Bratcher, Mike, EMNRD

From: Susana Rodriguez [office2@sesi-nm.com]

1

Sent: Friday, June 01, 2012 9:24 AM

To: Bratcher, Mike, EMNRD

Cc: Green, Bill

Subject: HOL-11-017 Delineation report

Attachments: HOL-11-017 Delineation report.pdf; Appendix A Analyticals Results H200335.pdf; Appendix A

Analytical Results H200457.pdf; Appendix C NMOCD C141.pdf; Figure 3 Logs of Boring.pdf

Mike:

As per your conversation with Bob, I have attached a copy of the delineation report for the Navajo Apache DAD lateral Line, as well as, the figures and appendices for your review. Please forward your approval/stipulations regarding this report.

Thank you,

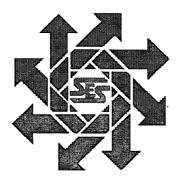
Susana Rodriguez Administrative Assistant Safety & Environmental Solutions, Inc.

O: 575.397.0510 F: 575.393.4388

Holly Energy Partners Navaho Apache DAD Lateral Delineation Report/Workplan

Eddy County, New Mexico

March 2, 2012



Prepared for:

Holly Energy Partners P.O. Box 1260 Artesia, New Mexico 88211

By:

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

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I. Company Contacts

Representative	Company	Telephone	E-mail
Bill Green	Holly Energy Partners	575-748-8968	bill.green@hollyenergy.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Holly Energy Partners to perform site assessment of a release area at the Navaho Apache DAD Lateral located in Section 30 of Township 17 South, Range 29 East, Eddy County, New Mexico.

According to the C-141 on October 22, 2011, the cause of the release was to due possible internal or external corrosion on a 3" steel pipe tie-in from Concho Resources Navaho Federal #8. The leak is located below ground at the tie-in of the Apache DAD lateral. Clean-up crews were dispatched and free product was removed. Approximately 100 barrels of crude oil was released with an unknown amount recovered.

New Mexico Oil Conservation Division (NMOCD) representatives were contacted.

III. Surface and Ground Water

The average depth of groundwater of record listed with the United States Geological Survey (USGS) is in Section 22 Range 28 East and Township 17 South, which is located 2.8 miles northwest of the site, is 79 feet in February 1999.

IV. Characterization

The target cleanup levels are reached by the application of the "Guidelines for Remediation of Leaks, Spills and Releases New Mexico Oil Conservation Division (NMOCD) – August 13, 1993 to this site is 1,000 parts per million (ppm) Total Petroleum Hydrocarbons (TPH).

Application of the New Mexico Oil Conservation Division's ranking criteria for contaminated soils at this site is presented below:

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

V. Work Performed

On February 8, 2012, Safety and Environmental Solutions, Inc. (SESI) was onsite to install test trenches utilizing a backhoe to determine vertical extent of contamination. Samples were retrieved and transported under chain of custody to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for Chlorides (EPA Method 300.0), and Total Petroleum Hydrocarbons (TPH) (EPA Method 418.1), Benzene, Toluene, Ethyl Benzene, Xylenes (BTEX) (EPA Method 8021B).

The results of the analysis are as follows:

Sample ID	TPH 418.1 (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
Analysis Date:	2/22/12	2/22/12	2/22/12	2/22/12	2/22/12
TT-1, 11' BGS	6,790	8.24	101	82.4	132
TT-2, 10' BGS	5,180	<1.00	19.9	23.7	41.7
TT-3, 07' BGS	340	<0.050	<0.050	<0.050	<0.150
TT-4, 05' BGS	113	<0.050	<0.050	<0.050	<0.150

The first attempt at the delineation of this site only produced the vertical extent in Test Trenches 3 & 4, which was less than 5' BGS. Test Trenches 1 & 2 did not produce vertical extent at approximately 11-12' BGS.

On February 20, 2012, SESI was onsite with Atkins Drilling to install two boreholes to a depth where the TPH concentration is 100 ppm or less utilizing an auger rig with split spoon sampling. Samples were retrieved at 10 ft. intervals. Field tests will be run on the samples to determine the depth where the contamination is 1000 ppm TPH (NMOCD Guideline for this site) and where the vertical extent of 100 ppm has been reached. Samples will be transported under chain of custody to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for Total Petroleum Hydrocarbons (TPH) (EPA Method 418.1) and Benzene, Toluene, Ethyl Benzene, Xylenes (BTEX) (EPA Method 8021B).

The results of the analysis are as follows:

Sample	TPH 418.1 (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Total Xylenes (mg/kg)
Analysis Date:	2/22/12	2/22/12	2/22/12	2/22/12	2/22/12
BH-1, 19" to 21" BGS	118	< 0.050	< 0.050	<0.050	<0.150
BH-1,29" to 31" BGS	<100	< 0.050	<0.050	<0.050	<0.150
BH-2, 19" to 21" BGS	106	<0.050	<0.050	< 0.050	<0.150
BH-2, 25" BGS	166	<0.050	<0.050	<0.050	<0.150

VI. Action Plan

As a result of the most recent delineation, vertical extent of contamination was encountered between the 12' and 19' BGS in both BH # 1 and BH # 2. The original delineation found the vertical extent of contamination in TT # 3 and TT # 4 to be less than 7' BGS.

