SKAGIT COUNTY
PUBLIC WORKS DEPARTMENT

1800 Continental Place, Mount Vernon, WA 98273-5625
(360) 416-1400 FAX (360) 416-1405

March 24, 2021

Krystal Rodriguez
Department of Ecology – NWRO
913 Squalicum Way #101
Bellingham, Washington 98225

Dear Ms. Rodriguez:

Enclosed is a letter report regarding the cleanup and confirmation soil sampling at the location of the fuel spill that occurred at the Skagit County Transfer Station on June 12, 2020.

If you have any questions or comments, please feel free to contact me at (360) 416-1434.

Thank you,

John F. Rapp, LG, LHg
Hydrogeologist
Skagit County Public Works

Enclosures: Photo Log
Edge Analytical Laboratory Analytical Data Reports

This letter report presents the cleanup, confirmation soil sampling, and laboratory analytical results associated with a fuel spill that occurred at the Skagit County Solid Waste Transfer Facility located at 14104 Ovenell Road, Mount Vernon, Washington (Figure 1).

Introduction

On June 2, 2020 during a routine transfer of waste oil from a holding tank to a tanker truck owned and operated by Emerald Recycling approximately 30 to 50 gallons of the waste oil overflowed from the tanker to the ground adjacent to the Household Hazardous Waste (HHW) building (Figure 2). The majority of the spilled waste oil was contained on the paved driveway and loading dock area along the west and north side of the HHW building (Photos #1 and #2).

The waste oil was removed from the paved area using absorbent materials (oil only mats and saw dust) from spill kits stationed at the HHW building. The saturated materials were removed by Emerald Recycling and placed in steel 55 gallon drums. Soil impacted by the oil spill adjacent to the paved loading dock along the north side was removed and disposed of with the saturated sorbent materials.

In December 2020, the Washington Department of Ecology requested that Skagit County remove any additional soil that was impacted by the oil spill, and collect confirmation soil samples to demonstrate that petroleum hydrocarbons and associated constituents are below Model Toxic Control Act (MTCA) Method A soil cleanup criteria for unrestricted land use (WAC 173-340, Table 740-1). The analytical testing requirement were derived from *Table 830-1 Required Testing for Petroleum Releases* (WAC 173-340-900).

On February 3, 2021, Skagit County personnel removed approximately 1.5 cubic foot of visibly contaminated soil along the north side of the paved loading dock to a depth of approximately 6-inches and a length of approximately 15 feet (Photos #3 and #4). Three soil samples from west to east included *Soil-1-020321, Soil-2-020321*, and *Soil-3-020321* (see attached photo #5).

The soil samples were collected from apparent native soil along the length of where the soil was removed. Soil sample *Soil-1-020321* was collected at the location where the majority of the waste oil at seeped through the concrete berms. Soil sample locations were marked with wooden stakes and labeled with the respective sample ID. Soil samples were submitted to Edge Analytical Laboratory (Edge), 1620 S Walnut St, Burlington, Washington.

This sample was submitted for laboratory analysis of Lead, BTEX, gasoline range organics, diesel range organics, and heavy oil range organics. The additional two samples were submitted for only lead, diesel range and heavy oil range organics. Sample results and comparison to MTCA Method A criteria is presented in Table 1. Edge laboratory results indicated that soil sample *Soil-1-020321* was above the soil cleanup criteria for heavy oil range (2,000 mg/kg) at 6,920 mg/kg.

On March 2, 2021, Skagit County removed approximately 2 cubic feet of soil along the paved loading dock focusing on the area adjacent to soil sample *Soil-1-020321* (see attached photos #6 and #7). An additional soil sample (*TS-soil-030221*) was collected from a depth of

approximately 12 inches and submitted for analysis of diesel and heavy oil range organics. Edge laboratory results for this sample indicated that diesel range organics were below laboratory detection levels and results for heavy oil range were below MTCA Method A soil cleanup criteria at 151 mg/kg. Soil sample analytical results are presented in Table 1. Laboratory analytical data reports are attached this report.

