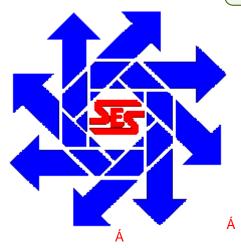
# Breitburn Management Jalmat Trunk Line Work Plan

# Section 14, Township 22S, Range 35EA Lea County, New Mexico

May 12, 2017



**APPROVED** By Olivia Yu at 3:01 pm, Jun 30, 2017

> NMOCD approves of the delineation completed and proposed remediation plan for 1RP-4645 with one condition: confirmatory laboratory analyses of sidewalls for TPH and chlorides. Sample locations must be <= 50 ft. apart.

**Prepared for:** 

Breitburn Management P.O. BOX 678 Andrews, TX 79714

> By: Á

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

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# I. Company Contacts

Representative	Company	Telephone	E-mail
Matt Cottrell	Breitburn	(432) 967-7266	matt.cottrell@breitburn.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

# II. Background

Safety and Environmental Solutions, Inc., hereinafter referred to as (SESI) was engaged by Breitburn to assess a spill on the Jalmat concerning a twenty five (25) bbls. oil and sixty (60) bbls. water release. This site is situated in Lea County, Section 14, Township 22S, and Range 35E.

According to the C-141: approximately twenty five (25) barrels of oil and sixty (60) barrels of water was released when the trunk line going to the battery was shot out. A pasture next to the location was affected. All standing fluid was picked up and samples were collected. A remediation contractor was contacted.

# III. Surface and Ground Water

There is no record of groundwater in the immediate vicinity of the site location. Further research of the New Mexico Office of the State Engineer records indicates the average depth to groundwater for the area to be 185' bgs.

# IV. Characterization

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

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

# V. Work Performed

On March 28, 2017, SESI personnel was onsite at the Brietburn Jalmat Trunk line leak to obtain soil samples from the bottom of the excavation and field test for Chlorides and TPH. Nine soil samples were obtained from different locations and field test for Chlorides. All field test results were greater the 1000 ppm. Soil samples were properly preserved and taken to the SESI lab due to the high winds. Four TPH field test were performed. Soil samples for TPH were numbers SP-4, SP-5, SP-7 and SP-9 where visible Hydro carbons were seen. Soil sample SP-9 TPH test result was 253 ppm and all others were under 100 ppm. The excavation and sample points were mapped using the Juno 3B. The field test results are presented in the table below:

Breitburn Jalmat Trunk Line Field Test Results: 3-28-2017							
SAMPLE ID	Chlorides						
SP-1	5736						
SP-2	1332						
SP-3	6732						
SP-4	2604						
SP-5	2408						
SP-6	4484						
SP-7	4484						
SP-8	7288						
SP-9	1240						

On March 31, 2017, SESI personnel was onsite at the Brietburn Jalmat Trunkline With Blade Trackhoe w/operator and Brietburn personnel to install test trenches to determine vertical extent of contamination. Test trench ten was installed on the southwest side three feet off the pipeline. The test trench was installed to the total depth that the trackhoe could dig at twenty two feet. Soil samples were grabbed at seven, fifteen, feventeen and twenty two feet, and field tested for Chlorides. The trench was then backfilled. Test trench six was installed in the same area of SP-6. The test trench was installed to the total depth that the track hoe could dig, twenty four feet. Soil samples were grabbed at four, ten, fourteen, sixteen, eighteen, twenty, twenty two and twenty four feet. Soil samples were field tested for Chlorides, and the trench was backfilled. Test trench Eight was installed on the area of SP-8 to the depth of ten feet. Soil samples were grabbed at four, six, eight and ten feet and field tested for Chlorides. Photos were taken of the test trenches. All soil samples were properly packaged, preserved and transported to Cardinal Laboratories of Hobbs, NM by chain of custody, and analyzed for TPH(total petroleum hydrocarbons)(Method 8015M), and Chlorides (Method SM4500CI-B). The field test and lab results are recapped in the following tables:

Breitburn Jalmat Trunk Line Soil Sample Results: Field Testing: 4-31-2017							
SAMPLE ID	Chlorides						
TT-6 @ 4ft	1656						
TT-6 @ 10ft	2604						
TT-6 @ 14ft	1152						
TT-6 @ 16ft	1784						
TT-6 @ 18ft	1332						
TT-6 @ 20ft	1540						
TT-6 @ 22ft	1920						
TT-6 @ 24ft	1920						
TT-8 @ 4ft	<124						
TT-8 @ 6ft	352						
TT-8 @ 8ft	124						
TT-8 @ 10ft	<124						
TT-10 @ 7ft	5736						
TT-10 @ 15ft	2408						
TT-10 @ 17ft	2604						
TT-10 @ 22ft	2232						

Breitburn Jalmat Trunk Line										
	Soil Sample Results: Cardinal Laboratories 4-12-2017									
SAMPLE ID	Benzene	Toluene	Ethyl-	Total	Total	Chlorides	TPH	TPH	EXT	
			benzene	Xylenes	BTEX		GRO	DRO	DRO	
BH-1 24-25'	<0.050	<0.050	<0.062	<0.150	<0.300	1600	<10.0	<10.0	<10.0	
BH-1 29-30'	<0.050	<0.050	<0.067	<0.150	<0.300	2960	<10.0	<10.0	<10.0	
BH-1 39-40'	<0.050	<0.050	<0.070	<0.150	<0.300	1960	<10.0	<10.0	<10.0	
BH-1 49-50'	<0.050	<0.050	<0.070	<0.150	<0.300	656	<10.0	<10.0	<10.0	
BH-1 54-55'	<0.050	<0.050	<0.071	<0.150	<0.300	416	<10.0	<10.0	<10.0	
BH-1 59-60'	<0.050	<0.050	<0.074	<0.150	<0.300	544	<10.0	<10.0	<10.0	
BH-1 64-65'	<0.050	<0.050	<0.072	<0.150	<0.300	240	<10.0	<10.0	<10.0	
BH-2 5'	<0.050	<0.050	<0.072	<0.150	<0.300	48.0	<10.0	<10.0	<10.0	
BH-2 14-16'	<0.050	<0.050	<0.071	<0.150	<0.300	80.0	<10.0	<10.0	<10.0	
BH-2 24-26'	<0.050	<0.050	<0.072	<0.150	<0.300	80.0	<10.0	<10.0	35.7	
BH-3 4-6'	<0.050	<0.050	<0.072	<0.150	<0.300	1230	<10.0	<10.0	<10.0	
BH-3 9-11'	<0.050	<0.050	<0.050	<0.150	<0.300	2720	<10.0	<10.0	22.3	
BH-3 19-20'	<0.050	<0.050	<0.050	<0.150	<0.300	2440	<10.0	<10.0	<10.0	
BH-3 24-25'	<0.050	<0.050	<0.050	<0.150	<0.300	160	<10.0	<10.0	<10.0	
BH-3 29-30'	<0.050	<0.050	<0.050	<0.150	<0.300	112	<10.0	<10.0	<10.0	
BH-3 34-35'	<0.050	<0.050	<0.050	<0.150	<0.300	80.0	<10.0	<10.0	<10.0	

# VI. Action Plan

Due to the results listed above, the following work plan is proposed:

- 1. Excavate all contaminated soil to depths of four (4) feet, staying three (3) feet away, on either side of all existing lines.
- 2. Install a 20 mil liner.
- 3. The excavated are will be backfilled with uncontaminated, similar material.
- 4. All contaminated soil to be transported to an approved facility for disposal.
- 5. Collect confirmation samples of the sides and bottom of the excavation to document the concentration, if any, being left in place.

