

RECEIVED

SEP 28 2017

Dept of Ecology
Central Regional Office



September 19, 2017

Mr. Jonathan Bousseilaire
c/o ORRCO
4150 N. Suttle Road
Portland, Oregon 97217

SUBJECT: Confirmatory Sampling Subsequent to January 29, 2017 Oil Spill at the Oil Re-Refining Company, Inc. Facility at 403 N. Dayton Road, Kennewick, Washington 98336. ERTS# 675325.

Dear Mr. Bousseilaire:

At your request, Coles + Betts Environmental Consulting, LLC (C+BEC) visited ORRCO's Kennewick facility to collect three confirmatory soil samples from the oil spill's cleanup area. C+BEC's observations, sample collection activities, the analytical laboratory results, and C+BEC's recommendations are discussed herein.

Field Observations

Ms. Jill Betts, L.G. of C+BEC visited the facility on September 12, 2017 with you, a representative of the property owner. Ms. Betts inspected the spill area, the spill remediation area, and the surrounding area and did not observe any evidence of contamination (*i.e.*, odor, discolored or stained soils, and/or stressed vegetation). The area impacted by the spill is located south and east of the tank building, and the contaminated soil removal area is located south of the tank building. Both areas are indicated in the attached map.

Sample Collection and Analysis

C+BEC collected three confirmatory soil samples from native soils from within the soil excavation area:

- C1 from the western end of the excavation, and closest to the spill source location at 14" below ground surface (bgs),
- C2 from the center of the excavation area at 10.5" bgs, and
- C3 from the eastern end of the excavation area at 9 inches bgs.

The confirmatory soil samples were collected using a shovel and trowel. Fill material (gravel) was encountered above the native silts. Evidence of contamination (odor, discoloration, and sheen) were not observed.

The soil samples were transported in a chilled container by C+BEC to Portland, Oregon, and were submitted to you for delivery to Apex Labs of Tigard, Oregon. Each confirmatory soil sample was analyzed for diesel- and oil-range petroleum hydrocarbons by NWTPH-Dx.

www.ColesandBetts.com

David G. Coles, R.G., L.G.: (503) 636-3102, dcolescec@comcast.net
Jill S. Betts, R.G., L.G.: (503) 819-2835, jill@colesandbetts.com

Analytical Laboratory Results

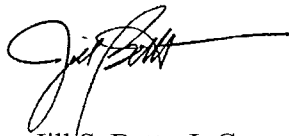
The analytical test results were compared to Washington Department of Ecology (Ecology) Model Toxics Control Act (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses for diesel range organics and heavy oils (2,000 mg/kg). Diesel- and oil-range petroleum hydrocarbons were not detected above method reporting limits (25 mg/kg and 50 mg/kg, respectively). The method reporting limit is well below the Method A Soil Cleanup Level of 2,000 mg/kg. The analytical laboratory report and chain of custody are attached.

Recommendation

Based on the analytical testing results, the spill remediation activities were successful, and additional soil removal activities and additional soil sampling are not necessary.

Please contact the undersigned with any questions.

