



PO Box 301 | Lovington, NM 88260 | Phone 575.396.2378

July 31, 2017

Attn. Olivia Yu Environmental Specialists, District 1 Oil Conservation Division, EMNRD 1625 N. French Drive Hobbs, NM 88240

> RE: Corrective Action Plan Black Mountain Operating, LLC State K #2 UL/A sec. 2 T10S R33E 1RP – 4675-0

Ms. Yu:

Black Mountain Operating, LLC (Black Mountain) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site.

# **Background and Previous Work**

The site is located approximately eleven and one-half (11.5) miles southwest of Crossroads, New Mexico at Unit Letter A of Section 2 in Township 10 South of Range 33 East. The global positioning coordinates are 32.48127, -103.53265. This site is located in an area where groundwater is not anticipated to be found at any depth below ground surface (bgs).

Around April 8<sup>th</sup>, 2017, Black Mountain discovered a release of approximately one-hundred seventy (170) barrels (bbls) of crude oil and produced water when a seal failed and allowed the liquid to escape from the pump. Approximately twenty (20) bbls were recovered. It is estimated that twelve-thousand two-hundred forty-four (12,244) square feet (ft<sup>2</sup>) of battery pad, pasture, road, and an additional battery pad was impacted. New Mexico Oil Conservation Division (NMOCD) was notified of the release on April 8<sup>th</sup>, 2017, and an initial C-141 was submitted to NMOCD on April 10<sup>th</sup>, 2017, for approval.

Basin personnel were on site beginning April 24<sup>th</sup>, 2017, to begin delineation and sampling activities (another company had started remediation activities prior). Eleven (11) sample points within the release area were established. The sample points, (Floor 1, Floor 2, Floor 3, Floor 4, Floor 5, Floor 6, Floor 7, Floor 8, Floor 9, Floor 10, Floor 11) from the release area were discretely collected and submitted to a NMOCD approved and certified laboratory. Chloride, gasoline Range organics (GRO) and diesel range organics (DRO) were analyzed. In addition, sample points Floor 3 and Floor 9 were analyzed for Benzene, Toluene, Ethyl-benzene, and xylenes (BTEX).

# **Corrective Action Plan**

Areas around sample points Floor 1 and Floor 4 will be excavated in one (1) foot increments until total petroleum hydrocarbons (TPH) vertical delineation is achieved. Further horizontal delineation is required for the areas around Floor 1 NW, Floor 5 EW, Floor 7 EW, Floor 8 EW, and Floor 10 SW. The excavation will be expanded in 1-foor increments until horizontal delineation is achieved. Floor 1 WW and Floor 2 WW will be addressed at time of abandonment as they are beneath the secondary containment of the pad. All other sample areas are fully delineated and below the recommended remediation action levels (RRAL) as set forth by the NMOCD.

Once horizontal and vertical delineation is achieved through verification of a certified laboratory, all soils that exhibit a concentration above the RRAL will be removed and disposed at an NMOCD facility. The excavated area will then be backfilled with clean, non-impacted material and contoured to the surrounding area. The road and pad areas will be reconstructed with gypsum rock (caliche) while the impacted area of pasture will be backfilled with top soil.

The pasture area will then be seeded utilizing a drill or broadcast method with a blend of native vegetation free from noxious and invasive species that has been approved by the land owner. The State Mix #2 seeds will then be sowed with a disc, rake or other appropriate method to ensure germination. Reseeding will take place at a time conducive to germination. If noxious or invasive species arise from the reseeding process, the noxious and/or invasive species will be removed either from the application of a herbicide designed to eliminate the noxious and/or invasive plants, or by physical extraction. Thus, this will ensure that no noxious and/or invasive species will be allowed to produce in the reseeded area.

The supporting documentation for this Corrective Action Plan is attached.

Basin appreciates the opportunity to work with you on this project. Please contact me if you have any questions or wish to discuss the site.

Sincerely,

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Robbie Runnels Project Manager Basin Environmental Service Technologies (575) 393-2967

Attachments:

Figure - Initial Sampling Data Appendix A – Initial C-141 Appendix B – Laboratory Analysis Appendix C – Photo Documentation

# FIGURE 1 Initial Sampling

# **Initial Sampling**

				initial Sampi	ing					
Sample	Cl-	GRO	DRO							
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# APPENDICES