In addition, In the summer of 2017, the site will be reseeded with BLM #2-LPC seed mixture and applied at 5lbs/ acre to the entire affected area off the location. The seed mix will be purchased commercially and will be a certified seed mix. There will be no primary or secondary noxious weeds in this mixture. In the event that noxious weeds occur, chemical treatments, along with follow-ups and monitoring will take place. Straw will be scattered over the seed which is intended to hold the seed in place to allow growth to occur. The site will be watered weekly for four weeks. The site will be monitored for growth monthly and the area will be reseeded if growth is not observed within 60 days. When adequate growth has been observed, a report of such growth will be filed with the New Mexico State Land Office.

Upon approval of remediation activity, all necessary documentation related to this incident will be submitted to Breitburn and the appropriate regulatory agencies.

# VII. Figures & Appendices

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

# Figure 1 Vicinity Map

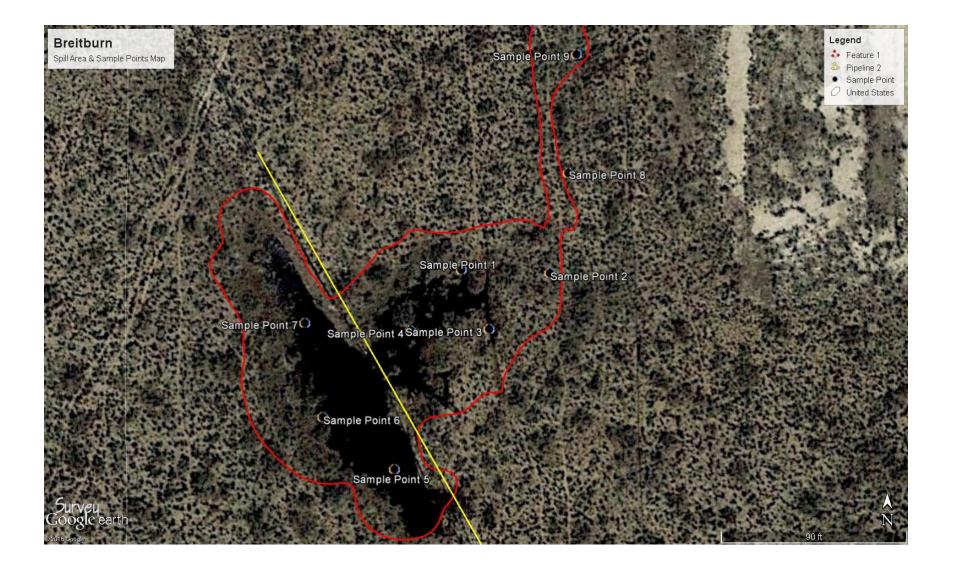


Figure 2 Site Plan



Appendix A C-141

Revised August 8, 2011 Form C-141

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

Energy Minerals and Natural Resources State of New Mexico

VI Jornard 1000 Rio Brazos Road, Aztec, NM 87410 **District III** 811 S. First SL, Artesia, UM 88210 **District II** 1625 Ne French Dr., Hobbs, NM 88240 <u>District</u> I

1220 S. St. Francis Dr., Santa Fe, NM 87505

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

# Release Notification and Corrective Action

Kjunc	West Line C	Feet from the East/	North/South Line	Feet from the	ວຊູແຮງ	dinsnwoT	Section	Unit Letter
		EASE	LION OF REL	FOC				
-052-35262	0E.on Iga	າກລຽຣເກອກ	Mner Breitburn Ma	O IsraniM	ливдто	O eltte Cattle C	ner Merch	rwO əəstruZ
		rotion a	Facility Type				temlet or	Facility Van
		0. 432-967-7266	V ənoriqələT		71797 X	Andrews TX	878 xog .	Address P.O
		t Cottrell	Contact Mai		tnamaga	snsM mudtie	mpany Bro	Name of Co
eport 🗌 Final Report	Alisitint 🖂	SOR .	OPERAT					

I	real	jse3	066	Логер	1330	32E	522	14	H
ļ									
ļ	County	East/West Line	Feet from the	North/South Line	Feet from the	Range	didanwoT	Section	Unit Letter

