



February 2, 2015

Stan Spencer
NW Environmental Protection Specialist
Colorado Oil and Gas Conservation Commission
796 Megan Ave, Suite 201,
Rifle, CO 81650

Re: Johnson Tank Farm Produced Water Spill Closure Request

Dear Mr. Spencer,

Attached are the laboratory reports and the sample location map for soil samples collected from the excavated area, excavated material, and nearby non-impacted native soil in order to close the produced water spill that occurred at the Johnson's Tank Farm on December 13, 2014.

- Five grab samples were collected from the impacted area and were analyzed for the constituents listed in COGCC Table 910-1.
- One composite sample was collected from the treated material landfarm and was analyzed for the constituents listed in COGCC Table 910-1.
- Three grab samples were collected from nearby non-impacted, native soil to establish the background concentrations for arsenic. In accordance with the COGCC Rule 910.b.(3)E. one grab sample was analyzed for inorganics to establish background soil conditions.

The sample collected from the east wall tested above the COGCC cleanup standards for benzo(a)pyrene. Additional excavation was completed and the east wall was resampled on January 5, 2015. The material generated during the additional excavation of the east wall was mixed with the rest of the excavated material and tested for benzo(a)pyrene only.

As the attached laboratory reports indicate, the excavated area and the excavated material tested below the COGCC Table 910-1 cleanup requirements or below the background concentrations with the exception of EC. Therefore, in accordance with COGCC guideline Q32 regarding inorganics, the impacted area was covered with 3' of clean soil.

Based on these results, WPX respectfully requests closure of this incident.

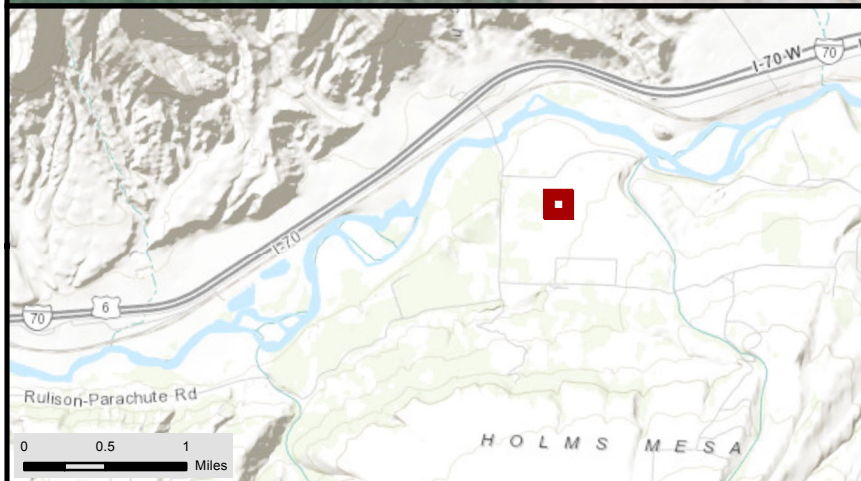
Please do not hesitate to contact me at (970) 683-2295 should you have any questions or concerns.

Sincerely,

Karolina Blaney
Environmental Specialist

Attachments:

- Sampling Location Map
- Analytical Results Summary Table
- Laboratory Reports



WPXENERGY Sample Location Map: Johnson Tank Farm

39.488651 -107.931290
Section 30 & 31, Township 6 South, Range 94 West

Sample Location	Transportation	Hydrography
● Sample Location	CO Highways	Ditch
▨ Excavated Area	County Roads	Intermittent Stream
PLSS	Local Streets	Perennial Stream
Township	WPX Access	Waterbody
Section		Watershed



HRI COMPLIANCE SOLUTIONS, INC.
ENVIRONMENTAL CONSULTANTS



Author: B. Hall

Revision: 1

Date: 1/20/2015

Contaminant of Concern ↓	COGCC standards	Location →	North Wall	South Wall	West Wall	East Wall	East Wall	Bottom
		Date Sampled →	12/17/2014	12/17/2014	12/17/2014	12/17/2014	1/5/2015	12/17/2014
Organic Compounds in Soil								
TPH	500	mg/kg	ND	18	ND	10		33
DRO		mg/kg	ND	18	ND	10		25
GRO		mg/kg	ND	ND	ND	ND		8
Benzene	0.17	mg/kg	ND	ND	ND	ND		ND
Toluene	85	mg/kg	ND	ND	ND	ND		ND
Ethylbenzene	100	mg/kg	ND	ND	ND	ND		ND
Xylenes (Total)	175	mg/kg	ND	0.19	ND	ND		0.57
Acenaphthene	1,000	mg/kg	ND	ND	ND	ND		ND
Anthracene	1,000	mg/kg	ND	ND	ND	ND		ND
Benzo(A)anthracene	0.22	mg/kg	ND	ND	ND	0.014		ND
Benzo(B)fluoranthene	0.22	mg/kg	ND	ND	ND	0.026		ND
Benzo(K)fluoranthene	2.2	mg/kg	ND	ND	ND	0.02		ND
Benzo(A)pyrene	0.022	mg/kg	ND	ND	ND	0.031	ND	ND
Chrysene	22	mg/kg	ND	ND	ND	ND		ND
Dibenzo(A,H)anthracene	0.022	mg/kg	ND	ND	ND	ND		ND
Fluoranthene	1,000	mg/kg	ND	ND	ND	ND		ND
Fluorene	1,000	mg/kg	ND	ND	ND	ND		ND
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND	ND	ND	ND		ND
Naphthalene	23	mg/kg	ND	ND	ND	ND		ND
Pyrene	1,000	mg/kg	ND	ND	ND	ND		ND
Inorganics in Soil								
EC	<4 or 2 x background	mmhos/cm	6.7	7.2	4.2	2		2.5
SAR	<12		9.2	11	5.4	2.8		4.9
pH	6-9		8.3	8.1	8.1	8.2		8.1
Metals in Soil								
Arsenic	0.39	mg/kg	5.6	5.6	5	5.7		4.9
Barium total	15,000	mg/kg	280	320	210	200		180
Cadmium	70	mg/kg	ND	ND	ND	ND		ND
Chromium (III)	120,000	mg/kg	15	16	16	15		18
Chromium (VI)	23	mg/kg	ND	ND	ND	ND		ND
Copper	3,100	mg/kg	13	17	15	13		15
Lead	400	mg/kg	14	13	16	14		15
Mercury	23	mg/kg	ND	ND	0.015	ND		ND
Nickel	1,600	mg/kg	18	27	20	19		26
Selenium	390	mg/kg	1.7	2	2.2	1.8		2.2
Silver	390	mg/kg	ND	ND	ND	ND		ND
Zinc	23,000	mg/kg	46	46	49	46		48

Contaminant of Concern ↓	COGCC standards	Location →	Stockpile /excavated material	Stockpile /excavated material	BG-1	BG-2	BG-3
		Date Sampled →	12/17/2014	1/5/2015	1/16/2015	1/16/2015	1/16/2015
Organic Compounds in Soil							
TPH	500	mg/kg	19				
DRO		mg/kg	19				
GRO		mg/kg	ND				
Benzene	0.17	mg/kg	ND				
Toluene	85	mg/kg	ND				
Ethylbenzene	100	mg/kg	ND				
Xylenes (Total)	175	mg/kg	ND				
Acenaphthene	1,000	mg/kg	ND				
Anthracene	1,000	mg/kg	ND				
Benzo(A)anthracene	0.22	mg/kg	ND				
Benzo(B)fluoranthene	0.22	mg/kg	ND				
Benzo(K)fluoranthene	2.2	mg/kg	ND				
Benzo(A)pyrene	0.022	mg/kg	ND	ND			
Chrysene	22	mg/kg	ND				
Dibenzo(A,H)anthracene	0.022	mg/kg	ND				
Fluoranthene	1,000	mg/kg	ND				
Fluorene	1,000	mg/kg	ND				
Indeno(1,2,3-cd)pyrene	0.22	mg/kg	ND				
Naphthalene	23	mg/kg	ND				
Pyrene	1,000	mg/kg	ND				
Inorganics in Soil							
EC	<4 or 2 x background	mmhos/cm	3.8		1.2		
SAR	<12		3.8		0.11		
pH	6-9		8.2		7.6		
Metals in Soil							
Arsenic	0.39	mg/kg	5.8		5	4.8	4.8
Barium total	15,000	mg/kg	370				
Cadmium	70	mg/kg	ND				
Chromium (III)	120,000	mg/kg	15				
Chromium (VI)	23	mg/kg	ND				
Copper	3,100	mg/kg	15				
Lead	400	mg/kg	14				
Mercury	23	mg/kg	ND				
Nickel	1,600	mg/kg	22				
Selenium	390	mg/kg	1.7				
Silver	390	mg/kg	ND				
Zinc	23,000	mg/kg	44				



26-Dec-2014

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Johnson Tank Farm Spill 12.17.14**

Work Order: **14121037**

Dear Mark,

ALS Environmental received 6 samples on 19-Dec-2014 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 33.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Joseph Ribar

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

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Environmental 

www.alsglobal.com

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Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Work Order: 14121037

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14121037-01	Johnson Tank Farm E Sidewall	Soil		12/17/2014 11:07	12/19/2014 09:30	<input type="checkbox"/>
14121037-02	Johnson Tank Farm W Sidewall	Soil		12/17/2014 11:13	12/19/2014 09:30	<input type="checkbox"/>
14121037-03	Johnson Tank Farm N Sidewall	Soil		12/17/2014 11:20	12/19/2014 09:30	<input type="checkbox"/>
14121037-04	Johnson Tank Farm S Bottom	Soil		12/17/2014 11:40	12/19/2014 09:30	<input type="checkbox"/>
14121037-05	Johnson Tank Farm Bottom	Soil		12/17/2014 11:09	12/19/2014 09:30	<input type="checkbox"/>
14121037-06	Johnson Tank Farm Stockpile	Soil		12/17/2014 11:22	12/19/2014 09:30	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Work Order: 14121037

Case Narrative**QC Summary****Metals by ICP**

Batch 66182, Method 6010, Sample 1412903-01AMS: The MS and/or MSD is not related to this project's samples. No qualification is required.

