

## LINN ENERGY

2130 W. Bender Blvd. Hobbs, NM 88241 Phone 575.738.1739

# HE West B 10 2RP-1995

# Termination Request

API No. 3001505117

Release Date: October 14<sup>th</sup>, 2013

Unit Letter E, Section 9, Township 17S, Range 31E

### Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241 Phone 575.393.2967

March 7th, 2014

### Mike Bratcher

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

> RE: Termination Request Linn Energy – HE West B 10 (2RP-1995) UL/E sec. 9 T17S R31E API No. 3001505117

Mr. Bratcher:

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

### **Background and Previous Work**

The site is located approximately 6.2 miles northeast of Loco Hills, New Mexico at UL/E sec. 9 T17S R31E. This site is in an area of no known groundwater.

On October 14<sup>th</sup>, 2013, Linn used a pump truck with fresh water to discover the location of a release from a fiberglass pipeline. A total of 20 barrels of produced and fresh water was released from the fiberglass line and none of this water was recovered. The release affected 1,841 sq ft of pasture land. Linn notified BLM and NMOCD on October 16<sup>th</sup>, 2013 and an initial C-141 was submitted to both agencies (Appendix A).

RECS was on site beginning October 17<sup>th</sup>, 2013 to assess the site. Three points were sampled at the surface and two of the points were sampled with depth. The samples were field tested for chlorides and for organic vapors using a PID meter (Figure 1). Representative samples were taken to a commercial laboratory for analysis (Appendix B). Point 1 returned laboratory chloride readings below 1,000 mg/kg at 2.5 ft bgs and Point 3 returned laboratory chloride readings below 1,000 mg/kg at 4 ft bgs. Point 3 was advanced to 15.5 ft bgs to determine the extent of the vertical contamination. The laboratory chloride readings fell below 250 mg/kg at 15.5 ft bgs.

On November 18<sup>th</sup>, 2013, a Corrective Action Plan (CAP) was submitted to NMOCD and BLM. Based on the laboratory data, the area around Point 1 would be excavated to 2.5 ft bgs. The side walls and bottom of the excavation would be sampled to verify that the chloride values were below 1,000 mg/kg (Figure 2). At Point 2, the site would be scraped down six inches to remove the staining. At Point 3, the area would be excavated to a depth of 4 ft bgs and the side walls of the excavation would be sampled to verify that

the chloride values are below 1,000 mg/kg. At 4 ft bgs, a 20-mil poly liner would be installed and properly seated into the base of the excavation.

The excavated soil from all three areas would be taken to a NMOCD approved facility for disposal. Clean soil would be imported to use as backfill for the excavations and scrape and to contour the area to the surrounding location. Soil amendments would be added as needed and the site will be seeded with a blend of native vegetation.

BLM approved the CAP on November 18<sup>th</sup>, 2013 with the stipulation that if the final sampling of the excavation around Point 3 returned values below 1,000 mg/kg, then no liner would be required. On November 19<sup>th</sup>, 2013, NMOCD approved the CAP with BLM's stipulation.

CAP work began at the site on January 8<sup>th</sup>, 2014. The site was line spotted by hydrovac to prevent line strikes and the lines were padded with soil to prevent breakage. The site was excavated as proposed in the CAP (Figure 3). A total of 240 yards of contaminated soil was taken to a NMOCD approved facility for disposal. Once the 4 ft and 2.5 ft excavations were completed, final sampling of both excavations was conducted and the samples delivered to a commercial laboratory (Appendix C). In the 4 ft excavation, all wall samples returned laboratory chloride, GRO, DRO and BTEX results of non-detect, except for the west wall, which had a chloride value of 544 mg/kg. In the 2.5 ft excavation, all wall samples returned laboratory chloride, GRO, DRO and BTEX results of non-detect, except for the west wall and east wall, which has laboratory chloride readings of 32 mg/kg and 64 mg/kg, respectively. A 5 point bottom composite of the 2.5 ft excavation was taken to a commercial laboratory and returned a laboratory chloride value of 96 mg/kg and GRO, DRO and BTEX results of non-detect.

At the base of the 4 ft excavation, a 20-mil reinforced poly liner was installed and properly seated into the base of the excavation. The liner was padded with 6 inches of top soil to protect the liner from punctures. Then a total of 44 yards of caliche was placed over the padded liner.

The remainder of the 4 ft excavation, the 2.5 ft excavation and the scrape was then backfilled with top soil. A total of 296 yards of top soil was imported to the site to pad the liner and serve as backfill. A 5 point composite sample of the imported soil was taken to a commercial laboratory for analysis and returned a chloride value of non-detect. On February 5<sup>th</sup>, 2014, soil amendments were added to the soil and the site was seeded with BLM mix #4.

Photo documentation of all activities can be found in Appendix D.

Given that the site was excavated as stated in the approved CAP, a liner was installed into the 4 ft excavation, and the contaminated soil was replaced with clean, imported soil, Linn respectfully request 'remediation termination' and closure of the site. A final C-141 can be found in Appendix E.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

