# Basin Environmental Service Technologies, LLC

3100 Plains Highway
P. O. Box 301
Lovington, New Mexico 88260
Rrunnels@basinenv.com
Office: (575) 396-2378 Fax: (575) 396-1429



# SAMPLING AND DELINEATION PLAN

### CAMBRIAN MANAGEMENT, LTD/PERMIAN WATER SOLUTIONS LLC Kaiser State SWD Lea County, New Mexico Unit Letter "F" (SE/NW), Section 13, Township 21 South, Range 34 East Latitude 32.480938 North, Longitude -103.425227 West NMOCD Reference #: 1RP-3512, 1RP-3621, 1RP-4305, 1RP-4525, 1RP-4855, 1RP-4960, 1RP- 5139, and 1RP-5149

Prepared For:

Cambrian Management, Ltd/Permian Water Solutions LLC P.O. Box 272 Midland, Texas 79702

Prepared By:

Basin Environmental Service Technologies, LLC 3100 Plains Highway Lovington, New Mexico 88260

August 2018

**APPROVED** By Olivia Yu at 7:57 am, Aug 21, 2018

M

Robbie Runnels Project Manager NMOCD approves of the proposed delineation plan for 1RPs 3512, 3621, 4305, 4525, 4855, 4960, 5139, 5149, and 5163. See email correspondence for clarifications and stipulations.

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- Appendix B Laboratory Analytical Reports

### **1.0 INTRODUCTION**

Cambrian Management, Ltd/Permian Water Solutions LLC (Cambrian) has retained Basin Environmental Service Technologies (Basin) to address potential environmental concerns at the above-referenced site.

## 2.0 NMOCD SITE CLASSIFICATION

The site is located approximately fifteen and one-half (15.5) miles northwest of Eunice, New Mexico at Unit Letter F of Section 13 in Township 21 South of Range 34 East. (See Figure 1) A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated three (3) water wells located near Section 13, Township 21 South, Range 34 East. NMOSE reports two water wells in Section 7, Township 21 South, Range 35 East with a depth-to-groundwater (DGW) being one-hundred sixty-five (165) feet below ground surface (bgs). One well located in the same section as the location had a well that went to depth of two-hundred thirty-five (235) feet, but the well did not encounter ground water. A search of the United States Geological Survey (USGS) website showed to have one water well in the specified location. The DGW of the water well was at just over one-hundred (100) feet bgs measured in 1986. In Section 23 with the same Township and Range, the USGS website shows a water well where water was encountered at over seven-hundred (700) feet. Utilizing the Water Incident Database (WAID), no more wells were found to be within a one-mile radius. It is believed that ground water may be encountered at a depth greater than one-hundred (100) feet below ground surface (bgs) (See Figure 2).

## **3.0 BACKGROUND INFORMATION**

On January 14<sup>th</sup>, 2015, Pyote Water Systems, LLC (previous operator) discovered a release of an estimated twenty (20) barrels (bbls) of produced water when a vacuum truck driver over-filled the sumps. An unknown amount of area was impacted. According to the initial Release Notification and Corrective Action form (C-141), all of the liquids were recovered. The New Mexico Oil Conservation Division (NMOCD) was notified of the release on January 14<sup>th</sup>, 2015. An initial Release Notification and Corrective Action form (C-141) was submitted to NMOCD on January 29<sup>th</sup>, 2015, for approval (1RP-3512).

On April 24<sup>th</sup>, 2015, Pyote Water Systems, LLC (previous operator) discovered a release of an estimated one-hundred (100) barrels (bbls) of produced water when a truck driver hit the load line. sumps. An unknown amount of area was impacted. According to the C-141, all of the liquids were recovered. The NMOCD was notified of the release on April 24<sup>th</sup>, 2015. A C-141 was submitted to NMOCD on April 30<sup>th</sup>, 2015, for approval (1RP-3621).

On May 17<sup>th</sup>, 2016, Pyote Water Systems, LLC (previous operator) discovered a release of an estimated one-thousand fifty (1050) barrels (bbls) of produced water when lightning struck one of the load tanks. An unknown amount of area was impacted as two (2) bbls of liquid escaped the secondary containment. According to the C-141, all of the liquids were recovered. The NMOCD was notified of the release on May 17<sup>th</sup>, 2016. A C-141 was submitted to NMOCD on June 9<sup>th</sup>, 2016, for approval (1RP-4305).

On November 15<sup>th</sup>, 2016, Cambrian Management created a C-141 an unknown amount of produced water was leaked from the frac tanks being utilized for storage. The unknown expanse of area impacted started to the north of the battery and travelled to the southwest of the battery pad before stopping in the pasture. According to the C-141, none of the liquids were recovered. The NMOCD was notified of the release on November 23<sup>rd</sup>, 2016. A C-141 was submitted to NMOCD on November 23<sup>rd</sup>, 2016, for approval (1RP-4525).

On October  $18^{\text{th}}$ , 2017, Cambrian Management discovered a release of an estimated fifty (50) barrels (bbls) of produced water for an unknown reason. Approximately seven-thousand two-hundred (7,200) square feet (ft<sup>2</sup>) of pad area within the secondary containment was impacted. None of the fluids were recovered. A C-141 was submitted to NMOCD on October 27<sup>th</sup>, 2017, for approval (1RP-4855).

On January  $31^{st}$ , 2018, Cambrian Management discovered a release of an estimated twenty (20) barrels (bbls) of produced water when a seal on a pump failed. Approximately five-thousand (5,000) ft<sup>2</sup> of pad area within the secondary containment was impacted. An estimated ten (10) bbls of fluid was recovered. A C-141 was submitted to NMOCD on July  $31^{st}$ , 2018, for approval (1RP-4960).

On June 20<sup>th</sup>, 2018, Cambrian Management discovered a release of an estimated one-hundred fifty (150) barrels (bbls) of produced water when the nipple of the wellhead failed. An unknown amount of area was impacted. According to the C-141, all liquids were contained to the pad area. The C-141 states that all 150 bbls were recovered. A C-141 was submitted to NMOCD on July 31<sup>st</sup>, 2018, for approval (1RP-5139).

On August 6<sup>th</sup>, 2018, Cambrian Management discovered a release of an estimated two-hundred (200) barrels (bbls) of produced water when a valve failed due to electrical complications. According to the C-141, all released liquids were contained to the lined secondary containment. It is stated in the C-141 that all fluids were recovered. The NMOCD was notified of the release on August 6<sup>th</sup>, 2018. A C-141 was submitted to NMOCD on August 7<sup>th</sup>, 2018, for approval (1RP-4960).

Talon/LPE (Talon) were on site beginning September 18<sup>th</sup>, 2015, to begin sampling activities. Two discrete soil sample locations were established, and surface samples were retrieved. Neither surface soil sample exhibited a concentration of chlorides that warranted remediation.

After another release (1RP-3621) at the Kaiser State SWD, Talon was back on the location May 16<sup>th</sup>, 2016, to sample the previous two sample point locations. The sample points were both advanced vertically to a depth of fifteen (15) feet bgs. Analytical reports indicate that remediation may be necessary.

Trinity Oilfield Services & Rentals, LLC (Trinity) were contacted to address another leak (1RP-4855) that occurred within the secondary earthen containment area. Eleven (11) sample points were established within the boundary of the secondary earthen containment. The sample points were vertically advanced to a maximum depth of thirteen (13) feet bgs. Laboratory analyses of the

discrete soil samples retrieved indicate only SP-4 and SP-6 had been delineated at a depth of ten (10) feet. Further advancement of sample points (SP-1, SP-2, SP-3, SP-5, SP-7, SP-8, SP-9, SP-10, and SP-11) were required for the delineation of chlorides. All soil samples were analyzed in a NMOCD approved laboratory and indicated delineation had been achieved for Total Petroleum Hydrocarbons (TPH) as well as Benzene, Toluene, Ethyl-benzene, and Xylenes (BTEX) for all sample points.

## 4.0 SAMPLING AND DELINEATION PLAN

The perimeter of the impacted area of the pad will be sampled utilizing a hand auger/geo probe/backhoe/excavator/pneumatic drilling rig (when required) in approximate fifty (50) foot horizontal increments to establish the aerial extent of the impact (See *Proposed Sample Points*) from the multiple releases. Surface and 1' bgs samples will be retrieved and field screened for chloride concentration. In the instance that the field screens indicate the chloride concentration to be below the recommended remediation action level (RRAL) presumed to be 600 mg/kg, the sample point will be moved inward approximately five (5) feet and reestablished until the field screens indicate a chloride concentration of 600 mg/kg or greater at the 1' bgs level. The sample point will then be delineated to below 600 mg/kg and serve as the horizontal extent wall of the ensuing excavation. Discrete soil samples will be submitted to an NMOCD approved laboratory for confirmatory analysis.

In the event the perimeter samples have a chloride concentration greater than 600 mg/kg, the sample point will be established at the perimeter and delineated. During excavation, the excavated wall will be sampled to determine the horizontal extent of the impact.

In pursuant to the request made by the New Mexico State Land Office, each sample point will be vertically delineated to the point that the discrete soil sample is below the RRAL for all constituents of interest. An additional sample will be retrieved five (5) feet below the clean sample to ensure complete vertical delineation. If the 5' below sample is not below the RRAL for any constituent of interest, the delineation will continue until all constituents of interest are below the RRAL with a clean sample retrieved 5' below.

Sample points will be established in a grid-like fashion within the pad area. Each sample point will be delineated to below 600 mg/kg for chloride concentration, 50 mg/kg BTEX, and 5,000 mg/kg TPH. Confirmatory soil samples will be delivered to an NMOCD laboratory for analyses.

Sample points already established by Trinity within the secondary earthen embankment of the battery (SP-1, SP-2, SP-3, SP-5, SP-7, SP-8, SP-9, SP-10, and SP-11) will be delineated for chloride concentration utilizing the appropriate method. Because the initial sampling performed by Trinity showed delineation of the hydrocarbons of interest, TPH and BTEX will not be further analyzed within the secondary containment.

### 5.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Corrective Action and Sampling Plan* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Cambrian Management, Ltd. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or Cambrian Management, Ltd.