Table 1
Confirmation Soil Sample Results
Skagit County Transfer Station Waste Oil Spill

Sample No.	Sample Date	Sample Depth (ft bgs)	Lead (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TPH-G (mg/kg)	TPH-D (mg/kg)	TPH-O (mg/kg)	PCBs (Total Aroclors) (mg/kg)
MTCA Method A			250	0.5	7	20	9	30	2000	2000	1
Soil-1-020321	February 3, 2021	0.5	7.9	ND	ND (0.03)	ND (0.12)	ND (0.12)	ND (0.24)	ND (200)	**6920**	ND (0.055)
Soil-2-020321	February 3, 2021	0.5	2.2	NA	NA	NA	NA	NA	ND (50)	133	ND (0.055)
Soil-2-020321	February 3, 2021	0.5	2.8	NA	NA	NA	NA	NA	ND (50)	ND (50)	ND (0.055)
TS-Soil-030221	March 2, 2021	1.0	NA	NA	NA	NA	NA	NA	ND (50)	131	ND (0.055)

Notes:
mg/kg = milligrams per kilogram
NA = Not Analyzed
ND (50) = Indicates the analyte of interest was not detected, to the limit of detection indicated.
ft bgs = feet below ground surface

Figure 1 Site Location

Figure 2 Skagit County Transfer Station
Location of June 2020 Waste Oil Spill

Photo Log

Photo No. 1: June 12, 2020.

Explanation: Looking towards the SW at the NE corner of the Household Hazardous Waste building loading dock. Approximately 30-50 gallons of waste oil was released during transfer operations.

Photo No. 2. June 12, 2020.

Explanation: Looking towards the North at the west side of the HHW building loading dock during cleanup activities following waste oil spill.

Photo No. 3. February 3, 2021

Explanation: Looking west along the north side of the HHW loading dock at the location of the three preliminary confirmation soil samples with sample *Soil-3-020321* in the foreground.

Photo No. 4. February 3, 2021.

Explanation: Looking roughly east along the northside of the HHW loading dock at the location of three preliminary confirmation soil samples with sample *Soil-1-020321* in the foreground.

Photo No. 5. February 3, 2021

Explanation: Looking south towards the northside of the HHW building and loading dock at the location of the three preliminary soil samples from right to left: *Soil-1-020321, Soil-2-020321,* and *Soil-3-020321.*

Photo No. 6. March 2, 2021

Explanation: Looking west at the area of additional soil removal and the location of second-round soil sample *TS-soil-030221.*

Photo No. 7. March 2, 2021.

Explanation: Closer view of the area of additional soil removal and location of second-round soil sample *TS-soil-030221.*

Analytical Laboratory Data

Burlington, WA *Corporate Laboratory (a)*
1620 S Walnut St - Burlington, WA 98233 - **800.755.9295** • 360.757.1400

Bellingham, WA *Microbiology (b)*
805 Orchard Dr Ste 4 - Bellingham, WA 98225 - 360.715.1212

Portland, OR *Microbiology/Chemistry (c)*
9150 SW Pioneer Ct Ste W - Wilsonville, OR 97070 - 503.682.7802

Corvallis, OR *Microbiology/Chemistry (d)*
1100 NE Circle Blvd, Ste 130 - Corvallis, OR 97330 - 541.753.4946

Bend, OR *Microbiology (e)*
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425

February 25, 2021

Mr. John Rapp
Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

RE: 21-03843 - 8260 Soil

Dear Mr. John Rapp,

Your project: 8260 Soil, was received on Wednesday February 03, 2021.

All samples were analyzed within the accepted holding times and were appropriately preserved and analyzed according to approved analytical protocols, unless noted in the data or QC reports. The quality control data was within laboratory acceptance limits, unless specified in the data or QC reports.

If you have questions phone us at 800 755-9295.

Respectfully

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

Enclosures: Data Report
QC Reports
Chain of Custody

Burlington, WA Corporate Laboratory (a) 1620 S Walnut St Burlington, WA 98233 800.755.9295 • 360.757.1400
Bellingham, WA Microbiology (b) 805 Orchard Dr Ste 4 Bellingham, WA 98225 360.715.1212
Portland, OR Microbiology/Chemistry (c) 9150 SW Pioneer Ct Ste W Wilsonville, OR 97070 503.682.7802
Corvallis, OR Microbiology/Chemistry (d) 540 SW Third Street Corvallis, OR 97333 541.753.4946
Bend, OR Microbiology/Chemistry (e) 20332 Empire Ave, Ste F4 Bend, OR 97703 541.639.8425

February 25, 2021

Case Narrative

Reference: **21-03843**

Lab Sample ID	Sample Information
7418	**Soil-1-020321 - Transfer Station Soil**

Analytical Method	Notes	Created by
8082	The dilution factor is the conversion to dry weight based on the sample total solids, 91.4%.	NML

Lab Sample ID	Sample Information
7419	**Soil-2-020321 - Transfer Station Soil**

Analytical Method	Notes	Created by
8082	The dilution factor is the conversion to dry weight based on the sample total solids, 92.6%.	NML

