



APACHE CORPORATION

P.O.Box 1849 Eunice, NM 88231 Phone 575.394.3159

Empire Abo Unit M-14

Closure Report

2RP-860

API 30-015-22834

Release Date: April 29, 2011

Unit Letter C, Section 11, Township 18S, Range 27E

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293

September 23, 2011

Mike Bratcher New Mexico Energy, Minerals, & Natural Resources Oil Conservation Division, Environmental Bureau – District 2 811 S. First Street Artesia, NM 88210

> RE: TERMINATION REQUEST Apache – Empire Abo Unit M-14 AD UL/C Section 11 T18S R27E

Mr. Bratcher:

Apache Corporation has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the site referenced above.

Background and Initial Response

The site is an accidental discharge of fluids from a ruptured buried emulsion line and impacted areas located east of Artesia approximately 5 miles southwest of the intersection of US Hwy 82 and NM 360 in unit letter 'C', section 11, and unit letter 'N', section 2, T18S, R27E in Eddy County, New Mexico (Figure 1) including an area of historical impact (BP L-14). Standing fluid was recovered with vacuum trucks, and an initial form C-141 was submitted for the leak event on May 2, 2011 (Appendix A).

Primary Leak

On May 2, 2011, RECS personnel initiated work on the primary leak area in unit letter 'C', section 11, T18S, R27E. The area was measured and surface samples were taken to a commercial laboratory for analysis of chloride, BTEX, and TPH including Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) (Appendix D). Laboratory chloride results ranged from a high of 24,800 ppm (mg/kg) at the sample point labeled 260 ft North/25 ft East (in relation to the discharge point) to a low of 4,040 ppm at the sample point 55 ft North/22 ft East. GRO readings ranged from a high of 5,080 ppm at the sample point labeled 5 ft North to a low of 460 ppm at the sample point labeled 487 ft North Center of Pad. DRO readings ranged from 34,700 ppm at the discharge point to 11,100 ppm at the sample point labeled 260 ft North/25 ft East. Benzene readings were non-detect at all samples points except at the sample point labeled 5 ft North showing 6.09 ppm. Toluene, ethyl-benzene, and total xylenes were present at all sample points.

From May 4, 2011 through May 13, 2011, the primary leak area was scraped. On May 10, 2011, the caliche road scrape and the west, north, and east excavations were completed. On May 11, 2011, the south excavation was completed, and on May 12, 2011, the southeast excavation was completed. Representative samples from each excavation were taken to a commercial laboratory for analysis of chloride, TPH (GRO/DRO), and BTEX (Figure 2 and Appendix D). Chloride ranged from 16 ppm to 656 ppm, GRO was non-detect, DRO was present in 4 samples – 3 of which were less than 35 ppm and 1 sample at 92.4 ppm, and BTEX was non-detect throughout.

Historical Impact Area

Remediation of the historical impact area (BP L-14) in unit letter 'N', section 2, T18S, R27E was included in the primary leak cleanup activities. On May 12, 2011, RECS personnel initiated work on the area of historical impact in connection with the primary leak. Soil samples were collected from the site and field tested for chlorides. Headspace measurements were also taken in the field using a Photo Ionization Detector (PID).

On May 25, 2011, a temporary monitor well was installed 50 ft. in the assumed up gradient direction from the historical impact area (570 ft. northwest of the primary leak area) to determine depth to ground water (Figure 3 and Appendix B). The well was drilled to 100 ft. below ground surface (bgs) and was left open to allow potential groundwater to accumulate. On June 28, 2011, ARC Environmental personnel used a Solinist Water Level Meter to verify any accumulation of groundwater. No water was detected within the borehole at the total depth of 95.32 ft. bgs. On July 7, 2011, RECS personnel plugged the borehole to ground surface with bentonite.

On May 26, 2011, three soil bores (SB) were installed in the historical impact area (Figure 3 and Appendix B). Representative samples from each soil bore were taken to a commercial laboratory for analysis (Appendix E). Laboratory chloride readings ranged from 1,480 ppm (parts per million or mg/kg) at the surface of SB3 to 80 ppm at 10 ft. bgs in SB1. Gasoline Range Organics (GRO) were non-detect in all three soil bores except at the surface of SB3 where GRO was 64.4 ppm. Diesel Range Organics (DRO) ranged from 2,510 ppm at the surface of SB3 to a low of non-detect at both 10 ft. and 40 ft. bgs in SB1, and also at 25 ft. bgs in SB2 and at 10 ft. bgs in SB3.

Based on soil bore data and preliminary observation and sampling, the historical impact area was separated into three sections (Figure 4): the North Excavation, the South Excavation, and the West Excavation. The North Excavation was 22 ft. deep with an area of 6,823 sq ft. The South Excavation was 8 ft. deep with an area of 2,324 sq ft. The West Excavation was 4 ft. deep with an area of 2,679 sq ft.

On June 10 and 11, 2011, final samples were taken from each historical impact excavation and sent to a commercial laboratory for analyses of chloride and TPH (GRO/DRO) (Figure 4 and Appendix E).

A total of 10,152 cubic yards of impacted soil was removed from both the primary leak area and the historical impact area and transported to a NMOCD approved facility for disposal. On June

24, 2011, all excavations were backfilled with 9,694 cubic yards of clean imported soil and contoured to the surrounding landscape. See Appendix C for photographs of field activities.

Conclusion

Due to the nonexistence of groundwater at site, chloride in the entire area remaining relatively low and TPH and BTEX remaining well below guidelines, Apache submits the final Form C-141 (Appendix F) and respectfully requests Termination status for this site and the closure of the regulatory file.

Apache Corporation appreciates the opportunity to work with you on this project. Please call Natalie Gladden (575) 390-4186 if you have any questions or comments.

Sincerely,

Bruce Baker

Head Foreman

Bruce Bahan

RECS

(575) 631-5157

Attachments:

Figure 1: Site Map

Figure 2: Primary Leak Excavation Summary

Figure 3: Soil Bore Installation Plat Figure 4: Excavation Summary Plat

Appendix A: Initial Form C-141

Appendix B: Temporary Monitoring Well and Soil Bore Logs, Letter of Groundwater

Verification, and Plugging Report

Appendix C: Site Photographs

Appendix D: Primary Leak Laboratory Results

Appendix E: Historical Impact Area and Soil Bore Laboratory Results

Appendix F: Final Form C-141



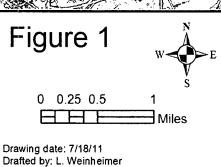
Site Map



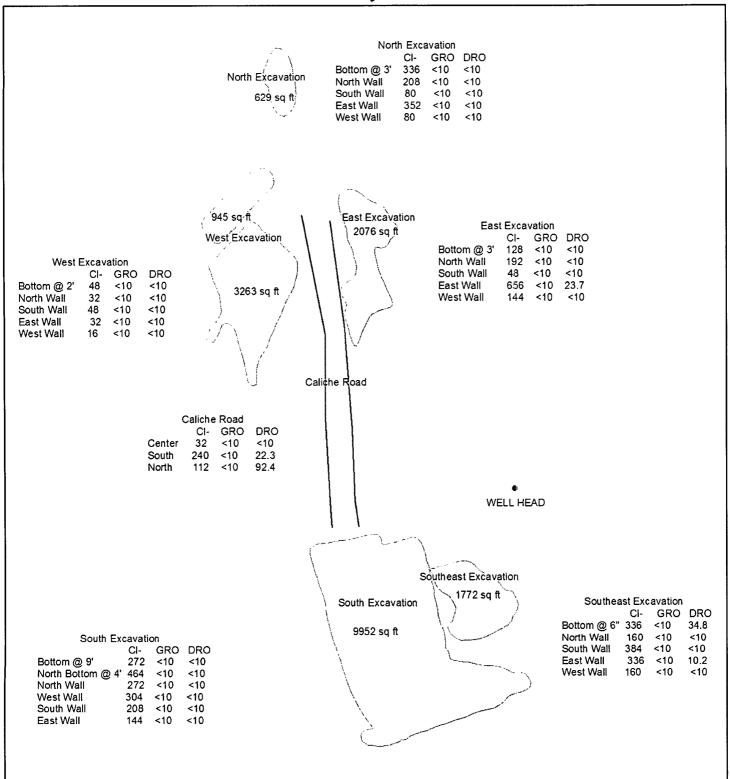


APACHE EMPIRE ABO UNIT M-14 AD

LEGALS: UL/C sec. 11 T18S R27E



Primary Leak





APACHE EMPIRE ABO UNIT M-14 AD

LEGALS: UL/C sec. 11 T18S R27E

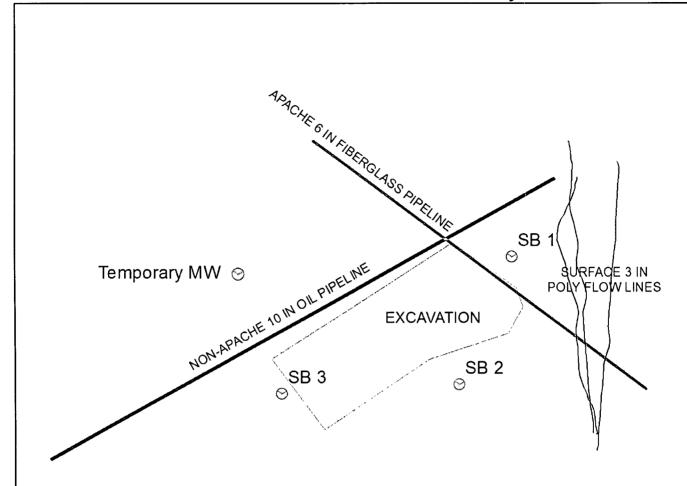
Figure 2



0 15 30 60 Feet

Drawing date: 6/21/11 GPS date: 5/27/11 TG&DH Drafted by: L. Weinheimer

Soil Bore Summary

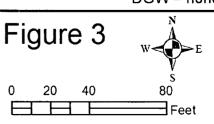


			SB 1					5	SB 2								
Depth SS	CI- 1003	PID 0.3	LAB CI- 672	GRO <10	DRO 448	Depth SS	CI- 360	PID 31.4	LAB CI- 400	GRO <10	DRO 140						•
5'	320	0.6				5'	149	391							SB 3		
10'	174	0.2	80	<10	<10	10'	147	320				Depth	CI-	PID	LAB CI-	GRO	DRO
15'	145	0.3				15'	237	68.7	256	<10	14	SS	1137	105	1480	64.4	2510
20'	149	0.3				20'	174	66.5				5'	180	7.3			
25'	139	0.2				25'	181	2.3	112	<10	<10	10'	182	2.7	112	<10	<10
30'	149	0.3															
35'	152	0.3															
40'	138	6.6	224	<10	<10											DC	SW = none



EMPIRE ABO UNIT M-14 AD Historical Impact Area

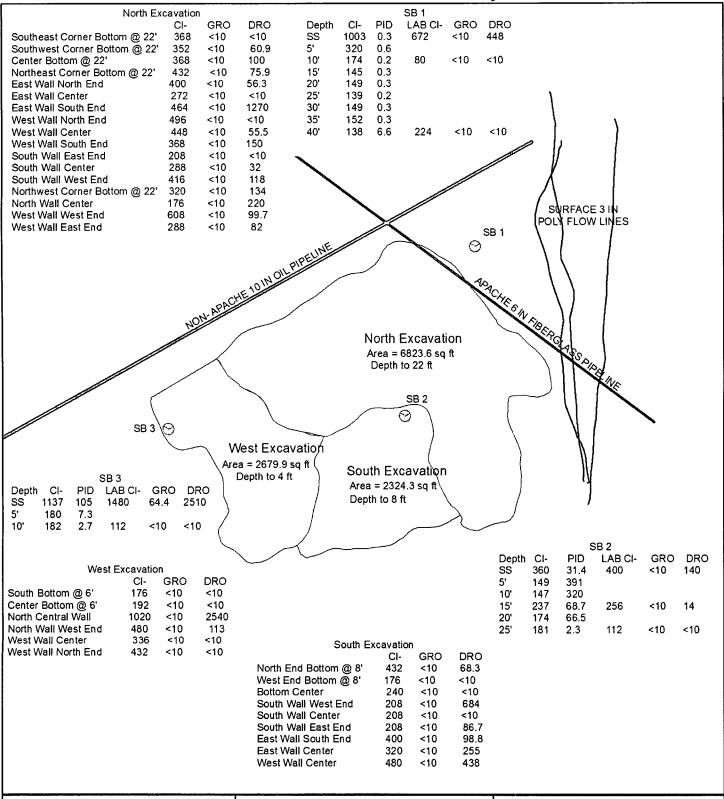
Legals: UL/N sec. 2 T18S R27E Eddy County



Drawing date: 5/31/11 GPS date: 5/27/11 TG&DH

Drafted by: T. Grieco and L. Weinheimer

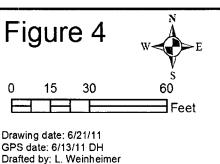
Excavation Summary





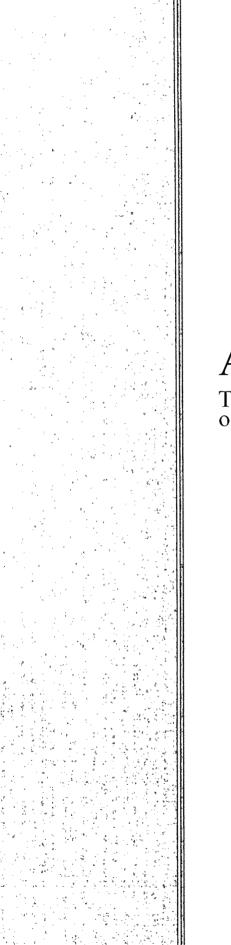
EMPIRE ABO UNIT M-14 AD Historical Impact Area

Legals: UL/N sec. 2 T18S R27E



Appendix A
Initial Form C-141

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293



Appendix B

Temporary Monitoring Well and Soil Bore Logs, Letter of Groundwater Verification, and Plugging Report

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Logger: Jordan Woodfin

Driller: Harrison & Cooper, Inc.

