

NOT APPROVED

File under review.
Received by:
Dylan Rose-Coss
5/14/2019

Breitburn Management
Jalmat Trunk Line
Closure Report

Section 14, Township 22S, Range 35E
Lea County, New Mexico
1RP-4645

July 18, 2017



Prepared for:

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

By:

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

TABLE OF CONTENTS

I. COMPANY CONTACTS.....	1
II. BACKGROUND.....	1
III. SURFACE AND GROUND WATER.....	1
IV. CHARACTERIZATION.....	1
V. WORK PERFORMED.....	2
VI. REQUEST FOR CLOSURE.....	2
VII. FIGURES & APPENDICES.....	2
Figure 1 – Vicinity Map.....	3
Figure 2 – Site Plan.....	4
Appendix A – C-141.....	5
Appendix B – Groundwater.....	6
Appendix C – Analytical Results.....	7

I. Company Contacts

Representative	Company	Telephone	E-mail
Thomas Haigood	Breitburn	(432) 967-7266	
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 trunkline 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 seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	X
	No	0 points	
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			20

V. Work Performed

On March 28, 2017, SESI personnel were 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 were 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 SM4500Cl-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- benzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO	EXT 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

On July 06, 2017, SESI submitted the Work-Remediation Plan to the NMSLO, as well as the NMOCD parties of concern for approval. Both parties concurred and agreed to the plan.

On July 14, 2017, SESI personnel were onsite to collect samples of excavation sidewalls and excavation bottom. The location on both sides of the buried line has been excavated to a depth approaching 4 ft. with near vertical sidewalls. Boyer used a measuring wheel to lay out a small grid system to determine excavation bottom locations for sampling. The bottom samples on the west side were approximately 30 ft. apart while those on the east side were about 40 ft. apart. Four bottom samples were taken on each side of the buried line. Due to very hard consolidated caliche at bottom and on sidewalls, samples were collected used a rock hammer to break and remove sufficient pieces of caliche to obtain unconsolidated loose samples for field testing and lab submittal. The sidewall samples were field tested to make a recommendation as to the need for additional excavation. Following collection of the samples the sample locations were mapped using a Juno GPS handheld device. Also mapped were the outlines of the west and east excavations (with the exception of the north entrance ramp to the west excavation which was not further excavated). At the completion of the mapping, photos and a video were taken of the site. 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 300.0). The field test and lab results are recapped in the following tables:

Breitburn									
Jalmat Trunk Line									
Soil Sample Results: Cardinal Laboratories 7-14-2017									
SAMPLE ID	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO	EXT DRO
WSW-1	<0.050	<0.050	<0.050	<0.150	<0.300	128	<10.0	<12.6	<10.0
WSW-2	<0.050	<0.050	<0.050	<0.150	<0.300	352	<10.0	<10.0	<10.0
ESW-1	<0.050	<0.050	<0.050	<0.150	<0.300	1360	<10.0	<10.0	<10.0
ESW-2	<0.050	<0.050	<0.050	<0.150	<0.300	288	<10.0	<10.0	<10.0
ESW-3	<0.050	<0.050	<0.050	<0.150	<0.300	32	<10.0	<10.0	<10.0
WSP-1	<0.050	<0.050	<0.050	<0.150	<0.300	704	<10.0	<10.0	<10.0
WSP-2	<0.050	<0.050	<0.050	<0.150	<0.300	544	<10.0	<10.0	<10.0
WSP-3	<0.050	<0.050	<0.050	<0.150	<0.300	432	<10.0	<10.0	<10.0
WSP-4	<0.050	<0.050	<0.050	<0.150	<0.300	512	<10.0	<10.0	<10.0
ESP-1	<0.050	<0.050	<0.050	<0.150	<0.300	912	<10.0	<10.0	<10.0
ESP-2	<0.050	<0.050	<0.050	<0.150	<0.300	736	<10.0	<10.0	<10.0
ESP-3	<0.050	<0.050	<0.050	<0.150	<0.300	464	<10.0	<10.0	<10.0
ESP-4	<0.050	<0.050	<0.050	<0.150	<0.300	1090	<10.0	<10.0	<10.0

On July 21, 2017, SESI personnel was onsite to sample north sidewall of east excavation following additional excavation by Tex-Mex contractor. Samples were collected using a rock hammer to break and remove sufficient pieces of caliche to obtain unconsolidated loose samples for field testing and possible lab submittal. The sidewall was sampled first at midpoint between flow lines and the dug trench. Moved about 3 ft. west of midpoint and resampled: Field test ESW-5, 2452 ppm Cl. Moved about 22 ft. east of the midpoint and sampled: Field test ESW-6, <128 ppm Cl.