Lab Sample ID	Sample Information
7420	**Soil-3-020321 - Transfer Station Soil**

Analytical Method	Notes	Created by
8082	The dilution factor is the conversion to dry weight based on the sample total solids, 89.7%.	NML

EDGE ANALYTICAL

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WSDOE Lab C567

DATA REPORT

Client Name: Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

Reference Number: **21-03843**
Project: 8260 Soil

Lab Number: 07418
Field ID: Soil-1-020321
Sample Description: Transfer Station Soil
Matrix: Soil
Sample Date: 2/3/21
Extraction Date: 2/15/21
Extraction Method: 3540C

Report Date: 2/25/21
Date Analyzed: 2/17/21
Analyst: NML
Analytical Method: 8082
Batch: 8082_S210215
Approved By: hy

Authorized by:

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

CAS	Compound	RESULT	Flag	UNITS	Lab QL	MDL	D.F.	Lab	COMMENT
12674-11-2	AROCLOR 1016	**ND**		mg/Kg	0.055		1.10	a	
11104-28-2	AROCLOR 1221	**ND**		mg/Kg	0.055		1.10	a	
11141-16-5	AROCLOR 1232	**ND**		mg/Kg	0.055		1.10	a	
53469-21-9	AROCLOR 1242	**ND**		mg/Kg	0.055		1.10	a	
12672-29-6	AROCLOR 1248	**ND**		mg/Kg	0.055		1.10	a	
11097-69-1	AROCLOR 1254	**ND**		mg/Kg	0.055		1.10	a	
11096-82-5	AROCLOR 1260	**ND**		mg/Kg	0.055		1.10	a	
11100-14-4	AROCLOR 1268	**ND**		mg/Kg	0.055		1.10	a	
1336-36-3	PCBS (Total Aroclors)	**ND**		mg/Kg	0.055		1.10	a	

Notes:

Flags are data qualifiers. If there are data qualifiers on your report definitions can be found on an accompanying sheet.
ND - indicates the compound was not detected above the PQL or MDL.
Lab QL = Laboratory Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
Permit QL = Quantitation Limt required by permit (listed in Appendix A) or other regulatory requirement.
D.F. - Dilution Factor.

If you have any questions concerning this report contact us at the above phone number.

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WSDOE Lab C567

DATA REPORT

Client Name: Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

Reference Number: **21-03843**
Project: 8260 Soil

Lab Number: 07419
Field ID: Soil-2-020321
Sample Description: Transfer Station Soil
Matrix: Soil
Sample Date: 2/3/21
Extraction Date: 2/15/21
Extraction Method: 3540C

Report Date: 2/25/21
Date Analyzed: 2/17/21
Analyst: NML
Analytical Method: 8082
Batch: 8082_S210215
Approved By: hy

Authorized by:

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

CAS	Compound	RESULT	Flag	UNITS	Lab QL	MDL	D.F.	Lab	COMMENT
12674-11-2	AROCLOR 1016	**ND**		mg/Kg	0.055		1.10	a	
11104-28-2	AROCLOR 1221	**ND**		mg/Kg	0.055		1.10	a	
11141-16-5	AROCLOR 1232	**ND**		mg/Kg	0.055		1.10	a	
53469-21-9	AROCLOR 1242	**ND**		mg/Kg	0.055		1.10	a	
12672-29-6	AROCLOR 1248	**ND**		mg/Kg	0.055		1.10	a	
11097-69-1	AROCLOR 1254	**ND**		mg/Kg	0.055		1.10	a	
11096-82-5	AROCLOR 1260	**ND**		mg/Kg	0.055		1.10	a	
11100-14-4	AROCLOR 1268	**ND**		mg/Kg	0.055		1.10	a	
1336-36-3	PCBS (Total Aroclors)	**ND**		mg/Kg	0.055		1.10	a	

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WSDOE Lab C567

DATA REPORT

Client Name: Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

Reference Number: **21-03843**
Project: 8260 Soil

Lab Number: 07420
Field ID: Soil-3-020321
Sample Description: Transfer Station Soil
Matrix: Soil
Sample Date: 2/3/21
Extraction Date: 2/15/21
Extraction Method: 3540C

Report Date: 2/25/21
Date Analyzed: 2/17/21
Analyst: NML
Analytical Method: 8082
Batch: 8082_S210215
Approved By: hy

Authorized by:

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

CAS	Compound	RESULT	Flag	UNITS	Lab QL	MDL	D.F.	Lab	COMMENT
12674-11-2	AROCLOR 1016	**ND**		mg/Kg	0.055		1.10	a	
11104-28-2	AROCLOR 1221	**ND**		mg/Kg	0.055		1.10	a	
11141-16-5	AROCLOR 1232	**ND**		mg/Kg	0.055		1.10	a	
53469-21-9	AROCLOR 1242	**ND**		mg/Kg	0.055		1.10	a	
12672-29-6	AROCLOR 1248	**ND**		mg/Kg	0.055		1.10	a	
11097-69-1	AROCLOR 1254	**ND**		mg/Kg	0.055		1.10	a	
11096-82-5	AROCLOR 1260	**ND**		mg/Kg	0.055		1.10	a	
11100-14-4	AROCLOR 1268	**ND**		mg/Kg	0.055		1.10	a	
1336-36-3	PCBS (Total Aroclors)	**ND**		mg/Kg	0.055		1.10	a	

Notes:

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Data Report

Client Name: Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

Reference Number: **21-03843**
Project: 8260 Soil

Report Date: 2/25/21

Date Received: 2/3/21
Approved by: bsp,hy,nml
Authorized by:

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

Sample Description: Soil-1-020321 Transfer Station Soil — Matrix S — Sample Date: 2/3/21 10:30 am
Lab Number: 7418 — Sample Comment: — Collected By: John Rapp

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-92-1	**LEAD**	7.9	1.1		mg/Kg	1.0	6010D/3051	a	2/12/21	BJ	6010_210212A	
71-43-2	**BENZENE**	ND	0.03		mg/Kg	1.2	8260C/5035A	a	2/17/21	HY	GXS_210217	
108-88-3	**TOLUENE**	ND	0.12		mg/Kg	1.2	8260C/5035A	a	2/17/21	HY	GXS_210217	
100-41-4	**ETHYLBENZENE**	ND	0.12		mg/Kg	1.2	8260C/5035A	a	2/17/21	HY	GXS_210217	
1330-20-7	**TOTAL XYLENES**	ND	0.24		mg/Kg	1.2	8260C/5035A	a	2/17/21	HY	GXS_210217	
68334-30-5	**GAS Range Organics**	ND	30		mg/Kg	1.2	8260C/5035A	a	2/17/21	HY	GXS_210217	
NA	**DIESEL (C12 - C24)**	ND	200		mg/Kg	4.0	NWTPH-Dx/3550B	a	2/15/21	KRM	DXS_210210	
NA	**HEAVIER OILS (>C24)**	6920	200		mg/Kg	4.0	NWTPH-Dx/3550B	a	2/15/21	KRM	DXS_210210	
E-10151	**TOTAL SOLIDS FOR CALCULATION**	91.41	0.10		%	1.0	SM2540 G	a	2/9/21	TJB	TS_210208	

Sample Description: Soil-2-020321 Transfer Station Soil — Matrix S — Sample Date: 2/3/21 10:50 am
Lab Number: 7419 — Sample Comment: — Collected By: John Rapp

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-92-1	**LEAD**	2.2	1.1		mg/Kg	1.0	6010D/3051	a	2/12/21	BJ	6010_210212A	
NA	**DIESEL (C12 - C24)**	ND	50		mg/Kg	1.0	NWTPH-Dx/3550B	a	2/15/21	KRM	DXS_210210	
NA	**HEAVIER OILS (>C24)**	133	50		mg/Kg	1.0	NWTPH-Dx/3550B	a	2/15/21	KRM	DXS_210210	
E-10151	**TOTAL SOLIDS FOR CALCULATION**	92.56	0.10		%	1.0	SM2540 G	a	2/9/21	TJB	TS_210208	

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

EDGE ANALYTICAL

Reference Number: **21-03843**
Report Date: 2/25/21

Data Report

Sample Description: Soil-3-020321 Transfer Station Soil | Matrix S | Sample Date: 2/3/21 11:10 am
Lab Number: 7420 | Sample Comment: | Collected By: John Rapp

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-92-1	**LEAD**	2.8	1.1		mg/Kg	1.0	6010D/3051	a	2/12/21	BJ	6010_210212A	
NA	**DIESEL (C12 - C24)**	ND	50		mg/Kg	1.0	NWTPH-Dx/3550B	a	2/15/21	KRM	DXS_210210	
NA	**HEAVIER OILS (>C24)**	ND	50		mg/Kg	1.0	NWTPH-Dx/3550B	a	2/15/21	KRM	DXS_210210	
E-10151	**TOTAL SOLIDS FOR CALCULATION**	89.72	0.10		%	1.0	SM2540 G	a	2/9/21	TJB	TS_210208	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **21-03843**
Report Date: 02/25/21