Lara Weinheimer

Project Scientist

**RECS** 

(575) 441-0431

### Attachments:

Figure 1 – Initial Sampling Data

Figure 2 – Proposed Corrective Actions

Figure 3 – Excavation Data

Appendix A – Initial C-141

Appendix B – Initial Laboratory Analyses

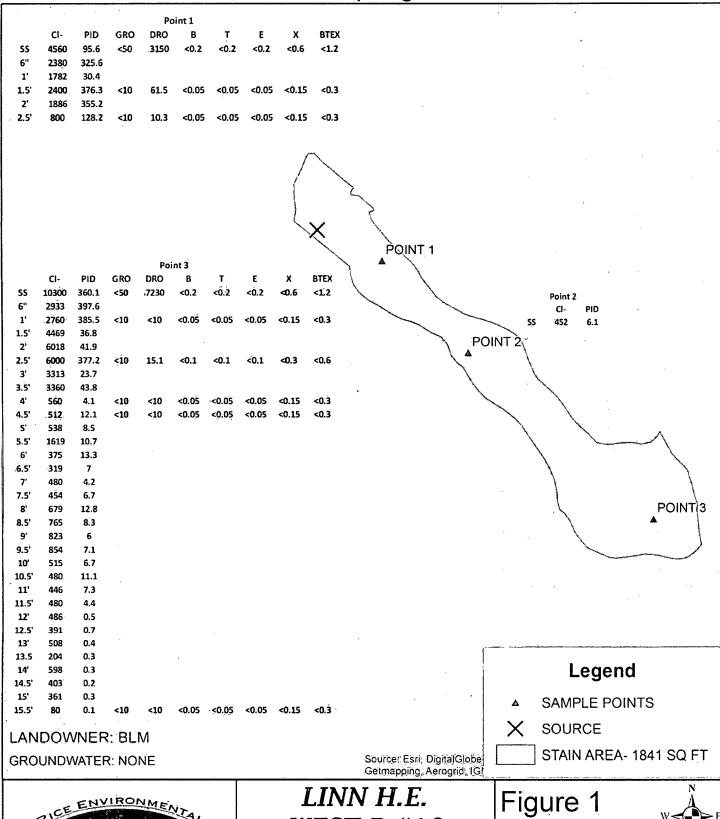
Appendix C – CAP Laboratory Analyses

Appendix D – Photo Documentation

Appendix E – Final C-141

Figures

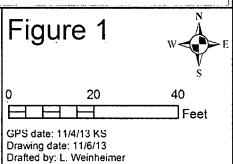
Initial Sampling Data



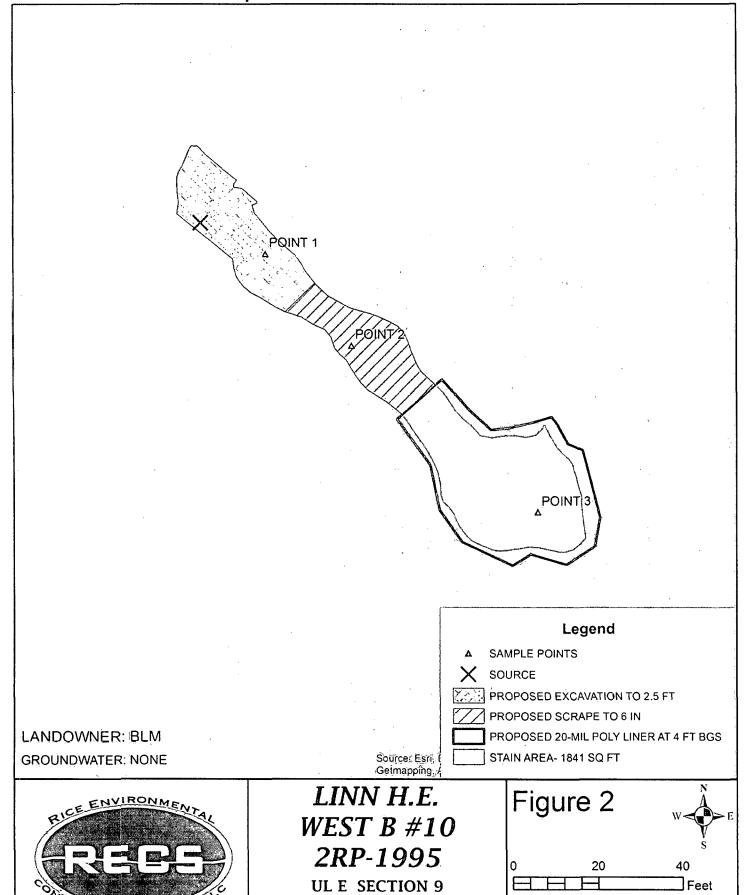


LINN H.E. WEST B #10 2RP-1995

UL E SECTION 9 T-17-S R-31-E EDDY COUNTY, NM



# **Proposed Corrective Actions**



T-17-S R-31-E

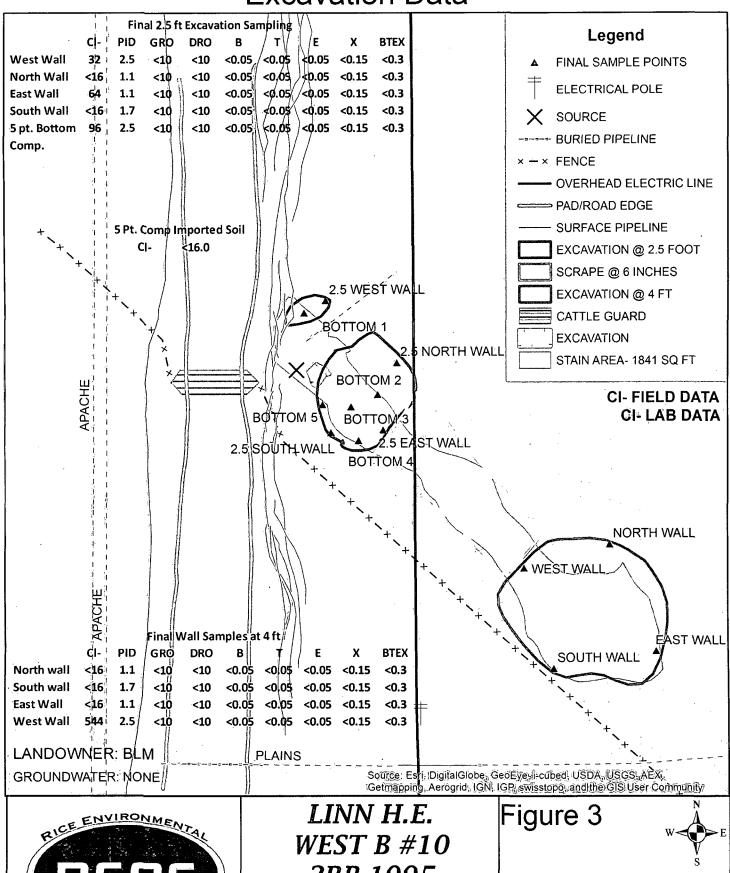
EDDY COUNTY, NM

GPS date: 11/4/13 KS Drawing date: 11/15/13

Drafted by: L. Weinheimer

ULTING & SAFE

## **Excavation Data**





2RP-1995

**ULE SECTION 9** T-17-S R-31-E EDDY COUNTY, NM

10 20 HHH

GPS date: 1/15/14 KS Drawing date: 1/16/14 Drafted by: L. Weinheimer Appendix A
Initial C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505 1220 S. St. Francis Dr., Santa Fe, NM 87505

### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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

			Rele	ease Notific	ation	and Co	rrective A	ction				
						OPERAT	ΓOR	$\triangleright$	Initia	l Report		Final Report
Name of Co	mpany: Li	nn Operatin				Contact: Bri	an Wall	<del>_</del>	<del>-</del>			
Address: 21	30 W. Ber	der Hobbs,	NM 882	240	7	Telephone N	No.: 575-738-17	739				
Facility Nar	ne: HE We	est B 10			F	Facility Typ	e: Injection					
Surface Ow	ner: Federa	al		Mineral O	wner:				API No.	: 3001505	117	
				LOCA	TION	OF REI	LEASE					
Unit Letter E	Section 09	Township 17S	Range 31E	Feet from the 1980		South Line North	Feet from the 660	East/We We		County	Eddy	
						Longitudo  OF REL	e: -103.88039					
Type of Rele	ase: Produc	ed Water		IVAI	UKE		Release: 20 bbls		/olume R	ecovered: (	)	
		glass pipeline		<del></del>			lour of Occurrence			Hour of Dis		
						10/14/2013		1	0/14/201	3 12:00pm	· · · · · · · · · · · · · · · · · · ·	
Was Immedi	ate Notice C		Yes	No Not Re	quired	If YES, To Mike Burto	Whom? on- BLM Mike I	Bratcher-N	M OCD			
By Whom? B							lour 10/16/2013			75-05	-1//	
Was a Water	course Reac		Yes 🛛	l No		If YES, Vo	lume Impacting t	the Waterc	ourse.	REC	ZIVI	
	<del></del>	pacted, Descri								MAR 1	3 20	14
				n Taken.*; Found 20 barrels total flu					ction out		in area.	· · · · · · · · · · · · · · · · · · ·
		·		ren.* : spill located								
regulations a public health should their or or the enviro	If operators or the environerations homent. In a	are required to onment. The ave failed to a	o report ar acceptant adequately ICD accep	e is true and completed in the certain rece of a C-141 report investigate and restance of a C-141 report investigate and restance of a C-141 report in the certain cer	elease no rt by the emediate	otifications a NMOCD m contaminati	nd perform correct arked as "Final R on that pose a thr	ctive actior Report" doe reat to grou	ns for rele s not reli and water	eases which eve the ope s, surface wa	may en rator of ater, hur	danger Tiability nan health
Signature:	AB L	/					OIL CON	SERVA	TION	<u>DIVISI</u>	<u> </u>	
Printed Name	e: Brian Wa	11				Approved by	District Supervis	sor:				•
Title: Constr	uction Forei	nan II		<del></del>	/	Approval Da	te:	Ex	piration l	Date:		
E-mail Addre Date: 10/16/2		linnenergy.co P		-367-0645		Conditions of	f Approval:			Attached		

<sup>\*</sup> Attach Additional Sheets If Necessary

Appendix B
Initial Laboratory Analyses

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967



October 28, 2013

JACOB KAMPLAIN
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC
419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #10

Enclosed are the results of analyses for samples received by the laboratory on 10/23/13 15:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accredited certif, html.

