WHITMAN Environmental Sciences
6812 16th Avenue NE
Seattle, WA 98115

(206) 523-3505
Whitenviro@yahoo.com

June 2, 2022

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

Attention: Mr. Chong Lee

Subject: Summary of Soil and Groundwater Sampling and Analyses
Former FedEx Freight Terminal
18221 E. Valley Highway
Kent, Washington

Dear Mr. Lee:
As you are aware, the former location of the Kent, Washington FedEx Freight terminal has been under review by the Washington Department of Ecology's Voluntary Cleanup Program (VCP). The location of the property is noted in Figure 1. Mr. Grant Yang has served as Ecology's Site Manager for this review and has requested further information regarding groundwater conditions and one potential remaining source of contamination on the property.

Based on the agency's review of WES' prior groundwater monitoring, Mr. Yang requested new samples from three locations; MW-10, RW-1 and RW-2, to be tested for benzene. The three well locations are shown in Figure 2. All three are larger diameter wells that typically require a relatively large volume purge prior to sampling. For these samples, purging was to be minimized to only that necessary to obtain stabilized measurements of field parameters before sampling.

Mr. Yang also requested soil samples from one location. According to the available reports, one underground diesel fuel tank was removed from the former facility in 1998. At that time, about 10 cubic yards of soil removed from around the tank was stockpiled and a composite sample was tested for total petroleum hydrocarbons in the diesel range (TPH-D) by laboratory methods that were standard at that time. The composite sample analysis found 209 mg/kg of TPH-D. According to the available documentation, this stockpiled material was returned to the excavation as backfill.

Since that time, underground storage tank assessment requirements and applicable Model Toxics Control Act (MTCA) cleanup levels have changed. Under current standards, any stockpiled material would require three discreet samples tested by Washington Method NWTPH-D, with results compared to a current MTCA Method A soil cleanup level of 2,000 mg/kg (or a site specific Method B cleanup level).

Without further documentation, the underground storage tank assessment is insufficient to demonstrate that soil is not contaminated with diesel-range petroleum hydrocarbons.

This letter summarizes the field procedures and findings of this additional sampling.

Groundwater Sampling

For this additional testing, WES used submersible pumps to purge the standing water in the wells, then sampled using new, disposable polyethylene bailers. The pumps were initially set at a depth near the top of the water column, then while pumping, were gradually lowered to the approximate mid-point of the screened interval of the well for most of the purging. As each well was purged, periodic measurements of pH, conductivity and temperature were taken, until subsequent measurements varied less than approximately 10 percent. Then while the purge pump was still operating, a bailer was lowered into the water to obtain samples.

All three of the wells are approximately 30 feet deep. Well RW-1, a 6-inch diameter well, was sampled on February 1st, 2022, after purging a volume of approximately 150 gallons before stabilization. Monitoring well MW-10, a 4-inch diameter well, was sampled on February 23rd after purging a volume of approximately 60 gallons before stabilization. Well RW-2, a 6-inch diameter well, was sampled on February 25th after purging a volume of approximately 120 gallons before stabilization. In each well, the purge represents approximately three to four volumes of the standing water in the well casing.

The groundwater samples were placed in laboratory-prepared 40-ml vials with teflon-lined caps, labeled, chilled and held under chain-of-custody until delivered to Friedman & Bruya, Inc., a Washington accredited laboratory, for analysis. The samples were each tested for benzene by EPA Method 8260D. The laboratory reports are included in Appendix A.

Additional Soil Sampling

For the requested soil sampling, WES drilled one soil boring near the center of the former underground storage tank location to obtain representative samples of the excavation and backfill. The boring location is shown in Figure 2, near the south edge of the subject property. The figure shows the current condition of the property and was developed by overlaying historical aerial photographs that show the former diesel tank location.

Prior to drilling, a utility notification was placed and an environmental access permit was approved by BNSF, the current property owner.