# 6.0 **DISTRIBUTION:**

Copy 1:	Olivia Yu New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (District 1)
	1625 N French Drive Hobbs, NM 88240
Copy 2:	Andrew Rickard Cambrian Management, Ltd 415 W Wall Street Midland, TX 79701
Copy 3:	Basin Environmental Service Technologies, LLC P.O. Box 301 Lovington, NM 88260
Copy 4:	James C. Corbitt Permian Water Solutions LLC 415 W. Wall Street, Suite 320 Midland, TX 79701

# FIGURES

# **Geographic Location**



# Depth to Groundwater



# **Proposed Sampling**



# TABLES

# TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### CAMBRIAN MANAGEMENT KAISER STATE SWD

LEA COUNTY, NEW MEXICO

NMOCD REFERENCE #: 1RP-3512, 3621, 4305, 4525, 4855, 4960, 5139, 5149

				N	IETHOD: EF	PA SW 846-8	021B, 5030			METHO	D: 8015M		300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	(mg/Kg)	(mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD Recommended	Remediation	Action Levels	s (RRALs)	10	NE	NE	NE	50	NE	NE	NE	5,000	600
SP-4 @ 1'	1'	2/6/2018	In-Situ	-	-	-	-	-	2,940	9,320	1,450	13,710	14,700
SP-4 @ 2'	2'	2/6/2018	In-Situ	0.728	9.66	5.42	19.5	35.3	164	595	72.8	832	12,900
SP-4 @ 4'	4'	2/6/2018	In-Situ	<0.050	0.907	0.654	3.12	4.68	112	903	155	1,170	16,400
SP-5 @ 1'	1'	2/6/2018	In-Situ	3.47	21.5	15.8	48.9	89.7	443	1,930	323	2,696	1,550
SP-5 @ 3'	3'	2/6/2018	In-Situ	1.14	3.11	5.69	16.2	26.1	75.7	348	41.1	465	852
SP-5 @ 5'	5'	2/6/2018	In-Situ	-	-	-	-	-	279	5,800	1,210	7,289	5,510
SP-1 @ 10'	10'	5/9/2018	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	< 0.300	<10.0	<10.0	<10.0	<10.0	2,300
SP-1 @ 13'	13'	5/9/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	1,410
	01	5/0/00/10		0.050	0.050	0.050	0.107	0.407	40.0	40.0	10.0	40.0	
SP-2 @ 8'	8'	5/9/2018	In-Situ	<0.050	< 0.050	<0.050	0.167	0.167	<10.0	<10.0	<10.0	<10.0	2,570
SP-2 @ 13'	13'	5/9/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	14.0	<10.0	14.0	1,250
0.0.0.4		<b>E</b> (0)(00,10		0.050		0.050		4.07					
SP-3 @ 4'	4'	5/9/2018	In-Situ	< 0.050	0.069	< 0.050	1.31	1.37	14.6	292	23.8	330	1,310
SP-3 @ 13'	13'	5/9/2018	In-Situ	<0.050	0.085	0.280	1.33	1.70	19.2	496	69.4	585	2,250
	01	5/0/0040	lu Oitu	10.050	10.050	0.004	0.050	0.047	110.0	40.4	00.0	70.0	0.570
SP-4 @ 2'	2'	5/9/2018	In-Situ	< 0.050	< 0.050	0.061	0.256	0.317	<10.0	42.1	30.2	72.3	3,570
SP-4 @ 10'	10'	5/9/2018	In-Situ	< 0.050	< 0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	347
SD 5 @ 1'	1'	5/9/2018	In-Situ	<0.500	2.47	3.30	27.7	33.5	1,220	11,900	1,570	44.000	4 670
SP-5 @ 1' SP-5 @ 13'	13'	5/9/2018	In-Situ In-Situ	<0.000	<0.050	<0.050	0.426	0.426	<10.0	67.6	<10.0	<b>14,690</b> 67.6	4,670 1,230
3F-5 @ 15	13	5/9/2016	III-Situ	<0.030	<0.050	<0.050	0.420	0.420	<10.0	07.0	<10.0	07.0	1,230
SP-6 @ 2'	2'	5/9/2018	In-Situ	<0.200	0.981	3.14	13.4	17.5	485	8,810	1,670	10,965	9,260
SP-6 @ 10'	10'	5/9/2018	In-Situ	<0.200	< 0.050	<0.050	0.432	0.432	<10.0	113	1,070	128	492
	10	5/5/2010	III-Oitu	~0.000	<0.000	<0.000	0.402	0.402	\$10.0	110	14.7	120	432
SP-7 @ 6'	6'	5/9/2018	In-Situ	< 0.050	< 0.050	< 0.050	<0.150	<0.300	<10.0	20.8	<10.0	20.8	5,870
SP-7 @ 13'	13'	5/9/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	2,800
	10	0/0/2010	III-Oltu		\$0.000	\$0.000	\$0.100	*0.000	\$10.0	\$10.0	\$10.0	\$10.0	2,000
SP-8 @ 4'	4'	5/10/2018	In-Situ	< 0.050	0.105	<0.050	1.51	1.61	27.4	571	99.2	698	17,400
SP-8 @ 13'	13'	5/10/2018	In-Situ	<0.050	0.063	0.209	0.968	1.24	13.8	146	17.8	178	7,790
	10	5,10,2010		10.000	0.000	0.200	0.000	1.27	10.0	1 10	11.0	170	1,130
SP-9 @ 1'	1'	5/10/2018	In-Situ	<0.200	0.738	1.90	7.28	9.92	343	4,870	837	6,050	8,130

# TABLE 1 CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

#### CAMBRIAN MANAGEMENT KAISER STATE SWD LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: 1RP-3512, 3621, 4305, 4525, 4855, 4960, 5139, 5149

				METHOD: EPA SW 846-8021B, 5030						METHOD: 8015M			
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	EXT DRO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C₀-C₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD Recommended	Remediation	Action Levels	s (RRALs)	10	NE	NE	NE	50	NE	NE	NE	5,000	600
SP-9 @ 13'	13'	5/10/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	31.4	<10.0	31.4	791
SP-10 @ 1'	1'	5/10/2018	In-Situ	<0.200	1.25	3.72	15.7	20.7	567	4,890	719	6,176	8,610
SP-10 @ 13'	13'	5/10/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	85.8	11.4	97.2	1,080
SP-11 @ 2'	2'	5/9/2018	In-Situ	<0.050	<0.050	0.077	0.447	0.524	<10.0	142	72.7	215	1,920
SP-11 @ 13'	13'	5/9/2018	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	<10.0	817

NE = Not established

- = Not analyzed

Concentrations in BOLD exceed NMOCD RRALs

# APPENDICES

# APPENDIX – A C-141

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

			Rele	ease Notifica	ation	and Co	orrective A	ction		
						OPERA	ГOR		🔀 Initia	l Report 🗌 Final Report
Name of Co	ompany Py	yote Water	Systen	ıs, LLC	(	Contact <mark>Jerr</mark>	y Burton Ope	eration	is Mana	ger for NM
Address		Illinois STI	E 950 N	Iidland TX		Telephone N	11		8~4917	
Facility Nar	ne				]	Facility Typ	e Production	n Wat	er	
Surface Ow	ner Pyote	Water Sy	stems,L	LC Mineral Ov	wner		Pyote	;	API No	. 30~025~02538
	-					N OF REI				
Unit Letter	Section	Township	Range			South Line	Feet from the	East/W	est Line	County
Б	13		34	10 ft	N/S	5				LEA COUNTY
	10	25	~ ~	titude_32.4808	55153	34Dðagitud	le103.425	5 <u>630</u> 76	5566	
						OF REL				
Type of Rele	ase 20 bb	ols product	tion wa			Volume of		ols	Volume R	ecovered 20 bbls
Source of Re	leasevac t	ruck					Iour of Occurrenc	e <sub>1/14/1</sub>	Date and	Hour of Discovery $1/14/15$
Was Immedia	ate Notice C					If YES, To	Whom?			
			Yes	No 🗌 Not Red	quired			Jerry	Burton N	МОМ
By Whom?						Date and H				
Was a Water	course Read	ched?	Yes 🗋	No		If YES, Vo none	olume Impacting t	he Water	rcourse.	
If a Watercou	irse was Im	pacted, Descr	ibe Fully.	*						
none		F, =								
nene										
Vac truck of ticket area	over filled	em and Reme the sumps~	/ he faile	n Taken.* ed to suck it out v	when f	hey are inst	ructed to do on	each lo	ad. It is p	osted as well, at the sign in
		1.01								
Describe Are	a Affected a n took place	and Cleanup A	Action Tal	ted up the area v	vith ba	ckhoe, brou	ight in caliche a	and the	remedita	tion is done. Load lines 3&4
										the snow we have had since
than. Has n	ot been di	ry enough to	work or	those lines. DU	E TO N	MOTHER NA	ATURE we have	e had a d	company	go out several times to do this
for loads li	no 3 & 1	•								
										uant to NMOCD rules and
Ũ	-	•	-				•			eases which may endanger eve the operator of liability
										, surface water, human health
										ompliance with any other
federal, state,	, or local lav	ws and/or regu	ulations.							
							OIL CON	SERV	ATION	DIVISION
Signature:	1 santai	tan						/		
Signature.	I I I I I I I					Approved by	Environmental S	pacialist	2	
Printed Name	/ Jerry B	burton				Approved by	Elivitonintental S	pecialist.		
Title: Open	rations N	Aanager fo	or NM		1	Approval Dat	te: 1/29/15	E	xpiration ]	Date: 3/29/15
E-mail Addre	ess: audra	a@pyotew	atersyst	ems.com	(	Conditions of	f Approval:			
Date: 1~23~										Attached
		A ICNT		: 432~448~49	17	Site sam	ples required	. Delin	iate	1RP-3512
Attach Addi	tional Shee	ets If Necess	ary			and rem	ediate as per	NMO	CD	
						guides.	•			294873
						0	final C-141 by	v 3		nTO1502927174
						Submit		, ,		

pTO1502927423

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

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

By OCD District 1 at 11:10 am, Apr 30, 2015

			Rel	ease Notifi	cation	and Co	orrective A	ction			
				OF	PERAT	OR	x	xx Initial Rep	nort [	<b>Final Repor</b>	
Name of ( LLC	Compan	y PYOTE	WATE	R SYSTEMS	S, C	Contact	Jerry Burto	on NM Operat	tions Ma	nager	
Address	400 W. I	Illinois Ste	e 900		T	elephon	e No. 432.44	8.4917 or 432	.448.532	3(Audra)	
Facility N	ame K	aiser SWL	)		F	acility T	ype SWD-p	roduction wa	ter DID	POSAL	
Surface Own	er Pyote	Water Sys	tems, L	LC Mineral O	wner Pyot	e Water Sys	stems, LLC	API No	30-025-02	538	
				LO	CATION	OF RELE	ASE				
Unit Letter F	Section 13	Township 21	Range 34	Feet from the 125 ft	North/S	orth/South Line Feet from the East/West Line County Lea COUNT					
				Latitude		Longitude					
				N.	ATURE (	OF RELEA					
Type of Rele		tion water					Release 100BBL		Recovered		
Source of Rei Vac truck (u		e to no camei	a's) hit lo	ad line 3					Date and Hour of Discovery 4/24/15 2:35 am		
Was Immedia	ate Notice C	Given X Ye	No No	Not Require	ed	If YES, To	Whom? Jerry B	urton			
By Whom?	U <mark>nknown d</mark>	river (575)-39	90-3836			Date and H	IOUR; 4/24/201:	5 2:35 am			
Was a Water		hed?		'* No***			eceive	-			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* unknown truck driver hit load line 3 caused a spill. We had an anonymous driver call us at 2:35 am (575)390-3836 in the morning, upon his arrival he noticed a large amount of water on the pad at the location, than noticed line 3 was had been hit. He did not see this happen at the Kaiser

Describe Area Affected and Cleanup Action Taken.\*

Area affected was the pad only at the location. Jerry and his pumper Kenny repaired damages themselves, remedial work done by L&J services (backhoe) 2 vac trucks one from Big Buck Services and one from BT Services