Batch		Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
Calibration Check											
6010_210212A	2	LEAD	0.991	1	mg/L	6010D	99	90-110		CAL	
Laboratory Fortified Blank											
6010_210212A	0	LEAD	0.919	1	mg/L	6010D	92	85-115		LFB	
8082_S210215	0	AROCLOR 1260	0.09	0.1	mg/Kg	8082	90	49-153		LFB	
	0	PCBS (Total Aroclors)	0.09	0.1	mg/Kg	8082	90	29-131		LFB	
DXS_210210	0	DIESEL (C12 - C24)	107	125	mg/Kg	NWTPH-Dx	86	70-130		LFB	
GXS_210217	0	BENZENE	0.8	1	mg/Kg	8260C	80	80-120		LFB	
	0	ETHYLBENZENE	1.0	1	mg/Kg	8260C	100	80-120		LFB	
	0	GAS Range Organics	63.4	62.5	mg/Kg	8260C	101	80-120		LFB	
	0	TOLUENE	0.8	1	mg/Kg	8260C	80	80-120		LFB	
	0	TOTAL XYLENES	2.8	3	mg/Kg	8260C	93	80-120		LFB	
Low-Level Lab Fortified Blank											
GXS_210217	0	FLUOROBENZENE (IS)	17		AREA	8260C		50-150		LLFB	
	0	d8-TOLUENE (Surr)	98		%	8260C		50-150		LLFB	
	0	BENZENE	0.033	0.025	mg/Kg	8260C	132	50-150		LLFB	
	0	ETHYLBENZENE	0.12	0.1	mg/Kg	8260C	120	50-150		LLFB	
	0	GAS Range Organics	29.6	25	mg/Kg	8260C	118	50-150		LLFB	
	0	TOLUENE	0.10	0.1	mg/Kg	8260C	100	50-150		LLFB	
	0	TOTAL XYLENES	0.37	0.3	mg/Kg	8260C	123	50-150		LLFB	
Laboratory Reagent Blank											
6010_210212A	0	LEAD	ND		mg/L	6010D		0-0		LRB	
Method Blank											
6010_210212A	0	LEAD	ND		mg/L	6010D		0-0		MB	
8082_S210215	0	AROCLOR 1016	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1221	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1232	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1242	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1248	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1254	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1260	ND		mg/Kg	8082		0-0		MB	
	0	AROCLOR 1268	ND		mg/Kg	8082		0-0		MB	
	0	PCBS (Total Aroclors)	ND		mg/Kg	8082		0-0		MB	
DXS_210210	0	DIESEL (C12 - C24)	ND		mg/Kg	NWTPH-Dx		0-0		MB	
	0	HEAVIER OILS (>C24)	ND		mg/Kg	NWTPH-Dx		0-0		MB	
GXS_210217	0	BENZENE	ND		mg/Kg	8260C		0-0		MB	
	0	ETHYLBENZENE	ND		mg/Kg	8260C		0-0		MB	
	0	GAS Range Organics	ND		mg/Kg	8260C		0-0		MB	
	0	TOLUENE	ND		mg/Kg	8260C		0-0		MB	
	0	TOTAL XYLENES	ND		mg/Kg	8260C		0-0		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QCIndependent4.rpt

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **21-03843**
Report Date: 02/25/21

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
Quality Control Sample										
6010_210212A	0 LEAD	2.08	2	mg/L	6010D	104	90-110		QCS	

*Notation:
% Recovery = (Result of Analysis)/(True Value) * 100
NA = Indicates % Recovery could not be calculated.
Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QCIndependent4.rpt

SAMPLE DEPENDENT
QUALITY CONTROL REPORT
Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result		Units	%RPD	Limits	QC Qualifier	Type	Comments
8082_S210215											
12674-11-2	7419	AROCLOR 1016	ND	ND	H4	mg/Kg	**NA**	0-50		DUP	
11104-28-2	7419	AROCLOR 1221	ND	ND		mg/Kg	**NA**	0-50		DUP	
11141-16-5	7419	AROCLOR 1232	ND	ND		mg/Kg	**NA**	0-50		DUP	
53469-21-9	7419	AROCLOR 1242	ND	ND		mg/Kg	**NA**	0-50		DUP	
12672-29-6	7419	AROCLOR 1248	ND	ND		mg/Kg	**NA**	0-50		DUP	
11097-69-1	7419	AROCLOR 1254	ND	ND		mg/Kg	**NA**	0-50		DUP	
11096-82-5	7419	AROCLOR 1260	ND	ND		mg/Kg	**NA**	0-50		DUP	
11100-14-4	7419	AROCLOR 1268	ND	ND		mg/Kg	**NA**	0-50		DUP	
1336-36-3	7419	PCBS (Total Aroclors)	ND	ND		mg/Kg	**NA**	0-50		DUP	
DXS_210210											
NA	7420	DIESEL (C12 - C24)	ND	ND		mg/Kg	**NA**	0-30		DUP	
NA	7420	HEAVIER OILS (>C24)	ND	ND		mg/Kg	**NA**	0-30		DUP	
GXS_210217											
71-43-2	7418	BENZENE	ND	ND		mg/Kg	**NA**	0-30		DUP	
100-41-4	7418	ETHYLBENZENE	ND	ND		mg/Kg	**NA**	0-30		DUP	
68334-30-5	7418	GAS Range Organics	ND	ND		mg/Kg	**NA**	0-30		DUP	
108-88-3	7418	TOLUENE	ND	ND		mg/Kg	**NA**	0-30		DUP	
1330-20-7	7418	TOTAL XYLENES	ND	ND		mg/Kg	**NA**	0-30		DUP	
TS_210208											
E-10151	7418	TOTAL SOLIDS FOR CALCULATION	91.41	90.54		%	**1.0**	0-20		DUP	
E-10151	7419	TOTAL SOLIDS FOR CALCULATION	92.56	91.19		%	**1.5**	0-20		DUP	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

