

CLOSURE REPORT FOR

OGDEN SWD SUBSTATION TANK BATTERY(2RP-5242)

BTA OIL PRODUCERS, LLC

C&M Services, LLC. Natural Resources Department

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Closure Report – BTA Oil Producers, LLC – Ogden 20509 SWD Substation Tank Battery (2RP-5242)

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January 10, 2020

NMOCD District 2
Mr. Bratcher
811 S. First Street
Artesia, New Mexico 88210

RE: Remediation Closure Report for the Ogden 20509 SWD Substation Tank Battery Release (2RP-5242), Eddy, New Mexico

Dear Mr. Bratcher:

On behalf of BTA Oil Producers, LLC, C&M Services, LLC. (C&M) has prepared this Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the Ogden 20509 SWD Substation Tank Battery site. The release site is in Unit E, Section 32, Township 23S, Range 28E, Eddy County, New Mexico, on State land. Map 1 illustrates the vicinity and site.

Release History

On January 26, 2019, a release was discovered at the Ogden 20509 SWD Substation Tank Battery site due to failure of a transfer pump. Initial response activities were conducted by BTA and Cajun Energy and included source elimination and site security; containment; and site stabilization activities. No fluids were recovered. Map 1 illustrates the vicinity and site location. Map 3A illustrates the release location. The C-141 form is included in Appendix A.

Release Location Information

Table 1: Release Information			
API Number	30-015-23514	Source of Release	Failure of transfer pump caused overflow of containment.
Remediation Permit Number	2RP-5242	Released Material	Produced Water
Estimated Date of Release	1/26/19	Released Volume	2,000 bbls
NMOCD Report Date	1/26/19	Recovered Volume	None
NMOCD Closure Criteria	51-100 feet to groundwater	Net Release	2,000 bbls

The Ogden 20509 SWD Substation Tank Battery is located approximately 11.5 miles southeast of Carlsbad, New Mexico on State land at an elevation of approximately 3,116 feet above mean sea level (amsl).

There are two known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database and the USGS National Water Information System. The nearest significant watercourse is Black River, located approximately 2.20 miles south of the location. Map 2 illustrates the site with 100, 200, and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

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Based on the information from the NMOSE and the USGS, the applicable NMOCD closure criteria for this site is for a groundwater depth of between 51-100 feet bgs.

Table 1 demonstrates the closure criteria applicable to this location. Pertinent well data is attached in Appendix B.

Remediation Activities

Initial Release Characterization

On January 26th, 2019, Cajun Energy personnel arrived on site in response to the release associated with Ogden SWD. The entirety of the visibly stained area was mapped and photographed via drone (Appendix D) so that further samples could be collected at a later date.

On February 15th-17th, 2019 Cajun Energy returned to the location and collected soil samples at 11 sample locations (SP1 thru SP11) on the pad and south of the pad. On April 15th, 2019 an additional 11 sample locations (SP12 thru SP22) on the ROW were collected. On May 9th, 2019 another 7 sample locations (SP23-SP29) were collected in the remaining release area to complete the initial site assessment. At each sample location, a minimum of two samples were collected and were field screened using the EPA 300 Method.

A total of fifty-three samples were collected for laboratory analysis. Samples were analyzed for: total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Cardinal Laboratories in Hobbs, New Mexico (Appendix C). The sample locations, depths, and dates collected are notated in attached Table 3A. Map 3A shows the sample locations.

Excavation Guidance

On April 2nd-23rd, 2019 Expert Environmental personnel returned to the site to oversee the excavation of contaminated soil from the ROW area. Soil samples were collected for field screening using the EPA 300 Method.

May 6th-31st, 2019, June 1st-8th, 2019 and August 16th-20th, Expert Environmental personnel was on site to continue excavation of the ROW and Pipeline Crossing/ Pigging Connection/ Tank Battery Load out areas. The release area was excavated until field screening results indicated that the contaminant was removed, per NMOCD Closure Criteria.

A total of thirty-seven samples were collected for laboratory analysis. Samples were analyzed for: total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Cardinal Laboratories in Hobbs, New Mexico (Appendix C). The sample locations, depths, and dates collected are notated in attached Table 3B. Map 3B shows the sample locations.

Confirmation Sampling

On May 10th, 19th, and 23rd Expert Environmental conducted confirmation sampling of the walls of the ROW Pipeline Crossing/ Pigging/Tank Battery Load out excavation areas. NMOCD was notified via email, on May 1st, 2019, that closure samples were expected to be collected on May 6th, 2019.

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A total of twenty-nine samples were collected for laboratory analysis. Samples were analyzed for: total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Cardinal Laboratories in Hobbs, New Mexico .

On November 8, 2019, confirmation sampling of the base of the excavation (BH1-BH10), was conducted by C&M personnel. Two sidewalls (West Wall SP7 & West Wall SP8) were re-sampled at the excavated depth. A total of twelve samples were collected for laboratory analysis and sent to Hall Laboratory.

The chloride levels around BH7 and West Wall SP7 were found to be above NMOCD closure levels. The area around these points was excavated further until field screening indicated the NMOCD closure levels were met. C&M personnel recollected soil samples at BH7 and West Wall SP7 for laboratory analysis and sent them for confirmation to Hall Laboratory.

Samples were analyzed for: total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Laboratory, Albuquerque, New Mexico (Appendix C). The sample locations, depths, and dates collected are noted in attached Table 3C. Maps 3C, 3C-1, & 3C-2 show the extent of the excavation and sample locations.

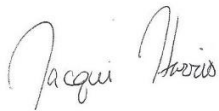
An estimated 4,067 tons of contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at Lea Land, NM, an NMOCD permitted disposal facility. Attached in Appendix E are the disposal Invoices from Lea Land, LLC.

This site has been restored to meet the standards of Table I of 19.15.29.12 NMAC. In addition to meeting the Closure Criteria, the top four (4) feet of impacted areas off the well pad meet the Reclamation requirement of 19.15.29.13(D)(1).

Conclusion

Based on the soil assessment and remediation work performed at the site, BTA requests closure of this spill. The final C-141 is enclosed in Appendix A. If you have any questions or comments concerning this report, please call Jacqui Harris at 575-496-0780.

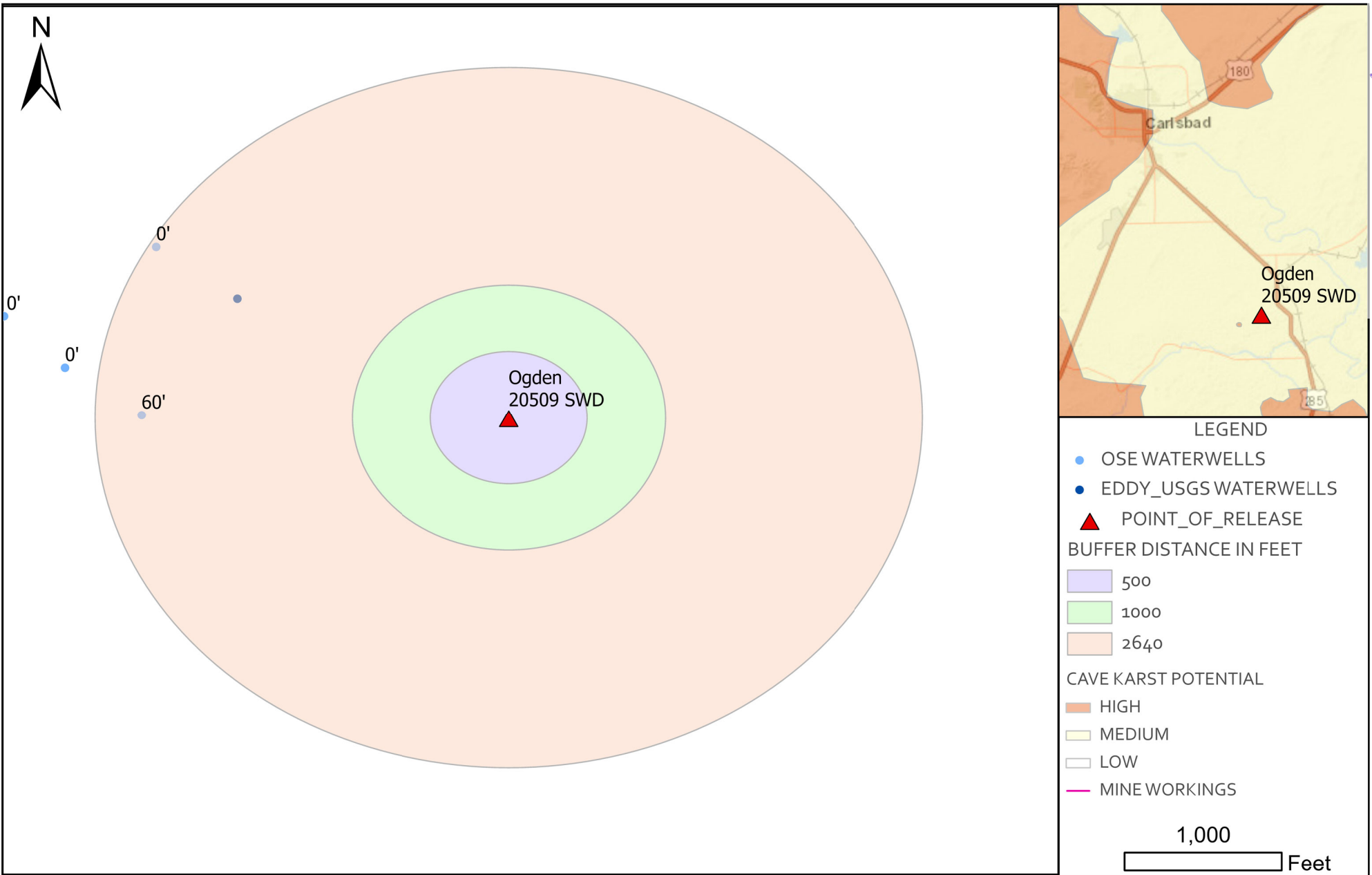
Submitted by:
C&M Services, LLC, Natural Resource Department



Jacqui Harris
Environmental Compliance Manager

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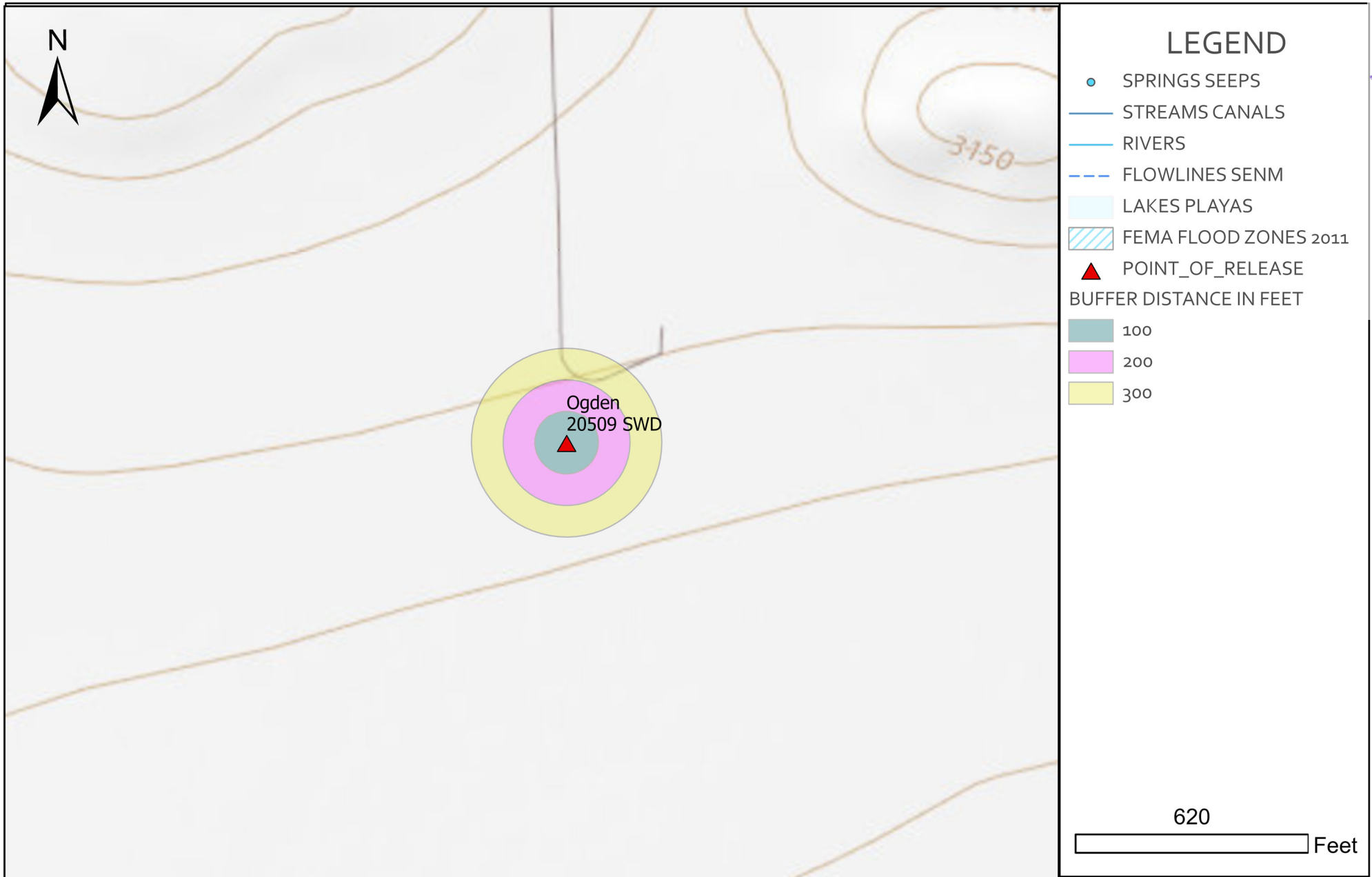
Maps