Chromium, Hexavalent

Batch 66250, Method 7196, Sample 14121048-01B MSD: The MS and/or MSD is not related to this project's samples. No qualification is required.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm E Sidewall
Collection Date: 12/17/2014 11:07 AM

Work Order: 14121037
Lab ID: 14121037-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/19/14	Analyst: IT
DRO (C10-C28)	10		4.8	mg/Kg-dry	1	12/19/2014 11:06 PM
Surr: 4-Terphenyl-d14	70.6		39-133	%REC	1	12/19/2014 11:06 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/19/14	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	12/19/2014 05:11 PM
Surr: Toluene-d8	116		50-150	%REC	1	12/19/2014 05:11 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/19/14	Analyst: LR
Mercury	ND		0.016	mg/Kg-dry	1	12/19/2014 04:53 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/19/14	Analyst: JEC
Arsenic	5.7		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Barium	200		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Cadmium	ND		0.35	mg/Kg-dry	1	12/19/2014 05:04 PM
Chromium	15		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Copper	13		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Lead	14		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Nickel	19		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Selenium	1.8		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Silver	ND		0.43	mg/Kg-dry	1	12/19/2014 05:04 PM
Zinc	46		0.87	mg/Kg-dry	1	12/19/2014 05:04 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Calcium	140		5.0	mg/L	10	12/23/2014 11:47 AM
Magnesium	43		2.0	mg/L	10	12/23/2014 11:47 AM
Sodium	150		2.0	mg/L	10	12/23/2014 11:47 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Sodium Adsorption Ratio	2.8		0.010	none	1	12/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/19/14	Analyst: RS
Acenaphthene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Acenaphthylene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Anthracene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Benzo(a)anthracene	14		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Benzo(a)pyrene	31		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Benzo(b)fluoranthene	26		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Benzo(g,h,i)perylene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Benzo(k)fluoranthene	20		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Chrysene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm E Sidewall
Collection Date: 12/17/2014 11:07 AM

Work Order: 14121037
Lab ID: 14121037-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Fluoranthene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Fluorene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Indeno(1,2,3-cd)pyrene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Naphthalene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Pyrene	ND		7.6	µg/Kg-dry	1	12/22/2014 12:15 PM
Surr: 2-Fluorobiphenyl	64.9		12-100	%REC	1	12/22/2014 12:15 PM
Surr: 4-Terphenyl-d14	83.5		25-137	%REC	1	12/22/2014 12:15 PM
Surr: Nitrobenzene-d5	55.4		37-107	%REC	1	12/22/2014 12:15 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/19/14 Analyst: BG		
Benzene	ND		35	µg/Kg-dry	1	12/20/2014 10:25 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	12/20/2014 10:25 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	12/20/2014 10:25 PM
o-Xylene	ND		35	µg/Kg-dry	1	12/20/2014 10:25 PM
Toluene	ND		35	µg/Kg-dry	1	12/20/2014 10:25 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/20/2014 10:25 PM
Surr: 1,2-Dichloroethane-d4	95.3		70-130	%REC	1	12/20/2014 10:25 PM
Surr: 4-Bromofluorobenzene	95.9		70-130	%REC	1	12/20/2014 10:25 PM
Surr: Dibromofluoromethane	95.8		70-130	%REC	1	12/20/2014 10:25 PM
Surr: Toluene-d8	97.0		70-130	%REC	1	12/20/2014 10:25 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 12/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	2.0		0.050	mmhos/cm @2	10	12/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	15		0.59	mg/Kg-dry	1	12/22/2014 05:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/19/14 Analyst: DAH		
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	12/22/2014
MOISTURE			E160.3M	Analyst: LR		
Moisture	15		0.050	% of sample	1	12/21/2014 09:15 PM
PH			SW9045D	Prep: EXTRACT / 12/19/14 Analyst: AXL		
pH	8.2			s.u.	1	12/19/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm W Sidewall
Collection Date: 12/17/2014 11:13 AM

Work Order: 14121037
Lab ID: 14121037-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/19/14	Analyst: IT
DRO (C10-C28)	ND		4.8	mg/Kg-dry	1	12/19/2014 07:26 PM
Surr: 4-Terphenyl-d14	71.2		39-133	%REC	1	12/19/2014 07:26 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/19/14	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	12/19/2014 05:36 PM
Surr: Toluene-d8	117		50-150	%REC	1	12/19/2014 05:36 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/19/14	Analyst: LR
Mercury	0.015	J	0.015	mg/Kg-dry	1	12/19/2014 04:55 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/19/14	Analyst: JEC
Arsenic	5.0		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Barium	210		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Cadmium	ND		0.33	mg/Kg-dry	1	12/19/2014 05:11 PM
Chromium	16		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Copper	15		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Lead	16		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Nickel	20		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Selenium	2.2		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Silver	ND		0.42	mg/Kg-dry	1	12/19/2014 05:11 PM
Zinc	49		0.83	mg/Kg-dry	1	12/19/2014 05:11 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Calcium	230		5.0	mg/L	10	12/23/2014 11:58 AM
Magnesium	77		2.0	mg/L	10	12/23/2014 11:58 AM
Sodium	370		2.0	mg/L	10	12/23/2014 11:58 AM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Sodium Adsorption Ratio	5.4		0.010	none	1	12/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/19/14	Analyst: RS
Acenaphthene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Acenaphthylene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Anthracene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Benzo(a)anthracene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Benzo(a)pyrene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Benzo(b)fluoranthene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Benzo(g,h,i)perylene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Benzo(k)fluoranthene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Chrysene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm W Sidewall
Collection Date: 12/17/2014 11:13 AM

Work Order: 14121037
Lab ID: 14121037-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Fluoranthene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Fluorene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Indeno(1,2,3-cd)pyrene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Naphthalene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Pyrene	ND		7.7	µg/Kg-dry	1	12/22/2014 12:41 PM
Surr: 2-Fluorobiphenyl	70.0		12-100	%REC	1	12/22/2014 12:41 PM
Surr: 4-Terphenyl-d14	88.6		25-137	%REC	1	12/22/2014 12:41 PM
Surr: Nitrobenzene-d5	60.3		37-107	%REC	1	12/22/2014 12:41 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/19/14 Analyst: BG		
Benzene	ND		36	µg/Kg-dry	1	12/20/2014 10:51 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	12/20/2014 10:51 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	12/20/2014 10:51 PM
o-Xylene	ND		36	µg/Kg-dry	1	12/20/2014 10:51 PM
Toluene	ND		36	µg/Kg-dry	1	12/20/2014 10:51 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/20/2014 10:51 PM
Surr: 1,2-Dichloroethane-d4	93.4		70-130	%REC	1	12/20/2014 10:51 PM
Surr: 4-Bromofluorobenzene	96.6		70-130	%REC	1	12/20/2014 10:51 PM
Surr: Dibromofluoromethane	97.6		70-130	%REC	1	12/20/2014 10:51 PM
Surr: Toluene-d8	99.2		70-130	%REC	1	12/20/2014 10:51 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 12/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	4.2		0.050	mmhos/cm @2	10	12/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	16		0.59	mg/Kg-dry	1	12/22/2014 05:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/19/14 Analyst: DAH		
Chromium, Hexavalent	ND		0.59	mg/Kg-dry	1	12/22/2014
MOISTURE			E160.3M	Analyst: LR		
Moisture	16		0.050	% of sample	1	12/21/2014 09:15 PM
PH			SW9045D	Prep: EXTRACT / 12/19/14 Analyst: AXL		
pH	8.1			s.u.	1	12/19/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm N Sidewall
Collection Date: 12/17/2014 11:20 AM

Work Order: 14121037
Lab ID: 14121037-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/19/14	Analyst: IT
DRO (C10-C28)	ND		4.9	mg/Kg-dry	1	12/19/2014 11:34 PM
Surr: 4-Terphenyl-d14	70.2		39-133	%REC	1	12/19/2014 11:34 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/19/14	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	12/19/2014 06:01 PM
Surr: Toluene-d8	117		50-150	%REC	1	12/19/2014 06:01 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/19/14	Analyst: LR
Mercury	ND		0.015	mg/Kg-dry	1	12/19/2014 04:57 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/19/14	Analyst: JEC
Arsenic	5.6		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Barium	280		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Cadmium	ND		0.35	mg/Kg-dry	1	12/19/2014 05:18 PM
Chromium	15		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Copper	13		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Lead	14		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Nickel	18		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Selenium	1.7		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Silver	ND		0.43	mg/Kg-dry	1	12/19/2014 05:18 PM
Zinc	46		0.87	mg/Kg-dry	1	12/19/2014 05:18 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Calcium	230		5.0	mg/L	10	12/23/2014 12:04 PM
Magnesium	120		2.0	mg/L	10	12/23/2014 12:04 PM
Sodium	700		2.0	mg/L	10	12/23/2014 12:04 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Sodium Adsorption Ratio	9.2		0.010	none	1	12/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/19/14	Analyst: RS
Acenaphthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Acenaphthylene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Anthracene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Benzo(a)anthracene	12		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Benzo(a)pyrene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Benzo(b)fluoranthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Benzo(g,h,i)perylene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Benzo(k)fluoranthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Chrysene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm N Sidewall
Collection Date: 12/17/2014 11:20 AM

