

Holly Energy Partners
Henshaw Station
Delineation Report & Work Plan

Section 23, Township 17S, Range 30E
Eddy County, New Mexico

October 24, 2016



Prepared for:

Holly Energy Partners
1602 W. Main
Artesia, NM 88210

By:

Safety & Environmental Solutions, Inc.
703 East Clinton Street
Hobbs, New Mexico 88240
(575) 397-0510

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I. Company Contacts

Representative	Company	Telephone	E-mail
Melanie Isenberg	Holly Energy Partners	214-605-8303	Melanie.isenberg@hollyenergy.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Holly Energy Partners to assess a spill area on the Henshaw Station, concerning a five (5) bbl. release comprised of oil and produced water. This site is situated in Eddy County, Section 23, Township 17S, and Range 30E.

According to the C-141: approximately five (5) barrels of water and oil was released from the tank bottom, due to an internal corrosion of the of the factory tank penetration collar. A majority of the spill was water from the tank bottom, and only about one (1) barrel was oil. All liquids were vacuumed up and contained within the tank berm area. Soil sampling will be conducted and a remediation plan determined upon receipt of sampling results.

III. Surface and Ground Water

There is no record of groundwater in the immediate vicinity of the site location. Further research of the New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 80 bgs. Thereby, posing no eminent threat or danger to life forms in the area.

IV. Characterization

The target cleanup levels are determined using the *Guidelines for Remediation of Leaks, Spills and Releases* published by the NMOCD (August 13, 1993). Based on the ranking criteria presented below, the applicable Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) Benzene, 50 ppm combined benzene, toluene, ethyl benzene, and total xylenes (BTEX), and 5,000 ppm Total Petroleum Hydrocarbons (TPH). Characterization of vertical extent of chloride concentration to a level of 250 mg/kg (PPM) is also required.

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			0

V. Work Performed

On October 11, 2016 Safety and Environmental Solutions, Inc. (SESI) personnel, at the request of Holly Energy Partners, was on site to assess a crude oil spill incident at the Holly Henshaw Battery, Eddy County, New Mexico location. Jerry (SESI) installed two auger holes to determine vertical extent of contamination. Photos were taken of the location and spill area that was located inside the berm of the battery. The spill was assessed to determine where to install the auger hole where the most pooling occurred. Auger holes were installed one to the depth of three feet and soil samples were grabbed at the surface and one foot depths and field tested for TPH. The two foot soil sample was saturated and field test was not performed. The three foot soil sample was under the 100 ppm for TPH. Samples were properly preserved. Another auger hole was installed to the depth of two feet and field tested for TPH at the surface and one foot depths. The two foot soil sample results was under the 100 ppm for TPH. The spill area and sample points were mapped using the Juno 3D. The samples were properly packaged, preserved and transported to Cardinal Laboratories of Hobbs, NM by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), and Chlorides (Method SM4500Cl-B). The results are recapped in the following table:

Soil Sample Results: Cardinal Laboratories 10-11-16								
SAMPLE ID	Benzene	Toluene	Ethylbenzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO
AH-1 Surface	<0.050	0.060	0.135	<0.150	<0.300	10000	<10.0	170
AH-1 1'	<0.050	0.212	1.65	5.37	7.24	80.0	94.7	883
AH-1 2'	<0.050	<0.050	0.452	0.425	0.877	432	<50.0	349
AH-1 3'	<0.050	<0.050	<0.050	<0.150	<0.300	48.0	<10.0	<10.0
AH-2 Surface	<0.050	<0.050	0.063	<0.150	<0.300	3440	<50.0	233
AH-2 1'	<0.050	<0.050	<0.050	<0.150	<0.300	64.0	<10.0	<10.0
AH-2 2'	<0.050	<0.050	<0.050	<0.150	<0.300	32.0	<10.0	<10.0

VI. Action Plan

The NMOCD site ranking requires a 5,000 ppm TPH cleanup, and no BTEX is present in any of the samples taken at this site. Vertical extent of contamination was found at all sample points. Holly Energy Partners is proposing to excavated and remove the impacted soil where Chloride levels are >500 mg/kg, and TPH levels are >1,000 mg/kg. All impacted soils will be transported to an NMOCD approved facility. Upon completion of remediation activities: all surface areas off of the location area will be re-seeded according New Mexico State Land Office Guidelines. All closure documentation will be drafted and submitted to the proper parties of concern.