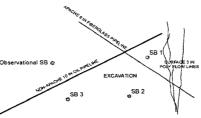
Drilling Method: Air rotary

Start Date: 5/26/2011

5/26/2011

End Date:

Comments:





Company: Apache Corporation
Project Name: Well ID:
Empire Abo Unit M-14-2 AD SB-1

Project Consultant: RECS

Long: 104°15'6.934"W

Location: UL/N sec. 2 T18S R27E

Lat: 32°46'13.102"N

County: Eddy State: NM

All samples were taken from cuttings.

DRAFTED BY: L. Weinheimer

TD = 40 ft

GW = none

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Brown very fine sand, some well consolidated		
ss	1003	CI- 672	0.3	consolidated		
		GRO <10				
		DRO 448		Red very fine silty clay		
5 ft	320		0.6			
				Light brown very fine silty sand with		
		CI-		caliche		
10 ft	174	80	0.2			
		GRO <10				
		DRO <10				
15 ft	145		0.3			
				Tan very fine silty sand with caliche		bentonite
20 ft	149		0.3			seal
05.4	100					
25 ft	139		0.2			
30 ft	149		0.3			
35 ft	152		0.3			
				Tan to red very fine silty sand with calcihe		
		CI-				
40 ft	138	224	6.6			
		GRO <10				
		DRO <10				

Logger:

Jordan Woodfin

Driller:

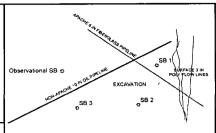
Harrison & Cooper, Inc.

Drilling Method:

Air rotary

5/26/2011 Start Date: 5/26/2011

End Date: Comments:





Company: Apache Corporation

Project Name:

Well ID:

Empire Abo Unit M-14-2 AD

SB-2

Project Consultant: RECS

Location: UL/N sec. 2 T18S R27E

All samples were taken from cuttings. DRAFTED BY: L. Weinheimer

Lat: 32°46'12.454"N

County: Eddy State: NM

	TD = 25	ft		GW = none	Lo	ng: 104°15'7.2	7"W State: N	М
Depth (feet)	chloride field tests	LAB	PID	Description		Lithology	Well Construct	tion
SS	360	CI- 400	31.4					
		GRO <10		Red clay (already excavated and				
		DRO 140		backfilled so we could drill there)				
5 ft	149		391.0					
10 ft	147		320.0					
			·				bento	nite
							sea	al
15 ft	237	CI- 256	68.7	Red clay with some sand				-
!		GRO <10						
		DRO 14						
20 ft	174		66.5					
-								
25 ft	181	CI- 112	2.3	Light red very fine sand with some				
20 IL	101	GRO <10	2.3	clay				
		DRO <10						

Logger:

Jordan Woodfin

Driller:

Harrison & Cooper, Inc.

Drilling Method:

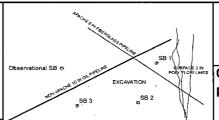
Air rotary

Start Date: End Date:

Comments:

5/26/2011

5/26/2011





Company: Apache Corporation

Project Name:

Well ID:

Empire Abo Unit M-14-2 AD

SB-3

Project Consultant: RECS

Location: UL/N sec. 2 T18S R27E

DRAFTED BY: L. Weinheimer

All samples were taken from cuttings.

TD = 10 ft

GW = none

Lat: 32°46'12.418"N

County: Eddy

Long: 104°15'8.328"W

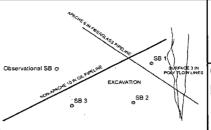
State: NM

ST. 3273 2 3				A CONTRACT OF THE STATE OF THE	g. 10 10 0.0	
Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Brown very fine silty sand		
SS	1,137	CI- 1480	105			
		GRO 64.4				
		DRO 2510		Red clay with a cemented sand mix		
5 ft	180		7.3			bentonite
						seal
10 ft	182	Cl- 112	2.7	Red clay with a cemented sand mix		
		GRO <10				
		DRO <10				

Jordan Woodfin Logger: Driller: Harrison & Cooper, Inc. Drilling Method: Air rotary

5/25/2011

5/25/2011





Company: Apache Corporation

Project Name:

Well ID:

Empire Abo Unit M-14-2 AD

Temp MW-1

Location: UL/N sec. 2 T18S R27E

Project Consultant: RECS

Start Date:

End Date:

Comments:

No samples were taken while this bore was being installed.

Temp. MW PLUGGED 7-7-2011

DRAFTED BY: L. Weinheimer

Lat: 32°46'13.023"N

County: Eddy

L ang. 104915'8 581"W State: NIM

	TD = 100) ft		GW = none	Lo	ng: 104°15'8	3.581	<u>"W</u>	State: NM
Depth (feet)	chloride field tests	LAB	PID	Description		Lithology		Well C	onstruction
SS		= .							
_ 33_									
5 ft									
				NO SAMPLES TAKEN					
10 ft									
15 ft									
								o l	
20 ft								No casing placed in bore	
								olaced	
25 ft								asing I	
								No o	
30 ft	· ·								
35 ft									
L									

Depth	chloride	LAB	PID	Description	Lithology	Well Construction
(feet)	field tests				 	
40 ft						
4E #						
45 ft						
						annular
50 ft						space left
30 11						open open
						TEMP MW-1
55 ft						PLUGGED
JJ 11		 				
						7/7/2011
60 ft					 	
_		-			1 [
65 ft						
	- "					
			<u> </u>			
70 ft						
75 ft						
7511						
00.0						
80 ft		-				
		 	 			
85 ft						
					1	
		<u> </u>	<u> </u>			

Depth (feet)	chloride field tests	LAB	PID	Description		Lithology	Well	Co	onstruction
90 ft									
					ı				
95 ft									
100 ft									

'n

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293

July 11th, 2011

Natalie Gladden Apache Corp. P.O. Box 1849 Eunice, New Mexico 88231

Re: Apache Empire Abo Unit M-14-2 AD

Ms. Gladden,

On May 25th, 2011, RECS personnel drilled an observational well at the Apache Empire Abo Unit M-14-2 AD. On June 28th, I supervised ARC Environmental personnel checking for water accumulation within the borehole using a Solinist Water Level Meter. The meter indicated no water had accumulated within the borehole at the total depth of 95.32 ft.

Sincerely

Bruce Baker

Head Foreman

Rice Environmental Consulting & Safety



Monitor Well Plugging Report

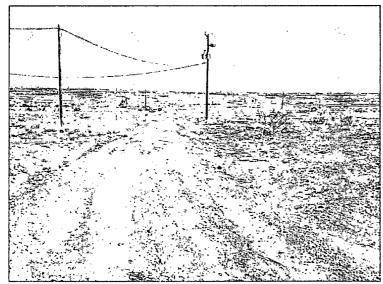
P.O. Box 5630 Hobbs, NM 88241 Phone: 575-393-4411

Client	Apache Corp.
Contractor	RECS
Date Completed	7/7/2011
Site	Empire Abo Unit M-14
County	Eddy
Legal Description	UL/N sec. 2 T18S R27E
Well ID	Temp. MW-1
Casing Diameter	N/A
Well Depth	100'
Casing Material	N/A
Plugging Material	Bentonite

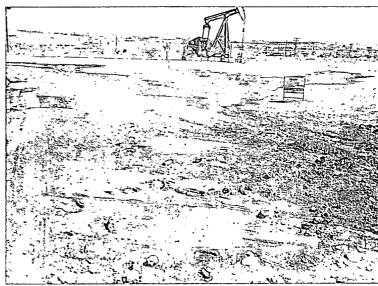


RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Empire Abo Unit M-14 Unit C, Section 11, T18S, R27E

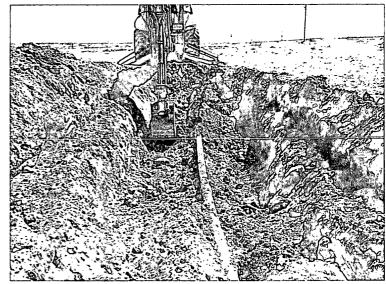


Prior to excavation, facing north 5/2/2011



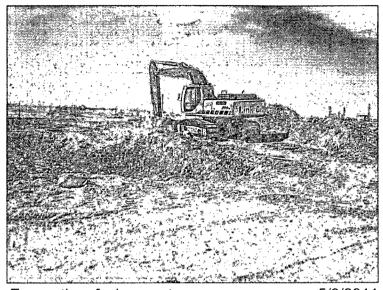
Prior to excavation, facing north

5/2/2011



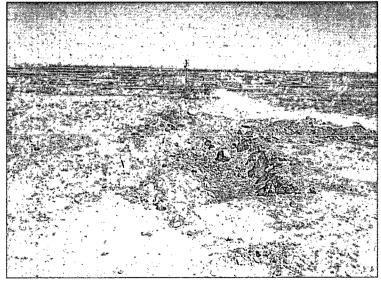
Excavating emulsion line, facing west

5/3/2011



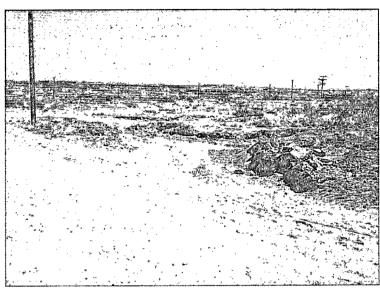
Excavating, facing west

5/9/2011



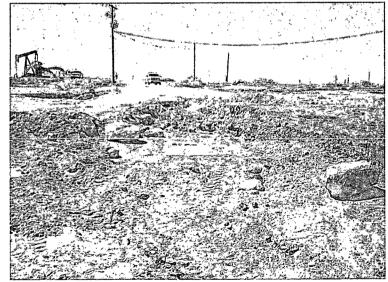
Final excavation west, facing north

5/12/2011



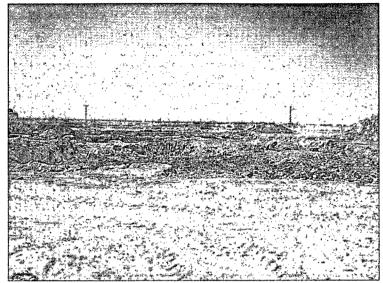
Final excavation, facing east

5/12/2011

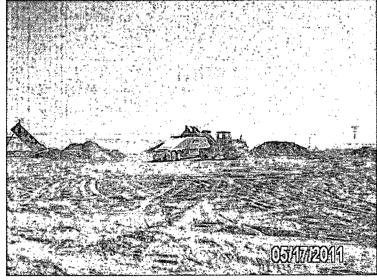


Final excavation south, facing west

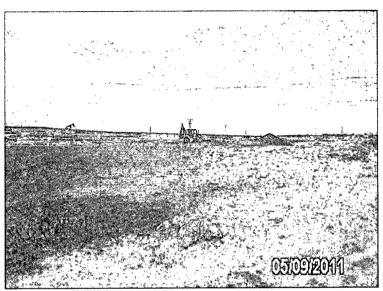
5/12/2011



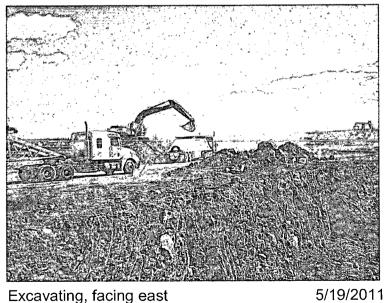
5/12/2011 Final excavation, facing east



Removing spoil pile, facing east 5/17/2011



5/9/2011 Historical impact area, facing northeast

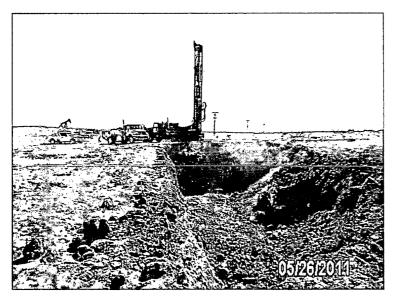


Excavating, facing east



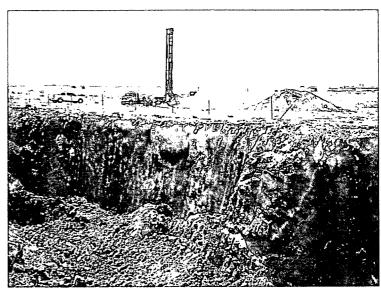
Sampling, facing west

5/19/2011



Drilling SB1, facing east

5/26/2011

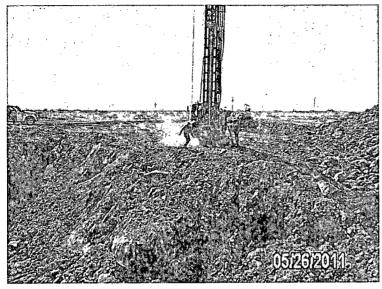


Drilling temporary monitor well, facing east 5/25/2011



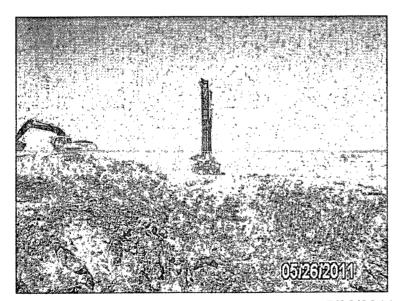
Plugging SB1, facing north

5/26/2011



Drilling SB2, facing southeast

5/25/2011



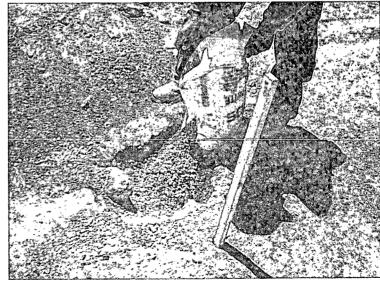
Drilling SB3, facing west

5/26/2011



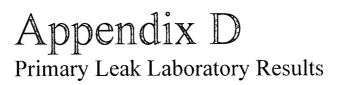
Plugging SB2, facing south

5/26/2011



Plugging SB3, facing west

5/26/2011



RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/03/2011

Sampling Date:

05/02/2011

Reported:

05/10/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 240' NORTH (H100898-01)

BTEX 8021B	mg/	kg	Analyze	d By: CMS			<u>.</u> .		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/05/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	0.055	0.050	05/05/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	0.062	0.050	05/05/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	0.381	0.150	05/05/2011	ND	5.76	96.1	6.00	1.86	
Surrogate: 4-Bromofluorobenzene (PIL	93.3	% 70-130							
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14400	16.0	05/05/2011	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	343	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	14500	50.0	05/05/2011	ND	212	106	200	4.80	
Surrogate: 1-Chlorooctane	108 !	% 70-130					AT A 4 A A A A A A A A A A A A A A A A		
Surrogate: 1-Chlorooctadecane	115	% 70-130							

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories,

Celey & Keine

Celey D. Keene, Lab Director/Quality Manager



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/03/2011

Sampling Date:

05/02/2011

Reported:

05/05/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 5' NORTH (H100898-02)

BTEX 8021B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.09	5.00	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	43.4	5.00	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	41.3	5.00	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	144	15.0	05/06/2011	ND	5.76	96.1	6.00	1.86	
Surrogate: 4-Bromofluorobenzene (PIL	74.7	% 70-130)						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7300	16.0	05/05/2011	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	5080	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	31100	100	05/10/2011	ND	212	106	200	4.80	
Surrogate: 1-Chlorooctane	112 :	% 70-130)						
Surrogate: 1-Chlorooctadecane	107	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 waved unless made in writing and received by Cleardinal 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 clear, its subcidairies, 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 whether such

Celey & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/03/2011

Sampling Date:

05/02/2011

Reported:

05/03/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 700' NORTH 36' WEST (H100898-03)

BTEX 8021B	mg/	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	3.18	1.00	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	5.84	1.00	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	31.6	3.00	05/06/2011	ND	5.76	96.1	6.00	1.86	
Surrogate: 4-Bromofluorobenzene (PIL	96.1	% 70-130							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10900	16.0	05/05/2011	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1640	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	31600	100	05/10/2011	ND	212	106	200	4.80	
Surrogate: 1-Chlorooctane	119	% 70-130					·	,	
Surrogate: 1-Chlorooctadecane	122	% 70-130	ı						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/03/2011

Sampling Date:

05/02/2011

Reported:

05/10/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 260' NORTH 25' EAST (H100898-04)

BTEX 8021B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	2.49	0.050	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	6.18	0.050	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	25.3	0.150	05/06/2011	ND	5.76	96.1	6.00	1.86	
Surrogate: 4-Bromofluorobenzene (PIL	78.2	% 70-130	. ·						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24800	16.0	05/05/2011	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2520	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	24100	50.0	05/05/2011	ND	212	106	200	4.80	
Surrogate: 1-Chlorooctane	86.0	% 70-130)						
Surrogate: 1-Chlorooctadecane	116	% 70-130	1						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey & Keine

Celey D. Keene, Lab Director/Quality Manager



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/03/2011

Reported:

05/10/2011

Project Name: Project Number: EMPIRE ABO UNIT M-14

Project Location:

NONE GIVEN

Sampling Date:

05/02/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Sample Re

Jodi Henson

Sample ID: 55' NORTH 22' EAST (H100898-05)

BTEX 8021B	mg/	′kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	15.6	1.00	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	20.9	1.00	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	72.8	3.00	05/06/2011	ND	5.76	96.1	6.00	1.86	
Surrogate: 4-Bromofluorobenzene (PIL	72.3	% 70-130							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BŞ	% Recovery	True Value QC	RPD	Qualifier
Chloride	4600	16.0	05/05/2011	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3500	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	29400	100	05/10/2011	ND	212	106	200	4.80	
Surrogate: 1-Chlorooctane	113	% 70-130)						
Surrogate: 1-Chlorooctadecane	106	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/03/2011

Sampling Date:

05/02/2011

Reported:

05/10/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 487' NORTH (H100898-06)

BTEX 8021B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	1.14	0.050	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	3.83	0.050	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	18.0	0.150	05/06/2011	ND	5.76	96.1	6.00	1.86	
Surrogate: 4-Bromofluorobenzene (PIL	71.1	% 70-130)						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	05/05/2011	ND	416	104	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1240	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	26000	50.0	05/05/2011	ND	212	106	200	4.80	
Surrogate: 1-Chlorooctane	98.5	% 70-130)						
Surrogate: 1-Chlorooctadecane	114	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 lable 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 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celuy E. Keene

ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Höhtis, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2328 FAX (505) 393-2476 (325) 973-7094 FAX (325)673-7020

Company Name:	Apáche Corp.	and the state of t	EILL TO		\$4	Name and Public State of	****	/	MVE	YSIS	REQUI	EST	AND THE RESERVE THE PERSONS ASSESSED.	- Company
កំពង់ខែប Mainager	Natálie Gladden		F.O. ii:											
Address: Apac		Сетрану:						2				Ì		
Gity:	State: FIM	Altn:						Ö.		Ì				
Fliong R	ne Æ: Fax #:			.,					Ü					
Project <i>il</i> t	Froject Owne	· · · · · · · · · · · · · · · · · · ·	City:		Ø	\geq		II.	178					
Project Harne; Z	Froject Owne	βD .	State: Zip:	and the second section of	je	5	\times	D	Jo			1 1		
HEDNOCH LICATION	1"		Flione #:			8015		w	Cations/Anions	OS		1 1	į	
Sampler Harne:	DAK HARIS	ing-werkly ming electory by emissions monitored by brid construits statistically	Fas#:	कुकुक व्याप्तस्य कार्यास्थान्त्रस्य व्याप्तस्य व्याप्तस्य व्याप्तस्य व्याप्तस्य व्याप्तस्य व्याप्तस्य व्याप्तस्	Chloride	T T	ω	exas	1	ļ			Ì	
Lab I.D. H100898-1	Sample I.D. 940 North 5 North	GROUNDWATER GROUNDWATER WASTEWATER COLL SELECT	PRESERV SAMPLI	THME 975 9730	0		V	0	Complete					200
(A) J (C)	940 North 5' North 36' West 260' North 95' East 55' North 99' East 487' North	6 1 V 6-1 V 6-1 V	V 5/9/1 V 5/9/1 V 5/9/1 V 5/9/1	9.40 9.45 9.50	V V V V	V U U U	<i>U U U U</i>		Annual of the second of the se					
Relinguished By Bellivered By Sampler - UPS	- Bus - Other:	Received By Sample Cond Sample Cond Sample Cond Cond Intect Inc. Interest Inc.	e, hen of use, as lors of profits in-mored by also have dupon any of the above stated re OHECKED BY: GS July 1818	deat, is subsitiases of othercited in the control of the control o	resu resu der@	O Ye O Ye Ills Orice Orice	e-ecs	na s.cor	n: Lv n: Bl	veinl vake	#: teimer (@rice orp.cor	-ecs.co		111
1 ल्यासम्ब	cănnot accept verbal changes. Pleas	a ias wilden chandes (#26											



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/09/2011

Sampling Date:

05/02/2011

Reported:

05/13/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO # M - 14 A. D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

NONE GIVEN

Sample Received By:

Jodi Henson

Sample ID: 55' NORTH 22' EAST (H100934-01) RTFY 8021R

BTEX 8021B	mg/	kg	Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	9.93	5.00	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	14.4	5.00	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	15.8	5.00	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	59.0	15.0	05/11/2011	ND	5.98	99.6	6.00	1.71	
Surrogate: 4-Bromofluorobenzene (PIL	92.5	% 70-130)						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4040	16.0	05/10/2011	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB				2.34 2.26 1.50 1.71	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	611	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	27700	100	05/12/2011	ND	198	98.9	200	0.901	
Surrogate: 1-Chlorooctane	96.4	% 70-130)	10.00			PERMINA		
Surrogate: 1-Chlorooctadecane	83.7	% 70-130)						

Analyzed By CMC

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clent's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 05/09/2011

05/13/2011

Project Name: Project Number: EMPIRE ABO # M - 14 A. D.

Project Location:

NONE GIVEN

NONE GIVEN

Sampling Date:

05/02/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: 260' NORTH 25' EAST (H100934-02)

BTEX 8021B	mg/	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	0.441	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	0.811	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	5.53	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	
Surrogate: 4-Bromofluorobenzene (PIL	105	% 70-130)						
Chloride, SM4500CI-B	mg/	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24000	16.0	05/10/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	501	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	11100	100	05/12/2011	ND	198	98.9	200	0.901	
Surrogate: 1-Chlorooctane	130 :	% 70-130)						-
Surrogate: 1-Chlorooctadecane	127	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 hable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidianes, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeny & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/09/2011

Sampling Date:

05/02/2011

Reported:

05/13/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO # M - 14 A. D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

Sample ID: SOURCE OF LEAK (H100934-03)

BTEX 8021B	mg,	′kg	Analyze	d By: CMS					S-LOW
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	1.18	0.100	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	2.77	0.100	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	12.2	0.300	05/11/2011	ND	5.98	99.6	6.00	1.71	
Surrogate: 4-Bromofluorobenzene (PIL	61.7	% 70-130)						
Chloride, SM4500CI-B	mg,	kg Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240	16.0	05/10/2011	ND	448	112	400	0.00	
ТРН 8015М	mg,	/kg	Analyze	d By: AB				2.34 2.26 1.50 1.71 ee QC RPD 0.00	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1620	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	34700	100	05/12/2011	ND	198	98.9	200	0.901	
Surrogate: 1-Chlorooctane	104	% 70-130)						
Surrogate: 1-Chlorooctadecane	71.8	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any datim 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 to predits incurred by client, its subdidates, artificates 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg L. Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/09/2011

Sampling Date:

05/02/2011

Reported:

05/13/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO # M - 14 A. D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

Sample ID: 700' NORTH 36' WEST (H100934-04)

BTEX 8021B	mg,	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	<0.050 0.050		ND	1.97	98.7	2.00	2.34	
Toluene*	0.263	0.263 0.050		ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	0.895	0.895 0.050		ND	2.00	100	2.00	1.50	
Total Xylenes*	4.29 0.150		05/11/2011	ND	5.98	99.6	6.00	1.71	
Surrogate: 4-Bromofluorobenzene (PIL	95.2 % 70-130								
Chloride, SM4500CI-B	mg/kg		Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5000	16.0	05/10/2011 ND		448	112	400	0.00	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	620	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	29600 100		05/12/2011	ND	198	98.9	200	0.901	
Surrogate: 1-Chlorooctane	73.6	% 70-130			-				
Surrogate: 1-Chlorooctadecane	81.3	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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, foss of use, or loss of profits incurred by client, 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.