It is proposed that the most highly contaminated soil be excavated and placed on plastic and treated with enhanced bioremediation on-site. A bio-surfactant, UNIREM 800, will be applied to the excavated soil and covered with a fabric membrane. On the second day, the bacteria, UNIREM 200, will be applied to the soil and again covered with a fabric membrane. The soil will be field tested for THP on a weekly basis to monitor the progress of the bioremediation. Both the bio-surfactant and the bacteria are products produced by UNIREM Technologies. (See Material Safety Data Sheet in Appendix D) After completion of the bioremediation process, when the TPH concentration in the soil is less than 1,000 ppm, the soil will be backfilled into the excavation and returned to original grade. The time required for the bioremediation is estimate to be less than 30 days.

HEP and COG are still negotiating remediation regarding the Right-of-Way.

VII. Figures & Appendices

Figure 1 – Vicinity Map

Figure 2 – Site Plan

Figure 3- Logs of Boring

Appendix A - Analytical Results

Appendix B - Site Photographs

Appendix C - C-141

Appendix D - Material Safety Data Sheet

Figure 1 Vicinity Map

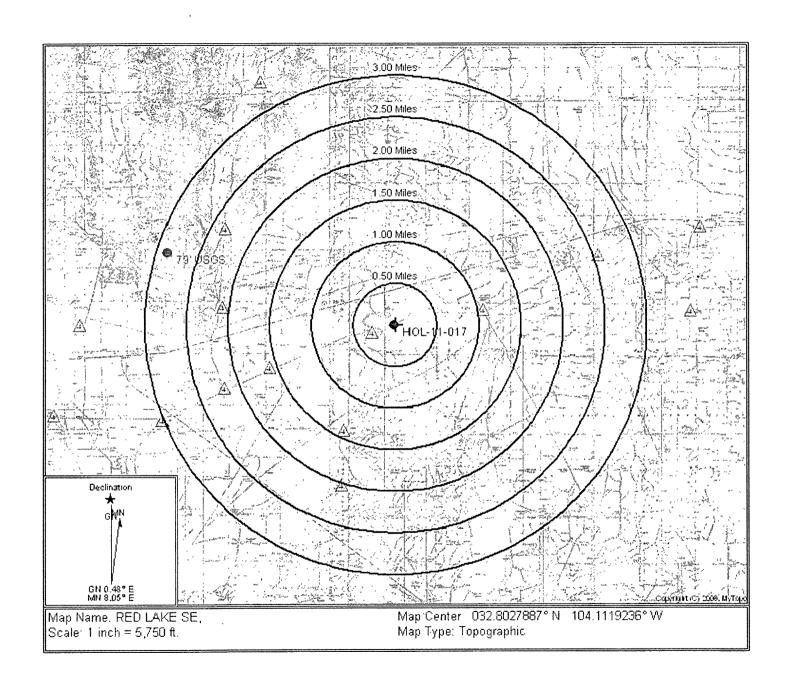


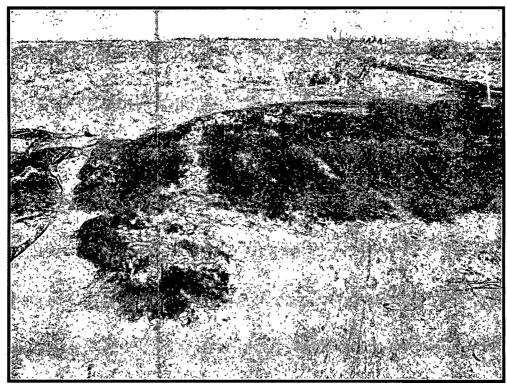
Figure 2 Site Plan



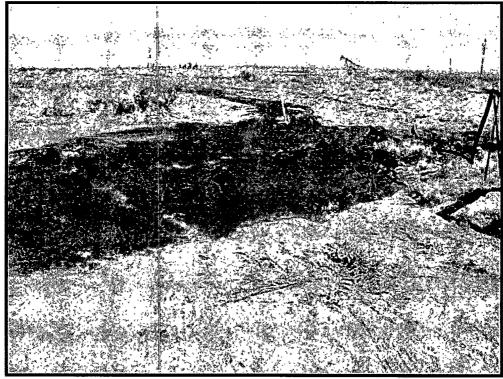
Figure 3 Logs of Boring

Appendix A Analytical Results

Appendix B Site Photographs



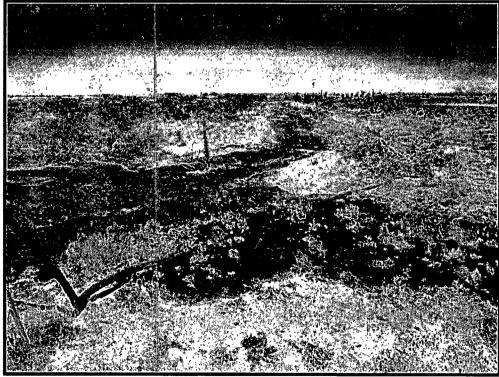
Leak site looking east



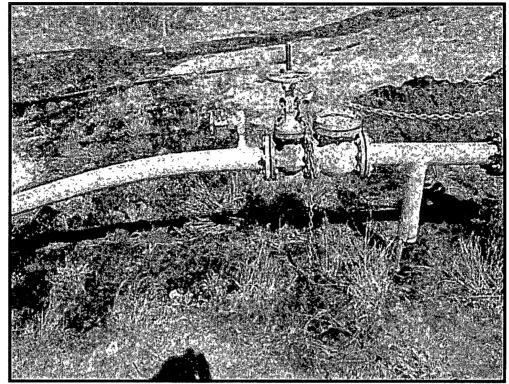
Pooling area at west end of leak



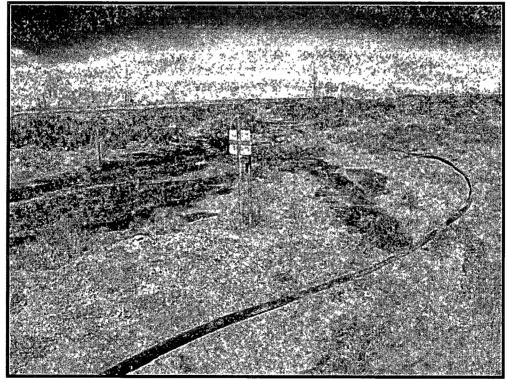
West end of leak source



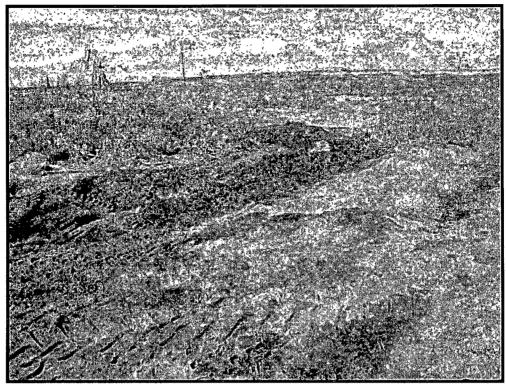
West pooling area and right of way run



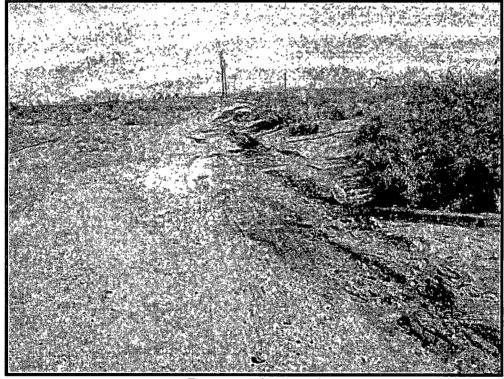
Leak source area



West end of leak



Run area before lease road



Run area on lease road



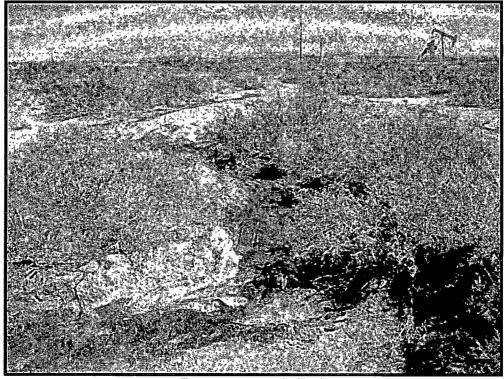
Run area leaving lease road on east end of leak