VII. Figures & Appendices

- Figure 1 - Vicinity Map
- Figure 2 - Site Plan
- Appendix A – C-141
- Appendix B – Groundwater
- Appendix C – Analytical Results
- Appendix D – Photo Documentation

Figure 1

Vicinity Map



Henshaw Station Sample Point 2

Livingston Hwy

220

82

Sample Lake Rd

Survey

Google Earth

© 2016 Google

1997

Imagery Date: 2/13/2014 32°48'57.57" N 103°56'18.25" W elev 3688 ft eye alt 6008 ft

Figure 2
Site Plan



Sample Point 2

Sample Point 3



Survey

© 2016 Google

Google Earth

1996

Imagery Date: 2/13/2014 32°48'57.49" N 103°56'18.22" W elev 3689 ft eye alt 3777 ft

Appendix A
C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company HOLLY ENERGY PARTNERS	Contact MELANIE ISENBERG	
Address 1602 W. MAIN, ARTESIA NM 88210	Telephone No. 214-605-8303	
Facility Name HENSHAW STATION	Facility Type PUMPING STATION	
Surface Owner BLM	Mineral Owner	API No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	23	17S	30E					EDDY

Latitude 32.816022 Longitude -102.938378
SQUARE LAKE RD OFF OF LOVINGTON HWY

NATURE OF RELEASE

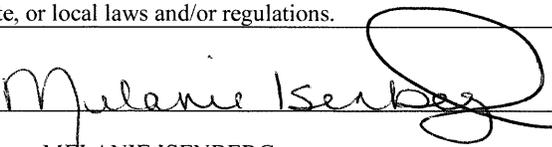
Type of Release CRUDE OIL AND TANK BOTTOM WATER	Volume of Release 1 BARREL/OIL	Volume Recovered 5 BARRELS OF WATER AND OIL
Source of Release FACTORY TANK PENETRATION COLLAR	Date and Hour of Occurrence 10/10/16 1800	Date and Hour of Discovery 10/10/16 1847
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? COURTESY CALL TO DISTRICT II OFFICES. LEFT PHONE MSGS WITH MIKE BRATCHER & HEATHER PATERSON ON 10/11/16.	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* INTERNAL CORROSION OF THE FACTORY TANK PENETRATION COLLAR. APPROXIMATELY 5 BARRELS OF WATER AND OIL WAS RELEASED FROM THE TANK BOTTOM. MAJORITY OF SPILL WAS WATER FROM TANK BOTTOM, ONLY ABOUT 1 BARREL WAS OIL. ALL LIQUID WAS VACUUMED UP. ALL SPILLED LIQUIDS WERE CONTAINED WITHIN THE TANK BERM AREA. SOIL SAMPLING WILL BE CONDUCTED AND REMEDIATION PLAN DETERMINED UPON RECEIPT OF SAMPLING RESULTS.

Describe Area Affected and Cleanup Action Taken.* AREA AFFECTED WAS CONTAINED WITHIN THE TANK BERM AREA WITHIN HEP PROPERTY. NO SPILT LIQUIDS LEFT HEP PROPERTY. STANDING LIQUID WAS IMMEDIATELY VACUUMED UP. SOIL SAMPLING HAS BEEN DONE, PENDING RESULTS SAFETY ENVIRONMENTAL SOLUTIONS INC (SESI) WILL DELINEATE LOCATION AND SUBMIT CREATE/SUBMIT A WORKPLAN TO CLEAN-UP SPILL LOCATION.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: MELANIE ISENBERG	Approved by Environmental Specialist:	
Title: ENVIRONMENTAL ASSOCIATE	Approval Date:	Expiration Date:
E-mail Address: MELANIE.ISENBERG@HOLLYENERGY.COM	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 10/21/16 Phone: 575-748-8972		

* Attach Additional Sheets If Necessary

Appendix B

Groundwater



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
 O=orphaned,
 C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE)
 (quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11914 POD1			ED	2	4	2	20	17S	30E	594801	3632002	85	80	5

Average Depth to Water: **80 feet**
 Minimum Depth: **80 feet**
 Maximum Depth: **80 feet**

Record Count: 1

PLSS Search:

Township: 17S Range: 30E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Appendix C

Analytical Results



October 18, 2016

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: HEP-16-017

Enclosed are the results of analyses for samples received by the laboratory on 10/11/16 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

 Received: 10/11/2016
 Reported: 10/18/2016
 Project Name: HEP-16-017
 Project Number: HEP-16-017
 Project Location: NONE GIVEN

 Sampling Date: 10/11/2016
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Celey D. Keene

