

ANNUAL MONITORING REPORT

Pro-Kem Lovington Yard Lea County, New Mexico Unit Letter "F" (SE/NW), Section 15, Township 16 South, Range 36 East Latitude 32.924863° North, Longitude 103.343202° West NMOCD Reference #: AP-119

Prepared For:

Pro-Kem, Inc. 2400 S. Main St. Lovington, New Mexico 88260

Prepared By:

Trinity Oilfield Services & Rentals, LLC P. O. Box 2587 Hobbs, New Mexico 88241

March 2020

Ben J. Arguijo Project Manager

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1.0 INTRODUCTION

Trinity Oilfield Services & Rentals, LLC (Trinity), is pleased to submit this *Annual Monitoring Report* on behalf of Pro-Kem, Inc. (Pro-Kem), in compliance with the New Mexico Oil Conservation Division's (NMOCD) correspondence dated September 12, 2018, requiring submittal of yearly monitoring reports. This *Annual Monitoring Report* is intended to be viewed as a complete document with text, figures, tables, and appendices.

2.0 SITE DESCRIPTION & BACKGROUND INFORMATION

Pro-Kem's Lovington Yard is located within the city limits of Lovington in Lea County, New Mexico. The legal description of the site is Unit Letter "F" (SE/NW), Section 15, Township 16 South, Range 36 East. The geographic coordinates are 32.924863° North latitude and 103.343202° West longitude. For reference, a "Site Location Map" is provided as Figure 1.

Beginning in October 1995, remediation/reclamation of an abandoned caliche pit, suspected to contain exempt oilfield waste, was conducted by an environmental consulting firm that is no longer affiliated with the site.

On March 17, 1997, a series of six (6) bore holes were advanced in the inferred footprint of the abandoned caliche pit to determine baseline conditions of the subsurface soil. Laboratory analytical results from soil samples collected during advancement of the borings indicated concentrations of total petroleum hydrocarbons (TPH) and chloride in the pit exceeded the NMOCD recommended remediation action levels in effect at the time.

On August 20, 1997, pursuant to the NMOCD-approved "Work Plan" for the pit closure, dated March 24, 1997, three (3) 2-inch-diameter monitor wells (MW-1 through MW-3) were installed at the site to assess the status of the underlying groundwater. Review of laboratory analytical results from samples collected during the subsequent groundwater investigation indicated the presence of carbon tetrachloride, barium, and fluoride concentrations in exceedance of the NMOCD and New Mexico Water Quality Control Commission (NMWQCC) regulatory standards in effect at the time. Concentrations of benzene, toluene, ethylbenzene, and total xylene (BTEX) and chloride were below NMOCD and NMWQCC standards in all submitted samples.

The NMOCD was notified of the groundwater impact via the "Installation of Monitor Wells and Investigation Results" report dated November 9, 1997.

Quarterly monitoring of the wells was conducted in 1999, followed by annual monitoring from January 2000 to June 2003. Laboratory analytical results from the quarterly and annual sampling events continued to indicate the presence of carbon tetrachloride concentrations in exceedance of the NMOCD and NWQCC regulatory standards in effect at the time. Concentrations of BTEX and chloride were below NMOCD and NMWQCC standards in all submitted samples.

A search of the NMOCD's online imaging system indicated that no additional groundwater monitoring was conducted from 2004 through 2012.

On October 17, 2012, Pro-Kem's Groundwater Discharge Permit (GW-202) was rescinded by the NMOCD, and an Abatement Plan case number (AP-119) was assigned to the site for abatement of the existing groundwater contamination.

On October 23, 2012, an abatement plan, "Stage 1 Workplan: Proposal", was submitted to the NMOCD via email. The abatement plan was approved by the NMOCD the same day.

From October 2012 through March 2018, pursuant to the abatement plan, quarterly monitoring was conducted by an environmental consulting firm that is no longer affiliated with the site.

