Whitman Environmental Sciences

5508 35th Avenue NE, Suite 108
Seattle, Washington 98105
Phone: (206) 523-3505
Whitenviro@yahoo.com

April 1, 2011

FedEx Freight, Inc.
3405 Victor St.
Santa Clara, CA 95054

Attention: Mr. Chong Lee

Subject: Groundwater Monitoring
FedEx Freight, Inc. Seattle Area Terminal
18221 E. Valley Highway
Kent, Washington

Dear Mr. Lee:
As you requested, Whitman Environmental Sciences (WES) has conducted groundwater sampling from eleven existing monitoring wells at the FedEx Freight terminal in Kent, Washington (Figure 1). This letter is to document the monitoring procedures and report the results of our sampling.

Site Background
The FedEx Freight terminal in Kent was originally constructed and operated by another trucking company in about 1969. Viking Freight, a predecessor company to FedEx, occupied the site beginning in about 1992.

A fueling facility, including underground storage tanks for gasoline and diesel fuel was located near the southern end of the truck shop. The gasoline tanks were removed in about 1988 and a release of petroleum to soil and groundwater was discovered at that time. The release was reported to the Washington Department of Ecology.

Extensive site investigation and cleanup efforts were conducted from about 1988 to 1998. During that time, at least 15 monitoring wells and two groundwater recovery wells were installed on the site and adjoining property to the south. Groundwater was withdrawn using a pump and treat system, and a soil vapor extraction system was operated in the area around the fueling island.

In about 1998, the diesel tank was also removed and replaced with an aboveground tank. The fueling facility and a sump in the adjacent truck wash bay were rebuilt. Additional cleanup and monitoring efforts may have been undertaken, but records are incomplete. The last available record of groundwater monitoring was from a sampling event conducted in June, 1998. At that time, some petroleum impacts to groundwater were documented.

However, since that time, monitoring wells on the property to the south have been permanently abandoned and sealed and one additional monitoring well was installed on-site. Records of these actions were not readily available.

Locating and Access to Monitoring Wells

To conduct the current groundwater monitoring event, WES initially surveyed the condition and accessibility of the existing monitoring wells on February 28, 2011. The locations of the existing wells were found based on a site plan from the 1998 groundwater monitoring report. Monuments for on-site wells MW-1, MW-2, MW-3, MW-5, MW-6, MW-7, MW-8 and MW-13 were located, as well as one unidentified well (tentatively designated MW-X) and vaults for on-site recovery wells MW-10 and RW-1. Figure 2 shows the locations of the identified wells. A number of other monument covers around the fueling island were identified as control valves and surface exposures of former vapor extraction points. A third vault was also observed that could not be accessed to determine the contents.

On-site monitoring wells MW-4 and MW-15 could not be located, and it appears that construction of the new fuel island and wash bay reconstruction may have destroyed or covered these wells. Also, the former locations for monitoring wells MW-11, MW-12 and MW-14 were identified on the property to the south, but each had been formally abandoned at some time in the past and small rectangular concrete pads were poured in place. Former monitoring well MW-9 had also been on the adjacent property, but could not be located. It is likely this well was also abandoned.

The on-site monitoring well covers were in varying condition, but most show signs of traffic damage or age. As part of this monitoring event, WES opened the monument covers and made minor improvements to the condition of the well exposures. If the wells are to remain in place, some rehabilitation may be necessary to ensure that the wells remain properly sealed to prevent surface water intrusion.

Groundwater Level Measurements

As part of this monitoring event, WES measured the depth to groundwater in all accessible monitoring wells. The measurements were obtained before the wells were purged of standing groundwater. Table 1 summarizes the depth to groundwater, the measured total depth of the wells, the reported top-of-pipe elevation and calculated elevation of groundwater at each well, relative to an on-site assigned datum. For the purpose of this study the well elevations are based on the elevations noted in a prior sampling summary report from 1998. The elevations are relative to an on-site reference point assigned an assumed elevation of 100.00.