# APPENDIX A C-141

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Form C-141 Revised August 8, 2011

pOY1710042935

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action         OPERATOR       Initial Report       Find Report         Black Mountain Operating, LLC       Contect: John Wierzowiceki       Address 500 Main St, Suite 500, Fort Worth, TX, 76102       Telephone No. (8/17)529-9488         Facility Name: State K #2       Facility Type: Oil Production Battery       Suite 500, Main St, Suite 500, Fort Worth, TX, 76102       Facility Type: Oil Production Battery         Surface Owner: Justin Johnson       Mineral Owner: State K #2       Facility State K M2       County         Unit Letter       Section       Township       Range       Feet from the       County         Source of Release: Oil and produced fluids       Volume of Release: 101 bbl       Volume Recovered 20 bbl       Source of Release: Coulding Pump Seah       4/8/17         Was Immediate Notice Given?       IV St       No       Not Required       1/15/15       Was Proven         By Wohm? John Wierzowicki       4/8/17       IYEIS, To Whom?       4/8/17         Was Watercourse was Impacted, Describe Fully.*       RECEIVED       By Olivia Y ut 11:48 arm, Apr 10, 2017         Describe Cause of Problem and Remedial Action Taken.*       A circulating pump was being used to work bottoms from oil tan	1220 S. St. Fran	cis Dr., Sant	a Fe, NM 87505	5	Sa	inta Fe	e, NM 875	05				
Black Mountain Operating, LLC       Contact: John Wierzowicki         Address 500 Main St, Stute 500, Fort Worth, TX, 76102       Telephone No. (817) 529-9488         Facility Name: State K #2       Facility Type: Oil Production Battery         Surface Owner: Justin Johnson       Mineral Owner: State of NM       API No. 30-025-00977         LOC ATION OF RELEASE       Facility Type: Oil Production Battery         Unit Letter       Section       Township       Range       Feci from the 600       Feci from the 600         Value of Release: Oil and produced fluids       Volume of Release: 170 bbl       Volume Recovered 20 bbl       Source of Release: Oil and produced fluids       Volume of Release: 170 bbl       Volume Recovered 20 bbl         Source of Release: Oil and produced fluids       Volume of Release: 170 bbl       Volume Recovered 20 bbl       48:17         Was Immediate Notice Girver?       Yes       No       Not Required       HYES, To Whon?       48:17         Was an Watercourse Reached?       Yes       No       If YES, Volume Impacting the Watercourse.       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*       RECEIVED       By Olivia Yu at 11:48 am, Apr 10, 2017         Describe Cause of Problem and Remedial Action Taken.*       A circulating pump was being used to work bottoms from oil tak. At some point it is believed that solids in the fluids caused the seals to				Rele	ase Notifica	ation	and Cor	rective Ac	tion			
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Source of Release: Circulating Pump Seals       4/8/17       4/8/17         Was Immediate Notice Given?       If YES, To Whom?       If YES, To Whom?         By Whom? John Wierzowiceki       4/8/17 @ 12:00 hrs       If YES, To Whom?         By Whom? John Wierzowiceki       4/8/17 @ 12:00 hrs       If YES, To Whom?         If a Watercourse Reached?       If YES, To Watercourse Reached?       If YES, To Watercourse Reached?       If YES, To Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken.*       RECEIVED By Olivia Yu at 11:48 am, Apr 10, 2017         Describe Cause of Problem and Remedial Action Taken.*       A circulating pump was being used to work bottoms from oil tank. At some point it is believed that solids in the fluids caused the seals to fail allowing fluid to be released from the pump.         Describe Area Affected and Cleanup Action Taken.*       Area around the separators was affected by the release. This area is about 10' x 20'. A vacuum truck was able to recover 20 bbl of liquid and all contaminated soil was removed and taken to an approved disposal. Basin Environmental was contacted and we will schedule testing to ensure all contamination has been removed.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public heath to environment. Th acceptance of a C-141 report by the NMOCD marked as "final Report" does not releve the operator	Town of Dala		1 4 1 61		NAT	URE (			1	V - 1	D	0.1.1.1
Was Immediate Notice Given?       Yes       No       Not Required       Maxey Brown         By Whom? John Wierzowicki       48/8/1 @ 12:00 hrs       Maxey Brown         Was a Watercourse Reached?       If YES, Yolume Impacting the Watercourse.       If YES, Yolume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*       If YES, Volume Impacting the Watercourse.       If YES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken.*       RECEIVED       By Olivia Yu at 11:48 am, Apr 10, 2017         Describe Area Affected and Cleanup Action Taken.*       A circulating pump was being used to work bottoms from oil tank. At some point it is believed that solids in the fluids caused the seals to fail allowing fluid to be released from the pump.         Describe Area Affected and Cleanup Action Taken.*       Acticulating pump was being used to work bottoms from oil tank. At some point it is believed that solids in the fluids caused the seals to fail allowing fluid to be released from the pump.         Describe Area Affected and Cleanup Action Taken.*       Action and pooled there. This area is about 10' x 20'. A vacuum truck was able to recover 20 bbl of liquid and all contaminated soil was removed and taken to an approved disposal. Basin Environmental was contacted and we will schedule testing to ensure all contamination has been removed.         Thereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD acceptance of a C-141 report does not relieve theoperator of faces which may endanger public healthor								Release: 1/0 bbl	1		kecovered 2	20 001
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Printed Name: John Wierzowiecki       Approved by Environmental Specialist:         Title: Operations Manager       Approval Date:       4/10/2017         E-mail Address: john.wierzowiecki@blackmtn.com       Conditions of Approval:       Expiration Date:         Date: 4/3/17       Phone: (817) 529-9488       See attached directive       Attached Implication	Signature:	H								C	h	
Printed Name: John Wierzowiecki     Approval Date:     4/10/2017       Title: Operations Manager     Approval Date:     4/10/2017       E-mail Address: john.wierzowiecki@blackmtn.com     Conditions of Approval:     Expiration Date:       Date: 4/3/17     Phone: (817) 529-9488     See attached directive     Attached [see attached directive]	- 6	$\smile$					Approved by	Environmental S	necialist	. C	TT I	
E-mail Address: john.wierzowiecki@blackmtn.com     Conditions of Approval:     Attached Information       Date: 4/3/17     Phone: (817) 529-9488     See attached directive     Attached Information	Printed Name	e: John Wi	erzowiecki				. PProved by		reclamot	-	U	
E-mail Address: john.wierzowiecki@blackmtn.com     Conditions of Approval:     Attached Information       Date: 4/3/17     Phone: (817) 529-9488     See attached directive     Attached Information	Titles One of	tiona M	~~~				A	. 4/10/201	7   ,	7	Data	
Date: 4/3/17 Phone: (817) 529-9488 See attached directive	The: Operat	uons Mana	ger				Approval Dat	e:		zxpiration		
Date: 4/3/17 Phone: (817) 529-9488 See attached directive	E-mail Addre	ess: john.w	vierzowiecki@	blackmtn.	com		Conditions of	Approval:			۸ 1	
Date: 4/3/1/ Phone: (81/) 529-9488									ive		Attache	α
ttach Additional Sheets If Necessary					817) 529-9488							
	ttach Additi	onal Sheet	ts If Necessa	ry								