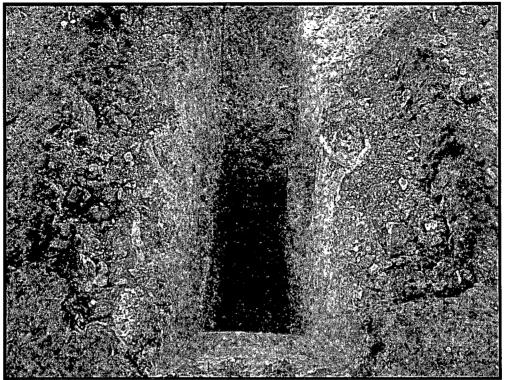
Run area east end of leak



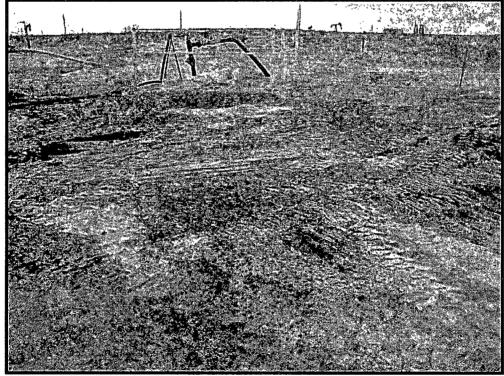
Run area east end of leak



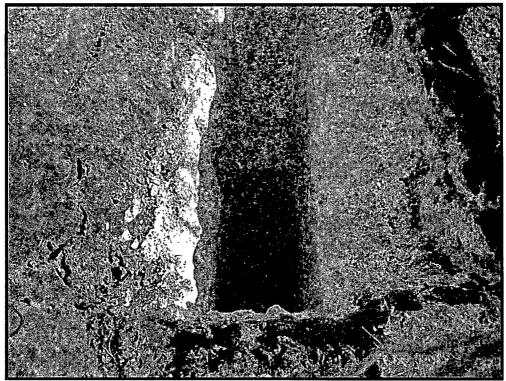
Run area east end of leak



Test trench-1 facing south



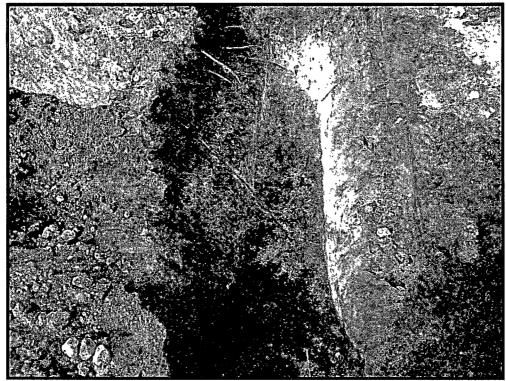
Test trench-1 facing south (backfilled)



Test trench-2 facing west



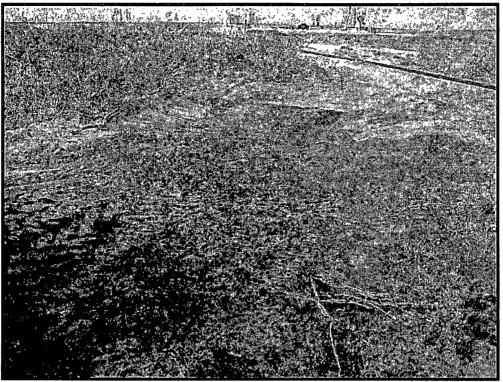
Test trench-2 facing west (backfilled)



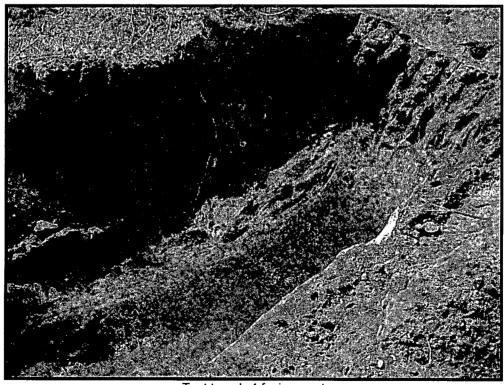
Test trench-3 facing west



Test trench-3 facing west



Test trench-3 facing west (backfilled)



Test trench-4 facing west



Test trench-4 facing west (backfilled)

Appendix C C-141

District I 1625 N French Dr., Hobbs, NM 88240 District II 1301 W Grand Avenus, Artesia, NM 88210 District III 1000 Rio Brasos Road, Artes, NM 87410 District IV 1220 S St. Francis Dr., Santa Fa, NM 87405

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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

	•			29	anta i	.e. NM 373	U 3			
		<u> </u>	Rel	ease Notific	catio	n and Co	rrective A	ction		
						OPERA:	TOR	⊠ Inst	al Report	Final Repor
Name of Co	empany H	olly Energy	Parmers			Contact Je	ff Stubblefield			
		n Street Art		88210		Telephone i	No 972-322-57	82		
Facility Nat	ne Nava	ho Federal /	Apache l	OAD Lateral		Facility Typ	e Gathering Li	ne		
Surface Ow	ner	BLM		Mineral ()woer			Lease:	No.	
				TOC	A TTC	N OF RE	FASE	· · · · · · · · · · · · · · · · · · ·		
Unit Letter	Section	Township	Range	Feet from the		h South Line	Feet from the	East West Line		County
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				NAT	TURI	OF REL				
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Was Immedi	nte Norice (hiven?				H YES, Te		1 10,10	8.181.	
		X	Yes [] No 🗌 Not R	equirec	i Randy Dad	le 575-626-1372			
By Whom?	Lori Coup	and			-	Date and F	iour 10/22/2011	1:55 p m.		
Was a Water	course Read		_	_			ohanse Impacting t	he Warercourse.		
]Yes 🗵] No		N/A				
If a Watercoo	irse was Im	pacted, Descr	ibe Fully.							
N/A										
NA										
	,									
Describe Cas	ise of Probl	em and Reme	dial Actro	n Taken *						
Possible inte	mal or exte	mal corresion	on a 3" s	eel nine tie-m fro	п Соп	cho Resources	Navaho Federal	#8 The leak is loc	ated below	ground at the tie-in
of the Apach	e DAD late									emoved and placed
om plastic me	ur the site									
		and Cleanup								
										es built to prevent
								iaceo on piastic to at acceptable levi		atural aeration. The
MATE ANTI CAS II	amed in an	abbuosen mp	T 14FUL OUR	e anniâncai iesis	nave v	een confueren	erer me tevers are	as acceptance sevi	as not onsho	×42.
								nderstand that pur		
								tive actions for re		
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						1	OIL CON	<u>SERVATION</u>	DIVISI	<u>ON</u>
Signature										
-						Approved by	District Supervis	or		
Printed Nam	e. Lan Con	ipiand								
Tule:Mgr – I	Regulatory	Compliance				Approval Da	te:	Expiration	Date.	
E-mail Addr	ess lorico	upland@holiy	repergy co	a		Conditions o	f Approval			
						7			Attache	뜨겁