The current measurements show that groundwater is at a depth of 4.41 to 8.55 feet below the ground surface, which represent elevations ranging from 90.90 to 93.89 feet, based on site datum. The groundwater elevations were used to calculate the inferred groundwater surface contours, as shown in Figure 2. The contours imply a general trend of groundwater migration toward the west.

Groundwater Sampling

WES obtained groundwater samples from the site monitoring wells on February 28th, March 1st and 2nd, 2011. The samples were obtained with a peristaltic pump using new polyethylene tubing in each well. Each well was purged of at least three volumes of the standing water volume in the well prior to sampling, except RW-1. RW-1 is a six-inch diameter well with a standing water volume of approximately 35 gallons. RW-1 was pumped to remove a volume of 55 gallons, while periodically measuring pH and temperature. Once these parameters had stabilized, the well was considered to be purged for sampling.

Samples were taken following proper environmental sampling techniques and protocols, placed in laboratory prepared bottles, chilled and held under chain of custody until delivered to the laboratory. The samples were submitted to Friedman & Bruya, Inc., a Washington State accredited laboratory, for testing.

Each sample was analyzed by Washington accepted methods NWTPH-G for total petroleum hydrocarbons (TPH) in the gasoline range, as well as the volatile aromatic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), commonly associated with gasoline. The samples were also tested for total petroleum hydrocarbons in the diesel and oil ranges by Washington accepted method NWTPH-D(x), following a silica gel cleanup to remove organic materials that could bias the testing results. One sample was also analyzed for the total concentration of lead.

Laboratory Analytical Results

The results of laboratory testing and Washington State cleanup criteria are summarized in Table 2. The laboratory reports of the analytical results are attached. All laboratory quality assurance/ quality control criteria were met by the analyses and the laboratory reporting limits are low enough that the data can be compared to appropriate regulatory cleanup levels.

The samples from all wells meet current Washington Model Toxics Control Act (MTCA) Method A groundwater cleanup criteria for all of the analyzed parameters.

Of the groundwater samples, only the one from monitoring well MW-5 contained detectable concentrations of any of the analyzed petroleum hydrocarbons. The sample contained a low but detectable concentration of 52 ug/l of diesel range hydrocarbons with no other detectable petroleum concentrations. This sample was also analyzed for lead and contained no detectable concentrations.

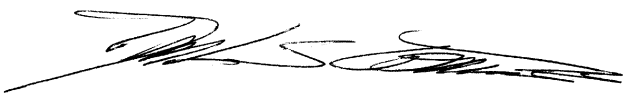
Conclusions

The current groundwater sampling shows no evidence of petroleum impacts exceeding Washington State groundwater cleanup criteria under the Model Toxics Control Act (Chapter 173-340 WAC).