On March 29, 2018, based on laboratory analytical results indicating a substantial decline in the carbon tetrachloride concentrations in all three (3) monitoring wells, Pro-Kem requested permission to reduce the sampling frequency from quarterly to annually and to cease sampling for BTEX. The requests were approved by the NMOCD on September 12, 2018, with the caveats that 1.) "when carbon tetrachloride levels have met requirements", BTEX and carbon tetrachloride "evaluation/sampling will be reinitiated for duration [sic] of eight quarters", and 2.) annual monitoring reports would be submitted to the NMOCD beginning in 2019.

A search of the NMOCD's online imaging system indicated that no groundwater monitoring was conducted in 2019.

On February 24, 2020, Pro-Kem requested Trinity assume remediation activities at the site.

3.0 FIELD ACTIVITIES

3.1 Groundwater Monitoring

On February 27, 2020, representatives of Trinity conducted a sampling event to assess the current state of the groundwater at the site. The groundwater monitoring event consisted of measuring the static water levels in the on-site monitor wells (MW-1 through MW-3), checking for the presence of phase-separated hydrocarbons (PSH), and purging and sampling of each well exhibiting sufficient recharge. The wells were purged using disposable Teflon bailers of a minimum of three (3) well volumes of water. Groundwater was allowed to recharge, and samples were obtained using clean, disposable Teflon bailers. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purged water was collected in a polystyrene tank and disposed of at an NMOCD-approved disposal facility.

Locations of the groundwater monitoring wells and the inferred groundwater elevations, which were constructed from measurements collected during the sampling event, are depicted in Figure 2, "Groundwater Gradient Map – 1Q2020". The groundwater elevation data indicates a general gradient of approximately 0.007 feet/foot to the south-southeast, as measured between monitor wells MW-1 and MW-3.

On February 27, 2020, the corrected groundwater elevation ranged between 3,824.61 and 3,826.32 feet above mean sea level in monitor wells MW-3 and MW-1, respectively. Cumulative groundwater elevation data from October 24, 2012, through February 27, 2020, is provided in Table 1.

4.0 LABORATORY RESULTS

Groundwater samples collected from the on-site monitor wells during the February 27, 2020, monitoring event were delivered to Cardinal Laboratories in Hobbs, New Mexico, for determination of carbon tetrachloride concentrations by Environmental Protection Agency (EPA) Method SW846-8260. Laboratory analytical results were compared to NMOCD and NMWQCC regulatory limits based

on the New Mexico groundwater standards found in Section 20.6.2.3103 of the New Mexico Administrative Code (NMAC).

Laboratory analytical results indicated carbon tetrachloride concentrations ranged from 0.005 mg/L in monitor well MW-3 to 0.021 mg/L in monitor well MW-1. The carbon tetrachloride concentrations in monitor wells MW-1 and MW-2 exceeded the NMOCD/NMWQCC regulatory standard of 0.005 mg/L.

A summary of laboratory analytical results is provided in Table 2, "Concentrations of BTEX, Carbon Tetrachloride & Chloride in Groundwater". A concentration map is provided as Figure 3, "Carbon Tetrachloride Concentration Map – 1Q2020". Laboratory analytical reports are provided in Appendix A.

5.0 PROPOSED ACTIVITIES

At some point following the March 2018 request and subsequent NMOCD approval to reduce the groundwater monitoring frequency at the site from quarterly to annually, the NMOCD/NMWQCC standard for carbon tetrachloride was changed from 0.010 mg/L to 0.005 mg/L. Laboratory analytical results from the February, 27, 2020, sampling event indicated carbon tetrachloride concentrations in monitor wells MW-2 and MW-3 have increased such that they are now at or above the current standard of 0.005 mg/L. Based on this information, Pro-Kem proposes to resume quarterly sampling of the on-site monitor wells beginning in 2Q2020 (April – June). Results of the 2020 sampling events will be reported in the *2020 Annual Monitoring Report*, which will be submitted to the NMOCD by April 1, 2021.