Samples were properly preserved. Additional sampling to continue the next work day.

On July 24, 2017, SESI personnel was onsite to sample north sidewall of east excavation following additional excavation by Tex-Mex contractor. Took sample at midpoint after some digging: ESW-7, 2976 ppm Cl. Samples were collected using a rock hammer to break and remove sufficient pieces of caliche to obtain unconsolidated loose samples for field testing and possible lab submittal. At ~ 9:00 rancher/landowner Brad Blevins arrives and inquires about progress and watches chloride test. He leaves about 30 minutes later. Continued digging vicinity ESW-7 and resample: ESW-8, <128 ppm Cl, save for lab analysis. Move west and sample after digging additional material: ESW-9, <128 ppm Cl, save for lab analysis. Move west to edge of ramp and sample after digging: ESW-10, <128 pm Cl, save for lab analysis. Took photos and make GPS measurements at ESW-8, -9 and -10. Pack gear and leave site at 1 p.m. to return Hobbs. At Hobbs, pack four clean samples for delivery to Cardinal including sample at ESW-6 from last Friday.

Breitburn Jalmat Trunk Line Soil Sample Results: Cardinal Laboratories 7-21-2017									
SAMPLE ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX	Chlorides	TPH GRO	TPH DRO	EXT DRO
ESW-6	<0.050	<0.050	<0.050	<0.150	<0.300	50.6	<10.0	<12.6	<10.0
ESW-8	<0.050	<0.050	<0.050	<0.150	<0.300	22.3	<10.0	<10.0	<10.0
ESW-9	<0.050	<0.050	<0.050	<0.150	<0.300	43.2	<10.0	<10.0	<10.0
ESW-10	<0.050	<0.050	<0.050	<0.150	<0.300	35.4	<10.0	<10.0	<10.0

VI. Request for Closure

Based on the aforementioned sidewall and bottom soil analyses: Tex Mex drilling, Inc. installed a 30 mil. liner in the excavated area at a depth of 4' bgs. Approximately 528 yards of soil were disposed of at Sundance Services (an NMOCD approved facility). The area was backfilled with farm grade topsoil, and restored to dunal like feature. The area was then planted with a mixture of prairie grass seed comparable to BLM #3 seed mixture. This concludes remedial activity for this location.

Based on depth to groundwater for this area, remedial excavation of soil, disposal of impacted soil, and restoration of site in accordance with the approved remediation plan, SESI on behalf of Breitburn, LP respectfully requests closure of the regulatory file for this incident.

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

Breitburn
Spill Area & Sample Points Map

Legend

- Feature 1
- Pipeline 2
- Sample Point
- United States



Survey
Google earth
© 2016 Google



90 ft

Figure 2
Site Plan



Sample Point 8/Test Trench 8

Breitburn Dalmat Trunkline

Sample Point 1

Sample Point 2

Bore Hole 3

Sample Point 7

Sample Point 4

Sample Point 3

Bore Hole 1/Test Trench 10

Sample Point 6/Test Trench 6

Bore Hole 2

Sample Point 5

Survey

© 2016 Google

Google Earth

1997

Imagery Date: 2/1/2017 32°23'41.16" N 103°20'01.95" W elev 3587 ft eye alt 3896 ft

Appendix A
C-141

Incident ID	NOY1707658025
District RP	1RP-4645
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	185 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	NOY1707658025
District RP	1RP-4645
Facility ID	
Application ID	

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

Printed Name: Thomas Haigood Title: Permian HSE Specialist

Signature:  Date: 05/09/2019

email: Thomas.haigood@maverickresources.com Telephone: (432) 701-7802


OCD Only

Received by: _____ Date: _____

Incident ID	NOY1707658025
District RP	1RP-4645
Facility ID	
Application ID	

Remediation Plan

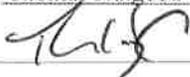
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- Detailed description of proposed remediation technique
- Scaled sitemap with GPS coordinates showing delineation points
- Estimated volume of material to be remediated
- Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- Extents of contamination must be fully delineated.
- Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Thomas Haigood Title: Permian HSE Specialist
 Signature:  Date: 05/09/2019
 email: Thomas.haigood@maverickresources.com Telephone: (432) 701-7802
MaverickResources.com

OCD Only

Received by: _____ Date: _____

- Approved Approved with Attached Conditions of Approval Denied Deferral Approved

Signature: _____ Date: _____

Incident ID	NOY1707658025
District RP	1RP-4645
Facility ID	
Application ID	

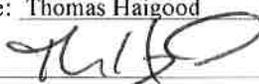
Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Thomas Haigood Title: Permian HSE Specialist
 Signature:  Date: 05/09/2019
 email: Thomas.hagood@maverickresources.com Telephone: (432)701-7802
Maverickresources.com