Closure

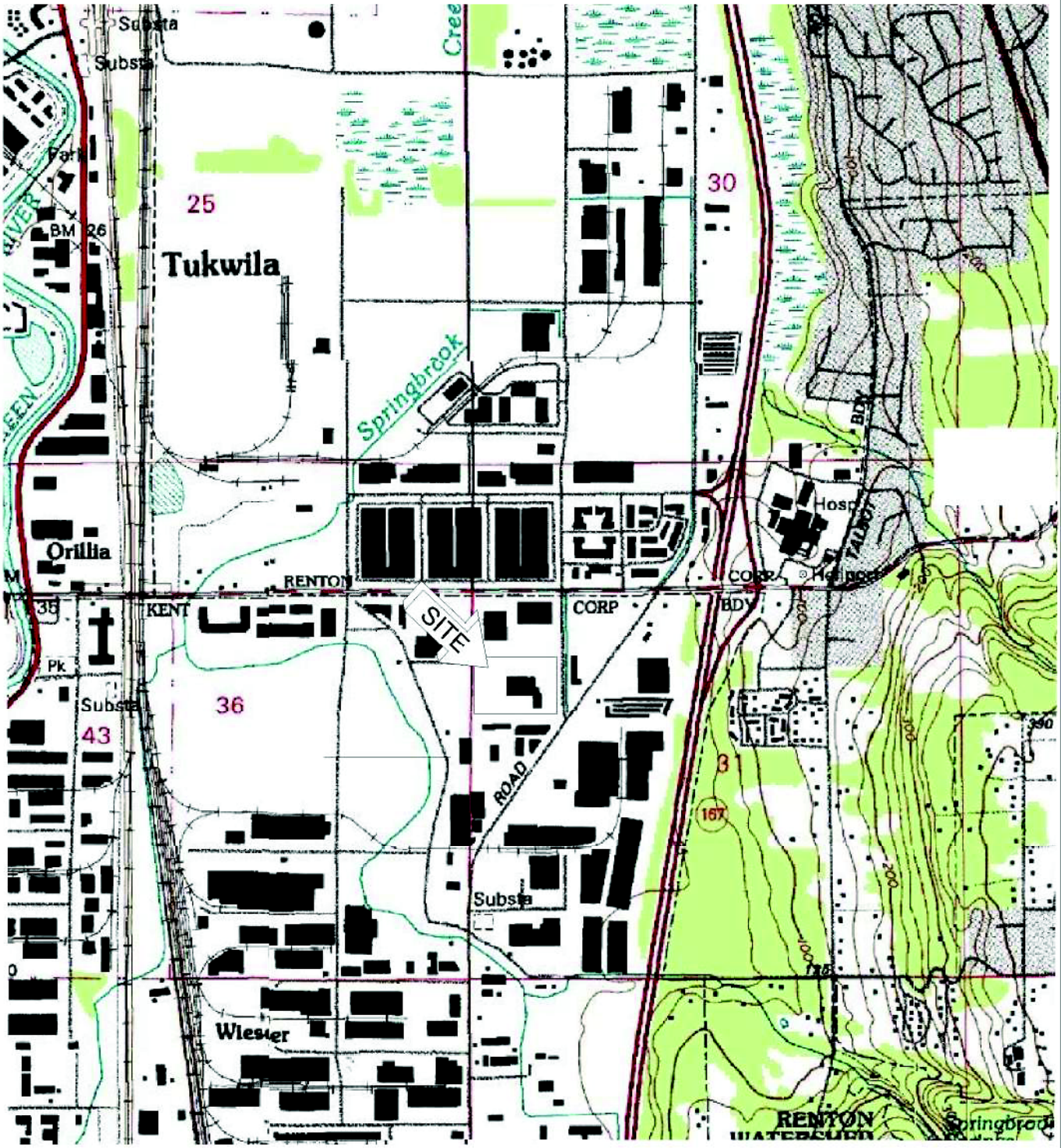
Thank you for the opportunity to be of service to you in this matter. If you have any questions regarding this letter, or if I may be of any further assistance, please feel free to contact me at your convenience.

Respectfully submitted,
Whitman Environmental Sciences



Daniel S. Whitman
Principal

Attachments:
Figure 1 - Site Location Map
Figure 2 - Groundwater Sample Location Plan, with Inferred Groundwater Contours
Table 1 - Groundwater Level Measurements
Table 2 - Groundwater Sample Analytical Results
Laboratory Analytical Reports - Friedman & Bruya, Inc.