Celey D. Keene



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/09/2011

Sampling Date:

05/02/2011

Reported:

05/13/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO # M - 14 A. D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN

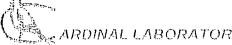
Sample ID: 487' NORTH CENTER OF PAD (H100934-05)

BTEX 8021B	mg/	'kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	0.292	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	0.966	0.050	05/11/2011	ND	2.00 100		2.00	1.50	
Total Xylenes*	4.43 0.150		05/11/2011	ND	5.98	99.6	6.00	1.71	
Surrogate: 4-Bromofluorobenzene (PIL	86.6 % 70-130		1				311.1		
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed Method Blank		BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12600	16.0	05/10/2011 ND		448	112	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	460	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	19200 100		05/12/2011	ND	198	98.9	200	0.901	
Surrogate: 1-Chlorooctane	121 9	% 70-130)						
Surrogate: 1-Chlorooctadecane	110 5	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 whistoever 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 loss of profits incurred by client, its subdidiaries, affiliaties or successors arising out of or related to the performance of the services increased 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 & Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES

10.1 East Martond, Hobbs, MM, 88240 - 2(1)(Beechwood, Abilene, TX, 79903 - (505) 393-2326, EAX (505) 393-2476 - (225) 973-7004, EAX (325) 973-7020

Company Maine: Apache Corp.	BILL 70	AHALYSIS REQUEST
Project Manager: Matalie Gladden	15 (15) 11:	And the second s
Address: Apache Corp.	Company:	2
Gity: State: MM Zip:	Attic	
Phone #: Fax #:	Address:	
Project //: Project Owner.	City:	
Project Name: EMUNE Abo # 17-14 A.D.	State: Zip:	Shlorides PH 8015 M BTEX Exas TPH TDS
Froject Location:	Flione#:	Onide
Sampler Hame: DAK	Fax#:	
Lab LD. Sample LD. Sam	e, lean at use, called all period incoming the affect for subject	FOR THE STATE OF T
The House Time 300 Kyll 6.	Phone R Fax Resi REMARI	esult: U Yes U No Add Flore# ult: U Yes U No Add Fax#:
Date 9-11 Regelved By: Delivered By: (Clicle One) Sampler - UFS - Bus - Other: Date 9-11 Regelved By: Sampler - UFS - Bus - Other: Date 9-11 Regelved By: Date 9-11 Regelved By: Sampler - UFS - Bus - Other: Date 9-11 Regelved By: Date 9-11 Regelved By: Sampler - UFS - Bus - Other: Date 9-11 Regelved By: Sampler - UFS - Bus - Other: Date 9-11 Regelved By: Date 9-11 Regelved By: Sampler - UFS - Bus - Other:	MAN 7 CONTRACT RY: 1 LICON	Fresults I der@rice-ecs.com; Eweinheimer@rice-ecs.com Ider@riceswd.com; Bhaker@rice-ecs.com Ile.Gladden@usa.apachecorp.com

† Cardinal cannot accept verbal changes, Please fax written changes to 505-393 **47**8



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** 394-2425 Fax To:

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location: NONE GIVEN NOT GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: CALICHE ROAD CENTER (H100985-01)

BTEX 8260B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105 2.00		3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	88.7	% 80-120							
Surrogate: Toluene-d8	107	% 80-120							
Surrogate: 4-Bromofluorobenzene	102	% 80-120							
Chloride, SM4500CI-B	mg,	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	113	% 70-130	ı						
Surrogate: 1-Chlorooctadecane	109	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/10/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: CALICHE ROAD SOUTH (H100985-02)

BTEX 8260B	mg,	/kg	Analyze	ed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	< 0.050	0.050	05/13/2011 ND		2.10	105	2.00	3.21	
Ethylbenzene*	zene* <0.050 0.050		05/13/2011 ND		2.08	104	2.00	2.78	
Total Xylenes*	<0.150	<0.150 0.150		ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	90.8 % 80-120)						
Surrogate: Toluene-d8	108	108 % 80-120							
Surrogate: 4-Bromofluorobenzene	rogate: 4-Bromofluorobenzene 102 % 80-12)						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg	/kg	Analyze	ed By: AB		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	22.3 10.0		05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	99.7	% 70-130)						
Surrogate: 1-Chlorooctadecane	96.4	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, 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 warved 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 or profils incurred by client, its subdidaries, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received: Reported: 05/13/2011

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: CALICHE ROAD NORTH (H100985-03)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS					<u></u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050			ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011 ND		2.10	105	2.00	3.21	
Ethylbenzene*	< 0.050	0.050	05/13/2011	ND	2.08	104 2.00		2.78	
Total Xylenes*	<0.150	<0.150 0.150		ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	89.3	% 80-120							
Surrogate: Toluene-d8	106	% 80-120							
Surrogate: 4-Bromofluorobenzene	107	% 80-120							
Chloride, SM4500CI-B	mg,	mg/kg		d By: HM				··	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: AB			_		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	92.4	10.0	05/15/2011	ND	164	82,2	200	3.75	
Surrogate: 1-Chlorooctane	98.8	% 70-130	•					. =	
Surrogate: 1-Chlorooctadecane	92.4	% 70-130	,						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Uability and Damages. Cardinal's liability and client's 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 Clert fail within (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, within the contract 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: E EXC BTM @ 3' (H100985-04)

BTEX 8260B	mg,	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	< 0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	94.2	% 80-120							
Surrogate: Toluene-d8	107	% 80-120							
Surrogate: 4-Bromofluorobenzene	105	% 80-120							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: AB	ì				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	, BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	. 186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	112	% 70-130							
Surrogate: 1-Chlorooctadecane	110	% 70-130							

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 whistoever 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 in group of profits incurred by client, its subdidaries, affiliables 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location:

NONE GIVEN **NOT GIVEN**

Sampling Condition: Sample Received By:

Sampling Date:

Sampling Type:

05/10/2011

Soil

Cool & Intact Jodi Henson

Sample ID: E EXC N WALL (H100985-05)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011 ND		2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	<0.150 0.150		ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	94.7	94.7 % 80-120							
Surrogate: Toluene-d8	108	108 % 80-120							
Surrogate: 4-Bromofluorobenzene	106	106% 80-120							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0 10.0		05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	100	% 70-130)						
Surrogate: 1-Chlorooctadecane	95.3	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey L. Keene



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: E EXC S WALL (H100985-06)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150 0.150		05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	92.9 % 80-120								
Surrogate: Toluene-d8	106 % 80-120								
Surrogate: 4-Bromofluorobenzene	104 % 80-120								
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	110	% 70-130	1						
Surrogate: 1-Chlorooctadecane	108	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clerk's 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 incurred by claim, is based upon any of the above stated reasons or otherwise. Results relate only to the samples of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples inclined above. The profit shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 05/13/2011

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number:

NONE GIVEN Project Location: NOT GIVEN

Sampling Date: Sampling Type: 05/10/2011

Soil Cool & Intact

Sampling Condition: Sample Received By:

Jodi Henson

Sample ID: E EXC E WALL (H100985-07)

BTEX 8260B	mg,	/kg	Analyze	d By: CMS			_		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	05/13/2011 ND		105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011 ND		2.08	104	2.00	2.78	
Total Xylenes*	<0.150	<0.150 0.150		ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	92.6	% 80-120)						
Surrogate: Toluene-d8	105	% 80-120)						
Surrogate: 4-Bromofluorobenzene	105	% 80-120)						
Chloride, SM4500CI-B	mg,	mg/kg		ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	23.7	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	103	% 70-130)					***************************************	
Surrogate: 1-Chlorooctadecane	94.0	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Sampling Date: Sampling Type: 05/10/2011

Reported:

05/16/2011

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: E EXC W WALL (H100985-08)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS					
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10 105		2.00	3.21	
Ethylbenzene*	< 0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150 0.150		05/13/2011 ND		6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	93.4 % 80-120		H						
Surrogate: Toluene-d8	106 % 80-120								
Surrogate: 4-Bromofluorobenzene	105	105 % 80-120							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/13/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28			05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	109	% 70-130)						
Surrogate: 1-Chlorooctadecane	107	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name: Apache Project Manager: Natalie Gladden								7 'M	B	ILL TO							ANAL	YSIS	RE	QUE	ST_				
Project Manage								P.C). #:																
Address:								Col	mpai	ıy:								S							
City:	S	State: NM	Zip	:		·····		Att	n:									Cations/Anions						ı	
Phone #:	Fa	ax#;						Ad	dres	s:								٩n							
Project#:	Pr	oject Owner:	<i>j</i>				City:				G	Σ		エ	s//										
Project Name:	HACIE ENGIRE AND	O #M.	14					Sta	te:		Zip:			ë	15	×	П	o	S						
Project Location	/1 - 1							Phone #:				Ë	80	BTEX	<u>S</u>	ati	Ţ								
Sampler Name:	Zach / ////							Fax #:						Chlorides	PH 8015	m	Texas TPH								
Lab I.D. 計1009%5 1 2 3 4 5	Lab I.D. Sample I.D. Coliche Roal Argistration Coliche Road North C				DGE			BEKN OTHER:		Ti 128 170 170 170 172 173 173	5 pm 5 pm 5 pm 5 pm 9 pm	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	The			Complete									
analyses. All claims include	d Damages. Cardinal's liability and cherit's ex g thôse for negligence and any other couse v	v/hatsoever shall be de	enec	waiveau	niess m	ace in w	riting and	receix	ed by C	ardnai	within 30 days	nîter comple	etion of the	applicac	ole				1						
altiliates of successors arain		vices heraunder by Ca	rdmat	regardles	s of wh	ether suc	uptions, ch claim	lass of is base	use, or d upon	loss of any of t	profits incurred he above stated	reasons or	otherwise												······
Relinquished By: Date:				Bo	7.2. <i>- E</i>	Ch.	/ _	-	Fax REN	ne Res Result IARKS	:		s [2] s[2]		Add'l l	Phone i Fax #: 人	· · · · ·	i.		111	• •				
Buce Berler Time: 24 Am (1001)				1	W			U.	N		e.Gl	ladd)usa	.apa	. ^ chec aker	orp.	com		om:					
	Delivered By: (Circle One) Sampler - UPS - Bus - Other: Time: 10 14 Am Sample Co Cool Into It Yes I No I				tact .	,	C	HEC (In	KED BY: itials)								einh					com			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/10/2011

Reported:

Sampling Type:

Soil

Project Name:

BTEX 8260B

05/16/2011

Sampling Condition:

Cool & Intact

Project Number:

EMPIRE ABO UNIT M-14

Sample Received By:

Jodi Henson

Project Location:

NONE GIVEN NOT GIVEN

ma/ka

Sample ID: N EXC BTM CENT @3' (H100986-01)

BIEX 8200B	mg/	кд	Analyze	а ву: СМ5					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	93.0	% 80-120							
Surrogate: Toluene-d8	106	% 80-120							
Surrogate: 4-Bromofluorobenzene	104	% 80-120							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg	/kg	Analyze	ed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	102 :	% 70-130							4.0
Surrogate: 1-Chlorooctadecane	105	% 70-130							

Analyzed By: CMS

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location:

NONE GIVEN NOT GIVEN Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: N EXC N WALL (H100986-02)

BTEX 8260B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	93.8	% 80-120				-			
Surrogate: Toluene-d8	107 9	% 80-120							
Surrogate: 4-Bromofluorobenzene	105 9	% 80-120							
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM		1			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB	==				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	108 :	% 70-130						MARIOLO PILIC	
Surrogate: 1-Chlorooctadecane	109 :	% 70-130							

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Lability and Damages. Cardinal's liability and client's 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 incurred 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 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.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

05/15/2011

Reported: Project Name:

EMPIRE ABO UNIT M-14

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: N EXC S WALL (H100986-03)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS		- ,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	94.7	% 80-120)						
Surrogate: Toluene-d8	107	% 80-120)						
Surrogate: 4-Bromofluorobenzene	104	% 80-120)						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	101	% 70-130)						
Surrogate: 1-Chlorooctadecane	101	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and clert's 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 use, or loss of profits incurred by client, its subsidiaries, affiliates or successors airling 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/10/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: N EXC E WALL (H100986-04)

BTEX 8260B	mg,	/kg	Analyze	d By: CMS		<u></u>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	92.9	% 80-120							-
Surrogate: Toluene-d8	106	% 80-120							
Surrogate: 4-Bromofluorobenzene	104	% 80-120							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	97.8	% 70-130		·					
Surrogate: 1-Chlorooctadecane	105	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's flability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey & Keine



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/10/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: N EXC W WALL (H100986-05)

BTEX 8260B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	94.4	% 80-120					-		
Surrogate: Toluene-d8	108 9	% 80-120							
Surrogate: 4-Bromofluorobenzene	104 9	% 80-120							
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	103 9	% 70-130							
Surrogate: 1-Chlorooctadecane	103 5	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's fiability and client's 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 faible for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by clernt, its subclidaries, affiliates or successors 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.

Celey D. Kura



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	P. Apache							1	n, jar Afriki	B	ILL TO)	yanan ka					ANAL	YSIS	S_RE	QUE	ST			
Project Manage	r: Natalie Gladden				~			P.C). #:																
Address:		·····						Co	mpa	ny:								SI				. 1			
City:	State: N	M Z	ip:					Att	n:	,								Cations/Anions							
Phone #:	Fax #:							Ad	dres	s:								\ L	1						
Project #:	Project O	wner:	/_					Cit	у:				v	(0)	≥		エ	1/8	ļ						
Project Name:	Apack EMpre Alo#	14-14	V					Sta	ite:		Zip:			je	8015	$ \mathbf{x} $	린	o							
Project Location	n:							Ph	one	#:				ř	Ö	Ш	·s	ati	TDS						
Sampler Name:	Zaidt DAK							Fa	x #:					Chlorides	~	BTEX	Texas TPH		H						
FOR LAB USE ONLY				Ī	M	ATRI	X		PRE	SERV	/ SAMI	PLIN	IG .	\circ	H		Ге	te						i	
Lab I.D. H 10096	Sample I.D.	8	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	DATI	Ε	TIME		ļ		•	Complete							
. 1	North Excavation Bitm		-[-,	-1-	-				-	<u> </u>			0:06	/											
	Center 03' North Excavation North North Excavation South North Excavation Bod o North Excavation Cost		1		- -	<u> </u>	-		-	4			2:26pm	<u></u>	<u> </u>	V									
	WOMEN EXCAVATION NOM	CW41 (- -	+-+	1-				7	5-10-1		2:30pm 2:40pm		-	1						***************************************			
	WELL Fre and Low Facility	11 /		- -	1-1	مرمن	+-			7			3:16pm		1,,,,,,	1			ļ						
	North Excavationals	wall C	$\frac{2}{3}$	- -	11					20	5-10-1		3 20,000	2/	1	المستا									
	B		- `	-						1	-														
			4.		.			~~,	٠,						-		. ***	<u>.</u> .							-
analyses: All claims includi service, in no event shall C	nd Damages. Cardinal's liability and client's exclusive rum by those for negligence and any other cause whatsouver andmay#e liabile for incluental or consequental damages, ng out d'or related to the performance of services hereur	shall be deer ncluding with	ned wa	aived ur nitation,	ntess mad , business	le in writi interrup	ing and prions, k	recer to eac	ved by (use, or	Cardinal loss of	l within 30 days profits incurred	after o	completion of the	e applicat rius	Me.										
Relinquished B					By:								Phone Res	sult:	□ Ye		No		Phone						
1 ph	Time:	•	Į	Su	40ê	13) T~	L	こへ				Fax Result REMARKS	t: }:	□ Ye	s, Øj		Add'l		i	• · · · · · · · · · · · · · · · · · · ·	~		•****	•
Relinquished B	y: Date:	. F	Reco	ivec	By:	·	1.1						email						•						
Bruce	Bruce Backer Time:				1	ff_{θ}	l J	1 A	VO.	M .		Natali													
1 2.1	: (Circle One)	*15.7 C		4	Samp				المرياد		KED BY:		Zcond												
Sampler - UPS	- Bus - Other:	- 1	o D		Cool	∠Inta es 🗓	ict / Yes		,	(In	itials)		hcond	er@	rice	-ecs	.com	ı; Lw	einh/	neim	er@ı	ice-	ecs.	com	

井26

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/11/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: S EXC N WALL (H100988-01)

BTEX 8260B	mg,	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	< 0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	94.0	% 80-120	<u> </u>						
Surrogate: Toluene-d8	106	% 80-120	•						
Surrogate: 4-Bromofluorobenzene	102	% 80-120	•						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM		1			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	121	% 70-130)			***************************************			40,000,000,000,000
Surrogate: 1-Chlorooctadecane	118	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 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 lable for incorental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of use, or loss of profits incurred 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 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 approved of Cardinal Laboratories.