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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) (quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00593 POD1	CP	LE		4	4	06	22S	35E		650422	3587591*	62		
CP 00594 POD1	CP	LE		2	1	34	22S	35E		654553	3580819*	98		
CP 00595 POD1	CP	LE		2	2	20	22S	35E		652089	3584000*	96		
CP 00753		LE		2	2	14	22S	35E		656891	3585687*	215	185	30

Average Depth to Water: **185 feet**
 Minimum Depth: **185 feet**
 Maximum Depth: **185 feet**

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



April 10, 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 04/03/17 10:57.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 10 7' (H700868-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503	
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718	
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693	
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676	
Total BTEX	<0.300	0.300	04/05/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.1 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4640	16.0	04/05/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44	
DRO >C10-C28	15.0	10.0	04/04/2017	ND	220	110	200	2.30	
EXT DRO >C28-C36	36.5	10.0	04/04/2017	ND					

Surrogate: 1-Chlorooctane 94.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 98.1 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 10 15' (H700868-02)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503		
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3200	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44		
DRO >C10-C28	23.7	10.0	04/04/2017	ND	220	110	200	2.30		
EXT DRO >C28-C36	25.5	10.0	04/04/2017	ND						

Surrogate: 1-Chlorooctane 99.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 107 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 10 17' (H700868-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503	
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718	
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693	
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676	
Total BTEX	<0.300	0.300	04/05/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3680	16.0	04/05/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44	
DRO >C10-C28	27.8	10.0	04/04/2017	ND	220	110	200	2.30	
EXT DRO >C28-C36	32.3	10.0	04/04/2017	ND					

Surrogate: 1-Chlorooctane 107 % 28.3-164

Surrogate: 1-Chlorooctadecane 110 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 10 22' (H700868-04)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503	
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718	
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693	
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676	
Total BTEX	<0.300	0.300	04/05/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	04/05/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44	
DRO >C10-C28	<10.0	10.0	04/04/2017	ND	220	110	200	2.30	
EXT DRO >C28-C36	<10.0	10.0	04/04/2017	ND					

Surrogate: 1-Chlorooctane 106 % 28.3-164

Surrogate: 1-Chlorooctadecane 115 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/03/2017
 Reported: 04/10/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 03/31/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: TT- 6 4' (H700868-05)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503		
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2160	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44		
DRO >C10-C28	<10.0	10.0	04/04/2017	ND	220	110	200	2.30		
EXT DRO >C28-C36	<10.0	10.0	04/04/2017	ND						

Surrogate: 1-Chlorooctane 117 % 28.3-164

Surrogate: 1-Chlorooctadecane 123 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/03/2017
 Reported: 04/10/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 03/31/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: TT- 6 10' (H700868-06)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503		
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3280	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44		
DRO >C10-C28	<10.0	10.0	04/04/2017	ND	220	110	200	2.30		
EXT DRO >C28-C36	<10.0	10.0	04/04/2017	ND						

Surrogate: 1-Chlorooctane 89.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 94.3 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 6 14' (H700868-07)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	2.19	110	2.00	0.503		
Toluene*	<0.050	0.050	04/05/2017	ND	2.13	107	2.00	0.718		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	2.18	109	2.00	0.693		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	6.19	103	6.00	0.676		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1420	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44		
DRO >C10-C28	<10.0	10.0	04/04/2017	ND	220	110	200	2.30		
EXT DRO >C28-C36	<10.0	10.0	04/04/2017	ND						

Surrogate: 1-Chlorooctane 99.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 107 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 6 16' (H700868-08)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2000	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/04/2017	ND	203	101	200	1.44		
DRO >C10-C28	<10.0	10.0	04/04/2017	ND	220	110	200	2.30		
EXT DRO >C28-C36	<10.0	10.0	04/04/2017	ND						

Surrogate: 1-Chlorooctane 95.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/03/2017
 Reported: 04/10/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 03/31/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: TT- 6 18' (H700868-09)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1720	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	203	101	200	1.44		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	220	110	200	2.30		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 96.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/03/2017
 Reported: 04/10/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 03/31/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: TT- 6 20' (H700868-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06	
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65	
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51	
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38	
Total BTEX	<0.300	0.300	04/05/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	04/05/2017	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76	
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59	
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND					

Surrogate: 1-Chlorooctane 90.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 99.5 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 04/03/2017
 Reported: 04/10/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 03/31/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: TT- 6 22' (H700868-11)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2560	16.0	04/05/2017	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 102 % 28.3-164