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# APPENDIX B Laboratory Analysis



May 02, 2017

ROBBIE RUNNELS Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: STATE K

Enclosed are the results of analyses for samples received by the laboratory on 04/25/17 15:15.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

# Sample ID: FLOOR 1 @ 1' (H701098-01)

Chloride, SM4500Cl-B	mg	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	274	50.0	04/26/2017	ND	217	108	200	3.51	
DRO >C10-C28	5340	50.0	04/26/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	123	28.3-16	4						
Surrogate: 1-Chlorooctadecane	138	% 34.7-15	7						

# Sample ID: FLOOR 1 NW (H701098-02)

Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1190	50.0	04/26/2017	ND	217	108	200	3.51	
DRO >C10-C28	23600	50.0	04/26/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	191 9	28.3-16	4						
Surrogate: 1-Chlorooctadecane	530 9	% 34.7-15	7						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 1 EW (H701098-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	61.2	50.0	04/26/2017	ND	217	108	200	3.51	
DRO >C10-C28	2270	50.0	04/26/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	75.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	102	% 34.7-15	7						

# Sample ID: FLOOR 1 WW (H701098-04)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1620	50.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	16400	50.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	175 9	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	374 9	% 34.7-15	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 2 @ 2' (H701098-05)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	220	50.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	2400	50.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	99.0	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	106	% 34.7-15	7						

# Sample ID: FLOOR 2 EW (H701098-06)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	271	10.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	85.7	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	87.7	% 34.7-15	7						

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# \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 2 WW (H701098-07)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	528	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1510	50.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	7570	50.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	160	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	169	% 34.7-15	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 3 @ 3' (H701098-08)

BTEX 8021B	mg/	′kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2017	ND	1.87	93.4	2.00	0.114	
Toluene*	0.349	0.050	04/29/2017	ND	1.93	96.5	2.00	0.819	
Ethylbenzene*	0.575	0.050	04/29/2017	ND	1.94	97.1	2.00	0.802	
Total Xylenes*	2.71	0.150	04/29/2017	ND	5.79	96.5	6.00	0.883	
Total BTEX	3.63	0.300	04/29/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	131 9	% 72-148	}						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	2170	50.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	83.4	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	104 9	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 3 EW (H701098-09)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	<10.0	10.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	82.6	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	81.8	% 34.7-15	7						

# Sample ID: FLOOR 3 WW (H701098-10)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	448	112	400	11.3	
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	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	110	10.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	94.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	96.8	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 4 @ 4' (H701098-11)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	107	50.0	04/27/2017	ND	217	108	200	3.51	
DRO >C10-C28	5120	50.0	04/27/2017	ND	233	117	200	4.68	
Surrogate: 1-Chlorooctane	103	% 28.3-16	54						
Surrogate: 1-Chlorooctadecane	134	% 34.7-15	7						

# Sample ID: FLOOR 4 WW (H701098-12)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	16.8	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	1520	10.0	04/26/2017	ND	225	112	200	0.492	QM-07
Surrogate: 1-Chlorooctane	96.9	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	106	% 34.7-15	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 4 EW (H701098-13)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	<10.0	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	82.2	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	82.3	% 34.7-15	7						

# Sample ID: FLOOR 5 @ 3' (H701098-14)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/27/2017	ND	448	112	400	11.3	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	<10.0	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	91.2	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	93.0	% 34.7-15	7						

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# \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 5 WW (H701098-15)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	66.1	50.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	1870	50.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	108	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	114	% 34.7-15	7						