The soil boring was conducted on May 31st, 2022 by Holocene Drilling, Inc., using a track-mounted Geoprobe drill rig to obtain continuous samples throughout the drilled depth. All sampling equipment underwent a three step decontamination procedure before use and the sampler was equipped with acetate liners to isolate the soils from contact with the drill stem.

The boring was drilled to a depth of 15 feet below the current asphalt surface. A soil boring log is included in Appendix B. Drilling encountered approximately six-inches of asphalt, overlying an approximately three-foot thickness of loose sand and gravel fill. The sandy fill overlaid approximately five feet of pea-gravel, a material commonly used as bedding or backfill for underground storage tank excavations. At a depth of approximately eight feet, the boring encountered loose silty, fine to medium sand that may have been fill or disturbed native soil. At a depth of 9.5 feet the boring encountered undisturbed native soil, consisting of fibrous peat, interlayered with fine silty sand and silt. The layer included large pieces of wood, but contained decreasing organic material with depth, until the end of the boring, at 15 feet. There were no field detectable indications of petroleum, such as odors, sheen or discoloration at any depth in the boring. Groundwater was encountered at a depth of about 6.5 feet.

Soil samples were selected from four discrete depths in the observed soil profile. The shallowest sample was selected from a depth of three feet, representing backfill material above the groundwater level. A second sample of backfill material was selected from a depth of five feet, representing soil from the capillary fringe of the shallowest groundwater. Two deeper samples, from 10 and 12 feet, represent the native soil below the backfill material.

The selected samples were placed in laboratory-prepared jars, labeled, chilled and submitted to Friedman & Bruya, Inc. All four samples were tested for TPH-D by Method NWTPH-D (extended). The laboratory report is included in Appendix A.

Findings and Conclusions

The results of laboratory testing on groundwater samples is summarized in Table 1. Testing of the groundwater samples found no detectable benzene in the samples from wells MW-10 and RW-1. The sample from RW-2 contained a benzene concentration of 0.80 ug/l, below the Model Toxics Control Act Method A groundwater cleanup level of 5.0 ug/l for benzene.

The results of laboratory testing on soil samples is summarized in Table 2. The testing found no detectable TPH-D in three of the four soil samples. The analysis identified 160 mg/kg of TPH-D in the sample from a depth of 10 feet, but the laboratory flagged the data as not resembling the laboratory standard for quantification of diesel. This typically is due to the influence of non-petroleum organic matter, which would be consistent with what was observed to be a large percentage of that sample. The reported concentration is below the current MTCA soil cleanup level of 2,000 mg/kg for TPH-D. The testing found no detectable motor-oil range TPH in any of the samples.

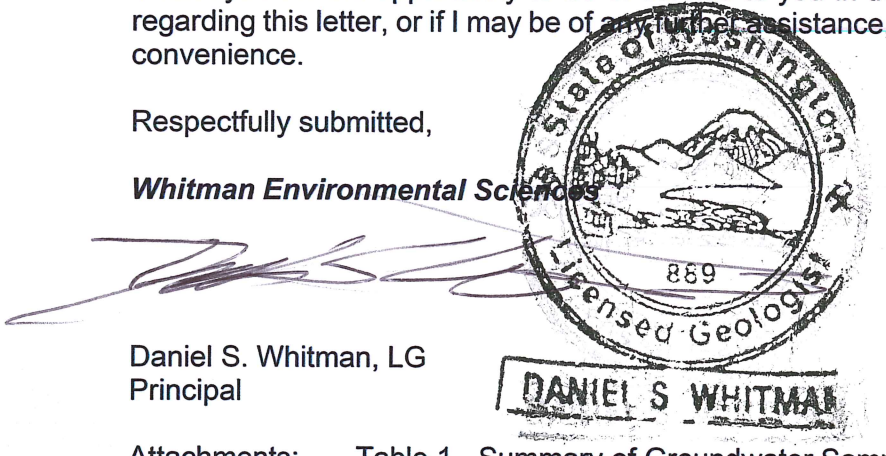
Based on the findings, no further investigation or action appears warranted. This summary report can be submitted to the Washington Department of Ecology Voluntary Cleanup Program as documentation toward an updated opinion letter. WES will file this report, along with a Request for Opinion Form, on your behalf.