Surrogate: 1-Chlorooctadecane 105 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 6 24' (H700868-12)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2400	16.0	04/05/2017	ND	448	112	400	3.51	QM-07	

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 120 % 28.3-164

Surrogate: 1-Chlorooctadecane 121 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 8 4' (H700868-13)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.1 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	04/05/2017	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 105 % 28.3-164

Surrogate: 1-Chlorooctadecane 107 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 8 6' (H700868-14)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	416	16.0	04/05/2017	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 91.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.9 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 8 8' (H700868-15)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	04/05/2017	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 100 % 28.3-164

Surrogate: 1-Chlorooctadecane 105 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	04/03/2017	Sampling Date:	03/31/2017
Reported:	04/10/2017	Sampling Type:	Soil
Project Name:	BRE-17-002	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	NOT GIVEN		

Sample ID: TT- 8 10' (H700868-16)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	04/05/2017	ND	1.94	96.8	2.00	1.06		
Toluene*	<0.050	0.050	04/05/2017	ND	1.89	94.3	2.00	1.65		
Ethylbenzene*	<0.050	0.050	04/05/2017	ND	1.92	96.1	2.00	1.51		
Total Xylenes*	<0.150	0.150	04/05/2017	ND	5.48	91.3	6.00	1.38		
Total BTEX	<0.300	0.300	04/05/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	04/05/2017	ND	448	112	400	3.51		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/05/2017	ND	196	98.1	200	3.76		
DRO >C10-C28	<10.0	10.0	04/05/2017	ND	199	99.4	200	3.59		
EXT DRO >C28-C36	<10.0	10.0	04/05/2017	ND						

Surrogate: 1-Chlorooctane 114 % 28.3-164

Surrogate: 1-Chlorooctadecane 112 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



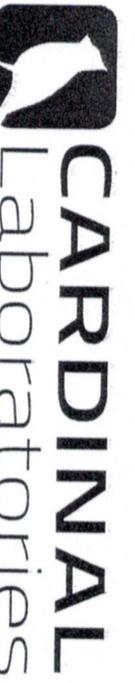
Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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



Celey D. Keene, Lab Director/Quality Manager



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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2-2

Company Name: Safety and Environmental Solutions		P.O. #:		ANALYSIS REQUEST			
Project Manager: Bob Allen		Company: Same					
Address: 703 East Clinton, PO Box 1613		Attn:					
City: Hobbs State: NM zip: 88240		Address:					
Phone #: 575 397-0510 Fax #: 575 393-4388		City:					
Project #: PRE-17-002 Project Owner:		State: Zip:					
Project Location:		Phone #:					
Sampler Name:		Fax #:					
FOR LAB USE ONLY		PRESERV.		SAMPLING			
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX	DATE	TIME	TESTS
#17005468	TT-6	1	2	GROUNDWATER	03/31	1225	BTEX
10	TT-6	1	2	WASTEWATER	03/31	1245	TPH (8015 G/L)
11	TT-6	1	2	SOIL	03/31	1330	Chloride
12	TT-6	1	2	SOIL			
13	TT-8	1	2	SOIL	03/31	1400	
14	TT-8	1	2	SOIL	03/31	1415	
15	TT-8	1	2	SOIL	03/31	1425	
16	TT-8	1	2	SOIL	03/31	1455	

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *[Signature]* Date: 03/17/17
 Received By: *[Signature]* Date: 03/17/17
 Relinquished By: *[Signature]* Date: 03/17/17
 Received By: *[Signature]* Date: 03/17/17

Delivered By: (Circle One) *Sic*
 Sampler - UPS - Bus - Other:
 Sample Condition: Intact Cool Yes No
 CHECKED BY: *[Signature]* (Initials) # *75*
 Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.1 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 98.5 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 80.8 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 83.3 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 99.5 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 79.5 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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, SM4500CI-B		mg/kg		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 76.9 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.3 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 92.3 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.8 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 04/27/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.8 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 74.2 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.4 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 89.9 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 05/04/2017
 Reported: 05/12/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2017
 Sampling Type: Soil
 Sampling Condition: ** (See Notes)
 Sample Received By: Tamara Oldaker

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

BTEX 8021B		mg/kg		Analyzed 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		Analyzed 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		Analyzed 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 % 28.3-164

Surrogate: 1-Chlorooctadecane 91.7 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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





CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

1082

BILL TO

ANALYSIS REQUEST

P.O. #:
 Company: Same
 Attn:
 Address:
 City:
 State:
 Zip:

Company Name: Safety and Environmental Solutions
 Project Manager: Bob Allen
 Address: 703 East Clinton, PO Box 1613
 City: Hobbs State: NM Zip: 88240
 Phone #: 575 397-0510 Fax #: 575 393-4388
 Project #: RE-17-002 Project Owner:
 Project Name:
 Project Location:
 Sampler Name: David Boyer
 FOR LAB USE ONLY

MATRIX	PRESERV	SAMPLING
GROUNDWATER		
WASTEWATER		
SOIL		
OIL		
SLUDGE		
OTHER :		
ACID/BASE:		
ICE / COOL		
OTHER :		

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	DATE	TIME	TPH (8015 EXT)	BTX	Chloride
H7D120B	BH-1 24-25'	X	1	4/27	1012	X	X	X
	BH-1 29-30'	X	1		1112	X	X	X
	BH-1 39-40'	X	1		1220	X	X	X
	BH-1 49-50'	X	1		1235	X	X	X
	BH-1 54-55'	X	1		1245	X	X	X
	BH-1 59-60'	X	1		1255	X	X	X
	BH-1 64-65'	X	1		1340	X	X	X
	BH-2 14-16'	X	1		1515	X	X	X
	BH-2 18-20'	X	1		1535	X	X	X
	BH-2 24-26'	X	1		1615	X	X	X

PLEASE NOTE: Liability and Damages: Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *David Boyer* Date: 4/17/17 Time: 4:55
 Received By: *Jamara Delgado* Date: 4/17/17 Time: 4:55
 Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS:
 Sample Condition: Cool Intact Yes No No No

Delivered By: (Circle One) UPS Bus Other:
 1170
 CHECKED BY: (Initials) *JD*
 70#15
 Has head space.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

P.O. #:

Company: Same

Attn:

Address:

City:

State:

Phone #:

Fax #:

Company Name: Safety and Environmental Solutions

Project Manager: Bob Allen

Address: 703 East Clinton, PO Box 1613

City: Hobbs State: NM Zip: 88240

Phone #: 575 397-0510 Fax #: 575 393-4388

Project #: BRE-17-002 Project Owner:

Project Name:

Project Location:

Sampler Name: DAVID BOYER

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV		DATE	TIME	TPH (BD15 EXJ)	BTEX	CHLORIDE
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL					
H201208	BH-3 4-6'	G	1			X					4/27	1715	X			
	BH-3 9-11'	G	1			X					5/2	1742	X			
	BH-3 19-20'	G	1			X					5/2	1620	X			
	BH-3 24-25'	G	1			X					5/2	1645	X			
	BH-3 29-30'	G	1			X					5/2	1130	X			
	BH-3 34-35'	G	1			X					5/2	1225	X			

PLEASE NOTE: Liability and Damages: Cardinal's facility and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: [Signature] Date: 5/4/17 Time: 4:35

Received By: [Signature] Date: 5/4/17 Time: 4:55

Relinquished By: [Signature]

Received By: [Signature]

Delivered By: (Circle One)

Sampler - UPS - Bus - Other: 192

Sample Condition Cool Intact

Yes No

CHECKED BY: [Signature]

72 #15

Phone Result: Yes No Add'l Phone #:
 Fax Result: Yes No Add'l Fax #:
 REMARKS: Has lead space

2052



July 24, 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 07/17/17 16:50.

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 www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited 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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WSW -1 (H701853-01)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.88	93.8	2.00	0.312	
Toluene*	<0.050	0.050	07/20/2017	ND	1.92	96.1	2.00	0.0471	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.09	105	2.00	0.472	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.23	104	6.00	0.302	
Total BTEX	<0.300	0.300	07/20/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	07/19/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/18/2017	ND	199	99.5	200	2.81	
DRO >C10-C28	12.6	10.0	07/18/2017	ND	207	104	200	3.44	

Surrogate: 1-Chlorooctane 88.5 % 28.3-164
Surrogate: 1-Chlorooctadecane 92.8 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WSW -2 (H701853-02)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.88	93.8	2.00	0.312	
Toluene*	<0.050	0.050	07/20/2017	ND	1.92	96.1	2.00	0.0471	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.09	105	2.00	0.472	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.23	104	6.00	0.302	
Total BTEX	<0.300	0.300	07/20/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	07/19/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/18/2017	ND	199	99.5	200	2.81	
DRO >C10-C28	<10.0	10.0	07/18/2017	ND	207	104	200	3.44	

Surrogate: 1-Chlorooctane 82.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 85.1 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: ESW -1 (H701853-03)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.88	93.8	2.00	0.312	
Toluene*	<0.050	0.050	07/20/2017	ND	1.92	96.1	2.00	0.0471	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.09	105	2.00	0.472	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.23	104	6.00	0.302	
Total BTEX	<0.300	0.300	07/20/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	07/19/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/19/2017	ND	205	102	200	4.84	
DRO >C10-C28	<10.0	10.0	07/19/2017	ND	214	107	200	4.15	