Work Order: 14121037
Lab ID: 14121037-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Fluoranthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Fluorene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Naphthalene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Pyrene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:06 PM
Surr: 2-Fluorobiphenyl	67.7		12-100	%REC	1	12/22/2014 01:06 PM
Surr: 4-Terphenyl-d14	83.7		25-137	%REC	1	12/22/2014 01:06 PM
Surr: Nitrobenzene-d5	57.0		37-107	%REC	1	12/22/2014 01:06 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/19/14 Analyst: BG		
Benzene	ND		36	µg/Kg-dry	1	12/20/2014 11:16 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	12/20/2014 11:16 PM
m,p-Xylene	ND		71	µg/Kg-dry	1	12/20/2014 11:16 PM
o-Xylene	ND		36	µg/Kg-dry	1	12/20/2014 11:16 PM
Toluene	ND		36	µg/Kg-dry	1	12/20/2014 11:16 PM
Xylenes, Total	ND		110	µg/Kg-dry	1	12/20/2014 11:16 PM
Surr: 1,2-Dichloroethane-d4	96.9		70-130	%REC	1	12/20/2014 11:16 PM
Surr: 4-Bromofluorobenzene	95.5		70-130	%REC	1	12/20/2014 11:16 PM
Surr: Dibromofluoromethane	98.1		70-130	%REC	1	12/20/2014 11:16 PM
Surr: Toluene-d8	94.0		70-130	%REC	1	12/20/2014 11:16 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 12/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	6.7		0.050	mmhos/cm @2	10	12/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	15		0.59	mg/Kg-dry	1	12/22/2014 05:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/19/14 Analyst: DAH		
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	12/22/2014
MOISTURE			E160.3M	Analyst: LR		
Moisture	16		0.050	% of sample	1	12/21/2014 09:15 PM
PH			SW9045D	Prep: EXTRACT / 12/19/14 Analyst: AXL		
pH	8.3			s.u.	1	12/19/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm S Bottom
Collection Date: 12/17/2014 11:40 AM

Work Order: 14121037
Lab ID: 14121037-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/19/14	Analyst: IT
DRO (C10-C28)	18		4.9	mg/Kg-dry	1	12/20/2014 12:01 PM
Surr: 4-Terphenyl-d14	72.2		39-133	%REC	1	12/20/2014 12:01 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/19/14	Analyst: IT
GRO (C6-C10)	ND		3.0	mg/Kg-dry	1	12/19/2014 06:26 PM
Surr: Toluene-d8	117		50-150	%REC	1	12/19/2014 06:26 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/19/14	Analyst: LR
Mercury	ND		0.017	mg/Kg-dry	1	12/19/2014 05:00 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/19/14	Analyst: JEC
Arsenic	5.6		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Barium	320		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Cadmium	ND		0.37	mg/Kg-dry	1	12/19/2014 05:25 PM
Chromium	16		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Copper	17		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Lead	13		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Nickel	27		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Selenium	2.0		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Silver	ND		0.46	mg/Kg-dry	1	12/19/2014 05:25 PM
Zinc	46		0.92	mg/Kg-dry	1	12/19/2014 05:25 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Calcium	240		5.0	mg/L	10	12/23/2014 12:09 PM
Magnesium	130		2.0	mg/L	10	12/23/2014 12:09 PM
Sodium	810		2.0	mg/L	10	12/23/2014 12:09 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Sodium Adsorption Ratio	11		0.010	none	1	12/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/19/14	Analyst: RS
Acenaphthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Acenaphthylene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Anthracene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Benzo(a)anthracene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Benzo(a)pyrene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Benzo(b)fluoranthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Benzo(g,h,i)perylene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Benzo(k)fluoranthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Chrysene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm S Bottom
Collection Date: 12/17/2014 11:40 AM

Work Order: 14121037
Lab ID: 14121037-04
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Fluoranthene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Fluorene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Indeno(1,2,3-cd)pyrene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Naphthalene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Pyrene	ND		7.9	µg/Kg-dry	1	12/22/2014 01:32 PM
Surr: 2-Fluorobiphenyl	65.5		12-100	%REC	1	12/22/2014 01:32 PM
Surr: 4-Terphenyl-d14	87.6		25-137	%REC	1	12/22/2014 01:32 PM
Surr: Nitrobenzene-d5	53.9		37-107	%REC	1	12/22/2014 01:32 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/19/14 Analyst: BG		
Benzene	ND		37	µg/Kg-dry	1	12/20/2014 11:42 PM
Ethylbenzene	ND		37	µg/Kg-dry	1	12/20/2014 11:42 PM
m,p-Xylene	110		73	µg/Kg-dry	1	12/20/2014 11:42 PM
o-Xylene	75		37	µg/Kg-dry	1	12/20/2014 11:42 PM
Toluene	ND		37	µg/Kg-dry	1	12/20/2014 11:42 PM
Xylenes, Total	190		110	µg/Kg-dry	1	12/20/2014 11:42 PM
Surr: 1,2-Dichloroethane-d4	91.0		70-130	%REC	1	12/20/2014 11:42 PM
Surr: 4-Bromofluorobenzene	96.9		70-130	%REC	1	12/20/2014 11:42 PM
Surr: Dibromofluoromethane	94.8		70-130	%REC	1	12/20/2014 11:42 PM
Surr: Toluene-d8	98.8		70-130	%REC	1	12/20/2014 11:42 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 12/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	7.2		0.050	mmhos/cm @2	10	12/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	16		0.61	mg/Kg-dry	1	12/22/2014 05:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/19/14 Analyst: DAH		
Chromium, Hexavalent	ND		0.61	mg/Kg-dry	1	12/22/2014
MOISTURE			E160.3M	Analyst: LR		
Moisture	18		0.050	% of sample	1	12/21/2014 09:15 PM
PH			SW9045D	Prep: EXTRACT / 12/19/14 Analyst: AXL		
pH	8.1			s.u.	1	12/19/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm Bottom
Collection Date: 12/17/2014 11:09 AM

Work Order: 14121037
Lab ID: 14121037-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/19/14	Analyst: IT
DRO (C10-C28)	25		4.9	mg/Kg-dry	1	12/20/2014 12:29 PM
Surr: 4-Terphenyl-d14	68.5		39-133	%REC	1	12/20/2014 12:29 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/19/14	Analyst: IT
GRO (C6-C10)	8.0		3.0	mg/Kg-dry	1	12/19/2014 06:50 PM
Surr: Toluene-d8	107		50-150	%REC	1	12/19/2014 06:50 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/19/14	Analyst: LR
Mercury	ND		0.015	mg/Kg-dry	1	12/19/2014 05:02 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/19/14	Analyst: JEC
Arsenic	4.9		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Barium	180		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Cadmium	ND		0.30	mg/Kg-dry	1	12/19/2014 05:31 PM
Chromium	18		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Copper	15		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Lead	15		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Nickel	26		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Selenium	2.2		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Silver	ND		0.38	mg/Kg-dry	1	12/19/2014 05:31 PM
Zinc	48		0.76	mg/Kg-dry	1	12/19/2014 05:31 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Calcium	160		5.0	mg/L	10	12/23/2014 12:15 PM
Magnesium	26		2.0	mg/L	10	12/23/2014 12:15 PM
Sodium	250		2.0	mg/L	10	12/23/2014 12:15 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Sodium Adsorption Ratio	4.9		0.010	none	1	12/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/19/14	Analyst: RS
Acenaphthene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Acenaphthylene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Anthracene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Benzo(a)anthracene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Benzo(a)pyrene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Benzo(b)fluoranthene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Benzo(g,h,i)perylene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Benzo(k)fluoranthene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Chrysene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm Bottom
Collection Date: 12/17/2014 11:09 AM

Work Order: 14121037
Lab ID: 14121037-05
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Fluoranthene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Fluorene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Indeno(1,2,3-cd)pyrene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Naphthalene	9.4		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Pyrene	ND		7.8	µg/Kg-dry	1	12/22/2014 01:58 PM
Surr: 2-Fluorobiphenyl	65.2		12-100	%REC	1	12/22/2014 01:58 PM
Surr: 4-Terphenyl-d14	86.3		25-137	%REC	1	12/22/2014 01:58 PM
Surr: Nitrobenzene-d5	55.6		37-107	%REC	1	12/22/2014 01:58 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/19/14 Analyst: BG		
Benzene	ND		36	µg/Kg-dry	1	12/21/2014 12:08 PM
Ethylbenzene	ND		36	µg/Kg-dry	1	12/21/2014 12:08 PM
m,p-Xylene	420		71	µg/Kg-dry	1	12/21/2014 12:08 PM
o-Xylene	150		36	µg/Kg-dry	1	12/21/2014 12:08 PM
Toluene	ND		36	µg/Kg-dry	1	12/21/2014 12:08 PM
Xylenes, Total	570		110	µg/Kg-dry	1	12/21/2014 12:08 PM
Surr: 1,2-Dichloroethane-d4	95.2		70-130	%REC	1	12/21/2014 12:08 PM
Surr: 4-Bromofluorobenzene	98.4		70-130	%REC	1	12/21/2014 12:08 PM
Surr: Dibromofluoromethane	96.8		70-130	%REC	1	12/21/2014 12:08 PM
Surr: Toluene-d8	100		70-130	%REC	1	12/21/2014 12:08 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 12/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	2.5		0.050	mmhos/cm @2	10	12/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	18		0.59	mg/Kg-dry	1	12/22/2014 05:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/19/14 Analyst: DAH		
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	12/22/2014
MOISTURE			E160.3M	Analyst: LR		
Moisture	16		0.050	% of sample	1	12/21/2014 09:15 PM
PH			SW9045D	Prep: EXTRACT / 12/19/14 Analyst: AXL		
pH	8.1			s.u.	1	12/19/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm Stockpile
Collection Date: 12/17/2014 11:22 AM