Regional Vicinity & Wellhead Protection Map

Map 1

BTA- OGDEN 20509 SWD



Surface Water Protection Map

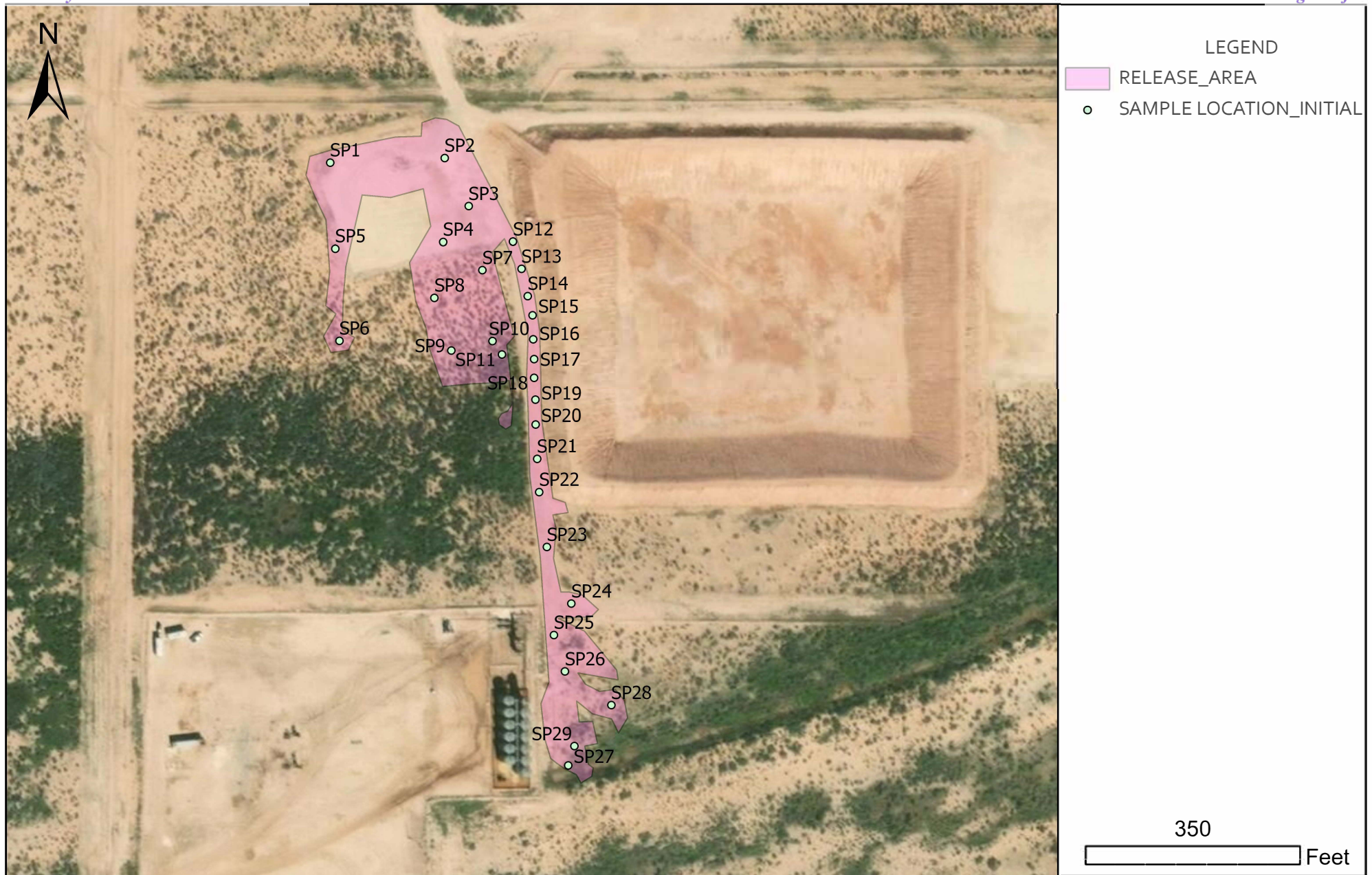
Map 2

BTA-OGDEN 20509 SWD

JVH Author

9/27/2019 Date





Site and Sample Location Map Initial Sampling

Map 3A

BTA-OGDEN 20509 SWD

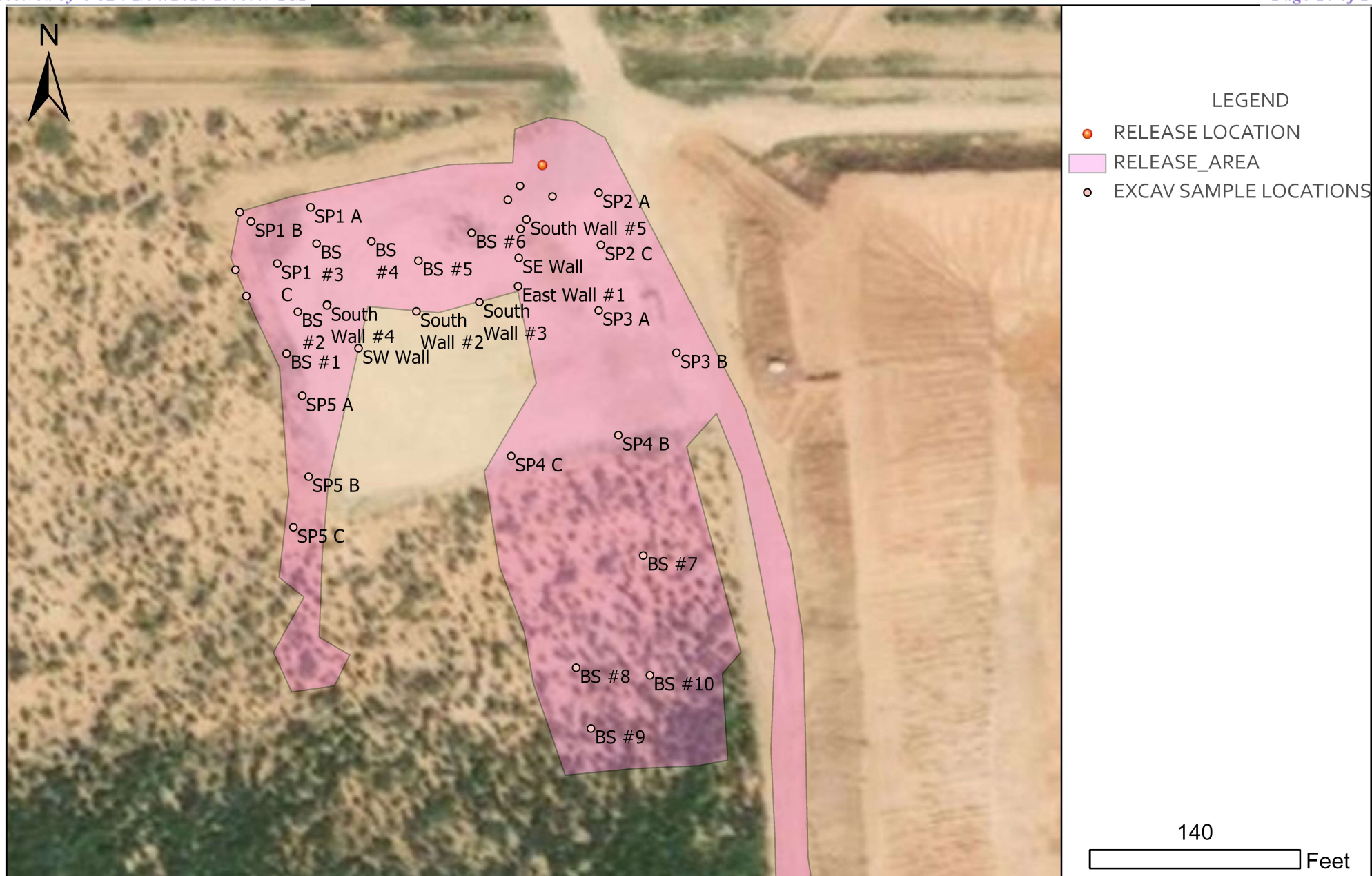
JVH

Author

1/2/2020

Date





Site and Sample Location Map-Excavation
Guidance Sample Locations

Map 3B

BTA-OGDEN 20509 SWD

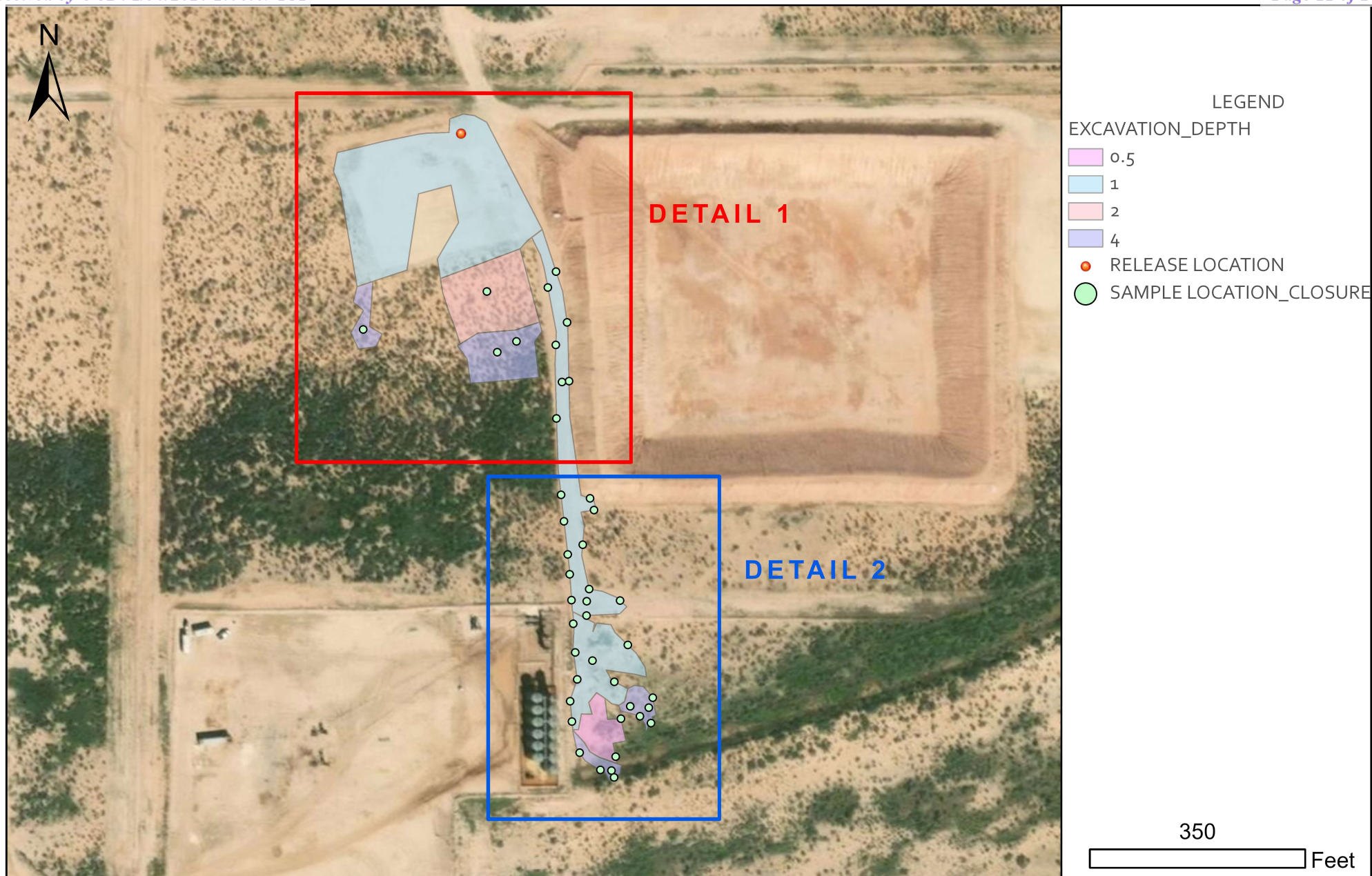
JVH

Author

1/2/2020

Date





Site and Sample Location Map-Overview

Map 3C

BTA-OGDEN 20509 SWD

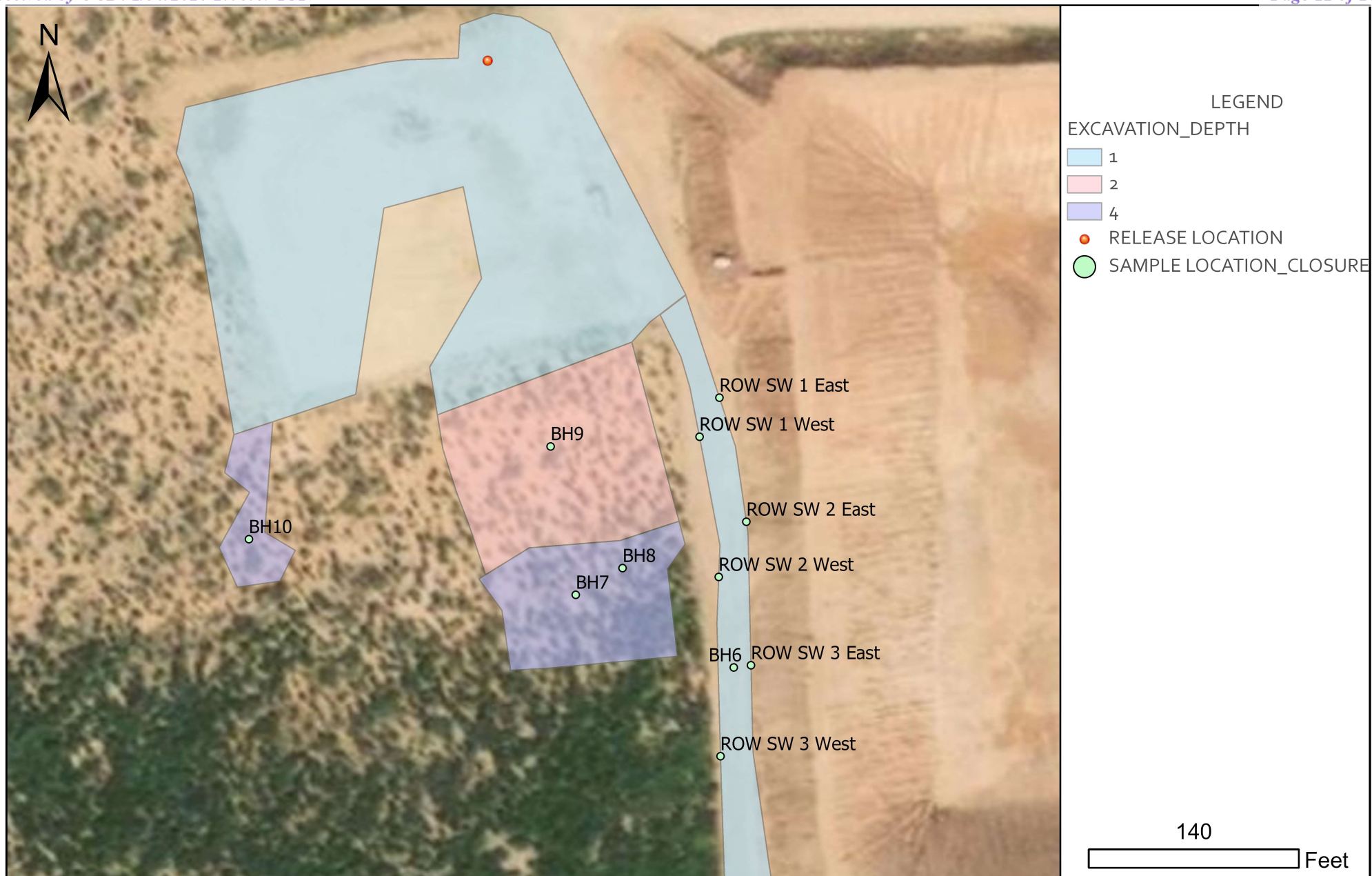
JVH

Author

1/2/2020

Date





Site and Sample Location Map-Detail 1

Map 3C-1

BTA-OGDEN 20509 SWD

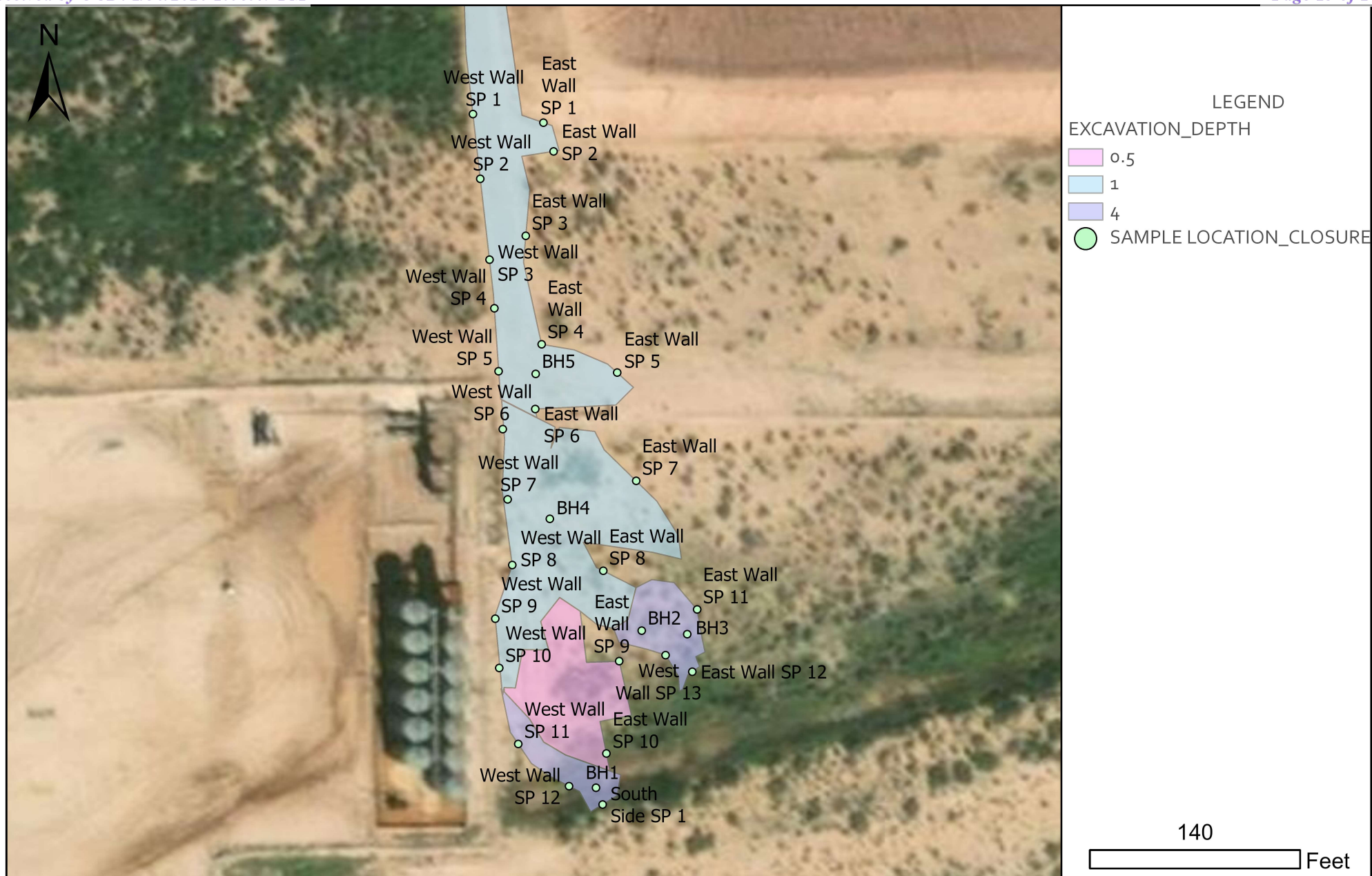
JVH

Author

1/2/2020

Date





Site and Sample Location Map-Detail 2

Map 3C-2

BTA-OGDEN 20509 SWD

JVH

Author

1/2/2020

Date



Tables of Analytical Data

Table 3A: Summary of Initial Sample Results

BTA Oil Producers
 OGDEN SWD
 2RP-5242

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	Field Screening		Cl-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					Cl-	PID Result (PPM)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
NMOCD Closure Criteria							10,000	50	10	1000			2500
SP 1	On Pad	2/15/19	Surface	Excavated	11121	-	-	-	-	-	-	-	-
		2/15/19	1	Excavated	774	-	-	-	-	-	-	-	-
		2/15/19	2	Insitu	499	-	336	ND	ND	ND	ND	ND	ND
		2/15/19	3	Insitu	440	-	-	-	-	-	-	-	-
		2/15/19	4	Insitu	524	-	368	ND	ND	ND	ND	ND	ND
SP 2	On Pad	2/15/19	Surface	Excavated	2474	-	-						
		2/15/19	1	Excavated	1699	-	-						
		2/15/19	2	Insitu	199	-	96	ND	ND	ND	ND	ND	ND
		2/15/19	3	Insitu	249	-	-						
		2/15/19	4	Insitu	249	-	224	ND	ND	ND	ND	ND	ND
SP3	On Pad	2/15/19	Surface	Excavated	6023	-	-	-	-	-	-	-	-
		2/15/19	1	Excavated	524	-	-	-	-	-	-	-	-
		2/15/19	2	Insitu	224	-	176	ND	ND	ND	ND	ND	ND
		2/15/19	3	Insitu	249	-	-	-	-	-	-	-	-
		2/15/19	4	Insitu	224	-	128	ND	ND	ND	ND	ND	ND
SP4	On Pad	2/15/19	Surface	Excavated	4998	-	-	-	-	-	-	-	-
		2/15/19	1	Excavated	2324	-	-	-	-	-	-	-	-
		2/15/19	2	Insitu	174	-	48	ND	ND	ND	ND	ND	ND
		2/15/19	3	Insitu	249	-	-	-	-	-	-	-	-
		2/15/19	4	Insitu	249	-	352	ND	ND	ND	ND	ND	ND
SP5	On Pad	2/15/19	Surface	Excavated	11196	-	-						
		2/15/19	1	Insitu	4723	-	-						
		2/15/19	2	Insitu	174	-	64	ND	ND	ND	ND	ND	ND
		2/15/19	3	Insitu	299	-	-						
		2/15/19	4	Insitu	174	-	96	ND	ND	ND	ND	ND	ND
SP6	Off Pad	2/16/19	Surface	Excavated	6597	-	-	-	-	-	-	-	-
		2/16/19	1	Excavated	3024	-	-	-	-	-	-	-	-
		2/16/19	2	Excavated	2724	-	2880	ND	ND	ND	ND	ND	ND
		2/16/19	3	Excavated	2274	-	-	-	-	-	-	-	-
		2/16/19	4	Excavated	1374	-	1360	ND	ND	ND	ND	ND	ND
		2/16/19	5	Insitu	1149	-	-	-	-	-	-	-	-
		2/16/19	6	Insitu	149	-	-	-	-	-	-	-	-
SP7	On Current Pad	2/16/19	7	Insitu	99	-	16	ND	ND	ND	ND	ND	ND
		2/16/19	Surface	Excavated	4723	-	-	-	-	-	-	-	-
		2/16/19	1	Excavated	2474	-	-	-	-	-	-	-	-
		2/16/19	2	Excavated	1149	-	1120	ND	ND	ND	ND	ND	ND
		2/16/19	3	Insitu	274	-	-	-	-	-	-	-	-
		2/16/19	4	Insitu	174	-	208	ND	ND	ND	ND	ND	ND

