

## LINN ENERGY

2130 W. Bender Blvd. Hobbs, NM 88241 Phone 575,738.1739



## Turner B #93 (2RP-1878)

## Termination Request

API No. 30-015-26611

Release Date: December 3<sup>rd</sup>, 2013

Unit Letter N, Section 20, Township 17S, Range 31E

#### Rice Environmental Consulting & Safety

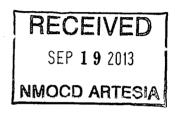
P.O. Box 2948, Hobbs, NM 88241 Phone 575.393.2967

#### September 18th, 2013

#### 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 – Turner B #93 (2RP-1878) UL/N sec. 20 T17S R31E API No. 30-015-26611



Mr. Bratcher:

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

#### **Background and Previous Work**

The site is located 5 miles east of Loco Hills, NM in UL/N sec. 20 T17S R31E. NM OSE and BLM records indicate the groundwater would likely be encountered at a depth of approximately 188 ft bgs. On December 3<sup>rd</sup>, 2013 a release occurred from the stuffing box of the well, which released a total of 4 barrels of produced water. The well was repacked and BLM was notified of the release on December 4<sup>th</sup>, 2013. An initial C-141 was submitted to NMOCD on August 29<sup>th</sup>, 2013 (Appendix A).

RECS personnel arrived on site on December 5<sup>th</sup>, 2012 to begin work at the Turner B #93. The release area had already been scraped down six inches, thus samples were taken from the surface of the six inch scrape. Four samples were taken throughout the release area and taken to a commercial laboratory for analysis (Figure 1). Laboratory chloride levels were elevated at all four points; however, GRO, DRO and BTEX readings were low (Appendix B). On February 26<sup>th</sup>, 2013, three of the four points were augured down for depth. These samples were taken to a commercial laboratory for analysis (Figure 2). In the three augur points, chloride levels decreased with depth and GRO, DRO and BTEX remained low throughout (Appendix C).

On May 3<sup>rd</sup>, 2013, a Corrective Action Plan (CAP) was submitted to NMOCD and BLM which was approved on May 23<sup>rd</sup>, 2013. As part of the CAP, RECS recommended that the release area around Point #1 would be excavated to a maximum depth of 2 ft bgs or to a laboratory chloride reading of 1,000 mg/kg. Point #2 would be scraped to a depth of 1 ft or to a laboratory chloride reading of 1,000 mg/kg. Point #3 and Point #4, which are located in a 4 ft ravine would not be excavated since to do so will compromise the natural landscape of the area and present a safety hazard to equipment and personnel. Final chloride and hydrocarbon samples would be taken in the final excavated areas around

Point #1 and Point #2 and sent to a commercial laboratory for analysis. The site would then be backfilled with clean, imported soil.

BLM approved the CAP with stipulations. They stated that the areas around Points #3 and #4 needed to excavated to a clean depth, then the sidewalls knocked down to a 3 to 1 slope. The site would need to be seeded with LPC seed mix, and any damage to the pad and road would need to be repaired. Finally, the location would need to be bermed to help prevent this type of release event from running off the pad into the pasture.

On July 7<sup>th</sup>, 2013, RECS personnel were on site to begin the approved CAP actions. The release area was excavated down to 1 ft bgs and field samples were taken and tested for chlorides and hydrocarbons. Based on this data, parts of the release area were excavated further until chloride field samples returned results below 1,000 mg/kg. A total of 156 yards of excavated material was taken to a NMOCD approved facility for disposal.

BLM gave verbal permission on July 22<sup>nd</sup>, 2013 for RECS to take final samples of the excavation. On July 23<sup>rd</sup>, 2013 final samples were taken throughout the excavation and taken to a commercial laboratory for analysis of chlorides, hydrocarbons and BTEX (Figure 3). Laboratory results of the excavation showed chloride levels below 1,000 mg/kg and low GRO, DRO and BTEX readings (Appendix D). RECS submitted the final data to BLM and NMOCD on July 30<sup>th</sup>, 2013 and asked for permission to backfill the site. BLM gave permission to backfill the site on July 31<sup>st</sup>, 2013 and NMOCD gave permission to backfill the site on August 9<sup>th</sup>, 2013.

On August 21<sup>st</sup>, 2013, the lease pad was backfilled and berms were erected around the site with 216 yards of clean, imported caliche. The ravine sidewalls were knocked down to a 3 to 1 slope. On August 23<sup>rd</sup>, soil amendments were added to the site and the site was seeded with LPC seed mix.

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

Due to the removal of impacted soils as approved by the Corrective Action Plan and the site backfilled with clean, imported soil, RECS, on behalf of Linn Energy, submits the final C-141 (Appendix F) and respectfully requests the closure of the regulatory file for this site.

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 – Augur Data

Figure 3 – Excavation Map

Appendix A – Initial C-141

Appendix B – Initial Sampling Lab

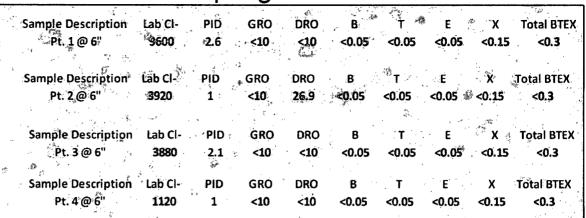
Appendix C – Augur Sampling Lab

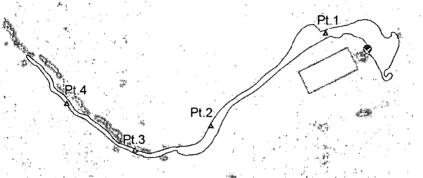
Appendix D – Final Sampling Lab

Appendix E – Photo Documentation Appendix F – Final C-141



Initial Sampling Data





#### Legend

- SAMPLE POINT
- × SOURCE
- WELLHEAD
- PUMPJACK
- STAIN (1,151 SQ FT)

DGW = 188 ft Landowner = BLM

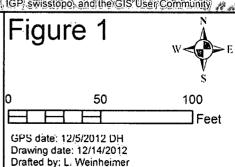
Source: Esril (Digital Globe), GeoEye, it cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community,



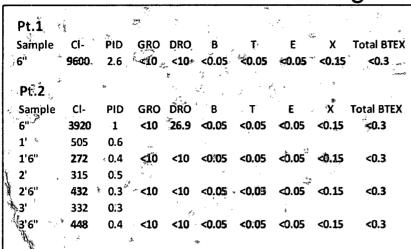
## LINN TURNER B #93

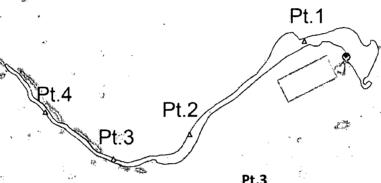
LEGALS: UL/N SEC 20 T17S R31E EDDY COUNTY

API No. 30-015-26611



### **Augur Data**





	1 6.0									1
	Sämple	CI-	PID	GRO	DRO	В	T	Ë	<u></u>	Total BTEX
	6"	3880	2.1	<10	<10	<0.05	<0.05	<0,05	<0.15	<0.3
*	1'	1170	0.9			. ,	,			
	1'6"	1100	0.3	<10	19.40	<0.05	<0.05	<0.05	<0.15	<0.3
	<b>2'</b> `	447	1.3				5 ,	,		
	2'6"	336	1.4	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
	. Ŝ' 🖑	260	0.4		À			,	. 0	. *
1	3'6"	160	0.3	<10	<10	<0.05	<0.05	<0.05	<0.15	⊴0,3
	3 4						554.	, •	3	· · · · · · · · · · · · · · · · · · ·

t.4 🚆				
mple	Cl-	PIÔ	ĠRO	E
	1120	1	<10	•

<10

X Total BTEX DRO 6" <10 < 0.05 <0.3 1' 561 **1.2** 1'6' 160 10 <0.3 ° <10 <0.05 <0.05 <0.05 < 0.15

