
Remediation Closure Report

July 22, 2019

**Oilfield Water Logistics SWD Operating, LLC Produced Water Release
Bert Madera Saltwater Disposal Facility
Unit Letter M and N, Section 15, T24S, R34E,
Lea County, New Mexico Case No. 1RP-5498**

Prepared For:

Mr. Phillip Sanders
Oilfield Water Logistics SWD Operating, LLC
8201 Preston Road, Suite 520
Dallas, Texas 75225

New Mexico Energy Minerals and Natural Resources Department
Oil Conservation Division
Mr. Dylan Rose-Coss
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Prepared By:



500 Moseley Road
Cross Roads, Texas 76227
(940) 387-0805 Phone
(940) 387-0830 Fax



500 Moseley Road | Cross Roads, Texas 76227 | (940) 387-0805

July 22, 2019

Mr. Phillip Sanders
Oilfield Water Logistics SWD Operating, LLC
8201 Preston Road, Suite 520
Dallas, Texas 75225

**RE: Remediation Closure Report: Oilfield Water Logistics (OWL) SWD Operating, LLC,
Bert Madera Saltwater Disposal (SWD) Facility, Unit Letter M and N, Section 15,
T24S, R34E, Lea County, New Mexico – Case No. 1RP-5498**

Dear Mr. Sanders:

KJ Environmental Mgt., Inc. (KJE) is pleased to submit this Delineation and Remediation Report for the produced water release located at the Bert Madera SWD facility in Lea County, New Mexico. This report discusses background information, assessment purpose and scope of work, execution of work, and documents the corresponding results.

We appreciate your selection of KJE for this project and look forward to assisting you further on other projects. If you have any questions, please do not hesitate to contact either of the undersigned at 940-387-0805. Thank you for the opportunity to provide professional environmental consulting services. It has been a pleasure working with you.

Best Regards,

William B. Soderstrom
Environmental Project Manager

Dena M. Vandenberg, REM, LEED AP
Director of Environmental Services

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Executive Summary

KJ Environmental Mgt., Inc. (KJE), was retained by Oilfield Water Logistics (OWL) SWD Operating, LLC to complete certain delineation and remediation activities for a produced water release at the Bert Madera SWD facility in Lea County, New Mexico.

On May 11, 2019, KJE was notified by Mr. Phillip Sanders, Safety Director with OWL SWD Operating, LLC, regarding a release of produced water at the above referenced location. Following the New Mexico Oil Conservation Division (NMOCD), part of the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) notification and approval, the release was assigned a remediation case number, 1RP-5498, and delineation and remediation activities commenced.

On June 13, 2019, KJE oversaw excavation activities, performed by A&R Construction, to a total depth of two (2) feet bgs. In addition, KJE collected six (6) confirmation soil samples from the floor of the excavation (CS-01-F 2' through CS-06-F 2') and two (2) confirmation soil samples from the sidewalls (CS-07-SW 1' and CS-08-SW 1') to delineate the release horizontally and vertically. However, it should be noted the excavation is abutted to the northwest and south by two (2) separate OWL pipelines. Pursuant to OWL guidelines, a minimum 10-foot setback, on both sides of the pipeline, is required to maintain structural integrity and safety concerns.

Based on laboratory results, soil sample CS-02-F 2' was detected at a chloride concentration of 2,650 mg/kg; which is above the New Mexico Administrative Code (NMAC) closure criteria of 600 mg/kg. The remaining soil samples were either below the NMAC closure criteria or below laboratory reporting limits (non-detect).

On June 18, 2019, KJE returned to the Bert Madera SWD facility in order to complete remediation activities pursuant to NMOCD regulations. KJE oversaw additional excavation activities performed by A&R Construction to an area of 10 feet in diameter and a total depth of four (4) feet bgs surrounding CS-02-F 2'. Upon completion of excavation activities, KJE collected one (1) soil sample (BM-02 4') and submitted laboratory analysis of chlorides.

Based on analytical results, soil sample BM-02 4' was detected at a chloride concentration of 1,240 mg/kg. However, based on the known depth to groundwater within 0.5 miles of the site (>100 feet), the NMAC closure criteria for chloride is 20,000 mg/kg.