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	Field Screening		CI-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					CI-	PID Result (PPM)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
NMOCD Closure Criteria							10,000	50	10	1000			2500
SP8	Off Pad	2/16/19	Surface	Excavated	10021	-	-	-	-	-	-	-	-
		2/16/19	1	Excavated	1849	-	-	-	-	-	-	-	-
		2/16/19	2	Insitu	174	-	144	ND	ND	ND	ND	ND	ND
		2/16/19	3	Insitu	24	-	-	-	-	-	-	-	-
		2/16/19	4	Insitu	124	-	48	ND	ND	ND	ND	ND	ND
		2/16/19	5	Insitu	249	-	400	ND	ND	ND	ND	ND	ND
SP9	Off Pad	2/16/19	Surface	Excavated	19119	-	-	-	-	-	-	-	-
		2/16/19	1	Excavated	5873	-	-	-	-	-	-	-	-
		2/16/19	2	Excavated	7472	-	6400	-	-	-	-	56.7	56.7
		2/16/19	3	Excavated	2224	-	-	-	-	-	-	-	-
		2/16/19	4	Insitu	474	-	400	ND	ND	ND	ND	ND	ND
		2/16/19	5	Insitu	249	-	208	ND	ND	ND	ND	ND	ND
SP10	Off Pad	2/16/19	Surface	Excavated	11596	-	-	-	-	-	-	-	-
		2/16/19	1	Excavated	2974	-	-	-	-	-	-	-	-
		2/16/19	2	Excavated	2224	-	2400	ND	ND	ND	ND	ND	ND
		2/16/19	3	Excavated	2499	-	-	-	-	-	-	-	-
		2/16/19	4	Excavated	999	-	1060	ND	ND	ND	ND	ND	ND
		2/16/19	5	Insitu	49	-	-	-	-	-	-	-	-
		2/16/19	6	Insitu	49	-	192	ND	ND	ND	ND	ND	ND
SP11	Off Pad	2/17/19	Surface	Excavated	6123	-	-	-	-	-	-	-	-
		2/17/19	1	Excavated	2474	-	-	-	-	-	-	-	-
		2/17/19	2	Excavated	2274	-	2240	ND	ND	ND	ND	ND	ND
		2/17/19	3	Excavated	974	-	-	-	-	-	-	-	-
		2/17/19	4	Insitu	624	-	592	ND	ND	ND	ND	ND	ND
SP12	On ROW	2/17/19	5	Insitu	99	-	32	ND	ND	ND	ND	ND	ND
		4/15/19	Surface	Excavated	4,973	2.2	5,720	ND	ND	ND	ND	ND	ND
		4/15/19	1	Excavated	274	2	-	-	-	-	-	-	-
SP13	On ROW	4/15/19	2	Insitu	124	2.1	80	ND	ND	ND	ND	ND	ND
		4/15/19	Surface	Excavated	8,522	1.5	-	-	-	-	-	-	-
		4/15/19	1	Excavated	624	0	-	-	-	-	-	-	-
SP14	On ROW	4/15/19	2	Insitu	449	0	-	-	-	-	-	-	-
		4/15/19	Surface	Excavated	24,992	0	27,800	ND	ND	ND	51	-	51
		4/15/19	1	Excavated	524	0	-	-	-	-	-	-	-
SP15	On ROW	4/15/19	2	Insitu	249	0	224	ND	ND	ND	ND	-	ND
		4/15/19	Surface	Excavated	9,272	2.5	-	-	-	-	-	-	-
		4/15/19	1	Excavated	624	2.5	-	-	-	-	-	-	-
SP16	On ROW	4/15/19	2	Insitu	499	3	-	-	-	-	-	-	-
		4/15/19	Surface	Excavated	14,220	0	23,000	ND	ND	ND	13.2	ND	13.2
		4/15/19	1	Excavated	249	5.2	-	-	-	-	-	-	-
SP17	On ROW	4/15/19	2	Insitu	224	6.4	80	ND	ND	ND	ND	ND	ND
		4/15/19	Surface	Excavated	17,769	0	-	-	-	-	-	-	-
		4/15/19	1	Excavated	249	0	-	-	-	-	-	-	-
SP18	On ROW	4/15/19	2	Insitu	224	0	-	-	-	-	-	-	-
		4/15/19	Surface	Excavated	17,769	0	-	-	-	-	-	-	-

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	Field Screening		CI-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					CI-	PID Result (PPM)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
NMOCD Closure Criteria							10,000	50	10	1000			2500
SP18	On ROW	4/15/19	Surface	Excavated	19,169	0	14,500	ND	ND	ND	ND	ND	ND
		4/15/19	1	Excavated	499	0	-	-	-	-	-	-	-
		4/15/19	2	Insitu	24	0	64	ND	ND	ND	ND	ND	ND
SP19	On ROW	4/15/19	Surface	Excavated	8,022	3.9	-	-	-	-	-	-	-
		4/15/19	1	Excavated	274	2.5	-	-	-	-	-	-	-
		4/15/19	2	Insitu	174	5.6	-	-	-	-	-	-	-
SP20	On ROW	4/15/19	Surface	Excavated	8,797	2.5	8,930	ND	ND	ND	ND	ND	ND
		4/15/19	1	Excavated	474	2	-	-	-	-	-	-	-
		4/15/19	2	Insitu	224	1.1	32	ND	ND	ND	ND	ND	ND
SP21	On ROW	4/15/19	Surface	Excavated	16,769	5.2	-	-	-	-	-	-	-
		4/15/19	1	Excavated	624	5.2	-	-	-	-	-	-	-
		4/15/19	2	Insitu	524	0	-	-	-	-	-	-	-
SP22	On ROW	4/16/19	Surface	Excavated	4,988	0	4,240	ND	ND	ND	12.8	ND	12.8
		4/16/19	1	Excavated	249	0	-	-	-	-	-	-	-
		4/16/19	2	Insitu	224	0	16	ND	ND	ND	ND	ND	ND
SP 23	On ROW	5/9/19	Surface	Excavated	-	-	2920	0.91	ND	12.7	23.6	ND	36.3
		5/9/19	2	Insitu	-	-	48	ND	ND	ND	ND	ND	ND
SP 24	On ROW	5/9/19	Surface	Excavated	-	-	112	ND	ND	ND	ND	ND	ND
		5/9/19	1	Insitu	-	-	112	ND	ND	ND	ND	ND	ND
SP 25	On ROW	5/9/19	Surface	Excavated	-	-	16000	1.03	ND	15.3	45.8	ND	61.1
		5/9/19	2	Insitu	-	-	64	ND	ND	ND	ND	ND	ND
SP 26	On ROW	5/9/19	Surface	Excavated	-	-	12800	ND	ND	ND	ND	ND	ND
		5/9/19	2	Insitu	-	-	560	ND	ND	ND	ND	ND	ND
SP 27	Off Pad	5/9/19	Surface	Excavated	-	-	41600	ND	ND	ND	120	33.6	153.6
		5/9/19	2	Excavated	-	-	1020	ND	ND	ND	ND	ND	ND
SP 28	Off Pad	5/9/19	Surface	Excavated	-	-	13800	ND	ND	ND	9230	1660	10890
		5/9/19	2	Excavated	-	-	1760	ND	ND	ND	56.1	54.9	111
SP 29	Off Pad	5/9/19	Surface	Excavated	-	-	5440	ND	ND	ND	34.9	18	52.9
		5/9/19	2	Insitu	-	-	112	ND	ND	ND	ND	ND	ND

Table 3B: Summary of Excavation Guidance Sample Results

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	CI-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria					10,000	50	10	1000			2500
SP1 - A	On Pad	4/6/19	1	Excavated	784	ND	ND	ND	ND	ND	ND
SP1 - B	On Pad	4/6/19	1	Excavated	320	ND	ND	ND	ND	ND	ND
SP1 - C	On Pad	4/6/19	1	Excavated	656	ND	ND	ND	ND	ND	ND
SP2 - A	On Pad	4/6/19	0.5	Excavated	656	ND	ND	ND	ND	ND	ND
SP2 - B	On Pad	4/6/19	0.5	Excavated	80	ND	ND	ND	ND	ND	ND
SP2 - C	On Pad	4/6/19	0.5	Excavated	48	ND	ND	ND	ND	ND	ND
SP3 - A	On Pad	4/6/19	0.5	Excavated	128	ND	ND	ND	ND	ND	ND
SP3 - B	On ROW	4/6/19	0.5	Excavated	112	ND	ND	ND	ND	ND	ND
SP4 - B	On Pad	4/6/19	0.5	Excavated	256	ND	ND	ND	ND	ND	ND
SP4 - C	On Pad	4/6/19	0.5	Excavated	432	ND	ND	ND	ND	ND	ND
SP5 - A	Off Pad	4/6/19	1	Excavated	640	ND	ND	ND	ND	ND	ND
SP5 - B	On Pad	4/6/19	1	Excavated	1070	ND	ND	ND	ND	ND	ND
SP5 - C	Off Pad	4/6/19	1	Excavated	48	ND	ND	ND	ND	ND	ND
BS #1	On Pad	4/17/19	1	Excavated	2,000	ND	ND	ND	ND	ND	ND
BS #2	On Pad	4/17/19	1	Excavated	256	ND	ND	ND	ND	ND	ND
BS #3	On Pad	4/17/19	1	Excavated	28	ND	ND	ND	ND	ND	ND
BS #4	On Pad	4/17/19	1	Excavated	240	ND	ND	ND	ND	ND	ND
BS #5	On Pad	4/17/19	1	Excavated	192	ND	ND	ND	ND	ND	ND
BS #6	On Pad	4/17/19	1	Excavated	18,000	ND	ND	ND	21.6	ND	21.6
BS #7	Off Pad	4/17/19	1	Excavated	2,300	ND	ND	ND	20.3	ND	20.3
BS #8	Off Pad	4/17/19	1	Excavated	2,600	ND	ND	ND	19.8	ND	19.8
BS #9	Off Pad	4/17/19	1	Excavated	2,480	ND	ND	ND	30.3	ND	30.3
BS #10	Off Pad	4/17/19	1	Excavated	11,800	ND	ND	ND	10	ND	10
East Wall #1	On Pad	4/17/19	0-1	Excavated	6,200	ND	ND	ND	ND	ND	ND
East Wall #2	On Pad	4/17/19	0-1	Excavated	1,470	ND	ND	ND	ND	ND	ND
East Wall #3	On Pad	4/17/19	0-1	Excavated	5,360	ND	ND	ND	ND	ND	ND
SE Wall	On Pad	4/17/19	0-1	Excavated	17,300	ND	ND	ND	ND	ND	ND
South Wall #1	On Pad	4/17/19	0-1	Excavated	4,960	ND	ND	ND	ND	ND	ND
South Wall #2	On Pad	4/17/19	0-1	Excavated	2,240	ND	ND	ND	ND	ND	ND
South Wall #3	On Pad	4/17/19	0-1	Excavated	560	ND	ND	ND	ND	ND	ND
South Wall #4	On Pad	4/17/19	0-1	Excavated	208	ND	ND	ND	ND	ND	ND
South Wall #5	On Pad	4/17/19	0-1	Excavated	192	ND	ND	ND	ND	ND	ND
South Wall #6	On Pad	4/17/19	0-1	Excavated	448	ND	ND	ND	ND	ND	ND
SW Wall	On Pad	4/17/19	0-1	Excavated	5,800	ND	ND	ND	17.6	ND	17.6
West Wall #1	Edge of Pad	4/17/19	0-1	Insitu	80	ND	ND	ND	ND	ND	ND

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	Cl-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria					10,000	50	10	1000			2500
West Wall #2	Edge of Pad	4/17/19	0-1	Insitu	80	ND	ND	ND	ND	ND	ND
West Wall #3	Edge of Pad	4/17/19	0-1	Insitu	160	ND	ND	ND	ND	ND	ND

Table 3C: Summary of Closure Sample Results

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	Field Screening		CI-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					CI-	PID Result (PPM)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
NMOCD Closure Criteria							10,000	50	10	1000		2500	
ROW SW 1 East	ON ROW	5/10/19	0-1	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
ROW SW 2 East	ON ROW	5/10/19	0-1	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
ROW SW 3 East	ON ROW	5/10/19	0-1	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
ROW SW 1 West	ON ROW	5/10/19	0-1	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
ROW SW 2 West	ON ROW	5/19/10	0-1	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
ROW SW 3 West	ON ROW	5/10/19	0-1	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
West Wall SP 1	ON ROW	5/23/19	0-1	Insitu	-	-	672	ND	ND	ND	ND	ND	ND
West Wall SP 2	ON ROW	5/23/19	0-1	Insitu	-	-	96	ND	ND	ND	ND	ND	ND
West Wall SP 3	ON ROW	5/23/19	0-1	Insitu	-	-	448	ND	ND	ND	ND	ND	ND
West Wall SP 4	ON ROW	5/23/19	0-1	Insitu	-	-	112	ND	ND	ND	ND	ND	ND
West Wall SP 5	ON ROW	5/23/19	0-1	Insitu	-	-	576	ND	ND	ND	ND	ND	ND
West Wall SP 6	ON ROW	5/23/19	0-1	Insitu	-	-	240	ND	ND	ND	ND	ND	ND
West Wall SP 9	ON ROW/ Edge of Mewb Pad	5/23/19	0-1	Insitu	-	-	176	ND	ND	ND	ND	ND	ND
West Wall SP 10	ON ROW/ Edge of Mewb Pad	5/23/19	0-1	Insitu	-	-	320	ND	ND	ND	ND	ND	ND
West Wall SP 11	ON ROW/ Edge of Mewb Pad	5/23/19	0-1	Insitu	-	-	352	ND	ND	ND	ND	ND	ND
West Wall SP 12	ON ROW/ Edge of Mewb Pad	5/23/19	0-1	Insitu	-	-	400	ND	ND	ND	ND	ND	ND
West Wall SP 13	Off Pad	5/23/19	0-4	Insitu	-	-	80	ND	ND	ND	ND	ND	ND
East Wall SP 1	ON ROW	5/23/19	0-1	Insitu	-	-	304	ND	ND	ND	ND	ND	ND
East Wall SP 2	ON ROW	5/23/19	0-1	Insitu	-	-	160	ND	ND	ND	ND	ND	ND
East Wall SP 3	ON ROW	5/23/19	0-1	Insitu	-	-	80	ND	ND	ND	ND	ND	ND
East Wall SP 4	ON ROW	5/23/19	0-1	Insitu	-	-	608	ND	ND	ND	ND	ND	ND
East Wall SP 5	ON ROW	5/23/19	0-1	Insitu	-	-	96	ND	ND	ND	ND	ND	ND
East Wall SP 6	ON ROW	5/23/19	0-1	Insitu	-	-	112	ND	ND	ND	ND	ND	ND
East Wall SP 7	Off Pad	5/23/19	0-1	Insitu	-	-	64	ND	ND	ND	ND	ND	ND
East Wall SP 8	Off Pad	5/23/19	0-1	Insitu	-	-	528	ND	ND	ND	ND	ND	ND
East Wall SP 9	Off Pad	5/23/19	0-1	Insitu	-	-	80	ND	ND	ND	ND	ND	ND
East Wall SP 10	Off Pad	5/23/19	0-1	Insitu	-	-	96	ND	ND	ND	ND	ND	ND
East Wall SP 11	Off Pad	5/23/19	0-1	Insitu	-	-	128	ND	ND	ND	ND	ND	ND
East Wall SP 12	Off Pad	5/23/19	0-1	Insitu	-	-	48	ND	ND	ND	ND	ND	ND
South Side SP 1	Off Pad	5/23/19	0-1	Insitu	-	-	128	ND	ND	ND	ND	ND	ND
BH 1	Off Pad	11/8/19	4	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
BH 2	Off Pad	11/8/19	4	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
BH 3	Off Pad	11/8/19	4	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
BH 4	On ROW	11/8/19	1	Insitu	-	-	270	ND	ND	ND	ND	ND	ND
BH 5	On ROW	11/8/19	1	Insitu	-	-	580	ND	ND	ND	ND	ND	ND
BH 6	On ROW	11/8/19	1	Insitu	-	-	660	ND	ND	ND	ND	ND	ND
BH 7	Off Pad	11/8/19	3	Excavated	-	-	2600	ND	ND	ND	ND	ND	ND
		12/3/19	4	Insitu			ND	ND	ND	ND	ND	ND	ND
BH 8	Off Pad	11/8/19	4	Insitu	-	-	160	ND	ND	ND	ND	ND	ND
BH 9	Off Pad	11/8/19	2	Insitu	-	-	570	ND	ND	ND	ND	ND	ND

Sample ID	Location of Release	Date Sampled	Depth (feet bgs)	Action Taken	Field Screening		Cl-	BTEX	Benzene	GRO	DRO	MRO	Total TPH
					Cl-	PID Result (PPM)	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria							10,000	50	10	1000			2500
BH 10	Off Pad	11/8/19	4	Insitu	-	-	ND	ND	ND	ND	ND	ND	ND
West Wall SP 7	ON ROW/ Edge of Mewb Pad	5/23/19	0	Excavated	-	-	3080	ND	ND	ND	ND	ND	ND
		11/8/19	0-1	Excavated	-	-	860	ND	ND	ND	ND	ND	ND
		12/3/19	0-1.5	Insitu			ND	ND	ND	ND	ND	ND	ND
West Wall SP 8	ON ROW/ Edge of Mewb Pad	5/23/19	0	Insitu	-	-	5080	ND	ND	ND	ND	ND	ND
		11/8/19	0-1	Insitu	-	-	320	ND	ND	ND	ND	ND	ND

Appendix A

C-141

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: BTA Oil Producers, LLC	OGRID: 260297
Contact Name: Bob Hall	Contact Telephone: 432-682-3753
Contact email: bhall@btaoil.com	Incident # (assigned by OCD)
Contact mailing address: 104 S. Pecos St., Midland, TX 79701	

Location of Release Source

Latitude: 32.26246° Longitude: -104.11691°

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Ogden 20509 SWD Substation Tank Battery	Site Type: Tank Battery
Date Release Discovered: 1/26/2019	API# (if applicable) Nearest well: State JB Com #1 API #30-015-23514

Unit Letter	Section	Township	Range	County
E	32	23S	28E	Eddy

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) at least 2,000 BBL	Volume Recovered (bbls) None
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Due to failure of a transfer pump to operate, produced water from the Ogden Lease wells accumulated at the substation facility. The tanks filled up, overflowed and filled the lined secondary containment. Additional produced water continued to be delivered to the facility via pipeline and the tanks continued to overflow. Eventually, a wall of the secondary containment failed, allowing produced water to spill onto the pad, onto land generally south of the entire pad, and down a lease road/ROW.