CI- FIELD DATA

DGW = None Landowner = BLM

<0.3

© 2013 Microsoft Corporation Image Patch.com

### Legend

- SAMPLE POINT
- SOURCE
- **WELLHEAD**
- **PUMPJACK**

STAIN (1,151 SQ FT)

CI- LAB DATA

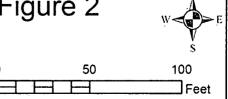


## **LINN** TURNER B #93

LEGALS: UL/N SEC 20 T17S R31E **EDDY COUNTY** 

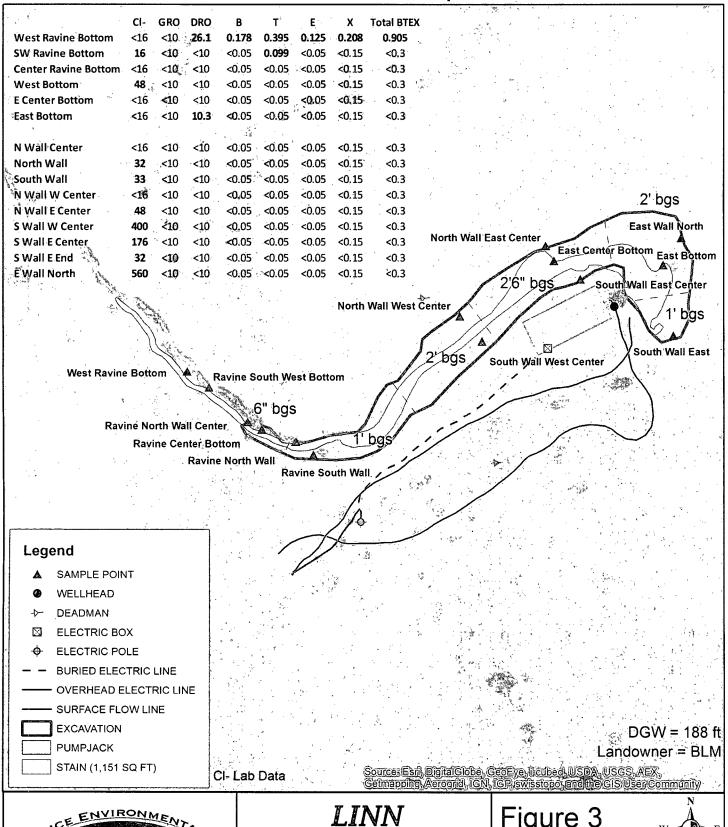
API No. 30-015-26611

## Figure 2



GPS date: 12/5/2012 DH Drawing date: 3/8/13 Drafted by: L: Weinheimer

## **Excavation Map**





## LINN TURNER B #93

LEGALS: UL/N SEC 20 T17S R31E EDDY COUNTY API No. 30-015-26611

# Figure 3

GPS date: 7/23/13 CF Drawing date: 7/30/13 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

RECEIVED

District I.
1625 N. French Dr., Hobbs, NM, 88240
District II.
1301 W. Grand Avenue, Arresia, NM 88210
District III.
1000 Rio Bruzos Road, Aztec, NM 87410
District IV.
1220 St. St. Francis Dr., Santo Fe, NM 37505

State of New Mexico Energy Minerals and Natural Resources AUG 2,9 2013

Form C-141 Revised October 10, 2003

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

NMOCTO MA TEST Appropriate District Office in

Release Notification and Corrective Action **OPERATOR** initial Report Final Report Contact: Joe Hernandez Name of Company: Linn Operating Address: 2130 W. Bender Hobbs, NM 88240 Telephone No.: 575-738-1739. Facility Type: Oil Producer Facility Name: Turner B.93

									= -		
Surface Ow	ner: Feder	al		Mineral C	ivner: F	ederàl.	·		API No	.:3001526	
		-		LÖCA	TION	OF REI	LEASE!				·
"Unit Letter " N	Latitude: 32,8159378158125 Longitude: :103,892121078496  NATURE OF RELEASE  NATURE OF RELEASE  NATURE OF RELEASE  Volume Recovered: 0  Date and Hour of Occurrence:: 127/37212 - 213/37999   12/372012 - 22999   12/372012 - 23999   12/372012 - 23999   12/372012 - 22999   12/372012 - 23999		·Ęddy·								
	•		Latite	ude: 32,815937	§15 <u>81</u> 2:	Longitud	e: -103.8921210	078496			·
				NAT	ÜŘE	ÒF RELI	EASE				
Source of Re	lease:!Ştuff	ng bóx -			- 4	12/3/2012	1:30pm	ěti 📜			scovery:
Was_Immedia	ale Notice C	Jiven? ∑	Yes 🖸	No D Not Re	equired	If YES, To Terry Greg				1	
Was a Water	course Read	ched? '⊡	Yes 🗵	Î-Nó		MES, MO	plume Impacting t	lie Wate	ercourse.		· · · · · · · · · · · · · · · · · · ·
If a Watercoo	irsė was Im	pacted; Descr	ibe Fully.*	<del>.</del>		<u> </u>	<u> </u>				
TO VERIFY TURN WEL	ie welle L'Off and	WAŞ LEÂKİ OPAÇK WEL	NG) DRO LL TÚRN	VE TO LOCATIO ED WELL ON.	ON AND	ŊŊŶŦĬĊĔŅ	VATER ÖN GRÖ	UNDIC	ŎMĬŅĠŢŌſ	ŲŢŌF ŴĘ	ŢĻĻ PĄCKIŅG
Describe Are CONTAMIN	a Affectéd ATED;DÍR	and Cleanup A	Action Tak IT ON PI	en.*: From well LE ON SIDE OF	liead flui LOCAT	id ran N205ii JON,	hẹn.ŞW 70° (ở sw.	.corner (	of loc. spill	was 2/x70"	PICKED UP
-											•
regulations a public health sliould their o or the enviro	il operators for the envi operations h mient: In a	are required to ronnent. The lave failed to delition, NMC	o report ar acceptant adequately OCD accep	id/or file certain per of a C-141 reportant	cleáse no ort by the emediate	ntifications à NMOCD m contaminat	nd perform correct arked as Himal R ion that pose a thr	sango a shou <sub>ff</sub> d sins aci	ions for reli loes not reli round water	enses ivhiel icve the ope r. surface w	o may endanger erator of liability rater: human/health
'Ŝignature:	12				i		OIL CON	SERV	ATION.	DIVISI	<u>ON.</u>
10		ındez				Approved by	District Supervis	orSign	ed By	1/1/1	Burne
						Approval Da	AUG 2,9 20	13.	Êxpiration.	Ďátě:,	
Date: 12/10/2	201.2	_ P	hone: 575	- <b>9</b> 42-9492:		Remediatio	n per OCD Rale	S& Guid	delinés; &	311	0 🗓; O=19 10
2 2	2 17 775	4	```			PRO	POSAL NO LATE	RATHA	N.	× /(5	AS TOWN



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



December 17, 2012

BRUCE BAKER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

112 W, TAYLOR

**HOBBS, NM 88240** 

RE: TURNER B #93 A.D.

Enclosed are the results of analyses for samples received by the laboratory on 12/10/12 9:20.