North

0 1500'

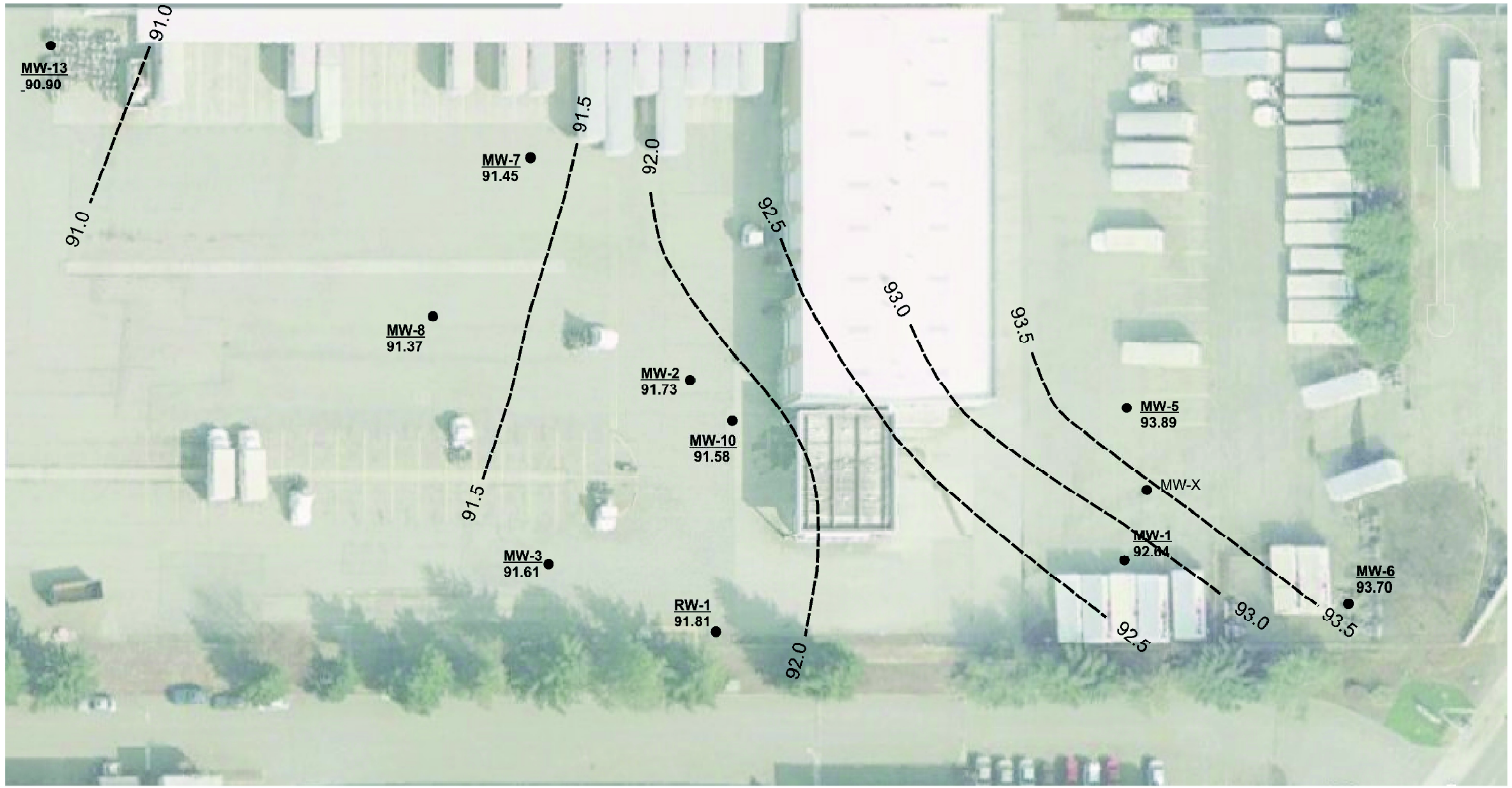
Scale 1" = Approx. 1500'

Figure 1 - Site Location Map

FedEx Freight, Inc.
18221 East Valley Highway
Kent, Washington

Project No.	WES - 1276
Date	Mar 19, 2010
File ID.	1276F1

Whitman Environmental Sciences



Legend

- Approximate Location of Monitoring Well

/ Inferred Groundwater Surface Contours Based on Measurements taken March 1, 2011