State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? The spill volume was greater than 25 BBL, which the NMOCD Rules define as a major release.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Email sent by Bob Hall (BTA) to Mike Bratcher (NMOCD), Jim Griswold (NMOCD), and Robert Kasuboski (NM State Land Office) on 1/26/2019 between 3 PM and 5 PM. (Separate e-mails due to misspelling and forwarding)	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: Additional Initial Response Details: An aerial photo taken on 1/26/2019 clearly shows the extent of the "wet" area after spill. (Copy attached.) After allowing for drying, starting on 1/31/2019, a backhoe has been used to scrape and stockpile some of the dried out salt that has accumulated on the surface of the formerly wet area so that it cannot be washed down with any future rainfall.	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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: Bob Hall Title: Environmental Manager	
Signature: 	Date: 2/8/2018
email: bhall@btaoil.com	Telephone: 432-682-3753
OCD Only	
Received by: _____	Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1904637119
District RP	2RP-5242
Facility ID	fAB1904636949
Application ID	pAB1904633901

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?

60 (ft bgs)

Did this release impact groundwater or surface water?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?

☐ Yes ☒ 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)?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?

☐ Yes ☒ 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?

☐ Yes ☒ No

Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?

☐ Yes ☒ No

Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?

☐ Yes ☒ No

Are the lateral extents of the release within 300 feet of a wetland?

☐ Yes ☒ No

Are the lateral extents of the release overlying a subsurface mine?

☐ Yes ☒ No

Are the lateral extents of the release overlying an unstable area such as karst geology?

☐ Yes ☒ No

Are the lateral extents of the release within a 100-year floodplain?

☐ Yes ☒ NoDid the release impact areas **not** on an exploration, development, production, or storage site?☒ Yes ☐ 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 ½-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.

Form C-141

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	NAB1904637119
District RP	2RP-5242
Facility ID	fAB1904636949
Application ID	pAB1904633901

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: **Bob Hall**Title: **Environmental Manager**Signature: Date: **1/31/2020**email: **bhall@btaoil.com**Telephone: **432-682-3753****OCD Only**

Received by: _____

Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1904637119
District RP	2RP-5242
Facility ID	fAB1904636949
Application ID	pAB1904633901

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: **Bob Hall**Title: **Environmental Manager**Signature: Date: **1/31/2020**email: **bhall@btaoil.com**Telephone: **432-682-3753****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

NMPOSE Well

Data



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	Distance	Depth Well	Depth Water	Water Column
C 04037 POD1	C		ED	4	3	2	31	23S	28E	582576	3569872	599	99	60	39

Average Depth to Water: **60 feet**

Minimum Depth: **60 feet**

Maximum Depth: **60 feet**

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 583175.51

Northing (Y): 3569870.18

Radius: 900

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.



USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

GO

Click to hide News Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

site_no list =

- 321552104071601

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 321552104071601 23S.28E.31.23142

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°15'52", Longitude 104°07'16" NAD27

Land-surface elevation 3,139 feet above NAVD88

The depth of the well is 93 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

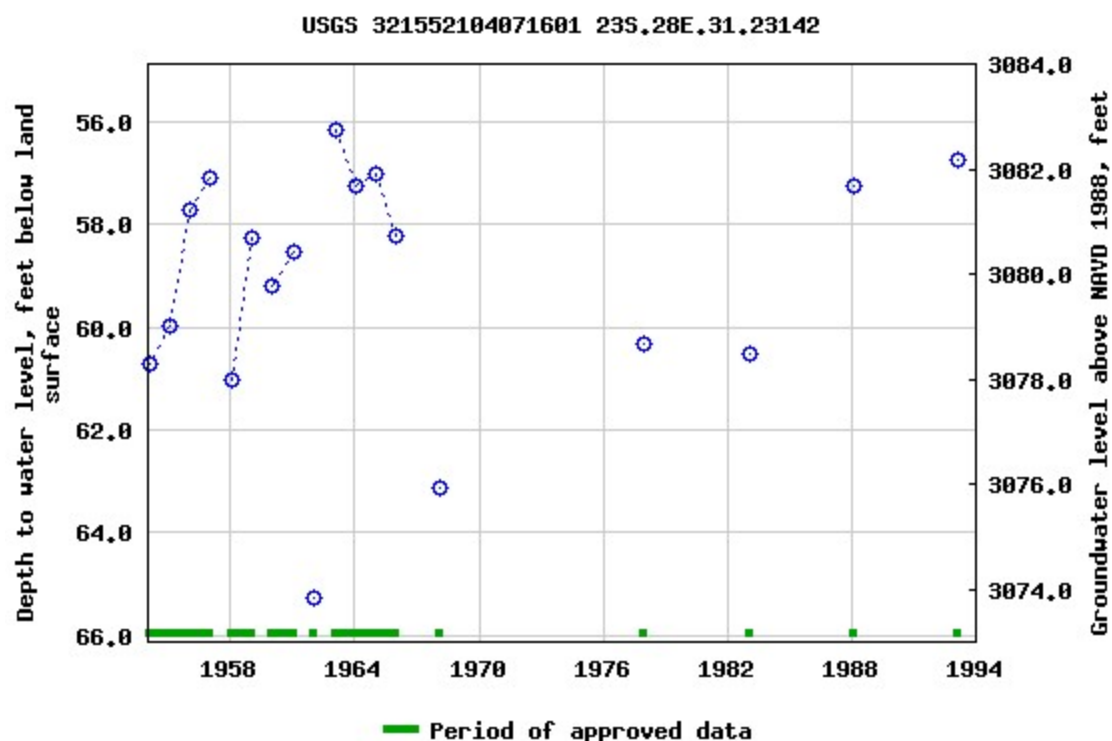
Output formats

[Table of data](#)

[Tab-separated data](#)

[Graph of data](#)

[Reselect period](#)



Breaks in the plot represent a gap of at least one year between field measurements.

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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-01-02 14:00:45 EST

0.5 0.44 nadww02

Appendix C

Analytical

Data



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 19, 2019

BRYAN DAVIS

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: OGDEN SWD

Enclosed are the results of analyses for samples received by the laboratory on 02/18/19 14:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 2' (H900638-01)

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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTEx	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 71.2 % 41-142

Surrogate: 1-Chlorooctadecane 70.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 @ 4' (H900638-02)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21		
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4		
Total BTX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 85.5 % 73.3-129

Chloride, SM4500Cl-B			mg/kg							
			Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20		
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13		
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND						

Surrogate: 1-Chlorooctane 73.7 % 41-142

Surrogate: 1-Chlorooctadecane 73.5 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 2' (H900638-03)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.4 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 69.6 % 41-142

Surrogate: 1-Chlorooctadecane 68.9 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 @ 4' (H900638-04)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 84.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 70.0 % 41-142

Surrogate: 1-Chlorooctadecane 69.6 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 2' (H900638-05)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 72.5 % 41-142

Surrogate: 1-Chlorooctadecane 71.0 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 @ 4' (H900638-06)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 86.7 % 73.3-129

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	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 72.6 % 41-142

Surrogate: 1-Chlorooctadecane 72.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 2' (H900638-07)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 82.2 % 73.3-129

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	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 55.6 % 41-142

Surrogate: 1-Chlorooctadecane 62.9 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 @ 4' (H900638-08)

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	02/19/2019	ND	1.88	94.0	2.00	6.21		
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4		
Total BTEX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 83.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	02/19/2019	ND	416	104	400	0.00	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 57.4 % 41-142

Surrogate: 1-Chlorooctadecane 56.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 2' (H900638-09)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21		
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4		
Total BTX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 81.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 75.7 % 41-142

Surrogate: 1-Chlorooctadecane 72.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/15/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 @ 4' (H900638-10)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 83.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 69.6 % 41-142

Surrogate: 1-Chlorooctadecane 69.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 2' (H900638-11)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21	
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 85.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	2880	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 68.3 % 41-142

Surrogate: 1-Chlorooctadecane 68.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 6 @ 4' (H900638-12)

BTX 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	02/19/2019	ND	1.88	94.0	2.00	6.21		
Toluene*	<0.050	0.050	02/19/2019	ND	1.92	95.8	2.00	8.53		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.84	91.9	2.00	12.2		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.24	87.3	6.00	11.4		
Total BTX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.7 % 73.3-129

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	02/19/2019	ND	416	104	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	02/19/2019	ND	185	92.3	200	5.20	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	184	92.2	200	7.13	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 75.5 % 41-142

Surrogate: 1-Chlorooctadecane 76.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 2' (H900638-13)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33	
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1120	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	186	93.0	200	4.53	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	183	91.6	200	5.19	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 83.5 % 41-142

Surrogate: 1-Chlorooctadecane 81.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 7 @ 4' (H900638-14)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33	
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 76.4 % 41-142

Surrogate: 1-Chlorooctadecane 72.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 2' (H900638-15)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33	
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 70.9 % 41-142

Surrogate: 1-Chlorooctadecane 65.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 8 @ 4' (H900638-16)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33	
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.6 % 73.3-129

Chloride, SM4500Cl-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	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 83.7 % 41-142

Surrogate: 1-Chlorooctadecane 78.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ 2' (H900638-17)

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	02/19/2019	ND	1.91	95.4	2.00	3.33		
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22		
Total BTEX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6400	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	56.7	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 80.5 % 41-142

Surrogate: 1-Chlorooctadecane 79.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 9 @ 4' (H900638-18)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33	
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 81.7 % 41-142

Surrogate: 1-Chlorooctadecane 75.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 10 @ 2' (H900638-19)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33	
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25	
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32	
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22	
Total BTX	<0.300	0.300	02/19/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 73.3-129

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	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 85.3 % 41-142

Surrogate: 1-Chlorooctadecane 79.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/16/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 10 @ 4' (H900638-20)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33		
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22		
Total BTX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1060	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 79.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/17/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 11 @ 2' (H900638-21)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33		
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22		
Total BTX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2240	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 82.4 % 41-142

Surrogate: 1-Chlorooctadecane 77.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/18/2019
 Reported: 02/19/2019
 Project Name: OGDEN SWD
 Project Number: 1ST SECTION SP 1-11
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/17/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 11 @ 4' (H900638-22)

BTX 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	02/19/2019	ND	1.91	95.4	2.00	3.33		
Toluene*	<0.050	0.050	02/19/2019	ND	1.80	90.0	2.00	3.25		
Ethylbenzene*	<0.050	0.050	02/19/2019	ND	1.74	87.2	2.00	3.32		
Total Xylenes*	<0.150	0.150	02/19/2019	ND	5.25	87.4	6.00	3.22		
Total BTX	<0.300	0.300	02/19/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	592	16.0	02/19/2019	ND	416	104	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	02/19/2019	ND	187	93.6	200	7.12	
DRO >C10-C28*	<10.0	10.0	02/19/2019	ND	200	99.8	200	0.645	
EXT DRO >C28-C36	<10.0	10.0	02/19/2019	ND					

Surrogate: 1-Chlorooctane 84.5 % 41-142

Surrogate: 1-Chlorooctadecane 79.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



1
K
G
J
1



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

February 22, 2019

BOB HALL

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: OGDEN SWD

Enclosed are the results of analyses for samples received by the laboratory on 02/21/19 10:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BOB HALL
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/21/2019
 Reported: 02/22/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/20/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 6 @ 7' (H900682-01)

BTX 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	02/22/2019	ND	1.83	91.7	2.00	2.51		
Toluene*	<0.050	0.050	02/22/2019	ND	1.82	91.1	2.00	0.554		
Ethylbenzene*	<0.050	0.050	02/22/2019	ND	1.86	93.1	2.00	2.17		
Total Xylenes*	<0.150	0.150	02/22/2019	ND	5.42	90.3	6.00	2.38		
Total BTX	<0.300	0.300	02/22/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

Chloride, SM4500Cl-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	02/21/2019	ND	416	104	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	02/22/2019	ND	205	103	200	1.97	
DRO >C10-C28*	<10.0	10.0	02/22/2019	ND	212	106	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	02/22/2019	ND					

Surrogate: 1-Chlorooctane 110 % 41-142

Surrogate: 1-Chlorooctadecane 110 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received: 02/21/2019
Reported: 02/22/2019
Project Name: OGDEN SWD
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/20/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 8 @ 5' (H900682-02)

BTX 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	02/22/2019	ND	1.83	91.7	2.00	2.51	
Toluene*	<0.050	0.050	02/22/2019	ND	1.82	91.1	2.00	0.554	
Ethylbenzene*	<0.050	0.050	02/22/2019	ND	1.86	93.1	2.00	2.17	
Total Xylenes*	<0.150	0.150	02/22/2019	ND	5.42	90.3	6.00	2.38	
Total BTX	<0.300	0.300	02/22/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	02/21/2019	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	02/22/2019	ND	205	103	200	1.97	
DRO >C10-C28*	<10.0	10.0	02/22/2019	ND	212	106	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	02/22/2019	ND					

Surrogate: 1-Chlorooctane 97.1 % 41-142

Surrogate: 1-Chlorooctadecane 97.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BOB HALL
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 02/21/2019
 Reported: 02/22/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 02/20/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SP 9 @ 5' (H900682-03)

BTX 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	02/22/2019	ND	1.83	91.7	2.00	2.51	
Toluene*	<0.050	0.050	02/22/2019	ND	1.82	91.1	2.00	0.554	
Ethylbenzene*	<0.050	0.050	02/22/2019	ND	1.86	93.1	2.00	2.17	
Total Xylenes*	<0.150	0.150	02/22/2019	ND	5.42	90.3	6.00	2.38	
Total BTX	<0.300	0.300	02/22/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/21/2019	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	02/22/2019	ND	205	103	200	1.97	
DRO >C10-C28*	<10.0	10.0	02/22/2019	ND	212	106	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	02/22/2019	ND					

Surrogate: 1-Chlorooctane 92.9 % 41-142

Surrogate: 1-Chlorooctadecane 93.7 % 37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received: 02/21/2019
Reported: 02/22/2019
Project Name: OGDEN SWD
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/20/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 10 @ 6' (H900682-04)

BTX 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	02/22/2019	ND	1.83	91.7	2.00	2.51		
Toluene*	<0.050	0.050	02/22/2019	ND	1.82	91.1	2.00	0.554		
Ethylbenzene*	<0.050	0.050	02/22/2019	ND	1.86	93.1	2.00	2.17		
Total Xylenes*	<0.150	0.150	02/22/2019	ND	5.42	90.3	6.00	2.38		
Total BTX	<0.300	0.300	02/22/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	192	16.0	02/21/2019	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	02/22/2019	ND	205	103	200	1.97	
DRO >C10-C28*	<10.0	10.0	02/22/2019	ND	212	106	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	02/22/2019	ND					

Surrogate: 1-Chlorooctane 97.9 % 41-142

Surrogate: 1-Chlorooctadecane 97.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
BOB HALL
103 South Pecos
Midland TX, 79701
Fax To: (432) 683-0312

Received: 02/21/2019
Reported: 02/22/2019
Project Name: OGDEN SWD
Project Number: NONE GIVEN
Project Location: EDDY COUNTY, NM

Sampling Date: 02/20/2019
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 11 @ 5' (H900682-05)

BTX 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	02/22/2019	ND	1.83	91.7	2.00	2.51		
Toluene*	<0.050	0.050	02/22/2019	ND	1.82	91.1	2.00	0.554		
Ethylbenzene*	<0.050	0.050	02/22/2019	ND	1.86	93.1	2.00	2.17		
Total Xylenes*	<0.150	0.150	02/22/2019	ND	5.42	90.3	6.00	2.38		
Total BTX	<0.300	0.300	02/22/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 73.3-129

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	02/21/2019	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	02/22/2019	ND	205	103	200	1.97	
DRO >C10-C28*	<10.0	10.0	02/22/2019	ND	212	106	200	3.67	
EXT DRO >C28-C36	<10.0	10.0	02/22/2019	ND					

Surrogate: 1-Chlorooctane 101 % 41-142

Surrogate: 1-Chlorooctadecane 99.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