Celey & Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** 394-2425 Fax To:

Received:

05/13/2011

Sampling Date:

05/11/2011

Reported:

Sampling Type:

Soil

Project Name:

DTCV 036AD

05/16/2011 **EMPIRE ABO UNIT M-14**

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: S EXC W WALL (H100988-02)

BTEX 8260B	mg,	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	< 0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	< 0.050	0.050	05/13/2011	ND	2,08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	93.4	% 80-120							
Surrogate: Toluene-d8	107	% 80-120							
Surrogate: 4-Bromofluorobenzene	105	% 80-120							
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	93.4	% 70-130			***************************************				
Surrogate: 1-Chlorooctadecane	78.1	% 70-130							

Analyzed By: CMS

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 whistoever shall be deemed waived unless made in writing and received by Cardinal within within (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential diamages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subcidiaries, 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.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/12/2011

Reported:

05/15/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: SE EXC BTM @ 6" (H100988-03)

BTEX 8260B	mg/	kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	95.2	% 80-120	h						
Surrogate: Toluene-d8	107	% 80-120	•						
Surrogate: 4-Bromofluorobenzene	106	% 80-120	•						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	34.8	10.0	05/16/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	110	% 70-130)						
Surrogate: 1-Chlorooctadecane	106	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/12/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: SE EXC W WALL (H100988-05)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	94.6	% 80-120							
Surrogate: Toluene-d8	105	% 80-120							
Surrogate: 4-Bromofluorobenzene	104	% 80-120							
Chloride, SM4500CI-B	mg,	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	110	% 70-130				,			
Surrogate: 1-Chlorooctadecane	108	% 70-130							

Cardinal Laboratories

*=Accredited Analyte

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 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey E. Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 05/13/2011

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14 *

Project Number:

NONE GIVEN

122 %

70-130

Project Location:

NOT GIVEN

Sampling Date:

05/12/2011

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: SE EXC S WALL (H100988-06)

BTEX 8260B	mg/	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	92.7	% 80-120	1						
Surrogate: Toluene-d8	106	% 80-120	1						
Surrogate: 4-Bromofluorobenzene	104	% 80-120	ı						
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10,0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	
Surrogate: I-Chlorooctane	124	% 70-130	·						

Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 walved 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 use, or loss of profits incurred by client, its subsidiaries, affliates 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/12/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

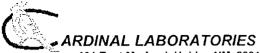
Sample ID: SE EXC E WALL (H100988-07)

BTEX 8260B	mg/	'kg	Analyze	d By: CMS				·	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.36	106	6.00	3.10	
Surrogate: Dibromofluoromethane	91.7	% 80-120	ı						
Surrogate: Toluene-d8	106	% 80-120							
Surrogate: 4-Bromofluorobenzene	106	% 80-120							
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: HM			<u> </u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg/	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRÖ C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	10.2	10.0	05/16/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	106 :	% 70-130							
Surrogate: 1-Chlorooctadecane	101	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 kimitation, business interruptions, loss of use, or loss of use, or loss of profits incurred by client, its substitiaries, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	Apache		<u>`</u>						BI	LL TO	W _k :					ANAL	YSIS	S RE	QUE:	ST			
Project Manage	Natalie Gladden						P.0	0. #;															
Address:							Co	mpa	ny:							SI					İ		
City:	State:	NM Z	ip:		····		Att	tn:		_,,,,						Cations/Anions							
Phone #:	Fax #:						Ad	ldres	s:			l				4n					-		
Project #:	; Project				<i>i</i>		Cit	ly:				1,0	Σ		工	1/8							
Project Name: 🕏	EMPINE ANOCH EMPIN	CADO	1	j.f.	-14		Sta	ate:		Zip:		ě	15	×	ТРН	n							
Project Location	1:						Ph	one	#:			l ≅	801	BTEX	S	ati	DS						
Sampler Name:	Zach / JAK						Fa	x #:				Chlorides	1 7	BI	exas	Ö	F						
FOR LAB USE OF LY					MAT	RIX		PRE	SERV	SAMPL	ING	O	TPH		Ге	e e							
Lab I.D.	Sample I.D.		# CONTAINERS	GROUNDWATER	WASTEWATER SOIL	OIL	OTHER:	ACID/BASE:	ICE / COOL OTHER:		TIME				,	Complete							
- 1	South Excaviation No.	460	i		11				1	***	11:45,7	V	1	V									
2	South Excavation Was	WHILL G	2.1		لسنا		· 		<u> </u>	5-11-11	11:500	V	1	_ب			ļ						
			_ _	\bot			<u> </u>		_		1	ļ		ļ									
3_	South weast Excavet	ac.	- -	-			-				. 10:00							<u> </u>					
	Bitm @ 6.4		- (- -	-14	-	-	-	V:	5-12-11	124499	<u> ~</u>	V_	-									
	South east Excavation North wall	···	- -;			-	+-		-/-	5-12-11	10:15 60		-	-7									
	Statheast Excavation wi		_:	1-1	1		-		1.		10:20pm	***************************************	7										
10	southeast Exchintion c	2771 S		1=	1/			-	<u>, </u>		10:304		L							**************			
	Southerst Excavation En		7	"	1		. :		1	5-12-11	,	IV	1	مست			,					.	
analyses. All claims includer service. In no event shall G	of Damages, Cardinal's fativity and chefu's exclusive re gethose for negligence and any other cause whatsoev ardinal be ligitle for incidental or consequental damage gout of or iplated to the performance of services here	shall be deed uncluding wit	ned wa	veg unter	s made in siness inte	writing at	ratece s. lass o	ived by if use, or	Cardinal Loss of p	waten 30 days aft words incuried by	er completion of to client its subsidia	ne applica aries	tie										
Relinquished By	Date: 6 10:22 Time: 7:19	10		ived I	By: ∽c∽	وكشر	اوسائند	م دری شینتی: دری		- ~	Phone Re Fax Resu REMARK	lt:	□ Ye	s 🖸	No	Add'l Add'l	Fax #:	#: 	 j				
Relinquished By); Date:	2// F	Rece	ived E	Ву:		f. 1				email				Ru	٠,		I de					3
	Franken Time:		41	201	1	ر فرسه	11	e M		ON	Natal			~~~				•					
Delivered By:	(Circle One)		JÍ Í		ample			(HECI	KED BY: tials)	Zconc	~	-					-					
Sampler - UPS	- Bus - Other:	- 16	201].	Yes No	mact □ Ye	es lo	'		(Jais)	hconc	ier@	ince	-ecs	.com	ı, ∟W	/einf	ieim	er@	псе-	ecs.(JOH	

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Reported:

Sampling Date:

05/10/2011

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14 NONE GIVEN

Sampling Condition: Sample Received By: Cool & Intact

Project Number: Project Location:

NOT GIVEN

Jodi Henson

Sample ID: W EXC BTM @2' (H100987-01)

BTEX 8021B	mg,	/kg	Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	91.7	% 70-130							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB				••••	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	99.1	% 70-130)						
Surrogate: 1-Chlorooctadecane	99.8	% 70-130	1						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/10/2011

Reported:

Sampling Type:

Soil

Project Name:

05/16/2011

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

EMPIRE ABO UNIT M-14

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

Sample ID: W EXC N WALL (H100987-02)

BTEX 8021B	mg,	/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	91.8	% 70-130	•						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	117	% 70-130)						
Surrogate: 1-Chlorooctadecane	119	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name: Project Number: **EMPIRE ABO UNIT M-14**

Project Location:

NOT GIVEN

NONE GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: W EXC S WALL (H100987-03)

BTEX 8021B	mg/	kg	Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	91.9	% 70-136)						
Chloride, SM4500CI-B	mg,	kg	Analyze	d By: HM		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	'kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	95.0	% 70-130)						
Surrogate: 1-Chlorooctadecane	94.8	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 label 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 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location:

NONE GIVEN

Sampling Date:

05/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: W EXC E WALL (H100987-04)

BTEX 8021B	1B mg/kg		Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	91.8	% 70-130)						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	115	% 70-130)						
Surrogate: 1-Chlorooctadecane	111	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 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.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location: NONE GIVEN NOT GIVEN

Sampling Date: Sampling Type: 05/10/2011

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: W EXC W WALL (H100987-05)

BTEX 8021B	mg/	'kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	91.8	% 70-130)						
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/14/2011	ND	448	112	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB		- in			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	105	% 70-130)	,		1			
Surrogate: 1-Chlorooctadecane	103	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories,

Celeg & Keena



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location: NONE GIVEN NOT GIVEN

Sampling Type: Sampling Condition:

Sampling Date:

05/11/2011

Soil

Cool & Intact

Sample Received By: Jodi Henson

Sample ID: S EXC S BTM@ 9' (H100987-06)

BTEX 8021B	8021B mg/kg		Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	93.3	% 70-130							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	
Surrogate: 1-Chlorooctane	108	% 70-130)						
Surrogate: 1-Chlorooctadecane	107	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 lable 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 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

Sampling Date:

05/11/2011

Reported:

05/16/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: S EXC N BTM @ 4' (H100987-07)

BTEX 8021B		/kg	Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	91.0	% 70-130							
Chloride, SM4500CI-B	mg/	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: AB		- -			S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	90.6	% 70-130							
Surrogate: 1-Chlorooctadecane	66.2	% 70-130	•						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 urdess 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 incrured by client, its subclidaries, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

05/13/2011

Reported:

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number: Project Location:

NONE GIVEN NOT GIVEN Sampling Date:

05/11/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S EXC S WALL (H100987-08)

BTEX 8021B	(8021B mg/kg		Analyze	d By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	93.1	% 70-130)						
Chloride, SM4500CI-B	mg,	/kg	Analyze	ed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg,	/kg	Analyze	ed By: AB		-			S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	85.3	% 70-130)						
Surrogate: I-Chlorooctadecane	66.7	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey L. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received: Reported: 05/13/2011

05/16/2011

Project Name:

EMPIRE ABO UNIT M-14

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

05/11/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: S EXC E WALL (H100987-09)

BTEX 8021B	mg/	'kg	Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	
Surrogate: 4-Bromofluorobenzene (PIL	97.7	% 70-130	,						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/14/2011	ND	432	108	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: AB			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	172	85.9	200	2.45	
Surrogate: 1-Chlorooctane	115	% 70-130)						
Surrogate: 1-Chlorooctadecane	111	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred by client, its subclidaries, affiliates or successors 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 proprish all not be reproduced except in full with written approval of Cardinal Laboratories.