0 80

Scale 1" = Approx. 80 feet

North

Figure 2 - Monitoring Well Location Plan
with Inferred Groundwater Contours
FedEx Freight, Inc.
Kent Termnal
18821 East Valley Highway,
Kent, WA

Project No.	WES - 1276
Date	Mar 17, 2011
File ID.	1276F2

Whitman Environmental Sciences

Project No. WES-1276

Table 1
Summary of Groundwater Level Data
February 28, 2011
FedEx Freight, Inc. Seattle Area Terminal
Kent, Washington

Monitoring Well	Water Level Relative to Top of Pipe (ft)	Total Depth of Well (ft)	Top of Pipe Elevation*	Groundwater Elevation*	Comments
MW-1	-6.04	15.2	98.68	92.64	Monument not bolted
MW-2	-.7.42	17.0	99.15	91.73	Monument not bolted
MW-3	-7.40	18.5	99.01	91.61	Monument damaged
MW-4	Not	Present	--	--	
MW-5	-4.44	18.8	98.33	93.89	Monument not bolted
MW-6	-4.00	21.6	97.70	93.70	Monument damaged, no lid
MW-7	-7.55	18.2	99.00	91.45	Monument damaged
MW-8	-6.68	--	98.05	91.37	Monument damaged
MW-9	Not	Present	--	--	
MW-10	-6.05	25.6	97.63	91.58	Vault in poor condition
MW-11	Abandoned	--	--	--	
MW-12	Abandoned	--	--	--	
MW-13	-8.55	19.15	99.45	90.90	Monument not bolted
MW-14	Abandoned	--	--	--	
MW-15	Not	Present	--	--	
MW-X**	-4.41	13.2	Unknown	--	Monument damaged
RW-1	-6.30	19.6	98.11	91.81	

* Top of Pipe and Groundwater Elevations relative to an on-site reference point assigned elevation of 100.00 for the purposes of this study.
** Monitoring well I.D. and top-of-pipe elevation unknown.

Table 2
FedEx Freight, Inc., Seattle Area Terminal
Current Groundwater Sample Analytical Results

Sample I.D.	***Sample Date***	***Laboratory Analytical Results in ug/l (ppb)***						
		Diesel and Oil Range TPH NWTPH-D(x)	***Gasoline Range TPH NWTPH-G***	***Benzene***	***Toluene***	***Ethyl-benzene***	***Total Xylenes***	***Total Lead***
MW-1	3/1/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-2	2/28/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-3	2/28/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-5	3/1/2011	Diesel - 52 Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	ND (<1)
MW-6	3/2/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-7	2/28/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-8	2/28/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-10	2/28/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-13	3/1/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
MW-X	3/2/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
RW-1	3/1/2011	Diesel - ND(<50) Oil - ND(<250)	ND (<100)	ND (<1)	ND (<1)	ND (<1)	ND (<3)	N/A
Model Toxics Control Act Method A Ground-water Cleanup Level		***2,000***	***1,000****	***5***	***1,000***	***700***	***1,000***	***15***

Table 2 Notes:
Diesel and Oil Range total petroleum hydrocarbons conducted by Washington Method NWTPH-D(x).
Gasoline range total petroleum hydrocarbons by Northwest Method NWTPH-G for petroleum in the gasoline range.
BTEX Compounds by EPA Method 8021B.
ND (<X.XXX) - Not Detected by Analysis at levels above the noted detection reporting limit. N/A - Not analyzed for the listed parameter.
*MTCA Method A cleanup level for gasoline range petroleum hydrocarbons, when benzene is not present. If benzene is present, Method A cleanup level is 800 ug/l.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
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FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 11, 2011

Dan Whitman, Project Manager
Whitman Environmental Sciences
5508 35th Ave. NE
Seattle, WA 98105

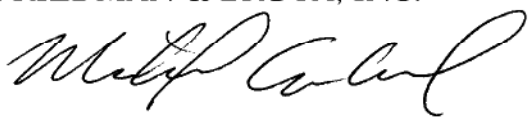
Dear Mr. Whitman:

Included are the results from the testing of material submitted on March 1, 2011 from the Fedex Kent WES-1276A, F&BI 103005 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
WES0311R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 1, 2011 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences Fedex Kent WES-1276A, F&BI 103005 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
103005-01	MW-7
103005-02	MW-8
103005-03	MW-3
103005-04	MW-2
103005-05	MW-10

All quality control requirements were acceptable.