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

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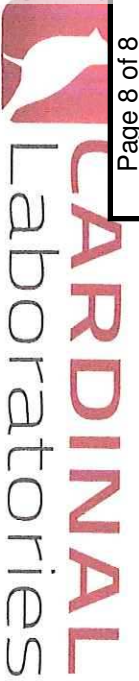
*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: STA		BILL TO	
Project Manager: Bob Hall		P.O. #:	
Address:		Company: STA	
City:	State: Zip:	Attn: Bob Hall	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Location:	open SWD	State: Zip:	
Sampler Name: Michael Alva	Eddy CO	Phone #:	
FOR LAB USE ONLY		Fax #:	
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	
		# CONTAINERS	
1900682 1 506071 2 508051 3 509051 4 501061 5 5011051	8 8 8 8 8	GROUNDWATER	
		WASTEWATER	
		SOIL	
		OIL	
		SLUDGE	
		OTHER :	
		ACID/BASE:	
		ICE / COOL	
		OTHER :	
		DATE	
2/2/19 7:30pm		X	
2/2/19 8:00pm		X	
2/2/19 9:00pm		X	
2/2/19 10:15pm		X	
2/2/19 11:30pm		X	
DATE		TIME	
2/2/19 7:30pm		X	
2/2/19 8:00pm		X	
2/2/19 9:00pm		X	
2/2/19 10:15pm		X	
2/2/19 11:30pm		X	
DATE		TIME	
2/2/19 7:30pm		X	
2/2/19 8:00pm		X	
2/2/19 9:00pm		X	
2/2/19 10:15pm		X	
2/2/19 11:30pm		X	

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Relinquished By: **Mike Jensen** Date: **2/2/19** Time: **10:40** Received By: **Mike Jensen**

Relinquished By: **Mike Jensen** Date: **2/2/19** Time: **10:40** Received By: **Mike Jensen**

Delivered By: (Circle One) **UPS** **2.56 / #97** Sample Condition ☒ Cool ☒ Intact ☐ Yes ☐ No ☐ Yes ☐ No

Sampler - UPS - Bus - Other: **2.56 / #97** CHECKED BY: **Mike Jensen** (Initials)

REMARKS: **Mike@cejon-energy.com**

Phone Result: ☐ Yes ☐ No Add'l Phone #:

Fax Result: ☐ Yes ☐ No Add'l Fax #:

— Rush —



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 09, 2019

BRYAN DAVIS

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: OGDEN SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/08/19 8:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 A (H901267-01)

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	04/08/2019	ND	1.81	90.5	2.00	0.545		
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470		
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995		
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722		
Total BTEx	<0.300	0.300	04/08/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 91.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	784	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 78.9 % 41-142

Surrogate: 1-Chlorooctadecane 75.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 B (H901267-02)

BTX 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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 84.2 % 41-142

Surrogate: 1-Chlorooctadecane 76.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 1 C (H901267-03)

BTX 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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.2 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 81.8 % 41-142

Surrogate: 1-Chlorooctadecane 75.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 A (H901267-04)

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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTEX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.2 % 73.3-129

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	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 80.4 % 41-142

Surrogate: 1-Chlorooctadecane 72.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 B (H901267-05)

BTX 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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.4 % 73.3-129

Chloride, SM4500CI-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	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 77.4 % 41-142

Surrogate: 1-Chlorooctadecane 69.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 2 C (H901267-06)

BTX 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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 91.9 % 73.3-129

Chloride, SM4500Cl-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	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 76.2 % 41-142

Surrogate: 1-Chlorooctadecane 68.8 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 A (H901267-07)

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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTEX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 73.3-129

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	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 85.4 % 41-142

Surrogate: 1-Chlorooctadecane 77.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 3 B (H901267-08)

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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTEx	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.2 % 73.3-129

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	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 81.4 % 41-142

Surrogate: 1-Chlorooctadecane 75.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 B (H901267-09)

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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTEX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	256	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 83.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 4 C (H901267-10)

BTX 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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTX	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.1 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 90.8 % 41-142

Surrogate: 1-Chlorooctadecane 84.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 A (H901267-11)

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	04/08/2019	ND	1.81	90.5	2.00	0.545	
Toluene*	<0.050	0.050	04/08/2019	ND	1.68	84.2	2.00	0.470	
Ethylbenzene*	<0.050	0.050	04/08/2019	ND	1.73	86.7	2.00	0.995	
Total Xylenes*	<0.150	0.150	04/08/2019	ND	5.27	87.8	6.00	0.722	
Total BTEx	<0.300	0.300	04/08/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	640	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 72.7 % 41-142

Surrogate: 1-Chlorooctadecane 66.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 B (H901267-12)

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	04/09/2019	ND	1.81	90.5	2.00	0.545		
Toluene*	<0.050	0.050	04/09/2019	ND	1.68	84.2	2.00	0.470		
Ethylbenzene*	<0.050	0.050	04/09/2019	ND	1.73	86.7	2.00	0.995		
Total Xylenes*	<0.150	0.150	04/09/2019	ND	5.27	87.8	6.00	0.722		
Total BTEx	<0.300	0.300	04/09/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.0 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	04/08/2019	ND	400	100	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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	<10.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 87.3 % 41-142

Surrogate: 1-Chlorooctadecane 81.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 04/08/2019
 Reported: 04/09/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 04/06/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SP 5 C (H901267-13)

BTX 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	04/09/2019	ND	1.81	90.5	2.00	0.545		
Toluene*	<0.050	0.050	04/09/2019	ND	1.68	84.2	2.00	0.470		
Ethylbenzene*	<0.050	0.050	04/09/2019	ND	1.73	86.7	2.00	0.995		
Total Xylenes*	<0.150	0.150	04/09/2019	ND	5.27	87.8	6.00	0.722		
Total BTX	<0.300	0.300	04/09/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 73.3-129

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	04/08/2019	ND	400	100	400	3.92	

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	04/08/2019	ND	194	97.2	200	3.43	
DRO >C10-C28*	15.0	10.0	04/08/2019	ND	178	89.2	200	0.374	
EXT DRO >C28-C36	<10.0	10.0	04/08/2019	ND					

Surrogate: 1-Chlorooctane 82.2 % 41-142

Surrogate: 1-Chlorooctadecane 78.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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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

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A handwritten signature in cursive script, appearing to read "C. D. Keene", written in black ink.

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

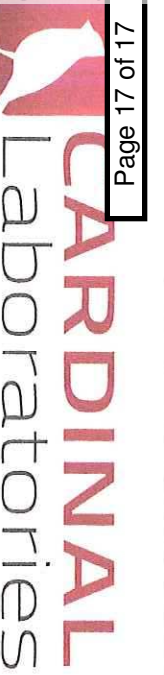
Company Name: BSA Project Manager: Brian Davis Address: City: State: Zip: Phone #: Fax #: Project #: Project Owner: Project Name: Project Location: Ogden SWO Sampler Name: High Cover / Mudd Air FOR LAB USE ONLY				BILL TO P.O. #: Company: BSA Attn: Bob Hall Address: City: State: Zip: Phone #: Fax #:				ANALYSIS REQUEST											
Lab I.D. H901267	Sample I.D. SP1 A SP1 B SP1 C SP2 A SP2 B SP2 C SP3 A SP3 B SP4 A SP4 B SP4 C	(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	MATRIX PRESERV.	SAMPLING	DATE	TIME	CL	TRH	Box										
					4/6/19	8:00 am	X	X	X										
					4/6/19	8:10 am	X	X	X										
					4/6/19	8:20 am	X	X	X										
					4/6/19	8:30 am	X	X	X										
					4/6/19	8:40 am	X	X	X										
					4/6/19	8:50 am	X	X	X										
					4/6/19	9:00 am	X	X	X										
					4/6/19	9:10 am	X	X	X										
					4/6/19	9:40 am	X	X	X										
					4/6/19	9:50 am	X	X	X										

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Relinquished By: [Signature] **Date:** 4-8-19 **Received By:** [Signature] **Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**
Relinquished By: [Signature] **Date:** 4-8-19 **Received By:** [Signature] **Fax Result:** ☐ Yes ☐ No **Add'l Fax #:**

Delivered By: (Circle One) **Sample Condition** **CHECKED BY:**
 Sampler - UPS - Bus - Other: 2.1e #497 ☒ Cool ☐ Intact ☐ Yes ☐ No ☐ Yes ☐ No (Initials) YD

mile @ Cogin - energy - com
 miledaw@82176@gmail.com
 Rush!



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: BTA		BILL TO		ANALYSIS REQUEST																					
Project Manager: Brian Davis		P.O. #:																							
Address:		Company: BTA																							
City:		Attn: Bob Hall																							
Phone #:		Address:																							
Project #:		City:																							
Project Name:		State:																							
Project Location: Open SWD		Phone #:																							
Sample Name: Midland / Midland		Fax #:																							
FOR LAB USE ONLY																									
Lab I.D. H901267	Sample I.D.	(G)RAB OR (C)OMP.		MATRIX		PRESERV		SAMPLING																	
		# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME												
11	SP5 A	5	1								4/6/19	10:00	X	X	X										
12	SP5 B	5	1								4/6/19	10:10	X	X	X										
13	SP5 C	5	1								4/6/19	10:30	X	X	X										

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Relinquished By:

Date: **4-8-19** Time: **8:45**

Received By:

Date: **4-8-19** Time: **8:45**

Phone Result: ☐ Yes ☐ No ☐ Add'l Phone #:

Fax Result: ☐ Yes ☐ No ☐ Add'l Fax #:

REMARKS:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other: **2.16 #99**

Sample Condition

Cool ☒ Intact ☒

Yes ☒ No ☐

CHECKED BY: **YO**

Mike @ cajan-energy.com

Mike.alvarez@cajanenergy.com

Push!



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 16, 2019

BRYAN DAVIS

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: OGDEN SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/15/19 8:37.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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 with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 23 @ SURFACE (H901757-01)

BTX 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	05/15/2019	ND	1.76	88.2	2.00	2.95	
Toluene*	0.066	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435	
Ethylbenzene*	0.186	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82	
Total Xylenes*	0.657	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68	
Total BTX	0.910	0.300	05/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2920	16.0	05/16/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	12.7	10.0	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	23.6	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 98.7 % 41-142

Surrogate: 1-Chlorooctadecane 96.5 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 23 @ 2' (H901757-02)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 73.3-129

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	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 91.6 % 41-142

Surrogate: 1-Chlorooctadecane 93.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 24 @ SURFACE (H901757-03)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

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	05/16/2019	ND	400	100	400	3.92	

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 89.1 % 41-142

Surrogate: 1-Chlorooctadecane 88.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 24 @ 1' (H901757-04)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 73.3-129

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	05/16/2019	ND	400	100	400	3.92	

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 96.4 % 41-142

Surrogate: 1-Chlorooctadecane 97.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 25 @ SURFACE (H901757-05)

BTX 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	05/15/2019	ND	1.76	88.2	2.00	2.95	
Toluene*	0.104	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435	
Ethylbenzene*	0.248	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82	
Total Xylenes*	0.682	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68	
Total BTX	1.03	0.300	05/15/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16000	16.0	05/16/2019	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	15.3	10.0	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	45.8	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 80.6 % 41-142

Surrogate: 1-Chlorooctadecane 73.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 25 @ 2' (H901757-06)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	05/16/2019	ND	400	100	400	3.92	

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 93.0 % 41-142

Surrogate: 1-Chlorooctadecane 94.5 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 26 @ SURFACE (H901757-07)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	12800	16.0	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 89.4 % 41-142

Surrogate: 1-Chlorooctadecane 89.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 26 @ 2' (H901757-08)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 84.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	560	16.0	05/16/2019	ND	400	100	400	3.92	

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 89.7 % 41-142

Surrogate: 1-Chlorooctadecane 93.7 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 27 @ SURFACE (H901757-09)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.8 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	41600	16.0	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	120	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	33.6	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 99.1 % 41-142

Surrogate: 1-Chlorooctadecane 107 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 27 @ 2' (H901757-10)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 90.6 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1020	16.0	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 92.1 % 41-142

Surrogate: 1-Chlorooctadecane 96.8 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 28 @ SURFACE (H901757-11)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 119 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	13800	16.0	05/16/2019	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	9230	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	1660	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 90.6 % 41-142

Surrogate: 1-Chlorooctadecane 429 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 28 @ 2' (H901757-12)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1760	16.0	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	56.1	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	54.9	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 86.5 % 41-142

Surrogate: 1-Chlorooctadecane 93.5 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 29 @ SURFACE (H901757-13)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5440	16.0	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	34.9	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	18.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 78.0 % 41-142

Surrogate: 1-Chlorooctadecane 82.2 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/09/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SP. 29 @ 2' (H901757-14)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.3-129

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	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 85.1 % 41-142

Surrogate: 1-Chlorooctadecane 93.2 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/10/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: ROW SW 1 EAST (H901757-15)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-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	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 99.1 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/10/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: ROW SW 2 EAST (H901757-16)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500Cl-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	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 95.2 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/10/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: ROW SW 3 EAST (H901757-17)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

Chloride, SM4500CI-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	05/16/2019	ND	400	100	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 97.9 % 41-142

Surrogate: 1-Chlorooctadecane 104 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/10/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: ROW SW 1 WEST (H901757-18)

BTX 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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTX	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 114 % 73.3-129

Chloride, SM4500CI-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	05/16/2019	ND	416	104	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 94.1 % 41-142

Surrogate: 1-Chlorooctadecane 99.4 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/10/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: ROW SW 2 WEST (H901757-19)

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	05/15/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/15/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/15/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/15/2019	ND	5.30	88.3	6.00	2.68		
Total BTEx	<0.300	0.300	05/15/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-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	05/16/2019	ND	416	104	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 95.8 % 41-142

Surrogate: 1-Chlorooctadecane 100 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received:	05/15/2019	Sampling Date:	05/10/2019
Reported:	05/16/2019	Sampling Type:	Soil
Project Name:	OGDEN SWD	Sampling Condition:	Cool & Intact
Project Number:	23-29 BOTTOM & SIDEWALLS	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: ROW SW 3 WEST (H901757-20)

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	05/16/2019	ND	1.76	88.2	2.00	2.95		
Toluene*	<0.050	0.050	05/16/2019	ND	1.81	90.4	2.00	0.435		
Ethylbenzene*	<0.050	0.050	05/16/2019	ND	1.66	82.8	2.00	3.82		
Total Xylenes*	<0.150	0.150	05/16/2019	ND	5.30	88.3	6.00	2.68		
Total BTEX	<0.300	0.300	05/16/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.3-129

Chloride, SM4500CI-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	05/16/2019	ND	416	104	400	3.92		

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	05/15/2019	ND	209	105	200	5.51	
DRO >C10-C28*	<10.0	10.0	05/15/2019	ND	190	95.1	200	0.528	
EXT DRO >C28-C36	<10.0	10.0	05/15/2019	ND					

Surrogate: 1-Chlorooctane 90.1 % 41-142

Surrogate: 1-Chlorooctadecane 94.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

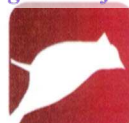
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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

[illegible]

Relinquished By: 

Date: 5/15/19
Time: 08:37
Date:
Date:

Received By: 

ich bin

Phone Result:
Fax Result:
REMARKS:

<input type="checkbox"/> Yes	<input type="checkbox"/> No
<input type="checkbox"/> Yes	<input type="checkbox"/> No

No	Add'l Phone
No	Add'l Fax

ne #:
#:

[illegible]

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midazolam expert services.com

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

1.40 / #97

Sample Condition	
Cool	Intact
<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
<input type="checkbox"/> No	<input type="checkbox"/> No

CHECKED BY:
(Initials)

1231

2



CARDINAL
Laboratories






CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240

(575) 393-2326 FAX (575) 393-2476

Company Name: BTA Oil Producers		BILL TO		ANALYSIS REQUEST																																																																																																																																																																																																							
Project Manager: Brian Davis		P.O. #:																																																																																																																																																																																																									
Address:		Company: BTA																																																																																																																																																																																																									
City:		Attn: Brian Davis																																																																																																																																																																																																									
State:		Address:																																																																																																																																																																																																									
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HR01751																																																																																																																																																																																																											
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Lab I.D.</th> <th>Sample I.D.</th> <th>(G)RAB OR (C)OMP.</th> <th># CONTAINERS</th> <th>GROUNDWATER</th> <th>WASTEWATER</th> <th>SOIL</th> <th>OIL</th> <th>SLUDGE</th> <th>OTHER :</th> <th>ACID/BASE:</th> <th>ICE / COOL</th> <th>OTHER :</th> <th>DATE</th> <th>TIME</th> <th>CC</th> <th>TH#</th> <th>BOX</th> </tr> <tr> <td>11</td> <td>SP. 280 surf</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/9/19</td> <td>9:50</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>12</td> <td>SP. 280 2</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/9/19</td> <td>9:55</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>13</td> <td>SP. 29 20 surf</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/9/19</td> <td>10:00</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>14</td> <td>SP. 29 20 2</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/9/19</td> <td>10:05</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>15</td> <td>ROD SW1 East</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/10/19</td> <td>8:00</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>16</td> <td>ROD SW2 East</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/10/19</td> <td>8:30</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>17</td> <td>ROD SW3 East</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/10/19</td> <td>8:45</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>18</td> <td>ROD SW1 West</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/10/19</td> <td>9:15</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>19</td> <td>ROD SW2 West</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/10/19</td> <td>10:00</td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>20</td> <td>ROD SW3 West</td> <td></td> <td>1</td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> <td>5/10/19</td> <td>10:30</td> <td>X</td> <td></td> <td></td> </tr> </table>		Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CC	TH#	BOX	11	SP. 280 surf		1			X				X			5/9/19	9:50	X			12	SP. 280 2		1			X				X			5/9/19	9:55	X			13	SP. 29 20 surf		1			X				X			5/9/19	10:00	X			14	SP. 29 20 2		1			X				X			5/9/19	10:05	X			15	ROD SW1 East		1			X				X			5/10/19	8:00	X			16	ROD SW2 East		1			X				X			5/10/19	8:30	X			17	ROD SW3 East		1			X				X			5/10/19	8:45	X			18	ROD SW1 West		1			X				X			5/10/19	9:15	X			19	ROD SW2 West		1			X				X			5/10/19	10:00	X			20	ROD SW3 West		1			X				X			5/10/19	10:30	X						
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	CC	TH#	BOX																																																																																																																																																																																										
11	SP. 280 surf		1			X				X			5/9/19	9:50	X																																																																																																																																																																																												
12	SP. 280 2		1			X				X			5/9/19	9:55	X																																																																																																																																																																																												
13	SP. 29 20 surf		1			X				X			5/9/19	10:00	X																																																																																																																																																																																												
14	SP. 29 20 2		1			X				X			5/9/19	10:05	X																																																																																																																																																																																												
15	ROD SW1 East		1			X				X			5/10/19	8:00	X																																																																																																																																																																																												
16	ROD SW2 East		1			X				X			5/10/19	8:30	X																																																																																																																																																																																												
17	ROD SW3 East		1			X				X			5/10/19	8:45	X																																																																																																																																																																																												
18	ROD SW1 West		1			X				X			5/10/19	9:15	X																																																																																																																																																																																												
19	ROD SW2 West		1			X				X			5/10/19	10:00	X																																																																																																																																																																																												
20	ROD SW3 West		1			X				X			5/10/19	10:30	X																																																																																																																																																																																												