# Sample ID: FLOOR 5 EW (H701098-16)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1290	50.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	9160	50.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	220	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	83.5	% 34.7-15	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 6 @ 3' (H701098-17)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	16.0	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	84.9	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	85.0	% 34.7-15	7						

# Sample ID: FLOOR 6 WW (H701098-18)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	82.8	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	88.4	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	91.5	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 6 EW (H701098-19)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	<10.0	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	91.0	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	92.4	% 34.7-15	7						

# Sample ID: FLOOR 7 @ 3' (H701098-20)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	479	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	86.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	92.3	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 7 EW (H701098-21)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1130	50.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	11000	50.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	232	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	83.4	% 34.7-15	7						

# Sample ID: FLOOR 7 WW (H701098-22)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	1290	50.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	102	% 28.3-16	54						
Surrogate: 1-Chlorooctadecane	99.0	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 8 @ 3' (H701098-23)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	576	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	91.1	% 28.3-16	54						
Surrogate: 1-Chlorooctadecane	87.4	% 34.7-15	7						

# Sample ID: FLOOR 8 EW (H701098-24)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	841	50.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	9720	50.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	215	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	81.8	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 8 WW (H701098-25)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	88.2	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	2560	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	102	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	114 9	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 9 @ 1' (H701098-26)

BTEX 8021B	mg/	′kg	Analyze	d By: BF					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/29/2017	ND	1.87	93.4	2.00	0.114	
Toluene*	<0.050	0.050	04/29/2017	ND	1.93	96.5	2.00	0.819	
Ethylbenzene*	0.116	0.050	04/29/2017	ND	1.94	97.1	2.00	0.802	
Total Xylenes*	0.571	0.150	04/29/2017	ND	5.79	96.5	6.00	0.883	
Total BTEX	0.686	0.300	04/29/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	135 9	% 72-148	2						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	14.2	10.0	04/26/2017	ND	222	111	200	0.615	
DRO >C10-C28	393	10.0	04/26/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	86.2	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	86.5	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 9 WW (H701098-27)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	222	111	200	0.615	
DRO >C10-C28	<10.0	10.0	04/27/2017	ND	225	112	200	0.492	
Surrogate: 1-Chlorooctane	92.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	87.2	% 34.7-15	7						

# Sample ID: FLOOR 10 @ 2' (H701098-28)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	116	10.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	976	10.0	04/27/2017	ND	207	103	200	11.0	QM-07
Surrogate: 1-Chlorooctane	101	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	106	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 10 EW (H701098-29)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	4130	50.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	88.3	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	158	% 34.7-15	7						

# Sample ID: FLOOR 10 WW (H701098-30)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	<10.0	10.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	86.5	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	98.0	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 10 SW (H701098-31)

Chloride, SM4500Cl-B	mg,	′kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg,	′kg	Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1710	50.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	11200	50.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	177	28.3-16	4						
Surrogate: 1-Chlorooctadecane	254	% 34.7-15	7						

# Sample ID: FLOOR 11 @ 0.5' (H701098-32)

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	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	1320	10.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	103	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	133	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 11 EW (H701098-33)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	1210	10.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	88.2	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	103	% 34.7-15	7						

# Sample ID: FLOOR 11 WW (H701098-34)

Chloride, SM4500Cl-B	500Cl-B mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	04/27/2017	ND	416	104	400	7.41	
TPH 8015M	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	<10.0	10.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	77.8	% 28.3-16	54						
Surrogate: 1-Chlorooctadecane	93.3	% 34.7-15	7						

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Received:	04/25/2017	Sampling Date:	04/24/2017
Reported:	05/02/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	Cool & Intact
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	BLACK MOUNTAIN - LEA CO		

#### Sample ID: FLOOR 11 SW (H701098-35)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	04/27/2017	ND	400	100	400	7.69	
TPH 8015M	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/27/2017	ND	192	95.9	200	7.61	
DRO >C10-C28	28.6	10.0	04/27/2017	ND	207	103	200	11.0	
Surrogate: 1-Chlorooctane	62.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	67.6	% 34.7-15	7						

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Celey D. Keene, Lab Director/Quality Manager