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> 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. 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 BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

12/10/2012

Sampling Date:

12/05/2012

Reported:

12/17/2012

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

#### Sample ID: PT. 1 @ 6" (H202958-01)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2012	ND	2.07	104	2.00	12.6	
Toluene*	<0.050	0.050	12/13/2012	ND	2.28	114	2.00	11.9	
Ethylbenzene*	<0.050	0.050	12/13/2012	ND	2.22	111	2.00	12.2	
Total Xylenes*	<0.150	0.150	12/13/2012	ND .	6.64	111	6.00	12.8	
Total BTEX	<0.300	0.300	12/13/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIL	120 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	9600	16.0	12/13/2012	ND	416	104	400	7.41	
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	12/12/2012	ND	180	90.0	200	0.603	
DRO >C10-C28	<10.0	10.0	12/12/2012	ND	198	98.8	200	0.693	
Surrogate: 1-Chlorooctane	83.2	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	96.1	% 63.6-15	4						

#### 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



RICE ENVIRONMENTAL CONSULTING & SAFETY

BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To: (575) 397-1471

Received:

12/10/2012

Sampling Date:

12/05/2012

Reported:

12/17/2012

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 2 @ 6" (H202958-02)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2012	ND	2.07	104	2.00	12.6	
Toluene*	<0.050	0.050	12/13/2012	ND	2.28	114	2.00	11.9	
Ethylbenzene*	<0.050	0.050	12/13/2012	ND	2.22	111	2.00	12.2	
Total Xylenes*	<0.150	0.150	12/13/2012	ND	6.64	111	6.00	12.8	
Total BTEX	<0.300	0.300	12/13/2012	ND					
Surrogate: 4-Bromofluorobenzene (PIL	116%	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	3920	16.0	12/13/2012	ND	416	104	400	7.41	
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	12/12/2012	ND	180	90.0	200	0.603	
DRO >C10-C28	26.9	10.0	12/12/2012	ND	198	98.8	200	0.693	
Surrogate: 1-Chlorooctane	89.8	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	99.3	% 63.6-15	4						

#### 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 valved 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 E. Keene



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

12/10/2012

Sampling Date: Sampling Type: 12/05/2012

Reported:

12/17/2012

Sampling Condition:

Soil Cool & Intact

Project Name: Project Number: TURNER B #93 A.D. NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 3 @ 6" (H202958-03)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/13/2012	ND	2.07	104	2.00	12.6	
Toluene*	<0.050	0.050	12/13/2012	ND	2.28	114	2.00	11.9	
Ethylbenzene*	<0.050	0.050	12/13/2012	ND	2.22	111	2.00	12.2	
Total Xylenes*	<0.150	0.150	12/13/2012	ND	6.64	111	6.00	12.8	
Total BTEX	<0.300	0.300	12/13/2012	ND					
Surrogaie: 4-Bromofluorobenzene (PIL	115 %	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	3880	16.0	12/13/2012	ND	416	104	400	7.41	
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	12/12/2012	ND	180	90.0	200	0.603	
DRO >C10-C28	<10.0	10.0	12/12/2012	ND	198	98.8	200	0.693	
Surrogate: 1-Chlorooctane	81.8	% 65.2-14	o .						
Surrogate: 1-Chlorooctadecane	94.8	% 63.6-15	4						

#### 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 D. Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY **BRUCE BAKER** 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

12/10/2012

Sampling Date:

12/05/2012

Reported:

12/17/2012

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 4 @ 6" (H202958-04)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/14/2012	ND	2.07	104	2.00	12.6	
Toluene*	<0.050	0.050	12/14/2012	ND	2.28	114	2.00	11.9	
Ethylbenzene*	<0.050	0.050	12/14/2012	ND	2,22	111	2.00	12.2	
Total Xylenes*	<0.150	0.150	12/14/2012	ND	6.64	111	6.00	12.8	
Total BTEX	<0.300	0.300	12/14/2012	ND		•			
Surrogate: 4-Bromofluorobenzene (PIL	115 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	1120	16.0	12/13/2012	ND	416	104	400	7.41	
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	12/12/2012	ND	180	90.0	200	0.603	
DRO >C10-C28	<10.0	10.0	12/12/2012	ND	198	98.8	200	0.693	
Surrogate: 1-Chlorooctane	80.6	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	92.7	% 63.6-15	4						

#### 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 competion of the applicable service. In no event shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after competion of the applicable service. In no event shall be for incidental 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



#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference

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

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

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

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

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive 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 E. Keene

#### 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						100. 1		·B	ILL	L:70:						ANAI	LYSIS	RE	QUE	ST			
Project Mänage	r Gwic Buler .						P.O				-						,							
Address:							Cor	npa	ny:				1		١.		.S							
City:	State: NM:	'Zip	: 88	240	<u> </u>		Atti	n:						1			<u>ō</u>		1	'				
Phone #:	Fax #:						Àdo	ires	s:						] '		7	].						
Project #::	Project Owner	ri.					City	133					ان	Σ		エ	/S							
Project Name:	Turner by 92 dio						Sta	té::		Ži	ip:		ğ	8015	l-xi	ᇤ	Ö	in	ľ					
Project Locatio	ñ:						Pho	one	#:				] <u>Ş</u>	ľò	BTEX	S	ati	TDS						
Sampler Name:	Dikston throng						Fax						Chlorides	T	В	X	O	F		ļ				
FOR LAGUSE ONLY		)OMP:	.se	TER !	MATE	HX		PRE	SER	<u>-</u>	SAMPLI	NG	S	TPH		Texas	Complete Cations/Anions			,				
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER SOIL	SĽÚDGÉ	iek:	ACID/BASE:	ICE / COOL	ER.			ŀ		!		Con							
1120,2956		<u>©</u>	生	GR	₹ S		5	Ş.	빌	5	DATE'	TIME						<u> </u>			ļ	•.	<u> </u>	ļ
. 15	PT. 166"	- 12	.		ا تين	-	1	_	5-		9-5177.		1-	10	1	ļ	<u>'</u>	ļ.—.	ļ.——	ــــــــــــــــــــــــــــــــــــــ		 		<u> </u>
27	121.31. C 6.	16.	-			-		-	•	- /-	1-5/2	4100	1	2/2	1 300	ļ	ļ	<b> </b>			ļ <u></u>			ļ
<u></u> 5	12120 C. 6	1 67	-		(A)	+-	-		: -		2-572		1/2	100	200		ļ	<u> </u>		[ <del></del>				l
\$-(1	77,20					-			-	- -		43.70	<del>"</del> -		-	<u> </u>				-		ļ	<u></u>	
		1	1-	<u> </u>		-		+	-		·					ļ	<del> </del>	-		<u> </u>				1
	<u></u>	1	<b>-</b>	÷				7	-	- -				ļ					-					
				-								<u> </u>	1		-									
, 4			<u>.</u>																		,		-	
				. 4												]				<u> </u>		<u> </u>	<u> </u>	
strutyses. All claims include service. In no event shall C	nd Demages, Cardonile bookly and chantle evolution cernedy (of ing those for negligenue and eigh other came, wholevery shall be andinal be liable for incidental or consequental chimagies, (which ing out of or, related to the performance of cervices herounker by	deeme	is walv ut limit	ed earli	ess ninda ja w Jusiness interi	ricing and uppons, i	recent	ed by	Cardin Lioss o	ng mega ng maga	n 30 days oft sincurred by	e completien of client, its subsid	Via applica aries	mp.	_									
Relinquished B			cei	_	Ву:,		1.			19-4		Phone Re Fax Resu REMARK	sult:	□ .Ye		No No		Phone Fax#:						ey managhe artico
Relinguished B	/ II - I - II - II - II - II - II - II	Ř	ger	red		72.2		<u> </u>	<u> </u>	G/:/		émail												
	:- (Circle One); Bus Other:	<u> 12.</u>		,	Sample C Cool / In ② Yes [	tact Yes			CHEC	CKE NA	D BY:  s)	Zcon												

=426

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

Appendix C Augur Sampling Lab

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



March 07, 2013

BRUCE BAKER

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

112 W. TAYLOR

HOBBS, NM 88240

RE: TURNER B #93 A.D.