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

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

Accreditation applies to public drinking water matrices.

Celey D. Keens

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

(575) 397-1471 Fax To:

Received:

10/23/2013

Reported:

10/28/2013

Sampling Date: Sampling Type: 10/23/2013

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: POINT 1 @ SURFACE (H302572-01)

BTEX 8021B	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/25/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	<0.200	0.200	10/25/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	<0.200	0.200	10/25/2013	ND	1.95	97.7	2.00	0.395	
Total Xylenes*	<0.600	0.600	10/25/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<1.20	1.20	10/25/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4560	16.0	10/24/2013	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	10/25/2013	ND	185	92.3	200	0.942	
DRO >C10-C28	3150	50.0	10/25/2013	ND	173	86.6	200	1.03	
Surrogate: 1-Chlorooctane	91.5	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	185 9	% 63.6-15	4						

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Celego Keine

Celey D. Keene, Lab Director/Quality Manager

\*=Accredited Analyte



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(575) 397-1471

Fax To:

Received:

10/23/2013

Reported:

10/28/2013

Project Name: Project Number: H. E. WEST B #10 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

10/23/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Sample ID: POINT 3 @ SURFACE (H302572-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	10/25/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	<0.200	0.200	10/25/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	<0.200	0.200	10/25/2013	ND	1.95	97.7	2.00	0.395	
Total Xylenes*	<0.600	0.600	10/25/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<1.20	1.20	10/25/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	104 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10300	16.0	10/24/2013	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	10/25/2013	ND	185	92.3	200	0.942	
DRO >C10-C28	7230	50.0	10/25/2013	ND	173	86.6	200	1.03	
Surrogate: 1-Chlorooctane	104	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	282	% 63.6-15	4						

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\*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

10/23/2013

Sampling Date:

10/23/2013

Reported:

10/28/2013

Sampling Type:

Soil

Project Name:

H. E. WEST B #10 NONE GIVEN

Sampling Condition:

Cool & Intact

Project Number: Project Location:

NOT GIVEN

101%

63.6-154

Sample Received By:

Jodi Henson

### Sample ID: POINT 1 @ 1.5' (H302572-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed ·	Method Blank	BS .	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	<0.050	0.050	10/25/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	<0.050	0.050	10/25/2013	ND	1.95	97.7	2.00	0.395	
Total Xylenes*	<0.150	0.150	10/25/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<0.300	0.300	10/25/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 %	6 89.4-12	6	***************************************		11.71.11.11			
Chloride, SM4500CI-B	mg/	kg	Analyzed By: AP		_				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2400	16.0	10/24/2013	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/25/2013	ND	185	92.3	200	0.942	
		10.0	10/25/2013	ND	173	86.6	200	1.03	

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Surrogate: 1-Chlorooctadecane

\*=Accredited Analyte

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Celeg & Keine



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Fax To: (575) 397-1471

Received:

10/23/2013

Sampling Date:

10/23/2013

Reported:

10/28/2013

Sampling Type:

Soil

Project Name:

Sampling Condition:

Cool & Intact

Project Number:

H. E. WEST B #10

Project Location:

NONE GIVEN NOT GIVEN

Sample Received By:

Jodi Henson

### Sample ID: POINT 1 @ 2.5' (H302572-04)

BTEX 8021B	mg/	kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/25/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	< 0.050	0.050	10/25/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	< 0.050	0.050	10/25/2013	ND	1.95	97.7	2.00	0.395	
Total Xylenes*	< 0.150	0.150	10/25/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<0.300	0.300	10/25/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 %	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	800	16.0	10/24/2013	ND	432	108	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/25/2013	ND	185	92.3	200	0.942	
DRO >C10-C28	10.3	10.0	10/25/2013	ND	173	86.6	200	1.03	
Surrogate: 1-Chlorooctane	94.7	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	98.6	% 63.6-15	4						

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\*=Accredited Analyte

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Celey D. Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM. 88240

Fax To:

(575) 397-1471

Received:

10/23/2013

Sampling Date:

10/23/2013

Reported:

10/28/2013 H. E. WEST B #10 Sampling Type: Sampling Condition: Soil Cool & Intact

Project Name: Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

### Sample ID: POINT 3 @ 1' (H302572-05)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/27/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	<0.050	0.050	10/27/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	<0.050	0.050	10/27/2013	ND	1.95	97.7	2.00	0.395	
Total Xylenes*	<0.150	0.150	10/27/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<0.300	0.300	10/27/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105 %	% 89.4-120	<u> </u>				•		
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2760	16.0	10/24/2013	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/25/2013	ND	185	92.3	200	0.942	
DRO >C10-C28	<10.0	10.0	10/25/2013	ND	173	86.6	200	1.03	
Surrogate: 1-Chlorooctane	93.4	% 65.2-14	)				<del></del> -		
Surrogate: 1-Chlorooctadecane	97.9	% 63,6-15-	<i>‡</i>						

### 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 causes 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 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.

Celeg D. Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

10/23/2013

10/28/2013

Reported: Project Name:

BTEX 8021B

DRO >C10-C28

H. E. WEST B #10

Project Number: Project Location:

NONE GIVEN NOT GIVEN

Sampling Date:

10/23/2013

Sampling Type:

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

Sample ID: POINT 3 @ 2.5' (H302572-06)

BTEX 8021B	mg,	/kg	Analyze	d By: MS		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery
Benzene*	<0.100	0.100	10/27/2013	ND	1.89	94.4

10.0

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	10/27/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	<0.100	0.100	10/27/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	<0.100	0.100	10/27/2013	ND	1,95	97.7	2.00	0.395	
Total Xylenes*	<0.300	0.300	10/27/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<0.600	0.600	10/27/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIC	104 %	89.4-126
--------------------------------------	-------	----------

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6000	16.0	10/24/2013	ND	432	108	400	3.77	
TPH 8015M	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/25/2013	ND	185	92,3	200	0.942	

ND

173

86.6

200

1.03

10/25/2013

Surrogate: 1-Chlorooctane	93.4 %	65.2-140
Surrogate: 1-Chlorooctadecane	101 %	63.6-154

15.1

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

10/23/2013

Sampling Date:

10/23/2013

Reported:

10/28/2013

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: POINT 3 @ 4' (H302572-07)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Benzene*	<0.050	0.050	10/27/2013	ND	1.89	94.4	2.00	0.364	
Toluene*	< 0.050	0.050	10/27/2013	ND	1.94	97.1	2.00	0.484	
Ethylbenzene*	<0.050	0.050	10/27/2013	ND	1.95	97.7	2.00	0.395	
Total Xylenes*	< 0.150	0.150	10/27/2013	ND	5.87	97.8	6.00	0.0827	
Total BTEX	<0.300	0.300	10/27/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 9	% 89.4-12	6						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Chloride	560	16.0	10/24/2013	ND	432	108	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
GRO C6-C10	<10.0	10.0	10/25/2013	ND	185	92.3	200	0.942	
DRO >C10-C28	<10.0	10.0	10/25/2013	ND	173	86.6	200	1.03	

Surrogate: 1-Chlorooctane

65.2-140

Surrogate: 1-Chlorooctadecane

96.1%

63.6-154

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, table the second of the services and the services and the services and the services are services and the services are services and the services are services are

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\*

Insufficient time to reach temperature. .

Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's 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 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

Celey D. Keine

### **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

### ARDINAL LABORATORIES

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	RECS					BI	LL TO						ANAL	YSIS	RE	QUE	ST			
	Jacob Kromplain				P.O. #:		4													
Address:				·	Compa	ιу:							လ္ဆ							
City: Hobbs	State: NM	Zip:	882	40	Attn:								o							ĺ
Phone #:	Fax #:				Addres	s: ·	<u> </u>			.:			<u> </u>							
Project #:	Project Owner	;			City:		_			Σ		I	Cations/Anions							
Project Name:	·				State:		Zip:		les	5	×	<u>a</u>	E C							
Project Location	: H.E. West B#10				Phone :	<b>‡</b> :			Chlorides	801	BTEX	Texas TPH	ije	TDS				. {		1
Sampler Name:					Fax #:				읟		B1	xa	Ö							
FOR LAB USE ONLY			$\overline{}$	MATRIX	PRE	SERV.	SAMPLI	NG	$\Box$	PH		(e)	क							
Lab I.D. H <i>302572</i>	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER: ACID/BASE:	ICE / COOL OTHER :	DATE	TIME					Complete							
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_ b	Point 3 @ 7.5'	6	<u> </u>	X				11:30	1	X	V					<u> </u>				
7	Point 3 @ 4'	6	1	X		Ϋ́_		11:35	K	(X	K	ļ								<u> </u>
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PI FASE NOTE: Liability of	nd Darnages. Cardinal's liability and client's exclusive remedy for	any claim	arising	whether based in contra	t or tort shall	. limited	to the amount na	d by the client to	r the	L			<u></u>	<u> </u>		L	<u></u>	L		<u> </u>

service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profils incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: Receive		Phone Result:
Kyle Schnaid+	10-23-13 113:40 00	di Henson	Fax Result: □ Yes □ No   Add'  Fax #:   REMARKS:
Relinquished By:	Date: Beceive	ed By:	kschnaidt@rice-ecs.com
	Time:		Knorman@rice-ecs.com
Delivered By: (Circle One)		Sample Condition CHECKED BY:	Kjones@riceswd.com; jkamplain@rice-ecs.com
Sampler - UPS - Bus - Other:	5.82	Cool Intact (loticity)  Yes Yes  No No	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



November 11, 2013

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #10

Enclosed are the results of analyses for samples received by the laboratory on 11/05/13 15:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

(575) 397-1471 Fax To:

Received:

11/05/2013

Sampling Date:

11/04/2013

Reported:

Sampling Type:

Soil

Project Name:

11/11/2013 H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: POINT 3 @ 4.5' (H302698-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2013	ND	1.86	92.9	2.00	2.84	
Toluene*	< 0.050	0.050	11/09/2013	ND	1.87	93.4	2.00	2.58	
Ethylbenzene*	< 0.050	0.050	11/09/2013	ND	1.89	94.6	2.00	2.28	
Total Xylenes*	<0.150	0.150	11/09/2013	ND	5.57	92.8	6.00	1.69	
Total BTEX	<0.300	0.300	11/09/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	109 %	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	11/07/2013	ND	432	108	400	4.01	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/06/2013	ND	198	98.8	200	1.81	
DRO >C10-C28	<10.0	10.0	11/06/2013	ND	224	112	200	17.8	
Surrogate: 1-Chlorooctane	108 %	6 65.2-14	0	-					
Surrogate: 1-Chlorooctadecane	. 115%	63.6-15	4						

### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: Reported: 11/05/2013

11/11/2013

H. E. WEST B #10

Project Name: Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

11/04/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

100

Sample Received By:

Jodi Henson

### Sample ID: POINT 3 @ 15.5' (H302698-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/08/2013	ND	2.02	101	2.00	0.0983	
Toluene*	<0.050	0.050	11/08/2013	ND	2.01	100	2.00	0.0618	
Ethylbenzene*	<0.050	0.050	11/08/2013	ND	2.01	101	2.00	0.0369	
Total Xylenes*	<0.150	0.150	11/08/2013	ND	5.90	98.4	6,00	0.540	
Total BTEX	<0.300	0.300	11/08/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	108 %	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	11/07/2013	ND	432	108	400	4.01	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	11/06/2013	ND	198	98.8	200	1.81	
DRO >C10-C28	<10.0	10.0	11/06/2013	ND	224	112	200	17.8	
Surrogate: 1-Chlorooctane	104 %	65.2-14	o			a 1 Agent agreement			
Surrogate: 1-Chlorooctadecane	109 %	63.6-15	4						

### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Celeg D. Keene



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: (k	1505									BI	LLTO						ANA	LYSIS	RE	QUE	ST			
Project Manager:	Jacob Kr	amplain "				<u> </u>		P.O	.#:		· · · · · · · · · · · · · · · · · · ·													
Address:	.:		٠.					Сог	npar	y:														
City:		State:	Zip	):				Attr	1:						•	]:		1				٠	. ]	
Phone #:	·	Fax #:						Add	iress	: ,							1							
Project #:	<u> </u>	Project Owne	r:					City	<u>';</u>		·													<b>[</b>
Project Name:	<u> </u>							Sta	te:		Zip:							·						
Project Location: A	1.E. West	B #10			_ <del></del>			Pho	ne #	:									` '		}			
Sampler Name:	Vile Scha	a:d+			,			Fax	_						ļ							·		
FOR LAB USE ONLY	Sample	· .	OR (C)OMP.	# CONTAINERS	~	MATR		Manage of Section	ASE:		SAMPLI 	NG	, _	M	TEX									
H302698	· · · · · · · · · · · · · · · · · · ·		(G)RAB	# CON	GROUN	SOIL	SLUDGE	OTHER	ACID/BA	OTHER:	DATE	TIME	Ó	11	8							·		:
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PLEASE NOTE: Liability and Dam analyses. All claims including thos service. In no event shall Cardinal affiliates or successors arising out of	e for negligence and any other be liable for incidental or con	er cause whatsoever shall be sequental damages, includin	deema g witho	d waiv ut limit	ed unless n ation, busin	nade in wr ess intern	iling and uptions, l	receiv	ed by C use, or !	ardinal oss of p	within 30 days afte rofils incurred by	r completion of the	he applicat aries,						•			•		
Relinquished By:		Date 1/2/3	Re	Ceri	ved By	:.	1.	Ī				Phone Re Fax Resul		☐ Ye	s 🗆	No No	Add'l	Phone	#:					
Kyle Schi	naidt	13e: 55 Date:	R	A e i	yed By		M	e	W	0	n	REMARK Scn	d +	o . L	111	NO		1 42 77.	•		<del>1 -9</del>			
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RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967



January 17, 2014

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #10

Enclosed are the results of analyses for samples received by the laboratory on 01/15/14 16:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accred certif.html.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celes D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

(575) 397-1471 Fax To:

Received:

01/15/2014

Sampling Date:

01/15/2014

Reported:

01/17/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: NORTH WALL (H400136-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2014	ND	2.47	124	2.00	0.657	
Toluene*	<0.050	0.050	01/16/2014	ND	2.43	122	2.00	0.0197	
Ethylbenzene*	<0.050	0.050	01/16/2014	ND	2.46	123	2.00	0.0828	
Total Xylenes*	<0.150	0.150	01/16/2014	ND	7.31	122	6.00	1.64	
Total BTEX	<0.300	0.300	01/16/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105	% 89.4-12	6						
Chloride, SM4500CI-B	mg,	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/16/2014	ND	416	104	400	3.92	
TPH 8015M	mg,	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2014	ND	201	101	200	12.0	
DRO >C10-C28	<10.0	10.0	01/16/2014	ND	203	102	200	14.3	
Surrogate: 1-Chlorooctane	89.9	% 65.2-14	0					*	
Surrogate: 1-Chlorooctadecane	89.0	% 63.6-15	4						

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received: Reported: 01/15/2014

01/13/2014

Project Name:

H. E. WEST B #10

Project Number: Project Location:

NONE GIVEN NOT GIVEN Sampling Date:

01/15/2014

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

### Sample ID: SOUTH WALL (H400136-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2014	ND	2.47	124	2.00	0.657	
Toluene*	<0.050	0.050	01/16/2014	ND	2.43	122	2.00	0.0197	
Ethylbenzene*	<0.050	0.050	01/16/2014	ND	2.46	123	2.00	0.0828	
Total Xylenes*	<0.150	0.150	01/16/2014	ND	7.31	122	6.00	1.64	
Total BTEX	<0.300	0.300	01/16/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105 9	% 89.4-12	6						,
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/16/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2014	ND	201	101	200	12.0	
DRO >C10-C28	<10.0	10.0	01/16/2014	ND	203	102	200	14.3	
Surrogate: 1-Chlorooctane	85.2	% 65.2-14	0		******				
Surrogate: 1-Chlorooctadecane	83.1	% 63.6-15	4						

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Celeg & Keens

Celey D. Keene, Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

01/15/2014

Sampling Date:

01/15/2014

Reported:

01/17/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Project Location:

NOT GIVEN

Jodi Henson

### Sample ID: EAST WALL (H400136-03)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2014	ND	2.47	124	2.00	0.657	
Toluene*	<0.050	0.050	01/16/2014	ND	2.43	122	2.00	0.0197	
Ethylbenzene*	<0.050	0.050	01/16/2014	ND	2.46	123	2.00	0.0828	
Total Xylenes*	<0.150	0.150	01/16/2014	ND	7.31	122	6,00	1.64	
Total BTEX	<0.300	0.300	01/16/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/16/2014	ND	416	104	400	3.92	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2014	ND	201	101	200	12.0	
DRO >C10-C28	<10.0	10.0	01/16/2014	ND	203	. 102	200	14.3	
Surrogate: 1-Chlorooctane	83.3	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	81.6	% 63.6-15	4						

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Celeg D. Keena



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Fax To:

(575) 397-1471

Received:

01/15/2014

Sampling Date:

01/15/2014

Reported:

01/17/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: WEST WALL (H400136-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/16/2014	ND	2.47	124	2.00	0.657	
Toluene*	<0.050	0.050	01/16/2014	ND	2.43	122	2.00	0.0197	
Ethylbenzene*	<0.050	0.050	01/16/2014	ND	2.46	123	2.00	0.0828	
Total Xylenes*	<0.150	0.150	01/16/2014	ND	7.31	122	6.00	1.64	
Total BTEX	<0.300	0.300	01/16/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIE	105	% 89.4-12	6	•			# v # 1 (		
Chloride, SM4500CI-B	mg,	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	01/16/2014	ND	416	104	400	3.92	
TPH 8015M	mg,	/kg	Analyze	d By: ms			-		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/16/2014	ND	201	101	200	12.0	
DRO >C10-C28	<10.0	10.0	01/16/2014	, ND	203	102	200	14.3	
Surrogate: 1-Chlorooctane	84.8	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	83.1	% 63.6-15	4						

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\*=Accredited Analyte

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Celey D. Keine



### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keine



### RDINAL LABORATORIES

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		-	:				8/	LL TO						ANAL	YSIS	RE	QUE	ST	``		
Project Manage	r: Jacob Kamplain				P.O.	#:								,							
Address:	•			·	Con	npany	:	<u> </u>		l			. ]	2		·				-	
City: Hobbs	State: NM	Zip:	882	240	Attn	ı: 								Ö				l			
Phone #:	Fax #:		•		Add	ress:								5				·			
Project#:	Project Owne	r:		·	City	:				<b>'</b>	Σ		エ	S					•		
Project Name:					Stat	Θ:		Zip:		ě	15	×	TPH	5							
Project Location	n: H.E. West B#10				Pho	ne #:				Chlorides	801	BTEX	S	Cations/Anions	TDS		. '				
Sampler Name:	Kyle Schnaidt				Fax	#:				[윤		ВТ	xa	Ü	F					1	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE		ACID/BASE: BA		SAMPLI	NG TIME	S	Hdl		Texas	Complete	,						
1	North Wall	6	Ц	K	$\perp \perp$	K		1-15-14	12:45	X	X	X									
	South Wall	6	4	X		X			P:40	X	X	X								<u> </u>	
3	East Wall	6	1	3	$\sqcup$	×		$\rightarrow$	12:35	X	X.	4									
4	West Wall	6	4	X		X			12:30	×	X_	4									
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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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without fimilation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries,

Relinquished By:	Date:	Received By:	Phone Result: ☐ Yes ☑ No Add'l Phone #:
	1-15-14	May May An	Fax Result: ☐ Yes ☑ No Add'l Fax #:
Kula Silin de	Time, 12	WOUNDER	REMARKS:
1 yic solyalat	<u> </u>	men struct	
Relinquished By:	Date:	Réceived By:	email results
	Time:		Knorman@rice-ecs.com
Delivered By: (Circle One)		Sample Condition   CHECKED BY:	── Kjones@riceswd.com; jkamplain@rice-ecs.com
Sampler - UPS - Bus - Other:		Cool intact (hijfajs)  Gyes Yes  No No	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com
+ Cardinal cannot accout york	al changes Bloses	fay written changes to EOE 202 2676	· ·



January 22, 2014

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W, CAIN

HOBBS, NM 88240

RE: H. E. WEST B #10

Enclosed are the results of analyses for samples received by the laboratory on 01/17/14 16:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab-accred-certif.html">www.tceq.texas.gov/field/ga/lab-accred-certif.html</a>.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celeg D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received:

01/17/2014

Sampling Date:

01/17/2014

Reported:

01/22/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition: Sample Received By: Cool & Intact Jodi Henson

Project Number: Project Location:

NONE GIVEN

on: NOT GIVEN

### Sample ID: 2.5' WEST WALL (H400161-01)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.29	
Toluene*	< 0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.51	
Ethylbenzene*	< 0.050	0.050	01/21/2014	ND	2.30	115	2.00	1.47	
Total Xylenes*	< 0.150	0.150	01/21/2014	ND	6.74	112	6.00	1.49	
Total BTEX	<0.300	0.300	01/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	109 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP			·		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/20/2014	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2014	ND	185	92.3	200	6.86	
DRO >C10-C28	<10.0	10.0	01/20/2014	ND	183	91.3	200	6.89	
Surrogate: 1-Chlorooctane	87.9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	88.8	% 63.6-15	4					•	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

01/17/2014

Sampling Date:

01/17/2014

Reported:

01/22/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: 2.5' NORTH WALL (H400161-02)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.29	
Toluene*	<0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.51	
Ethylbenzene*	<0.050	0.050	01/21/2014	ND	2.30	115	2.00	1.47	
Total Xylenes*	< 0.150	0.150	01/21/2014	01/21/2014 ND		112	6.00	1.49	
Total BTEX	<0.300	0.300	01/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	109 %	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/20/2014	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2014	ND	185	92.3	200	6.86	
DRO >C10-C28 .	<10.0	10.0	01/20/2014	ND	183	91.3	200	6.89	
Surrogate: 1-Chlorooctane	82.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	80.0	% 63.6-15	4						

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\*=Accredited Analyte

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Celey D. Keene



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received:

01/17/2014

Sampling Date:

01/17/2014

Reported:

BTEX 8021B

GRO C6-C10

01/22/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

mg/kg

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 2.5' EAST WALL (H400161-03)