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FORM: QC Dependent.rpt

Reference Number: 21-03843
Report Date: 2/25/2021

Laboratory Fortified Matrix (MS)

Batch/CAS	Sample	Analyte	Result	Spike Result	Duplicate Spike Result	Conc	Units	Percent Recovery MS	Percent Recovery MSD	Limits*	%RPD	Limits*	QC Qualifier	Type	Comments
8082_S210215															
11096-82-5	7420	AROCLOR 1260	ND	0.10		0.11	mg/Kg	**91**	**NA**	49-153	**NA**	0-20		LFM	
1336-36-3	7420	PCBS (Total Aroclors)	ND	0.10		0.11	mg/Kg	**91**	**NA**	29-131	**NA**	0-20		LFM	
GXS_210217															
71-43-2	7418	BENZENE	ND	0.9		1.2	mg/Kg	**75**	**NA**	70-130	**NA**	0-0		LFM	
100-41-4	7418	ETHYLBENZENE	ND	1.1		1.2	mg/Kg	**92**	**NA**	70-130	**NA**	0-0		LFM	
108-88-3	7418	TOLUENE	ND	0.9		1.2	mg/Kg	**75**	**NA**	70-130	**NA**	0-0		LFM	
1330-20-7	7418	TOTAL XYLENES	ND	3.2		3.6	mg/Kg	**89**	**NA**	70-130	**NA**	0-0		LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

QUALITY CONTROL REPORT
SURROGATE REPORT

Reference Number: 21-03843
Report Date: 02/25/21

Lab No	Analyte	Result	Qualifier	Units	Method	Limit
GXS_210217						
7418	d8-TOLUENE (Surr)	96		%	8260C	Acceptance Range: 50-150%
8082_S210215						
7418	DECACHLOROBIPHENYL (Surr)	82		%	8082	
	TETRACHLORO-M-XYLENE (Surr)	91		%		
DXS_210210						
7418	O-TERPHENYL	105		%	NWTPH-Dx	
8082_S210215						
7419	DECACHLOROBIPHENYL (Surr)	83		%	8082	
	TETRACHLORO-M-XYLENE (Surr)	90		%		
DXS_210210						
7419	O-TERPHENYL	115		%	NWTPH-Dx	
8082_S210215						
7420	DECACHLOROBIPHENYL (Surr)	85		%	8082	
	TETRACHLORO-M-XYLENE (Surr)	89		%		
DXS_210210						
7420	O-TERPHENYL	89		%	NWTPH-Dx	

*Notation:

A surrogate is a pure compound added to a sample in the laboratory just before processing so that the overall efficiency of a meA surrogate is a pure compound added to a sample in the la

The Acceptance Limits (or Control Limits) approximate a 99% confidence interval around the mean recovery.

Qualifier Definitions

Reference Number: 21-03843
Report Date: 02/25/21

Qualifier	Definition
H4	Sample was extracted past required extraction holding time, but analyzed within analysis holding time.
INH	The sample was non-homogeneous

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.