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

6 101	OIL CONSERVATION DIVISION							
Signature:		. /						
Printed Same: Jerry Burton			2.1 pr	2				
	Approved by Environmental Special	list: p	June of	_				
Title: NM Operations Manager for Pyote Water systems, LLC								
	Approval Date: 04/30/2015	Expiration I	Date: 07/30/2015					
jerry@pyotewatersystems.com or audra@pyotewatersystems.com			0 (04 98)					
E-mail Address:	Conditions of Approval:							
4-26-2015	Site samples required. Delineate and	remediate		294873				
Date: 4/26/15 Phone:432.448.4917	as per MNOCD guides. Geotag photo		1RP 3621					
Attach Additional Sheets If Necessary	remediation required.							
	1		pKJ151204237	74				

nKJ1512042574

State of New Mex	RECEIVED	
	Dy IKawaa at 7:42 am	Lun O

Energy Minerals and Natura By JKeyes at 7:43 am, Jun 09, 2016

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

1220 S. St. Fran	cis Dr., Santa	1 Fe, NM 87505	5	Sa	anta F	e, NM 875	05			
			Rele	ease Notifi	catio	n and Co	orrective A	ction		
						<b>OPERA</b> '	ГOR	🗙 Initia	al Report	Final Report
Name of Co	mpany F	yote Wate	er Syster	ns,LLC		Contact Je	rry Burton		1	
Address	400 W Illino	ois Ste 900 N	MIDLAND	TX 79701		Telephone 1	No. 432-448	-4917		
Facility Nat	ne Kai	ser Swd				Facility Typ	e producti	on Water		
Surface Ow	ner STA	ΓE		Mineral (	Owner	STATE		API No	. 30-02	5-02538
				LOCA	ATIO	N OF RE	LEASE			
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/West Line	County	
F	13	21s	245 34E						LEA CO	JUNTY
				titude 32.4808	3578-	Longitud	le 103.42565	92 nad 83		
			La					<u></u>		
Type of Rele	ase lightni	na struck load	l tanks whi	NA I le driver was unlo		Volume of	EASE Release 1050 BI	BLS Volume R	ecovered	1050 bbls
Source of Re					aanig			ce 5-17-16 Date and		
Was Immedi			/			If YES, To				
		X	Yes	] No 🗌 Not R	equired		JERRY	BURTON via teleph	none by drive	er
By Whom?	UNKNOWN	DRIVER				Date and H	Iour 5/17/16 4P			
Was a Water	course Reac		/				olume Impacting t			
	Yes I No 1050 BLS									
If a Watercou	irse was Im	pacted, Descr	ibe Fully.*	k						
fire melte	d parts of	f the liner,v	vater go	t under the lir	ner					
Describe Cau	se of Proble	em and Reme	dial Action	n Taken.*						
					less t	han 2 bbls	breeched con	tainment. calle	d vac true	ck out to empty
containme		-	•							
Describe Are	a Affected a	and Cleanup A	Action Tak	ten.*						
load side	containm	ent have c	lean up	crew cleaninę	g up a	nd disposir	ig of old tanks	and cat walk t	o sundow	/n
regulations a public health should their o	ll operators or the envir operations h nment. In a	are required t conment. The ave failed to a ddition, NMC	o report ar acceptanc adequately DCD accep	nd/or file certain i ce of a C-141 report investigate and i	release r ort by th remedia	notifications a ne NMOCD m te contaminat	nd perform correc arked as "Final R on that pose a thr	inderstand that purs stive actions for rele eport" does not reli eat to ground water responsibility for co	eases which eve the ope , surface wa	may endanger rator of liability ater, human health
					Τ		OIL CON	SERVATION	DIVISIO	DN
Signature:	Jerry	Burton						1	bu	
Printed Name	: Jerry E	Burton				Approved by	Environmental S	pecialist: Jami	¥ luye	
Title: NM	Operation	is Mgr				Approval Da	06/09/2016 te:	Expiration	Date: 08/09	9/2016
E-mail Addro	ess: jerry	@pyotewa	tersyste	ms.com		Conditions o	f Approval: les only. Delinea	te and remodiate	Attached	
Date: 5-18-	2016		Phone	4324484917		per NMOCD		ic and remediate	1RP 4305	

\* Attach Additional Sheets If Necessary

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 CDEnergy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

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

### Release Notification and Corrective Action

**Oil Conservation Division** 

	OPERATOR	$\boxtimes$	Initial Report	Final Report
Name of Company: Cambrian Management, LTD.	Contact: Mike Anthony			
Address: 415 W. Wall St. Suite 900	Telephone No. 432-631-4398			
Facility Name: Kaiser SWD #9	Facility Type: SWD			

Surface Owner: State

Mineral Owner: State

API No. 30-025-02538

### LOCATION OF RELEASE

Unit Letter F	Section 13	Township 21S	Range 34E	Feet from the 1980	North/South Line North	Feet from the 1980	East/West Line West	County Lea

Latitude 32.4808578 Longitude -103.4256592

#### NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered: 0
Source of Release: Frac tanks	Date and Hour of Occurrence:	Date and Hour of Discovery:
Was Immediate Notice Given?	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	atercourse.
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.*	and the second	
Due to a lightning strike on the tank battery fluid was transferred into temp leaked resulting in the release of an unknown quantity of fluid. The frac tan		
Describe Area Affected and Cleanup Action Taken.*		
The frac tanks were set on the north side of the affected battery. The fluid southwest into the pasture. Soil samples will be taken in preparation for a r		he battery berm and continued south-
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release no public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report do federal, state, or local laws and/or regulations.	otifications and perform corrective as NMOCD marked as "Final Report" contamination that pose a threat to	ctions for releases which may endanger does not relieve the operator of liability ground water, surface water, human health
	OIL CONSER	VATION DIVISION

Signature: Mike Anthory Printed Name: Mike Anthony	Approved by Environmental Specialist:	toodynch
Title: Field Operations Superintendent	Approval Date: 11/23/2016 Expiration	Date: 01/23/2017
E-mail Address: manthony@cambrianmgmt.com	Conditions of Approval:	Attached
Date: 11/15/16 Phone: 432-631-4398	Please see attached Directive	1RP 4525
Attach Additional Sheets If Necessary		nKL1632848695

pKL1632848917

State of New Mexico Energy Minerals and Natural Resources

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

pOY1730059151

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

220 S. St. Fran	ncis Dr., Sant	a Fe, NM 8750:	5	Sa	nta Fe	e, NM 875	05						
			Rel	ease Notific	atior	and Co	orrective A	ction					
						OPERA'	ГOR		Initia	al Report		Final Repor	
		ambrian Mar				Contact Mike Anthony							
		2, Midland,	FX 7970	2		Telephone No. (432)631-4398							
Facility Na	me Kaiser	State SWD				Facility Typ	e Salt Water D	isposal					
Surface Ov	vner State			Mineral O	wner S	State			API No	. 30-025-0	02538		
				LOCA	TIO	N OF REI	LEASE						
Unit Letter	Section	Township	Range	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County			
F	13	215	34E					1.22		Lea			
			Latitu	le 32.4800857	8 L	ngitude -	103.4256592	NAD	13			and the second second	
			Datitu		A		cuebe		5				
C CD 1				NAT	URE	OF REL		- 1	<b>W</b> 1 1				
Type of Release Produced Water & Crude Oil						Volume of 50 bbls	Release		0 bbls	Recovered			
Source of Re	elease						Iour of Occurrent	ce		Hour of Dis	scovery	2	
Source of Release Unknown						Unknown				017, 12:35 F			
Was Immediate Notice Given? □ Yes ☑ No □ Not Required					quirad	If YES, To	Whom?						
By Whom? N/A						Date and Hour N/A							
Was a Watercourse Reached?						If YES, Vo	olume Impacting	the Wate	ercourse.				
🗌 Yes 🗹 No							DECEN						
f a Waterco	urse was Im	pacted, Desci	ribe Fully.	*	0		RECEIVI						
Describe Ca	use of Probl	em and Reme	dial Actic	n Taken *			By Olivia	Yu at	t <b>4:17</b>	pm, O	ct 27	7, 2017	
		and Cleanup		hed and is curre									
affected a	area inside	e the berms	s measu	ry and seconda red approximat ) guidelines.									
regulations a public health should their or the enviro	all operators or the envi operations l onment. In a	are required in ronment. The have failed to	to report a e acceptan adequatel OCD acce	e is true and comp nd/or file certain r ce of a C-141 repo y investigate and r ptance of a C-141	elease n ort by the emediat	otifications a e NMOCD m e contaminat	nd perform corre- arked as "Final F ion that pose a th	ctive acti Report" d reat to gr	ons for rel oes not rel ound wate	eases which ieve the ope r, surface w	n may e erator o ater, hu	ndanger f liability ıman health	
Signature:	Denier	Jones R	egulator	Analyst		OIL CONSERVATION DIVISION							
Printed Nam	e: Todd R	oberson (a	s agent	of Cambrian Mg	mt.)	Approved by	Environmental S	Specialis	:	T_			
Title: Owne	ər					Approval Da	te: 10/27/2	017	Expiration	Date:			
E-mail Addr	ess; todd@	trinityoilfie	dservice	es.com		Conditions o	f Approval:			Attached	া বি	1	
Date: 10/2	3/2017		Phone	: (575) 631-31	29	see atta	ched directi	ve		- trached		J	

1RP-4855

nOY1730058924

\* Attach Additional Sheets If Necessary

Oil Conservation Division 1220 South St. E. 

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

<u>District IV</u> 1220 S. St. Fran	cis Dr., Sant	a Fe, NM 87503	5			e, NM 875						
			Rola	ase Notific				ction	-			
			Nen		allui	OPERA'		Ction	_	De est		Einal Dana
Name of Co	mnany Ca	ambrian Mar	agement	Ltd						al Report		Final Repo
		2, Midland, 1				Contact Mike Anthony Telephone No. (432)631-4398						
Facility Nan							e Salt Water D					
Surface Ow	ner State			Mineral C	wner 9	State			APINO	. 30-025-0	12538	
Surface Own				<u>L</u>						. 00 020 0	2000	
Unit Letter	Section	Township	Range	LOCA Feet from the		N OF RE	LEASE Feet from the	Fast/V	Vest Line	County		
F	13	21S	34E	i cet nom the		South Enite		Lust	Vest Enic	Lea		
			Latitud	le32.4800857	<u>78</u> L	ongitude	103.4256592	NAD	83			
				NAT	URE	OF REL						
Type of Relea	ase Produc	ed Water				Volume of 20 bbls	Release		Volume F 10 bbls	Recovered		
Source of Re							Hour of Occurrent	ce		Hour of Dis	scovery	
						Unknown	N/I 0			18, 10:00 Al		
Was Immedia	Was Immediate Notice Given?					If YES, To N/A	Whom?					
By Whom?					Date and H	łour						
N/A Was a Watercourse Peeched?					N/A If YES, Volume Impacting the Watercourse.							
Was a Watercourse Reached?					N/A	olume Impacting	the Wate	ercourse.				
If a Watercou	Irca was Im	pacted, Descr				N/A	RECEIV	FD				
		·F, =					By Olivia		(0.04			7 0040
The release affected a affected b NMOCD a I hereby certi regulations a public health	a Affected se was co rea inside y a releas and NMSI ify that the II operators or the envi	and Cleanup onfined to the the berms se on 10/18 LO guidelin information g are required to ironment. The	ne prima s measur 3/2017 (s es. iven above to report an e acceptance	en.* ry and second ed approximate ee 1RP-4855) e is true and comp nd/or file certain ce of a C-141 rep r investigate and n	tely 5,0 ). Reme olete to t release n ort by th	000 sq. ft. T ediation of he best of my otifications a he NMOCD m	The release co the impacted a knowledge and u nd perform corre- narked as "Final R	mming area wi understa ctive act Report" c	led with a ll be cond nd that purs ions for rel loes not rel	an area th ducted in suant to NM eases which ieve the ope	IOCD r may er	l been dance with ules and ndanger f liability
or the environ	nment. In a		OCD accept	ptance of a C-141				respons	ibility for c	ompliance	with an	
Signature:	Doni	ie Jon	6			Approved by	Environmental S		٢	Y T		
Printed Name	e: Denise	Jones						-		$\neg$		
Title: Regul	atory Ana	al <u>y</u> st				Approval Da	te: 2/7/2018	5	Expiration	Date:		(
E-mail Addre	ess: djones	s@cambria	nmgmt.c	om		Conditions o	f Approval:			Attack		
Date: 2/	14/18			: (432) 620-91			ched direct	ive		Attached	ч <b>СУ</b>	
Attach Addi	tional She	ets If Neces	sary					10020	20.400			

ן י	nOY1803834027
	10000001021

pOY1803834550

Date: 06/21/2018

Phone:

.