Date of Report: 03/11/11
Date Received: 03/01/11
Project: Fedex Kent WES-1276A, F&BI 103005
Date Extracted: 03/02/11
Date Analyzed: 03/03/11

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW-7 103005-01	<1	<1	<1	<3	<100	67
MW-8 103005-02	<1	<1	<1	<3	<100	75
MW-3 103005-03	<1	<1	<1	<3	<100	77
MW-2 103005-04	<1	<1	<1	<3	<100	81
MW-10 103005-05	<1	<1	<1	<3	<100	82
Method Blank 01-0363 MB	<1	<1	<1	<3	<100	81

Date of Report: 03/11/11
Date Received: 03/01/11
Project: Fedex Kent WES-1276A, F&BI 103005
Date Extracted: 03/01/11
Date Analyzed: 03/09/11

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-7 103005-01	<50	<250	82
MW-8 103005-02	<50	<250	87
MW-3 103005-03	<50	<250	84
MW-2 103005-04	<50	<250	85
MW-10 103005-05	<50	<250	91
Method Blank 01-0350 MB2	<50	<250	88

Date of Report: 03/11/11
Date Received: 03/01/11
Project: Fedex Kent WES-1276A, F&BI 103005

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 103007-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	100	65-118
Toluene	ug/L (ppb)	50	99	72-122
Ethylbenzene	ug/L (ppb)	50	100	73-126
Xylenes	ug/L (ppb)	150	101	74-118
Gasoline	ug/L (ppb)	1,000	98	69-134

Date of Report: 03/11/11
Date Received: 03/01/11
Project: Fedex Kent WES-1276A, F&BI 103005

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample Silica Gel Filtered

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	95	61-133	1

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

103005

SAMPLE CHAIN OF CUSTODY

ME 03/01/11 V1/A04

Send Report To [illegible]
Company [illegible] Env. Services
Address 600 35th Ave NE
City, State, ZIP Seattle, WA 98125
Phone # 206-523-3605 Fax #

SAMPLERS (signature)
PROJECT NAME/NO. FedEx Kent
PO # 105176A
REMARKS Silica Gel Cleanup on TPH-D Please

Page # ___ of ___
TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel (X)	TPH-Gasoline	BTEX by 8020B	VOCs by 8260	SVOCs by 8270	HFS							Notes
MW-7	01A-C	2:28	1:15	Water	3	X	X	X										
MW-8	02A-C		2:30															
MW-3	03A-C		3:30															
MW-2	04A-D		5:00															
MW-10	05A-D		5:30															

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]		EBS	3-1-11	0925
Received by: [signature]	Nhan Phan	FeBI	3/1/11	0925
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Samples received at 6 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
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FAX: (206) 283-5044
e-mail: fbi@isomedia.com

March 14, 2011

Dan Whitman, Project Manager
Whitman Environmental Sciences
5508 35th Ave. NE
Seattle, WA 98105

Dear Mr. Whitman:

Included are the results from the testing of material submitted on March 2, 2011 from the FedEx Kent WES 1276A, F&BI 103029 project. There are 9 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
WES0314R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 2, 2011 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences FedEx Kent WES 1276A, F&BI 103029 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
103029-01	MW-5
103029-02	MW-6
103029-03	MW-13
103029-04	MW-1
103029-05	MW-X
103029-06	RW-1

All quality control requirements were acceptable.