Date: 10/22/2011 Phone: 575.748.4076

Attach Additional Sheets If Necessary

Appendix D Material Safety Data Sheet

MATERIAL SAFETY AND DATA SHEET

I NAME, BRAND, AND TRADEMARK. UNI-REM® 200 BIOLOGICAL PREPARATION

A. Type of product for remediation of soil and water contamination with oil and oil products.

II. MANUFACTURER'S NAME, ADDRESS & TELEPHONE NUMBER

UNIREM TECHNOLOGIES LLC
7929 Rhyne Lane
Knoxville, TN 37918
Phone (865) 257-8733 Fax (865-859-0541
www.Uniremtechnologies.com

III. NAME, ADDRESS, & TELEPHONE NUMBER OF DISTRIBUTOR:

UNIREM TECHNOLOGIES
7929 Rhyme Lane
Knoxville, TN 37918

Phone (865) 257-8733 Fax (865) 859-0541

www.Univentechnologies.com

IV. SPECIAL HANDLING AND WORKER PRECAUTIONS FOR STORAGE AND FIELD APPLACATION

- 1. Flammability: UNI REM ® is non-flammable.
- 2. Ventilation.
- B Inhalation of UNI-REM® 200 should be avoided
- C. Normal ventilation is adequate for handling and storage.
- 3. Skin an eye contact, personal protective equipment:
- D. Direct contact of UNI-REM® with skin or eyes should be avoided.

 E. The use of goggles, gloves, and respirators is recommended during application.
- 4. Emergency and First Aid Procedures.
- A None required, ordinary measure of personal hygiene is adequate

 B Avoid direct eye contact. Contact with concentrate will irritate the eye. Should accidental contact
 occur, wash with water for 5-10 minutes. If irritation persists, consult a physician

In the even of direct contact, wash the affected area with soap and water.

KEEP OUT OF REACH OF CHILDREN

Storage Temperatures

- C. Minimum Storage Temperature. -23 F(-50 C)
- D Maximum Storage Temperature: 86 F(+30 C)
- E. Optimum Storage Temperature: 39 F (+4 C)
- F. Temperatures of phase separation and chemical changes: N/A

V SHELF LIFE

The shelf life of BIOLOGICAL PRODUCT is 12 months.



February 16, 2012

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: HOL-11-017

Enclosed are the results of analyses for samples received by the laboratory on 02/09/12 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 accreditated 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.

Celeg & Keene

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,

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:

02/09/2012

Sampling Date:

02/08/2012

Reported:

02/16/2012

Sampling Type:

Soil

6.00

Project Name:

HOL-11-017

< 0.150

108 %

0.150

64 4-134

Sampling Condition:

Cool & Intact

Project Number:

NAVAJO APACHE DAD LATERAL

Sample Received By:

Jodi Henson

Project Location:

LOCO HILLS, NM

Sample ID: TT - 4 5' BGS (H200335-01)

BTEX 8021B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	02/16/2012	ND	1.93	96.5	2.00	16.0	
Toluene*	<0.050	. 0.050	02/16/2012	ND	2.09	105	2.00	15.8	
Ethylbenzene*	<0.050	0.050	02/16/2012	ND	2.15	107	2.00	15.0	
Total Xylenes*	<0.150	0.150	02/16/2012	ND ,	6.65	111	6.00	15.5	
Surrogate 4-Bromofluorobenzene (PIE	110	% 64 4-13	4						
TPH 418.1	mg/	'kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	113	100	02/10/2012	ND	2570	103	2500	2.28	
Sample ID: TT - 3 7' BGS (H20	0335-02)							
BTEX 8021B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/16/2012	ND	1.93	96.5	2.00	16.0	
Toluene*	< 0.050	0.050	02/16/2012	ND	2.09	105	2.00	15.8	
Ethylbenzene*	< 0.050	0.050	02/16/2012	ND	2.15	107	2.00	15.0	