Work Order: 14121037
Lab ID: 14121037-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS BY GC-FID						
			SW8015M		Prep: SW3541 / 12/19/14	Analyst: IT
DRO (C10-C28)	19		4.7	mg/Kg-dry	1	12/20/2014 12:57 PM
Surr: 4-Terphenyl-d14	67.2		39-133	%REC	1	12/20/2014 12:57 PM
GASOLINE RANGE ORGANICS BY GC-FID						
			SW8015		Prep: SW5035 / 12/19/14	Analyst: IT
GRO (C6-C10)	ND		2.9	mg/Kg-dry	1	12/19/2014 07:15 PM
Surr: Toluene-d8	115		50-150	%REC	1	12/19/2014 07:15 PM
MERCURY BY CVAA						
			SW7471		Prep: SW7471 / 12/19/14	Analyst: LR
Mercury	ND		0.015	mg/Kg-dry	1	12/19/2014 05:04 PM
METALS ANALYSIS BY ICP						
			SW846 6010C		Prep: SW3050B / 12/19/14	Analyst: JEC
Arsenic	5.8		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Barium	370		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Cadmium	ND		0.35	mg/Kg-dry	1	12/19/2014 05:38 PM
Chromium	16		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Copper	15		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Lead	14		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Nickel	22		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Selenium	1.7		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Silver	ND		0.44	mg/Kg-dry	1	12/19/2014 05:38 PM
Zinc	44		0.88	mg/Kg-dry	1	12/19/2014 05:38 PM
SOLUBLE CATIONS FOR SAR						
			SW846 6010C		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Calcium	190		5.0	mg/L	10	12/23/2014 12:21 PM
Magnesium	75		2.0	mg/L	10	12/23/2014 12:21 PM
Sodium	250		2.0	mg/L	10	12/23/2014 12:21 PM
SODIUM ADSORPTION RATIO						
			USDA H60 METHO		Prep: USDA Method 20B / 12/23/14	Analyst: JEC
Sodium Adsorption Ratio	3.8		0.010	none	1	12/23/2014
SEMI-VOLATILE ORGANIC COMPOUNDS						
			SW846 8270D		Prep: SW3541 / 12/19/14	Analyst: RS
Acenaphthene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Acenaphthylene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Anthracene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Benzo(a)anthracene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Benzo(a)pyrene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Benzo(b)fluoranthene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Benzo(g,h,i)perylene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Benzo(k)fluoranthene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Chrysene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 12.17.14
Sample ID: Johnson Tank Farm Stockpile
Collection Date: 12/17/2014 11:22 AM

Work Order: 14121037
Lab ID: 14121037-06
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Fluoranthene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Fluorene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Indeno(1,2,3-cd)pyrene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Naphthalene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Pyrene	ND		7.5	µg/Kg-dry	1	12/22/2014 02:24 PM
Surr: 2-Fluorobiphenyl	61.1		12-100	%REC	1	12/22/2014 02:24 PM
Surr: 4-Terphenyl-d14	77.6		25-137	%REC	1	12/22/2014 02:24 PM
Surr: Nitrobenzene-d5	49.7		37-107	%REC	1	12/22/2014 02:24 PM
VOLATILE ORGANIC COMPOUNDS			SW8260B	Prep: SW5035 / 12/19/14 Analyst: BG		
Benzene	ND		35	µg/Kg-dry	1	12/21/2014 12:33 PM
Ethylbenzene	ND		35	µg/Kg-dry	1	12/21/2014 12:33 PM
m,p-Xylene	ND		70	µg/Kg-dry	1	12/21/2014 12:33 PM
o-Xylene	ND		35	µg/Kg-dry	1	12/21/2014 12:33 PM
Toluene	ND		35	µg/Kg-dry	1	12/21/2014 12:33 PM
Xylenes, Total	ND		100	µg/Kg-dry	1	12/21/2014 12:33 PM
Surr: 1,2-Dichloroethane-d4	95.9		70-130	%REC	1	12/21/2014 12:33 PM
Surr: 4-Bromofluorobenzene	94.1		70-130	%REC	1	12/21/2014 12:33 PM
Surr: Dibromofluoromethane	98.8		70-130	%REC	1	12/21/2014 12:33 PM
Surr: Toluene-d8	97.8		70-130	%REC	1	12/21/2014 12:33 PM
ELECTRICAL CONDUCTIVITY (SAR)			USDA H60 METHO	Prep: USDA Method 20B / 12/23/14 Analyst: JB		
Electrical Conductivity @ Saturation	3.4		0.050	mmhos/cm @2	10	12/26/2014 12:00 PM
CHROMIUM, TRIVALENT			CALCULATION	Analyst: MB		
Chromium, Trivalent	15		0.58	mg/Kg-dry	1	12/22/2014 05:00 PM
CHROMIUM, HEXAVALENT			SW7196A	Prep: SW3060A / 12/19/14 Analyst: DAH		
Chromium, Hexavalent	ND		0.58	mg/Kg-dry	1	12/22/2014
MOISTURE			E160.3M	Analyst: LR		
Moisture	14		0.050	% of sample	1	12/21/2014 09:15 PM
PH			SW9045D	Prep: EXTRACT / 12/19/14 Analyst: AXL		
pH	8.2			s.u.	1	12/19/2014 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 26-Dec-14

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66190** Instrument ID **GC8** Method: **SW8015M**

MBLK		Sample ID: DBLKS1-66190-66190				Units: mg/Kg		Analysis Date: 12/19/2014 05:36 PM		
Client ID:		Run ID: GC8_141219C				SeqNo: 3086065		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	ND	5.0								
Surr: 4-Terphenyl-d14	1.597	0	2	0	79.9	39-133	0			

LCS		Sample ID: DLCSS1-66190-66190				Units: mg/Kg		Analysis Date: 12/19/2014 06:03 PM		
Client ID:		Run ID: GC8_141219C				SeqNo: 3086066		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	158.6	5.0	200	0	79.3	61-109	0			
Surr: 4-Terphenyl-d14	1.463	0	2	0	73.2	39-133	0			

MS		Sample ID: 14121037-02B MS				Units: mg/Kg		Analysis Date: 12/19/2014 06:31 PM		
Client ID: Johnson Tank Farm W Sidewall		Run ID: GC8_141219C				SeqNo: 3086067		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	223.5	8.1	325.9	0	68.6	48-110	0			
Surr: 4-Terphenyl-d14	2.036	0	3.259	0	62.5	39-133	0			

MSD		Sample ID: 14121037-02B MSD				Units: mg/Kg		Analysis Date: 12/19/2014 06:58 PM		
Client ID: Johnson Tank Farm W Sidewall		Run ID: GC8_141219C				SeqNo: 3086068		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
DRO (C10-C28)	238.1	8.1	324	0	73.5	48-110	223.5	6.35	30	
Surr: 4-Terphenyl-d14	2.14	0	3.24	0	66.1	39-133	2.036	4.99	30	

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66179** Instrument ID **GC9** Method: **SW8015**

MBLK		Sample ID: MBLK-66179-66179				Units: µg/Kg		Analysis Date: 12/19/2014 11:04 A		
Client ID:		Run ID: GC9_141219A				SeqNo: 3084334		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	ND	2,500								
<i>Surr: Toluene-d8</i>	5561	0	5000	0	111	50-150	0			

LCS		Sample ID: LCS-66179-66179				Units: µg/Kg		Analysis Date: 12/19/2014 10:40 A		
Client ID:		Run ID: GC9_141219A				SeqNo: 3084332		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	452900	2,500	500000	0	90.6	70-130	0			
<i>Surr: Toluene-d8</i>	4782	0	5000	0	95.6	50-150	0			

MS		Sample ID: 1412906-01A MS				Units: µg/Kg		Analysis Date: 12/19/2014 07:40 PM		
Client ID:		Run ID: GC9_141219A				SeqNo: 3085978		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	447300	2,500	500000	0	89.5	70-130	0			
<i>Surr: Toluene-d8</i>	4821	0	5000	0	96.4	50-150	0			

MSD		Sample ID: 1412906-01A MSD				Units: µg/Kg		Analysis Date: 12/19/2014 08:05 PM		
Client ID:		Run ID: GC9_141219A				SeqNo: 3085979		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
GRO (C6-C10)	428800	2,500	500000	0	85.8	70-130	447300	4.22	30	
<i>Surr: Toluene-d8</i>	4500	0	5000	0	90	50-150	4821	6.89	30	

The following samples were analyzed in this batch:

14121037-01A	14121037-02A	14121037-03A
14121037-04A	14121037-05A	14121037-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66122** Instrument ID **HG1** Method: **SW7471**

MBLK		Sample ID: MBLK-66122-66122				Units: mg/Kg		Analysis Date: 12/19/2014 04:41 PM		
Client ID:		Run ID: HG1_141219A				SeqNo: 3084817		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury ND 0.020

LCS		Sample ID: LCS-66122-66122				Units: mg/Kg		Analysis Date: 12/19/2014 04:50 PM		
Client ID:		Run ID: HG1_141219A				SeqNo: 3084821		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1799 0.020 0.1665 0 108 80-120 0

MS		Sample ID: 14121037-06BMS				Units: mg/Kg		Analysis Date: 12/19/2014 05:06 PM		
Client ID: Johnson Tank Farm Stockpile		Run ID: HG1_141219A				SeqNo: 3084828		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1317 0.013 0.1052 0.01219 114 75-125 0