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, LG
Principal

Attachments:
Table 1 - Summary of Groundwater Sample Analyses
Table 2 - Summary of Soil Sample Analyses
Figure 1 - Site Map
Figure 2 - Monitoring Well and Soil Boring Location Plan
Appendix A - Laboratory Analytical Reports
Appendix B - Soil Boring Log - WES-1

TABLE 1
Summary of Groundwater Sample Analyses
Former FedEx Freight Terminal
18221 E. Valley Highway
Kent, Washington

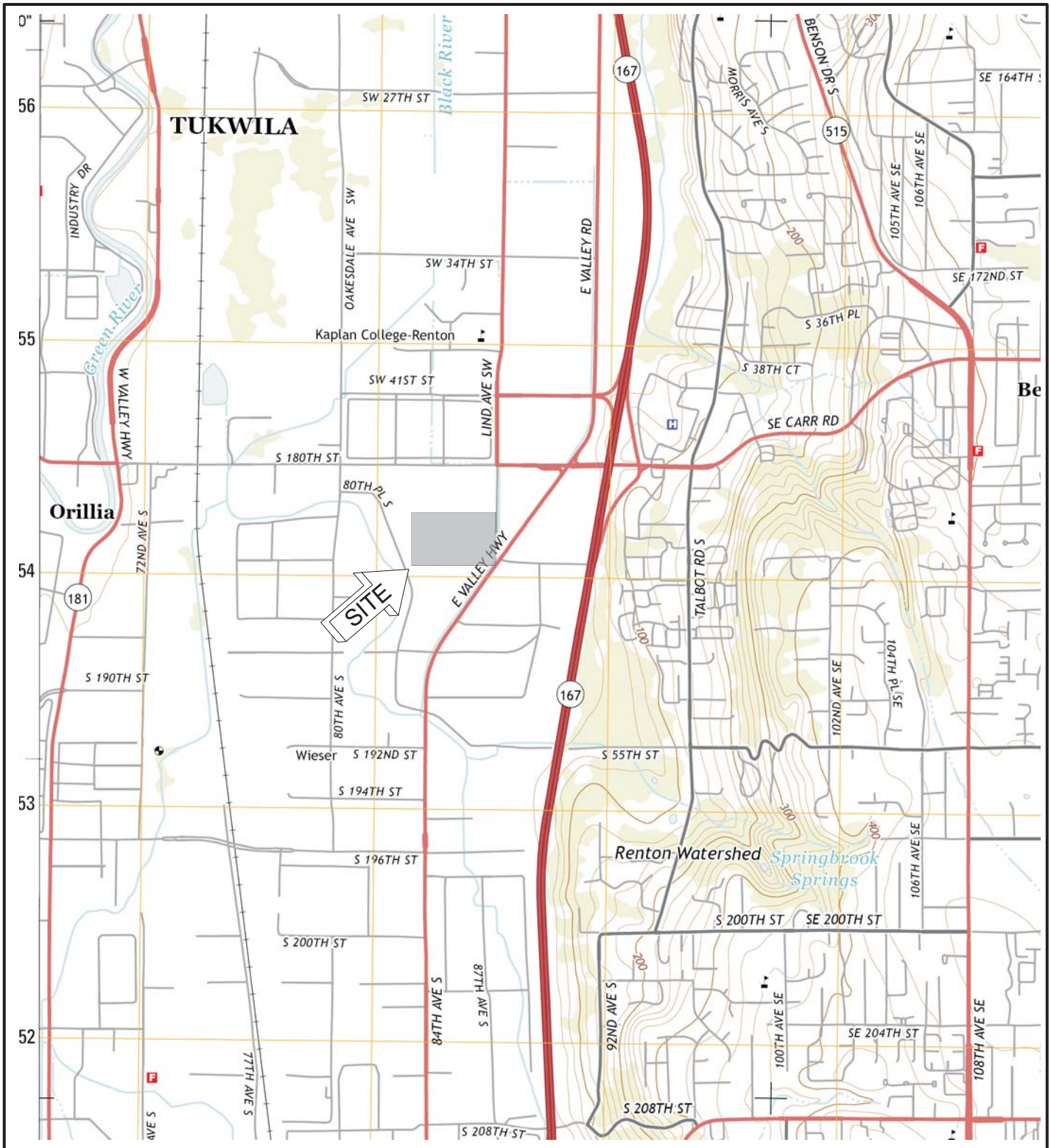
Sample ID	***Sample Date***	***Benzene (ug/l)***	***MTCA Method A Groundwater Cleanup Level***
RW-1	2/1/2022	ND (<0.35)	5 ug/l
RW-2	2/25/2022	0.80	
MW-10	2/23/2022	ND (<0.35)	