TPH 418,1	mg	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	340	100	02/10/2012	ND	2570	103	2500	2.28	

ND

6.65

111

02/16/2012

Cardinal Laboratories

Surrogate 4-Bromofluorobenzene (PIL

Total Xylenes*

*=Accredited Analyte

15.5

PLEASE NOTE. Liability and Damages. Cardinal's liability and clients exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence an any other cause whatspeever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event, shall Cardinal be liable for incidental or consequential damages including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiances, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether succlaim is based upon any of the above stated reasons or otherwise. Results related only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Kenne

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:

02/09/2012

Sampling Date:

02/09/2012

Reported:

02/16/2012

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Project Name:

HOL-11-017

Project Number: Project Location: NAVAJO APACHE DAD LATERAL LOCO HILLS, NM

Sample Received By:

Jodi Henson

Sample ID: TT - 2 10' BGS (H200335-03)

BTEX 8021B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	02/16/2012	ND	1.93	96.5	2.00	16.0	
Toluene*	19.9	1.00	02/16/2012	ND	2.09	105	2.00	15.8	
Ethylbenzene*	23.7	1.00	02/16/2012	ND	2.15	107	2.00	15.0	
Total Xylenes*	41.7	3.00	02/16/2012	ND	6.65	111	6.00	15.5	
Surrogate 4-Bromofluorobenzene (PIL	124	% 64 4-13	4						
TPH 418.1	mg,	/kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	5180	100	02/10/2012	ND	2570	103	2500	2.28	

Sample ID: TT - 1 11' BGS (H200335-04)

BTEX 8021B	mg/l	kg	Analyze	d By: AP					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	8.24	1.00	02/16/2012	ND	1.93	96.5	2.00	16.0	
Toluene*	101	1.00	02/16/2012	ND	2.09	105	2.00	15.8	
Ethylbenzene*	82.4	1.00	02/16/2012	ND	2.15	107	2.00	15.0	
Total Xylenes*	132	3.00	02/16/2012	ND	6.65	111	6.00	15.5	
Surrogate 4-Bromofluorobenzene (PIL	141 %	6 64 4-134	1						
TPH 418.1	mg/l	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

Cardinal Laboratories

TPH 418.1

*=Accredited Analyte

2.28

PLEASE NOTE Liability and Damages Cardinal's liability and client's exclusive remedy for any daim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries of successors ansing out of or related to the performance of the services hereunder by Cardinal, regardless of whether such

ND

2570

103

2500

02/10/2012

Celegio treene

Celey D. Keene, Lab Director/Quality Manager

6790

100



Notes and Definitions

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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 SM4500CI-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

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE Liability and Damages Cardinal's liability and clients exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits inclured by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This

Celeg thene-



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	SATIETY & GY	Shows were	uh Sol	BI	LL TO	-	AT-4			ANA	LYSI	S RE	QUE	ST			
Project Manager:	Hiller, BOD			P.O. #*									T -				
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city: the bb	اد Sta	te:///livx Zip:	88240	Attn:	-	· · -										Į	l
Phone #: 575	Sta - (1.6.7 Proi	#:		Address: (21.00						-						1
Project #: 860L	-11-6.7 Proj	ect Owner: 👍 🗸	//y	City:	<i>'</i>			İ									İ
Project Name: 🔨	imade abacie	DWZ PAL	7-12-1-1	State:	Zip:		₩.	_									1
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Sampler - UPS -	Bus - Other:	40	Yes 1 Ye	S 1 and	N.												
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[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-1476



February 24, 2012

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: HOL-11-017

Enclosed are the results of analyses for samples received by the laboratory on 02/20/12 13:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 accreditated 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.

Celeg & Keine

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,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

Safety & Environmental Solutions

Bob Allen 703 East Clinton Hobbs NM, 88240

(575) 393-4388 Fax To:

Received:

02/20/2012

Sampling Date:

02/20/2012

Reported:

02/24/2012

Sampling Type:

Soil

HOL-11-017

Sampling Condition:

Cool & Intact

Project Name: Project Number:

NAVAJO APACHE DAD LATERAL

Sample Received By:

Jodi Henson

Project Location:

LOCO HILLS, NM

Sample ID: BH-1 19" TO 21" BGS (H200457-01)