MSD		Sample ID: 14121037-06BMSD				Units: mg/Kg		Analysis Date: 12/19/2014 05:09 PM		
Client ID: Johnson Tank Farm Stockpile		Run ID: HG1_141219A				SeqNo: 3084829		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Mercury 0.1299 0.013 0.1045 0.01219 113 75-125 0.1317 1.39 35

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66182** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-66182-66182				Units: mg/Kg		Analysis Date: 12/19/2014 04:51 PM		
Client ID:		Run ID: ICP2_141222A				SeqNo: 3086419		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								
Barium	ND	0.25								
Cadmium	ND	0.50								
Chromium	ND	0.25								
Copper	ND	0.50								
Lead	ND	0.25								
Nickel	ND	0.25								
Selenium	ND	0.50								
Silver	ND	0.25								
Zinc	ND	0.50								

LCS		Sample ID: LCS-66182-66182				Units: mg/Kg		Analysis Date: 12/19/2014 04:58 PM		
Client ID:		Run ID: ICP2_141222A				SeqNo: 3086420		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	5.007	0.25	5	0	100	80-120	0			
Barium	5.191	0.25	5	0	104	80-120	0			
Cadmium	5.033	0.50	5	0	101	80-120	0			
Chromium	5.295	0.25	5	0	106	80-120	0			
Copper	5.355	0.50	5	0	107	80-120	0			
Lead	5.414	0.25	5	0	108	80-120	0			
Nickel	5.299	0.25	5	0	106	80-120	0			
Selenium	4.964	0.50	5	0	99.3	80-120	0			
Silver	5.572	0.25	5	0	111	80-120	0			
Zinc	5.093	0.50	5	0	102	80-120	0			

MS		Sample ID: 1412903-01AMS				Units: mg/Kg		Analysis Date: 12/19/2014 06:20 PM		
Client ID:		Run ID: ICP2_141222A				SeqNo: 3086432		Prep Date: 12/19/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	158.6	3.8	7.576	190.5	-421	75-125	0			SO
Barium	2929	3.8	7.576	3584	-8640	75-125	0			SO
Cadmium	13.48	7.6	7.576	8.177	70	75-125	0			S
Chromium	239.7	3.8	7.576	285.4	-604	75-125	0			SO
Copper	2617	7.6	7.576	3489	-11500	75-125	0			SO
Lead	1426	3.8	7.576	1886	-6060	75-125	0			SO
Nickel	568.7	3.8	7.576	698.2	-1710	75-125	0			SO
Selenium	17.22	7.6	7.576	9.901	96.7	75-125	0			
Silver	9.297	3.8	7.576	1.157	107	75-125	0			
Zinc	727.3	7.6	7.576	990.2	-3470	75-125	0			SO

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66182** Instrument ID **ICP2** Method: **SW846 6010C**

MSD		Sample ID: 1412903-01AMSD				Units: mg/Kg		Analysis Date: 12/19/2014 06:26 PM		
Client ID:		Run ID: ICP2_141222A				SeqNo: 3086433		Prep Date: 12/19/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	159	3.8	7.53	190.5	-417	75-125	158.6	0.3	20	SO
Barium	3122	3.8	7.53	3584	-6130	75-125	2929	6.38	20	SO
Cadmium	13.97	7.5	7.53	8.177	76.9	75-125	13.48	3.53	20	
Chromium	241.2	3.8	7.53	285.4	-588	75-125	239.7	0.604	20	SO
Copper	2731	7.5	7.53	3489	-10100	75-125	2617	4.24	20	SO
Lead	1530	3.8	7.53	1886	-4730	75-125	1426	6.98	20	SO
Nickel	566.5	3.8	7.53	698.2	-1750	75-125	568.7	0.383	20	SO
Selenium	15.86	7.5	7.53	9.901	79.1	75-125	17.22	8.28	20	
Silver	9.081	3.8	7.53	1.157	105	75-125	9.297	2.35	20	
Zinc	780	7.5	7.53	990.2	-2790	75-125	727.3	6.99	20	SO

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66201** Instrument ID **ICP2** Method: **SW846 6010C**

DUP		Sample ID: 14121037-01CDUP				Units: mg/L		Analysis Date: 12/23/2014 11:53 A		
Client ID: Johnson Tank Farm E Sidewall		Run ID: ICP2_141223A				SeqNo: 3088529		Prep Date: 12/23/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	137.6	5.0	0	0	0	0-0	0	0	0	
Magnesium	44.08	2.0	0	0	0	0-0	0	0	0	
Sodium	149.4	2.0	0	0	0	0-0	0	0	0	

DUP		Sample ID: 14121037-01CDUP				Units: none		Analysis Date: 12/23/2014		
Client ID: Johnson Tank Farm E Sidewall		Run ID: SAR_141223A				SeqNo: 3088602		Prep Date: 12/23/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium Adsorption Ratio	2.837	0.010	0	0	0		2.764	2.59	50	

The following samples were analyzed in this batch:

14121037-01C	14121037-02C	14121037-03C
14121037-04C	14121037-05C	14121037-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66188** Instrument ID **SVMS5** Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-66188-66188				Units: µg/Kg		Analysis Date: 12/22/2014 10:23 A		
Client ID:		Run ID: SVMS5_141222A				SeqNo: 3087229		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	ND	6.7								
Acenaphthylene	ND	6.7								
Anthracene	ND	6.7								
Benzo(a)anthracene	ND	6.7								
Benzo(a)pyrene	ND	6.7								
Benzo(b)fluoranthene	ND	6.7								
Benzo(g,h,i)perylene	ND	6.7								
Benzo(k)fluoranthene	ND	6.7								
Chrysene	ND	6.7								
Dibenzo(a,h)anthracene	ND	6.7								
Fluoranthene	ND	6.7								
Fluorene	ND	6.7								
Indeno(1,2,3-cd)pyrene	ND	6.7								
Naphthalene	ND	6.7								
Pyrene	ND	6.7								
<i>Surr: 2-Fluorobiphenyl</i>	1260	0	1667	0	75.6	12-100	0			
<i>Surr: 4-Terphenyl-d14</i>	1614	0	1667	0	96.8	25-137	0			
<i>Surr: Nitrobenzene-d5</i>	1312	0	1667	0	78.7	37-107	0			

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66192** Instrument ID **VMS5** Method: **SW8260B**

MBLK				Sample ID: MBLK-66192-66192				Units: µg/Kg			Analysis Date: 12/21/2014 12:26 PM		
Client ID:			Run ID: VMS5_141221A			SeqNo: 3086029			Prep Date: 12/19/2014			DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Benzene	ND	30											
Ethylbenzene	ND	30											
m,p-Xylene	ND	60											
o-Xylene	ND	30											
Toluene	ND	30											
Xylenes, Total	ND	90											
Surr: 1,2-Dichloroethane-d4	951.5	0	1000	0	95.2	70-130	0						
Surr: 4-Bromofluorobenzene	939	0	1000	0	93.9	70-130	0						
Surr: Dibromofluoromethane	987.5	0	1000	0	98.8	70-130	0						
Surr: Toluene-d8	984	0	1000	0	98.4	70-130	0						

LCS				Sample ID: LCS-66192-66192			Units: µg/Kg		Analysis Date: 12/21/2014 10:44 A		
Client ID:			Run ID: VMS5_141221A			SeqNo: 3086026		Prep Date: 12/19/2014		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	1098	30	1000	0	110	75-125	0				
Ethylbenzene	1086	30	1000	0	109	75-125	0				
m,p-Xylene	2198	60	2000	0	110	80-125	0				
o-Xylene	1110	30	1000	0	111	75-125	0				
Toluene	1050	30	1000	0	105	70-125	0				
Xylenes, Total	3308	90	3000	0	110	75-125	0				
Surr: 1,2-Dichloroethane-d4	986	0	1000	0	98.6	70-130	0				
Surr: 4-Bromofluorobenzene	987.5	0	1000	0	98.8	70-130	0				
Surr: Dibromofluoromethane	1050	0	1000	0	105	70-130	0				
Surr: Toluene-d8	967	0	1000	0	96.7	70-130	0				

MS				Sample ID: 1412976-07A MS			Units: µg/Kg		Analysis Date: 12/21/2014 07:42 PM		
Client ID:			Run ID: VMS5_141221A			SeqNo: 3086033		Prep Date: 12/19/2014		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Benzene	5011	160	5488	181.1	88	75-125		0			
Ethylbenzene	14430	160	5488	9819	84	75-125		0			
m,p-Xylene	33220	330	10980	23850	85.4	80-125		0			
o-Xylene	7519	160	5488	2538	90.8	75-125		0			
Toluene	4723	160	5488	87.82	84.4	70-125		0			
Xylenes, Total	40740	490	16470	26390	87.2	75-125		0			
Surr: 1,2-Dichloroethane-d4	5066	0	5488	0	92.3	70-130		0			
Surr: 4-Bromofluorobenzene	5376	0	5488	0	98	70-130		0			
Surr: Dibromofluoromethane	5173	0	5488	0	94.2	70-130		0			
Surr: Toluene-d8	4989	0	5488	0	90.9	70-130		0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66192** Instrument ID **VMS5** Method: **SW8260B**