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	< 0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.29	
Toluene*	< 0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.51	
Ethylbenzene*	<0.050	0.050	01/21/2014	ND	2.30	115	2.00	1.47	
Total Xylenes*	<0.150	0.150	01/21/2014	ND	6.74	112	6.00	1.49	
Total BTEX	<0.300	0.300	01/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIE	107 9	% 89.4-12	6		<u>.</u> .				
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/20/2014	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

ND

ND

185

183

92.3

91.3

200

200

6.86

6.89

01/20/2014

01/20/2014

Analyzed By: MS

DRO >C10-C28	<10.0	10.0
Surrogate: 1-Chlorooctane	80.3 %	65.2-140
Surrogate: 1-Chlorooctadecane	84.3 %	63.6-154

<10.0

10.0

Cardinal Laboratories

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Celeg D. Keene

Celey D. Keene, Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received:

01/17/2014

Sampling Date:

01/17/2014

Reported:

Sampling Type:

Soil

01/22/2014

Cool & Intact

Project Name: Project Number: H. E. WEST B #10 NONE GIVEN

Sampling Condition: Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: 2.5' SOUTH WALL (H400161-04)

BTEX 8021B	mg/	kg	Analyze	d By: MS		.e			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.29	
Toluene*	<0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.51	
Ethylbenzene*	<0.050	0.050	01/21/2014	ND	2.30	115	2.00	1.47	
Total Xylenes*	<0.150	0.150	01/21/2014	ND	6.74	112	6.00	1.49	
Total BTEX	<0.300	0.300	01/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	107	% 89.4-12	6						
Chloride, SM4500Cl-B	500Cl-B mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/20/2014	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2014	ND	185	92.3	200	6.86	
DRO >C10-C28	<10.0	10.0	01/20/2014	ND	183	91.3	200	6.89	
Surrogate: 1-Chlorooctane	97.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	93.2	% 63.6-15	4						

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keena

Celey D. Keene, Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240 (575) 397-1471

Fax To:

Received:

01/17/2014

Reported:

01/22/2014

Project Name: Project Number: H. E. WEST B #10 NONE GIVEN

Project Location:

NOT GIVEN

Sampling Date:

01/17/2014

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

### Sample ID: 5 PT COMP @ 2.5' (H400161-05)

BTEX 8021B	mg/kg			d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.29	
Toluene*	< 0.050	0.050	01/21/2014	ND	2.32	116	2.00	1.51	
Ethylbenzene*	<0.050	0.050	01/21/2014	ND	2.30	115	2.00	1.47	
Total Xylenes*	<0.150	0.150	01/21/2014	ND	6.74	112	6.00	1.49	
Total BTEX	<0.300	0.300	01/21/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIE	107 %	6 89.4-12	б						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP			<del></del> .		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/20/2014	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2014	ND	185	92.3	200	6.86	
DRO >C10-C28	<10.0	10.0	01/20/2014	ND	183	91.3	200	6.89	
Surrogate: 1-Chlorooctane	86.0	% 65.2-14	0				· · · · · · · · · · · · · · · · · · ·		
Surrogate: 1-Chlorooctadecane	91.8	% 63.6-15	4						

### Sample ID: 5 PT COMP IMPORTED SOIL (H400161-06)

Chloride, SM4500CI-B	Analyze	d By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	01/20/2014	ND	416	104	400	0.00	

### Cardinal Laboratories

\*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



ND

### **Notes and Definitions**

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

Analyte NOT DETECTED at or above the reporting limit

Chloride by SM4500Cl-B does not require samples be received at or below 6°C
 Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene

## ARDIN.

### **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

### ARDINAL LABORATORIES

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	RECS					811	LL 70						ANAL	YSIS	RE	QUE	ST	٠.	1	
Project Manage	r: Jacob Kamplain				P.0	O. #:										·				
Address:		·-			Co	mpany:	<u> </u>			i i	٠.		છ					·		
City: Hobbs	State: NM	Zip: 8	8240	)	At	tn:			· .			· .	0				ľ	, ·		
Phone #:	Fax #:				Ad	ldress:							٩							
Project #:	Project Owner	r <u>:</u>	_		Cit	ty:			100	Σ		エ	l/s							
Project Name:					Sta	ate:	Zip:	· ·	jë	15	×	TPH	on							
Project Location	n: H.E. West B#10				Ph	one #:		•	Chlorides	801	BTEX	်	Cations/Anions	TDS		ŀ				
Sampler Name:					Fa	x #:			글		B	exas		<del> </del>						
Lab I.D.	Sample I.D.	AB OR (C)OMP.	GROUNDWATER	WASTEWATER SOIL OIL SI I IDGF		ACID/BASE: 3 ICE / COOL 8 OTHER: 2	SAMPL	NG.	O	ТРН		Te	Complete						-	
H400161		(G)R	88	WASTEW SOIL OIL	OTHER	ACID/BA ICE / CO OTHER	DATE	TIME						·					ŀ	
1	25' west wall	61		X		K	1-17-19	10:00	X	X	Y		-							
2	2.5' North wall	61		$\alpha$		X		10:05	X	X	X		,							
3	7.5' Fast wall	6	4	X	-	X		10:10	X	X	X									
4	Z.5' South wall	6		V .		. K		10:15	X	X	X				<u> </u>		ļ			
5	5pt composite Q. 2.5:	1		×	1	K	/	10:20	X	X	K_		• •		<u>.</u>					
<u> </u>	Spt composite Import so !	C	'	_   ^   _	+	ベ	1-16-14	1:40	K.	<u> </u>	-				<u> </u>		<u> </u>	ļ	<u> </u>	- 1995 - 1995
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		╁╼╁╴			+-			-	<del>                                     </del>	<del> </del>		<del> </del>	<u> </u>	<del> </del>			-			(i)
		++	++		-	1		<del> </del>				<del>                                     </del>	<u> </u>			<u> </u>				
PLEASE NOTE: Liability a	nd Damages. Cardinal's liability and client's exclusive remedy for a	any claim a	rising whe	ther based in contra	ct or to	rt, shall be limited	to the amount oa	id by the client fo	rthe .		l-—	<u> </u>		Ч.	<del></del>		—	<u> </u>		

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without imitation, 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date:	Refered By:	Phone Result:  Yes  No Add'! Phone #:
	1-17-14	1/100 $1$	Fax Result: ☐ Yes ☑ No Add'l Fax #:
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Relinquished By:	Date:	Received By:	l email results
		0	,
	Time:	] i	Knorman@rice-ecs.com
			Kjones@riceswd.com; jkamplain@rice-ecs.com
Delivered By: (Circle One)		Sample Condition CHECKED BY:	
		Cool Intact  Des Pres  No No	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com
Sampler - UPS - Bus - Other:		Pres Pres	The second of th
L	·	No No No V	

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476





February 03, 2014

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #10

Enclosed are the results of analyses for samples received by the laboratory on 01/28/14 16:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab">www.tceq.texas.gov/field/ga/lab</a> accred certif,html.

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

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keene

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY JACOB KAMPLAIN 419 W. CAIN HOBBS NM, 88240

Fax To: (575) 397-1471

Received:

01/28/2014

Sampling Date:

01/28/2014

Reported:

02/03/2014

Sampling Type:

Soil

Project Name:

H. E. WEST B #10

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: 5 PT COMP IMPORTED SOIL (H400273-01)

Chloride, SM4500Cl-B	Analyze	d By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/03/2014	ND	416	104	400	0.00	

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keine



### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

\*\* Samples not received at proper temperature of 6°C or below.

\*\*\* Insufficient time to reach temperature.