Oil Conservation Division

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

District IV 1220 S. St. Frar	ncis Dr., Sant	ta Fe, NM 87503	5			i St. Franc e, NM 875							
			Dal			,		ation					
			Kel	ease Notifi	catior			cuon					
						<b>OPERA</b>			Initial	al Report	Final Repor		
		ambrian Mar		t, Ltd.		Contact Mike Anthony							
	,	, Midland TX	K 79702				No. 432-631-4	398					
Facility Nat	me Kaisei	r State SWD				Facility Typ	be SWD						
Surface Ow	ner State			Mineral (	Owner	State			API No	. 30-025-0	02538		
						N OF RE	LEASE						
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the	East/W	est Line	County			
	13	215	34E							Lea			
F													
			Latituo	de 32.48085	78_L	ongitude - 1	03.4256592	NAD8	3				
				NAT	TURE	OF REL							
Type of Rele							Release 150 bbl			Recovered			
Source of Re	Source of Release Wellhead						Hour of Occurrence	ce		Hour of Dis			
Was Immediate Notice Given?						06/20/2013 If YES, To			00/20/20	18 10:00A	ll <b>VI</b>		
,, as mineur			] Yes X	No 🗌 Not Re	quired		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
By Whom?			-	_	1	Date and Hour							
	Was a Watercourse Reached?						olume Impacting	the Water	rcourse				
			] Yes X	No			function for the second s	uite () ates					
If a Wataraa	urco woo Ir	npacted, Descr	ibo Eully	*									
	uise was m	ipacieu, Desci	The Fully.										
Describe Cau	use of Probl	lem and Reme	dial Actio	on Taken.*									
Nipple on we	ellhead brol	ke off – nipple	e was repla	aced									
Describe Are	ea Affected	and Cleanup	Action Ta	ken *									
					up. Thi	s was on top	of a previous spil	ll that was	s already r	eported and	is in the process to		
be remediate													
I hereby cert	ify that the	information g	iven abov	e is true and comp	olete to th	ne best of my	knowledge and u	ınderstan	d that purs	suant to NM	OCD rules and		
				nd/or file certain									
				ce of a C-141 rep									
											ater, human health		
		addition, NMC		ptance of a C-141	report d	oes not reliev	e the operator of	responsit	oility for c	ompliance v	with any other		
icucial, state	, or iocai la	ws and/or regi	urations.		Г		OIL CON	SEDV		עזעוס	)N		
							<u>OIL CON</u>	SERV	ATION	DIVISIC	<u>JIN</u>		
Signature:									PY	F			
		_				Approved by	Environmental S	pecialist:	00	l l			
Printed Nam	e: Denise J	lones						<u> </u>					
Title: Regu	latory Anal	yst				Approval Da	<sub>te:</sub> 7/31/2018	<u>8</u>	expiration	Date:			
		@cambrianm	amt com			Conditions of					_/		
E-mail Audr	cas. <u>ujones</u>	<u>e camonanini</u>	gmi.com		———————————————————————————————————————		а дриотан.		<b>.</b>	Attached	I 🔽		

See attached directive

pCH1821239860

1RP-5139

nCH1821239639

State of New Mexico Energy Minerals and Natural Resources

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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

220 S. St. Fran	icis Dr., Sant	a Fe, NM 87503	)	Sa	anta Fe	, NM 875	05		_			
			Rele	ease Notific	cation	and Co	orrective A	ction				
						<b>OPERA</b>	TOR	2	K Initia	al Report		Final Rep
Name of Co	ompany C	ambrian Ma	nagemen	t, Ltd	(	Contact Andy Rickard						
		, Midland, T	X 79702			Telephone No. 432-620-9181						
Facility Nat	me Kaiser	State SWD	200		1	Facility Type SWD						
Surface Ow	ner State			Mineral (	Owner S	tate			API No	. 30-025-0	)2538	
				LOCA	ATION	OF RE	LEASE					
Unit Letter F	Section 13	Township 21S	Range 34E	Feet from the 1980	North/ North	South Line	Feet from the 1980	East/Wes West	st Line	County Lea		
			Latitu	de 32.480938 N		ngitude -1(		NAD83				
Type of Rele	ase Produc	ed Water		NAI	URE	OF REL	EASE Release 200 Bb	ls V	olume F	Recovered 2	200 Bbl	s
Source of Release Valve							lour of Occurrent			Hour of Dis		5
						08/06/2013	3			18 10:00AM		
Was Immediate Notice Given? X Yes No Not Required						If YES, To Christina H						
By Whom? Denise Jones						Date and H	Iour 08/06/2018	3:25 PM				
Was a Watercourse Reached?							olume Impacting		ourse.			
			Yes X	No								
							<b>EIVED</b> Ilivia Yu at	t 1:48 p	om, A	Aug 07,	201	8
Valve Malfu Sometimes	nction/Pow when the t	ransfer pum	p comes	on while the inj rmers to lower j			a fuse blows on	high curre	ent. We	are having	g an ele	ectrician
Describe Are	ea Affected	and Cleanup	Action Ta	ken.*								
Only the area	a inside the	berm which is	s lined wit	h plastic was affe	cted. Al	l water was v	acuumed up.					
regulations a public health should their o or the enviro	Il operators or the envi operations honment. In a	are required t ronment. The nave failed to	o report a acceptan adequatel DCD acce	e is true and comp nd/or file certain ce of a C-141 rep y investigate and ptance of a C-141	release no ort by the remediate	otifications a NMOCD m contaminat	nd perform corre- larked as "Final F ion that pose a the ve the operator of	ctive action Report" doe reat to grou responsibil	ns for rel s not rel and water lity for c	eases which ieve the ope r, surface wa ompliance v	a may er erator of ater, hu with any	ndanger Fliability man health
~		0					OIL CON	ISERVA	TION	DIVISIO	DN	
Signature: <	Danie	a Jone	0						0	1		
Printed Nam	e: Denise J	ones			21	Approved by	Environmental S	Specialist:	- (	J		
Fitle: Regul	atory Analy	st				Approval Da	te: 8/7/2018	Ex	piration	Date:		
E-mail Addr	ess: djones	@cambrianm;	gmt.com			Conditions o				Attached	П	
Data: 00/0	06/2018		n	hone: 432-620-91	01		spect liner in o			e		
		ets If Necess		10110. 432-020-91			th a concise re	•				
		515 II 110005	, an y			•	with affirmatio				P-514	a l
OY1821	950108		(18219	50272			ntinue to conta	•			-014	<u> </u>
			10213	00212	2	) At least o	one photo mus	st demon	strate			

the entire facility is lined.

# APPENDIX – B Analytical Reports



February 15, 2018

BEN ARGUIJO

TRINITY OILFIELD SERVICES & RENTALS, LLC

P. O. BOX 2587

HOBBS, NM 88241

RE: KAISER STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 02/06/18 15:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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

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

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

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

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

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 15-Feb-18 11:34
---	--	-------------	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP - 4 @ 1'	H800379-01	Soil	06-Feb-18 09:40	06-Feb-18 15:45
SP - 4 @ 2'	H800379-02	Soil	06-Feb-18 09:55	06-Feb-18 15:45
SP - 4 @ 4'	H800379-03	Soil	06-Feb-18 10:23	06-Feb-18 15:45
SP - 5 @ 1'	H800379-04	Soil	06-Feb-18 10:45	06-Feb-18 15:45
SP - 5 @ 3'	H800379-05	Soil	06-Feb-18 11:03	06-Feb-18 15:45
SP - 5 @ 5'	H800379-06	Soil	06-Feb-18 11:17	06-Feb-18 15:45

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVI P. O. BOX 2587 HOBBS NM, 88241	Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE				Reported: 15-Feb-18 11:34					
				• - 4 @ 1' 379-01 (So	siD					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Petroleum Hydrocarbons by	GC FID									S-06
GRO C6-C10*	2940		50.0	mg/kg	5	8020701	MS	07-Feb-18	8015B	
DRO >C10-C28*	9320		50.0	mg/kg	5	8020701	MS	07-Feb-18	8015B	
EXT DRO >C28-C36	1450		50.0	mg/kg	5	8020701	MS	07-Feb-18	8015B	
Surrogate: 1-Chlorooctane			225 %	41-	142	8020701	MS	07-Feb-18	8015B	
Surrogate: 1-Chlorooctadecane			174 %	37.6	-147	8020701	MS	07-Feb-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction Chloride	n <u>)</u> 14700		500	mg/kg wet	500	B802083	JDA	14-Feb-18	EPA300.0	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS,	LLC	Project Nun Project Mana		ie given Arguijo	SWD		1	Reported: 15-Feb-18 11:3			
				P - 4 @ 2' 379-02 (So	il)							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	0.728		0.050	mg/kg	50	8021207	MS	12-Feb-18	8021B	QM-07		
Toluene*	9.66		0.050	mg/kg	50	8021207	MS	12-Feb-18	8021B	QM-07		
Ethylbenzene*	5.42		0.050	mg/kg	50	8021207	MS	12-Feb-18	8021B			
Total Xylenes*	19.5		0.150	mg/kg	50	8021207	MS	12-Feb-18	8021B			
Total BTEX	35.3		0.300	mg/kg	50	8021207	MS	12-Feb-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			139 %	72-1	48	8021207	MS	12-Feb-18	8021B			
Petroleum Hydrocarbons by GC	FID											
GRO C6-C10*	164		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B			
DRO >C10-C28*	595		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B			
EXT DRO >C28-C36	72.8		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B			
Surrogate: 1-Chlorooctane			99.2 %	41-1	42	8020701	MS	07-Feb-18	8015B			
Surrogate: 1-Chlorooctadecane			106 %	37.6-	147	8020701	MS	07-Feb-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	12900		500	mg/kg wet	500	B802083	JDA	14-Feb-18	EPA300.0			

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		1	Reported: 15-Feb-18 11:		
				P - 4 @ 4' )379-03 (So	;D)						
				579-05 (30	ш <i>)</i>						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	8021207	MS	12-Feb-18	8021B		
Toluene*	0.907		0.050	mg/kg	50	8021207	MS	12-Feb-18	8021B		
Ethylbenzene*	0.654		0.050	mg/kg	50	8021207	MS	12-Feb-18	8021B		
Total Xylenes*	3.12		0.150	mg/kg	50	8021207	MS	12-Feb-18	8021B		
Total BTEX	4.68		0.300	mg/kg	50	8021207	MS	12-Feb-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			112 %	72-1	48	8021207	MS	12-Feb-18	8021B		
Petroleum Hydrocarbons by GC	FID										
GRO C6-C10*	112		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B		
DRO >C10-C28*	903		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B		
EXT DRO >C28-C36	155		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B		
Surrogate: 1-Chlorooctane			84.8 %	41-1	42	8020701	MS	07-Feb-18	8015B		
Surrogate: 1-Chlorooctadecane			106 %	37.6-	147	8020701	MS	07-Feb-18	8015B		
			Green Anal	ytical Labo	oratories						
Soluble (DI Water Extraction)											
Chloride	16400		500	mg/kg wet	500	B802083	JDA	14-Feb-18	EPA300.0		