Latitude 32 23'45N

# **NATURE OF RELEASE**

			up Action Taken.* oution affected area is (188x174) in size.	
		and in area and made one call.	emedial Action Taken.* oing to the battery. Repaired flowing fend	B bas moldor9 of Sause of Problem Someone shot out the trunk line g
			*.vilue Fully.	It a Watercourse was Impacted, D
20.	rcour	רוד YES, Volume Impacting the Wat	ON 🛛 SƏY 🗌	Was a Watercourse Reached?
		Date and Hour 3-14-17 9:00A.M.		By Whom? Matt Cottrell
		If YES, To Whom? MMOCD District I	🛛 Yes 🔲 No 🗍 Not Required	Vas Inmediate Notice Given?
and Hour of Discovery -17 3:30 P.M>		Date and Hour of Occurrence 3-13-17 1:30 P.M.	ənil Anurt noi	Source of Release Jalmat product
S Water B Water		60 BBLS Water Volume of Release 25 BBLS Oil		Type of Release Oil/Water

get back we will have a 3<sup>rd</sup> part contractor start cleanup on the affected area. would not be exposed to the oil and produced water. 3-14-17 Matt Cottrell Collected 5 samples of the area to Cardinal Labs in Hobbs as soon as the results

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

NOISIA	IC NOL	LAVAJ	CONS	OIL

E-mail Address: Matte Cettre II a breitburn com	Conditions of Approval:	Attache	Attached
Title: EHS Coordinator	Approval Date:	Expiration Date:	ite:
Printed Name: Matt Cottrell	ilsisəq2 lstnəmnotivn∃ yd bəvorqqA	st:	
Signature: Might the Main			

Phone:432-967-7266

\* Attach Additional Sheets If Necessary

3-12-11

Date:

Appendix B Groundwater



# New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)	(R=POD has been replaced O=orphaned, C=the file is closed)	(quarte				IE 3=SW	,	3 UTM in meters)		(In feet	t)
POD Number	POD Sub- Code basin C		QQQ 64 16 4	-	: Tws	Rng	x	Y	-	-	Water Column
CP 00593 POD1	CP	LE			22S		650422	3587591* 🌍	62		
CP 00594 POD1	CP	LE	2 1	34	22S	35E	654553	3580819* 🌍	98		
CP 00595 POD1	CP	LE	22	20	22S	35E	652089	3584000* 🌍	96		
CP 00753		LE	22	14	22S	35E	656891	3585687* 🌍	215	185	30
								Average Depth to	o Water:	185 f	eet
								Minimun	n Depth:	185 f	eet
								Maximun	n Depth:	185 f	eet
Record Count: 4											

# PLSS Search:

Township: 22S Range: 35E

\*UTM location was derived from PLSS - see Help

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

# Appendix C Analytical Results



May 12, 2017

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: BRE-17-002

Enclosed are the results of analyses for samples received by the laboratory on 05/04/17 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/ga/lab\_accred\_certif.html">www.tceq.texas.gov/field/ga/lab\_accred\_certif.html</a>.

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

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

Accreditation applies to public drinking water matrices.

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. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 1 24'-25' (H701208-01)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/08/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.062	0.050	05/08/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	118 9	% 72-148							
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1600	16.0	05/08/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	86.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	88.1	% 34.7-15	7						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

# Sample ID: BH - 1 29'-30' (H701208-02)

BTEX 8021B	mg	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/08/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.067	0.050	05/08/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	120	% 72-148	2						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2960	16.0	05/09/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	75.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	98.5	% 34.7-15	7						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

# Sample ID: BH - 1 39'-40' (H701208-03)

BTEX 8021B	mg/	′kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.070	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 72-148							
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1960	16.0	05/09/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	78.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	101	% 34.7-15	7						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

# Sample ID: BH - 1 49'-50' (H701208-04)

BTEX 8021B	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.070	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	121	% 72-148							
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	05/09/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	61.0	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	80.8	% 34.7-15	7						

#### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 1 54'-55' (H701208-05)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.071	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	122 9	% 72-148	2						
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	05/09/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	80.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	83.3	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 1 59'-60' (H701208-06)

BTEX 8021B	mg/	′kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.074	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	122 9	% 72-148							
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	05/09/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	77.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	99.5	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 1 64'-65' (H701208-07)

BTEX 8021B	mg/	kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.072	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	121 9	% 72-148	2						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/09/2017	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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	75.4	28.3-16	4						
Surrogate: 1-Chlorooctadecane	79.5	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 2 5' (H701208-08)

BTEX 8021B	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.072	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	120	% 72-148	}						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/06/2017	ND	165	82.4	200	3.75	
DRO >C10-C28	<10.0	10.0	05/06/2017	ND	183	91.5	200	7.50	
EXT DRO >C28-C36	<10.0	10.0	05/06/2017	ND					
Surrogate: 1-Chlorooctane	72.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	76.9	% 34.7-15	7						

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

Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 2 14'-16' (H701208-09)

BTEX 8021B	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.071	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	122	% 72-148							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	192	96.2	200	0.280	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	215	108	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	85.2	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	88. <i>3</i>	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 2 24'-26' (H701208-10)

BTEX 8021B	mg,	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.072	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	122	% 72-148	}						
Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	192	96.2	200	0.280	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	215	108	200	1.40	
EXT DRO >C28-C36	35.7	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	89.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	92.3	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 3 4'-6' (H701208-11)

BTEX 8021B	mg	/kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/09/2017	ND	2.29	114	2.00	1.36	
Toluene*	<0.050	0.050	05/09/2017	ND	2.23	111	2.00	0.391	
Ethylbenzene*	0.072	0.050	05/09/2017	ND	2.16	108	2.00	0.994	
Total Xylenes*	<0.150	0.150	05/09/2017	ND	6.38	106	6.00	1.26	
Total BTEX	<0.300	0.300	05/09/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	122	% 72-148							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1230	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	192	96.2	200	0.280	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	215	108	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	87.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	88.8	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	04/27/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

# Sample ID: BH - 3 9'-11' (H701208-12)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.12	106	2.00	0.747	
Toluene*	<0.050	0.050	05/08/2017	ND	1.95	97.5	2.00	0.722	
Ethylbenzene*	<0.050	0.050	05/08/2017	ND	1.91	95.3	2.00	0.777	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	5.37	89.5	6.00	0.512	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.5	% 72-148	}						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2720	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	192	96.2	200	0.280	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	215	108	200	1.40	
EXT DRO >C28-C36	22.3	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	87.0	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	88.8	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	05/02/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 3 19'-20' (H701208-13)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.12	106	2.00	0.747	
Toluene*	<0.050	0.050	05/08/2017	ND	1.95	97.5	2.00	0.722	
Ethylbenzene*	<0.050	0.050	05/08/2017	ND	1.91	95.3	2.00	0.777	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	5.37	89.5	6.00	0.512	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.4	% 72-148							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2440	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	192	96.2	200	0.280	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	215	108	200	1.40	
EXT DRO >C28-C36	<10.0	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	74.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	74.2	% 34.7-15	7						

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Received:	05/04/2017	Sampling Date:	05/02/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 3 24'-25' (H701208-14)

BTEX 8021B	mg,	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.12	106	2.00	0.747	
Toluene*	<0.050	0.050	05/08/2017	ND	1.95	97.5	2.00	0.722	
Ethylbenzene*	<0.050	0.050	05/08/2017	ND	1.91	95.3	2.00	0.777	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	5.37	89.5	6.00	0.512	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.5	% 72-148							
Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	198	98.8	200	1.70	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	193	96.4	200	5.15	
EXT DRO >C28-C36	<10.0	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	82.6	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	88.4	% 34.7-15	7						