No BTEX constituents have been detected in groundwater samples collected from the site since the monitor wells were installed in 1997. In lieu of the mandate that "BTEX evaluation/sampling will be reinitiated for duration [sic] of eight quarters" "when carbon tetrachloride levels have met requirements" in the NMOCD correspondence dated September 12, 2018, Pro-Kem instead proposes to initiate quarterly chloroform and/or dichloromethane sampling, which are known byproducts of the degradation of carbon tetrachloride.

6.0 LIMITATIONS

Trinity Oilfield Services & Rentals, LLC, has prepared this *Annual Monitoring Report* to the best of its ability. No other warranty, expressed or implied, is made or intended. Trinity has examined and relied upon documents referenced in the report and on written or oral statements made by certain individuals. Trinity has not conducted an independent examination of the facts contained in referenced materials and statements. Trinity has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Trinity has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consulting firms. Trinity 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 Pro-Kem, Inc. Use of the information contained in this report is prohibited without the express written consent of Trinity Oilfield Services & Rentals, LLC, and/or Pro-Kem, Inc.

Figures







Tables

TABLE 1 GROUNDWATER ELEVATION DATA

PRO-KEM, INC. LOVINGTON YARD LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: AP-119



WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED GROUNDWATER ELEVATION
MW-1	10/24/2012	3,895.67	65.43	-	3,830.24
	01/29/2013	3,895.67	65.66	-	3,830.01
	05/09/2013	3,895.67	66.02	-	3,829.65
	08/16/2013	3,895.67	66.35	-	3,829.32
	12/13/2013	3,895.67	65.89	-	3,829.78
	02/26/2014	3,895.67	66.81	-	3,828.86
	05/14/2014	3,895.67	67.25	-	3,828.42
	08/07/2014	3,895.67	67.34	-	3,828.34
	11/14/2014	3,895.67	67.42	-	3,828.25
	02/26/2015	3,895.67	67.41	-	3,828.26
	05/01/2015	3,895.67	67.47	-	3,828.20
	08/07/2015	3,895.67	67.20	-	3,828.47
	11/04/2015	3,895.67	67.38	-	3,828.30
	02/04/2016	3,895.67	67.58	-	3,828.09
	05/02/2016	3,895.67	68.00	-	3,827.67
	05/20/2016				
	08/15/2016				
	12/29/2016				
	03/24/2017				
	06/27/2017				
	02/28/2018				
	02/27/2020	3,895.67	69.35	-	3,826.32
MW-2	10/24/2012	3,894.33	64.81	-	3,829.52
	01/29/2013	3,894.33	65.17	-	3,829.16
	05/09/2013	3,894.33	63.44	-	3,830.89
	08/16/2013	3,894.33	65.73	-	3,828.60
	12/13/2013	3,894.33	65.27	-	3,829.06
	02/26/2014	3,894.33	66.23	-	3,828.10
	05/14/2014	3,894.33	66.68	-	3,827.65
	08/07/2014	3,894.33	66.73	-	3,827.60
	11/14/2014	3,894.33	66.78	-	3,827.55
	02/26/2015	3,894.33	66.86	-	3,827.47
	05/01/2015	3,894.33	66.84	-	3,827.49
	08/07/2015	3,894.33	67.91	-	3,826.42
	11/04/2015	3,894.33	67.10	-	3,827.23
	02/04/2016	3,894.33	67.00	-	3,827.33
	05/02/2016	3,894.33	67.40	-	3,826.93
	05/20/2016				
	08/15/2016				
	12/29/2016				
	03/24/2017				
	06/27/2017				
	02/28/2018				
	02/27/2020	3,894.33	68.79	-	3,825.54

TABLE 1 GROUNDWATER ELEVATION DATA

PRO-KEM, INC. LOVINGTON YARD LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: AP-119



WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO WATER	DEPTH TO PRODUCT	CORRECTED GROUNDWATER ELEVATION
MW-3	10/24/2012	3,894.13	65.51	-	3,828.62
	01/29/2013	3,894.13	65.75	-	3,828.38
	05/09/2013	3,894.13	66.11	-	3,828.02
	08/16/2013	3,894.13	66.25	-	3,827.88
	12/13/2013	3,894.13	65.88	-	3,828.25
	02/26/2014	3,894.13	66.94	-	3,827.19
	05/14/2014	3,894.13	67.37	-	3,826.76
	08/07/2014	3,894.13	67.45	-	3,826.69
	11/14/2014	3,894.13	67.52	-	3,826.61
	02/26/2015	3,894.13	67.57	-	3,826.56
	05/01/2015	3,894.13	67.55	-	3,826.58
	08/07/2015	3,894.13	67.76	-	3,826.37
	11/04/2015	3,894.13	67.60	-	3,826.53
	02/04/2016	3,894.13	67.74	-	3,826.39
	05/02/2016	3,894.13	68.12	-	3,826.01
	05/20/2016				
	08/15/2016				
	12/29/2016				
	03/24/2017				
	06/27/2017				
	02/28/2018				
	02/27/2020	3,894.13	69.52	-	3,824.61

TABLE 2 CONCENTRATIONS OF BTEX, CARBON TETRACHLORIDE & CHLORIDE IN GROUNDWATER



PRO-KEM, INC. LOVINGTON YARD LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: AP-119

		METHOD: EPA SW 846-8260						4500-CL-B	
SAMPLE	SAMPLE			ETHYL-	M,P-		TOTAL	CARBON	
LOCATION	DATE	BENZENE	IOLUENE	BENZENE	XYLENES	O-XYLENES	XYLENES	TERTRACHLORIDE	CHLORIDE
		(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-1	10/24/2012	<0.001	<0.001	< 0.001	< 0.002	<0.001	< 0.003	0.180	-
	01/29/2013	< 0.001	< 0.001	< 0.001	< 0.002	<0.001	< 0.003	0.134	-
	05/09/2013	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.003	0.167	-
	08/16/2013	< 0.002	< 0.002	< 0.002	< 0.004	< 0.002	< 0.006	0.294	-
	12/13/2013	<0.0005	<0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.147	-
	02/26/2014	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.328	-
	05/14/2014	< 0.002	< 0.002	<0.002	<0.005	< 0.002	<0.008	0.272	-
	08/07/2014	< 0.002	< 0.002	< 0.002	< 0.005	< 0.002	<0.008	0.063	-
	11/14/2014	<0.0005	<0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.065	-
	02/26/2015	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.052	-
	05/01/2015	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.038	-
	08/07/2015	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.065	-
	11/04/2015	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.050	-
	02/04/2016	< 0.001	< 0.001	< 0.001	< 0.002	<0.001	< 0.003	0.039	-
	05/02/2016	<0.001	<0.001	<0.001	< 0.002	<0.001	< 0.003	0.034	-
	05/20/2016	-	-	-	-	-	-	-	232
	08/15/2016	<0.001	< 0.001	<0.001	< 0.002	<0.001	< 0.003	0.040	-
	12/29/2016	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.046	-
	03/24/2017	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.037	-
	06/27/2017	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.040	-
	02/28/2018	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.030	-
	02/27/2020	-	-	-	-	-	-	0.021	-
MW-2	10/24/2012	<0.010	<0.010	<0.010	<0.020	<0.010	<0.030	1.55	-
	01/29/2013	<0.001	< 0.001	<0.001	< 0.002	<0.001	< 0.003	1.50	-
	05/09/2013	<0.001	< 0.001	<0.001	< 0.002	<0.001	< 0.003	0.181	-
	08/16/2013	< 0.005	< 0.005	< 0.005	<0.010	< 0.005	<0.015	0.744	-
	12/13/2013	<0.0005	<0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.693	-
	02/26/2014	< 0.002	< 0.002	<0.002	<0.005	< 0.002	<0.008	0.281	-
	05/14/2014	< 0.002	< 0.002	<0.002	<0.005	< 0.002	<0.008	0.190	-
	08/07/2014	<0.002	< 0.002	<0.002	<0.005	<0.002	<0.008	0.185	-
	11/14/2014	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.614	-
	02/26/2015	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.004	-
	05/01/2015	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.001	-
	08/07/2015	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.001	-
	11/04/2015	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.001	-
	02/04/2016	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.001	-
	05/02/2016	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.001	-
	05/20/2016	-	-	-	-	-	-	-	64.0
-	08/15/2016	<0.001	<0.001	<0.001	<0.002	<0.001	<0.003	<0.001	-
-	12/29/2016	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.0007	-
	03/24/2017	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.001	-
	06/27/2017	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.0006	-
	02/28/2018	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.002	0.0008	-
	02/27/2020	-	-	-	-	-	-	0.015	-
		_	-	-		-	-		
MW-3	10/24/2012	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.003	0.034	-
	01/29/2013	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.003	0.020	-
	05/09/2013	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.003	0.012	-
	08/16/2013	< 0.001	< 0.001	< 0.001	<0.002	< 0.001	< 0.003	0.012	-
	12/13/2013	<0.0005	<0.0005	<0.0005	<0.001	< 0.0005	< 0.002	0.009	-
	02/26/2014	<0.0005	<0.0005	<0.0005	< 0.001	< 0.0005	< 0.002	0.009	-
	05/14/2014	<0.0005	<0.0005	<0.0005	< 0.001	< 0.0005	< 0.002	0.006	-
	08/07/2014	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	< 0.002	0.005	-