- Chloride by SM4500Cl-B does not require samples be received at or below 6°C

Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories \*=Accredited Analyte

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Company Name:	RECS					100.7					7		1				MAL	YSIS	RE	QUE	ST		
Project Manager	Jacob Kamplain						°.0.	#:															
Address:					· ·	_ (	Con	npan	y:								S	·.					
City: Hobbs	State: NM	<b>Zip:</b> 8	824	0		_/	Attn	:								.	Ö						1
Phone #:	Fax #:	,				_/	\dd	ress	:			·					'n		,				
Project #:	Project Owne	r:	·				City			. ·				Σ		ェ	//s				'		
Project Name:							Stat	e:	·	Zip:			jes	5	×	٥	ü						
Project Location	: H.E. WOST BHIO						Pho	ne#	:				Chlorides	8015	BTEX	S	Cations/Anions	TDS					
Sampler Name:							ах						일		BT	×		F		·			
FOR LAB USE ONLY  Lab I.D.  H400273	Sample I.D.	(G)RAB OR (C)OMP. # CONTAINERS	GROUNDWATER	$\prod$	ATRIX	SLUDGE		ACID/BASE:	OTHER:	SAMf DATI	-	IG TIME	0	TPH		Texas TPH	Complete		,	,			
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PLEASE NOTE: Liability er	nd Damages. Cardinars liability and client's exclusive remedy for	aný claim a	rising wi	hether ba	sed in co	ntract c	or tort,	shall be	limited	to the amoun	t paid	by the client for	the	<u> </u>				L	ــــــ	<u> </u>			 لسبا

**CHAIN-OF-CUSTODY AND ANALYSIS REQUEST** 

PLEASE NOTE: Llability and Damages. Cardina's liability and client's exclusive remedy for any claim ansing whether based in contract or ton, shall be limited to the amount paid by the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profile incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services terteunder by Cardinal, regardless of whether such claim is based upon any of the above stated feasons or otherwise.

Relinguished By:	Date:	Received By:		Phone Result: ☐ Yes ☑ No Add'l Phone #:
	1-28-14	/IDA): NA	111000	Fax Result: ☐ Yes ☑ No Add'l Fax #:
15/e Schnaidt	Time: 40	LIVER MIL	NUUN	REMARKS:
Relinquished-By:	Date:	Received By:		email results
	Time:			Knorman@rice-ecs.com
	<u>.                                    </u>			The state of the s
Delivered By: (Circle One)	* *	Sample Condition	CHECKED BY:	Kjones@riceswd.com; jkamplain@rice-ecs.com
Sampler - UPS - Bus - Other:		Cool Intact	(highars)	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com
Sampler - UP3 - Bus - Other:		No □ No	SPA	

#54

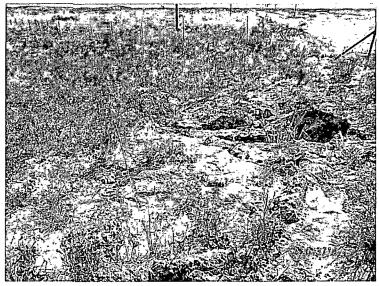
<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# Appendix D Photo Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

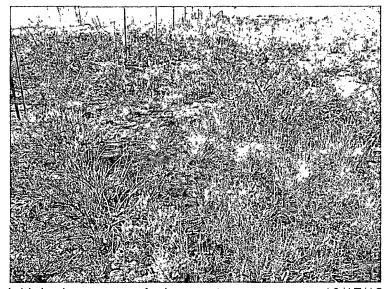
### Linn H.E. West B #10

Unit Letter E, Section 9, T17S, R31E



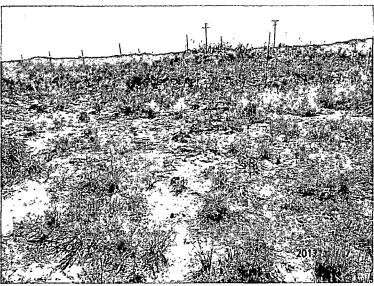
Source of release, facing south

10/17/13



Initial release area, facing west

10/17/13



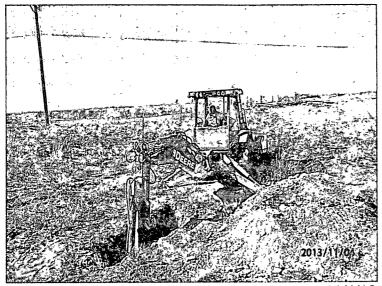
Initial release area, facing south

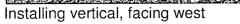
10/17/13



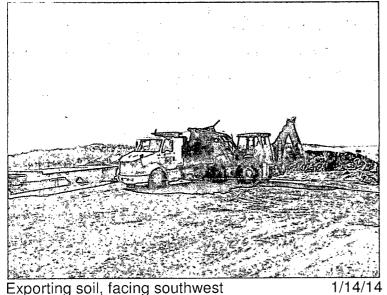
Initial release area, facing northwest

10/17/13

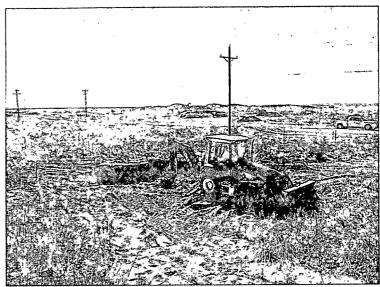




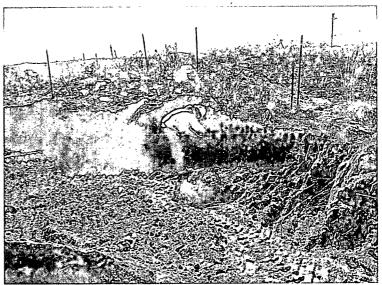




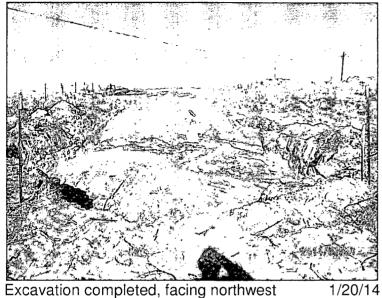
Exporting soil, facing southwest

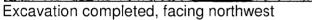


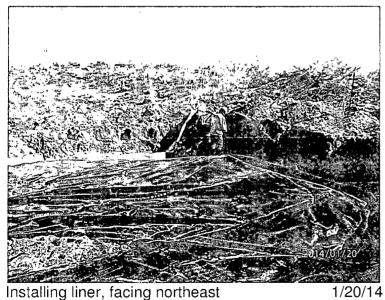
Excavating site, facing southwest



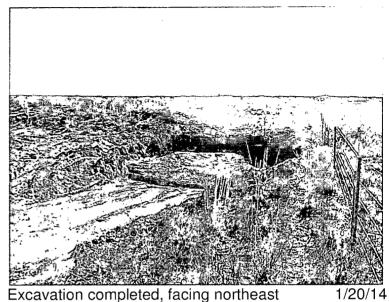
Collecting wall sample, facing southeast



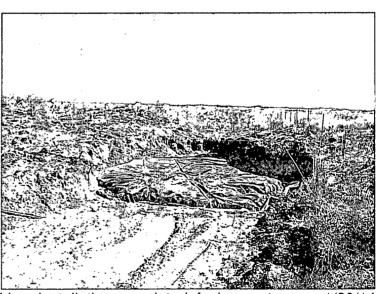




Installing liner, facing northeast



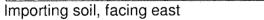
Excavation completed, facing northeast



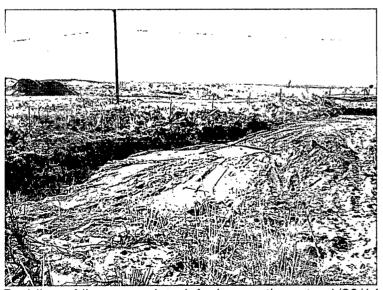
Liner installation completed, facing east