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Relinquished By: 		Date: 5/6/2019		Received By: 	
Relinquished By: 		Date: 5/8/37		Received By: 	
Time:					
Delivered By: (Circle One)		Sample Condition		CHECKED BY: 	
Sampler - UPS - Bus - Other: 1.40/ #97		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		(Initials)	
		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>			
		Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>			
REMARKS:		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Phone #:	
		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No		Add'l Fax #:	
Michael @ expertenviroservices.com					
11 Rusn					



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 03, 2019

BRYAN DAVIS

BTA Oil Producers

103 South Pecos

Midland, TX 79701

RE: OGDEN SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/31/19 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. 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, flowing style.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 1 (H901921-01)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEX	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 75.2 % 41-142

Surrogate: 1-Chlorooctadecane 75.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 2 (H901921-02)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 90.9 % 41-142

Surrogate: 1-Chlorooctadecane 86.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 3 (H901921-03)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEX	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 88.7 % 41-142

Surrogate: 1-Chlorooctadecane 84.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 4 @ 10' (H901921-04)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEX	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 88.6 % 41-142

Surrogate: 1-Chlorooctadecane 83.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 5 (H901921-05)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	576	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 83.3 % 41-142

Surrogate: 1-Chlorooctadecane 80.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 6 (H901921-06)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 84.1 % 41-142

Surrogate: 1-Chlorooctadecane 81.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 7 @ 11' (H901921-07)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3080	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 87.2 % 41-142

Surrogate: 1-Chlorooctadecane 84.8 % 37.6-147

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 8 @ 11' (H901921-08)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5080	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 90.8 % 41-142

Surrogate: 1-Chlorooctadecane 90.1 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 9 (H901921-09)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 81.8 % 41-142

Surrogate: 1-Chlorooctadecane 77.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 10 (H901921-10)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 84.9 % 41-142

Surrogate: 1-Chlorooctadecane 84.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 11 (H901921-11)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	352	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 85.9 % 41-142

Surrogate: 1-Chlorooctadecane 86.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 12 (H901921-12)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEX	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	400	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 89.0 % 41-142

Surrogate: 1-Chlorooctadecane 87.8 % 37.6-147

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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: WEST WALL SP 13 (H901921-13)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEX	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 77.5 % 41-142

Surrogate: 1-Chlorooctadecane 75.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 1 @ 5' (H901921-14)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 78.4 % 41-142

Surrogate: 1-Chlorooctadecane 77.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 2 (H901921-15)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 81.7 % 41-142

Surrogate: 1-Chlorooctadecane 80.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 3 (H901921-16)

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	06/03/2019	ND	1.93	96.6	2.00	2.14		
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 82.3 % 41-142

Surrogate: 1-Chlorooctadecane 82.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 4 (H901921-17)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 110 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 84.7 % 41-142

Surrogate: 1-Chlorooctadecane 82.0 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 5 (H901921-18)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 78.2 % 41-142

Surrogate: 1-Chlorooctadecane 75.7 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 6 (H901921-19)

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	06/03/2019	ND	1.81	90.6	2.00	18.1		
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 107 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 84.2 % 41-142

Surrogate: 1-Chlorooctadecane 83.2 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 7 (H901921-20)

BTX 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	06/03/2019	ND	1.81	90.6	2.00	18.1	
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72	
Total BTX	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	189	94.3	200	1.02	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	194	97.2	200	2.12	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 83.1 % 41-142

Surrogate: 1-Chlorooctadecane 81.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 8 @ 15' (H901921-21)

BTX 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	06/03/2019	ND	1.81	90.6	2.00	18.1	
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72	
Total BTX	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	528	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	177	88.4	200	0.429	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	175	87.5	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 82.6 % 41-142

Surrogate: 1-Chlorooctadecane 82.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 9 (H901921-22)

BTX 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	06/03/2019	ND	1.81	90.6	2.00	18.1	
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72	
Total BTX	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	177	88.4	200	0.429	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	175	87.5	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 82.4 % 41-142

Surrogate: 1-Chlorooctadecane 83.3 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 10 (H901921-23)

BTX 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	06/03/2019	ND	1.81	90.6	2.00	18.1	
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72	
Total BTX	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	177	88.4	200	0.429	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	175	87.5	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 74.9 % 41-142

Surrogate: 1-Chlorooctadecane 73.9 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 11 (H901921-24)

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	06/03/2019	ND	1.81	90.6	2.00	18.1		
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4		
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3		
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72		
Total BTEx	<0.300	0.300	06/03/2019	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/03/2019	ND	416	104	400	3.92	

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	06/01/2019	ND	177	88.4	200	0.429	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	175	87.5	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 86.4 % 41-142

Surrogate: 1-Chlorooctadecane 84.6 % 37.6-147

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: EAST WALL SP 12 @ 5' (H901921-25)

BTX 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	06/03/2019	ND	1.81	90.6	2.00	18.1	
Toluene*	<0.050	0.050	06/03/2019	ND	2.00	99.9	2.00	15.4	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	2.00	100	2.00	22.3	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	6.08	101	6.00	8.72	
Total BTX	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	177	88.4	200	0.429	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	175	87.5	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 84.3 % 41-142

Surrogate: 1-Chlorooctadecane 83.8 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

BTA Oil Producers
 BRYAN DAVIS
 103 South Pecos
 Midland TX, 79701
 Fax To: (432) 683-0312

Received: 05/31/2019
 Reported: 06/03/2019
 Project Name: OGDEN SWD
 Project Number: NONE GIVEN
 Project Location: EDDY COUNTY, NM

Sampling Date: 05/23/2019
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: SOUTH SIDE SP 1 @ 10' (H901921-26)

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	06/03/2019	ND	1.93	96.6	2.00	2.14	
Toluene*	<0.050	0.050	06/03/2019	ND	2.04	102	2.00	2.41	
Ethylbenzene*	<0.050	0.050	06/03/2019	ND	1.91	95.7	2.00	4.32	
Total Xylenes*	<0.150	0.150	06/03/2019	ND	5.99	99.9	6.00	3.69	
Total BTEx	<0.300	0.300	06/03/2019	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	06/03/2019	ND	416	104	400	3.92		

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	06/01/2019	ND	177	88.4	200	0.429	
DRO >C10-C28*	<10.0	10.0	06/01/2019	ND	175	87.5	200	1.37	
EXT DRO >C28-C36	<10.0	10.0	06/01/2019	ND					

Surrogate: 1-Chlorooctane 85.7 % 41-142

Surrogate: 1-Chlorooctadecane 83.5 % 37.6-147

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
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

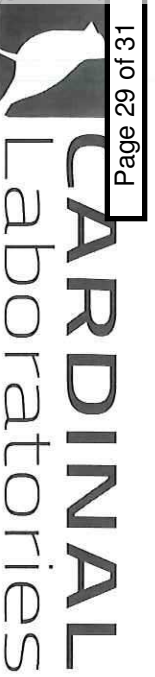
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*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene", is written over a horizontal line.

Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: BTA Oil Products		P.O. #:		BILL TO		ANALYSIS REQUEST																																									
Project Manager: Brian Davis		Company: BTA																																													
Address:		Attn: Brian Davis																																													
City:		Address:																																													
Phone #:		City:																																													
Project #:		State:																																													
Project Name:		Zip:																																													
Project Location: Ogden SW D		Phone #:																																													
Sampler Name: M. Adams		Fax #:																																													
FOR LAB USE ONLY		PRESERV		SAMPLING																																											
Lab I.D. 4901921		Sample I.D.																																													
SP1		west wall SP1		X		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		CL		TPH		BTX											
SP2		west wall SP2		X				X																				4-23-14		8:10		X		X		X											
SP3		west wall SP3		X				X																				4-23-14		8:10		X		X		X											
SP4 @ 10'		west wall SP4 @ 10'		X				X																				4-23-14		3:10		X		X		X											
SP5		west wall SP5		X				X																				4-23-14		8:10		X		X		X											
SP6		west wall SP6		X				X																				4-23-14		8:50		X		X		X											
SP7 @ 11'		west wall SP7 @ 11'		X				X																				4-23-14		3:46		X		X		X											
SP8 @ 11'		west wall SP8 @ 11'		X				X																				4-23-14		3:50		X		X		X											
SP9		west wall SP9		X				X																				4-23-14		9:30		X		X		X											
SP10		west wall SP10		X				X																				4-23-14		9:30		X		X		X											

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Relinquished By: **[Signature]** Date: **5/30/14** Received By: **[Signature]** Date: **5-31-14**

Relinquished By: **[Signature]** Date: **5-31-14** Received By: **[Signature]** Date: **5-31-14**

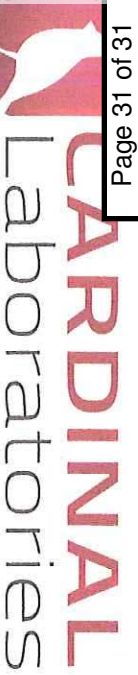
Delivered By: (Circle One) **Keyser Rickel** Sample Condition: ☒ Cool ☒ Intact ☒ Yes ☒ No ☒ Yes ☒ No

Sampler - UPS - Bus - Other: **-3.22 #47** CHECKED BY: **[Signature]** (Initials)

REMARKS: **Michael@expertaninstruments.com**

Phone Result: ☐ Yes ☐ No Add'l Phone #: **6 Park**

Fax Result: ☐ Yes ☐ No Add'l Fax #:



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:				BILL TO				ANALYSIS REQUEST											
Project Manager:				P.O. #:															
Address:				Company:															
City:				Attn:															
State:				Address:															
Zip:				City:															
Phone #:				State:															
Fax #:				Phone #:															
Project #:				Zip:															
Project Name:																			
Project Location:																			
Sampler Name:				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.				Sample I.D.															
				(G)RAB OR (C)OMP.															
				# CONTAINERS															
				MATRIX															
				GROUNDWATER															
				WASTEWATER															
				SOIL															
				OIL															
				SLUDGE															
				OTHER :															
				ACID/BASE:															
				ICE / COOL															
				OTHER :															
				DATE															
				TIME															
				CL															
				TPH															
				BTEX															

Relinquished By:		Date:		Received By:		Date:	
Relinquished By:		Date:		Received By:		Date:	
Relinquished By:		Date:		Received By:		Date:	

Delivered By: (Circle One)		Sample Condition		CHECKED BY:	
Sampler - UPS - Bus - Other:		Cool		Intact	

Phone Result:		Yes		No		Add'l Phone #:	
Fax Result:		Yes		No		Add'l Fax #:	
REMARKS:							



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 20, 2019

Jacqui Harris
CM Services
312 N. Canal Suite C
Carlsbad, NM 88220
TEL: (575) 499-5306
FAX:

RE: Ogden SWD

OrderNo.: 1911563

Dear Jacqui Harris:

Hall Environmental Analysis Laboratory received 12 sample(s) on 11/13/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 1

Project: Ogden SWD

Collection Date: 11/8/2019 8:05:00 AM

Lab ID: 1911563-001

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	11/18/2019 2:50:46 PM	48832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/15/2019 1:48:02 PM	48789
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/15/2019 1:48:02 PM	48789
Surr: DNOP	85.2	70-130		%Rec	1	11/15/2019 1:48:02 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/15/2019 1:11:31 AM	48778
Surr: BFB	94.0	77.4-118		%Rec	1	11/15/2019 1:11:31 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/15/2019 1:11:31 AM	48778
Toluene	ND	0.048		mg/Kg	1	11/15/2019 1:11:31 AM	48778
Ethylbenzene	ND	0.048		mg/Kg	1	11/15/2019 1:11:31 AM	48778
Xylenes, Total	ND	0.097		mg/Kg	1	11/15/2019 1:11:31 AM	48778
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	11/15/2019 1:11:31 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 2

Project: Ogden SWD

Collection Date: 11/8/2019 8:10:00 AM

Lab ID: 1911563-002

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	11/18/2019 3:03:11 PM	48832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/15/2019 1:57:20 PM	48789
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/15/2019 1:57:20 PM	48789
Surr: DNOP	80.9	70-130		%Rec	1	11/15/2019 1:57:20 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/15/2019 1:34:57 AM	48778
Surr: BFB	93.8	77.4-118		%Rec	1	11/15/2019 1:34:57 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/15/2019 1:34:57 AM	48778
Toluene	ND	0.049		mg/Kg	1	11/15/2019 1:34:57 AM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/15/2019 1:34:57 AM	48778
Xylenes, Total	ND	0.098		mg/Kg	1	11/15/2019 1:34:57 AM	48778
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	11/15/2019 1:34:57 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 3

Project: Ogden SWD

Collection Date: 11/8/2019 8:15:00 AM

Lab ID: 1911563-003

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	59		mg/Kg	20	11/18/2019 3:15:36 PM	48832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/15/2019 2:06:36 PM	48789
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/15/2019 2:06:36 PM	48789
Surr: DNOP	77.4	70-130		%Rec	1	11/15/2019 2:06:36 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/15/2019 1:58:22 AM	48778
Surr: BFB	92.1	77.4-118		%Rec	1	11/15/2019 1:58:22 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/15/2019 1:58:22 AM	48778
Toluene	ND	0.049		mg/Kg	1	11/15/2019 1:58:22 AM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/15/2019 1:58:22 AM	48778
Xylenes, Total	ND	0.099		mg/Kg	1	11/15/2019 1:58:22 AM	48778
Surr: 4-Bromofluorobenzene	95.6	80-120		%Rec	1	11/15/2019 1:58:22 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 4

Project: Ogden SWD

Collection Date: 11/8/2019 8:20:00 AM

Lab ID: 1911563-004

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	270	60		mg/Kg	20	11/18/2019 3:28:01 PM	48832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/15/2019 2:15:52 PM	48789
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/15/2019 2:15:52 PM	48789
Surr: DNOP	94.7	70-130		%Rec	1	11/15/2019 2:15:52 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/15/2019 2:21:45 AM	48778
Surr: BFB	93.0	77.4-118		%Rec	1	11/15/2019 2:21:45 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/15/2019 2:21:45 AM	48778
Toluene	ND	0.049		mg/Kg	1	11/15/2019 2:21:45 AM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/15/2019 2:21:45 AM	48778
Xylenes, Total	ND	0.098		mg/Kg	1	11/15/2019 2:21:45 AM	48778
Surr: 4-Bromofluorobenzene	96.2	80-120		%Rec	1	11/15/2019 2:21:45 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 5

Project: Ogden SWD

Collection Date: 11/8/2019 8:25:00 AM

Lab ID: 1911563-005

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	580	60		mg/Kg	20	11/18/2019 3:40:26 PM	48832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	11/15/2019 2:25:05 PM	48789
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	11/15/2019 2:25:05 PM	48789
Surr: DNOP	96.0	70-130		%Rec	1	11/15/2019 2:25:05 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/15/2019 2:45:04 AM	48778
Surr: BFB	94.9	77.4-118		%Rec	1	11/15/2019 2:45:04 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/15/2019 2:45:04 AM	48778
Toluene	ND	0.048		mg/Kg	1	11/15/2019 2:45:04 AM	48778
Ethylbenzene	ND	0.048		mg/Kg	1	11/15/2019 2:45:04 AM	48778
Xylenes, Total	ND	0.097		mg/Kg	1	11/15/2019 2:45:04 AM	48778
Surr: 4-Bromofluorobenzene	97.7	80-120		%Rec	1	11/15/2019 2:45:04 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 6

Project: Ogden SWD

Collection Date: 11/8/2019 8:30:00 AM

Lab ID: 1911563-006

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	660	60		mg/Kg	20	11/18/2019 3:52:51 PM	48832
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	11/15/2019 2:34:18 PM	48789
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/15/2019 2:34:18 PM	48789
Surr: DNOP	99.1	70-130		%Rec	1	11/15/2019 2:34:18 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/15/2019 3:08:21 AM	48778
Surr: BFB	91.2	77.4-118		%Rec	1	11/15/2019 3:08:21 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/15/2019 3:08:21 AM	48778
Toluene	ND	0.048		mg/Kg	1	11/15/2019 3:08:21 AM	48778
Ethylbenzene	ND	0.048		mg/Kg	1	11/15/2019 3:08:21 AM	48778
Xylenes, Total	ND	0.096		mg/Kg	1	11/15/2019 3:08:21 AM	48778
Surr: 4-Bromofluorobenzene	94.2	80-120		%Rec	1	11/15/2019 3:08:21 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 7