Date of Report: 03/14/11
Date Received: 03/02/11
Project: FedEx Kent WES 1276A, F&BI 103029
Date Extracted: 03/04/11
Date Analyzed: 03/05/11

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW-5 103029-01	<1	<1	<1	<3	<100	80
MW-6 103029-02	<1	<1	<1	<3	<100	69
MW-13 103029-03	<1	<1	<1	<3	<100	80
MW-1 103029-04	<1	<1	<1	<3	<100	75
MW-X 103029-05	<1	<1	<1	<3	<100	70
RW-1 103029-06	<1	<1	<1	<3	<100	80
Method Blank 01-0373 MB	<1	<1	<1	<3	<100	67

Date of Report: 03/14/11
Date Received: 03/02/11
Project: FedEx Kent WES 1276A, F&BI 103029
Date Extracted: 03/04/11
Date Analyzed: 03/10/11

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 47-140)
MW-5 103029-01	52 x	<250	82
MW-6 103029-02	<50	<250	79
MW-13 103029-03	<50	<250	88
MW-1 103029-04	<50	<250	86
MW-X 103029-05	<50	<250	94
RW-1 103029-06	<50	<250	93
Method Blank 01-0372 MB	<50	<250	87

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-5	Client:	Whitman Environmental Sciences
Date Received:	03/02/11	Project:	FedEx Kent WES 1276A, F&BI 103029
Date Extracted:	03/08/11	Lab ID:	103029-01
Date Analyzed:	03/08/11	Data File:	103029-01.061
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	95	60	125

Analyte:	Concentration ug/L (ppb)
Lead	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	NA	Project:	FedEx Kent WES 1276A, F&BI 103029
Date Extracted:	03/08/11	Lab ID:	I1-162 mb
Date Analyzed:	03/08/11	Data File:	I1-162 mb.068
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	AP

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Holmium	97	60	125

Analyte:	Concentration ug/L (ppb)
Lead	<1

Date of Report: 03/14/11
Date Received: 03/02/11
Project: FedEx Kent WES 1276A, F&BI 103029

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 103021-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	97	65-118
Toluene	ug/L (ppb)	50	96	72-122
Ethylbenzene	ug/L (ppb)	50	97	73-126
Xylenes	ug/L (ppb)	150	98	74-118
Gasoline	ug/L (ppb)	1,000	96	69-134

Date of Report: 03/14/11
Date Received: 03/02/11
Project: FedEx Kent WES 1276A, F&BI 103029

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample Silica Gel

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	81	86	61-133	6

Date of Report: 03/14/11
Date Received: 03/02/11
Project: FedEx Kent WES 1276A, F&BI 103029

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 103058-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Lead	ug/L (ppb)	10	<1	91	96	76-125	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Lead	ug/L (ppb)	10	95	67-135

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - Analyte present in the blank and the sample.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - Analysis performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

103029

SAMPLE CHAIN OF CUSTODY ME 03/02/11 V2/AI2/A04

Send Report To [redacted]
Company [redacted]
Address [redacted]
City, State, ZIP [redacted]
Phone # [redacted] Fax # _____

SAMPLERS *(signature)*

PROJECT NAME/NO. FEDEX KENT

PO # GES 1216A

REMARKS

Page # _____ of _____

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	TOTAL LEAD					Notes
MW-5	01 A-F	3-1-11		WATER	6	X	X	X				X					POLY BOTTLES
MW-6	02 A-E	3-2-11			5												NOT PRESERVED
MW-13	03 A-C	3-1-11			3												YET.
MW-1	04 A-E	3-1-11			5												HOLD FOR
MW-X	05 A-E	3-2-11			5												POSSIBLE
RW-1	06 A-D	3-1-11			4												ADDITIONAL
																	TESTING.

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Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[redacted]		GES	3-2-11	4:15
Received by:	[redacted]	HONG NGUYEN	FBI	3/2/11	16:20
Relinquished by:					
Received by:					

Samples received at 11 °C