Surrogate: 1-Chlorooctane 87.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 91.9 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: ESW -2 (H701853-04)

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/20/2017	ND	1.88	93.8	2.00	0.312		
Toluene*	<0.050	0.050	07/20/2017	ND	1.92	96.1	2.00	0.0471		
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.09	105	2.00	0.472		
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.23	104	6.00	0.302		
Total BTEX	<0.300	0.300	07/20/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	07/19/2017	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	07/19/2017	ND	205	102	200	4.84		
DRO >C10-C28	<10.0	10.0	07/19/2017	ND	214	107	200	4.15		

Surrogate: 1-Chlorooctane 87.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 88.3 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: ESW -3 (H701853-05)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.88	93.8	2.00	0.312	
Toluene*	<0.050	0.050	07/20/2017	ND	1.92	96.1	2.00	0.0471	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.09	105	2.00	0.472	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.23	104	6.00	0.302	
Total BTEX	<0.300	0.300	07/20/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/19/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/19/2017	ND	205	102	200	4.84	
DRO >C10-C28	<10.0	10.0	07/19/2017	ND	214	107	200	4.15	

Surrogate: 1-Chlorooctane 85.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 85.3 % 34.7-157

Sample ID: WSP -1 (H701853-06)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	07/19/2017	ND	448	112	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WSP -2 (H701853-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	07/19/2017	ND	448	112	400	0.00	

Sample ID: WSP -3 (H701853-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	07/19/2017	ND	448	112	400	0.00	

Sample ID: WSP -4 (H701853-09)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	512	16.0	07/19/2017	ND	448	112	400	0.00	

Sample ID: ESP -1 (H701853-10)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	912	16.0	07/19/2017	ND	448	112	400	0.00	

Sample ID: ESP -2 (H701853-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	736	16.0	07/19/2017	ND	448	112	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

 Received: 07/17/2017
 Reported: 07/24/2017
 Project Name: BRE-17-002
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 07/14/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: ESP -3 (H701853-12)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	07/19/2017	ND	448	112	400	0.00	

Sample ID: ESP -4 (H701853-13)

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	07/19/2017	ND	432	108	400	3.64	

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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



Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

BILL TO

ANALYSIS REQUEST

Page 1 of 2

Company Name: Safety and Environmental Solutions

Project Manager: Bob Allen

Address: 703 East Clinton, PO Box 1613

City: Hobbs State: NM Zip: 88240

Phone #: 575 397-0510 Fax #: 575 393-4388

Project #: ~~BAE-17-002~~ Project Owner:

Project Name:

Project Location:

Sampler Name: *DMB-Boyer*

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	REMARKS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					
<i>H901853</i>	<i>ESP-2</i>		<i>61</i>			<i>X</i>					<i>2017</i>		<i>CHLORIDE (NM)</i>	
<i>11</i>	<i>ESP-3</i>		<i>61</i>			<i>X</i>					<i>07/14 12:17</i>		<i>X</i>	
<i>12</i>	<i>ESP-4</i>		<i>61</i>			<i>X</i>					<i>07/14 12:26</i>		<i>X</i>	
<i>13</i>														

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By: *DMB-Boyer 7/17/17*

Received By: *Siwara*

Date: *7-17-17*

Date: *7-17-17*

Time: *4:50*

Time: *4:50*

Delivered By: (Circle One) *-0.62*

Sampler - UPS - Bus - Other: *Permitted -0.852*

Sample Condition: Cool Yes No; Intact Yes No

CHECKED BY: *Siwara*

Phone Result: Yes No; Add'l Phone #: _____

Fax Result: Yes No; Add'l Fax #: _____

REMARKS:

August 04, 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 07/24/17 16:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-9. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Cardinal Laboratories is accredited through the State of New Mexico Environment Department for:

Method SM 9223-B	Total Coliform and E. coli (Colilert MMO-MUG)
Method EPA 524.2	Regulated VOCs and Total Trihalomethanes (TTHM)
Method EPA 552.2	Total Haloacetic Acids (HAA-5)

Accreditation applies to public drinking water matrices for State of Colorado and New Mexico.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:Safety & Environmental Solutions
703 East Clinton
Hobbs NM, 88240Project: BRE-17-002
Project Number: NONE GIVEN
Project Manager: Bob Allen
Fax To: (575) 393-4388Reported:
04-Aug-17 17:49