Project: Ogden SWD

Collection Date: 11/8/2019 8:35:00 AM

Lab ID: 1911563-007

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	2600	150		mg/Kg	50	11/19/2019 7:12:33 PM	48834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	11/15/2019 2:43:29 PM	48789
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	11/15/2019 2:43:29 PM	48789
Surr: DNOP	103	70-130		%Rec	1	11/15/2019 2:43:29 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/15/2019 3:31:35 AM	48778
Surr: BFB	92.3	77.4-118		%Rec	1	11/15/2019 3:31:35 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/15/2019 3:31:35 AM	48778
Toluene	ND	0.049		mg/Kg	1	11/15/2019 3:31:35 AM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/15/2019 3:31:35 AM	48778
Xylenes, Total	ND	0.099		mg/Kg	1	11/15/2019 3:31:35 AM	48778
Surr: 4-Bromofluorobenzene	96.1	80-120		%Rec	1	11/15/2019 3:31:35 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 8

Project: Ogden SWD

Collection Date: 11/8/2019 8:40:00 AM

Lab ID: 1911563-008

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	160	60		mg/Kg	20	11/18/2019 2:59:58 PM	48834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	11/15/2019 2:52:42 PM	48789
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/15/2019 2:52:42 PM	48789
Surr: DNOP	86.2	70-130		%Rec	1	11/15/2019 2:52:42 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/14/2019 10:53:46 PM	48778
Surr: BFB	98.3	77.4-118		%Rec	1	11/14/2019 10:53:46 PM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/14/2019 10:53:46 PM	48778
Toluene	ND	0.049		mg/Kg	1	11/14/2019 10:53:46 PM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/14/2019 10:53:46 PM	48778
Xylenes, Total	ND	0.097		mg/Kg	1	11/14/2019 10:53:46 PM	48778
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	11/14/2019 10:53:46 PM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 9

Project: Ogden SWD

Collection Date: 11/8/2019 8:45:00 AM

Lab ID: 1911563-009

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	570	60		mg/Kg	20	11/18/2019 3:12:23 PM	48834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	11/15/2019 3:01:53 PM	48789
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	11/15/2019 3:01:53 PM	48789
Surr: DNOP	72.5	70-130		%Rec	1	11/15/2019 3:01:53 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	11/14/2019 11:16:39 PM	48778
Surr: BFB	98.2	77.4-118		%Rec	1	11/14/2019 11:16:39 PM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/14/2019 11:16:39 PM	48778
Toluene	ND	0.050		mg/Kg	1	11/14/2019 11:16:39 PM	48778
Ethylbenzene	ND	0.050		mg/Kg	1	11/14/2019 11:16:39 PM	48778
Xylenes, Total	ND	0.10		mg/Kg	1	11/14/2019 11:16:39 PM	48778
Surr: 4-Bromofluorobenzene	91.7	80-120		%Rec	1	11/14/2019 11:16:39 PM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH 10

Project: Ogden SWD

Collection Date: 11/8/2019 8:50:00 AM

Lab ID: 1911563-010

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	ND	60		mg/Kg	20	11/18/2019 3:24:47 PM	48834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	11/15/2019 3:11:05 PM	48789
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	11/15/2019 3:11:05 PM	48789
Surr: DNOP	76.2	70-130		%Rec	1	11/15/2019 3:11:05 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/14/2019 11:39:29 PM	48778
Surr: BFB	96.0	77.4-118		%Rec	1	11/14/2019 11:39:29 PM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/14/2019 11:39:29 PM	48778
Toluene	ND	0.049		mg/Kg	1	11/14/2019 11:39:29 PM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/14/2019 11:39:29 PM	48778
Xylenes, Total	ND	0.099		mg/Kg	1	11/14/2019 11:39:29 PM	48778
Surr: 4-Bromofluorobenzene	88.9	80-120		%Rec	1	11/14/2019 11:39:29 PM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: West Wall SP7

Project: Ogden SWD

Collection Date: 11/8/2019 8:55:00 AM

Lab ID: 1911563-011

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	860	60		mg/Kg	20	11/18/2019 3:37:12 PM	48834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/15/2019 3:20:16 PM	48789
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/15/2019 3:20:16 PM	48789
Surr: DNOP	105	70-130		%Rec	1	11/15/2019 3:20:16 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	11/15/2019 12:02:21 AM	48778
Surr: BFB	99.2	77.4-118		%Rec	1	11/15/2019 12:02:21 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	11/15/2019 12:02:21 AM	48778
Toluene	ND	0.048		mg/Kg	1	11/15/2019 12:02:21 AM	48778
Ethylbenzene	ND	0.048		mg/Kg	1	11/15/2019 12:02:21 AM	48778
Xylenes, Total	ND	0.097		mg/Kg	1	11/15/2019 12:02:21 AM	48778
Surr: 4-Bromofluorobenzene	92.3	80-120		%Rec	1	11/15/2019 12:02:21 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1911563

Date Reported: 11/20/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: West Wall SP 8

Project: Ogden SWD

Collection Date: 11/8/2019 9:00:00 AM

Lab ID: 1911563-012

Matrix: SOIL

Received Date: 11/13/2019 9:22:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	320	60		mg/Kg	20	11/18/2019 3:49:36 PM	48834
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: CLP
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	11/15/2019 3:29:28 PM	48789
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	11/15/2019 3:29:28 PM	48789
Surr: DNOP	87.5	70-130		%Rec	1	11/15/2019 3:29:28 PM	48789
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/15/2019 12:25:12 AM	48778
Surr: BFB	99.4	77.4-118		%Rec	1	11/15/2019 12:25:12 AM	48778
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	11/15/2019 12:25:12 AM	48778
Toluene	ND	0.049		mg/Kg	1	11/15/2019 12:25:12 AM	48778
Ethylbenzene	ND	0.049		mg/Kg	1	11/15/2019 12:25:12 AM	48778
Xylenes, Total	ND	0.099		mg/Kg	1	11/15/2019 12:25:12 AM	48778
Surr: 4-Bromofluorobenzene	92.5	80-120		%Rec	1	11/15/2019 12:25:12 AM	48778

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1911563

20-Nov-19

Client: CM Services**Project:** Ogden SWD

Sample ID: MB-48834	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 48834	RunNo: 64582								
Prep Date: 11/18/2019	Analysis Date: 11/18/2019	SeqNo: 2212136			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-48834	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 48834	RunNo: 64582								
Prep Date: 11/18/2019	Analysis Date: 11/18/2019	SeqNo: 2212137			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	100	90	110			

Sample ID: MB-48832	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 48832	RunNo: 64581								
Prep Date: 11/18/2019	Analysis Date: 11/18/2019	SeqNo: 2212442			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-48832	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 48832	RunNo: 64581								
Prep Date: 11/18/2019	Analysis Date: 11/18/2019	SeqNo: 2212443			Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1911563

20-Nov-19

Client: CM Services**Project:** Ogden SWD

Sample ID: MB-48789	SampType: MBLK	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: PBS	Batch ID: 48789	RunNo: 64529								
Prep Date: 11/14/2019	Analysis Date: 11/15/2019	SeqNo: 2210272 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.8		10.00		78.0	70	130			

Sample ID: LCS-48789	SampType: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics								
Client ID: LCSS	Batch ID: 48789	RunNo: 64529								
Prep Date: 11/14/2019	Analysis Date: 11/15/2019	SeqNo: 2210273 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.4	63.9	124			
Surr: DNOP	3.6		5.000		72.9	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1911563

20-Nov-19

Client: CM Services**Project:** Ogden SWD

Sample ID: MB-48771	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 48771			RunNo: 64522						
Prep Date: 11/13/2019	Analysis Date: 11/14/2019			SeqNo: 2209170	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		101	77.4	118			

Sample ID: LCS-48771	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 48771			RunNo: 64522						
Prep Date: 11/13/2019	Analysis Date: 11/14/2019			SeqNo: 2209171	Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		110	77.4	118			

Sample ID: MB-48778	SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: PBS	Batch ID: 48778			RunNo: 64522						
Prep Date: 11/13/2019	Analysis Date: 11/14/2019			SeqNo: 2209200	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.9	77.4	118			

Sample ID: LCS-48778	SampType: LCS			TestCode: EPA Method 8015D: Gasoline Range						
Client ID: LCSS	Batch ID: 48778			RunNo: 64522						
Prep Date: 11/13/2019	Analysis Date: 11/14/2019			SeqNo: 2209201	Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	80	120			
Surr: BFB	1000		1000		103	77.4	118			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1911563

20-Nov-19

Client: CM Services**Project:** Ogden SWD

Sample ID: MB-48771	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 48771		RunNo: 64522							
Prep Date: 11/13/2019	Analysis Date: 11/14/2019		SeqNo: 2209228		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID: LCS-48771	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 48771		RunNo: 64522							
Prep Date: 11/13/2019	Analysis Date: 11/14/2019		SeqNo: 2209229		Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Sample ID: MB-48778	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 48778		RunNo: 64522							
Prep Date: 11/13/2019	Analysis Date: 11/14/2019		SeqNo: 2209261		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: LCS-48778	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 48778		RunNo: 64522							
Prep Date: 11/13/2019	Analysis Date: 11/14/2019		SeqNo: 2209262		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.8	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.1	0.10	3.000	0	105	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: CM SERVICES

Work Order Number: 1911563

RcptNo: 1

Received By: Leah Baca

11/13/2019 9:22:00 AM

Completed By: Yazmine Garduno

11/13/2019 10:15:25 AM

Reviewed By: LB

11/13/19

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: ENM 11/13/19

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.7	Good				

Chain-of-Custody Record

Client: C&M ServicesMailing Address: 312 W. Canal StSuite C Carlsbad NM

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)Accreditation: ☐ AZ Compliance☐ NELAC ☐ Other☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush

Project Name:

Ogden ~~SWD~~ SWD

Project#:

Project Manager:

Jacqui Harris

Sampler:

On Ice: ☒ Yes ☐ No# of Coolers: 1Cooler Temp (including CF): 5 or 5.3 = 47°C

Container Type and #

Preservative Type

HEAL No.

191503-001-002-003-004-005-006-007-008-009-010-011-012-012-012-012-012-012-012-012-012-012-012-012-012-012-012

Relinquished by:

Samantha Watson

Relinquished by:

Samantha Watson

Date:

11/18/19

Date:

11/18/19

Received by:

Via:

Received by:

Via:

Date

11/19/19

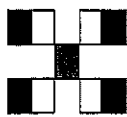
Date

11/19/19

Remarks:

BTA

Remarks:

* note name isOgden SWD

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Total Coliform (Present/Absent)

8270 (Semi-VOA)

8260 (VOA)

CF, Br, NO₃, NO₂, PO₄, SO₄

RCRA 8 Metals

PAHs by 8310 or 8270SIMS

EDB (Method 504.1)

8081 Pesticides/8082 PCB's

PF: 8015D (GRO / DRO / MRO)

BTEX / MTBE / TMB's (8021)



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

December 10, 2019

Jacqui Harris
CM Services
312 N. Canal Suite C
Carlsbad, NM 88220
TEL: (575) 499-5306
FAX

RE: OGDEN SWD

OrderNo.: 1912194

Dear Jacqui Harris:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/5/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report

Lab Order 1912194

Date Reported: 12/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: BH7@4'

Project: OGDEN SWD

Collection Date: 12/3/2019 10:30:00 AM

Lab ID: 1912194-001

Matrix:

Received Date: 12/5/2019 8:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	12/6/2019 10:14:37 PM	49205
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.8		mg/Kg	1	12/9/2019 2:29:08 PM	49194
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	12/9/2019 2:29:08 PM	49194
Surr: DNOP	104	70-130		%Rec	1	12/9/2019 2:29:08 PM	49194
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	12/6/2019 11:01:30 AM	49182
Surr: BFB	84.3	66.6-105		%Rec	1	12/6/2019 11:01:30 AM	49182
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	12/6/2019 11:01:30 AM	49182
Toluene	ND	0.050		mg/Kg	1	12/6/2019 11:01:30 AM	49182
Ethylbenzene	ND	0.050		mg/Kg	1	12/6/2019 11:01:30 AM	49182
Xylenes, Total	ND	0.10		mg/Kg	1	12/6/2019 11:01:30 AM	49182
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	12/6/2019 11:01:30 AM	49182

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

Analytical Report

Lab Order 1912194

Date Reported: 12/10/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: CM Services

Client Sample ID: SW7

Project: OGDEN SWD

Collection Date: 12/3/2019 11:30:00 AM

Lab ID: 1912194-002

Matrix:

Received Date: 12/5/2019 8:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	ND	60		mg/Kg	20	12/6/2019 10:26:57 PM	49205
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/9/2019 2:38:22 PM	49194
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/9/2019 2:38:22 PM	49194
Surr: DNOP	113	70-130		%Rec	1	12/9/2019 2:38:22 PM	49194
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/6/2019 12:12:00 PM	49182
Surr: BFB	88.2	66.6-105		%Rec	1	12/6/2019 12:12:00 PM	49182
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	12/6/2019 12:12:00 PM	49182
Toluene	ND	0.046		mg/Kg	1	12/6/2019 12:12:00 PM	49182
Ethylbenzene	ND	0.046		mg/Kg	1	12/6/2019 12:12:00 PM	49182
Xylenes, Total	ND	0.093		mg/Kg	1	12/6/2019 12:12:00 PM	49182
Surr: 4-Bromofluorobenzene	98.9	80-120		%Rec	1	12/6/2019 12:12:00 PM	49182

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1912194

10-Dec-19

Client: CM Services
Project: OGDEN SWD

Sample ID: MB-49205	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBS	Batch ID: 49205	RunNo: 65000								
Prep Date: 12/6/2019	Analysis Date: 12/6/2019	SeqNo: 2230295	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: LCS-49205	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSS	Batch ID: 49205	RunNo: 65000								
Prep Date: 12/6/2019	Analysis Date: 12/6/2019	SeqNo: 2230296	Units: mg/Kg							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1912194

10-Dec-19

Client: CM Services
Project: OGDEN SWD

Sample ID: LCS-49194	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 49194			RunNo: 64995						
Prep Date: 12/6/2019	Analysis Date: 12/6/2019			SeqNo: 2229278		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.4	63.9	124			
Surr: DNOP	3.8		5.000		75.2	70	130			

Sample ID: MB-49194	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 49194			RunNo: 64995						
Prep Date: 12/6/2019	Analysis Date: 12/6/2019			SeqNo: 2229279		Units: mg/Kg				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		122	70	130			

Sample ID: LCS-49177	SampType: LCS			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: LCSS	Batch ID: 49177			RunNo: 64995						
Prep Date: 12/5/2019	Analysis Date: 12/6/2019			SeqNo: 2229750		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	5.8		5.000		115	70	130			

Sample ID: MB-49177	SampType: MBLK			TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 49177			RunNo: 64995						
Prep Date: 12/5/2019	Analysis Date: 12/6/2019			SeqNo: 2229751		Units: %Rec				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.7	70	130			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1912194

10-Dec-19

Client: CM Services
Project: OGDEN SWD

Sample ID: mb-49182	SampType: MBLK	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: PBS	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229609 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		89.8	66.6	105			

Sample ID: lcs-49182	SampType: LCS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: LCSS	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229610 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.7	80	120			
Surr: BFB	1000		1000		102	66.6	105			

Sample ID: 1912194-001ams	SampType: MS	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH7@4'	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229612 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	24.80	0	103	69.1	142			
Surr: BFB	980		992.1		99.2	66.6	105			

Sample ID: 1912194-001amsd	SampType: MSD	TestCode: EPA Method 8015D: Gasoline Range								
Client ID: BH7@4'	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229613 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.54	0	99.0	69.1	142	9.45	20	
Surr: BFB	940		941.6		99.4	66.6	105	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 1912194

10-Dec-19

Client: CM Services
Project: OGDEN SWD

Sample ID: mb-49182	SampType: MBLK	TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229631 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID: LCS-49182	SampType: LCS	TestCode: EPA Method 8021B: Volatiles								
Client ID: LCSS	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229632 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.3	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	106	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

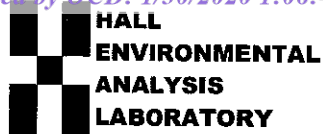
Sample ID: 1912194-002ams	SampType: MS	TestCode: EPA Method 8021B: Volatiles								
Client ID: SW7	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229635 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.024	0.9606	0	96.4	76	123			
Toluene	0.96	0.048	0.9606	0.01050	98.6	80.3	127			
Ethylbenzene	0.97	0.048	0.9606	0	101	80.2	131			
Xylenes, Total	2.9	0.096	2.882	0.01524	102	78	133			
Surr: 4-Bromofluorobenzene	0.96		0.9606		100	80	120			

Sample ID: 1912194-002amsd	SampType: MSD	TestCode: EPA Method 8021B: Volatiles								
Client ID: SW7	Batch ID: 49182	RunNo: 64997								
Prep Date: 12/5/2019	Analysis Date: 12/6/2019	SeqNo: 2229636 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.023	0.9166	0	100	76	123	0.904	20	
Toluene	0.98	0.046	0.9166	0.01050	106	80.3	127	2.68	20	
Ethylbenzene	1.0	0.046	0.9166	0	110	80.2	131	3.98	20	
Xylenes, Total	3.0	0.092	2.750	0.01524	110	78	133	3.43	20	
Surr: 4-Bromofluorobenzene	0.96		0.9166		105	80	120	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **CM SERVICES**Work Order Number: **1912194**

RcptNo: 1

Received By: **Yazmine Garduno**

12/5/2019 8:55:00 AM

*[Signature]*Completed By: **Daniel Marquez**

12/5/2019 9:29:57 AM

*[Signature]*Reviewed By: *LB*

12/5/19

Chain of Custody

1. Is Chain of Custody sufficiently complete? Yes ☒ No ☐ Not Present ☐2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐5. Sample(s) in proper container(s)? Yes ☒ No ☐6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐8. Was preservative added to bottles? Yes ☐ No ☒ NA ☐9. Received at least 1 vial with headspace $<1/4"$ for AQ VOA? Yes ☐ No ☐ NA ☒10. Were any sample containers received broken? Yes ☐ No ☒11. Does paperwork match bottle labels? Yes ☒ No ☐

(Note discrepancies on chain of custody)

12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐13. Is it clear what analyses were requested? Yes ☒ No ☐14. Were all holding times able to be met? Yes ☒ No ☐

(If no, notify customer for authorization.)