MSD				Sample ID: 1412976-07A MSD			Units: µg/Kg		Analysis Date: 12/21/2014 08:07 PM	
Client ID:				Run ID: VMS5_141221A			SeqNo: 3086035		Prep Date: 12/19/2014	
									DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	5335	160	5488	181.1	93.9	75-125	5011	6.26	30	
Ethylbenzene	16600	160	5488	9819	124	75-125	14430	14	30	
m,p-Xylene	37890	330	10980	23850	128	80-125	33220	13.1	30	S
o-Xylene	8551	160	5488	2538	110	75-125	7519	12.8	30	
Toluene	5590	160	5488	87.82	100	70-125	4723	16.8	30	
Xylenes, Total	46440	490	16470	26390	122	75-125	40740	13.1	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>4890</i>	<i>0</i>	<i>5488</i>	<i>0</i>	<i>89.1</i>	<i>70-130</i>	<i>5066</i>	<i>3.53</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>5362</i>	<i>0</i>	<i>5488</i>	<i>0</i>	<i>97.7</i>	<i>70-130</i>	<i>5376</i>	<i>0.256</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>5250</i>	<i>0</i>	<i>5488</i>	<i>0</i>	<i>95.6</i>	<i>70-130</i>	<i>5173</i>	<i>1.47</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>5387</i>	<i>0</i>	<i>5488</i>	<i>0</i>	<i>98.2</i>	<i>70-130</i>	<i>4989</i>	<i>7.67</i>	<i>30</i>	

The following samples were analyzed in this batch:

14121037-01A	14121037-02A	14121037-03A
14121037-04A	14121037-05A	14121037-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66201** Instrument ID **WETCHEM** Method: **USDA H60 Metho**

DUP		Sample ID: 14121037-01C DUP				Units: mmhos/cm @25°		Analysis Date: 12/26/2014 12:00 PM		
Client ID: Johnson Tank Farm E Sidewall			Run ID: WETCHEM_141226A			SeqNo: 3090639		Prep Date: 12/23/2014		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	2.03	0.050	0	0	0		2.02	0.494	50	

The following samples were analyzed in this batch:

14121037-01C	14121037-02C	14121037-03C
14121037-04C	14121037-05C	14121037-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66204** Instrument ID **WETCHEM** Method: **SW9045D**

LCS		Sample ID: LCS-66204-66204				Units: s.u.		Analysis Date: 12/19/2014 03:00 PM			
Client ID:		Run ID: WETCHEM_141219K		SeqNo: 3084562		Prep Date: 12/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	3.96	0	4	0	99	90-110	0				

DUP		Sample ID: 14121037-06B dup				Units: s.u.		Analysis Date: 12/19/2014 03:00 PM			
Client ID: Johnson Tank Farm Stockpile		Run ID: WETCHEM_141219K		SeqNo: 3084569		Prep Date: 12/19/2014		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH	8.25	0	0	0	0	0-0	8.17	0.974	20		

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **66250** Instrument ID **WETCHEM** Method: **SW7196A**

MBLK		Sample ID: MBLK-66250-66250				Units: mg/Kg		Analysis Date: 12/22/2014		
Client ID:		Run ID: WETCHEM_141222D				SeqNo: 3086893		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent ND 0.50

LCS		Sample ID: LCS-66250-66250				Units: mg/Kg		Analysis Date: 12/22/2014		
Client ID:		Run ID: WETCHEM_141222D				SeqNo: 3086892		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 1.772 0.50 2 0 88.6 80-120 0

MS		Sample ID: 14121048-01B MS				Units: mg/Kg		Analysis Date: 12/22/2014		
Client ID:		Run ID: WETCHEM_141222D				SeqNo: 3086833		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.7075 0.49 1.976 0.2126 25 75-125 0 S

MS		Sample ID: 14121048-01B MSI				Units: mg/Kg		Analysis Date: 12/22/2014		
Client ID:		Run ID: WETCHEM_141222D				SeqNo: 3086886		Prep Date: 12/19/2014		DF: 100
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 587.1 49 1.961 0.2126 29900 75-125 0 S

MSD		Sample ID: 14121048-01B MSD				Units: mg/Kg		Analysis Date: 12/22/2014		
Client ID:		Run ID: WETCHEM_141222D				SeqNo: 3086834		Prep Date: 12/19/2014		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.7075 0.49 1.976 0.2126 25 75-125 0.7075 0 20 S

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14121037
Project: WPX Johnson Tank Farm Spill 12.17.14

QC BATCH REPORT

Batch ID: **R154787** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R154787				Units: % of sample		Analysis Date: 12/21/2014 09:15 PM		
Client ID:		Run ID: MOIST_141221A				SeqNo: 3087122		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R154787				Units: % of sample		Analysis Date: 12/21/2014 09:15 PM		
Client ID:		Run ID: MOIST_141221A				SeqNo: 3087121		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 14121025-01A DUP				Units: % of sample		Analysis Date: 12/21/2014 09:15 PM		
Client ID:		Run ID: MOIST_141221A				SeqNo: 3087095		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 5.72 0.050 0 0 0 5.16 10.3 20

DUP		Sample ID: 14121037-01B DUP				Units: % of sample		Analysis Date: 12/21/2014 09:15 PM		
Client ID: Johnson Tank Farm E Sidewall		Run ID: MOIST_141221A				SeqNo: 3087099		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 14.9 0.050 0 0 0 15.09 1.27 20

The following samples were analyzed in this batch:

14121037-01B	14121037-02B	14121037-03B
14121037-04B	14121037-05B	14121037-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



ALS Environmental

3352 126th Avenue Holland, MI 49424
PH: (616) 399-8070

Chain-of-Custody

WORKORDER #

14121037

Form 202r8

PROJECT NAME Johnson Tank Farm Spill		SAMPLER Matthew Fought		DATE 12/17/2014		PAGE 1 of 1	
PROJECT No.		SITE ID Johnson Tank Farm		TURNAROUND 24 Hour TAT		DISPOSAL By Lab or Return to Client	
COMPANY NAME HRL Compliance Solutions, Inc.		BILL TO COMPANY WPX Energy		COGCC Table 910.1 Analysis			
SEND REPORT TO Mark Mumby		INVOICE ATTN TO Karolina Blaney					
ADDRESS 2385 F 1/2 Road		ADDRESS 1058 Co. Rd. 215					
CITY/STATE/ZIP Grand Junction, CO 81505		CITY/STATE/ZIP Parachute, CO 81635					
PHONE 970-243-3271		PHONE 970-683-2295					
FAX 970-243-3280		FAX					
E-MAIL mmumby@hrlcomp.com; mfought@hrlcomp.com		E-MAIL Karolina.blaney@wpxenergy.com					
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
1	Johnson Tank Farm E Sidewall	S	12/17/14	11:07	3	8	X
2	Johnson Tank Farm W Sidewall	S	12/17/14	11:13	3	8	X
3	Johnson Tank Farm N Sidewall	S	12/17/14	11:20	3	8	X
4	Johnson Tank Farm S Bottom	S	12/17/14	11:40	3	8	X
5	Johnson Tank Farm Bottom	S	12/17/14	11:09	3	8	X
6	Johnson Tank Farm Stockpile	S	12/17/14	11:22	3	8	X

*Time Zone (Circle): EST CST MT PST Matrix O=oil S=soli NS=non-solid W=water L=Liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments:

Complete Inorganics & Organics for COGCC table 910.1

30°C

QC PACKAGE (check below)

X	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

SIGNATURE	PRINTED NAME	DATE	TIME
<i>Matthew Fought</i>	Matthew Fought	12/17/14	3:00
<i>Kerry L. Berenka</i>	Kerry L. Berenka	12/19/14	12:30
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			
RELINQUISHED BY			
RECEIVED BY			

FedEx NEW Package
Express US Airbill

FedEx Tracking Number 8059 2387 5786

1 From
Date 12/17/14
Sender's Name HRL
Company HRL Compliance
Address 2385 F 1/2 Rd.
City GRAND Jct. State CO ZIP 81505
Phone 970 243-3271

2 Your Internal Billing Reference

3 To
Recipient's Name ALS Receiving
Company ALS Group
Address 3352 128th Ave
City Holland State MI ZIP 49424
Phone 616 399-6070

HOLD Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.
HOLD Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.



8059 2387 5786

4 Express Package Service

NOTE: Service order has changed. Please select carefully.

Next Business Day

- ☐ FedEx First Overnight
Guaranteed next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx Priority Overnight
Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☒ FedEx Standard Overnight
Next business afternoon. Saturday Delivery NOT available.

Recipient's Copy

Packages up to 150 lbs.
For packages over 150 lbs., use the new
FedEx Express Freight US Airbill.

2 or 3 Business Days

- ☐ FedEx 2Day A.M.
Second business morning. Saturday Delivery NOT available.
☐ FedEx 2Day
Second business afternoon. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
☐ FedEx Express Saver
Third business day. Saturday Delivery NOT available.

5 Packaging

* Declared value limit \$500

- ☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☐ Other

6 Special Handling and Delivery Signature Options

- ☐ SATURDAY Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
☒ No Signature Required
Package may be left without a signature for delivery.
☐ Direct Signature
Someone at recipient's address may sign for delivery. For residential deliveries only. For applicable.
☐ Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. For applicable.

Does this shipment contain dangerous goods?