ND (<XXX) - Parameter not detected at concentrations at or above the noted reporting limit.
Benzene by EPA Method 8260D.
MTCA Method A groundwater cleanup level per WAC Chapter 173-340-900, Table 720-1.

TABLE 2
Summary of Soil Sample Analyses
Former FedEx Freight Terminal
18221 E. Valley Highway
Kent, Washington

Sample ID	***Sample Depth***	***Sample Date***	***Diesel-Range Total Petroleum Hydrocarbons (TPH-D) (mg/kg)***	***MTCA Method A Soil Cleanup Level (mg/kg)***
WES-1-3'	3'	5/31/2022	ND (<50)	2000
WES-1-5'	5'	5/31/2022	ND (<50)	
WES-1-10'	10'	5/31/2022	160[X]	
WES-1-12'	12'	5/31/2022	ND (<50)	

Notes:
ND (<XXX) - Parameter not detected at concentrations at or above the noted reporting limit.
TPH-D by Washington accepted method NWTPH-D (extended).
[X] Data flagged by laboratory as not resembling the laboratory standard use to quantify diesel. Typically indicates non-petroleum organic material.
MTCA Method A soil cleanup level per WAC Chapter 173-340-900, Table 740-1.



From USGS

Figure 1 - Site Map

Former FedEx Freight Terminal
18221 E. Valley Highway
Kent, Washington

Project No.	WES - 1276
Date	Aug 2, 2016
File ID.	1276F1

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Environmental Sciences

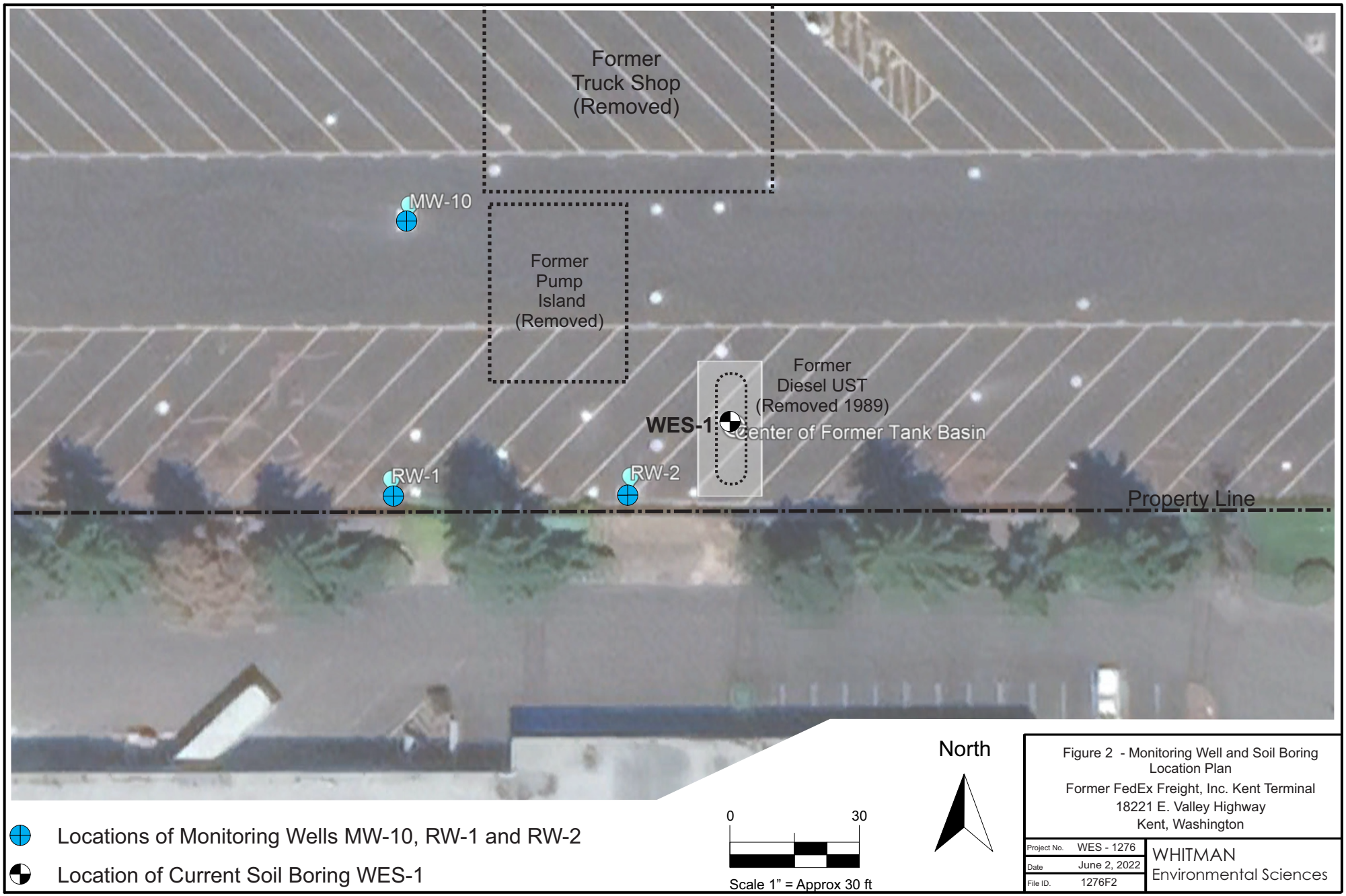

Figure 2 - Monitoring Well and Soil Boring Location Plan

Former FedEx Freight, Inc. Kent Terminal
18221 E. Valley Highway
Kent, Washington

Project No.	WES - 1276
Date	June 2, 2022
File ID.	1276F2

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Environmental Sciences

APPENDIX A

Laboratory Analytical Reports
Friedman & Bruya, Inc.

Groundwater Samples

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