Enclosed are the results of analyses for samples received by the laboratory on 03/01/13 9:05.

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> 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. Keine

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

03/07/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 2 @ 1' 6" (H300534-01)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	118 9	% 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: DW					
Analyte	Resuit	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD .	Qualifier
Chloride	272	16.0	03/05/2013	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	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	
Surrogate: 1-Chlorooctane	98.3	% 65.2-14	10						
Surrogate: 1-Chlorooctadecane	108 9	% 63.6-15	i <i>4</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 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 Di Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To: (575) 397-1471

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

DTEV 00310

03/07/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

#### Sample ID: PT. 2 @ 2' 6" (H300534-02)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	114 9	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	03/05/2013	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	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	
Surrogate: 1-Chlorooctane	90.7	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	102 9	63.6-15	4						

Analyzed By AD

#### 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



RICE ENVIRONMENTAL CONSULTING & SAFETY **BRUCE BAKER** 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Annih mad Dun AD

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

03/07/2013

Sampling Type:

Soil

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Name: Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 2 @ 3' 6" (H300534-03)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	1149	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	03/05/2013	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	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	
Surrogate: 1-Chlorooctane	89.9 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	99.5 9	63.6-15	4						

#### 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 & Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY **BRUCE BAKER** 112 W. TAYLOR HOBBS NM, 88240

Fax To: (575) 397-1471

Received: Reported: 03/01/2013

03/07/2013

Project Name: Project Number: TURNER B #93 A.D.

Project Location:

NONE GIVEN NOT GIVEN

Sampling Date:

02/26/2013

Sampling Type: Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

#### Sample ID: PT. 3 @ 1' 6" (H300534-04)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIC	104 :	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	'kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1100	16.0	03/05/2013	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	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	19.4	10.0	03/05/2013	ND	194	96.9	200	5.69	
Surrogate: 1-Chlorooctane	91.1	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	104	% 63.6-15	4						

#### 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 D. Kune



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

03/07/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 3 @ 2' 6" (H300534-05)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	116%	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	03/05/2013	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	03/05/2013	ND	200	99.8	200	3.91	
DRO >C10-C28	<10.0	10.0	03/05/2013	ND	194	96.9	200	5.69	
Surrogate: 1-Chlorooctane	86.3 9	% 65.2-14	0			.,			
Surrogate: 1-Chlorooctadecane	92.8 9	63.6-15	4						

#### 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 & Kune



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

03/07/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Type: Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

#### Sample ID: PT. 3 @ 3' 6" (H300534-06)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	116%	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: DW					·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/05/2013	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	03/06/2013	ND	216	108	200	1.28	
DRO >C10-C28	<10.0	10.0	03/06/2013	ND	216	108	200	3.24	
Surrogate: 1-Chlorooctane	83.8 9	65.2-14	0						
Surrogate: 1-Chlorooctadecane	100 %	63.6-15	4						

#### 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 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 subsidianes, 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 L. Keine



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER

112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

03/07/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

#### Sample ID: PT. 4 @ 1' 6" (H300534-07)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	<0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	1169	6 89.4-12	6	==					
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	03/05/2013	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	03/06/2013	ND	216	108	200	1.28	
DRO >C10-C28	<10.0	10.0	03/06/2013	ND	216	108	200	3.24	
Surrogate: 1-Chlorooctane	77.4 9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	93.6	% 63.6-15	4						

#### 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 & Keene



RICE ENVIRONMENTAL CONSULTING & SAFETY BRUCE BAKER 112 W. TAYLOR HOBBS NM, 88240

Fax To:

(575) 397-1471

Received:

03/01/2013

Sampling Date:

02/26/2013

Reported:

03/07/2013

)<u>.</u>

Soil

Project Name:

TURNER B #93 A.D.

Sampling Type: Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: PT. 4 @ 2' (H300534-08)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	03/07/2013	ND	1.99	99.3	2.00	2.68	
Toluene*	<0.050	0.050	03/07/2013	ND	2.00	100	2.00	0.305	
Ethylbenzene*	<0.050	0.050	03/07/2013	ND	1.94	97.1	2.00	0.409	
Total Xylenes*	< 0.150	0.150	03/07/2013	ND	6.06	101	6.00	3.11	
Total BTEX	<0.300	0.300	03/07/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	115 %	6 89.4-12	6						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/05/2013	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	03/06/2013	ND	216	108	200	1.28	
DRO >C10-C28	<10.0	10.0	03/06/2013	ND	216	108	200	3.24	
Surrogate: 1-Chlorooctane	85.8 9	% 65.2-14	0		-		· <u>• • • · · · · · · · · · · · · · · · ·</u>		
Surrogate: 1-Chlorooctadecane	101 %	63.6-15	4						

#### 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 Clardinal 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 to 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.

Celay & Keene



#### **Notes and Definitions**

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

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

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

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

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

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by client find and received by client find and received by client for analyses. All claims, including those for negligence and carry 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 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 identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celeg & Kune

# Laboratories

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

101 East Marland, Hobbs, NM 68240

Company Name	.(675) 393-2326: FAX (575) 393-247 :: Rec <b>.</b>	era a statute and a material representative and the state of the state	BILLYO			-	<del></del>	ANA	LYSIS	RE	QUE	ST.	****		
	Bruce Baken	Miles de la companya del companya de la companya de la companya del companya de la companya de l	P.G. #:	4		;							1		
Address:			Cempany:	,		٠									
City:	:State:	Zip:	Aiini		j.	. 1									
Phone #:-	Fax #:		Address:	juga andrewski articolomical andrewski articolomical andrewski articolomical andrewski articolomical andrewski	.			İ						·	
Project #:	Project Owne		City!.			.	1	ļ		<i>'</i>					
Project Name:	Turner 6#93		State: Zip:												
Project Location	Dakston Harris		Phone #: Fax #:												
Lab I.D.  Hadday	Sample I.D.  PT.2 C 1'6"  PT.2 C 3'6"  PT.3 C 3'6"  PT.3 C 3'6"  PT.3 C 3'6"  PT.4 C 1'6"  PT.4 C 1'6"  PT.4 C 1'6"	A P. C. C. C. C. C. C. CONTAINERS:  OROUNDWATER  WASTEWATER  SI (Ince	PRESERV SAMPL  OTHER:   7:15 10:15 11:00 9:85 10:25 10:35 11:30 9:35	1/	191111111111111111111111111111111111111	[11111 B. 75)		2,							
PLEASE MOTE - LOUIS OF	nyl Domayes, Curishal's liability and cacitàs exclusiva remety (di	any etain of sign whether paged in contra	ez or trat, shell ne litrited to the nament ne	in by the stient to	i.										
analyses. All claims fricted	ing those to nogligance mot any other couse whatsoever shall be bridened be thatle for incidental or consequental contrages including the first of the contract to the positionnote of services flateured by	deemed wilved unless made in writing a demed with the contract of the contract	nd trockydd dy Calddol within 30 days affi s leth at usp, of lose of profit bigared by	r completion of the	na ppplical Hide,				4 and 2 d						
Relinguished B	Jan 3113	Regeived By:	RILLON CHECKED BY:	Phone Re Fax Resul REMARKS J-fack 13, ba	sult:	Q Yes		o Add'l			Nonemony is a second		Magazza de la composition della	grander (Marie Marie Mar	



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



July 30, 2013

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

RE: TURNER B #93 A.D.