Regards,



Jill S. Betts, L.G.
Principal

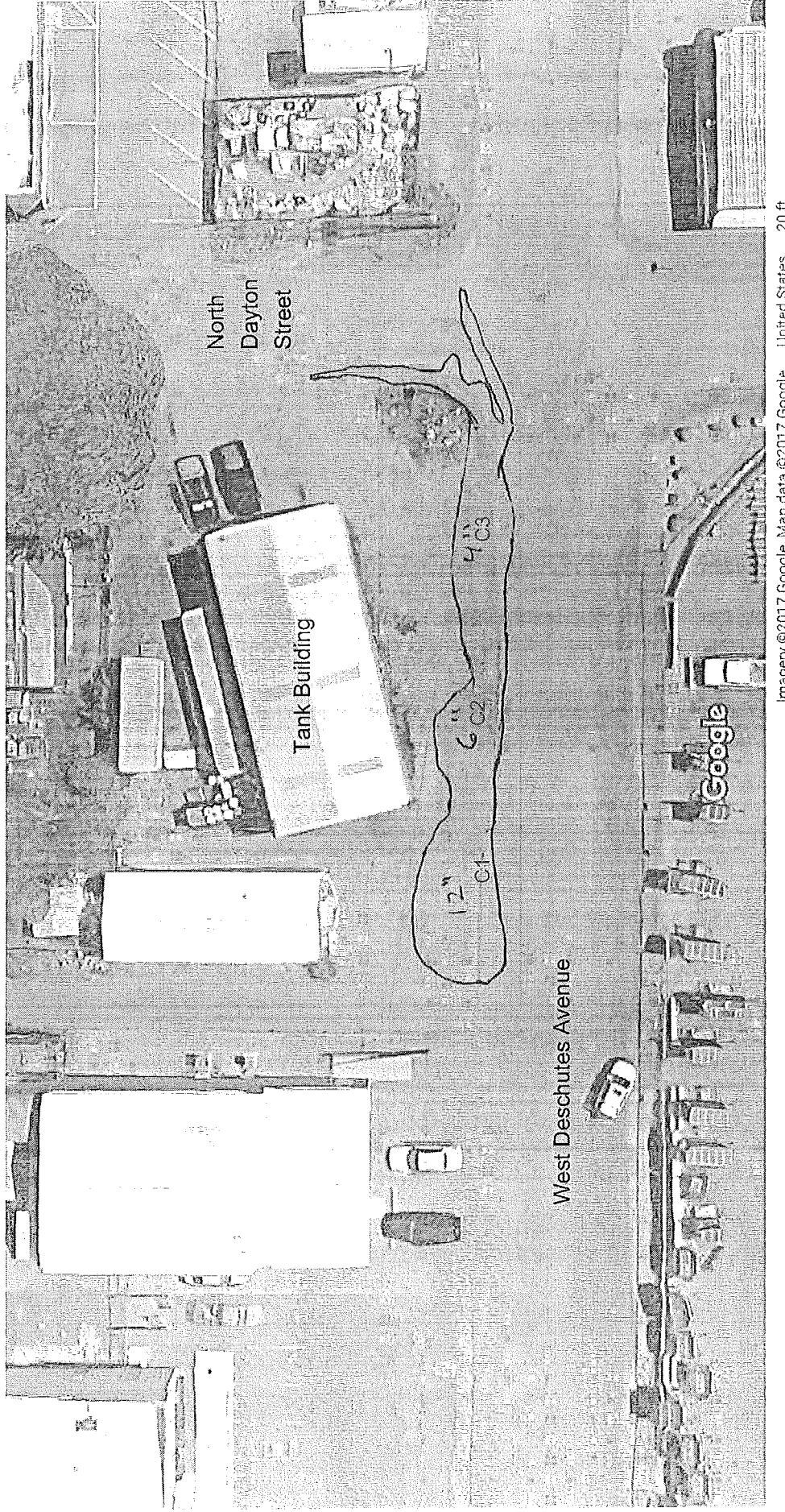
Attachments:

Site Map

Analytical Laboratory Report and Chain of Custody

ORRCO Kennewick Spill Remediation Map 403 N. Dayton Street, Kennewick, WA

Google Maps



NOTES:

The spill area is outlined in black.

The approximate soil removal area is outlined with the red box. The remaining spill area (outlined in black) was cleaned up using absorbent material and spill pads. The inches (e.g., 12") indicate the approximate, maximum excavation depth within the soil removal area.

The approximate confirmatory soil sample locations are indicated as C1, C2, and C3. The confirmatory sample depths are C1 = 14"; C2 = 10.5"; and C3 = 9", and soil samples were collected from native soils.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Monday, September 18, 2017

Jill Betts
Coles & Betts Environmental Consulting
750 S. Rosemont Rd
West Linn, OR 97068

RE: Kennewick / 141

Enclosed are the results of analyses for work order A7I0329, which was received by the laboratory on 9/13/2017 at 5:10:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: ldomenighini@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Lisa Domenighini, Client Services Manager

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Coles & Betts Environmental Consulting
750 S. Rosemont Rd
West Linn, OR 97068