Celey L. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	: Apache						ui : Hāni	BI	LL TO						ANAL	YSIS	RE	QUE	ST		
Project Manage	r: Natalie Gladden						P. 0	O. #:													
Address:							Co	mpany:							SI						
City:	State: NM	Zip:					Att	tn:							o						
Phone #:	Fax #:						Ad	dress:							١٦						
Project #:	Project Owner	:					Cit	ty:				Σ		ェ	s//						
Project Name:	Apache Empire Abo #14-1	4					Sta	ate:	Zip:		Chlorides	15	×	ТРН	Cations/Anions						
Project Location							Ph	ione #:			i	801	BTEX	S	ati	TDS					
Sampler Name:	Zach Dary						Fa	x #:			임		BI	exas	Ö						
FOR LAB USE ONLY]_	-	MATRI	X		PRESERV	SAMPL	NG	\Box	표		e e	te						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE: ICE / COOL OTHER:		TIME		<u> </u>			Complete						
1	West Excavation BHORZ	$G \mid $	<u>[</u> _	4_	4	1_		V	5-10-11		V	المرمية ا	ركرا							 	
2	West Excavation North Day			$\perp \downarrow$	<u> </u>	-		14,		9:45 Au	- 20-	مران ا	ار ز							 	
3	West Excavation south Wall	9		-	4		_	V		9:50 in	-		1							 	
	West Excavation East Wall	0 1	- -	+	<u>/</u>	$\left\ \cdot \right\ $			5-10-11 5-10-11	9:55Am	- V	محمعاً تر د	1							 	
	West Excavation was Will Democratic Scorperator		<u> </u>	-	0	$\left\ \cdot \right\ $		1	3-10-11 300000	Joseph Control	<u> </u>	300	-							 	
<i>T</i> 0	South Excavation file Cgl		: -	-	-	++				11:00 AM	V	.7	-7							 	
-7	South Exemostion Bitme4		; -	+ +	2	$\dagger \dagger$				11:07 Am	1	<u>1/</u>	·-							 	
-5	South Exchandion South Wa	Č i	1			\Box				11.25 Am	V	سما	Lunder							 	
	South Exempation Institut				2			- I	5-11-11	11:35 mg	4.00	Lucian	مسمدة								
PLEASE NOTE: Liability and Dantages. Cardinal's liability and clients exclusive ternety for any claim arising whether based in contract or furl, shall be larried to the amount pair by the claim to the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed white division and incrived by Cardinal within 30 adays after completion of the applicable service. In no event shall Cardinal be liable to incidental or consequental damages, including without limitation, butiness interruptions, loss of use, or loss of price fourteed by client, is subsidiaries. affiliates of quickes for a dising of by or related to the performance of services hereuroid by Cardinal, regardless of whether such claim to based upon any of the above stated reasons or otherwise.																					
Relinquished B	Date: 5-/3-//				.2		1.	5. 4		Phone Res		□ Ye		No No	Add'l I	hone a	#:		-	 	

1 d 1 11 47 L :	Date: 5-13-1/ Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #: Fax Result: ☐ Yes ☑ No Add'l Fax #:
Relinguished By:	Time: Buck Bokk	email results
Bruce Baker	Date: 13-11 Received By: Time: 10:27:49 MM MM MM	Natalie.Gladden@usa.apachecorp.com;
Delivered By: (Circle One)	Sample Condition CHECKED BY:	Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com
Sampler - UPS - Bus - Other:	Cool Intact (Init/als) Yes Yes No No No	riconder@rice-ecs.com, Ewermeimer@rice-ecs.com

#26

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Appendix E

Historical Impact Area and Soil Bore Laboratory Results

> P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: Reported: 06/11/2011

06/17/2011

Project Name:

EMPIRE ABO UNIT M-14-2

Project Number:

NONE GIVEN

Project Location:

NONE GIVEN

Sampling Date:

06/10/2011

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Hope S. Moreno

Sample ID: S. EXC N END BTTM @ 8' (H101217-01)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/13/2011	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	68.3	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	99.6	% 70-130)						

Sarrogute. I Chioroscialicane

Surrogate: 1-Chlorooctadecane

110 %

70-130

Sample ID: S. EXC W END BTTM @ 8' (H101217-02)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/13/2011	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	<10.0	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	90.7	% 70-130							
Surrogate: 1-Chlorooctadecane	98.4	% 70-130							

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred by client, its subclidaries, 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 & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: S. EXC BTM CENTER (H101217-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/13/2011	ND	432	108	400	3.77	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	<10.0	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: I-Chlorooctane	85.9	% 70-130)						
Surrogate: 1-Chlorooctadecane	88.7	% 70-130)						

Sample ID: S. EXC S WALL W END (H101217-04)

Chloride, SM4500CI-B	mg,	kg ,	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg,	kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	684	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	86.9	% 70-130	1		,				
Surrogate: 1-Chlorooctadecane	94.7	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg E. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: S. EXC S WALL CENTER (H101217-05)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	<10.0	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	86.6	% 70-130							
Surrogate: 1-Chlorooctadecane	110	% 70-130							

Sample ID: S. EXC S WALL E END (H101217-06)

Chloride, SM4500CI-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	86.7	10.0	06/15/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	91.8	% 70-130	1						
Surrogate: 1-Chlorooctadecane	102	% 70-130	•						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's hability and client's exclusive remedy for any claim arising, 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 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.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: S. EXC E WALL S END (H101217-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	98.8	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	80.6	% 70-130							
Surrogate: 1-Chlorooctadecane	81.3	% 70-130							

Sample ID: S. EXC E WALL CENTER (H101217-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS-	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	255	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	69.3	% 70-130)						
Surrogate: 1-Chlorooctadecane	71.2	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

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 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 substitiaries, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratomes.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NONE GIVEN

NONE GIVEN

Sample Received By:

Hope S. Moreno

Sample ID: S. EXC W WALL CENTER (H101217-09)

Chloride, SM4500CI-B	mg	/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mc	ı/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	438	10.0	06/15/2011	ND	186	93.1	200	1.38	

Surrogate: 1-Chlorooctane

91.0%

70-130

Surrogate: 1-Chlorooctadecane

93.3 %

70-130

Sample ID: W EXC S BTM @ 6' (H101217-10)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	93.6	% 70-130	ı			······································			
Surrogate: 1-Chlorooctadecane	107	% 70-130	•						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's liability and client's 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 use, or loss of profits incurred by client, its subsidianes, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: W EXC CENTER BTM @ 6' (H101217-11)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: I-Chlorooctane	84.7	% 70-130)			-			
Surrogate: 1-Chlorooctadecane	96.7	% 70-130)						

Sample ID: W EXC N CENT WALL (H101217-12)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: AB				_	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	2540	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	86.7	% 70-130							
Surrogate: 1-Chlorooctadecane	81.1	% 70-130							

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 whistoever 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 Amitation, business interruptions, loss of profits incurred by clert, its subdidieries, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: W EXC N WALL W END (H101217-13)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	113	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	86.0	% 70-130)						
Surrogate: 1-Chlorooctadecane	86.4	% 70-130)						

Sample ID: W EXC W WALL CENT (H101217-14)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	87.4	% 70-130							
Surrogate: 1-Chlorooctadecane	85.1	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 whistoever 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, which thirty begins the completion of the propriet incidental or consequential damages, including within thirty begins the completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including within thirty and the completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including those for negligence and any other cardinal begins or consequential.

Celey L. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: W EXC W WALL N END (H101217-15)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	89.2	% 70-130							
Surrogate: 1-Chlorooctadecane	102	% 70-130							

Sample ID: N EXC SE CORN BTM @ 22' (H101217-16)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	75.4	% 70-130	ı						
Surrogate: 1-Chlorooctadecane	83.7	% 70-130)						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages, Cardinal's lability and client's exclusive remedy for any daim 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 whatcoever 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 subcidiaries, 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 & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/07/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

Surrogate: 1-Chlorooctadecane

NONE GIVEN

86.2 %

70-130

Sample ID: N EXC SW CRN BTM @ 22' (H101217-17)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	60.9	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	81.1	% 70-130)						

Sample ID: N EXC CENTER BTM @ 22' (H101217-18)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	100	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	81.5	% 70-130							
Surrogate: I-Chlorooctadecane	95.0	% 70-130							

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 rebite only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231

Fax To:

394-2425

Received:

06/11/2011

Sampling Date:

06/07/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

69.9 %

70-130

Sample ID: N EXC NE CRN BTM @ 22' (H101217-19)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	75.9	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	93.5	% 70-130	ı						
Surrogate: 1-Chlorooctadecane	107	% 70-130							

Sample ID: N EXC E WALL N END (H101217-20)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	56.3	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	76.5	% 70-130)						

Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey & Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 06/11/2011

06/17/2011

EMPIRE ABO UNIT M-14-2

Project Name: Project Number:

Project Location:

NONE GIVEN NONE GIVEN Sampling Date:

06/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Hope S. Moreno

Sample ID: N EXC E WALL CENT (H101217-21)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	86.2	% 70-130							
Surrogate: 1-Chlorooctadecane	68.6	% 70-130	1						

Sample ID: N EXC E WALL S END (H101217-22)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: AB			***		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	1270	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	70.4	% 70-130)						
Surrogate: 1-Chlorooctadecane	87.4	% 70-130)	,					

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and chent's 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 incurred by cleint, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories,

Celeg D. Keene



APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

88.1 %

70-130

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: N EXC W WALL N END (H101217-23)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM	_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/14/2011	ND	432	108	400	3.64	
ТРН 8015М	mg,	/kg	Analyze	d By: AB	_				_
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	88.6	% 70-130							
Surrogate: 1-Chlorooctadecane	87.4	% 70-130							

Sample ID: N EXC W WALL CENT (H101217-24)

Chloride, SM4500CI-B	mg/kg		Analyzed By: HM		_		<u>-</u> ,		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	55.5	10.0	06/15/2011	ND	186	93.1	200	1.38	

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 to use, or loss of profits incurred by client, its subsidiaries, antifiates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is passed 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 & Keine

Surrogate: 1-Chlorooctadecane



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

Sample ID: N EXC W WALL S END (H101217-25)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	150	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	93.4	% 70-130)						

Surrogate: 1-Chlorooctadecane

96.8 %

70-130

Sample ID: N EXC S WALL E END (H101217-26)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg,	/kg	Analyze	d By: ab					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	50.0	% 70-130)						
Surrogate: 1-Chlorooctadecane	69.0	% 70-130)						

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 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 use, or loss of profits incurred by Clardinal, 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 report shall not be reproduced except in full with written approval of Cardinal Laboratones,

Celey L. Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

06/11/2011

Reported:

06/17/2011

Project Name:

EMPIRE ABO UNIT M-14-2

Project Number: Project Location: NONE GIVEN

NONE GIVEN

Sampling Date:

06/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Hope S. Moreno

Sample ID: N EXC S WALL CENT (H101217-27)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	32.0	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	79.1	% 70-130)						

75.8 %

70-130

70-130

Surrogate: 1-Chlorooctadecane

81.3 %

Sample ID: N EXC S WALL W END (H101217-28)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	118	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	76.0	% 70-130)						*****

Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 EUNICE NM, 88231 Fax To: 394-2425

Received:

06/11/2011

Sampling Date:

06/10/2011

Reported:

06/17/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Hope S. Moreno

Project Location:

NONE GIVEN

74.5 %

70-130

Sample ID: N. EXC NW CRNR BTTM @ 22' (H101217-29)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg,	/kg	Analyze	d By: ab	_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	134	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	74.0	% 70-130					70		,
Surrogate: 1-Chlorooctadecane	75.0	% 70-130							

Sample ID: N EXC N WALL CENT (H101217-30)

	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/14/2011	ND	464	116	400	3.51	
PH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	220	10.0	06/15/2011	ND	152	75.8	200	3.11	

Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred by client, its subcidaries, 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. The profit is profit and the profit of cardinal Laboratories.

Celeg L. Keena



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 06/11/2011

06/17/2011

Project Name: Project Number: EMPIRE ABO UNIT M-14-2

Project Location:

NONE GIVEN

74.8 %

70-130

NONE GIVEN

Sampling Date:

06/10/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Hope S. Moreno

Sample ID: N EXC N WALL W END (H101217-31)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: ab		,			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	99.7	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	86.7	% 70-130)						

Surrogate: 1-Chlorooctadecane 69.0 % 70-130

Sample ID: N EXC N WALL E END (H101217-32)

PH 8015M Analyte	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	82.0	10.0	06/15/2011	ND	152	75.8	200	3.11	

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories

Celey D. Keine

Surrogate: I-Chlorooctadecane



Company Name: Z

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST

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

Project Manage	NATILIE GIADDE	=N		P.O. #:	. 13.						***************************************					
Address:				Company:											İ	
City:	Sta	ate: Zip:		Attn:									.			1
Phone #:	Fax	#:		Address:]
Project #:		ect Owner:		City:	******************************			1								I
Project Name: /	EMPIRE Abo (in) #1	4-14-2	er ten den gen annen mark andere en et de marketen en en anne	State: Zip:								, ļ				
Project Location	B:			Phone #:												
Sampler Name:	DAK HARRIS			Fax #:			,									
Lab LD.	Sample LD.	S. NG)RAB OR (C)OMP. -# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	PRESERV SAME OTHER: OTH	E TIME	7.)	TOH BOIS									
世间377-1	S. EXC. NEND BHM.				2:45	V	7									
	BING ALH CONKE	617		· · · · · · · · · · · · · · · · · · ·	2:55	U	1									
	S. EKC BHH CONKIN S. EKC · Southwill w.	Fod GI		110-	13:05	V	V									
-5	5. EXC : South wall (coder Vell		V 6-10-	13:10	V	V		-							
	S.EKC . SUITH IVALLE,			V 6-10-1	13.18	V	V									
	S, EXC, East WALLS,,		1/		13.35	V	V									
	S.EKC. EGST WALL CO		<u> </u>	6-10-1	3.35	V	ν			,						
	6, EXC. West WALL CO	nter (-1		7 6.10.1	3,43	V	$ \mathcal{V} $.		ļ <u>.</u>	ļ 		ļ		
analyses. All daines became service. In no event shall 0	and Damagnes, Certifical's Italially and effects and one does for registerior and any other cause of Cardmat he state for incidental or consequential integral of or fetaleu to the performance of service	ictsoever shall be deemed with lamages, including without first igs hereunder by Cardinal, repr	red unless made in willing or lation, business Interroptions incless of whether such claim	ent received by Cercenst within 30 days s, loss of use, or loss of profits incurred in is hased upon any of the above state	atter comptetion of t by client, its subsidi	he applicab 3:le9. 50.	'a ∏ Yes	□ No	[Add'l	Phone	11:					AMERICAN
Relinguished B	fuig Tin	e: Recei	yeu By:	Yen	Fax Resu	<u>]}:</u>	[] Yes	□No	Add'l	Fax#:		len			***************************************	
Dollyoned D	Tin	ie:	L Sample Condi	ition CHECKED BY:		•		. NA Haix Bruce	2 (0) 1300	nder Lär						
	: (Circle One)		Sample Condi Cool Intact	(Initials)	l			LANA	سربر دا درارا	ahein	سرنود					
Sampler - UFS	- Bus - Other:			No Itsia				L17117	NO CIT	(1,0,10,1						
4 Cardinal	cannot accent verbal chan	noe Please fay w	ritton changes to	505-393-2476												Pac