Enclosed are the results of analyses for samples received by the laboratory on 07/24/13 8:15.

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.

Wite South

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,

Mike Snyder

Organic Supervisor



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

Fax To: (

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: WEST RAVINE BOTTOM (H301730-01)

BTEX 8021B	mg/	'kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.178	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	0.395	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	0.125	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	0.208	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	0.905	0.300	07/26/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 5	% 89.4-12	6						
Chloride, SM4500CI-B	mg/	'kg	Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	07/25/2013	· ND	432	108	400	7.69	
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	07/24/2013	ND	173	86.7	200	1.54	
DRO >C10-C28	26.1	10.0	07/24/2013	ND	174	86.9	200	0.263	
Surrogate: 1-Chlorooctane	94.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	118 5	% 63.6-15	4						

#### 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, sucliness interruptions, fosts of profits 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,

with South



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

#### Sample ID: RAVINE SW BOTTOM (H301730-02)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	0.099	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	102 %	6 89.4-12	6						
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					<u> </u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	07/25/2013	ND	432	108	400	<b>7.</b> 69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	76.2 9	% 65.2-14	0			<del></del>			
Surrogate: 1-Chlorooctadecane	86.49	63.6-15	4						

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 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 Laboratoness.

with South



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

#### Sample ID: RAVINE N WALL CENTER (H301730-03)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	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	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	85.4	% 65.2-14	0	,					
Surrogate: 1-Chlorooctadecane	104	% 63.6-15	4						

#### 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 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 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 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.

wite South



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

Fax To:

(575) 397-1471

Received: Reported: 07/24/2013

07/30/2013

TURNER B #93 A.D.

Project Number: Project Location:

Project Name:

NONE GIVEN

NOT GIVEN

Sampling Date:

07/23/2013

Sampling Type: Soil

Cool & Intact

Sampling Condition:

Sample Received By:

Jodi Henson

#### Sample ID: RAVINE CENTER BOTTOM (H301730-04)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	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	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	69.9	% 65.2-14	10						
Surrogate: 1-Chlorooctadecane	78.7	% 63.6-15	14						

Cardinal Laboratories \*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and cleint'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,

muse South



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

Soil

07/30/2013

Sampling Type:

Cool & Intact

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

## Sample ID: RAVINE NORTH WALL (H301730-05)

BTEX 8021B	mg,	'kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	105	% 89.4-12	6						
Chloride, SM4500Cl-B	·		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	77.3	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	88.5	% 63.6-15	4						

## 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 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.

whe South



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

Fax To: (575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

## Sample ID: RAVINE S WALL (H301730-06)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 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	32.0	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	85.7	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	108	% 63.6-15	4						

## 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 familiation, business interruptions, loss of use, or loss of use, or loss of use, or 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.

wite South



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: WEST BOTTOM (H301730-07)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	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	48.0	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86,4	200	7.47	
Surrogate: 1-Chlorooctane	76.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	94.7	% 63.6-15	4			•			

## Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's Itability 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 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.

whi South



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

Fax To:

(575) 397-1471

Received: Reported: 07/24/2013

07/30/2013

Project Name: Project Number: TURNER B #93 A.D.

Project Location:

NONE GIVEN

Sampling Date:

07/23/2013

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

## Sample ID: N WALL W CENTER (H301730-08)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	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	<16.0	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	81.4	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	97.2	% 63.6-15	4						

## 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 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 identified above. This report shall not be reproduced except in full with written approval of Cardinal aboratories.

mile Sough



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

Fax To: (575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

## Sample ID: S WALL W CENTER (H301730-09)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	< 0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	< 0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 %	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	400	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	85.0	65.2-14	0						
Surrogate: 1-Chlorooctadecane	103 9	63.6-15	4						

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

wite South



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

(575) 397-1471 Fax To:

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

## Sample ID: S WALL E CENTER (H301730-10)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/26/2013	ND	1.82	90.9	2.00	6.66	
Toluene*	<0.050	0.050	07/26/2013	ND	1.82	91.1	2.00	6.58	
Ethylbenzene*	<0.050	0.050	07/26/2013	ND	1.93	96.4	2.00	6.85	
Total Xylenes*	<0.150	0.150	07/26/2013	ND	5.81	96.9	6.00	6.24	
Total BTEX	<0.300	0.300	07/26/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 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	176	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	79.9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	99.3	% 63.6-15	4						

#### 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 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 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 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,

mute South



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

Fax To: (575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

## Sample ID: N WALL E CENTER (H301730-11)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.74	
Toluene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.64	
Ethylbenzene*	< 0.050	0.050	07/29/2013	ND	1.91	95.6	2.00	2.12	
Total Xylenes*	<0.150	0.150	07/29/2013	ND	5.75	95.8	6.00	1.35	
Total BTEX	<0.300	0.300	07/29/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIE	103 9	% 89.4-12	6						
Chloride, SM4500Cl-B	SM4500Cl-B mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	76.9	% 65.2-14	0						

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

mile Sough



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

### Sample ID: E CENTER BOTTOM (H301730-12)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.74	
Toluene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.64	
Ethylbenzene*	<0.050	0.050	07/29/2013	ND	1.91	95.6	2.00	2.12	
Total Xylenes*	<0.150	0.150	07/29/2013	ND	5.75	95.8	6.00	1.35	
Total BTEX	<0.300	0.300	07/29/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 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	07/25/2013	ND	432	108	400	7.69	
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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	72.5	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	81.9	% 63.6-15	4						

### 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.

with South



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

## Sample ID: E WALL NORTH (H301730-13)

BTEX 8021B	mg/l	g	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.74	
Toluene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.64	
Ethylbenzene*	<0.050	0.050	07/29/2013	ND	1.91	95.6	2.00	2.12	
Total Xylenes*	<0.150	0.150	07/29/2013	ND	5.75	95.8	6.00	1.35	
Total BTEX	<0.300	0.300	07/29/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	104 %	89.4-12	6		-				
Chloride, SM4500CI-B	, ,		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	07/25/2013	ND	432	108	400	7.69	
TPH 8015M	mg/l	(g	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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	67.0 %	65.2-14	10						11.02.7
Surrogate: 1-Chlorooctadecane	77.49	63.6-15	i <i>4</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 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.

muse South



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

Fax To:

(575) 397-1471

Received:

07/24/2013

Sampling Date:

07/23/2013

Reported:

07/30/2013

Sampling Type:

Soil

Project Name:

TURNER B #93 A.D.

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

## Sample ID: EAST BOTTOM (H301730-14)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.74	
Toluene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.64	
Ethylbenzene*	<0.050	0.050	07/29/2013	ND	1.91	95.6	2.00	2.12	
Total Xylenes*	<0.150	0.150	07/29/2013	ND	5.75	95.8	6.00	1.35	
Total BTEX	<0.300	0.300	07/29/2013	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	<16.0	16.0	07/25/2013	ND	432	108	400	7.69	
TPH 8015M	mg/	/kg	Analyze	ed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	10.3	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	67.7	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	79.9	% 63.6-15	4						

## Cardinal Laboratories

\*=Accredited Analyte

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

mhe Single



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

Fax To: (575) 397-1471

Received: Reported: 07/24/2013

07/30/2013

TURNER B #93 A.D.