BTEX 8021B	mg/	′kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2012	ND	1.76	87.9	2.00	5.15	
Toluene*	<0.050	0.050	02/22/2012	ND	1.91	95.6	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/22/2012	ND	1.97	98.6	2.00	3.43	
Total Xylenes*	<0.150	0.150	02/22/2012	ND	6.17	103	6.00	3.45	
Surrogate 4-Bromofluorobenzene (PIL	112	% 64 4-13	4		,				
TPH 418.1	mg/	/kg	Analyze	d By: CK					
Analyte `	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	118	100	02/24/2012	ND	2470	98.7	2500	0.0810	
		0455 02)							
Sample ID: BH-1 29" TO 31" B BTEX 8021B	MGS (H2U mg/	-	Analyze	d By: AP					
Analyte ·	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2012	ND	1.76	87.9	2.00	5.15	
Toluene*	<0.050	0.050	02/22/2012	ND	1.91	95.6	2.00	4.87	
	<0.050 <0.050	0.050 0.050	02/22/2012 02/22/2012	ND ND	1.91 1.97	95.6 98.6	2.00	4.87 3.43	
Toluene* Ethylbenzene* Total Xylenes*			, ,						
,	<0.050 <0.150	0.050 0.150	02/22/2012	ND	1.97	98.6	2.00	3.43	

Cardinal Laboratories

TPH 418.1

Analyte

*=Accredited Analyte

Qualifier

RPD

0.0810

PLEASE NOTE Lability and Damages Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be deemed waved unless made in writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal writing and received by Cardinal wr claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Method Blank

ND

2470

% Recovery

98.7

True Value QC

2500

Analyzed

02/24/2012

Celegio Kieno

Celey D. Keene, Lab Director/Quality Manager

Result

<100

Reporting Limit

100



Analytical Results For:

Safety & Environmental Solutions Bob Allen 703 East Clinton Hobbs NM, 88240

Analyzed By: AP

(575) 393-4388 Fax To:

Received:

02/20/2012

Sampling Date:

02/20/2012

Reported:

02/24/2012

Sampling Type:

Soil

BTEX 8021B

Cool & Intact

Project Name:

HOL-11-017

Sampling Condition:

Project Number:

NAVAJO APACHE DAD LATERAL

Sample Received By:

Jodi Henson

Project Location:

LOCO HILLS, NM

mg/kg

Sample ID: BH-2 19" TO 21" BGS (H200457-03)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/22/2012	ND	1.76	87.9	2.00	5.15	
Toluene*	<0.050	0.050	02/22/2012	ND	1.91	95.6	2.00	4.87	
Ethylbenzene*	<0.050	0.050	02/22/2012	ND ,	1.97	98.6	2.00	3.43	
Total Xylenes*	<0.150	0.150	02/22/2012	ND	6.17	103	6.00	3.45	
Surrogate 4-Bromofluorobenzene (PIL	1119	% 64 4-13	34				,		
TPH 418.1	mg/	'kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	106	100	02/24/2012	ND	2470	98.7	2500	0.0810	
Sample ID: RH-2 25" RGS (H2)	00457-04	1)							
Sample ID: BH-2 25" BGS (H20		•							
BTEX 8021B	mg/	/kg		d By: AP					
•		•	Analyze Analyzed	d By: AP Method Blank	BS	% Recovery	True Value QC	RPD .	Qualifier
BTEX 8021B	mg/	/kg			BS 1.76	% Recovery 87.9	True Value QC 2.00	RPD . 5.15	Qualifier
Analyte	mg/ Result	Reporting Limit	Analyzed	Method Blank		•	•		Qualifier
Analyte Benzene*	mg/ Result <0.050	Reporting Limit	Analyzed 02/22/2012	Method Blank	1.76	87.9	2.00	5.15	Qualifier
Analyte Benzene* Toluene*	Result <0.050 <0.050	Reporting Limit 0.050 0.050	Analyzed 02/22/2012 02/22/2012	Method Blank ND ND	1.76 1.91	87.9 95.6	2.00	5.15 4.87	Qualifier
Analyte Benzene* Toluene* Ethylbenzene*	Result <0.050 <0.050 <0.050	Reporting Limit 0.050 0.050 0.050 0.150	Analyzed 02/22/2012 02/22/2012 02/22/2012 02/22/2012	Method Blank ND ND ND ND	1.76 1.91 1.97	87.9 95.6 98.6	2.00 2.00 2.00	5.15 4.87 3.43	Qualifier
Analyte Benzene* Toluene* Ethylbenzene* Total Xylenes*	Result <0.050 <0.050 <0.050 <0.050 <0.150	Reporting Limit 0.050 0.050 0.050 0.050 0.150	Analyzed 02/22/2012 02/22/2012 02/22/2012 02/22/2012	Method Blank ND ND ND ND	1.76 1.91 1.97	87.9 95.6 98.6	2.00 2.00 2.00	5.15 4.87 3.43	Qualifier

Cardinal Laboratories

TPH 418.1

*=Accredited Analyte

0.0810

PLEASE NOTE Liability and Damages Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount pad by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors ansing out of or related to the performance of the services hereunder by Cardinal, regardless of whether such

ND

2470

98.7

2500

02/24/2012

Celeg D. Kiene

Celey D. Keene, Lab Director/Quality Manager

166

100



Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE Liability and Damages Cardinal's liability and client's exclusive remady for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidential or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by cleint, its subsidiaries, affiliates or successions arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg thene