1/20/14

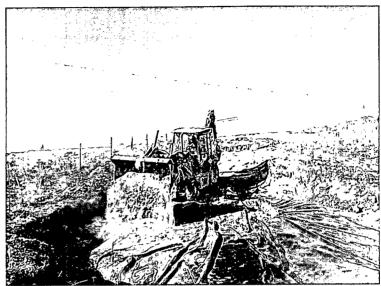




1/20/14

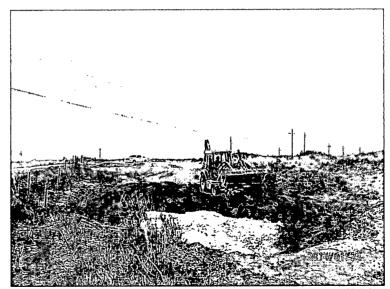


Padding of liner completed, facing southwest 1/20/14



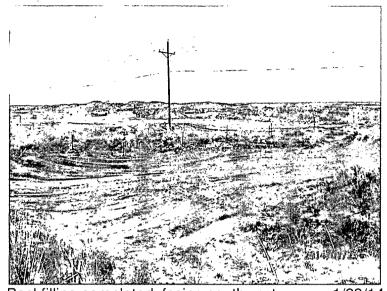
Padding liner, facing southwest

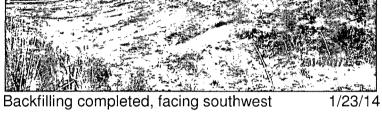
1/20/14



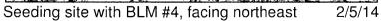
Backfilling site, facing north

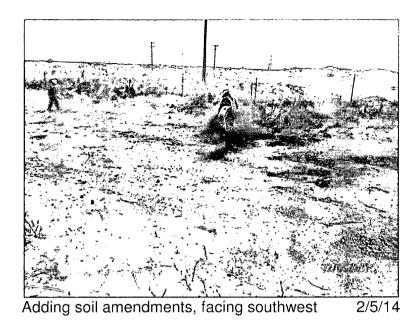
1/23/14

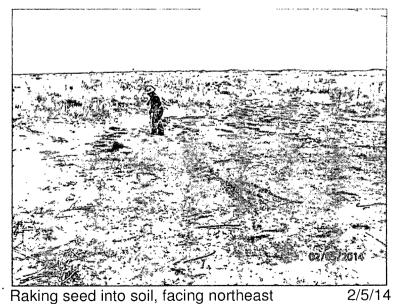




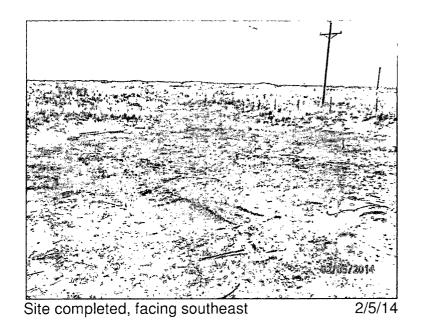


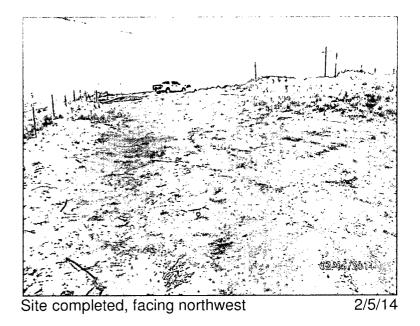






Raking seed into soil, facing northeast





Appendix E Final C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico
Energy Minerals and Natural Resources 3 2014

Form C-141 Revised August 8, 2011

Oil Conservation Division CD ART Submid Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Santa Fe, NM 87505

			Rele	ease Notifica	ation	and Co	rrective A	ction				
					•	OPERAT	OR		Initia	l Report	$\boxtimes$	Final Report
Name of Co	mpany L	inn Operatir	ng		Contact Br	ian Wall						
Address 21	30 W. Be	nder, Hobbs	, NM 882	40			lo. (806) 367-0	645				
Facility Nan	ne HEW	est B 10			F	Facility Typ	e Injection					
Surface Own	ner Fede	ral		Mineral Ov	wner				API No	. 3001505	5117	
				LOCA'	TION	OF REI	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North/S	South Line	Feet from the	est Line	County			
E	09	17S	31E	1980	No	orth	660	W	est	Eddy		
				Latitude_32.85	5087	_ Longitud	e103.88039_					
NATURE OF RELEASE												
Type of Relea	ase Produ	ced Water				Volume of	Release 20 bbls	s	Volume R		0	
Source of Rel	ease Fibe	rglass pipelin	е			1	our of Occurrence	e		Hour of Dis	covery	10/14/2013
Was Immedia	to Notice (	Siyan?				10/14/2013 If YES, To		ļ	12:00pm			
was minicula	ne nonce c		Yes [	No Not Rec	quired		on – BLM Mike	Bratche	r - NMOCI	D		
By Whom?	Brian Wal	<u> </u>				Date and H	our 10/16/2013	7:15aı	n			
Was a Watero						If YES, Vo	lume Impacting t	he Wate	rcourse.			
☐ Yes ☒ No												
If a Watercou	If a Watercourse was Impacted, Describe Fully.*											
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken.* Found	location	n of injection	line leak which l	had put i	injection or	ut of service	in area.	. Spill
composed of	fresh and p	roduced wate	r. Approx	20 barrels total flui	id. Were	e using pump	truck with fresh	water at	time to fin	d location o	of leak.	
Describe Are	a Affected	and Cleanup A	Action Tal	en.* The release	affecte	d 1,841 sq ft	of pasture land.	RECS w	as on site l	beginning O	ctober 1	$17^{tn}$ , 2013 to
for organic ve	e. Three po	onts were sam	ipled at the	e surface and two o tative samples were	of the po	unts were sar	npled with depth.	. The sa	mples were	e field testec rember 18 <sup>th</sup>	1 for chi 2013 a	Corrective
Action Plan (	apors using CAP) was:	submitted to N	NMOCD a	nd BLM. BLM ap	proved	the CAP on i	November 18 <sup>th</sup> . 2	013 and	NMOCD a	approved the	2015, a	n November
19 <sup>th</sup> , 2013. C	AP work b	egan at the sit	te on Janua	ary 8 <sup>th</sup> , 2014. The s	site was	line spotted	by hydrovac to p	revent li	ne strikes a	and the lines	were p	added with
				I as proposed in the								
				avations were com								
				bottom composite istalled and proper								
				of 44 yards of calid								
				ith top soil. A tota								
				was taken to a con				eturned	a chloride	value of nor	i-detect.	On
				to the soil and the is true and comple				nderstar	d that nure	cuant to NM	OCD ru	les and
				nd/or file certain re								
public health	or the envi	ronment. The	acceptane	ce of a C-141 repor	t by the	NMOCD m	arked as "Final R	eport" d	oes not reli	ieve the ope	rator of	liability
				investigate and re								
federal, state,				otance of a C-141 re	eport do	oes not reliev	e the operator of	responsi	bility for c	ompliance v	vith any	other
rederar, state,	or rocar ra	ws and/or regi	urations.		- T		OIL CON	SFRV	ATION	DIVISIO	)N	
T	5-01P1	10//					OIE COIN	<u>obit t</u>	7111011	DIVIOR	<u> </u>	
Signature: 7	rea b r	vau										
Printed Name	: Brian W	all			A	Approved by	Environmental S	pecialist	:			
Title: Const	ruction For	eman II				Approval Dat	e:		Expiration	Date:		
E-mail Addre	ss: bwall	@linnenergy.c	com		—  °	Conditions of	Approval:			Attached		
Date: 3/7/	14		Phone	: (806) 367-0645								

<sup>\*</sup> Attach Additional Sheets If Necessary