- ☒ No ☐ Yes
One box must be checked.
Yes: As per attached Shipper's Declaration. Shipper's Declaration not required.
☐ Dry Ice
Dry Ice, UN 1845
☐ Cargo Aircraft Only

7 Payment

- Enter FedEx Acct. No. or Credit Card No. below.
☐ Sender Acct. No. in Section I will be billed. ☒ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check
Total Packages 7 Total Weight 64.4
Credit Card Acct. 644

This liability is limited to USD\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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ALS Environmental
3352 128th Avenue
Holland, Michigan 49424
Tel. +1 616 399 6070
Fax. +1 616 399 6185

CUSTODY SEAL

Date: 12/17/14 Time: 3:00
Name: HRL
Company: HRL

Seal Broken By:

Date:

Courier or Driver:
Place Astra or Barcoded Label Here

FedEx

Part # 156297-435 R112 09/14

SHIP DATE: 17DEC14
ACTWT: 45.3 LB
CAD: POSTED
DIM: 24x15x14 IN
BILL SENDER

ORIGIN: ID:GJTA (616) 399-8070
ALS ENVIRONMENTAL HOLLAND LAB
3352 128TH AVE
HOLLAND, MI 494249263
UNITED STATES US

TO ALS RECEIVING
ALS GROUP
3352 128TH AVE

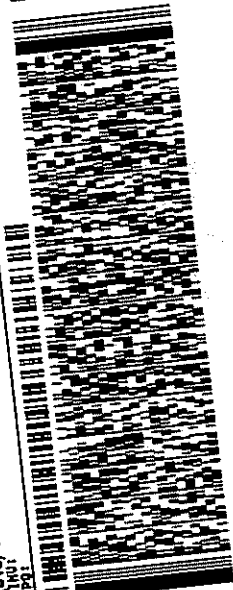
HOLLAND MI 49424

(616) 399-8070

INTL
POST

REF:

FedEx
Express



THU - 18 DEC AA
STANDARD OVERNIGHT

1 of 2

TRK# 8059 2387 5786

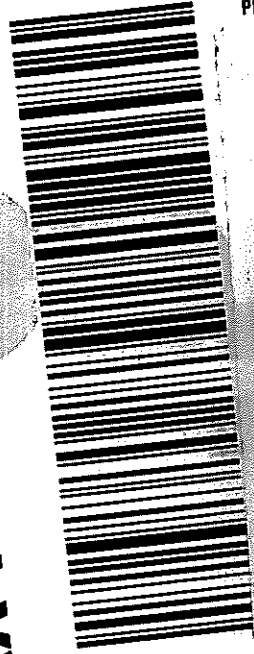
0200

MASTER

49424
GRR

MI-US

XX HLMA



FedEx

MASTER TRK#:
Pkg Trk#s:

MP8

17DEC 16:53

78016763715

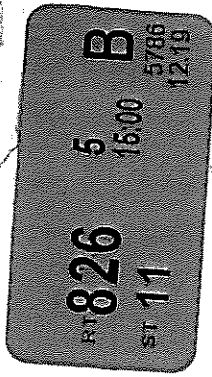
Pos: 2

1 of 1

Emp#: 946110 R112: STA

005923875786

Recipient Copy



Life Using This Tag

Using This Tag

Sample Receipt Checklist

Client Name: HRL

Date/Time Received: 19-Dec-14 09:30

Work Order: 14121037

Received by: KRW

Checklist completed by Keith Wurenga
eSignature

19-Dec-14
Date

Reviewed by: Ann Preston
eSignature

19-Dec-14
Date

Matrices: Soil

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.0 C</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>12/19/2014 10:59:29 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



07-Jan-2015

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Johnson Tank Farm Spill 1.5.15**

Work Order: **1501111**

Dear Mark,

ALS Environmental received 2 samples on 06-Jan-2015 11:00 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.5.15
Work Order: 1501111

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1501111-01	Johnson Tank Farm E. Sidewall	Soil		1/5/2015 10:10	1/6/2015 11:00	<input type="checkbox"/>
1501111-02	Johnson Stockpile	Soil		1/5/2015 12:10	1/6/2015 11:00	<input type="checkbox"/>

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.5.15
WorkOrder: 1501111

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
µg/Kg-dry	Micrograms per Kilogram Dry Weight

ALS Group USA, Corp

Date: 07-Jan-15

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.5.15
Sample ID: Johnson Tank Farm E. Sidewall
Collection Date: 1/5/2015 10:10 AM

Work Order: 1501111
Lab ID: 1501111-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D	Prep: SW3541 / 1/6/15		Analyst: RM
Benzo(a)pyrene	ND		15	µg/Kg-dry	1	1/7/2015 02:37 PM
Surr: 2-Fluorobiphenyl	95.1		12-100	%REC	1	1/7/2015 02:37 PM
Surr: 4-Terphenyl-d14	93.0		25-137	%REC	1	1/7/2015 02:37 PM
Surr: Nitrobenzene-d5	77.0		37-107	%REC	1	1/7/2015 02:37 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	13		0.050	% of sample	1	1/6/2015 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 07-Jan-15

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.5.15
Sample ID: Johnson Stockpile
Collection Date: 1/5/2015 12:10 PM

Work Order: 1501111
Lab ID: 1501111-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
SEMI-VOLATILE ORGANIC COMPOUNDS			SW846 8270D	Prep: SW3541 / 1/6/15		Analyst: RM
Benzo(a)pyrene	ND		16	µg/Kg-dry	1	1/7/2015 02:56 PM
Surr: 2-Fluorobiphenyl	92.9		12-100	%REC	1	1/7/2015 02:56 PM
Surr: 4-Terphenyl-d14	108		25-137	%REC	1	1/7/2015 02:56 PM
Surr: Nitrobenzene-d5	77.0		37-107	%REC	1	1/7/2015 02:56 PM
MOISTURE			E160.3M			Analyst: EVB
Moisture	17		0.050	% of sample	1	1/6/2015 03:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 07-Jan-15

Client: HRL Compliance Solutions, Inc

Work Order: 1501111

Project: WPX Johnson Tank Farm Spill 1.5.15

QC BATCH REPORT

Batch ID: **66568**

Instrument ID **SVMS8**

Method: **SW846 8270D**

MBLK		Sample ID: SBLKS1-66568-66568				Units: µg/Kg		Analysis Date: 1/7/2015 12:30 PM		
Client ID:		Run ID: SVMS8_150107A				SeqNo: 3101814		Prep Date: 1/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	ND	6.7								
Surr: 2-Fluorobiphenyl	1467	0	1667	0	88	12-100	0			
Surr: 4-Terphenyl-d14	1817	0	1667	0	109	25-137	0			
Surr: Nitrobenzene-d5	1169	0	1667	0	70.1	37-107	0			

LCS		Sample ID: SLCSS1-66568-66568				Units: µg/Kg		Analysis Date: 1/7/2015 12:49 PM		
Client ID:		Run ID: SVMS8_150107A				SeqNo: 3101816		Prep Date: 1/6/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzo(a)pyrene	618.3	6.7	666.7	0	92.7	50-110	0			
Surr: 2-Fluorobiphenyl	1655	0	1667	0	99.3	12-100	0			
Surr: 4-Terphenyl-d14	1896	0	1667	0	114	25-137	0			
Surr: Nitrobenzene-d5	1316	0	1667	0	79	37-107	0			

The following samples were analyzed in this batch:

1501111-01A 1501111-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1501111
Project: WPX Johnson Tank Farm Spill 1.5.15

QC BATCH REPORT

Batch ID: **R155460** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R155460				Units: % of sample		Analysis Date: 1/6/2015 03:00 PM		
Client ID:		Run ID: MOIST_150106A				SeqNo: 3101397		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R155460				Units: % of sample		Analysis Date: 1/6/2015 03:00 PM		
Client ID:		Run ID: MOIST_150106A				SeqNo: 3101396		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1501101-01A DUP				Units: % of sample		Analysis Date: 1/6/2015 03:00 PM		
Client ID:		Run ID: MOIST_150106A				SeqNo: 3101382		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 9.1 0.050 0 0 0 9.32 2.39 20

DUP		Sample ID: 1501111-01A DUP				Units: % of sample		Analysis Date: 1/6/2015 03:00 PM		
Client ID: Johnson Tank Farm E. Sidewall		Run ID: MOIST_150106A				SeqNo: 3101394		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 13.07 0.050 0 0 0 12.67 3.11 20

The following samples were analyzed in this batch:

1501111-01A 1501111-02A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **06-Jan-15 11:00**

Work Order: **1501111**

Received by: **DS**

Checklist completed by <u><i>Diane Shaw</i></u>	06-Jan-15	Reviewed by: <u><i>Lisa Arnold</i></u>	06-Jan-15
eSignature	Date	eSignature	Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>1.8 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>1/6/2015 12:19:13 PM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Nick Martinez
 ALS Environmental
 127 E. 1st Street
 PARACHUTE, CO 81635

Origin ID: RILA



Ship Date: 05 JAN 15
 ActWgt: 58.0 LB
 CAD: 22648404NE73550

Dims: 14 X 28 X 15 IN

Delivery Address Bar Code



Ref # 010514-1
 Invoice #
 PO # Parachute
 Dept #

SHIP TO: (616) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE
 HOLLAND, MI 49424

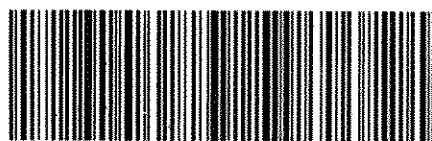
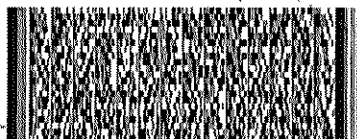
BILL SENDER

TUE - 06 JAN 10:30A
 PRIORITY OVERNIGHT

TRK# 7724 7026 7814
 0201

XX HLMA

49424
 MI-US
 GRR



522G16F15BAC3

After printing this label:

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27-Jan-2015

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Johnson Tank Farm Spill 1.16.15**

Work Order: **1501672**

Dear Mark,

ALS Environmental received 3 samples on 20-Jan-2015 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental The ALS logo, a stylized blue triangle with a yellow flame inside.