Project Number: Project Location:

Project Name:

NONE GIVEN

NOT GIVEN

Sampling Date:

Sample Received By:

Date: 07/23/2013

Sampling Type:

Sampling Condition: Cool & Intact

Jodi Henson

Sample ID: S WALL E END (H301730-15)

BTEX 8021B	mg/	kg	Analyze	d By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.74	
Toluene*	<0.050	0.050	07/29/2013	ND	1.80	89.9	2.00	2.64	
Ethylbenzene*	<0.050	0.050	07/29/2013	ND	1.91	95.6	2.00	2.12	
Total Xylenes*	<0.150	0.150	07/29/2013	ND	5.75	95.8	6.00	1.35	
Total BTEX	<0.300	0.300	07/29/2013	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 %	% 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	07/25/2013	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	07/25/2013	ND	168	84.2	200	6.00	
DRO >C10-C28	<10.0	10.0	07/25/2013	ND	173	86.4	200	7.47	
Surrogate: 1-Chlorooctane	134 9	% 65.2-14	0						
Surrogate: 1-Chlorooctadecane	152 9	% 63.6-15	4						

## 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 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 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.

Me Sough



## **Notes and Definitions**

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

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

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

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

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

Cardinal Laboratories \*=Accredited Analyte

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

wite Sough



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	- Sum bushe					:				Į	3/L	1. 10							ANA	LYSI	S RI	EQI	UES	ST.			
Project Manage	r:							P.O.	.#:													Г					
Address:								Con	npa	ny:																	
City:	State:	Zip	:					Attn	1:									·					1				
Phone #:	Fax #:							Add	lres	s:																	
Project #:	Project Owner	:						City	:										1						i		
Project Name:	· · · · · · · · · · · · · · · · · · ·							Stat	e:			Zip:	,					1			'						
Project Location	1: Turner B #93							Pho	ne	#:		· -			-					1			ı				
Sampler Name:	O —							Fax	#:												'	1.					
FOR LAB USE ONLY		٠.			MA	TRIX			PRE	SEF	V.	SAMPL	ING		4		ر ا										
	e e	(C)OMP	<sub>G</sub>	er	_			ı	٠		l				Chleride	I	B TEX			1.			.				
	0	0	# CONTAINERS	GROUNDWATER	WASTEWATER				úi	_	ı				کے	Hal	80	1			1.	1		-		٠.	
Lab I.D.	Sample I.D.	BOR	¥	N N	EX EX		щ	~	3AS	ğΙ	اي				М	1.		1	-				·				
UP DITO		(G)RAB	S S	စ္က	WAST	OIL OIL	SLUDGE	OTHER:	ACID/BASE:	<u>ш</u>	뿔	DATE	TIM	_		٠.		·					ļ	:			
H301730	-11 \ 0 \ P \	6	#	Ö	<u>≷   ઝ</u>	ō	<u>.</u>	0	Ă	읙	의	1-23-266		_	*	~	<u>×</u>	┼	+	╫	+	+					
1	West Ravine Bottom Ravine South West Bottom	G	-	$\vdash$	K	-		-	-	+	1	R S	9:35		<u>~</u>	<u></u>		├	<del> </del>	-	<del> </del>	╁	$\dashv$			43.	
3		G		$\vdash$	1			1	+	+	1	tr. S	9:50		×	≺	- · · · ·	<del> </del>	+	╁┈	1	+					
4	Ravine North Wall Center Ravine Center Bottom	G	7		K				1	1	7	rr '	10:15		×	$\frac{1}{\lambda}$	<u> </u>	<del> </del>	1	<del> </del>	1	✝	$\neg \dagger$				
3	Ravine North Wall	6	1		· <		-	1		1	1	". "·	10:30		×	*	*		$\top$	<u> </u>	1	十				·	
6	Pavine South Wall	G	7		K	-						16.			×	*	7			1	1	1					
7	West Botton	6	0		Į,							*			×	*	. >										
3	North Wall West Center	6	1	Ш	. 🗡							r	11:15	m	*	ታ	×										
9	South wall west center	Œ	4		I	ļ		_	_	$\perp$			11:20 F	-	×	メ	1			<u> </u>		1		·	·		
10	South wall East Center	6	0		4	15-						· · · · · · · · · · · · · · · · · · ·	11:30 Y			-⊀	<b>X</b>	<u> </u>	L	<u> </u>							
analyses. All claims include	nd Damages. Cardinal's liability and client's exclusive remedy for a ng those for negligence and any other cause whatsoever shall be ardinal be liable for incidental or consequental damages, including	deemed	d waive	ed unle	ss made l	n writin	ng and	receive	ed by	Cardi	nal wi	ithin 30 days af	ter completio	of th	e applicat	ita								*		٠.	
affiliates or successors arisi	ng out of or related to the performance of services hereunder by C	ardinal	, regai	dlese o	whether	such :	laineis	balled	lupon	any	of the	above stated	to 10 anozes	erwis	e.												-
Relinquished B	y: $7^{24}$ $7^{24}$ $7^{20}$ $7^{3}$	Ke	Sei)	red I	By	./					, e d'		Phone Fax Re			☐ Ye		No No		Phone Fax #:	#:	·					
16/	1 11 Time: 7/30	16	N		W	1/	16		/				REMA											-			
Relinquished B	Date:/24/17	Re	cei	ved/	Ву:	1	1	•					1/40	mφ	la:n	(6) (6)											
- Y A111	Time (18		0	d	1.	1	d	ıl	Λ	09	1/1		lw	lint	بدين	er()	- ec										
Delivered By	: (Crcle One)	14	بص		iample			n	<u>حد</u>	HE	K CKI	ED BY:	(cf)	ore	s @	rice	- ec	5.(8	m								
<i>V</i> (	<i>R</i> 7 ·	3.1	ور	. (	Cool □Ye	Inta 9	ct Yes			1	njti	als)	1		-												
Campier - 010		J. 6			Ye		No			4	1	4	<u> </u>														

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to (575) 393



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

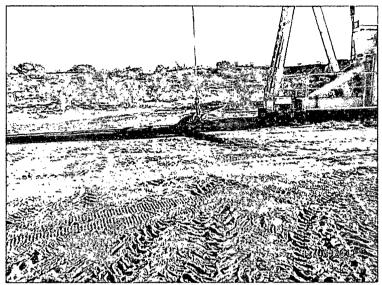
Dinn Energy	BILL J.C.	ANALYSIS REQUEST
Project Manager:	P.O. #:	
Address:	Company:	
City: State: Zip:	Attn:	
Phone #: Fax #:	Address:	
Project #: Project Owner:	City:	
Project Name:	State: Zip:	
Project Location: Turner 13 ± 93	Phone #:	
Sampler Name: Chris Flores	Fax #:	Chlavide TPH B TEX
FOR LAB USE ONLY MATRIX	PRESERV SAMPLING	
(C)OMP ERS ATER		Chlb.
(C) (C) TER		
Lab I.D. Sample I.D.	A SA SE	
H301130  (G)RAB OR (C)OA  WASTEWATER  SOIL  OIL	OTHER: OTHER: OTHER: OTHER: OTHER:	
11 North Wall East Center G / X  12 Fast Conter Battam G / X	1-23-7613 /1:40 Am	·
	11 12:40 pm	
13 East wall North G / X	11 11 10 pm	
15 South Wall East End G / /	1' 1:20 pm	
PLEASE NOTE: Liability and Damages. Cardinal's Bability and client's exclusive remedy for any claim arising whether based in control analyses. All claims including those for negligence and any other cause what over shall be deemed waived unless made in writing	and received by Cardinal within 30 days after completion of t	the applicable
service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business jaterruptor affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such da	m is pased upon any of the above stated reasons or otherwi	ise.
Relinquished By:  Date: Received By:  7-24-2013	Phone Re Fax Resu	ilt: □ Yes □ No Add'l Fax#:
Time: 7:30	REMARK	
Relinquished By: Date: 7/24//3 Regelver By:	Jkame	plain
Times-1, C COOL A	011/09/1 1410:01	plain heimer
Belivereit By: (Circle One) Sample Cond	ition CHECKED BY: I C	es @ rice -ecs.com
Sampler - UPS / Bus - Other: 32° Cool Intact	es (India) Ctlore	3 6 1100 -503 · Com
L No L I	<u> </u>	