# **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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

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(575) 393-23	(575) 393-2326 FAX (575) 393-2476	BILL TO					E	ANALYSIS REQUEST	-
Company Name: Basin Enviro	Basin Environmental Service Levilliongroup	P.O. #:		_	_	_	_		
Project Manager: Robbie Runnels	neis	Black Mountain	Auntain	-	_	_	_		_
Address: P.O. Box 301		pany:	Outhant		_				
City: Lovington	State: NM Zip: 88260	Attn:				_			
e #	Fax #: (575)396-1429	Address:		_	_	-			
	Project Owner: Black Mountain	City:		-		1B)	_		
		State: NM Zip:		ide	)15	02	_		
Project Name.		Phone #:		-		(8)	_		
Project Location: Lea				-	-	EX			
Sampler Name: Robbie Runnels	-	Fax #:		_	_	BTI			
86010LH	4 # ( GI W × S( O		9:30	×	×				
/ Floor 1 @ 1'		-	9:35	×	×	1			
2 Floor 1 NW		× 4/24/17	9:40	×	×				
3 Floor 1 EW		-	1	×	×				
4 Floor 1 WW			1	×	×				
5 Floor 2 @ 2'	-	_	9:55	×	×				
/ Floor 2 EW		_	10:00	×	×				
7 Floor 2 WW	2 9	× 4/24/17		×	×	×			
6 Floor 3 @ 3'	9	-	10:10	×	×				
9 Floor 3 EW	-	-	-	×	×				
10 Floor 3 WW	ahility and client's exclusive remedy for any o	ir tort, shall be limited to the amount paid by the client for the	tion of the applicable						
PLEASE WOLE: Learning and unmargent analyses. All datins including those for negligance and any other cause whatsoever shall be dee service. In no event shall Cardinal be liable for incidental or consequential damages, including wi service.	2 4 3	real valved unless made in wrang and receivery or thesi of profits incurred by client, its subsidiaries, rout imitation, basiness interruptions, bass of user, or bass of profits incurred by client, its subsidiaries, final, regardless of whether such claim is based upon any of the above stated reasons or otherwise.	or otherwise.	t.			No	Add'l Phone #:	
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Delivered By: (Circle One)									

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(1	(575) 393-2326 FAX (57	FAX (575) 393-2476	8 11 C	<b>B</b> 111	L 70				ANALYSIS REQUEST	
Company Name:	Basin Environmental Service Lechilologies, LEC	ICe I echinologi	50, LLV	1 Å			_			
Project Manager:	Robbie Runnels			F.O. #:				_		
Address: P.O. Box 301	x 301			Company:	Black Mountain	ain				
8		State: NM Z	Zip: 88260	Attn:				_		
D #		Fax #: (575)396-1429	1429	Address:				_		
		Project Owner:	Black Mountain	City:			A)	B)		
ame.	State K #2			State: NM	Zip:	ide	15	021		
Project Maille.				Phone #:		ori	(80	(8)		
Project Location:	Lea					Chi	н (	EX		
Sampler Name: Ro	Robbie Runnels			Fax	SAMDI ING	0	TP	вте		_
_			MATRIX	PRESERV.	SAMPLING			E		
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2401964	oor 4 @ 4'		1 #	×	4/24/17 /	10"17 ×	×			
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			a 1 ×	×	4/24/17 /	× 45:01	×			
19	Floor 6 @ 3'		g 1 ×	×	+	-	×	Г		
12	Floor 6 WW		g 1 x	×	+	+	>			
	Eloor & EW		g 1 ×	×	4/24/17	2.7.1 X	*			
9	Floor 7 @ 3'		1		-	× 154: P	×	-		
ability	ability and cl	usive remedy for any cla atsoever shall be deeme	based in contra ade in writing as	in contract or tort, shall be limited to the an in writing and received by Cardinal within 30 d	led to the amount paid by the cents I) within 30 days after completion of	the applicable liaries.				
analyses. All claims including th service. In no event shall Cardin	inalyses. All claims including trose ior registrono and any or consequential di service. In no event shall Cardinal be label for includental or consequential di service. In no event shall cardinal be registro and the performance of service	amages, including without oes hereunder by Cardin	quertal damages, including without limitation, business interruptions, to se of services hereunder by Candinal, regardless of whether such claim i	in its based upon any of the above stated reasons or otherwise. Pho: Pho: Pho: Pho: Pho: Pho: Pho: Pho:	stated reasons or other	Phone Result:			Add'l Phone #:	
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(5	(575) 393-2326 FAX (575) 393-24/6	10	<b>5111</b>			ANALYSIS REQUEST
Company Name:	Basin Environmental Service Technologies, LCC	ogies, LLV			_	
Project Manager:	Robbie Runnels				_	
Address: P.O. Box 301	x 301		Company: Black Mountain	lountain		
S.	State: NM	Zip: 88260	Attn:			
e #	6-2378 Fax #: (575)396-1429	96-1429	Address:			
•		: Black Mountain	City:		-	
ame:	State K #2		State: NM Zip:	-	021	
3	Lea		Phone #:	lor	-	
Project Location:	Loo		1	-	-	
Sampler Name: Rot	Robbie Runnels		Fax #:	C	_	
FOR LAB USE ONLY		S ER				
Lab I.D.	Sample I.D.	G)RAB OR (C)ON # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER : ACID/BASE: ICE / COOL OTHER :	TIME		
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Ř	Floor 10 @ 2'	9 1 ×	× 4/24/17	+	× :	
1 m	Floor 10 EW 9 11 X 9 11 X 9 11 X	g T X	limited to the amount paid by	er ue		
PLEASE NOTE: Laberry and usineges, converse and any other analyses. All claims including those for negligence and any other service. In no event shall Cardinal be liable for incidental or con-	8 1	rance whatsoever shall be deened waked unless made in writing and received by Cartakal writin 3 or apps arms or universe quertal damages, including without invation, business interruptions, loss of use, or loss of profile incurred by deet. It is subdivide quertal damages, including without invation, business interruptions, loss of use, or loss of profile incurred by deet. It is subdivide the overlated analysis in the overlate such dama such a based usen any of the above stated reasons or otherwise.	rdinal within 30 days arter com as of profits incurred by client, any of the above stated reason	subsidiaries, sr otherwise.		
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Basin Environmental Service Technologies, LLC		BILLIO						-
Robbie Runnels	P.O. #:		1		-			_
	Company:	Black Mountain	5					_
State: NM Zip: 1	88260 Attn:		_		-			
Fax #: (575)396-1429	Address:							
Project Owner: B	Black Mountain City:		_	N)	B)			
	State: NM	A Zip:	ide	)151	021			_
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Robbie Runnels		AV SAMPLING		тр	вт			
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PLEASE NOTE: Lability and Damages. Cardinal's lability and client's exclusive remedy for any claim arising whether based in contract or lon, shall be limited to the amount paid by the client for the paper base of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deened waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deened waived unless made in writing and received by Cardinal within 30 days after completion of the applicable analyses. All claims including those for negligence and any other cause whatsoever shall be deened waived unless indentions, loss of use, or loss of profits incurred by client, its subadiaries,	y whether based in contract or lort, shall be limited to t unless made in writing and received by Cardinal within on business internations, loss of use, or loss of profite	he amount paid by the client for a 30 days after completion of the s incurred by client, its subsidiari	the applicable es,					
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† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