BILLTO



101 East Mariand, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

Company Name	" Appelie	,	*******							BII	LL TO	1	***************************************				ANAL	YSIS	RE	QUE	ST	isa men sa a	Amadanoo	
Project Manager	Apache Watalie	Gladelew						P.O.). #:						T									
Address:	and an extension of the parameters are a parameter of the second of the second							Cor	mpai	ny:												:		
City:	and the second second second second	State:	Zip:					Attr	n:													,	,	. [
Phone #:	processor and some a little group, in the minimum of	Fax#:				~~~		Add	dres	s:	·	·							!					. 1
Project#:	a passantent to decide a vigoritation of the entire	Project Owner:	<u></u>					City	<u>/:</u>															.
Project Name:	erane e e es samminates sammer ee	· # #9 # 1419 - 1 ###### M. 1994###################################			****			Stat	te:		Zip:											. [.
Project Location		the Unit M-14	<u>-,2</u>		A.D.	<u>:</u>		Pho	one i	#:		***************************************											,	
Sampler, Name:	DAK	HArris	learned.	heart seeler.	-			Fax		- Constitution of the cons	·	The State of the S		1]								,	
FOR LAB USE ONLY			٠.	. -		MATRI	X	[PRES	SERV.	SAMPL	ING	1	12										
Lab I.D.	D. I.D. Sample I.D. GROUNDWATER WASTEWATER						SLUDGE	OTHER:	ACID/BASE.	ICE / COOL OTHER:		TIME	107	194 ECI						AMPLE 153				
H10/217-10!	West Exc. 5	south BHMEE'	<u>G</u>	r.4		11				4		3:47,4	1-1	4	.	-				ļ				·
	West Exc. C	Center BHm 661	5	<u>/</u> -	- -	1/	-			1		3:51,00	V	1-/	·	-				ļ	.			
-12	West Exc.	DEPTA WAIL CENTER	الك	4	-	1V	+	_	-	1	6-10-11	3'55 pm	<u> </u>	'	ļ	-								
Hymatt 1	Enel Enel	North Wall Center Worth Wall West Wast Wall Center Wast Wall North	G	7		1	-				2-10-11	3.59,00	1			 -								
-14 -45	West Exc. 4	Jest Wall Cowler	G			1						4:05 000		17		1								
-15-45	West Exc.	west wall North																						
	Enet		O	i.	_	1				4.	6-10-11	4:0900		1										
	Saver care and an action		_	1_			_ _				<u> </u>			.		_		ļ!		.				
m en se mote: Liability :	and the const Cardinal's links	ry and clients exclusive rainedy for an	الماء	- odsine	- soluethe	· hasset in	- Intract	L Isin	- Shall t	- inded	to the amount o		<u></u>											
unut/ses. All claims, include	ling those for negligence and on	inv ofter cause whiteoever shall be di for consequental damages, including	ieemes	i valved	tuniase n	made in wil	ting and	f recally	ved by	Cardinal v	within 39 days of	tter completion of t	the applica	able										
abilitates or successors arisi	slon out of or related to the perto	termance of services becaunder by Ca	ardinat.	, regardi	tess of wh	tiether such	ti ctalm is	s base	ed upon	any of th		ensous or otherwi	te.	منائشون.	and the same of	die skriveren	opinini.	-		-		Marriage Carl	ALCOHOLOGICA CONTENTO	
Refinquished B	1. 1.	Date:	Red	Seive	ig Bà	:	~/	4 .				Phone Re Fax Resu	lt:		es f		Add'l	Phone Fax#:						
11 11/2 1	HW	Date: 		لبب	gi	- J.	, 111	is to	سنعروف			REMARK					1:4 + =	4 /ie	Gl	14 c/c	lew		*******	
Relinquished/B	y:	Date:	Re	ceiv	∳d By	<i>/</i> :						-		-				Co						
		Time:	İ															B4						
Delivered By	y: (Circle One)		ļ	T		mple Co		on	(CHECK	KED BY:	-						We			mer			!
Sampler - UPS	S - Bus - Other:				Co-	ol Int ≧Yes ⊑	act Yes	5	بر	inil) مرد چرکو	tials)					•	- , ,		- · -		-			



101 East Mariand, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

	: Anache		BILL TO		24 4; •••• ••• •• • • • •		٨٨	JALYSIS	REC	JUEST	THE PARTY NA	<i></i>	
Project Manager	: Apache NATALIE Gladden		P.O. #:						<u> </u>	70.0	1	Ī	***************************************
Address:		The state of the s	Company:				ļ			ļ			
Ĉity:	State:	Zip:	Attn:				1					1	
Phone #:	Fax #:		Address:					l					Ì
Project#:	Project Owner	:	City:										
Project Name:			State: Zip:				}	}			1		ļ
Project Location	: Empire Abo Unit M-	14-2 AD	Phone #:				ļ						1
Sampler Name:	DAK HArris		Fax #:			7					1		
FOR LABUSE ONLY	Sample I.D.	(G)RAB CR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SILUDGE	OTHER: ACIDGRASE: ICE/COOL OTHER: ATAMA OTHER:	NG TIME	Ği,	IPH SOISM							
H101217-19	North Exenuation SEconner												
19 78	BHM @ 22'	611	15-7-11	2:00	4	اسما							
17 18 19	North Excavation SW Corner												
120	B#2m B.Hm @ 221	611	1 1 6-7-11	1.15	~	<i>V</i>							
18 20 ->1	North Excharge Center		6-7-11	2:21	-/								
i9 ->-7	BHM @ 22' North Excavation SW Conver BHOM BHM @ 22' North Excavation Center BHM @ 22' North Excavation NE		6-7-11	2.21		· -					_		
	Corner AHm@ 22'	GIV	V 6-7-11	5:28	V	$\sqrt{}$							
7						. -					1		
analyses. All idains iricket	nd Domagos. Cardinal's litibility and client's exchaive remedy for ng those for negligerine and any other course whatspevor chall be	deemed walved unlass made in writing a	nd received by Cardinal within 30 days atte	r completion of th	he applicabl	le							
athlates of successors aris	ardinal by hable for hicklenial in consequental disnages, include his oil for related to the performance of services hereinder by	Cardinal, regardless of whether such claim	n is based upon any of the above stated re-	asons or otherwis	se.	The same of the sa	and the property of the last		/5.0cm			e constitute de deserva	
Relinquished B	y: // Bate: 36/11/11 Time: 11/2.5	Received By:	ileni	Phone Re Fax Resul REMARKS	lt:		No A	dd'i Phone dd'i Fax #: તીદો દાઈ	#:				
Relinquished B	y: Date:	Received By:		1 1		HACK	-						
	Time:					Bruce							
Delivered By	: (Circle One)	Sample Cond						wheir					
Sampler - UPS	- Bus - Other:	Cool Infact Yes You No	es (Initials)			LARA	LUEI	NITTE I B				_	



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

Company Name:	AAR ha	0007 000 271	-		THE TAXABLE PARTY.		-	1			11	LTO		22.m					ARIA	I VC	IS RE	OUE	C.I.	rije er ing.	4.00000000000	***************************************
Project Manager	Apache : Natalie Gla	dow						P	D. #:	***************************************	H A	· De Su V		i	-		. دست. هودون		1414	113	io re	WUL	31 			******
Address:	· · · · · · · · · · · · · · · · · · ·	end has assented and						-	mpa			,														
City:	ar alferti ili 36° con consenno. Pri tille ile aprilaritet a cel e simi è reter il accioni	State:	Zip	•				Αt		<u>y</u> .				•							Ì]				
Phone #:	Parity a makes on the hold to the finest state of the contract committee of the contract of the third	 Fax #:						-[dres			***********														
Project#:	CANADA CA	Project Owner	 r:					Ci	***************************************													1				}
Project Name:	angumetet e Agrapa ayan interestera e pantaga de noma eron iya ya n							-	ate:		;	Zip:														
the state of the s	Empire Ale	Wart 19%-	14	~ _.	A.1	·).		-1	one	#:				-											,	
Sampler Name:	DAK	Harris				***********		-1	x #:					-		1										
FOR LAR USE ONLY	anada a karibir masa Tilipan ayida bila atau masaliya yaka wataaliina a samaay	and the same of th	T	Π	-	MAT	RIX	-	PRE	SER	٧.	SAMPL	NG			6										
Lab I.Ö.	Sample I.I		(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTERMATER	SOIL	OIL	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME			1PH 8015										
H101217-25	North Excavation	East Wall																						1000		1
~26-	North Exemplian North End North Exemption North Exempt		G	1		نسا				1		6-10-11	2:16pm	L	4	/										
-21 -27	North Excuration	Enst Withouter	6_	4	_ _	1	-	-		1		6-10-11	2:31		//			ļ	.							
22 -28	North Excavat	iou EAST	_						-	_].			2.2/	·	- -	,		ļ		-		ļ				
1-24	WALL B. South E	H2()	G	-		14	-	-		7		6-10-11	a depm	V	$-$ \leq				-	-		l	-			
	a consensation of the graph of the second contraction of the second co	and deposit transfers and a separate of the service		-		+-		+		-+					- -					-		l				
	angertee vinisiaa nasaan sak sak eeriisaaaaa qoorusah sakaaaa	<u> سنده در بیم میت کیونی، کیونی،</u>	-					-											-		-		-			
		, *** .					~	-					a											-		
		er er finde en erkenber legende, militarenbekken											ļ		_				[-			
analyses. All claims include	d Danages: Continuts Emility and clien of Nese tarneaffyence and nov other co name to lights for hiddernal or consequ	use whatsoever shall be	deame	d wawe	d unless	made in	osiling:	and rece	rived by	Cardle	ial wi	ithin 30 days att	e completion of	the appl	Peable			10-27-43		a. 5.5540		A. Shipping, a	de la ga Milita de la casa.		i chez aspus	ilo e e e e e e e e e e e e e e e e e e e
affillates of successors arisin	in our objectated to the performance of	services hereunder by C	Cardina	respond	less of i	whether s	uch clai	n is ba	ed upp	n any o	of the	above stated re	asons of otherw	ise.		-	and the same		- were reported to	-		***			MARKETTE PARE	
Relinquished By	Thur	out of Meletated to the performance of services hereunder by Cardinal Tergordess of whether su Date: Received By: Color Color Received By:					Mo	ren	,	مقدعومهم	ad after		Phone Re Fax Resu REMARK	ilt:		Yes	<u> </u>	No No	Add'	ا Phor I Fax <i>t</i>						
Relinquished By		Date:	Re	ceiv	ed B	y:			<u></u>	·			200	L	, pre 1	N-										
	Time:																H	414€1 2	K C	0,101	der					
Delivered By:	(Circle One)		1_		Sa	mple	Conc	itlor	т	CHF	CKI	ED BY:	PROTECTION AND ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION ADDRESS OF THE PROTECTION				F,	s pricei	ve i	54.1	cer inhe	in a	_			
Sampler - UPS	,				C	ooi l ≟Yes	ntact	es	<u> </u>	(1 +34-	niti	als)					ě	-Ar	4 6	U 🛎	, n ne	imei		•		