Based on previous remediation activities, required setbacks from OWL pipelines, the presence of an active O&G well (Marathon Oil), confirmation sample analytical results, and known depth to groundwater (>100 feet bgs), KJE requests NMOCD approval to begin backfilling activities of the open excavation and the remaining impacted soil above or within the 10-foot setback be deferred to a later date until equipment and/or pipelines are removed, plugged, or abandoned; whichever occurs first.



1.0 Introduction

On May 11, 2019, KJE was provided notification by Mr. Phillip Sanders, Safety Director with OWL SWD Operating, LLC, regarding a release of produced water at the Bert Madera SWD facility located approximately 18 miles northwest of Jal, New Mexico. According to OWL personnel, the de-sander caught on fire resulting in an explosion and the release of produced water. KJE notified the NMOCD of the spill on May 11, 2019, and it was determined approximately 40 barrels (BBLs) of produced water was released during the spill event. KJE submitted Form C-141 to the NMOCD on May 17, 2019 for review. A response was received from Mr. Dylan Rose-Coss, with the NMOCD, indicating the incident was assigned remediation case number 1RP-5498. Based on conversations with Mr. James Amos, with the Bureau of Land Management (BLM), the Bert Madera SWD facility is privately owned and no federal ownership, either surface or subsurface, is present on-site. The general view of the spill is illustrated in Appendix A on Figure 1.

Per the release of New Mexico Administrative Code (NMAC) 19.15.29 on August 8, 2018, KJE arrived on-site May 13, 2019, to begin remediation and closure procedures. The NMOCD approved C-141 form is located in Appendix F of this report.

2.0 Environmental Assessment Activities

2.1 Delineation Activities

On May 13, 2019, KJE personnel were on-site to visually assess and collect Global Positioning System (GPS) coordinates of the extent of the produced water release from the Bert Madera SWD facility. Additionally, KJE personnel did not complete a separate delineation prior to remediation activities. Photo documentation of field activities is included in Appendix C.

2.2 Remediation Activities

On June 13, 2019, KJE oversaw excavation activities, performed by A&R Construction, to a total depth of two (2) feet bgs. In addition, KJE collected six (6) confirmation soil samples from the floor of the excavation (CS-01-F 2' through CS-06-F 2') and two (2) confirmation soil samples from the sidewalls (CS-07-SW 1' and CS-08-SW 1') to confirm the effectiveness of remedial activities. However, it should be noted the excavation is abutted to the northwest and south by two (2) separate OWL saltwater pipelines. Pursuant to OWL guidelines, a minimum 10-foot setback, on both sides of the pipeline, is required to maintain structural integrity and address safety concerns. Therefore, KJE coordinated with OWL and A&R Construction to adhere to specific guidelines and visually marked the boundaries of the excavation. Subsequent to excavation activities, soil samples were collected and transferred to Xenco Laboratories (a third-party, independent, and licensed environmental laboratory in Midland, Texas) and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) via Method 8260, extended range total petroleum hydrocarbons (TPH) via Method 8015 modified, and chlorides via Method EPA 300.



Excavated soil was temporarily stockpiled east of the excavation and transported to Sundance Landfill in Eunice, New Mexico, by Tiger of the North Excavation. The waste manifests are included in Appendix D.

Based on laboratory results, soil sample CS-02-F 2' was detected at a chloride concentration of 2,650 mg/kg; which is above the NMOCD closure criteria of 600 mg/kg (if groundwater is <50 feet bgs). The remaining soil samples were either below the NMOCD closure criteria or non-detect for chlorides, BTEX and extended range TPH.

On June 18, 2019, KJE returned to the Bert Madera SWD facility in order to complete remediation activities pursuant to NMOCD regulations. KJE oversaw additional excavation activities performed by A&R Construction to an area of 10 feet in diameter and a total depth of four (4) feet bgs surrounding CS-02-F 2'. Upon completion of excavation activities, KJE collected one (1) soil sample (BM-02 4') and submitted to Xenco Laboratories in Midland, Texas, for laboratory analysis of chlorides via Method EPA 300. The laboratory analytical reports are included in Appendix E of this report.

Based on analytical results, soil sample BM-02 4' was detected at a chloride concentration of 1,240 mg/kg. However, based on the known depth to groundwater within 0.5 miles of the site (>100 feet), the NMAC closure criteria for chloride is 20,000 mg/kg. Therefore, KJE will request NMOCD approval to begin backfilling activities of the open excavation and the remaining impacted soil above or within the 10-foot setback be deferred to a later date.