February 10, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

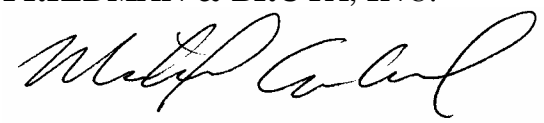
Dear Mr Whitman:

Included are the results from the testing of material submitted on February 3, 2022 from the FedEx Kent WES-1276, F&BI 202051 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. 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
WES0210R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 3, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences FedEx Kent WES-1276, F&BI 202051 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
202051 -01	RW-1-GW

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	RW-1-GW	Client:	Whitman Environmental Sciences
Date Received:	02/03/22	Project:	FedEx Kent WES-1276, F&BI 202051
Date Extracted:	02/07/22	Lab ID:	202051-01
Date Analyzed:	02/08/22	Data File:	020815.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	118	78	126
Toluene-d8	92	87	115
4-Bromofluorobenzene	94	92	112

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	FedEx Kent WES-1276, F&BI 202051
Date Extracted:	02/07/22	Lab ID:	02-0296 mb
Date Analyzed:	02/07/22	Data File:	020707.D
Matrix:	Water	Instrument:	GCMS11
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	104	78	126
Toluene-d8	95	87	115
4-Bromofluorobenzene	95	92	112

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Date of Report: 02/10/22
Date Received: 02/03/22
Project: FedEx Kent WES-1276, F&BI 202051

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 202086-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	<0.35	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	10	96	97	70-130	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.