Project: Kennewick
Project Number: 141
Project Manager: Jill Betts

Reported:
09/18/17 14:19

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
C1	A7I0329-01	Soil	09/12/17 13:11	09/13/17 17:10
C2	A7I0329-02	Soil	09/12/17 13:25	09/13/17 17:10
C3	A7I0329-03	Soil	09/12/17 13:35	09/13/17 17:10

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Coles & Betts Environmental Consulting
750 S. Rosemont Rd
West Linn, OR 97068

Project: **Kennewick**
Project Number: 141
Project Manager: Jill Betts

Reported:
09/18/17 14:19

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
C1 (A7I0329-01RE1)			Matrix: Soil		Batch: 7090648			
Diesel	ND	---	25.0	mg/kg dry	1	09/15/17 23:33	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 89%</i>		<i>Limits: 50-150%</i>		"	"	"
C2 (A7I0329-02)			Matrix: Soil		Batch: 7090622			
Diesel	ND	---	25.0	mg/kg dry	1	09/15/17 01:06	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 85%</i>		<i>Limits: 50-150%</i>		"	"	"
C3 (A7I0329-03)			Matrix: Soil		Batch: 7090622			
Diesel	ND	---	25.0	mg/kg dry	1	09/15/17 01:27	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: 90%</i>		<i>Limits: 50-150%</i>		"	"	"

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Reported:
09/18/17 14:19

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight								
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
C1 (A7I0329-01)			Matrix: Soil		Batch: 7090625			
% Solids	90.8	---	1.00	% by Weight	1	09/15/17 08:18	EPA 8000C	
C2 (A7I0329-02)			Matrix: Soil		Batch: 7090625			
% Solids	92.3	---	1.00	% by Weight	1	09/15/17 08:18	EPA 8000C	
C3 (A7I0329-03)			Matrix: Soil		Batch: 7090625			
% Solids	88.5	---	1.00	% by Weight	1	09/15/17 08:18	EPA 8000C	

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Project: Kennewick
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Project Manager: Jill Betts

Reported:
09/18/17 14:19

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090622 - EPA 3546 (Fuels)						Soil						
Blank (7090622-BLK1)						Prepared: 09/14/17 12:14 Analyzed: 09/14/17 22:39						
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 86 %		Limits: 50-150 %		Dilution: 1x						
LCS (7090622-BS1)						Prepared: 09/14/17 12:14 Analyzed: 09/14/17 23:00						
NWTPH-Dx												
Diesel	113	---	25.0	mg/kg wet	1	125	---	91	76-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 100 %		Limits: 50-150 %		Dilution: 1x						
Batch 7090648 - EPA 3546 (Fuels)						Soil						
Blank (7090648-BLK1)						Prepared: 09/15/17 08:27 Analyzed: 09/15/17 11:30						
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 92 %		Limits: 50-150 %		Dilution: 1x						
LCS (7090648-BS1)						Prepared: 09/15/17 08:27 Analyzed: 09/15/17 11:51						
NWTPH-Dx												
Diesel	118	---	25.0	mg/kg wet	1	125	---	94	76-115%	---	---	
Surr: o-Terphenyl (Surr)		Recovery: 105 %		Limits: 50-150 %		Dilution: 1x						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7090625 - Total Solids (Dry Weight)						Soil						
Duplicate (7090625-DUP1)					Prepared: 09/14/17 12:31		Analyzed: 09/15/17 08:18					
QC Source Sample: C1 (A7I0329-01)												
EPA 8000C												
% Solids	88.5	---	1.00	% by Weight	1	---	90.8	---	---	3	10%	

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09/18/17 14:19

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7090622							
A7I0329-02	Soil	NWTPH-Dx	09/12/17 13:25	09/14/17 12:14	10.66g/5mL	10g/5mL	0.94
A7I0329-03	Soil	NWTPH-Dx	09/12/17 13:35	09/14/17 12:14	10.79g/5mL	10g/5mL	0.93
Batch: 7090648							
A7I0329-01RE1	Soil	NWTPH-Dx	09/12/17 13:11	09/15/17 08:27	10.94g/5mL	10g/5mL	0.91

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7090625							
A7I0329-01	Soil	EPA 8000C	09/12/17 13:11	09/14/17 12:31	1N/A/1N/A	1N/A/1N/A	NA
A7I0329-02	Soil	EPA 8000C	09/12/17 13:25	09/14/17 12:31	1N/A/1N/A	1N/A/1N/A	NA
A7I0329-03	Soil	EPA 8000C	09/12/17 13:35	09/14/17 12:31	1N/A/1N/A	1N/A/1N/A	NA

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Notes and Definitions

Qualifiers:

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry' designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).