2.3 Deviations from the Scope

Based on NMAC 19.15.29, KJE performed delineation and remediation activities to expedite the closure process. KJE collected soil samples from the floor and sidewall of the excavation to delineate vertically and horizontally. However, it should be noted the excavation is abutted to the northwest and south by two (2) separate OWL pipelines. Pursuant to OWL guidelines, a minimum 10-foot setback, on both sides of the pipeline, is required to maintain structural integrity and safety concerns. Therefore, KJE coordinated with OWL and A&R Construction to adhere to specific guidelines and visually marked the boundaries of the excavation. Based on analytical results, chloride concentrations were above 600 mg/kg and soil was excavated to a total depth of four (4) feet bgs. The site plan and sample location and soil excavation map are included as Figure 1 and Figure 2 in Appendix A, respectively.

3.0 Soil/Groundwater Sample Collection/Handling Procedures

3.1 Soil Samples

Soil samples were collected based on field indicators or depth of potential impact as noted above, and all samples were collected in four-ounce laboratory supplied glass containers for laboratory



analysis. The collected soil samples were placed in laboratory-supplied containers, labeled, placed in an insulated container with ice, providing a 4°C environment for sufficient preservation until delivery to Xenco Laboratories accompanied by completed chain-of-custody. The sample collection and handling activities were conducted in accordance with USEPA Standard Operating Procedures and strict chain-of-custody protocols.

KJE collected one (1) duplicate sample for quality assurance/quality control (QA/QC) purposes. KJE requested the soil sample be put on hold at the laboratory pending initial analytical results.

The sample results were compared to the NMOCD closure applicable criteria, as detailed below and in Appendix B.

3.2 Groundwater Samples

Groundwater was not encountered during excavation activities, nor was it anticipated to be encountered. According to records obtained from the New Mexico Office of the State Engineer's Office Hydrology Bureau records, the water well located closest to the release area is located approximately 0.45 miles to the southwest of the site in Section 21, Township 24S, Range 34E, labeled under POD number C03943, and has a recorded total depth of 610 feet bgs. Based on review of the New Mexico Office of the State Engineer online geographic information systems (GIS) website, the depth to water was reported at 431 feet bgs in 2017. As such, and based on analytical data, which explored soil borings to depths five (5) feet below the known areas of impact, potential groundwater impact is not anticipated. Based on the absence of shallow groundwater and lack as a known source of drinking water in the vicinity of the release source, there is no complete exposure pathway to shallow groundwater. No use of groundwater is expected following proposed site remediation. In addition, site remediation activities did not encounter groundwater due to the known depth of the groundwater at the site (>100 feet bgs). As such, KJE does not recommend further action regarding potential groundwater impact. A copy of the New Mexico well log is included in Appendix D.

4.0 Summary of Analytical Results

4.1 NMOCD Closure Criteria

The NMOCD required delineation of BTEX, extended range TPH, and chlorides for the release area. Published values for BTEX and TPH were obtained from the NMOCD document "New Mexico Administrative Code Title 19, Natural Resources and Wildlife, Chapter 15, Oil and Gas, Part 29, Releases, issued August 14, 2018". Horizontal and vertical delineation concentrations were determined to be 10 mg/kg benzene, 50 mg/kg BTEX, 100 mg/kg TPH and 600 mg/kg chloride based on the potential of groundwater to be located within 50 feet of the ground surface. See Figure 1 in Appendix A for soil sample locations and areas of exceedances.



4.2 Soil Analytical Results

Analytical soil data did not identify concentrations of BTEX or TPH above the laboratory method detection limit. However, analytical results identified chlorides at a concentration of 2,650 mg/kg in soil sample CS-02-F 2' and 1,240 mg/kg in soil sample BM-02 4'; which is above the NMOCD closure criteria of 600 mg/kg (if groundwater is <50 feet bgs). However, based on the known depth to groundwater within 0.5 miles of the site (>100 feet), the NMAC closure criteria for chloride is 20,000 mg/kg.

Additionally, based on a review of waste manifests received from OWL, it was determined approximately 303 yds³ of impacted soil was excavated and disposed of at Sundance Landfill in Eunice, New Mexico.