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.16.15
Work Order: 1501672

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1501672-01	BG-1	Soil		1/16/2015 10:40	1/20/2015 09:30	<input type="checkbox"/>
1501672-02	BG-2	Soil		1/16/2015 10:50	1/20/2015 09:30	<input type="checkbox"/>
1501672-03	BG-3	Soil		1/16/2015 11:00	1/20/2015 09:30	<input type="checkbox"/>

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<u>Units Reported</u>	<u>Description</u>
% of sample	Percent of Sample
mg/Kg-dry	Milligrams per Kilogram Dry Weight
mg/L	Milligrams per Liter
mmhos/cm @25°C	Millimhos-Centimeter at 25 Degrees Celcius
none	
s.u.	Standard Units

ALS Group USA, Corp

Date: 27-Jan-15

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.16.15
Sample ID: BG-1
Collection Date: 1/16/2015 10:40 AM

Work Order: 1501672
Lab ID: 1501672-01
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
METALS ANALYSIS BY ICP						
Arsenic	5.0		SW846 6010C 0.43	mg/Kg-dry	Prep: SW3050B / 1/20/15 1	Analyst: JEC 1/21/2015 11:28 AM
SOLUBLE CATIONS FOR SAR						
Calcium	160		SW846 6010C 5.0	mg/L	Prep: USDA Method 20B / 1/23/15 10	Analyst: JEC 1/26/2015 12:36 PM
Magnesium	31		2.0	mg/L	10	1/26/2015 12:36 PM
Sodium	5.6		2.0	mg/L	10	1/26/2015 12:36 PM
SODIUM ADSORPTION RATIO						
Sodium Adsorption Ratio	0.11		USDA H60 METHOD 0.010	none	Prep: USDA Method 20B / 1/23/15 1	Analyst: JEC 1/26/2015
ELECTRICAL CONDUCTIVITY (SAR)						
Electrical Conductivity @ Saturation	1.2		USDA H60 METHOD 0.050	mmhos/cm @25	Prep: USDA Method 20B / 1/23/15 10	Analyst: JB 1/26/2015 03:15 PM
MOISTURE						
Moisture	19		E160.3M 0.050	% of sample	1	Analyst: EVB 1/20/2015 06:00 PM
PH						
pH	7.6		SW9045D	s.u.	Prep: EXTRACT / 1/22/15 1	Analyst: AXL 1/22/2015 04:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 27-Jan-15

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.16.15
Sample ID: BG-2
Collection Date: 1/16/2015 10:50 AM

Work Order: 1501672
Lab ID: 1501672-02
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 1/20/15	Analyst: JEC
Arsenic	4.8		0.49	mg/Kg-dry	1	1/21/2015 11:34 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	21		0.050	% of sample	1	1/20/2015 06:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 27-Jan-15

Client: HRL Compliance Solutions, Inc
Project: WPX Johnson Tank Farm Spill 1.16.15
Sample ID: BG-3
Collection Date: 1/16/2015 11:00 AM

Work Order: 1501672
Lab ID: 1501672-03
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>						
METALS ANALYSIS BY ICP			SW846 6010C		Prep: SW3050B / 1/20/15	Analyst: JEC
Arsenic	4.8		0.45	mg/Kg-dry	1	1/21/2015 11:56 AM
MOISTURE			E160.3M			Analyst: EVB
Moisture	14		0.050	% of sample	1	1/20/2015 06:00 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc
Work Order: 1501672
Project: WPX Johnson Tank Farm Spill 1.16.15

QC BATCH REPORT

Batch ID: **66985** Instrument ID **ICP2** Method: **SW846 6010C**

MBLK		Sample ID: MBLK-66985-66985				Units: mg/L		Analysis Date: 1/20/2015 05:23 PM		
Client ID:		Run ID: ICP2_150120B				SeqNo: 3114945		Prep Date: 1/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.25								

LCS		Sample ID: LCS-66985-66985				Units: mg/L		Analysis Date: 1/20/2015 05:30 PM		
Client ID:		Run ID: ICP2_150120B				SeqNo: 3114946		Prep Date: 1/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	4.629	0.25	5	0	92.6	80-120		0		

MS		Sample ID: 1501672-03AMS				Units: mg/Kg		Analysis Date: 1/20/2015 06:45 PM		
Client ID: BG-3		Run ID: ICP2_150120B				SeqNo: 3114957		Prep Date: 1/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.32	0.39	7.752	3.875	109	75-125		0		

MS		Sample ID: 1501672-03AMS				Units: mg/Kg		Analysis Date: 1/21/2015 12:01 PM		
Client ID: BG-3		Run ID: ICP2_150121A				SeqNo: 3116085		Prep Date: 1/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.65	0.39	7.752	4.097	110	75-125		0		

MSD		Sample ID: 1501672-03AMSD				Units: mg/Kg		Analysis Date: 1/20/2015 06:51 PM		
Client ID: BG-3		Run ID: ICP2_150120B				SeqNo: 3114958		Prep Date: 1/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.09	0.39	7.74	3.875	106	75-125	12.32	1.9	20	

MSD		Sample ID: 1501672-03AMSD				Units: mg/Kg		Analysis Date: 1/21/2015 12:07 PM		
Client ID: BG-3		Run ID: ICP2_150121A				SeqNo: 3116086		Prep Date: 1/20/2015		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	12.13	0.39	7.74	4.097	104	75-125	12.65	4.22	20	

The following samples were analyzed in this batch: 1501672-01A 1501672-02A 1501672-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1501672
Project: WPX Johnson Tank Farm Spill 1.16.15

QC BATCH REPORT

Batch ID: **67129** Instrument ID **ICP2** Method: **SW846 6010C**

DUP					Sample ID: 1501672-01BDUP			Units:mg/L		Analysis Date: 1/26/2015 12:43 PM	
Client ID: BG-1			Run ID: ICP2_150126A			SeqNo:3122112		Prep Date: 1/23/2015		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Calcium	137.1	5.0	0	0	0	0-0	157.2	13.7			
Magnesium	28.23	2.0	0	0	0	0-0	31.35	10.5			
Sodium	6.881	2.0	0	0	0	0-0	5.594	20.6			

DUP				Sample ID: 1501672-01BDUP				Units: none			Analysis Date: 1/26/2015			
Client ID: BG-1				Run ID: SAR_150126A				SeqNo: 3122240			Prep Date: 1/23/2015		DF: 1	
Analyte		Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual			
Sodium Adsorption Ratio		0.1398	0.010	0	0	0		0.1066	27	50				

The following samples were analyzed in this batch: | 1501672-01B |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1501672
Project: WPX Johnson Tank Farm Spill 1.16.15

QC BATCH REPORT

Batch ID: **67087** Instrument ID **WETCHEM** Method: **SW9045D**

LCS					Sample ID: LCS-67087-67087					Units:s.u.			Analysis Date: 1/22/2015 04:00 PM				
Client ID:					Run ID: WETCHEM_150122J					SeqNo:3118417			Prep Date: 1/22/2015			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value	%REC		Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
pH					3.97		0	4	0	99.2		90-110	0				

DUP					Sample ID: 1501698-01B DUP					Units: s.u.			Analysis Date: 1/22/2015 04:00 PM				
Client ID:					Run ID: WETCHEM_150122J					SeqNo: 3118420			Prep Date: 1/22/2015			DF: 1	
Analyte					Result		PQL	SPK Val	SPK Ref Value		%REC	Control Limit	RPD Ref Value		%RPD	RPD Limit	Qual
pH					10.68		0	0	0		0	0-0	10.14		5.19	20	

The following samples were analyzed in this batch:

1501672-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1501672
Project: WPX Johnson Tank Farm Spill 1.16.15

QC BATCH REPORT

Batch ID: **67129** Instrument ID **WETCHEM** Method: **USDA H60 Method**

DUP		Sample ID: 1501672-01B DUP				Units: mmhos/cm @25°C		Analysis Date: 1/26/2015 03:15 PM		
Client ID: BG-1		Run ID: WETCHEM_150126K				SeqNo: 3122096		Prep Date: 1/23/2015		DF: 10
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Electrical Conductivity @ Saturation	1.01	0.050	0	0	0		1.221	18.9	50	

The following samples were analyzed in this batch:

1501672-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 1501672
Project: WPX Johnson Tank Farm Spill 1.16.15

QC BATCH REPORT

Batch ID: **R156258** Instrument ID **MOIST** Method: **E160.3M**

MBLK		Sample ID: WBLKS-R156258				Units: % of sample		Analysis Date: 1/20/2015 06:00 PM		
Client ID:		Run ID: MOIST_150120A				SeqNo: 3116403		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture ND 0.050

LCS		Sample ID: LCS-R156258				Units: % of sample		Analysis Date: 1/20/2015 06:00 PM		
Client ID:		Run ID: MOIST_150120A				SeqNo: 3116402		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 100 0.050 100 0 100 99.5-100.5 0

DUP		Sample ID: 1501672-01A DUP				Units: % of sample		Analysis Date: 1/20/2015 06:00 PM		
Client ID: BG-1		Run ID: MOIST_150120A				SeqNo: 3116385		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 19.27 0.050 0 0 0 19.3 0.156 20

DUP		Sample ID: 1501699-01B DUP				Units: % of sample		Analysis Date: 1/20/2015 06:00 PM		
Client ID:		Run ID: MOIST_150120A				SeqNo: 3116397		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Moisture 10.25 0.050 0 0 0 9.75 5 20

The following samples were analyzed in this batch:

1501672-01A	1501672-02A	1501672-03A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.



WORKORDER
#

1501672

Form 2025B

PAGE



10f1

DISPOSAL

By Lab or Return to Client

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = fiber

For metals or anions, please detail analytes below.

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Matthew Fought	01/19/15	2:30pm
RECEIVED BY		Diane F. Shanley	1/20/15	0930
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **20-Jan-15 09:30**

Work Order: **1501672**

Received by: **DS**

Checklist completed by Diane Shaw 20-Jan-15
eSignature Date

Reviewed by: Ann Preston 20-Jan-15
eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>3.4 c</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>1/20/2015 10:09:29 AM</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
pH adjusted by:			

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