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TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS,	LLC	Project Nun Project Mana	nber: NO	I ARGUIJO	SWD		1	Reported: 5-Feb-18 11:	34
				P - 5 @ 1' 379-04 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	3.47		0.500	mg/kg	500	8021207	MS	13-Feb-18	8021B	
Toluene*	21.5		0.500	mg/kg	500	8021207	MS	13-Feb-18	8021B	
Ethylbenzene*	15.8		0.500	mg/kg	500	8021207	MS	13-Feb-18	8021B	
Total Xylenes*	48.9		1.50	mg/kg	500	8021207	MS	13-Feb-18	8021B	
Total BTEX	89.7		3.00	mg/kg	500	8021207	MS	13-Feb-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			114 %	72-	148	8021207	MS	13-Feb-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	443		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B	
DRO >C10-C28*	1930		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B	
EXT DRO >C28-C36	323		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B	
Surrogate: 1-Chlorooctane			97.4 %	41-	142	8020701	MS	07-Feb-18	8015B	
Surrogate: 1-Chlorooctadecane			125 %	37.6	-147	8020701	MS	07-Feb-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)					50	D000000		14.5.1.10	ED4 200 0	
Chloride	1550		50.0	mg/kg wet	50	B802083	JDA	14-Feb-18	EPA300.0	

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TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS,	LLC	Project Nun Project Mana	nber: NO	I ARGUIJO	SWD		1	Reported: 5-Feb-18 11:	34
				P - 5 @ 3' 379-05 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	1.14		0.200	mg/kg	200	8021207	MS	13-Feb-18	8021B	
Toluene*	3.11		0.200	mg/kg	200	8021207	MS	13-Feb-18	8021B	
Ethylbenzene*	5.69		0.200	mg/kg	200	8021207	MS	13-Feb-18	8021B	
Total Xylenes*	16.2		0.600	mg/kg	200	8021207	MS	13-Feb-18	8021B	
Total BTEX	26.1		1.20	mg/kg	200	8021207	MS	13-Feb-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			119 %	72-	148	8021207	MS	13-Feb-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	75.7		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B	
DRO >C10-C28*	348		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B	
EXT DRO >C28-C36	41.1		10.0	mg/kg	1	8020701	MS	07-Feb-18	8015B	
Surrogate: 1-Chlorooctane			45.4 %	41-	142	8020701	MS	07-Feb-18	8015B	
Surrogate: 1-Chlorooctadecane			76.9 %	37.6	-147	8020701	MS	07-Feb-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)	0.52		20.0	ma/ka wat	20	D000002	JDA	14 Eab 19	EDA 200.0	
Chloride	852		20.0	mg/kg wet	20	B802083	JDA	14-Feb-18	EPA300.0	

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Celey D. Keene, Lab Director/Quality Manager



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#### Analytical Results For:

TRINITY OILFIELD SERVIC P. O. BOX 2587 HOBBS NM, 88241	ES & RENTALS, L	LC	Project Nun Project Mana	nber: NOI	ARGUIJO	SWD		1	Reported: 5-Feb-18 11:	34
				P - 5 @ 5' 379-06 (Se	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Petroleum Hydrocarbons by	GC FID									
GRO C6-C10*	279		50.0	mg/kg	5	8020701	MS	08-Feb-18	8015B	
DRO >C10-C28*	5800		50.0	mg/kg	5	8020701	MS	08-Feb-18	8015B	
EXT DRO >C28-C36	1210		50.0	mg/kg	5	8020701	MS	08-Feb-18	8015B	
Surrogate: 1-Chlorooctane			110 %	41-	142	8020701	MS	08-Feb-18	8015B	
Surrogate: 1-Chlorooctadecane			146 %	37.6	-147	8020701	MS	08-Feb-18	8015B	
			Green Anal	ytical Lab	oratories					
<u>Soluble (DI Water Extraction</u> Chloride	) 5510		200	mg/kg wet	200	B802083	JDA	14-Feb-18	EPA300.0	

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 15-Feb-18 11:34
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#### Volatile Organic Compounds by EPA Method 8021 - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 8021207 - Volatiles										
Blank (8021207-BLK1)				Prepared &	Analyzed:	12-Feb-18				
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.104		mg/kg	0.100		104	72-148			
LCS (8021207-BS1)				Prepared &	Analyzed:	12-Feb-18				
Benzene	2.16	0.050	mg/kg	2.00		108	79.5-124			
Toluene	2.12	0.050	mg/kg	2.00		106	75.5-127			
Ethylbenzene	2.09	0.050	mg/kg	2.00		105	77.7-125			
Total Xylenes	6.35	0.150	mg/kg	6.00		106	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.101		mg/kg	0.100		101	72-148			
LCS Dup (8021207-BSD1)				Prepared &	Analyzed:	12-Feb-18				
Benzene	1.83	0.050	mg/kg	2.00		91.7	79.5-124	16.4	6.5	QR-02
Toluene	1.80	0.050	mg/kg	2.00		90.0	75.5-127	16.6	7.02	QR-0
Ethylbenzene	1.78	0.050	mg/kg	2.00		89.1	77.7-125	15.9	7.83	QR-0
Total Xylenes	5.42	0.150	mg/kg	6.00		90.3	70.9-124	15.9	7.78	QR-0
Surrogate: 4-Bromofluorobenzene (PID)	0.101		mg/kg	0.100		101	72-148			

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 15-Feb-18 11:34
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#### Petroleum Hydrocarbons by GC FID - Quality Control

#### **Cardinal Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8020701 - General Prep - Organics										
Blank (8020701-BLK1)				Prepared &	Analyzed:	07-Feb-18				
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	47.5		mg/kg	50.0		95.0	41-142			
Surrogate: 1-Chlorooctadecane	43.1		mg/kg	50.0		86.3	37.6-147			
LCS (8020701-BS1)				Prepared &	Analyzed:	07-Feb-18				
GRO C6-C10	210	10.0	mg/kg	200		105	76.5-133			
DRO >C10-C28	197	10.0	mg/kg	200		98.3	72.9-138			
Total TPH C6-C28	407	10.0	mg/kg	400		102	78-132			
Surrogate: 1-Chlorooctane	50.5		mg/kg	50.0		101	41-142			
Surrogate: 1-Chlorooctadecane	47.9		mg/kg	50.0		95.8	37.6-147			
LCS Dup (8020701-BSD1)				Prepared &	Analyzed:	07-Feb-18				
GRO C6-C10	205	10.0	mg/kg	200		103	76.5-133	2.15	20.6	
DRO >C10-C28	187	10.0	mg/kg	200		93.5	72.9-138	5.04	20.6	
Total TPH C6-C28	392	10.0	mg/kg	400		98.1	78-132	3.54	18	
Surrogate: 1-Chlorooctane	49.7		mg/kg	50.0		99.4	41-142			
Surrogate: 1-Chlorooctadecane	45.7		mg/kg	50.0		91.3	37.6-147			

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 15-Feb-18 11:34
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#### Soluble (DI Water Extraction) - Quality Control

#### **Green Analytical Laboratories**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B802083 - General Prep - Wet Chem										
Blank (B802083-BLK1)				Prepared: 1	2-Feb-18 A	analyzed: 1	3-Feb-18			
Chloride	ND	1.00	mg/kg wet							
LCS (B802083-BS1)				Prepared: 1	2-Feb-18 A	analyzed: 1	3-Feb-18			
Chloride	243	10.0	mg/kg wet	250		97.2	85-115			
LCS Dup (B802083-BSD1)				Prepared: 1	2-Feb-18 A	analyzed: 1	3-Feb-18			
Chloride	244	10.0	mg/kg wet	250		97.5	85-115	0.337	20	

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### **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-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

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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obbs	State:	NM Zip: 8	88241	Attn:			_		12	
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"	Project Owner:		Cambrian Mgmt	nt. City:			-	)0)	1	
ame:	Kaiser State SWD			State:	Zip:		15N	e (30	ed	
	Lea Co., NM			Phone #:			_	ride	d	
Sampler Name: Tristan Payne	stan Payne			Fax #		L	_	hlo	4	
		-	MATRIX	IX PRESERV	SAMPLING		_	С	0	
Lab I.D.	Sample I.D.	G)RAB OR (C)OMP.	GROUNDWATER WASTEWATER SOIL	OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :	DATE	TIME			BTEX	
1.1Com	I C N UG		×		2/6/18	0940	×	×	F	
-	or 4 (0) 1	-		×	2/6/18	0955	×	×	×	
1	SF-4 (0) 2	- 1		×	2/6/18	1023	×	×	×	
2	SP-4 (0),4		1 ×	×	2/6/18	1045	×	×	×	
L A	SD-5 @ 3'		1 ×	×	2/6/18	1103	× OLD	1	×	
50	SP-5 @ 5'	+	1 X	×	2/6/18	1117	×	T×	+	
								П		
					T			Т	-	
PLEASE NOTE: Liability a analyses. All claims includ	PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the applicable prevents. Not claim including these for negligence and any other cause whatsoever inhall be deerned waived unless made in writing and received by Cardinal's liability and client, its subsidiaries, analyses. All claims including these for negligence and any other cause whatsoever inhall be deerned waived unless made in writing and received by Cardinal's liability client, its subsidiaries, analyses. All claims including these for negligence and any other cause whatsoever inhall be deerned waived unless made in writing and received by Cardinal's liability client, its subsidiaries, and the cause whatsoever inhall be deerned waived unless made in writing and received by Cardinal's liability client, its subsidiaries, and in writing and the cause whatsoever inhall be deerned waived unless made in writing and received by Cardinal's liability client, its subsidiaries, and in writing and the cause whatsoever inhall be deerned waither to an any other cause whatsoever inhall be deerned waither to an any other cause whatsoever inhall be deerned waither to an any other cause whatsoever inhall be deerned waither to an any other cause whatsoever inhall be deerned waither to an any other cause whatsoever inhall be deerned waither to an an any other cause whatsoever inhall be deerned waither to an an any other cause whatsoever inhall be deerned waither to an an any other cause whatsoever inhall be deerned waither to an an an an an an any other cause whatsoever inhall be deerned waither to an	sive ranedy for a whatsoever sh	any claim arising what lies deemed wait	ether based in contract or to ved unless made in writing tation business interruptio	and received by ons, loss of use, c	o the amount pai Cardinal within I loss of profits	d by the clic 30 days a incurred b	nt for the ter comple client, its	tion of the application of the a	icable
affiliates or successors ans	Cardinal be liable for incidental or consequent and out of or related to the performance of s	nvices hereunds	er hy Cardinal reci	ardiess of whether such d	aim is hased upo	Phone Result:	esult:	Yes	I No A	Add'I Phone #: Add'I Fax #:
Relinquished By:	Date:	S Re	Received By:	MainARM	1 CM	Fax Result:		Yes	1	Add'l Fax #:

Revision 1.0 FORM-006

Sampler - UPS - Bus - Other:

5.15%

Sample Condition Cool Intact Yes Yes

CHECKED BY:

t dardinal cannot accept transfer changes Please fax written changes to 575-393-2476

Delivered By: (Circle One) #75

Relinquished By:

Date: 

Received By:

Run BTEX if TPH is <= 5000



May 21, 2018

BEN ARGUIJO TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS, NM 88241

RE: KAISER STATE SWD

Enclosed are the results of analyses for samples received by the laboratory on 05/14/18 15:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-17-10. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab\_accred\_certif.html">www.tceq.texas.gov/field/qa/lab\_accred\_certif.html</a>.