Sample ID: AH-1 SURFACE (H602295-01)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988	
Toluene*	0.060	0.050	10/13/2016	ND	2.39	119	2.00	1.16	
Ethylbenzene*	0.135	0.050	10/13/2016	ND	2.31	116	2.00	1.50	
Total Xylenes*	<0.150	0.150	10/13/2016	ND	6.99	116	6.00	1.41	
Total BTEX	<0.300	0.300	10/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10000	16.0	10/12/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/13/2016	ND	183	91.7	200	0.933	
DRO >C10-C28	170	10.0	10/13/2016	ND	193	96.7	200	0.574	

Surrogate: 1-Chlorooctane 93.8 % 35-147

Surrogate: 1-Chlorooctadecane 103 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
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 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	10/11/2016	Sampling Date:	10/11/2016
Reported:	10/18/2016	Sampling Type:	Soil
Project Name:	HEP-16-017	Sampling Condition:	** (See Notes)
Project Number:	HEP-16-017	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: AH-1 1' (H602295-02)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988	
Toluene*	0.212	0.050	10/13/2016	ND	2.39	119	2.00	1.16	
Ethylbenzene*	1.65	0.050	10/13/2016	ND	2.31	116	2.00	1.50	
Total Xylenes*	5.37	0.150	10/13/2016	ND	6.99	116	6.00	1.41	
Total BTEX	7.24	0.300	10/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 126 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/12/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	94.7	50.0	10/13/2016	ND	183	91.7	200	0.933	
DRO >C10-C28	883	50.0	10/13/2016	ND	193	96.7	200	0.574	

Surrogate: 1-Chlorooctane 109 % 35-147

Surrogate: 1-Chlorooctadecane 116 % 28-171

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* = Accredited Analyte

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 Fax To: (575) 393-4388

Received:	10/11/2016	Sampling Date:	10/11/2016
Reported:	10/18/2016	Sampling Type:	Soil
Project Name:	HEP-16-017	Sampling Condition:	** (See Notes)
Project Number:	HEP-16-017	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: AH-1 2' (H602295-03)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988		
Toluene*	<0.050	0.050	10/13/2016	ND	2.39	119	2.00	1.16		
Ethylbenzene*	0.452	0.050	10/13/2016	ND	2.31	116	2.00	1.50		
Total Xylenes*	0.425	0.150	10/13/2016	ND	6.99	116	6.00	1.41		
Total BTEX	0.877	0.300	10/13/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 124 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	10/12/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	10/13/2016	ND	183	91.7	200	0.933		
DRO >C10-C28	349	50.0	10/13/2016	ND	193	96.7	200	0.574		

Surrogate: 1-Chlorooctane 98.1 % 35-147
Surrogate: 1-Chlorooctadecane 106 % 28-171

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Received:	10/11/2016	Sampling Date:	10/11/2016
Reported:	10/18/2016	Sampling Type:	Soil
Project Name:	HEP-16-017	Sampling Condition:	** (See Notes)
Project Number:	HEP-16-017	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: AH-1 3' (H602295-04)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988		
Toluene*	<0.050	0.050	10/13/2016	ND	2.39	119	2.00	1.16		
Ethylbenzene*	<0.050	0.050	10/13/2016	ND	2.31	116	2.00	1.50		
Total Xylenes*	<0.150	0.150	10/13/2016	ND	6.99	116	6.00	1.41		
Total BTEX	<0.300	0.300	10/13/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/12/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/13/2016	ND	183	91.7	200	0.933		
DRO >C10-C28	<10.0	10.0	10/13/2016	ND	193	96.7	200	0.574		

Surrogate: 1-Chlorooctane 106 % 35-147

Surrogate: 1-Chlorooctadecane 113 % 28-171

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Received:	10/11/2016	Sampling Date:	10/11/2016
Reported:	10/18/2016	Sampling Type:	Soil
Project Name:	HEP-16-017	Sampling Condition:	** (See Notes)
Project Number:	HEP-16-017	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: AH-2 SURFACE (H602295-05)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988	
Toluene*	<0.050	0.050	10/13/2016	ND	2.39	119	2.00	1.16	
Ethylbenzene*	0.063	0.050	10/13/2016	ND	2.31	116	2.00	1.50	
Total Xylenes*	<0.150	0.150	10/13/2016	ND	6.99	116	6.00	1.41	
Total BTEX	<0.300	0.300	10/13/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3440	16.0	10/13/2016	ND	400	100	400	3.92	QM-07