- = Not Analyzed

Concentrations in BOLD meet or exceed the NMOCD/NMWQCC regulatory standard

TABLE 2 CONCENTRATIONS OF BTEX, CARBON TETRACHLORIDE & CHLORIDE IN GROUNDWATER



PRO-KEM, INC. LOVINGTON YARD LEA COUNTY, NEW MEXICO NMOCD REFERENCE #: AP-119

				ME	ETHOD: EPA	A SW 846-826	0		4500-CL-B
SAMPLE LOCATION	SAMPLE DATE	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M,P- XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	CARBON TERTRACHLORIDE (mg/L)	CHLORIDE (mg/L)
MW-3	11/14/2014	<0.0005	<0.0005	<0.0005	<0.001	< 0.0005	<0.002	0.006	-
	02/26/2015	<0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.005	-
	05/01/2015	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.005	-
	08/07/2015	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.006	-
	11/04/2015	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	<0.002	0.005	-
	02/04/2016	< 0.001	< 0.001	<0.001	<0.002	<0.001	< 0.003	0.004	-
	05/02/2016	<0.001	<0.001	<0.001	<0.002	<0.001	< 0.003	0.004	-
	05/20/2016	-	-	-	-	-	-	-	44.0
	08/15/2016	< 0.001	< 0.001	<0.001	<0.002	<0.001	< 0.003	0.004	-
	12/29/2016	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.004	-
	03/24/2017	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.004	-
	06/27/2017	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.003	-
	02/28/2018	< 0.0005	< 0.0005	< 0.0005	<0.001	< 0.0005	< 0.002	0.003	-
	02/27/2020	-	-	-	-	-	-	0.005	-
WQCC Stand	Jard	0.005	1.00	0.70	TOTAL)	YLENES	0.62	0.005	250

Appendices

Appendix A

Laboratory Analytical Reports



March 03, 2020

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

RE: LOVINGTON YARD AP - 119

Enclosed are the results of analyses for samples received by the laboratory on 02/27/20 13:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/ga/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keine

Celey D. Keene Lab Director/Quality Manager



Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC BEN ARGUIJO P. O. BOX 2587 HOBBS NM, 88241 Fax To: NONE

