10-29-09	10-29-09	

Lab ID:	10-176-06					
Client ID:	809B311					
Arsenic	13	3.3	200.8	10-29-09	10-29-09	
Barium	290	28	200.8	10-29-09	10-29-09	
Cadmium	ND	4.4	200.8	10-29-09	10-29-09	
Chromium	ND	11	200.8	10-29-09	10-29-09	
Lead	ND	1.1	200.8	10-29-09	10-29-09	
Mercury	ND	0.50	7470A	10-30-09	10-30-09	
Selenium	6.0	5.6	200.8	10-29-09	10-29-09	
Silver	ND	11	200.8	10-29-09	10-29-09	

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

**TOTAL METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-29-09
Date Analyzed: 10-29-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1029W1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.3
Barium	200.8	ND	28
Cadmium	200.8	ND	4.4
Chromium	200.8	ND	11
Lead	200.8	ND	1.1
Selenium	200.8	ND	5.6
Silver	200.8	ND	11

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

**TOTAL METALS
EPA 7470A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-30-09
Date Analyzed: 10-30-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1030W1

Analyte	Method	Result	PQL
Mercury	7470A	ND	0.50

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Laboratory Reference: 0910-176
 Project: 809

**TOTAL METALS
 EPA 200.8
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-29-09
 Date Analyzed: 10-29-09

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 10-136-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.3	
Barium	ND	ND	NA	28	
Cadmium	ND	ND	NA	4.4	
Chromium	ND	ND	NA	11	
Lead	ND	ND	NA	1.1	
Selenium	ND	ND	NA	5.6	
Silver	ND	ND	NA	11	

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

**TOTAL METALS
EPA 7470A
DUPLICATE QUALITY CONTROL**

Date Extracted: 10-30-09
Date Analyzed: 10-30-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-185-10

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.50	

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Laboratory Reference: 0910-176
 Project: 809

**TOTAL METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-29-09
 Date Analyzed: 10-29-09

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 10-136-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	110	107	98	103	94	4	
Barium	110	121	110	112	102	8	
Cadmium	110	105	96	103	94	2	
Chromium	110	106	96	98.9	90	7	
Lead	110	106	96	98.9	90	7	
Selenium	110	107	97	105	95	2	
Silver	110	102	93	102	93	0	

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Laboratory Reference: 0910-176
Project: 809

**TOTAL METALS
EPA 7470A
MS/MSD QUALITY CONTROL**

Date Extracted: 10-30-09
Date Analyzed: 10-30-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: 10-185-10

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	12.5	11.6	93	12.2	98	6	

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Lab Traveler: 0910-176
 Project: 809

**BTEX
EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
<hr/>					
Lab ID:	10-176-01				
Client ID:	809B306				
<hr/>					
Benzene	ND	1.0	10-23-09	10-23-09	
Toluene	ND	1.0	10-23-09	10-23-09	
Ethyl Benzene	ND	1.0	10-23-09	10-23-09	
m,p-Xylene	ND	1.0	10-23-09	10-23-09	
o-Xylene	ND	1.0	10-23-09	10-23-09	
Surrogate: Fluorobenzene	104%	74-121			

Lab ID:	10-176-02				
Client ID:	809B307				
<hr/>					
Benzene	ND	1.0	10-23-09	10-23-09	
Toluene	ND	1.0	10-23-09	10-23-09	
Ethyl Benzene	ND	1.0	10-23-09	10-23-09	
m,p-Xylene	ND	1.0	10-23-09	10-23-09	
o-Xylene	ND	1.0	10-23-09	10-23-09	
Surrogate: Fluorobenzene	103%	74-121			

Lab ID:	10-176-03				
Client ID:	809B308				
<hr/>					
Benzene	ND	1.0	10-23-09	10-23-09	
Toluene	ND	1.0	10-23-09	10-23-09	
Ethyl Benzene	ND	1.0	10-23-09	10-23-09	
m,p-Xylene	ND	1.0	10-23-09	10-23-09	
o-Xylene	ND	1.0	10-23-09	10-23-09	
Surrogate: Fluorobenzene	103%	74-121			

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Lab Traveler: 0910-176
 Project: 809

**BTEX
EPA 8021B**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Date Prepared	Date Analyzed	Flags
Lab ID:	10-176-04				
Client ID:	809B309				
Benzene	ND	1.0	10-23-09	10-23-09	
Toluene	ND	1.0	10-23-09	10-23-09	
Ethyl Benzene	ND	1.0	10-23-09	10-23-09	
m,p-Xylene	ND	1.0	10-23-09	10-23-09	
o-Xylene	ND	1.0	10-23-09	10-23-09	
Surrogate: Fluorobenzene	102%	74-121			