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FORM-006 Revision 1.0

Page 26 of 26



July 23, 2017

ROBBIE RUNNELS Basin Environmental Service P.O. Box 301 Lovington, NM 88260

**RE: STATE K** 

Enclosed are the results of analyses for samples received by the laboratory on 07/14/17 15:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

# Sample ID: FLOOR 1 @ 3' (H701831-01)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	<0.050	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: FLOOR 2 @ 2' (H701831-02)

mg/	/kg	Analyze	d By: MS					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
0.097	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
<0.300	0.300	07/19/2017	ND					
	Result <0.050 <b>0.097</b> <0.050 <0.150	<0.050 0.050 0.097 0.050 <0.050 0.050 <0.150 0.150	Result         Reporting Limit         Analyzed           <0.050	Result         Reporting Limit         Analyzed         Method Blank           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           <0.050	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           <0.050

Surrogate: 4-Bromofluorobenzene (PID 105 % 7.

#### 72-148

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service **ROBBIE RUNNELS** P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: FLOOR 4 @ 4' (H701831-03)

BTEX 8021B	mg	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	<0.050	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 106 %

# Sample ID: FLOOR 5 @ 3' (H701831-04)

BTEX 8021B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	0.055	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

106 % Surrogate: 4-Bromofluorobenzene (PID

72-148

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#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service **ROBBIE RUNNELS** P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: FLOOR 6 @ 3' (H701831-05)

BTEX 8021B	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	0.128	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 104 %

# Sample ID: FLOOR 7 @ 3' (H701831-06)

BTEX 8021B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	<0.050	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

106 % Surrogate: 4-Bromofluorobenzene (PID

72-148

72-148

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service **ROBBIE RUNNELS** P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: FLOOR 8 @ 3' (H701831-07)

BTEX 8021B	mg,	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	0.082	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 105 %

# Sample ID: FLOOR 10 @ 2' (H701831-08)

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	07/19/2017	ND	1.89	94.3	2.00	2.20	
Toluene*	<0.050	0.050	07/19/2017	ND	1.88	94.0	2.00	1.21	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	2.05	102	2.00	1.07	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	6.09	102	6.00	0.563	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 106 %

#### 72-148

72-148

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service **ROBBIE RUNNELS** P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: FLOOR 11 @ 0.5' (H701831-09)

BTEX 8021B	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.141	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 103 % 72-148

# Sample ID: SP1 NW (H701831-10)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	<0.050	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

104 % Surrogate: 4-Bromofluorobenzene (PID

72-148

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service **ROBBIE RUNNELS** P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP1 EW (H701831-11)

BTEX 8021B	mg,	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.090	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: SP1 WW (H701831-12)

BTEX 8021B	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	<0.050	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

104 % Surrogate: 4-Bromofluorobenzene (PID

72-148

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP2 EW (H701831-13)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.050	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: SP2 WW (H701831-14)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.246	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	0.103	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	0.762	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	1.11	0.300	07/19/2017	ND					

115 % Surrogate: 4-Bromofluorobenzene (PID

72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP3 EW (H701831-15)

BTEX 8021B	mg,	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	<0.050	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: SP3 WW (H701831-16)

BTEX 8021B	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	<0.050	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

107 % Surrogate: 4-Bromofluorobenzene (PID

#### 72-148

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Celey D. Keene, Lab Director/Quality Manager



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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP4 EW (H701831-17)

BTEX 8021B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.194	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	0.175	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	0.369	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 111 % 72-148

# Sample ID: SP4 WW (H701831-18)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.060	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 110 %

72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP5 EW (H701831-19)

BTEX 8021B	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.068	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 112 % 72-148