Chain of Custody / Analysis Request (Please 21-03843 7418 - 7420 sections)

Report to:	Skagit County Public Works	Bill to:	Skagit County Public Works SKA02
Ship Address:	1800 Continental Place	Address:	1800 Continental Place
City:	Mount Vernor St: WA Zip: 98273	City:	Mount Vernon St: WA Zip: 98273
Attn:	~~Kevin Jackman~~ John Rapp	Phone:	FAX:
Phone:	360.416-1400 FAX:	P.O.#:	Attn:
Email:	~~kevinj@co.skagit.wa.us~~;meghanm@co.skagit.wa.us	☐ Visa ☐ M/C ☐ A/E	Expires /
Project	8260 Soil	Card#:	

johnr@co.skagit.wa.us

For Lab Use Only
Ref #

Check Regulatory Program
- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☐ RCRA / CERCLA
- ☐ Other

EDGE ANALYTICAL
Main Lab (800-755-9295)
1620 South Walnut St. Burlington, WA 98233
Microbiology (888-725-1212)
805 W. Orchard Dr. Suite 4 Bellingham, WA 98225
Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
1100 NE Circle Blvd, Ste 130, Corvallis, OR 97330
Bend Lab (541-639-8425)
20332 Empire Ave Ste F4, Bend, OR 97703

Instructions
1. Use one line per sample Location.
2. Be specific in analysis requests.
3. *(NEW)* **List each metal individually** *(NEW)*
4. Check off analyses to be performed for each sample Location.
5. Enter number of containers.

Turn Around Time Required
- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

CO047173

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	5035/8260 (Soil)	8082-PCB	NWTPH-Dx (Soil)	Pb					Number of Containers	Special Instructions Conditions on Receipt
1	Soil-1-020321	Transfer Station Soil		S	020321	1030	X	X	X	X					7	
2	Soil-2-020321					1050		X	X	X					3	
3	Soil-3-020321					1110		X	X	X					3	
4																
5																
6																
7																
8																
9																

JC 020321

Are there known hazardous or dangerous wastes in these samples? YES (NO) If YES, indicate type on reverse of this form; samples may be returned to you.

13 Total Containers

Sampled by: John Rapp Phone: 3604161434 FAX: Email: johnr@co.skagit.wa.us

Sample Receipt Request (Must include FAX or Email) ☒

*W - water SW - surface water WW - waste water SL - salt water
DW - drinking water ST - storm water S - soil OL - oil Other:

**Relinquished by	Date	Time	Received by	Date	Time
John Rapp	020321	1146	MME	2.3.21	1205

	Yes	No	N/A
Custody seals intact	☐	☐	☒
Sample temp 15.6 C satisfactory	☒	☐	☐
Samples received intact	☒	☐	
Chain of custody & labels agree	☒	☐	

FORM: COC 6-27-2018

W1

Burlington, WA *Corporate Laboratory (a)*
1620 S Walnut St - Burlington, WA 98233 - **800.755.9295** • 360.757.1400

Bellingham, WA *Microbiology (b)*
805 Orchard Dr Ste 4 - Bellingham, WA 98225 - 360.715.1212

Portland, OR *Microbiology/Chemistry (c)*
9150 SW Pioneer Ct Ste W - Wilsonville, OR 97070 - 503.682.7802

Corvallis, OR *Microbiology/Chemistry (d)*
1100 NE Circle Blvd, Ste 130 - Corvallis, OR 97330 - 541.753.4946

Bend, OR *Microbiology (e)*
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425

March 10, 2021

Mr. John Rapp
Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

RE: 21-07212 - Transfer Station Soil

Dear Mr. John Rapp,

Your project: Transfer Station Soil, was received on Tuesday March 02, 2021.

All samples were analyzed within the accepted holding times and were appropriately preserved and analyzed according to approved analytical protocols, unless noted in the data or QC reports. The quality control data was within laboratory acceptance limits, unless specified in the data or QC reports.

If you have questions phone us at 800 755-9295.

Respectfully

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

Enclosures: Data Report
QC Reports
Chain of Custody

EDGE ANALYTICAL

Burlington, WA *Corporate Laboratory (a)*
1620 S Walnut St - Burlington, WA 98233 - **800.755.9295** • 360.757.1400

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Corvallis, OR *Microbiology/Chemistry (d)*
1100 NE Circle Blvd, Ste 130 - Corvallis, OR 97330 - 541.753.4946

Bend, OR *Microbiology (e)*
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425

Data Report

Client Name: Skagit County Public Works
1800 Continental Place
Mount Vernon, WA 98273

Reference Number: **21-07212**
Project: Transfer Station Soil

Report Date: 3/10/21

Date Received: 3/2/21
Approved by: bsp,hy
Authorized by:

Lawrence J Henderson, PhD
Director of Laboratories, Vice President

Sample Description: TS-Soil-030221 Ovenell (Soil) Matrix S Sample Date: 3/2/21 12:30 pm
Lab Number: 14176 Sample Comment: Collected By: John Rapp

CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
NA	**DIESEL (C12 - C24)**	ND	50		mg/Kg	1.0	NWTPH-Dx/3550B	a	3/5/21	KRM	DXS_210305	
NA	**HEAVIER OILS (>C24)**	131	50		mg/Kg	1.0	NWTPH-Dx/3550B	a	3/5/21	KRM	DXS_210305	
E-10151	**TOTAL SOLIDS FOR CALCULATION**	91.98	0.10		%	1.0	SM2540 G	a	3/3/21	TJB	TS_210302	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact us at the above phone number.