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

Received:	05/04/2017	Sampling Date:	05/02/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 3 29'-30' (H701208-15)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.12	106	2.00	0.747	
Toluene*	<0.050	0.050	05/08/2017	ND	1.95	97.5	2.00	0.722	
Ethylbenzene*	<0.050	0.050	05/08/2017	ND	1.91	95.3	2.00	0.777	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	5.37	89.5	6.00	0.512	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	96.7	% 72-148	,						
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	198	98.8	200	1.70	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	193	96.4	200	5.15	
EXT DRO >C28-C36	<10.0	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	89.9	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	89.9	% 34.7-15	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	05/04/2017	Sampling Date:	05/02/2017
Reported:	05/12/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	** (See Notes)
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

#### Sample ID: BH - 3 34'-35' (H701208-16)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/08/2017	ND	2.12	106	2.00	0.747	
Toluene*	<0.050	0.050	05/08/2017	ND	1.95	97.5	2.00	0.722	
Ethylbenzene*	<0.050	0.050	05/08/2017	ND	1.91	95.3	2.00	0.777	
Total Xylenes*	<0.150	0.150	05/08/2017	ND	5.37	89.5	6.00	0.512	
Total BTEX	<0.300	0.300	05/08/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	97.1	% 72-148							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/09/2017	ND	448	112	400	3.64	
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	05/09/2017	ND	198	98.8	200	1.70	
DRO >C10-C28	<10.0	10.0	05/09/2017	ND	193	96.4	200	5.15	
EXT DRO >C28-C36	<10.0	10.0	05/09/2017	ND					
Surrogate: 1-Chlorooctane	86.9	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	91.7	% 34.7-15	7						

#### Cardinal Laboratories

\*=Accredited Analyte

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# **Notes and Definitions**

- ND
   Analyte NOT DETECTED at or above the reporting limit

   RPD
   Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

#### Cardinal Laboratories

#### \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Company Name:	Safety and Environmental Solutions	BILL TO	ANALYSIS REQUESI
Project Manager:		P.O. #:	
Address: 703	3 East Clinton, PO Box 1613	Company: Same	
	Hobbs State: NM Zip: 88240	Attn:	
le #:	-0510 F	Address:	
Project #: BRE	t00. L1-	City:	
Project Name:		State: Zip:	
Project Location:		Phone #:	
Sampler Name:	LACIA BOYCA	Fax #:	30
FOR LAB USE ONLY		MATRIX PRESERV. SAMPLING	Y.
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Relinquished By	AUM Times	Interference     Phone Result:       Phone Result:     Fax Result:       REMARKS:     REMARKS:	III: □ Yes X No Add'I Phone #: □ Yes X No Add'I Fax #:
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Delivered By:	(Circle One)	Sample Condition CHECKED BY: Cool Intack (Initials)	
Sampler - UPS	- Bus - Other: /1.70	In No TOAN O	lastuad space.

**CARDINAL** Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST       OT East Mariani, Hobs, NM 82/0 (279) 393-2786     SUFECTION OF EAX (675) 383-2476       Company Mark     Safely and Environmental Solutions     Interview Solutions     Interview Solutions     OF East Colling, PO Box 1613       One To East Colling, PO Box 1613     One Project Name:     Interview Solutions     Interview Solutions       One Fast & 157 332-4308     One Project Colling, PO Box 1613     One Project Colling, PO Box 1613       One Fast & 157 332-4308     One Project Colling, PO Box 1613       One Fast & 157 332-4308     One Project Colling, PO Box 1613       One Fast & 157 332-4308     One Project Colling, PO Box 1613       One Fast & 157 332-4308     One Project Colling, PO Box 1613       One Fast & 157 332-4308     One Project Colling, PO Box 1613       None & 157 332-4308     One Project Colling, PO Box 1613       One Project Colling, PO Box 1613     One Project Colling, PO Box 1613       None & 157 332-4308     One Project Colling, PO Box 1613       None & Project Colling, PO Box 1613     One Project Colling, PO Box 1613       One Project Colling, PO Box 1613    <
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Sample Condition Cool Intact Yes Yes No No No

CHECKED BY: (Initials)

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Sampler - UPS - Bus - Other: Delivered By: (Circle One)

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