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ESW -6	H701924-01	Soil	21-Jul-17 15:45	24-Jul-17 16:50
ESW -8	H701924-02	Soil	24-Jul-17 09:45	24-Jul-17 16:50
ESW -9	H701924-03	Soil	24-Jul-17 10:40	24-Jul-17 16:50
ESW -10	H701924-04	Soil	24-Jul-17 11:55	24-Jul-17 16:50

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

ESW -6
H701924-01 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7072601	MS	26-Jul-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			113 %	72-148		7072601	MS	26-Jul-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			109 %	28.3-164		7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			112 %	34.7-157		7072504	MS	26-Jul-17	8015B	

Green Analytical Laboratories
Soluble (DI Water Extraction)

Chloride	50.6		10.0	mg/kg wet	10	B707239	JDA	04-Aug-17	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

ESW -8
H701924-02 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7072601	MS	26-Jul-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	72-148		7072601	MS	26-Jul-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			115 %	28.3-164		7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			119 %	34.7-157		7072504	MS	26-Jul-17	8015B	

Green Analytical Laboratories
Soluble (DI Water Extraction)

Chloride	22.3		10.0	mg/kg wet	10	B707239	JDA	04-Aug-17	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

ESW -9
H701924-03 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7072601	MS	26-Jul-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			111 %	72-148		7072601	MS	26-Jul-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			116 %	28.3-164		7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			123 %	34.7-157		7072504	MS	26-Jul-17	8015B	

Green Analytical Laboratories
Soluble (DI Water Extraction)

Chloride	43.2		10.0	mg/kg wet	10	B707239	JDA	04-Aug-17	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

ESW -10
H701924-04 (Soil)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
---------	--------	-----	-----------------	-------	----------	-------	---------	----------	--------	-------

Cardinal Laboratories
Volatile Organic Compounds by EPA Method 8021

Benzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Toluene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Ethylbenzene*	<0.050		0.050	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total Xylenes*	<0.150		0.150	mg/kg	50	7072601	MS	26-Jul-17	8021B	
Total BTEX	<0.300		0.300	mg/kg	50	7072601	MS	26-Jul-17	8021B	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>			109 %	72-148		7072601	MS	26-Jul-17	8021B	

Petroleum Hydrocarbons by GC FID

GRO C6-C10	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
DRO >C10-C28	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctane</i>			101 %	28.3-164		7072504	MS	26-Jul-17	8015B	
<i>Surrogate: 1-Chlorooctadecane</i>			104 %	34.7-157		7072504	MS	26-Jul-17	8015B	

Green Analytical Laboratories
Soluble (DI Water Extraction)

Chloride	35.4		10.0	mg/kg wet	10	B707239	JDA	04-Aug-17	EPA300.0	
----------	------	--	------	-----------	----	---------	-----	-----------	----------	--

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

Volatile Organic Compounds by EPA Method 8021 - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7072601 - Volatiles
Blank (7072601-BLK1)

Prepared & Analyzed: 26-Jul-17

Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>	<i>0.0538</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>108</i>	<i>72-148</i>			

LCS (7072601-BS1)

Prepared & Analyzed: 26-Jul-17

Benzene	2.15	0.050	mg/kg	2.00		107	79.5-124			
Toluene	2.01	0.050	mg/kg	2.00		101	75.5-127			
Ethylbenzene	2.07	0.050	mg/kg	2.00		103	77.7-125			
Total Xylenes	6.23	0.150	mg/kg	6.00		104	70.9-124			
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>	<i>0.0529</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>106</i>	<i>72-148</i>			

LCS Dup (7072601-BSD1)

Prepared & Analyzed: 26-Jul-17

Benzene	2.14	0.050	mg/kg	2.00		107	79.5-124	0.414	6.5	
Toluene	1.99	0.050	mg/kg	2.00		99.3	75.5-127	1.38	7.02	
Ethylbenzene	2.07	0.050	mg/kg	2.00		104	77.7-125	0.170	7.83	
Total Xylenes	6.25	0.150	mg/kg	6.00		104	70.9-124	0.372	7.78	
<i>Surrogate: 4-Bromofluorobenzene (PID)</i>	<i>0.0533</i>		<i>mg/kg</i>	<i>0.0500</i>		<i>107</i>	<i>72-148</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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

Petroleum Hydrocarbons by GC FID - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7072504 - General Prep - Organics
Blank (7072504-BLK1)

Prepared: 25-Jul-17 Analyzed: 26-Jul-17

GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
<i>Surrogate: 1-Chlorooctane</i>	57.1		mg/kg	50.0		114	28.3-164			
<i>Surrogate: 1-Chlorooctadecane</i>	61.9		mg/kg	50.0		124	34.7-157			

LCS (7072504-BS1)