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

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

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

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

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

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 21-May-18 16:59
---	--	-------------	------------------------------

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SP - 11 @ 2'	H801331-01	Soil	09-May-18 09:20	14-May-18 15:15
SP - 11 @ 13'	H801331-02	Soil	09-May-18 09:50	14-May-18 15:15
SP-1 @ 10'	H801331-03	Soil	09-May-18 10:00	14-May-18 15:15
SP-1 @ 13'	H801331-04	Soil	09-May-18 10:10	14-May-18 15:15
SP-2 @ 8'	H801331-05	Soil	09-May-18 10:30	14-May-18 15:15
SP-2 @ 13'	H801331-06	Soil	09-May-18 10:45	14-May-18 15:15
SP-3 @ 4'	H801331-07	Soil	09-May-18 11:10	14-May-18 15:15
SP-3 @ 13'	H801331-08	Soil	09-May-18 11:35	14-May-18 15:15
SP-4 @ 2'	H801331-09	Soil	09-May-18 13:05	14-May-18 15:15
SP-4 @ 10'	H801331-10	Soil	09-May-18 13:25	14-May-18 15:15
SP-5 @ 1'	H801331-11	Soil	09-May-18 14:00	14-May-18 15:15
SP-5 @ 13'	H801331-12	Soil	09-May-18 14:35	14-May-18 15:15
SP-6 @ 2'	H801331-13	Soil	09-May-18 15:00	14-May-18 15:15
SP-6 @ 10'	H801331-14	Soil	09-May-18 15:20	14-May-18 15:15
SP-7 @ 6'	H801331-15	Soil	09-May-18 15:50	14-May-18 15:15
SP - 7 @ 13'	H801331-16	Soil	09-May-18 16:10	14-May-18 15:15
SP - 8 @ 4'	H801331-17	Soil	10-May-18 09:35	14-May-18 15:15
SP-8 @ 13'	H801331-18	Soil	10-May-18 10:00	14-May-18 15:15
SP-9 @ 1'	H801331-19	Soil	10-May-18 11:00	14-May-18 15:15
SP - 9 @ 13'	H801331-20	Soil	10-May-18 11:35	14-May-18 15:15
SP - 10 @ 1'	H801331-21	Soil	10-May-18 11:50	14-May-18 15:15
SP - 10 @ 13'	H801331-22	Soil	10-May-18 12:25	14-May-18 15:15

#### Cardinal Laboratories

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241					Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE					59
				- 11 @ 2 331-01 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardin	al Laborat	ories					
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Ethylbenzene*	0.077		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Total Xylenes*	0.447		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
Total BTEX	0.524		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			103 %	72	148	8051506	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	142		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	72.7		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			91.7 %	41	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			90.9 %	37.6-	-147	8051503	MS	15-May-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	1920		50.0	mg/kg wet	50	B805120	JDA	16-May-18	EPA300.0	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



	ENTALS, LLC Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE				Reported: 21-May-18 16:59				
			0						
		Reporting							
Result	MDL	Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
		Cardina	ıl Laborat	ories					
v EPA Method	8021								
< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
< 0.150		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
< 0.300		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
		103 %	72	148	8051506	MS	17-May-18	8021B	
C FID									
<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
		88.0 %	41-	142	8051503	MS	15-May-18	8015B	
		77.2 %	37.6-	-147	8051503	MS	15-May-18	8015B	
		Green Analy	ytical Lab	oratories					
817		50.0	mg/kg wet	50	B805120	JDA	16-Mav-18	EPA300.0	
	<0.050 <0.050 <0.050 <0.150 <0.300 C FID <10.0 <10.0	v EPA Method 8021 <0.050 <0.050 <0.150 <0.300 C FID <10.0 <10.0 <10.0	Result     MDL     Reporting Limit       v EPA Method 8021     Cardina       <0.050	Result     MDL     Reporting Limit     Units       Cardinal Laborat     Cardinal Laborat       vy EPA Method 8021     0.050     mg/kg       <0.050	Result     MDL     Limit     Units     Dilution       Cardinal Laboratories       ov EPA Method 8021     Cardinal Laboratories       <0.050	H801331-02 (Soil)       Result     MDL     Reporting Limit     Units     Dilution     Batch       Cardinal Laboratories       STET       <0.050	H801331-02 (Soil)       Result     MDL     Reporting Limit     Units     Dilution     Batch     Analyst       Cardinal Laboratories       v     EPA Method 8021     Cardinal Cardinal     Soft Soft Soft Soft Soft Soft Soft Soft	H801331-02 (Soil)       Result     MDL     Reporting Limit     Units     Dilution     Batch     Analyst     Analyzed       Cardinal Laboratories       ey EPA Method 8021       <0.050	H801331-02 (Soil)       Result     MDL     Reporting Limit     Units     Dilution     Batch     Analyst     Analyzed     Method       Cardinal Laboratories       version     0.050     mg/kg     50     8051506     MS     17-May-18     8021B       <0.050     0.150     mg/kg     50     8051506     MS     17-May-18     8021B       <0.300     0.300/mg/kg     50     8051506     MS     17-May-18     8021B       <0.300     mg/kg     1     8051503     MS     15-May-18     8015B       <0.300     10.0     mg/kg

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Num Project Mana	ber: NO	ARGUIJO	SWD		2	Reported: 21-May-18 16:59	
				- 1 @ 10 331-03 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Volatile Organic Compounds by 1	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			107 %	72-	148	8051506	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			88.1 %	41-	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			75.1 %	37.6	-147	8051503	MS	15-May-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction) Chloride	2300		50.0	mg/kg wet	50	B805120	JDA	16-May-18	EPA300.0	
	2300		50.0	mg/kg wet	50	B005120	JDA	10-1v1ay-10	LI A300.0	

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\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, L	LC	Project Num Project Mana	ber: NO	I ARGUIJO	SWD		2	59	
				- 1 @ 13 331-04 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Volatile Organic Compounds by 1	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			103 %	72-	148	8051506	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			79.4 %	41-	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			68.9 %	37.6	-147	8051503	MS	15-May-18	8015B	
Soluble (DI Water Extraction)			Green Analy	ytical Lab	oratories					
Chloride	1410		50.0	mg/kg wet	50	B805120	JDA	16-May-18	EPA300.0	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, L	LC	Project Num Project Mana	ber: NO	ARGUIJO	SWD		2	Reported: 1-May-18 16:	59
				- 2 @ 8' 331-05 (So						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	ıl Laborat	ories					
Volatile Organic Compounds by 1	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Total Xylenes*	0.167		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
Total BTEX	0.167		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			104 %	72-	148	8051506	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			87.1 %	41-	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			74.6 %	37.6	-147	8051503	MS	15-May-18	8015B	
Soluble (DI Water Extraction)			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction) Chloride	2570		100	mg/kg wet	100	B805120	JDA	17-May-18	EPA300.0	

#### **Cardinal Laboratories**

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, L	TC	Project Nun Project Mana	nber: NON	ARGUIJO	SWD		2	Reported: 1-May-18 16:	59
				- 2 @ 13						
<b></b>			H801	331-06 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			106 %	72	148	8051506	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	C FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	14.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			90.5 %	41-	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			79.4 %	37.6	-147	8051503	MS	15-May-18	8015B	
			Green Anal	ytical Lab	oratories					
<u>Soluble (DI Water Extraction)</u> Chloride	1250		50.0	mg/kg wet	50	B805120	JDA	16-May-18	EPA300.0	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	5 & RENTALS, L	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	59	
			SP	-3 @ 4'						
			H801	331-07 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Toluene*	0.069		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B	
Total Xylenes*	1.31		0.150	mg/kg	50	8051506	MS	17-May-18	8021B	
Total BTEX	1.37		0.300	mg/kg	50	8051506	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			136 %	72-1	148	8051506	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	C FID									
GRO C6-C10*	14.6		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	292		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	23.8		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			86.6 %	41-1	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			94.2 %	37.6-	-147	8051503	MS	15-May-18	8015B	
			Green Anal	ytical Labo	oratories					
Soluble (DI Water Extraction)										
Chloride	1310		50.0	mg/kg wet	50	B805120	JDA	16-May-18	EPA300.0	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LLC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				- 3 @ 13 331-08 (So								
			11601	551-08 (50	ш <i>)</i>							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B			
Toluene*	0.085		0.050	mg/kg	50	8051506	MS	17-May-18	8021B			
Ethylbenzene*	0.280		0.050	mg/kg	50	8051506	MS	17-May-18	8021B			
Total Xylenes*	1.33		0.150	mg/kg	50	8051506	MS	17-May-18	8021B			
Total BTEX	1.70		0.300	mg/kg	50	8051506	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			137 %	72-1	48	8051506	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID											
GRO C6-C10*	19.2		10.0	mg/kg	1	8051503	MS	15-May-18	8015B			
DRO >C10-C28*	496		10.0	mg/kg	1	8051503	MS	15-May-18	8015B			
EXT DRO >C28-C36	69.4		10.0	mg/kg	1	8051503	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			85.9 %	41-1	42	8051503	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			107 %	37.6-	147	8051503	MS	15-May-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	2250		50.0	mg/kg wet	50	B805120	JDA	16-May-18	EPA300.0			

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				-4 @ 2'								
			H801	331-09 (So	11)							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B			
Toluene*	< 0.050		0.050	mg/kg	50	8051506	MS	17-May-18	8021B			
Ethylbenzene*	0.061		0.050	mg/kg	50	8051506	MS	17-May-18	8021B			
Total Xylenes*	0.256		0.150	mg/kg	50	8051506	MS	17-May-18	8021B			
Total BTEX	0.317		0.300	mg/kg	50	8051506	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			106 %	72-1	48	8051506	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID											
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B			
DRO >C10-C28*	42.1		10.0	mg/kg	1	8051503	MS	15-May-18	8015B			
EXT DRO >C28-C36	30.2		10.0	mg/kg	1	8051503	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			85.3 %	41-1	42	8051503	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			80.9 %	37.6-	147	8051503	MS	15-May-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	3570		100	mg/kg wet	100	B805120	JDA	17-May-18	EPA300.0			

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICE P. O. BOX 2587 HOBBS NM, 88241	ES & RENTALS, L	LC	Project Num Project Mana	ber: NO	ARGUIJO	SWD		2	Reported: 1-May-18 16:	59
				-4 @ 10						
			H801	331-10 (So	011) 					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds I	by EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051508	MS	17-May-18	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	8051508	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)	)		102 %	72-	148	8051508	MS	17-May-18	8021B	
Petroleum Hydrocarbons by C	GC FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			85.4 %	41-	142	8051503	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			75.3 %	37.6	-147	8051503	MS	15-May-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	347		50.0	mg/kg wet	50	B805120	JDA	17-May-18	EPA300.0	

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				-5@1'	•1)							
			H801	331-11 (So	11)							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborate	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	< 0.500		0.500	mg/kg	500	8051508	MS	17-May-18	8021B			
Toluene*	2.47		0.500	mg/kg	500	8051508	MS	17-May-18	8021B			
Ethylbenzene*	3.30		0.500	mg/kg	500	8051508	MS	17-May-18	8021B			
Total Xylenes*	27.7		1.50	mg/kg	500	8051508	MS	17-May-18	8021B			
Total BTEX	33.5		3.00	mg/kg	500	8051508	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			122 %	72-1	48	8051508	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID									S-06		
GRO C6-C10*	1220		50.0	mg/kg	5	8051503	MS	15-May-18	8015B			
DRO >C10-C28*	11900		50.0	mg/kg	5	8051503	MS	15-May-18	8015B			
EXT DRO >C28-C36	1570		50.0	mg/kg	5	8051503	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			170 %	41-1	42	8051503	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			231 %	37.6-	147	8051503	MS	15-May-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	4670		200	mg/kg wet	200	B805120	JDA	17-May-18	EPA300.0			