# Sample ID: SP5 WW (H701831-20)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.183	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	0.160	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	0.343	0.300	07/19/2017	ND					

111 % Surrogate: 4-Bromofluorobenzene (PID

72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP6 EW (H701831-21)

BTEX 8021B	mg/	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.151	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	0.166	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	0.317	0.300	07/19/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 110 %72-148

# Sample ID: SP6 WW (H701831-22)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.137	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

107 % Surrogate: 4-Bromofluorobenzene (PID

#### 72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP7 EW (H701831-23)

BTEX 8021B	mg	mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.062	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: SP7 WW (H701831-24)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.094	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

106 % Surrogate: 4-Bromofluorobenzene (PID

#### 72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP8 EW (H701831-25)

BTEX 8021B	mg/kg		Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.139	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: SP8 WW (H701831-26)

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	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	0.074	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

106 % Surrogate: 4-Bromofluorobenzene (PID

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

# Sample ID: SP9 WW (H701831-27)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/19/2017	ND	1.78	89.1	2.00	0.408	
Toluene*	<0.050	0.050	07/19/2017	ND	1.80	89.9	2.00	1.11	
Ethylbenzene*	<0.050	0.050	07/19/2017	ND	1.95	97.3	2.00	1.62	
Total Xylenes*	<0.150	0.150	07/19/2017	ND	5.82	97.0	6.00	1.74	
Total BTEX	<0.300	0.300	07/19/2017	ND					

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

# Sample ID: SP10 EW (H701831-28)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	<0.050	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID 105 % 7

72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP10 WW (H701831-29)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	<0.050	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					

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

# Sample ID: SP10 SW (H701831-30)

BTEX 8021B	mg/	′kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	<0.050	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					

105 % Surrogate: 4-Bromofluorobenzene (PID

72-148

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Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP11 EW (H701831-31)

BTEX 8021B	mg,	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	<0.050	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					

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

# Sample ID: SP11 WW (H701831-32)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	<0.050	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					

105 % Surrogate: 4-Bromofluorobenzene (PID

72-148

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: SP11 SW (H701831-33)

BTEX 8021B	mg	/kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	0.100	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					

72-148

Surrogate: 4-Bromofluorobenzene (PID 105 %

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\*=Accredited Analyte

Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: PILE NORTH (H701831-34)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	0.105	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	<0.050	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	<0.150	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	<0.300	0.300	07/20/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	105 9	% 72-148							
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/17/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/18/2017	ND	199	99.5	200	4.26	
DRO >C10-C28	152	10.0	07/18/2017	ND	214	107	200	3.63	
Surrogate: 1-Chlorooctane	83.1	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	93.2	% 34.7-15	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Basin Environmental Service ROBBIE RUNNELS P.O. Box 301 Lovington NM, 88260 Fax To: (575) 396-1429

Received:	07/14/2017	Sampling Date:	07/13/2017
Reported:	07/23/2017	Sampling Type:	Soil
Project Name:	STATE K	Sampling Condition:	** (See Notes)
Project Number:	#2	Sample Received By:	Tamara Oldaker
Project Location:	XTO - LEA CO		

#### Sample ID: PILE SOUTH (H701831-35)

BTEX 8021B	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/20/2017	ND	1.93	96.5	2.00	0.942	
Toluene*	0.249	0.050	07/20/2017	ND	1.95	97.6	2.00	1.07	
Ethylbenzene*	0.055	0.050	07/20/2017	ND	2.12	106	2.00	1.32	
Total Xylenes*	0.309	0.150	07/20/2017	ND	6.30	105	6.00	1.08	
Total BTEX	0.613	0.300	07/20/2017	ND					
Surrogate: 4-Bromofluorobenzene (PID	104 9	% 72-148							
Chloride, SM4500Cl-B	mg/	'kg	Analyze	d By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	07/17/2017	ND	416	104	400	0.00	
TPH 8015M	mg/	'kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/18/2017	ND	199	99.5	200	4.26	
DRO >C10-C28	158	10.0	07/18/2017	ND	214	107	200	3.63	
Surrogate: 1-Chlorooctane	85.4	% 28.3-16	4						
Surrogate: 1-Chlorooctadecane	95.3	% 34.7-15	7						

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Celeg D. Keine

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 and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims based upon any of the above stated reasons or otherwise. Results relate only to the sample identified above. This report shall not be reproduced except in full with written approval of Cardinal Loratories.