101 East Mariand, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

	ADIA CAR		-	~~~				1	-	E	3/1	LTO			er i projekt en	مر عملانا حد		ANA	LYSIS	RE	QUE	ST		A CLUSTONIA	
Project Manager	ApiAche Natalie C	Jadden						P.	O. #			<u> </u>	ar at the second section of the second		be vine de la la la la la la la la la la la la la	سىيەندەت	1	T		T	1		····		
Address:								Cc	omp	any:															
City:		State:	Zip:			Name and a second		At	tn:					No.											
Phone #:		Fax#:						Ac	idre	ss:															
Project#:		Project Owner	:					Ci	ty:																ĺ
Project Name:								St	ate:			Z'.ip:	_												
Project Location	: Empire Aho U.	vit M-14-	.2	27	0			PI	ione	e #:															
Sampler Name:	NAK HO	xrris						Fa	x #:	:										1					
FOR CAB USE, ONLY.					<u>-</u>	MAT	RIX		PR	ESE	₹٧	SAMPLI	NG		,										
W	4	(C)OMP ERS ATER													8075					Ì	1				
Lakin	Commis II	(G)RAB OR (C)OM #CONTAINERS GROUNDWATER WASTEWATER SOIL							ái		ı				1					ŀ					
Lab LD.	ា ១៧៣៩៩	(G)RAB OR (C)C # CONTAINERS GROUNDWATE WASTEWATER SOIL							BASI	8	 œ.			3	Hall										
			(G)RAB	Ő	ROL	SOIL	=	SLUDGE OTHER:	S D	ICE / COOL	OTHER	DATE	TIME	1	-							,			
23	North Excavation	5 1120 L	Ľ.	.#∟.	عاق	≤ <u>ω</u>	0	0	⁴	닐	으	DATE	1 11445				-				+		- ALTERDATE	**********	(Del-2000)
!	Wall Wastle Fun	/ <i>R939</i> 200	C.	7	-	- -	7	- -	-	1	_	6-10-11	1:49	1	V			ļ			-				,
- 24 	Worth Exempation	i West	<u>~</u>	-	1		1	十		1		15 15 1	7.7.7	<u> </u>			-			ļ	-				
غ <i>و</i>	Worth Excavation Wall Conter Worth Excavation		<u>C</u>	7		1	-	T		1	- Andrew	6-10-11	1:54 pm	V	V									***************************************	
-25 34	North Excavation	Westkill																							
35	S End		6	1		100				1		6-10-11	1:57 por	V	_رز				ļ		_				
-26 36	North Excavation	South Wall			-	_ _			. .	_		-		ļ						-					
	Enst End		G_{2}	3			_			1		6-10-11	2 03/14	V	1		-				.				
	North Exemption Su			1		انا		_		14		6-10-11	2:07,09 2:10,07	1	1						.	ļ			~·
-28 34 PLEASE NOTE: Lindle And	Morth Exemulation Sea ad Dangapan, Condina's Hobbits and chem	th Wall West E is exclusive remedy for a	is/ € ny dair	a arisin	gyaret	her bused	Inaa cii	ract or to	ut, sha	all be lin	vite d (o the amount pre	id by the client to	r the	1			ــــــــــــــــــــــــــــــــــــــ			- Lemman	-			
service; in on event shall C	og those for negligence and any other ca preimal by flable for incidental or consequ	rental damages, including	withou	t limital	ion, be	sinesa int	resptio	iia, 1055	of use,	or loss	of pro	ofits incurred by	client, its subsidia	aries.	üle										
Reinduished By	iji out'a for relaied to the gerfurmance o	Date:	Re	ceiv	ed F	}v:					of the	above stated re	asons or otherwi		I.) Ye	S L	1 No	Addi	Phone	井:		a nia acpetic	. Dorestorad	AND ROOM PROPERTY F	TOMATON INC.
1110	KIN	06/11/11 Time: 11:25			je i	- C	n	150			·•.		Fax Resu REMARK	lt:	☐ Ye	s [l No	Addi	Fax#:						
VIUT	7000	11:25		TV)		د.:	11/6	ندابد	,			······································	Em41	7			e G.		ew						
Lenudrizued, (2)	nquished'By: Date: Received By:														HAC	K (Divel	657							
-	Time:														Bru	ie.	13:4 K	ér.							
Delivered By	(Circle One)			1		ample					CK Initi	ED BY:			1 40	.	Wei	ohe	า์เหตุเ	^					
Sampler - UPS	- Bus, - Other:					Yes			1	134		···			L171.	47								_	



101 East Mariand, Hobbs, NM 88240 (505) 393-2326 FAX (505) 393-2476

Company Name:	Apache Natalie Gl		-				ښينېښ		.5.	Æ	3/2	LTO		C.		4:4:4: ****	وبلط الافائد	والمراجع والمراجع	ANA	LYSI	SR	EQUI	EST	E CO PARTY X	######################################	
Project Manager	WATALie GI	molel en			*			Р.	O. #		Marine (۲		بزعظتا العدوي	1	T	1	T	1	1	-		
Address:					-			C	omp	any:												1				
City:		State:	Zip	:				ÀI	tn:					7	Ì			l								
Phone#:		Fax#:						Ac	idre	ss:					l											
Project #:		Project Owner	•					Ci	ty:		•									Į		į		l		
Project Name:								St	ate:			Zip:														
Project Location	: Empire Abo	unit M	- /3	1-5	1	2. D.		PI	ione	e #:					Ì	7		1						1		
Sanipler Name:	DAK H	larris						Fa	x#:	:						C15-12		}								
FOR LAB USE, ONLY					i	MAT	RIX		PR	ESEF	₹∨.	SAMPL	NG		- 1	5										
Lab I.D.	Sample I.I		(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	SOIL	OIL	SLUDGE OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME		C/ -	78 H.M. 80	and states.				Land Million St. St.					
17101717-40	North Excavation	NW Corner	 						.																	
=4+	BHm@231		<u>6</u>	1		1				1./	_	6-10-11	1:300	٧.	V	<u>\</u>						_				
- 30 -42	North Excavation	in North	\						.									_	<u> </u>					ļ		
= 47	wall Center		G	1		1		_	.	1		6-10-11	1.350	71	$ \mathcal{A} $	V		_	.	_	-	_	_		.]	
-31 =44	North Excavation BHM @ 23' North Excavation Wall Center North Excavation Wall West Encount Worth Excavation	ow North	<u> </u>			- -	_		· [-		1 10 11	1. (1)									_			ļ	
-45	WALL West ENC	(G	 	- -	1			-	14	PE	6-10-11	11-42 10	7	V_	<u></u>		-		-					ļ	
-32 =10	WALL EAST EN	Jew North	10	-					-	6		1:-10-11	1115		7	7		,	ļ <i>-</i> -	·	-				ļ	
7//	MAIL EHST CIVE	и	<u> </u>	-1					• }	0	.	6-10 11	10 401	4	٧.	V		-	1			-				
**************************************	Mining gaps passine PM or other passes on the gap destroy by the contract of t					-		-	-					i -		·			·		-	-	-		l	
	of Congress Confinate Nabity and sien og those for negligence and any other co															bla	opena.		***************************************	<u>. L.</u>	-4	مسحدا عنى				L. more
service. In no event shill Co	profital ballishle for feeldestal in consequ in out of ar related to the nerformatice of	igntal damages, including	villio	n keda	lion, bu	siness int	erruptio	ma, toss	ot use	, or tess	of pr	osts incurred by	client, its sub	sidmie	5.											
Religioushed By		Cate:	13.		ed E		AC WHITE			MC02.20	-	The same of	Phone	Resi	ilt:	☐ Ye	S	O No		Phon			· · · · · · · · · · · · · · · · · · ·			
1/1/-	Jab 7/1008 11:25 Hope							W.	<u> </u>			-ingara	Fax Re			□ Ye		No	~ +3	l Fax#			·		Contraction of the Contraction o	,
Retinguished By	etinguished By: Date: Received By:							1600	-70	4					٤	mail		N_A					<i>;</i>			
		Time:				•							7							ت ب						
Billian B	(6)11(2)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<u>.l</u>				~		·	÷277=	-612	PR DV	an and an an an an an an an an an an an an an							BA						
Delivered By:	,				С	ample ool	Intac	1		(loiti	ED BY: ials)						L,	タベル	ω	لداين	hei	いとい			
Sampler - UFS	- Bus - Other:					Yes No	H	Yes No		HZW	س															



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 05/27/2011

06/02/2011

Project Name:

EMPIRE ABO UNIT M-14-2

Project Number:

NONE GIVEN Project Location: NONE GIVEN Sampling Date:

05/26/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Celey D. Keene

Sample ID: SB 1 SURFACE SAMPLE (H101103-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM		····-			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: AB					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/31/2011	ND	203	101	200	1.89	
	448	10.0	05/31/2011	ND	163	81.7	200	0.0275	

Surrogate: 1-Chlorooctane

135 %

70-130

Surrogate: 1-Chlorooctadecane

126 %

70-130

Sample ID: SB 1 @ 10' (H101103-02)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg,	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/01/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	<10.0	10.0	06/01/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane	114	% 70-130							
Surrogate: 1-Chlorooctadecane	116	% 70-130	•						

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 waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall be 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 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 report shall not be reproduced except in full with written approval of Cardinal laboratories.

Celeg & Keene



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received: Reported: 05/27/2011

06/02/2011

Project Name: Project Number: EMPIRE ABO UNIT M-14-2

Project Location:

NONE GIVEN

NONE GIVEN

Sampling Date:

05/26/2011

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Celey D. Keene

Sample ID: SB 1 @ 40' (H101103-03)

Chloride SM4500Cl-R

ma/ka

Analyzed By: HM

Childride, SM4500CI-B	nig,	/kg	Allalyze	u by. ni ⁿ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg,	/kg	Analyze	d By: AB					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/01/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	<10.0	10.0	06/01/2011	ND	165	82.5	200	1.74	

Surrogate: 1-Chlorooctane

120 %

70-130

Surrogate: 1-Chlorooctadecane

135 %

70-130

Sample ID: SB 2 SURFACE SAMPLE (H101103-04)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/01/2011	ND	175	87.7	200	0.360	

Surrogate: 1-Chlorooctane

128 %

70-130

Surrogate: 1-Chlorooctadecane

122 %

70-130

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's 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 incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 3 of 7



APACHE - EUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/27/2011

Sampling Date:

05/26/2011

Reported:

06/02/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Celey D. Keene

Project Location:

NONE GIVEN

Sample ID: SB 2 @ 15' (H101103-05)

Chloride, SM4500CI-B	п
130 130 110	

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/02/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	14.0	10.0	06/02/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane	126	% 70-130)						

Surrogate: 1-Chlorooctadecane

126 %

160 %

127 %

70-130

70-130

Sample ID: SB 2 @ 25' (H101103-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg	/kg	Analyze	d By: AB					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/02/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	<10.0	10.0	06/02/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane	158	% 70-130)					****	

Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's fiability and client's 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 incurred by client, its subcidiaries, affiliates or successors 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 individing above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene



APACHE - FUNICE NATALIE GLADDEN P. O. BOX 1849 **EUNICE NM, 88231** Fax To: 394-2425

Received:

05/27/2011

Sampling Date:

05/26/2011

Reported:

06/02/2011

Sampling Type:

Soil

Project Name:

EMPIRE ABO UNIT M-14-2

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NONE GIVEN NONE GIVEN

Sample Received By:

Celey D. Keene

Sample ID: SB 3 SURFACE SAMPLE (H101103-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1480	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg,	/kg	Analyze	d By: AB					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	64.4	10.0	06/02/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	2510	10.0	06/02/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane	142	% 70-130)						
Surrogate: 1-Chlorooctadecane	130	% 70-130)						

Sample ID: SB 3 @ 10' (H101103-08)

Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M	mg,	'kg	Analyze	d By: AB					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/02/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	<10.0	10.0	06/02/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane	132 :	% 70-130)						
Surrogate: I-Chlorooctadecane	141	% 70-130	1						

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount oald 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 use, or loss of profits incurred 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 report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keine

ARDINAL LABORATORIES

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603 (505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325)673-7020

Company Name	3: Apache									1 70					- /	NAL	YSIS	RE	QUE	ST			
Project Manage	r: Natalie Gladden						P. <i>O.</i>	#:															
Address:							Com	pany:								က္ခ					İ		
City:	State: NM	Zìp	:			/	Attn:									6						l	. 1
Phone #:	Fax #:						Addr	ess:								Cations/Anions					1		
Project #:	Project Owne	r:					City:					, l	Σ		ェ	//S						j	ı
Project Name:	Empire Abo Unit M-14-2						State): 	Z	Zip:		ğ	15	×	٥	Ö			ļ				
Project Locatio	n:						Phon	10 #:				Chlorides	8015	BTEX	Fexas TPH	ati	TDS		ļ				
Sampler Name:							Fax f	# :				l 을	Ψ	BT	xa		F				1		
FOR LAB USE ONLY		N	ATRI	X	PI	RESER	₹.	SAMPLI	NG	ਹ	TPH		Le	te									
Lab I.D. H101103-	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	SLUDGE	OTHER:	ICE / COOL	OTHER:	DATE	TIME		 			Complete							
	SB 1 surface sample		1	,	/			1		5/26/11	09:00	1	1										
	SB 1 @ 10'	<u> </u>	1		/	14		V	\perp		09:15	1	✓					ļ	<u> </u>				
	SB 1 @ 40'	_	1		/			V	1		_09:30	1	1					ļ	ļ	ļ			ļ
	SB 2 Surface Sample	┞	1	<u> </u>	/	++	- -	V	\dashv		10:00	\	1					ļ	 	-			ļ
	SB 2 @ 15'	-	1		/	+	+	1	\dashv		10:15	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1						-	 			
	SB 2 @ 25'	╂╌			/	┼┼	+	V	+		10:30	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	· /			-							
	SB 3 Surface Sample SB 3 @ 10'	╂	1		/	++	+	<u>v</u>	+		11:00	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	∀										
08	363 @ 10	T	<u> </u>		'	++	\dashv	+++	+		11:30_	 	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					 		-			
		\vdash			+		十	++	十				-						 	 			
PLEASE NOTE: Liability a	nd Damages, Cardinal's liability and client's exclusive remedy for	any clali	m arial	ng whether be	sed in co	ontract o	r tort, sh	hall be limi	Ited to	the amount pair	by the client for	the	<u></u>								ا		أستستندن

analyses. All claims including those for negligence and any other cause whatspever shall be deemed walved unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business siterruptions, loss of use, or loss of profits incurred by client, its subsidiaries, efficiency arising out of or related to the performance of services hereunder by Cardinal, pagerdless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By;	Date: 7711 Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
	+/S/27(() / / / / /	Fax Result: ☐ Yes ☑ No Add'! Fax #:
Jordan Woodfin	Time: 3:20 Lay VIII	REMARKS:
Relinquished By:	Date: Received By:	email results
	Time:	Natalie.Gladden@usa.apachecorp.com;
	'	
Delivered By: (Circle One)	Sample Condition CHECKED BY:	Zconder@rice-ecs.com; Bbaker@rice-ecs.com;
Sampler - UPS - Bus - Other:	-4.5° Cool Intact (Initials)	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

[†] Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

Appendix F Final Form C-141

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293