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 the analyte were outside of acceptance criteria. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

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

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. 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 laboratory control sample(s) percent recovery and/or RPD were 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 analyte 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 with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

202051

SAMPLE CHAIN OF CUSTODY 02-03-22 VWS

Report To Dan Whitman

Company Whitman Envir. Sciences

Address 6812 16th Ave NE

City, State, ZIP Seattle, WA 98115

Phone _____ Email whitenviro@yahoo.com

SAMPLERS (*signature*)	
PROJECT NAME FedEx Kent	PO # WES-1276
REMARKS Project specific RLs? - Yes / No	INVOICE TO

Page # ____ of ____

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH ____
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other ____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Benzene only!			Notes
RW-1-GW	01 A-C	2-1-22	4:35	Water	3								X			

Friedman & Bruya, Inc.
Ph. (206) 285-8282

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]		WES	2-3-22	11:04
Received by: Tokala C.	Tokala Christensen	F+B	2-3-22	11:04
Relinquished by:				
Received by:		Samples received at 1 °C		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 3, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

Dear Mr Whitman:

Included are the results from the testing of material submitted on February 25, 2022 from the FedEx Old Kent WES-1276, F&BI 202480 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. 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
WES0303R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 25, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences FedEx Old Kent WES-1276, F&BI 202480 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
202480 -01	MW-10-GW

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	MW-10-GW	Client:	Whitman Environmental Sciences
Date Received:	02/25/22	Project:	FedEx Old Kent WES-1276
Date Extracted:	02/28/22	Lab ID:	202480-01
Date Analyzed:	02/28/22	Data File:	022814.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	101	88	112
4-Bromofluorobenzene	100	90	111

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	FedEx Old Kent WES-1276
Date Extracted:	02/28/22	Lab ID:	02-476 mb
Date Analyzed:	02/28/22	Data File:	022807.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	105	88	112
4-Bromofluorobenzene	101	90	111

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Date of Report: 03/03/22
Date Received: 02/25/22
Project: FedEx Old Kent WES-1276, F&BI 202480

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 202482-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	0.80	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	10	95	96	70-130	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.

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 the analyte were outside of acceptance criteria. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

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

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. 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 laboratory control sample(s) percent recovery and/or RPD were 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 analyte 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 with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

~~402180~~ (NP) 202480

SAMPLE CHAIN OF CUSTODY

02-25-22 [redacted]

VW1 Page # ______ of ______

Report To Thad Whitman

Company Whitman Env. Sciences

Address 6812 16th Ave NE

City, State, ZIP Seattle, WA 98115

Phone ______ Email whitenviro@juno.com

SAMPLERS (*signature*)	
PROJECT NAME Fedex Old Kent	PO # OES-1216
REMARKS Project specific RLs? - Yes / No	INVOICE TO

TURNAROUND TIME
☒ Standard turnaround
☐ RUSH ______
Rush charges authorized by:
SAMPLE DISPOSAL
☐ Archive samples
☐ Other ______
Default: Dispose after 30 days

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Benzene Only!				Notes
MW-10-GW	01A-B	2-23-22	9:45	Water	2								X				One VOA Broken

Samples received at 1 °C

Friedman & Bruya, Inc.
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	[signature]	OES	2-25-22	5:42
Received by:	[signature]	Biskat Tadesse	FBI	2/25/20	17:45
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

March 3, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

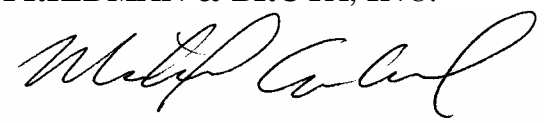
Dear Mr Whitman:

Included are the results from the testing of material submitted on February 25, 2022 from the FedEx Old Kent WES-1276, F&BI 202482 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. 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
WES0303R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 25, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences FedEx Old Kent WES-1276, F&BI 202482 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
202482 -01	RW-2-GW

All quality control requirements were acceptable.