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Page 21 of 25

	ILL TO			ANALYSIS REQUEST
Company:	Black Mou	ntain		
Attn:			_	
Address:				
XTO Energy City:			-	
State: N	Zip:		-	
Phone #:		nlor	_	
Fax	1			
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3 ann arising whether based in contract or tort, shall be limited to ned waned unless made in writing and received by Cardinal will ned waned unless made in writing and received by Cardinal will	o the amount paid by the clie hin 30 days after completion fas incurred by client. Its sub	of the applicable idiaries.		
uptions, loss of use, or loss of pro- such claim is based upon any of the	ove stated re	verwise.		
Received By:		Phone Result: Fax Result: REMARKS:	Yes D	o Add'l Fax #:
Attion Attion Yes	(Initials)	Please email	results to pm@t	Please email results to pm@basinenv.com, amy_Ruth@xtoenergy.com
			P.O. #: Company: BILL TO Address: State: NM Zip: 88 Phone #: Fax #: PRESERV. SAMPLING OTHER: 88 Phone #: ICC OTHER: ACID/BASE: 88 Phone #: ICC OTHER: ACID/BASE: 7/13/17 X 7/	BILL     TO       P.O. #:     Black Mour       Address::     City:       State:     NM       Phone #:     PRESERV.       State:     COTHER:       Back Mour     Sampling       Phone #:     PRESERV.       State:     COTHER:       Address:     COTHER:       PRESERV.     SAMPLING       ACID/BASE:     DATE       IC OTHER:     T/13/17       X     7/13/17       X <td< td=""></td<>

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ADX 301       State: NM       ZIp:       88260       Attn::         5)396-2378       Fax #:       Froject Owner:       XTO Energy       City:         State: K#2       Project Owner:       XTO Energy       City:       State: NM       Zip:       88260         Karanja Lewis       Project Owner:       XTO Energy       City:       Rate:       NM       Zip:       88260         Karanja Lewis       Project Owner:       XTO Energy       City:       Rate:       NM       Zip:       88260         Karanja Lewis       Project Owner:       XTO Energy       City:       Prosective       Prove #:       Rate:       NM       Zip:       88260         SPI EW       SPI EW       g       1       x       Group MATER       7/13/17       10:40       DATE       TIME       DATE       TIME       NM       Sigs EW       Sigs EW       g       1       x       7/13/17       10:50       Sigs EW       Sigs EW       g       1       x       7/13/17       10:00       Sigs EW       Sigs EW       g       1       x       7/13/17       10:00       Sigs EW       X       7/13/17       10:00       Sigs EW       X       7/13/17       11:00       X       7/13/17	anager:	Runnels					- 11		0	*	•	Rlack Mo	untain		_		
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Date:     Time:	ice. In no event shall Cardinal be liable for inv lates or successors arising out of or related to	cidental or consequental damages, including write the performance of services hereunder by Cardin	al, regar	dless of	whethe	r such o	taim is	hased	upon an	N of th	e above	stated reasons or o	therwise.				
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	nquished By:		Re	ceiv	d B	2	R	A	all'	19	AL.	KED RY.	Please em		sults		results to pm@basinenv.com, amy_Ruth@xtoenergy.com

Page 23 of 25

ANALYSIS REQUEST		Desia Environmental Conice Technologies 11C
		(575) 393-2326 FAX (575) 393-2476
1		101 East Marland, Hobbs, NM 88240
2		RDINAL LABORATORIES
ISTODY AND ANALYSIS REQUEST	CHAIN-OF-CUSTOD	

Company Name: Basin Environmental Service Technologie	Basin Environmental Service Technologies,	, HC	BILL TO				ANALYSIS REC	REQUEST	
	els	P.O. #:	#						
Address: P.O. Box 301		Con	Company: Black Mountain	Intain					_
City: Lovington	State: NM Zip:	: 88260 Attn:							
Phone #: (575)396-2378	Fax #: (575)396-1429		Address:						
Project #:	Project Owner:	XTO Energy City:			)	3)			_
Project Name: State K #2		State:	NM Zip:	88260 de	15M	)21E			_
Project Location: Lea		Pho	Phone #:	lori	(80	(80			_
Sampler Name: Karania Lewis		Fax #:	*	Ch	н	EX			
н.		MATRIX	PRESERV SAMPLING		TP	вт			_
Lab I.D. Sam	G)RAB OR (C)OMP.	SLUDGE OTHER :		TIME					
21 SP6 EW	9	×	X 7/13/17	11:30		×			
	9	1 x	x 7/13/17	11:35		×			
_	9	1 x	x 7/13/17	11:40		×			
-	6	1 x	x 7/13/17	11:45		×			
'	9	1 x	x 7/13/17	11:50	T	×			
21 SP8 WW	9	1 x	x 7/13/17	11:55	1	×			
2) SP9EW WW	M g	1 ×	× 7/13/17	12:00	T	×			
-	9	1 ×	x 7/13/17	12:05	T	×			
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55	SP11SW		9	-	×	-		×	7/13/17	12:28			×			T	t	t	+	t	t	T	
75	Pile North		0	1	×	-		×	7/13/17	12:30	X	X	×			T	1	+	+	+	+		
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15:30

Page 25 of 25

# APPENDIX C Photo Documentation

# Black Mountain Operating, LLC – State K #2 Unit Letter A, Section 2, T10S, R33E



Point of Release, facing south

4/24/17



Excavated area, facing south



Excavated area, facing south

4/24/17



Excavated area, facing northwest

4/24/17

# Black Mountain Operating, LLC – State K #2 Unit Letter A, Section 2, T10S, R33E



Source of leak

4/8/17



Initial release area, facing northeast



Source of leak

4/8/17



Initial release, facing north

4/8/17