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TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	TC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				- 5 @ 13 331-12 (So								
				551-12 (50	п)							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Total Xylenes*	0.426		0.150	mg/kg	50	8051508	MS	17-May-18	8021B			
Total BTEX	0.426		0.300	mg/kg	50	8051508	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			112 %	72	148	8051508	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID											
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
DRO >C10-C28*	67.6		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			90.1 %	41	42	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			97.0 %	37.6-	147	8051507	MS	15-May-18	8015B			
			Green Anal	ytical Lab	oratories							
Soluble (DI Water Extraction) Chloride	1230		50.0	mg/kg wet	50	B805120	JDA	17-May-18	EPA300.0			

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TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				- 6 @ 2' 331-13 (So	il)							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by 1	EPA Method	8021										
Benzene*	< 0.200		0.200	mg/kg	200	8051508	MS	17-May-18	8021B			
Toluene*	0.981		0.200	mg/kg	200	8051508	MS	17-May-18	8021B			
Ethylbenzene*	3.14		0.200	mg/kg	200	8051508	MS	17-May-18	8021B			
Total Xylenes*	13.4		0.600	mg/kg	200	8051508	MS	17-May-18	8021B			
Total BTEX	17.5		1.20	mg/kg	200	8051508	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			139 %	72-1	48	8051508	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID									S-06		
GRO C6-C10*	485		50.0	mg/kg	5	8051507	MS	15-May-18	8015B			
DRO >C10-C28*	8810		50.0	mg/kg	5	8051507	MS	15-May-18	8015B			
EXT DRO >C28-C36	1670		50.0	mg/kg	5	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			129 %	41-1	42	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			302 %	37.6-	147	8051507	MS	15-May-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	9260		500	mg/kg wet	500	B805120	JDA	17-May-18	EPA300.0			

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				- 6 @ 10 331-14 (So								
				551-14 (50	ш <u>у</u>							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Total Xylenes*	0.432		0.150	mg/kg	50	8051508	MS	17-May-18	8021B			
Total BTEX	0.432		0.300	mg/kg	50	8051508	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			119 %	72-1	48	8051508	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID											
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
DRO >C10-C28*	113		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
EXT DRO >C28-C36	14.7		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			92.2 %	41-1	42	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			99.8 %	37.6-	147	8051507	MS	15-May-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	492		50.0	mg/kg wet	50	B805120	JDA	17-May-18	EPA300.0			

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 21-May-18 16:59			
				- 7 @ 6' 331-15 (So	;I)							
			11001	551-15 (50								
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes		
			Cardina	al Laborat	ories							
Volatile Organic Compounds by	EPA Method	8021										
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B			
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051508	MS	17-May-18	8021B			
Total BTEX	< 0.300		0.300	mg/kg	50	8051508	MS	17-May-18	8021B			
Surrogate: 4-Bromofluorobenzene (PID)			107 %	72-1	48	8051508	MS	17-May-18	8021B			
Petroleum Hydrocarbons by GC	FID											
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
DRO >C10-C28*	20.8		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctane			91.0 %	41-1	42	8051507	MS	15-May-18	8015B			
Surrogate: 1-Chlorooctadecane			90.9 %	37.6-	147	8051507	MS	15-May-18	8015B			
			Green Anal	ytical Labo	oratories							
Soluble (DI Water Extraction)												
Chloride	5870		200	mg/kg wet	200	B805120	JDA	17-May-18	EPA300.0			

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project Nun Project Mana		ie given Arguijo	SWD		2	Reported: 1-May-18 16:	59
			SP	-7@13	•					
			H801	331-16 (So	oil)					
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
			Cardina	al Laborat	ories					
Volatile Organic Compounds by	EPA Method	8021								
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B	
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B	
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B	
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051508	MS	17-May-18	8021B	
Total BTEX	< 0.300		0.300	mg/kg	50	8051508	MS	17-May-18	8021B	
Surrogate: 4-Bromofluorobenzene (PID)			106 %	72-1	148	8051508	MS	17-May-18	8021B	
Petroleum Hydrocarbons by GC	FID									
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B	
DRO >C10-C28*	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B	
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051507	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctane			87.3 %	41-1	142	8051507	MS	15-May-18	8015B	
Surrogate: 1-Chlorooctadecane			88.0 %	37.6-	-147	8051507	MS	15-May-18	8015B	
			Green Anal	ytical Lab	oratories					
Soluble (DI Water Extraction)										
Chloride	2800		100	mg/kg wet	100	B805120	JDA	17-May-18	EPA300.0	

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE						Reported: 21-May-18 16:59		
				- 8 @ 4' 331-17 (So	iI)						
				551-17 (50	ш <u>у</u>						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Toluene*	0.105		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Total Xylenes*	1.51		0.150	mg/kg	50	8051508	MS	17-May-18	8021B		
Total BTEX	1.61		0.300	mg/kg	50	8051508	MS	17-May-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			139 %	72-1	48	8051508	MS	17-May-18	8021B		
Petroleum Hydrocarbons by GC	FID										
GRO C6-C10*	27.4		10.0	mg/kg	1	8051507	MS	15-May-18	8015B		
DRO >C10-C28*	571		10.0	mg/kg	1	8051507	MS	15-May-18	8015B		
EXT DRO >C28-C36	99.2		10.0	mg/kg	1	8051507	MS	15-May-18	8015B		
Surrogate: 1-Chlorooctane			93.2 %	41-1	42	8051507	MS	15-May-18	8015B		
Surrogate: 1-Chlorooctadecane			121 %	37.6-	147	8051507	MS	15-May-18	8015B		
			Green Anal	ytical Labo	oratories						
Soluble (DI Water Extraction)											
Chloride	17400		500	mg/kg wet	500	B805120	JDA	17-May-18	EPA300.0		

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Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE						Reported: 21-May-18 16:59		
				- 8 @ 13 331-18 (So							
				001 10 (50							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Toluene*	0.063		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Ethylbenzene*	0.209		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Total Xylenes*	0.968		0.150	mg/kg	50	8051508	MS	17-May-18	8021B		
Total BTEX	1.24		0.300	mg/kg	50	8051508	MS	17-May-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			123 %	69.8-	142	8051508	MS	17-May-18	8021B		
Petroleum Hydrocarbons by GC	FID										
GRO C6-C10*	13.8		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
DRO >C10-C28*	146		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
EXT DRO >C28-C36	17.8		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctane			97.2 %	41-1	42	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctadecane			106 %	37.6-	147	8051507	MS	16-May-18	8015B		
			Green Anal	ytical Labo	oratories						
Soluble (DI Water Extraction)											
Chloride	7790		500	mg/kg wet	500	B805120	JDA	17-May-18	EPA300.0		

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE						Reported: 21-May-18 16:59		
				-9 @ 1'							
			H801	331-19 (So	11)						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.200		0.200	mg/kg	200	8051508	MS	17-May-18	8021B		
Toluene*	0.738		0.200	mg/kg	200	8051508	MS	17-May-18	8021B		
Ethylbenzene*	1.90		0.200	mg/kg	200	8051508	MS	17-May-18	8021B		
Total Xylenes*	7.28		0.600	mg/kg	200	8051508	MS	17-May-18	8021B		
Total BTEX	9.92		1.20	mg/kg	200	8051508	MS	17-May-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			127 %	72-1	48	8051508	MS	17-May-18	8021B		
Petroleum Hydrocarbons by GC	FID									S-06	
GRO C6-C10*	343		50.0	mg/kg	5	8051507	MS	16-May-18	8015B		
DRO >C10-C28*	4870		50.0	mg/kg	5	8051507	MS	16-May-18	8015B		
EXT DRO >C28-C36	837		50.0	mg/kg	5	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctane			133 %	41-1	42	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctadecane			193 %	37.6-	147	8051507	MS	16-May-18	8015B		
			Green Anal	ytical Labo	oratories						
Soluble (DI Water Extraction)											
Chloride	8130		500	mg/kg wet	500	B805120	JDA	17-May-18	EPA300.0		

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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				- 9 @ 13 331-20 (So							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051508	MS	17-May-18	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	8051508	MS	17-May-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			105 %	72-	148	8051508	MS	17-May-18	8021B		
Petroleum Hydrocarbons by GC	FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
DRO >C10-C28*	31.4		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
EXT DRO >C28-C36	<10.0		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctane			90.3 %	41-	142	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctadecane			93.2 %	37.6	-147	8051507	MS	16-May-18	8015B		
Soluble (DI Water Extraction)			Green Anal	ytical Lab	oratories						
Soluble (DI Water Extraction) Chloride	791		50.0	mg/kg wet	50	B805120	JDA	17-May-18	EPA300.0		

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\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LLC	Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE						Reported: 21-May-18 16:59		
				- 10 @ 1 331-21 (So							
			11001	331-21 (80	n <i>)</i>						
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.200		0.200	mg/kg	200	8051508	MS	17-May-18	8021B		
Toluene*	1.25		0.200	mg/kg	200	8051508	MS	17-May-18	8021B		
Ethylbenzene*	3.72		0.200	mg/kg	200	8051508	MS	17-May-18	8021B		
Total Xylenes*	15.7		0.600	mg/kg	200	8051508	MS	17-May-18	8021B		
Total BTEX	20.7		1.20	mg/kg	200	8051508	MS	17-May-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			138 %	72-1	48	8051508	MS	17-May-18	8021B		
Petroleum Hydrocarbons by GC	FID									S-06	
GRO C6-C10*	567		50.0	mg/kg	5	8051507	MS	16-May-18	8015B		
DRO >C10-C28*	4890		50.0	mg/kg	5	8051507	MS	16-May-18	8015B		
EXT DRO >C28-C36	719		50.0	mg/kg	5	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctane			144 %	41-1	42	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctadecane			164 %	37.6-	147	8051507	MS	16-May-18	8015B		
			Green Anal	ytical Labo	oratories						
Soluble (DI Water Extraction)											
Chloride	8610		500	mg/kg wet	500	B805121	JDA	17-May-18	EPA300.0		

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\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES P. O. BOX 2587 HOBBS NM, 88241	& RENTALS, I	LC	Project: KAISER STATE SWD Project Number: NONE GIVEN Project Manager: BEN ARGUIJO Fax To: NONE						Reported: 21-May-18 16:59		
				· 10 @ 13 331-22 (So							
Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes	
			Cardina	al Laborat	ories						
Volatile Organic Compounds by	EPA Method	8021									
Benzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Toluene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Ethylbenzene*	< 0.050		0.050	mg/kg	50	8051508	MS	17-May-18	8021B		
Total Xylenes*	< 0.150		0.150	mg/kg	50	8051508	MS	17-May-18	8021B		
Total BTEX	< 0.300		0.300	mg/kg	50	8051508	MS	17-May-18	8021B		
Surrogate: 4-Bromofluorobenzene (PID)			109 %	72-1	148	8051508	MS	17-May-18	8021B		
Petroleum Hydrocarbons by GC	FID										
GRO C6-C10*	<10.0		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
DRO >C10-C28*	85.8		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
EXT DRO >C28-C36	11.4		10.0	mg/kg	1	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctane			97.1 %	41-1	42	8051507	MS	16-May-18	8015B		
Surrogate: 1-Chlorooctadecane			103 %	37.6-	147	8051507	MS	16-May-18	8015B		
			Green Anal	ytical Labo	oratories						
Soluble (DI Water Extraction)											
Chloride	1080		50.0	mg/kg wet	50	B805121	JDA	17-May-18	EPA300.0		

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



P. O. BOX 2587 Project Number: HOBBS NM, 88241 Project Manager:	·
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# Volatile Organic Compounds by EPA Method 8021 - Quality Control Cardinal Laboratories