Analytical summary tables of the results are included in Appendix B, copies of the laboratory analytical reports with chain-of-custody forms are included in Appendix E, and copies of the waste manifests are included in Appendix E.

5.0 Photographs

Photo documentation of the excavation and sampling activities are included in Appendix C.

6.0 Conclusions/Recommendations

Based on laboratory analytical data, chloride was reported at concentrations above applicable NMOCD closure criteria in confirmation samples CS-02-F 2' and BM-02 4'. While some areas of impact remain within the pipeline easements and setback areas, KJE does not believe there to be an impact to wildlife, surface water, groundwater (>100 feet bgs), or imminent risk to human health. However, deferral areas are anticipated to remain within the pipeline easements and setback areas. Additionally, remediation activities can be continued once equipment and/or pipelines are removed, plugged, or abandoned; whichever occurs first.

Based on previous remediation activities, required setbacks from OWL pipelines, the presence of an active O&G well (Marathon Oil), confirmation sample analytical results, and known depth to groundwater (>100 feet bgs), KJE requests NMOCD approval to begin backfilling activities of the open excavation and the remaining impacted soil above or within the 10-foot setback be deferred to a later date until equipment and/or pipelines are removed, plugged, or abandoned; whichever occurs first.



If we can be of further assistance, please do not hesitate to contact us at 940-387-0805. Thank you for the opportunity to provide professional environmental consulting services. It has been a pleasure working with you.

7.0 Qualifications of Environmental Professional

This is to certify the remediation activities completed at the site located on the Bert Madera SWD facility in Lea County, New Mexico; was performed following EPA, NMOCD, and industry-approved standards/protocols. This work was conducted between May 13 and June 18, 2019, for OWL SWD Operating, LLC, and all field activities were completed under the supervision of Mr. William B. Soderstrom. Mr. Soderstrom's credentials are included in Appendix H.

8.0 Signature of Environmental Professional

A handwritten signature in blue ink that reads "William B. Soderstrom".

07/22/2019

William B. Soderstrom
Environmental Professional
Environmental Project Manager


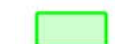


Date

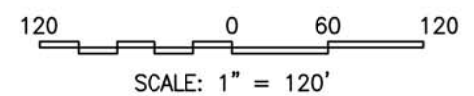
APPENDIX A

Figures



LEGEND

-  SWD BOUNDARY (APPROXIMATE)
-  MARATHON OIL WELL PAD (APPROXIMATE)
-  PERIMETER OF EXCAVATION
-  OWL PIPELINE (WITH 10' SETBACK)



NOTES:
1. GOOGLE EARTH MAPS WAS USED AS AN UNDERLAY IMAGE FOR THIS MAP. (<http://www.google.com/earth>)

REVISIONS:

THIS DRAWING IS TO
BE USED FOR PERMIT
INFORMATION
PURPOSES ONLY.