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	RW-2-GW	Client:	Whitman Environmental Sciences
Date Received:	02/25/22	Project:	FedEx Old Kent WES-1276, F&BI 202482
Date Extracted:	02/28/22	Lab ID:	202482-01
Date Analyzed:	02/28/22	Data File:	022811.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	103	85	117
Toluene-d8	105	88	112
4-Bromofluorobenzene	101	90	111

Compounds:	Concentration ug/L (ppb)
Benzene	0.80

Analysis For Volatile Compounds By EPA Method 8260D Dual Acquisition

Client Sample ID:	Method Blank	Client:	Whitman Environmental Sciences
Date Received:	Not Applicable	Project:	FedEx Old Kent WES-1276, F&BI 202482
Date Extracted:	02/28/22	Lab ID:	02-476 mb
Date Analyzed:	02/28/22	Data File:	022807.D
Matrix:	Water	Instrument:	GCMS13
Units:	ug/L (ppb)	Operator:	RF

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
1,2-Dichloroethane-d4	99	85	117
Toluene-d8	105	88	112
4-Bromofluorobenzene	101	90	111

Compounds:	Concentration ug/L (ppb)
Benzene	<0.35

Date of Report: 03/03/22
Date Received: 02/25/22
Project: FedEx Old Kent WES-1276, F&BI 202482

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260D

Laboratory Code: 202482-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Benzene	ug/L (ppb)	10	0.80	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Benzene	ug/L (ppb)	10	95	96	70-130	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.

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 the analyte were outside of acceptance criteria. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

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

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. 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 laboratory control sample(s) percent recovery and/or RPD were 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 analyte 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 with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

202482

SAMPLE CHAIN OF CUSTODY

02-25-22

VW1

Page # _____ of _____

Report To Joe Whitman

Company Whitman Env. Services

Address 6812 16th Ave NE

City, State, ZIP Seattle, WA 98115

Phone _____ Email whitenw1@hotmail.com

SAMPLERS (*signature*)

PROJECT NAME: Ferry Old Kent

PO # 0265-1276

REMARKS: Project specific RLs? - Yes / No

INVOICE TO

TURNAROUND TIME
- ☒ Standard turnaround
- ☐ RUSH _____
- Rush charges authorized by: _____

SAMPLE DISPOSAL
- ☐ Archive samples
- ☐ Other _____
- Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Benzene only				Notes
OW-2-GW	01A	2-25-22	12:10	WATER	3								X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		GES	2-25-22	5:45
Received by:	BRIAN JAMES	FBI	2/25/22	1745
Relinquished by:				
Received by:		Samples received at _____ °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

Soil Samples

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

June 2, 2022

Dan Whitman, Project Manager
Whitman Environmental Sciences
6812 16th Ave NE
Seattle, WA 98115

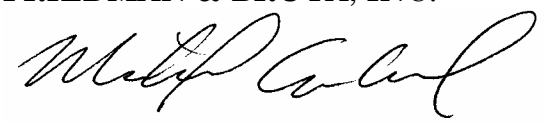
Dear Mr Whitman:

Included are the results from the testing of material submitted on May 31, 2022 from the FedEx Old Kent WES-1276, F&BI 205504 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. 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
WES0602R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on May 31, 2022 by Friedman & Bruya, Inc. from the Whitman Environmental Sciences FedEx Old Kent WES-1276, F&BI 205504 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Whitman Environmental Sciences
205504 -01	WES-1-3'
205504 -02	WES-1-5'
205504 -03	WES-1-10'
205504 -04	WES-1-12'

All quality control requirements were acceptable.