Form: cRslt_2.rpt

SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Reference Number: **21-07212**
Report Date: 03/10/21

Batch	Analyte	Result	True Value	Units	Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
Laboratory Fortified Blank										
DXS_210305	0 DIESEL (C12 - C24)	102	125	mg/Kg	NWTPH-Dx	82	70-130		LFB	
Method Blank										
DXS_210305	0 DIESEL (C12 - C24)	ND		mg/Kg	NWTPH-Dx		0-0		MB	
	0 HEAVIER OILS (>C24)	ND		mg/Kg	NWTPH-Dx		0-0		MB	

*Notation:
% Recovery = (Result of Analysis)/(True Value) * 100
NA = Indicates % Recovery could not be calculated.
Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

SAMPLE DEPENDENT
QUALITY CONTROL REPORT
Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Duplicate

Batch	Sample	Analyte	Result	Duplicate Result	Units	%RPD	Limits	QC Qualifier	Type	Comments
DXS_210305										
NA	13460	DIESEL (C12 - C24)	ND	ND	mg/Kg	**NA**	0-30		DUP	
NA	13460	HEAVIER OILS (>C24)	ND	ND	mg/Kg	**NA**	0-30		DUP	
TS_210302										
E-10151	13457	TOTAL SOLIDS FOR CALCULATION	35.87	34.87	%	**2.8**	0-20		DUP	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

QUALITY CONTROL REPORT
SURROGATE REPORT

Reference Number: 21-07212
Report Date: 03/10/21

Lab No	Analyte	Result	Qualifier	Units	Method	Limit
DXS_210305						
14176	O-TERPHENYL	90		%	NWTPH-Dx	

*Notation:

A surrogate is a pure compound added to a sample in the laboratory just before processing so that the overall efficiency of a meA surrogate is a pure compound added to a sample in the la

The Acceptance Limits (or Control Limits) approximate a 99% confidence interval around the mean recovery.

Chain of Custody / Analysis Request

Lab Re 21-07212 14176

Page 1 of 1

Report to: Skagit County Public Works	Bill to: SAME		Client Code:
Address: 1800 Continental Pl	Address:		
City: Mount Vernon St: WA Zip: 98273	City: St: Zip:		
Attn: John Rapp	Attn: P.O.#:		
Phone: (360) 416-1400	Phone:		
Email: johnr@co.skagit.wa.us	Email:		
Project Transfer Station Soil	Card#: Expires /		

Check Regulatory Program

- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☐ RCRA / CERCLA
- ☐ Other

EDGE ANALYTICAL

Main Lab (800-755-9295)
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1100 NE Circle Blvd, Ste 130, Corvallis, OR 97330
Bend Lab (541-639-8425)
20332 Empire Ave Ste F4, Bend, OR 97703

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. List each metal individually
4. Check off analyses to be performed for each sample Location.
5. Enter number of containers.
6. ***(NEW)*** Report to __ MDL or __ PQL ***(NEW)***

Turn Around Time Required

- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	NWTPH-Dx (soil)	Number of Containers	Special Instructions Conditions on Receipt
1									
2	TS-soil-030221	Ovcnell (soil)		S	030221	1230	X	1	
3									
4									
5									
6									
7									
8									
9									

**Are there known hazardous or dangerous wastes in these samples? YES / NO If YES, indicate type on reverse of this form; samples may be returned to you.

/ Total Containers

Sampled by: John Rapp Phone: 360-416-1434 FAX: Email: johnr@co.skagit.wa.us

Sample Receipt Request (Must include Email) ☒

* **W** - water **SW** - surface water **WW** - waste water **SL** - salt water
DW - drinking water **ST** - storm water **S** - soil **OL** - oil Other:

**Relinquished by	Date	Time	Received by	Date	Time
John Rapp	030221	1330			
			MME	3.2.21	1354

	Yes	No	N/A
Custody seals intact	☐	☐	☒
Sample temp 11.6 C satisfactory	☒	☐	☐
Samples received intact	☒	☐	
Chain of custody & labels agree	☒	☐	

FORM: COC Rev 2-2-21

W1