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: *JR 12/5/19*

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: _____

Date: _____

By Whom: _____

Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good				

Chain-of-Custody Record

Client:

C.M. Services

Turn-Around Time:

☐ Standard☒ Rush 3 day

Project Name:

Ogden SWD

Mailing Address: 312 N Canal SWC

Carlwood, NM 88003

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard☐ Level 4 (Full Validation)Accreditation: ☐ Az Compliance☐ NELAC☐ Other☐ EDD (Type)

Project Manager:

Jacqui Harris

Sampler: JWH

On Ice: ☒ Yes ☐ No

of Coolers: 1

Cooler Temp (including CE): 3A-04-35 (°C)

Container Type and #

4oz

Preservative Type

001

HEAL No.

1912194

Date

12/31/19

Time

10:30

Matrix

soil

Sample Name

BH7 @ 4'

Date

12/31/19

Time

11:30

Matrix

soil

Sample Name

SW7

Analysis Request

TPH:8015D(GRO / DRO / MRO)

8081 Pesticides/8082 PCB's

EDB (Method 504.1)

PAHs by 8310 or 8270SIMS

RCRA 8 Metals

Cl, F, Br, NO₃, PO₄, SO₄

8260 (VOA)

8270 (Semi-VOA)

Total Coliform (Present/Absent)

Remarks:

BTA

Received by:

Date 12/4/19

Via:

Time 1300

Relinquished by:

Jacqui Harris

Date:

12/4/19

Time:

1300

Relinquished by:

Jacqui Harris

Date:

12/4/19

Time:

1900

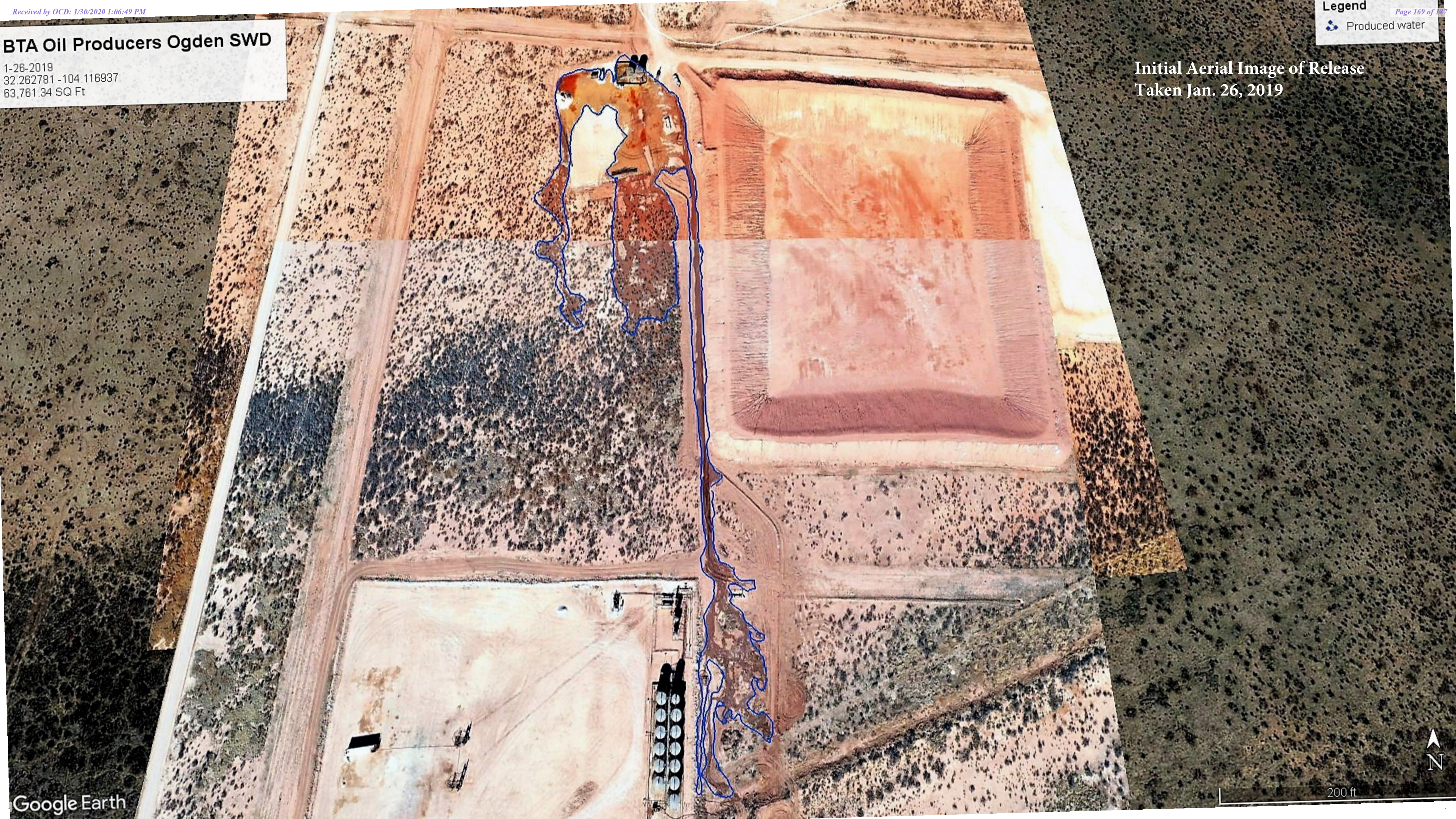
Closure Report – BTA Oil Producers, LLC – Ogden 20509 SWD Substation Tank Battery (2RP-5242)

Appendix D

Photo Log

BTA Oil Producers Ogden SWD
1-26-2019
32.262781 -104.116937
63,761.34 SQ Ft

Initial Aerial Image of Release
Taken Jan. 26, 2019



OGDEN SWD (2RP-5242) PHOTO LOG -AFTER EXCAVATION



Photo 1: Standing in .5' Excavation area facing South.



Photo 2: Standing on the edge of pad facing BH6 Excavation.



Photo 3: Standing on SE corner of pad facing South down along ROW.



Photo 4: Excavation occurring around BH7 to take additional foot.

OGDEN SWD (2RP-5242) PHOTO LOG -AFTER EXCAVATION



Photo 5: 4' Excavated area around BH2 & BH3.



Photo 6: Picture taken at NW corner of pad facing SE. Pad expansion occurred post removal of contaminated soils.

Appendix E

Lea Land

Disposal

Invoices

LEA LAND, LLC

INVOICE # 26762

OIL FIELD WASTE LANDFILL

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

PHONE: 405-236-4257
FAX: 405-236-4261

Date: 4/17/2019

AFE Number:

Charge to: Ogden SWD

Bill To:

BRIAN DAVIS
BTA OIL PRODUCERS
104 S. PECOS ST.
MIDLAND, TX 79701

Date(s) of Service: 04/05/19 - 04/09/19

Manifest #: See Attached List

Ship Via: Cajun Energy

RECEIVED

APR 24 2019

BTA OIL PRODUCERS

Qty	U/M	Description	Unit Price	Total
1,496.92	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Subtotal
Sales tax rate
Sales tax
Total

Make all checks payable to LEA LAND, LLC

If you have any questions concerning this invoice, please contact:

Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net

Thank you for your business!

BTA Oil Weights Statement - Total Landfilled

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
4/5/2019	129235	Ogden SWD	129,600	64.80
4/5/2019	129236	Ogden SWD	124,800	62.40
4/5/2019	129244	Ogden SWD	124,120	62.06
4/5/2019	129245	Ogden SWD	121,500	60.75
4/5/2019	129246	Ogden SWD	121,140	60.57
4/5/2019	129247	Ogden SWD	109,620	54.81
4/5/2019	129257	Ogden SWD	125,920	62.96
4/8/2019	129270	Ogden SWD	127,520	63.76
4/8/2019	129271	Ogden SWD	131,520	65.76
4/8/2019	129272	Ogden SWD	118,360	59.18
4/8/2019	129273	Ogden SWD	132,640	66.32
4/8/2019	129274	Ogden SWD	127,200	63.60
4/8/2019	129275	Ogden SWD	131,900	65.95
4/8/2019	129276	Ogden SWD	127,360	63.68
4/8/2019	129277	Ogden SWD	137,880	68.94
4/9/2019	129310	Ogden SWD	127,020	63.51
4/9/2019	129311	Ogden SWD	125,520	62.76
4/9/2019	129312	Ogden SWD	122,740	61.37
4/9/2019	129313	Ogden SWD	111,980	55.99
4/9/2019	129314	Ogden SWD	134,100	67.05
4/9/2019	129315	Ogden SWD	83,500	41.75
4/9/2019	129316	Ogden SWD	128,520	64.26
4/9/2019	129317	Ogden SWD	130,040	65.02
4/9/2019	129318	Ogden SWD	100,620	50.31
4/9/2019	129346	Ogden SWD	38,720	19.36
TOTALS:			2,993,840	1,496.92
			lbs	tons

Lea Land Landfill New Mexico

Mile Market # 64 US Highway 62/180

30 miles East of Carlsbad, NM * (505) 887-4048

LEA LAND, LLC**INVOICE # 26796****OIL FIELD WASTE LANDFILL**1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106**Date:** 4/24/2019**PHONE:** 405-236-4257**FAX:** 405-236-4261**AFE Number:****Bill To:**BRIAN DAVIS
BTA OIL PRODUCERS
104 S. PECOS ST.
MIDLAND, TX 79701**RECEIVED**

MAY 01 2019

**BTA
OIL PRODUCERS****Charge to:** Ogden SWD**Date(s) of Service:** 04/12/19 - 04/15/19**Manifest #:** See Attached List**Ship Via:** Cajun Energy

Qty	U/M	Description	Unit Price	Total
717.45	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		
Subtotal				
Sales tax rate				
Sales tax				
Total				

TERMS: NET 30

Make all checks payable to LEA LAND, LLC

If you have any questions concerning this invoice, please contact:**Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net****Thank you for your business!**

BTA Oil Weights Statement - Total Landfilled

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
4/12/2019	129424	Ogden SWD	117,240	58.62
4/12/2019	129425	Ogden SWD	76,440	38.22
4/12/2019	129426	Ogden SWD	118,620	59.31
4/12/2019	129445	Ogden SWD	39,520	19.76
4/12/2019	129446	Ogden SWD	42,760	21.38
4/15/2019	129450	Ogden SWD	113,020	56.51
4/15/2019	129451	Ogden SWD	129,380	64.69
4/15/2019	129452	Ogden SWD	114,200	57.10
4/15/2019	129453	Ogden SWD	118,520	59.26
4/15/2019	129454	Ogden SWD	76,920	38.46
4/15/2019	129455	Ogden SWD	67,220	33.61
4/15/2019	129456	Ogden SWD	81,000	40.50
4/15/2019	129470	Ogden SWD	103,900	51.95
4/15/2019	129491	Ogden SWD	74,920	37.46
4/15/2019	129492	Ogden SWD	80,880	40.44
4/15/2019	129493	Ogden SWD	80,360	40.18
TOTALS:			1,434,900	717.45
			lbs	tons

Lea Land Landfill New Mexico

Mile Market # 64 US Highway 62/180

30 miles East of Carlsbad, NM * (505) 887-4048

INVOICE # 26856

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

Spill Related

Date: 5/8/2019

PHONE: 405-236-4257
FAX: 405-236-4261

AFE Number:

Charge to: Ogden SWD

Bill To:
BRIAN DAVIS
BTA OIL PRODUCERS
104 S. PECOS ST.
MIDLAND, TX 79701

RECEIVED
MAY 15 2019

BTA
OIL PRODUCERS

Date(s) of Service: 04/26/19 - 05/01/19

Manifest #: See Attached List

Ship Via: Expert Environmental

Ogden
A.) Ogden
B.) Ogden

Qty	U/M	Description	Unit Price	Total
97.74	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Subtotal		
Sales tax rate		
Sales tax		
Total		

Make all checks payable to LEA LAND, LLC

**If you have any questions concerning this invoice, please contact:
Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net**

Thank you for your business!

LEA LAND, LLC**OIL FIELD WASTE LANDFILL**

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

PHONE: 405-236-4257

FAX: 405-236-426

Bill To:

BRIAN DAVIS

BTA OIL PRODUCERS

104 S. PECOS ST.

MIDLAND, TX 79701

INVOICE # 26952

Date: 5/29/2019

AFE Number:

Charge to: Ogden SWD ✓

Date(s) of Service: 05/17/19 - 05/23/19

Manifest #: See Attached List

Ship Via: Expert Environmental

Qty	U/M	Description	Unit Price	Total
530.96	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Subtotal
Sales tax rate
Sales tax
Total

Make all checks payable to LEA LAND, LLC

If you have any questions concerning this invoice, please contact:

Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net

Thank you for your business!

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JUN 06 2019
BTA
OIL PRODUCERS

BTA Oil Weights Statement - Total Landfilled

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
5/17/2019	129737	Ogden SWD	120,060	60.03
5/17/2019	129738	Ogden SWD	105,520	52.76
5/20/2019	129758	Ogden SWD	112,440	56.22
5/20/2019	129759	Ogden SWD	110,000	55.00
5/21/2019	129794	Ogden SWD	102,060	51.03
5/21/2019	129795	Ogden SWD	125,180	62.59
5/22/2019	129826	Ogden SWD	73,980	36.99
5/22/2019	129827	Ogden SWD	34,480	17.24
5/22/2019	129828	Ogden SWD	21,440	10.72
5/23/2019	129863	Ogden SWD	102,220	51.11
5/23/2019	129864	Ogden SWD	56,940	28.47
5/23/2019	129865	Ogden SWD	97,600	48.80
TOTALS:			1,061,920	530.96
			lbs	tons

Lea Land Landfill New Mexico

Mile Market # 64 US Highway 62/180

30 miles East of Carlsbad, NM * (505) 887-4048

BTA Oil Weights Statement - Total Landfilled

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
5/29/2019	129936	Ogden SWD	112,520	56.26
5/29/2019	129937	Ogden SWD	101,180	50.59
5/30/2019	129952	Ogden SWD	76,260	38.13
5/30/2019	129953	Ogden SWD	69,380	34.69
TOTALS:			359,340	179.67
			lbs	tons

Lea Land Landfill New Mexico

Mile Market # 64 US Highway 62/180

30 miles East of Carlsbad, NM * (505) 887-4048

INVOICE # 27328

Charge to: Ogden SWD ✓

Ship Via: Expert Environmental

Qty	U/M	Description	Unit Price	Total
284.98	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net

Subtotal	
Sales tax rate	
Sales tax	
Total	

Thank you for your business!

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SEP 05 2019

**BTA
OIL PRODUCERS**

BTA Oil Weights Statement - Total Landfilled

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
8/16/2019	131166	Ogden SWD	67,220	33.61
8/16/2019	131167	Ogden SWD	69,160	34.58
8/16/2019	131168	Ogden SWD	74,900	37.45
8/19/2019	131198	Ogden SWD	71,480	35.74
8/19/2019	131199	Ogden SWD	70,300	35.15
8/19/2019	131200	Ogden SWD	77,360	38.68
8/19/2019	131201	Ogden SWD	77,700	38.85
8/20/2019	131232	Ogden SWD	61,840	30.92
TOTALS:			569,960	284.98
			lbs	tons

Lea Land Landfill New Mexico

Mile Market # 64 US Highway 62/180

30 miles East of Carlsbad, NM * (505) 887-4048

LEA LAND, LLC**OIL FIELD WASTE LANDFILL**

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

PHONE: 405-236-4257

FAX: 405-236-4261

Bill To:

BRIAN DAVIS
BTA OIL PRODUCERS
104 S. PECOS ST.
MIDLAND, TX 79701

RECEIVED

NOV 14 2019

**BTA
OIL PRODUCERS**

INVOICE # 27611

Date: 11/6/2019

AFE Number:

Charge to: Ogden SWD

Date(s) of Service: 10/28/19 - 10/31/19

Manifest #: See Attached List

Ship Via: CNM Services

Qty	U/M	Description	Unit Price	Total
488.45	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Make all checks payable to LEA LAND, LLC

If you have any questions concerning this invoice, please contact:

Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net

Subtotal

Sales tax rate

Sales tax

Total

Thank you for your business!

BTA Oil Weights Statement - Total Landfilled

<i>Receive Date</i>	<i>Manifest Number</i>	<i>Lease Name</i>	<i>Weight (lbs.)</i>	<i>Weight (Tons)</i>
10/28/2019	132528	Ogden SWD	121,420	60.71
10/29/2019	132539	Ogden SWD	160,560	80.28
10/29/2019	132574	Ogden SWD	80,940	40.47
10/30/2019	132577	Ogden SWD	166,980	83.49
10/30/2019	132578	Ogden SWD	152,320	76.16
10/31/2019	132605	Ogden SWD	132,540	66.27
10/31/2019	132606	Ogden SWD	162,140	81.07
		TOTALS:	976,900	488.45
			lbs	tons

Lea Land Landfill New Mexico

Mile Market # 64 US Highway 62/180

30 miles East of Carlsbad, NM * (505) 887-4048

LEA LAND, LLC**OIL FIELD WASTE LANDFILL**

1300 W. MAIN STREET
OKLAHOMA CITY, OK 73106

PHONE: 405-236-4257
FAX: 405-236-4261

Bill To:

BRIAN DAVIS
BTA OIL PRODUCERS
104 S. PECOS ST.
MIDLAND, TX 79701

RECEIVED

DEC 02 2019

**BTA
OIL PRODUCERS**

INVOICE # 27638**Date:** 11/13/2019**AFE Number:****Charge to:** Ogden SWD

205091101

Date(s) of Service: 11/1/2019**Manifest #:** 132638, 132639**Ship Via:** CNM Services

Qty	U/M	Description	Unit Price	Total
37.95	Tons	Non-regulated & non-hazardous waste (soil)		
		Landfill located at Carlsbad, NM		

TERMS: NET 30

Make all checks payable to LEA LAND, LLC

If you have any questions concerning this invoice, please contact:**Saralyn Hall at 405-519-1187 E-mail: shall119@cox.net**

Subtotal
Sales tax rate
Sales tax
Total

Thank you for your business!