Date of Report: 06/02/22
Date Received: 05/31/22
Project: FedEx Old Kent WES-1276, F&BI 205504
Date Extracted: 06/01/22
Date Analyzed: 06/01/22

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 56-165)
WES-1-3' 205504-01	<50	<250	99
WES-1-5' 205504-02	<50	<250	100
WES-1-10' 205504-03 1/2	160 x	<500	97
WES-1-12' 205504-04	<50	<250	110
Method Blank 02-1319 MB2	<50	<250	110

Date of Report: 06/02/22
Date Received: 05/31/22
Project: FedEx Old Kent WES-1276, F&BI 205504

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

Laboratory Code: 205479-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result (Wet Wt)	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	104	102	73-135	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	104	74-139

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.

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 the analyte were outside of acceptance criteria. The value reported is an estimate.

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

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

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

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the lowest calibration standard. 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 laboratory control sample(s) percent recovery and/or RPD were 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 analyte 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 with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

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.

205504

SAMPLE CHAIN OF CUSTODY 05-31-22

A01

Report To [illegible]

Company [illegible]

Address [illegible]

City, State, ZIP [illegible]

Phone _____ Email [illegible]

SAMPLERS (*signature*)

PROJECT NAME: FEDEX OLD KENT

PO #: 065-126

REMARKS

Project specific RLs? - Yes / No

INVOICE TO

Page # _____ of _____

TURNAROUND TIME

☐ Standard turnaround

☒ RUSH [illegible]

Rush charges authorized by:

SAMPLE DISPOSAL

☐ Archive samples

☐ Other _____

Default: Dispose after 30 days

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	NWTPH-HCID	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082					Notes
065-1-3'	01	5-31	PM	SOIL	1	X											
065-1-5'	02	〃	〃	〃	1	X											
065-1-10'	03	〃	〃	〃	1	X											
065-1-12'	04	〃	〃	〃	1	X											

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [illegible]	[illegible]	[illegible]	5-31-22	5:03
Received by: [illegible]	VINH	FBI	5-31-22	5:03 PM
Relinquished by:				
Received by:		Samples received at 2.0 °C		

Friedman & Bruya, Inc.
Ph. (206) 285-8282

APPENDIX B

Soil Boring Log - WES-1

Project:	Client:	Boring:
Former FedEx Freight Terminal 18121 E. Valley Highway Kent, WA	FedEx Freight, Inc.	WES-1
	Driller: Holocene Drilling, Inc. / Method: Geoprobe	Project No. WES-1276
	Elevation: +/-25' / Reference: –	

Sample Data					Lab Sample	Soil Description
No.	Type	Depth	Recovery	N		
						Asphalt parking lot surface.
1	Direct Push		3'		TPH-D	Brown fine to coarse SAND, little gravel, trace silt (Fill) moist, loose, no discoloration or petroleum odor.
					TPH-D	Greyish brown PEA GRAVEL, (FILL), little fine sand, moist to wet, loose, no discoloration or petroleum odor.
2			3'			
					TPH-D	Greyish brown silty fine to medium SAND, (Fill or disturbed natural soil), wet, soft, no discoloration or petroleum odor.
3			5'		TPH-D	Brown to black fibrous organic PEAT, with interlayered fine to medium sand and silt laminae, wet, no discoloration or petroleum odor. Decreasing organic matter with depth.
						End of Boring at 15 ft. No petroleum odor, sheen or discoloration noted at any depth.
						Backfilled with bentonite upon completion, asphalt patch at ground surface.

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40

Date Drilled:	Water Level Data	Depth	Date/Time
3-21-2022	First Encountered:	6.5	5-31-2022
	Stabilized:		

WHITMAN
Environmental Sciences