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	10/13/2016	ND	183	91.7	200	0.933	
DRO >C10-C28	233	50.0	10/13/2016	ND	193	96.7	200	0.574	

Surrogate: 1-Chlorooctane 95.3 % 35-147
Surrogate: 1-Chlorooctadecane 119 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

 Received: 10/11/2016
 Reported: 10/18/2016
 Project Name: HEP-16-017
 Project Number: HEP-16-017
 Project Location: NONE GIVEN

 Sampling Date: 10/11/2016
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Celey D. Keene

Sample ID: AH-2 1' (H602295-06)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988		
Toluene*	<0.050	0.050	10/13/2016	ND	2.39	119	2.00	1.16		
Ethylbenzene*	<0.050	0.050	10/13/2016	ND	2.31	116	2.00	1.50		
Total Xylenes*	<0.150	0.150	10/13/2016	ND	6.99	116	6.00	1.41		
Total BTEX	<0.300	0.300	10/13/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/13/2016	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/13/2016	ND	183	91.7	200	0.933		
DRO >C10-C28	<10.0	10.0	10/13/2016	ND	193	96.7	200	0.574		

Surrogate: 1-Chlorooctane 90.2 % 35-147

Surrogate: 1-Chlorooctadecane 89.7 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	10/11/2016	Sampling Date:	10/11/2016
Reported:	10/18/2016	Sampling Type:	Soil
Project Name:	HEP-16-017	Sampling Condition:	** (See Notes)
Project Number:	HEP-16-017	Sample Received By:	Celey D. Keene
Project Location:	NONE GIVEN		

Sample ID: AH-2 2' (H602295-07)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/13/2016	ND	2.29	114	2.00	0.988		
Toluene*	<0.050	0.050	10/13/2016	ND	2.39	119	2.00	1.16		
Ethylbenzene*	<0.050	0.050	10/13/2016	ND	2.31	116	2.00	1.50		
Total Xylenes*	<0.150	0.150	10/13/2016	ND	6.99	116	6.00	1.41		
Total BTEX	<0.300	0.300	10/13/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/13/2016	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/13/2016	ND	183	91.7	200	0.933		
DRO >C10-C28	<10.0	10.0	10/13/2016	ND	193	96.7	200	0.574		

Surrogate: 1-Chlorooctane 83.2 % 35-147

Surrogate: 1-Chlorooctadecane 81.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

BILL TO

ANALYSIS REQUEST

Company Name: Safety and Environmental Solutions
Project Manager: Bob Allen

P.O. #:

Address: 703 East Clinton, PO Box 1613

Company: Same

City: Hobbs State: NM Zip: 88240

Attn:

Phone #: 575 397-0510 Fax #: 575 393-4388

Address:

Project #: HEP-16-017 Project Owner:

City:

Project Name: State: Zip:

Phone #:

Project Location: Fax #:

Sampler Name: Matrix: PRESERV: SAMPLING:

FOR LAB USE ONLY

Lab I.D. Sample I.D.

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME							
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:									
<u>HEP0295</u>																		
1	AH-1 Surface	X	1	X	X	X	X	X	10/11	0920	X	X	X	X	X	X	X	X
2	AH-1 1ft	X	1	X	X	X	X	X	10/11	0930	X	X	X	X	X	X	X	X
3	AH-1 2ft	X	1	X	X	X	X	X	10/11	1000	X	X	X	X	X	X	X	X
4	AH-1 3ft	X	1	X	X	X	X	X	10/11	1030	X	X	X	X	X	X	X	X
5	AH-2 Surface	X	1	X	X	X	X	X	10/11	1100	X	X	X	X	X	X	X	X
6	AH-2 1ft	X	1	X	X	X	X	X	10/11	1115	X	X	X	X	X	X	X	X
7	AH-2 2ft	X	1	X	X	X	X	X	10/11	1200	X	X	X	X	X	X	X	X

TOPH 8015
BTEX
Chlorides

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Relinquished By:

Date: 10/11/12

Received By: Ed Shere

Phone Result: Yes No

Fax Result: Yes No

Add'l Phone #:

Add'l Fax #:

Relinquished By: Don Jerny

Date: 10/30

Received By: Ed Shere

REMARKS:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

6-10c

Sample Condition
Cool Intact
Yes No

CHECKED BY: WJH #5

Appendix D

Site Photos

Holly Energy Partners
Henshaw Station Eddy County

Spill Area



**Holly Energy Partners
Henshaw Station Eddy County**

Auger Hole 1



Auger Hole 2