Appendix E
Photo Documentation

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

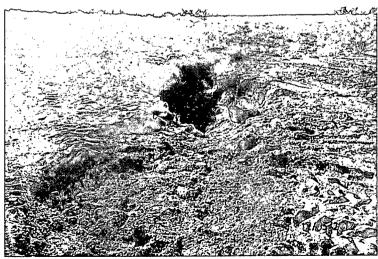
# Linn Turner B #93 AD

Unit Letter N, Section 20, T17S, R31E



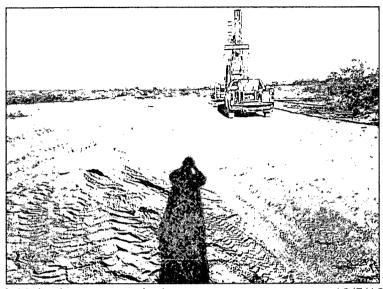
Initial release area, facing south

12/5/12



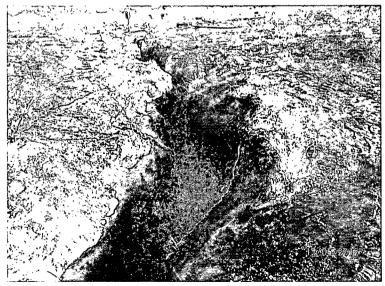
Initial release area, facing southwest

12/5/12



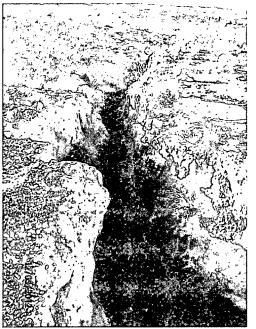
Initial release area, facing east

12/5/12

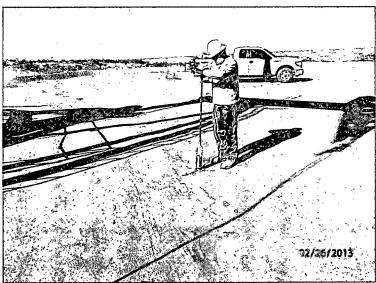


Initial release area, facing east

12/5/12

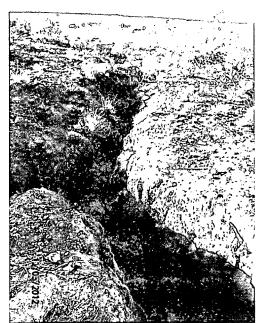


Initial release area, facing west 12/5/12



Hand auguring release, facing west

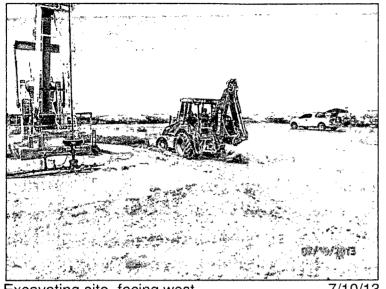
2/26/13

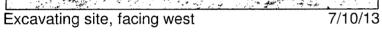


Initial release area, facing west 12/5/12



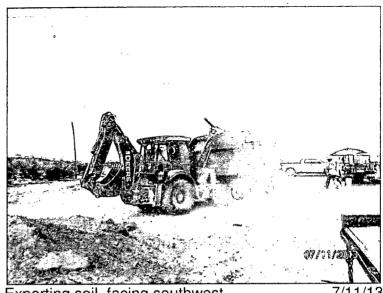
Plugging the augur in total with bentonite, facing east 2/26/13



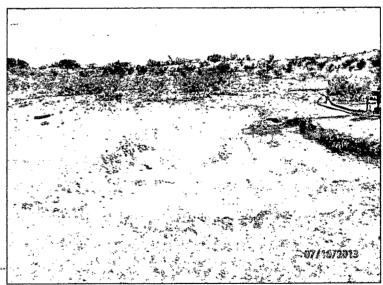




Collecting samples, facing south 7/11/13

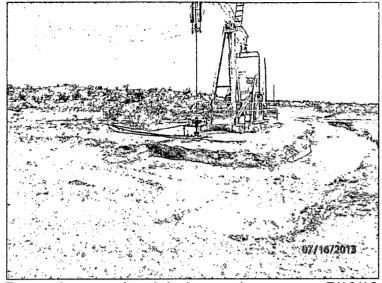


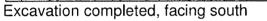
Exporting soil, facing southwest



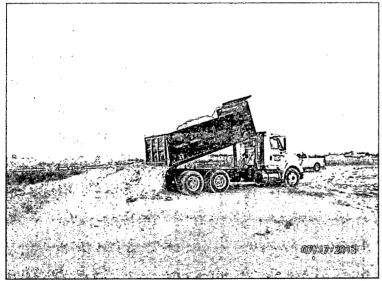
Excavation completed, facing southeast

7/16/13



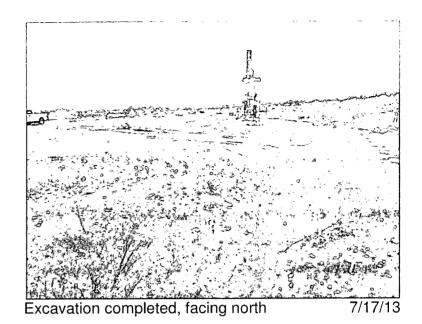






Importing soil, facing northwest

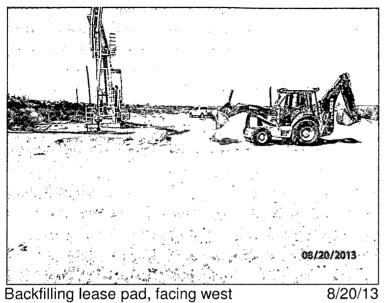




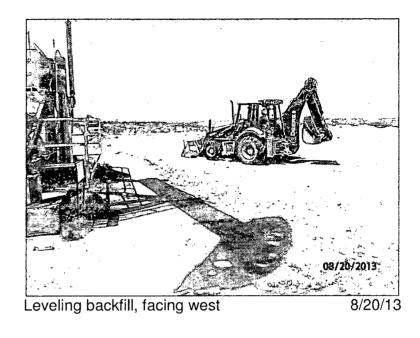


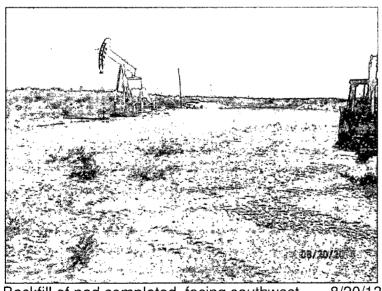
Backfilling site with berms in evidence in the background, facing north