Coles & Betts Environmental Consulting	Project: Kennewick	
750 S. Rosemont Rd	Project Number: 141	Reported:
West Linn, OR 97068	Project Manager: Jill Betts	09/18/17 14:19

LES + BETTS ENVIRONMENTAL CONSULTING, LLC Laboratory				Apex Labs				CHAIN OF CUSTODY			
750 S Resmont Rd. 502-319-2835				Lab Project No				Chain of Custody No			
Project Manager Jill Betts		Project No. 141		Liquid with Sediment Sample Test: Partials		Test: Sediment		Samples Received at 4°C (Y or N) Appropriate Containers Used (Y or N) Provides Verbi Results (Y or N) Provides Preliminary Fac Results			
Project Name Collected by Jill Betts		Project Name Collected by Jill Betts		Multi-Phase Sample Test: One (which)		Test: Separately		Test Date Shake			
Comments Sample Number: Proj#		Matrix		Number of Containers		Analyses to be Performed		Remarks			
Please bill to: COLES + BETTS		Soil		Other		Waste		RUSH			
L-# ID		Sample #		Date		Time		Sample Description			
C1		9/12/17		1:11		W. end 14"					
C2		1:25		Center 105"							
C3		1:35		E. end 9"							
Requested by J. Smith		Company BETTS		Date 9/13/17		Time 4:45 PM		Received by J. Smith		Company BETTS	
Requested by J. Smith		Company BETTS		Date 9/13/17		Time 4:45 PM		Received by J. Smith		Company BETTS	

Qusa A Zomerghini

Apex Labs

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

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West Linn, OR 97068

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Project Number: 141
Project Manager: Jill Betts

Reported:
09/18/17 14:19

APEX LABS COOLER RECEIPT FORM

Client: Coles + Betts Element WO#: A7 I0324

Project/Project #: Kennewick

Delivery info:

Date/Time Received: 9/13/17 @ 1710 By: CB

Delivered by: Apex ☒ Client ☒ ESS ☐ FedEx ☐ UPS ☐ Swift ☐ Senvoy ☐ SDS ☐ Other ☐

Cooler Inspection Inspected by: CB : 9/13/17 @ 1710

Chain of Custody Included? Yes ☒ No ☐ Custody Seals? Yes ☐ No ☒

Signed/Dated by Client? Yes ☒ No ☐

Signed/Dated by Apex? Yes ☒ No ☐

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	<u>7.5</u>						
Received on Ice? (Y/N)	<u>(Y)</u>						
Temp. Blanks? (Y/N)	<u>(Y)</u>						
Ice Type: (Gel/Real/Other)	<u>(Gel)</u>						
Condition:							

Cooler out of temp? (Y/N) (Y) Possible reason why:

If some coolers are in temp and some out, was green dot applied to out of temperature samples? Yes/No/NA (NA)

Samples Inspection: Inspected by: CB : 9/13/17 @ 1710

All Samples Intact? Yes ☒ No ☐ Comments:

Bottle Labels/COCs agree? Yes ☒ No ☐ Comments:

Containers/Volumes Received Appropriate for Analysis? Yes ☒ No ☐ Comments:

Do VOA Vials have Visible Headspace? Yes ☐ No ☐ NA ☒

Comments:

Water Samples: pH Checked and Appropriate (except VOAs): Yes ☐ No ☐ NA ☒

Comments:

Additional Information:

Labeled by: WJ Witness: WJ Cooler Inspected by: CB See Project Contact Form: Y

Apex Laboratories

Lisa A. Domenighini

Lisa Domenighini, Client Services Manager

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