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

(505) 393-2326 Fax (505) 393-2476																Page	c	f	-					
Cómpany Name:	Company Name: Safety & Environmental Solutions, Inc.						BILLTO										ANAI	ĻYŚļ	SRE	QUE	SŢ,			
Project Manager:	Bob Allen						Ρ,	0. #.		•	************				Ì									
Address.	703 East Clinton						Ç	Company: Same				_												
City:	Hobbs State: NM Zip: 88240						At	Attn:]											
Phone #: 575-397-0510 Fax #: 575-393-4388						Address:												1.				1		
Project #: 1701-11-017 Project Owner: 146(14						Ci	City:												1					
Project Name: Nowayo Apacife DAD WATCRAL						St	State, Zip;										-	•						
Project Location:	: Lece Hill	N.M.					_ P	Phone #:					3											
Şampler Name:	Sein d	~~~~ <u>~</u>			······		Fax #:					12,										-		
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Lab I.D.	Sample 1.1	D.	8 Q	Z Q	EVV	u	j 62	BAS	8 8	e e			1	M										
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		Time:						1	0UE -	W.F.C	tov.	1												
Delivered By:		!	Temp.	•	Sample Cool	Intact			unist (I)	KED Itials	137:													
Sampler - UPS	- Bus - Other:		400		Yes		es Vo		ر مسا	大														

† Cardinal cannot accept verbal changes Please fax written changes to 575-393-2476.

<u>District I</u> 1625 N French Dr., Hobbs, NM 88240 District II
1301 W Grand Avenue, Artesia, NM 88210 District III
1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S St Francis Di , 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 October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

			Rele	ease Notific	cation	and Co	rrective A	ction		•				
		O	ΓOR											
		olly Energy			Contact Jeff Stubblefield									
		n Street Art				No. 972-322-57								
Facility Nar	ne Naval	ho Federal /	DAD Lateral		facility Typ	e Gathering Lir	ne							
Surface Ow	ner	BLM		Mineral C)wner				Lease No	0.				
				LOCA	ATION	ON OF RELEASE								
Unit Letter	Unit Letter Section Township Range Feet from the North						r/South Line Feet from the East/We FSL 2308` FE			County Eddy				
Latitude N 32' 48.167 Longitude W 104' 06.730														
				NAT	URE	OF RELI	EASE							
Type of Rele		Crude Oi	İ			Volume of	ecovered bbl							
Source of Re 3" steel pipel						1	lour of Occurrence unknown	e [[Date and F 10:10 a.r	four of Discovery				
Was Immedia		Given?				If YES, To			10.10 4.1	11.				
		\boxtimes	Yes [No 🗌 Not R	equired	Randy Dad	le 575-626-1372			•				
By Whom?							lour 10/22/2011							
Was a Water	course Reac		Yes 🗵] No		N/A	olume Impacting to	he Waterc	ourse.					
If a Watercou	rse was Imp	pacted, Descr	ibe Fully.'	k					<u> </u>					
N/A														
1071				v										
Dearwha C.	CD1-1	1 D	I'-1 A -t	T-1 *			\	 						
Describe Cau	se of Proble	em and Reme	dial Actio	n Taken.↑										
										ed below ground at the tie-in				
of the Apach		ral. Clean-up	crews ha	ve been dispatche	ed and fre	ee product wi	ll be removed. Co	ontaminat	ed soil wi	Il also be removed and placed				
On plastic fice	ii the site.													
D 1		1.01	 											
		and Cleanup A			Lease	road has beer	ı closed on both s	ides of rel	ease and e	earthen dikes built to prevent				
surface migra	ition. The f	free product w	ill be reco	vered and the cor	ntamınate	ed soil will be	e excavated and p	laced on p	lastic to a	llow for natural aeration. The				
soil will be h	auled to an	approved land	I farm onc	e analytical tests	have bee	n completed	and the levels are	at accepta	ible levels	s for disposal.				
I hereby certi	fy that the 1	nformation gi	iven above	is true and comp	lete to th	ne best of my	knowledge and u	nderstand	that pursu	ant to NMOCD rules and				
regulations a	l operators	are required t	o report ai	nd/or file certain i	elease no	otifications a	nd perform correc	tive action	ns for rele	ases which may endanger				
										eve the operator of liability surface water, human health				
										mpliance with any other				
federal, state.	or local lay	ws and/or regi	ulations.				OH CON	OFFIX A	TTO I	DAMACAONI				
							OIL CON	<u>SERVA</u>	TION .	<u>DIVISION</u>				
Signature:														
Printed Name	: Lorı Cou	ıpland				Approved by District Supervisor:								
Title:Mgr – F	Regulatory (Compliance				Approval Date:			Expiration Date:					
E-mail Addre	ess: lori.cou	upland@holly	energy.co	m		Conditions o	f Approval:		Attached					
Date:	10/22	/2011 PI	none: 575.	748.4076										
		ets If Necess												