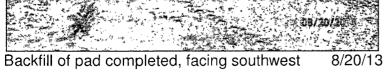
8/20/13

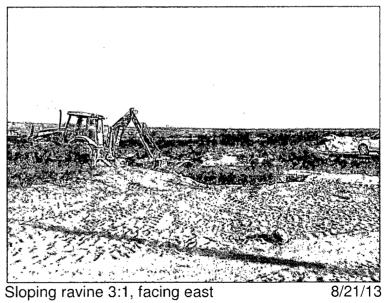




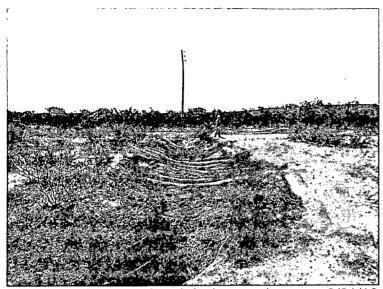


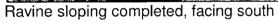






Sloping ravine 3:1, facing east

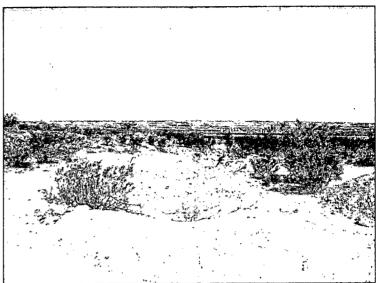








Adding soil amendments to the site, facing east 8/23/13



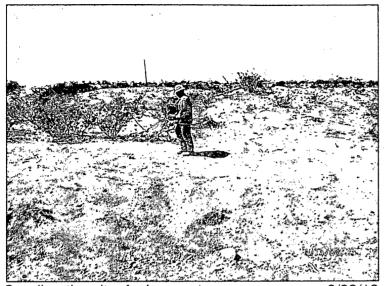
Ravine sloping completed, facing north

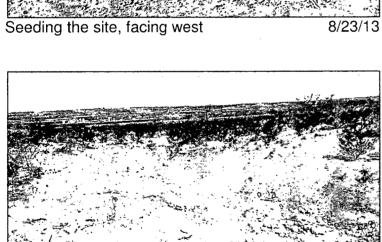
8/21/13



Tilling in soil amendments, facing north

8/23/13

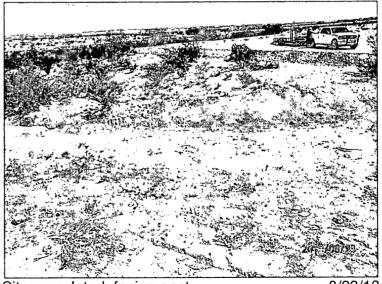




Site completed, facing north 8/23/13



Raking the seed in, facing north 8/23/13



Site completed, facing east 8/23/13

Appendix F Final 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
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

SEP 1 9 2013

RECEIVED

Form C-141 Revised August 8, 2011

NMOOD: APTICAL Advanced with 19.15.29 NMAC.

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

Santa Fe, NM 87505

Paleage Natification and Convective Action

			Kele	ease Notific	ation	and Co	rrective A	ction	l				
						<b>OPERA</b> T	☐ Initia	al Report	$\boxtimes$	Final Report			
Name of Company Linn Energy					Contact Brian Wall								
					7	Telephone No. (806) 367-0645							
Facility Name Turner B 93						Facility Type Oil Producer							
Surface Owner BLM Mineral Owner						DIM ADIN 2001/20//11							
Surface Ow	nei blivi		-	Milleral O	wilei i	BLM API No. 3001526611							
LOCATION OF RELEASE													
Unit Letter	Section	Township	Range	Feet from the	North/S	rth/South Line Feet from the E			Vest Line	County			
N	20	17S	31E	1140	F	FSL 2560 FWL Eddy				Eddy			
	20	170			<u>-</u>				, , ,	Eddy			
LatitudeLongitude													
NATURE OF RELEASE													
Type of Rele							Release 4 bbls			Recovered (			
Source of Re	lease Stuff	ing box					lour of Occurrenc	e			Hour of Discovery		
Was Immedia	ate Notice (	liven?				12/3/12 1: If YES, To		ļ	12/3/12	2 pm			
.			Yes [	No Not Re	quired		ston - BLM						
By Whom?	Joe Hernan	dez.				Date and H	lour 12/4/12 3 pr	m					
Was a Water							lume Impacting t		ercourse.				
			Yes 🗵	No									
If a Watercourse was Impacted, Describe Fully.*													
Describe Cau	se of Probl	em and Reme	dial Action	Taken.* Superv	isor rec	eived a call f	rom the chemical	tech the	at the well	was leaking.	Produ	ced water	
				s turned off and th									
Describe Area Affected and Cleanup Action Taken.* The release affected 1,151 sq ft in the lease pad and in the pasture. RECS personnel arrived on site on													
December 5th, 2012 to begin work at the Turner B #93. The release area had already been scraped down six inches, thus samples were taken from the surface of the six inch													
scrape. Four samples were taken throughout the release area and taken to a commercial laboratory for analysis. Laboratory chloride levels were elevated at all four points; however, GRO, DRO and BTEX readings were low. On February 26 <sup>th</sup> , 2013, three of the four points were augured down for depth. These samples were taken to a													
commercial laboratory for analysis. In the three augur points, chloride levels decreased with depth and GRO, DRO and BTEX remained low throughout. On May 3 <sup>rd</sup> , 2013, a Corrective Action Plan (CAP) was submitted to NMOCD and BLM which was approved on May 23 <sup>rd</sup> , 2013. On July 7 <sup>th</sup> , 2013, RECS personnel were on site to begin the											ay 3 <sup>rd</sup> , 2013, a		
				CD and BLM which d down to 1 ft bgs ar									
				ield samples returned									
approved facili	ity for dispos	al. BLM gave	verbal perm	ission on July 22 <sup>nd</sup> , 2	2013 for I	RECS to take t	final samples of the	excavati	on. On July	23rd, 2013 fin	al sampl	les were taken	
				aboratory for analysi EX readings. RECS								1	
backfill the site	e. BLM gave	permission to	backfill the	site on July 31st, 201	3 and Ni	MOCD gave p	ermission to backfil	ll the site	on August 9	oth, 2013. On	August 2	21 <sup>st</sup> , 2013, the	
				d the site with 216 y			caliche. The ravin	e sidewa	lls were kno	cked down to	a 3 to 1	slope. On	
				is true and compl			knowledge and u	nderstar	nd that nurs	mant to NM	OCD ru	les and	
regulations al	ll operators	are required t	o report ar	id/or file certain re	elease no	e dest of my	nd perform correc	tive act	ions for rel	eases which	may en	danger	
public health	or the envi	ronment. The	acceptano	e of a C-141 repor	rt by the	NMOCD m	arked as "Final R	eport" d	loes not reli	ieve the oper	rator of	liability	
should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other													
				tance of a C-141 r	eport do	es not reliev	e the operator of	responsi	ibility for c	ompliance w	vith any	other	
rederar, state,	federal, state, or local laws and/or regulations.  OIL CONSERVATION DIVISION												
	- (						OIL COM	<u>SER v</u>	ATION	DIVISIC	<u>)                                    </u>		
Signature: Fred B Wall													
						Approved by Environmental Specialist:							
Printed Name: Brian Wall													
Title: Const	ruction For	eman II			A	Approval Dat	e:	;	Expiration	Date:			
E-mail Address: Bwall@linnenergy.com Conditions of Approval:						Attached	Attached						
Date:			Phone	(806) 367-0645									

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

## Bratcher, Mike, EMNRD

From: Lara Weinheimer <|weinheimer@rice-ecs.com>

Sent: Wednesday, September 18, 2013 3:44 PM

To: Bratcher, Mike, EMNRD; Warren, JeanMarie, EMNRD

Cc: 'Wall, Fred'; 'Hack Conder'; 'Jacob Kamplain'

**Subject:** Linn Turner B #93 (2RP-1878) Pages from the Termination Request Report

Attachments: Pages from Linn Turner B #93 (2RP-1878) Termination Request.pdf

Categories: Blue Category

Mike, attached is the verbiage, plats, initial and final C-141s from the Termination Request Report for this site. A hard copy of the entire report will be put in the mail. On Friday's meeting, this will be one of the sites on the agenda to discuss. If you have any questions or concerns, please let us know.

## Thanks!

Lara Weinheimer Rice Environmental Consulting & Safety Project Scientist 419 West Cain Hobbs, NM 88240 (575) 441-0431