		Curun		01 4001 105						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8051506 - Volatiles										
Blank (8051506-BLK1)				Prepared: 1	15-May-18	Analyzed:	17-May-18			
Benzene	ND	0.050	mg/kg							
Toluene	ND	0.050	mg/kg							
Ethylbenzene	ND	0.050	mg/kg							
Total Xylenes	ND	0.150	mg/kg							
Total BTEX	ND	0.300	mg/kg							
Surrogate: 4-Bromofluorobenzene (PID)	0.108		mg/kg	0.100		108	72-148			
LCS (8051506-BS1)				Prepared: 1	15-May-18	Analyzed:	17-May-18			
Benzene	2.06	0.050	mg/kg	2.00		103	79.5-124			
Toluene	2.12	0.050	mg/kg	2.00		106	75.5-127			
Ethylbenzene	2.17	0.050	mg/kg	2.00		109	77.7-125			
Total Xylenes	6.40	0.150	mg/kg	6.00		107	70.9-124			
Surrogate: 4-Bromofluorobenzene (PID)	0.105		mg/kg	0.100		105	72-148			
LCS Dup (8051506-BSD1)				Prepared: 1	15-May-18	Analyzed:	17-May-18			
Benzene	1.99	0.050	mg/kg	2.00		99.6	79.5-124	3.57	6.5	
Toluene	2.05	0.050	mg/kg	2.00		103	75.5-127	3.33	7.02	
Ethylbenzene	2.10	0.050	mg/kg	2.00		105	77.7-125	3.34	7.83	
Total Xylenes	6.19	0.150	mg/kg	6.00		103	70.9-124	3.27	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	0.108		mg/kg	0.100		108	72-148			

#### Batch 8051508 - Volatiles

Blank (8051508-BLK1)				Prepared: 15-May	y-18 Analyzed:	7-May-18	
Benzene	ND	0.050	mg/kg				
Toluene	ND	0.050	mg/kg				
Ethylbenzene	ND	0.050	mg/kg				
Total Xylenes	ND	0.150	mg/kg				
Total BTEX	ND	0.300	mg/kg				
Surrogate: 4-Bromofluorobenzene (PID)	0.100		mg/kg	0.100	100	69.8-142	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 21-May-18 16:59
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### Volatile Organic Compounds by EPA Method 8021 - Quality Control

# **Cardinal Laboratories**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 8051508 - Volatiles										
LCS (8051508-BS1)				Prepared: 1	15-May-18	Analyzed:	18-May-18			
Benzene	1.69	0.050	mg/kg	2.00		84.5	74.5-124			
Toluene	1.83	0.050	mg/kg	2.00		91.3	78.8-122			
Ethylbenzene	1.84	0.050	mg/kg	2.00		92.1	78.6-122			
Total Xylenes	5.71	0.150	mg/kg	6.00		95.2	79.7-123			
Surrogate: 4-Bromofluorobenzene (PID)	0.108		mg/kg	0.100		108	69.8-142			
LCS Dup (8051508-BSD1)				Prepared: 1	15-May-18	Analyzed:	17-May-18			
Benzene	1.65	0.050	mg/kg	2.00		82.4	79.5-124	2.52	6.5	
Toluene	1.78	0.050	mg/kg	2.00		88.8	75.5-127	2.85	7.02	
Ethylbenzene	1.81	0.050	mg/kg	2.00		90.3	77.7-125	2.04	7.83	
Total Xylenes	5.58	0.150	mg/kg	6.00		93.0	70.9-124	2.34	7.78	
Surrogate: 4-Bromofluorobenzene (PID)	0.0993		mg/kg	0.100		99.3	72-148			

#### **Cardinal Laboratories**

### \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: KAI Project Number: NON Project Manager: BEN Fax To: NON	N ARGUIJO	Reported: 21-May-18 16:59
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### Petroleum Hydrocarbons by GC FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8051503 - General Prep - Organics										
Blank (8051503-BLK1)				Prepared &	& Analyzed:	15-May-1	8			
GRO C6-C10	ND	10.0	mg/kg							
DRO >C10-C28	ND	10.0	mg/kg							
EXT DRO >C28-C35	ND	10.0	mg/kg							
EXT DRO >C28-C36	ND	10.0	mg/kg							
Total TPH C6-C28	ND	10.0	mg/kg							
Surrogate: 1-Chlorooctane	51.4		mg/kg	50.0		103	41-142			
Surrogate: 1-Chlorooctadecane	53.0		mg/kg	50.0		106	37.6-147			
LCS (8051503-BS1)				Prepared &	& Analyzed:	15-May-1	8			
GRO C6-C10	214	10.0	mg/kg	200		107	76.5-133			
DRO >C10-C28	212	10.0	mg/kg	200		106	72.9-138			
Total TPH C6-C28	426	10.0	mg/kg	400		106	78-132			
Surrogate: 1-Chlorooctane	53.5		mg/kg	50.0		107	41-142			
Surrogate: 1-Chlorooctadecane	59.2		mg/kg	50.0		118	37.6-147			
LCS Dup (8051503-BSD1)				Prepared &	& Analyzed:	15-May-1	8			
GRO C6-C10	174	10.0	mg/kg	200		87.0	76.5-133	20.4	20.6	
DRO >C10-C28	181	10.0	mg/kg	200		90.7	72.9-138	15.7	20.6	
Total TPH C6-C28	355	10.0	mg/kg	400		88.9	78-132	18.1	18	QR-0
Surrogate: 1-Chlorooctane	46.9		mg/kg	50.0		93.8	41-142			
Surrogate: 1-Chlorooctadecane	45.6		mg/kg	50.0		91.1	37.6-147			
Batch 8051507 - General Prep - Organics										
				Prepared &	& Analyzed:	15-May-1	8			
CBO C6 C10	ND	10.0	ma/lra							

Blank (8051507-BLK1)			Prepared & Analyzed: 15-May-18	
GRO C6-C10	ND	10.0 mg/kg	ſkg	
DRO >C10-C28	ND	10.0 mg/kg	′kg	
EXT DRO >C28-C35	ND	10.0 mg/kg	′kg	
EXT DRO >C28-C36	ND	10.0 mg/kg	′kg	
Total TPH C6-C28	ND	10.0 mg/kg	/kg	
Surrogate: 1-Chlorooctane	49.2	mg/kg	rkg 50.0 98.3 41-142	
Surrogate: 1-Chlorooctadecane	50.3	mg/kg	kg 50.0 101 37.6-147	

### Cardinal Laboratories

\*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 21-May-18 16:59
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### Petroleum Hydrocarbons by GC FID - Quality Control

### **Cardinal Laboratories**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 8051507 - General Prep - Organics										
LCS (8051507-BS1)				Prepared &	Analyzed:	15-May-1	8			
GRO C6-C10	214	10.0	mg/kg	200		107	76.5-133			
DRO >C10-C28	216	10.0	mg/kg	200		108	72.9-138			
Total TPH C6-C28	430	10.0	mg/kg	400		108	78-132			
Surrogate: 1-Chlorooctane	56.4		mg/kg	50.0		113	41-142			
Surrogate: 1-Chlorooctadecane	58.7		mg/kg	50.0		117	37.6-147			
LCS Dup (8051507-BSD1)				Prepared &	Analyzed:	15-May-1	8			
GRO C6-C10	215	10.0	mg/kg	200		107	76.5-133	0.241	20.6	
DRO >C10-C28	216	10.0	mg/kg	200		108	72.9-138	0.149	20.6	
Total TPH C6-C28	431	10.0	mg/kg	400		108	78-132	0.0448	18	
Surrogate: 1-Chlorooctane	56.1		mg/kg	50.0		112	41-142			
Surrogate: 1-Chlorooctadecane	57.7		mg/kg	50.0		115	37.6-147			

#### **Cardinal Laboratories**

### \*=Accredited Analyte

Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



TRINITY OILFIELD SERVICES & RENTALS, LLC P. O. BOX 2587 HOBBS NM, 88241	Project: Project Number: Project Manager: Fax To:	BEN ARGUIJO	Reported: 21-May-18 16:59
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### Soluble (DI Water Extraction) - Quality Control

### **Green Analytical Laboratories**

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B805120 - General Prep - Wet Chem										
Blank (B805120-BLK1)				Prepared:	16-May-18	Analyzed:	18-May-18			
Chloride	ND	10.0	mg/kg wet							
LCS (B805120-BS1)				Prepared &	& Analyzed:	16-May-18	3			
Chloride	236	10.0	mg/kg wet	250		94.2	85-115			
LCS Dup (B805120-BSD1)				Prepared &	& Analyzed:	16-May-18	3			
Chloride	234	10.0	mg/kg wet	250		93.8	85-115	0.489	20	
Batch B805121 - General Prep - Wet Chem										
Blank (B805121-BLK1)				Prepared:	16-May-18	Analyzed: 1	17-May-18			
Chloride	ND	10.0	mg/kg wet							
LCS (B805121-BS1)				Prepared:	16-May-18	Analyzed: 1	17-May-18			
Chloride	232	10.0	mg/kg wet	250		92.8	85-115			
LCS Dup (B805121-BSD1)				Prepared:	16-May-18	Analyzed: 1	17-May-18			
Chloride	235	10.0	mg/kg wet	250	-	93.9	85-115	1.23	20	

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-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.
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 SM4500CI-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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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager

Project Manager:     Finity Outles of returns, Lucc     Poly.       Address:     PO. 8:     Compare     Trinky       Address:     PO. 8:     Address:     Polycet Name:     Address:       Project Xin:     Fax #:     Address:     Address       Project Xin:     Fax #:     Address     Polycet Name:     Polycet Name:       Project Xin:     Laa Co., NM     Project Name:     Polycet Name:     Polycet Name:       Project Xin:     Laa Co., NM     Phone #:     Project Name:     Polycet Name:       Sample Name:     Tristin Payne     Project Name:     Polycet Name:     Polycet Name:       Sample Name:     Tristin Payne     Project Name:     Polycet Name:     Polycet Name:       Sample Name:     Sample I.D.     Sample I.D.     Project Name:     Project Name:     Project Name:       Lab I.D.     Sample I.D.     Sample I.D.     Project Name:     Project Name:     Project Name:       Lab I.D.     Sample I.D.     Sample I.D.     Project Name:     Project Name:     Project Name:       Lab I.D.     Sample I.D.     RAA TINE NAME:<
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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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cle One) 4.42	Date: Time:	Ni Si Vision	1	f or related to the performance of services	PLEASE NOTE: Liability and Damages, Cardinal's lability and clean's exclusive rundor for any claim ansing waturer case an evan analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived and the shall be deemed waived an	SP-9 @ 13'	SP-9 @ 1'	SP-8 @ 13'	SP-8 @ 4'	SP-7 @ 13'	SP-7 @ 6'	SP-6 @ 10'	SP-6 @ 2'	SP-5 @ 13'	SP-5 @ 1'	Sample I.D.		Payne	Lea Co., NM	Kaiser State SWD	Project Owner:	08 Fax #:	State: NM	37	Ben J. Arguijo	Trinity Oilfield Services & Rentals, LLC
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todd@trimityoiiiiteidservices.com	mail results to ben@trinityoilfieldservices.com &		Add'I Fax #:	dd'' Dhone #:	licable																					ANALYSIS REQUEST

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Company Name:	Trinity Oilfield Services & Rentals. LLC	2	5							S	ŝ		BILL TO					AN	ANALYSIS		REQUEST
Project Manager:	Ben J. Arguijo								P	P.O. #:	- C - C										
Address: P.O. Box 2587	)x 2587								S	Company	an		Trinity						-		
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FOR LAB USE ONLY						MATRIX	TRD			PRESERV	SE	RV	SAMPLING	ING	TF	BT	Ch		_		
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