Prepared: 25-Jul-17 Analyzed: 26-Jul-17

GRO C6-C10	206	10.0	mg/kg	200		103	76.6-119			
DRO >C10-C28	213	10.0	mg/kg	200		107	81.4-124			
Total TPH C6-C28	419	10.0	mg/kg	400		105	79.4-121			
<i>Surrogate: 1-Chlorooctane</i>	58.3		mg/kg	50.0		117	28.3-164			
<i>Surrogate: 1-Chlorooctadecane</i>	64.3		mg/kg	50.0		129	34.7-157			

LCS Dup (7072504-BSD1)

Prepared: 25-Jul-17 Analyzed: 26-Jul-17

GRO C6-C10	219	10.0	mg/kg	200		110	76.6-119	6.49	7.94	
DRO >C10-C28	232	10.0	mg/kg	200		116	81.4-124	8.22	9.83	
Total TPH C6-C28	451	10.0	mg/kg	400		113	79.4-121	7.37	8.57	
<i>Surrogate: 1-Chlorooctane</i>	63.2		mg/kg	50.0		126	28.3-164			
<i>Surrogate: 1-Chlorooctadecane</i>	69.4		mg/kg	50.0		139	34.7-157			

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 703 East Clinton
 Hobbs NM, 88240

 Project: BRE-17-002
 Project Number: NONE GIVEN
 Project Manager: Bob Allen
 Fax To: (575) 393-4388

 Reported:
 04-Aug-17 17:49

Soluble (DI Water Extraction) - Quality Control
Green Analytical Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B707239 - General Prep - Wet Chem
Blank (B707239-BLK1)

Prepared: 31-Jul-17 Analyzed: 03-Aug-17

Chloride	ND	10.0	mg/kg wet							
----------	----	------	-----------	--	--	--	--	--	--	--

LCS (B707239-BS1)

Prepared: 31-Jul-17 Analyzed: 03-Aug-17

Chloride	232	10.0	mg/kg wet	250		92.9	85-115			
----------	-----	------	-----------	-----	--	------	--------	--	--	--

LCS Dup (B707239-BSD1)

Prepared: 31-Jul-17 Analyzed: 03-Aug-17

Chloride	232	10.0	mg/kg wet	250		92.8	85-115	0.0990	20	
----------	-----	------	-----------	-----	--	------	--------	--------	----	--

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 or 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 damage 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. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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 or 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 damage 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. Keene, Lab Director/Quality Manager



CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: Safety and Environmental Solutions

Project Manager: Bob Allen

Address: 703 East Clinton, PO Box 1613

City: Hobbs State: NM Zip: 88240

Phone #: 575 397-0510 Fax #: 575 393-4388

Project #: RRE-17-002 Project Owner:

Project Name:

Project Location:

Sampler Name: *David Boyer*

FOR LAB USE ONLY

BILL TO

P.O. #:

Company: Same

Attn:

Address:

City:

State: Zip:

Phone #:

Fax #:

ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	Chloride (FPA 300)	BTEX	TPH (EXT)
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:							
<i>H701984</i>																
	<i>ESW-6</i>	<i>G</i>	<i>1</i>			<i>X</i>				<i>X</i>		<i>7/21/15</i>	<i>45</i>	<i>X</i>	<i>X</i>	<i>X</i>
	<i>ESW-8</i>	<i>G</i>	<i>1</i>			<i>X</i>				<i>X</i>		<i>7/24/10</i>	<i>40</i>	<i>X</i>	<i>X</i>	<i>X</i>
	<i>ESW-9</i>	<i>G</i>	<i>1</i>			<i>X</i>				<i>X</i>		<i>7/24/10</i>	<i>40</i>	<i>X</i>	<i>X</i>	<i>X</i>
	<i>ESW-12</i>	<i>G</i>	<i>1</i>			<i>X</i>				<i>X</i>		<i>7/24/15</i>	<i>55</i>	<i>X</i>	<i>X</i>	<i>X</i>

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising under this contract or tort, shall be limited to the amount paid by the client for the analysis. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:

David Boyer

Date: *7/21/17*

Time: *4:50*

Received By:

David Boyer

Phone Result: Yes No

Add'l Phone #:

Relinquished By:

Delivered By: (Circle One) *1.08*

Sampler - UPS - Bus - Other: *Associated 1.852*

Date: *7-24-17*

Time: *4:50*

Received By:

David Boyer

Phone Result: Yes No

Add'l Phone #:

REMARKS:

Appendix D

Site Photos

**Breitburn Operating
Jalmat Trunk Line**



Excavated area with 3' of lines



Liner Installation



Lined Excavation



Backfill