Lab ID:	10-176-05				
Client ID:	809B310				
Benzene	ND	1.0	10-23-09	10-23-09	
Toluene	ND	1.0	10-23-09	10-23-09	
Ethyl Benzene	ND	1.0	10-23-09	10-23-09	
m,p-Xylene	ND	1.0	10-23-09	10-23-09	
o-Xylene	ND	1.0	10-23-09	10-23-09	
Surrogate: Fluorobenzene	104%	74-121			

Lab ID:	10-176-06				
Client ID:	809B311				
Benzene	ND	1.0	10-23-09	10-23-09	
Toluene	ND	1.0	10-23-09	10-23-09	
Ethyl Benzene	ND	1.0	10-23-09	10-23-09	
m,p-Xylene	ND	1.0	10-23-09	10-23-09	
o-Xylene	ND	1.0	10-23-09	10-23-09	
Surrogate: Fluorobenzene	104%	74-121			

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Lab Traveler: 0910-176
Project: 809

**BTEX
EPA 8021B
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-23-09
Date Analyzed: 10-23-09

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB1023W4

	Result	Flags	PQL
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0

Surrogate Recovery:
Fluorobenzene 103%

Date of Report: November 2, 2009
Samples Submitted: October 22, 2009
Lab Traveler: 0910-176
Project: 809

**BTEX
EPA 8021B
DUPLICATE QUALITY CONTROL**

Date Extracted: 10-23-09
Date Analyzed: 10-23-09

Matrix: Water
Units: ug/L (ppb)

Lab ID:	10-176-01 Original	10-176-01 Duplicate	RPD	Flags
Benzene	ND	ND	NA	
Toluene	ND	ND	NA	
Ethyl Benzene	ND	ND	NA	
m,p-Xylene	ND	ND	NA	
o-Xylene	ND	ND	NA	
Surrogate Recovery:				
Fluorobenzene	104%	104%		

Date of Report: November 2, 2009
 Samples Submitted: October 22, 2009
 Lab Traveler: 0910-176
 Project: 809

**BTEX
 EPA 8021B
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-23-09
 Date Analyzed: 10-23-09

Matrix: Water
 Units: ug/L (ppb)

Spike Level: 50.0 ppb

Lab ID:	10-176-01 MS	Percent Recovery	10-176-01 MSD	Percent Recovery	RPD	Flags
Benzene	51.6	103	52.6	105	2	
Toluene	52.7	105	53.7	107	2	
Ethyl Benzene	52.4	105	53.4	107	2	
m,p-Xylene	53.1	106	53.9	108	2	
o-Xylene	52.6	105	53.2	106	1	
Surrogate Recovery: Fluorobenzene	103%		101%			



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 the diesel range are impacting the lube oil range result.

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



Environmental Inc.

Phone: (425) 883-3881 • Fax: (425) 885-4603

Chain of Custody

Page 1 of 1

Company: Riverside Associates				Turnaround Request (in working days)		Laboratory Number: 10-176														
Project Number: 809				<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day		Requested Analysis														
Project Name: Double H				<input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day																
Project Manager: Ron Hicks				<input checked="" type="checkbox"/> Standard (7 working days) (TPH analysis 5 working days)																
Sampled by: CES1				<input type="checkbox"/> (other)																
ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270D	PAHs by 8270D / SIM	PCBs by 8082	Pesticides by 8081A	Herbicides by 8151A	Total RCRA Metals (8)	TCLP Metals	HEM by 1664	ERA 8001B / 8260 B GTEX	% Moisture
1	809B306	10/20/09	1010	W	4			X									X			
2	809B307	10/20/09	1150	W	4			X									X			
3	809B308	10/20/09	1155	W	4			X									X			
4	809B309	10/20/09	1318	W	4			X									X			
5	809B310	10/20/09	1415	W	4			X									X			
6	809B311	10/20/09	1505	W	4			X									X			
Relinquished by _____ Signature _____ Company: CES1 Date: 10/21/09 Time: 1300																				
Received by _____ Signature _____ Company: CES1 Date: 10/22/09 Time: 1000																				
Relinquished by _____ Signature _____ Company: CES1 Date: 10/22/09 Time: 1000																				
Received by _____ Signature _____ Company: CES1 Date: 10/22/09 Time: 1000																				
Relinquished by _____ Signature _____ Company: CES1 Date: 10/22/09 Time: 1000																				
Received by _____ Signature _____ Company: CES1 Date: 10/22/09 Time: 1000																				
Reviewed by/Date _____ Reviewed by/Date _____																				

Chromatograms with final report ☐

Please email results to: cesias@pocketnet.com