Received:	02/27/2020	Sampling Date:	02/27/2020
Reported:	03/03/2020	Sampling Type:	Water
Project Name:	LOVINGTON YARD AP - 119	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	PRO - KEM - LEA CO NM		

Sample ID: MW - 1 (H000636-01)

Volatile 8260	mg/L		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Carbon tetrachloride	0.021	0.0005	03/01/2020	ND	0.022	110	0.0200	2.47	
Surrogate: Dibromofluoromethane	106 %	88.8-11	3						
Surrogate: Toluene-d8	102 %	83.1-11	9						
Surrogate: 4-Bromofluorobenzene	94.8 %	84.2-10	7						

Sample ID: MW - 2 (H000636-02)

Volatile 8260	mg/L		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Carbon tetrachloride	0.015	0.0005	03/01/2020	ND	0.022	110	0.0200	2.47	
Surrogate: Dibromofluoromethane	109 %	88.8-11.	3						
Surrogate: Toluene-d8	103 %	83.1-11	9						
Surrogate: 4-Bromofluorobenzene	93.9 %	84.2-10	7						

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*=Accredited Analyte

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Analytical Results For:

TRINITY OILFIELD SERVICES & RENTALS, LLC BEN ARGUIJO P. O. BOX 2587 HOBBS NM, 88241 Fax To: NONE

Received:	02/27/2020	Sampling Date:	02/27/2020
Reported:	03/03/2020	Sampling Type:	Water
Project Name:	LOVINGTON YARD AP - 119	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	PRO - KEM - LEA CO NM		

Sample ID: MW - 3 (H000636-03)

Volatile 8260	mg/L		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Carbon tetrachloride	0.005	0.0005	03/01/2020	ND	0.022	110	0.0200	2.47	
Surrogate: Dibromofluoromethane	110 %	88.8-11	3						
Surrogate: Toluene-d8	102 %	83.1-11	9						
Surrogate: 4-Bromofluorobenzene	94.2 %	6 84.2-10	7						

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

- ND
 Analyte NOT DETECTED at or above the reporting limit

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

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Celey D. Keene, Lab Director/Quality Manager

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

R

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

(575) 393-2326 FAX (575) 393-2476		8
Company Name: Trinity Oilfield Services & Bernyls, LLC	BILL TO	ANALYSIS REQUEST
Project Manager: Ben J. Arguilo	P.O. #:	
Address: 2.0. Box 2587	Company: Trinity	70
City: Hobbs State: Zip: 88 241	Attn:	
Phone #: (575) 390 - 7208 Fax #:	Address:	
Project #: Project Owner: 90-Ken	City:	
Project Name: Lovington yard AP-119	State: Zip:	
Project Location: Lea co., NM	Phone #:	
Sampler Name: Daniel Rasler	Fax #:	*
FOR LAB USE ONLY MATRIX	PRESERV. SAMPLING	ta la
Tap I'D Samble I'D # CONTAINERS # CONTAINERS # Soll. Soll.	ACIDIGE OTHER: ACIDIBASE: HU ICE / COOL OTHER : ATTA	
1 MW-1 3	X X 2/27/20 1210	X
ZMW-2 3	X X 2/27/20 115	X
3 MW-3 3	X X 2/27/26 1030	X

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Relinguished By:	Date: 2-27-20 Time: 1.330	Jaluara D	Alda Ken	Verbal Result:	
Relinquished By:	Date: Re Time:	eceived By:	,	REMARKS:	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C 5. Corrected Temp. °C	4 Sample Condition Cool Intact Pres Pres No No	CHECKED BY: (Initials)	Turnaround Time: Standard Rush Image: Standard Rush Bacteria (only) S Thermometer ID #97 Correction Factor + 0.4 °C Image: Standard Rush Image: Standard Rush	Sample Condition Observed Temp. °C Corrected Temp. °C

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com