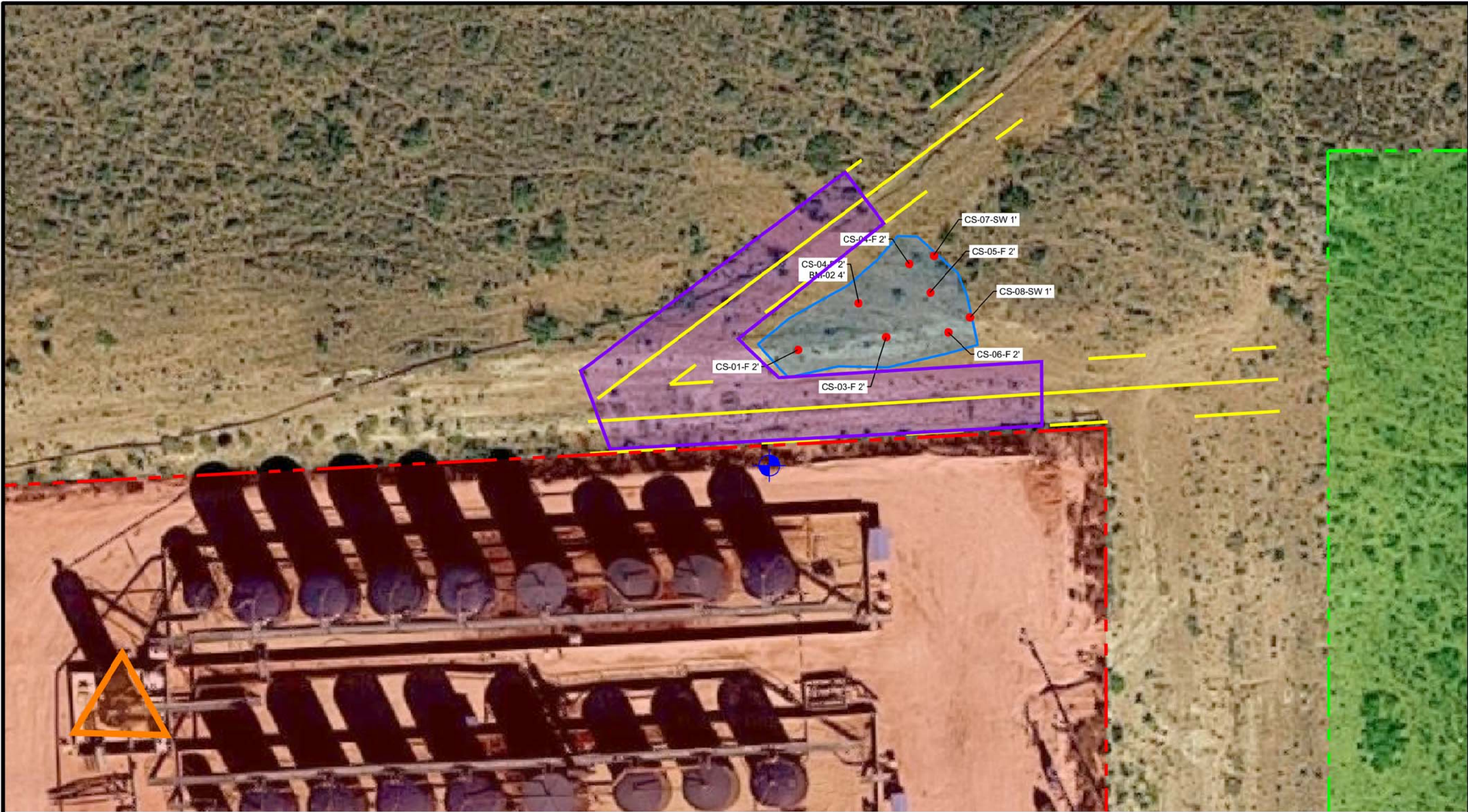
500 Moseley Road
Cross Roads, TX 76227
Phone (940) 387-0805
Fax (940) 387-0830



SITE PLAN
OILFIELD WATER LOGISTICS SWD OPERATING, LLC
BERT MADERA SWD
IRP-5498
N 32.21218, W -103.46187
LEA COUNTY NEW MEXICO

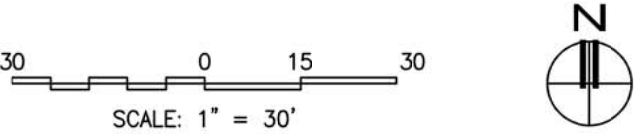
DATE:
7/10/2019

FIGURE:
1



LEGEND

- | | | | |
|--|-------------------------------------|--|---------------------------------|
| | SWD BOUNDARY (APPROXIMATE) | | PROPOSED DEFERRAL AREA |
| | MARATHON OIL WELL PAD (APPROXIMATE) | | CONFIRMATION SOIL SAMPLES |
| | PERIMETER OF EXCAVATION | | SPILL ENTRANCE |
| | RELEASE POINT | | OWL PIPELINE (WITH 10' SETBACK) |



NOTES:
1. GOOGLE EARTH MAPS WAS USED AS AN UNDERLAY IMAGE FOR THIS MAP. (<http://www.google.com/earth>)

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500 Moseley Road
Cross Roads, TX 76227
Phone (940) 387-0805
Fax (940) 387-0830



SAMPLE LOCATION & SOIL EXCAVATION MAP
OILFIELD WATER LOGISTICS SWD OPERATING, LLC
BERT MADERA SWD
IRP-5498
N 32.21218, W -103.46187
LEA COUNTY NEW MEXICO

DATE:
7/10/2019

FIGURE:
2

APPENDIX B

Analytical Data



Table 1: Soil Analytical Data
Bert Madera SWD
32.21212184, -103.46117581
Jal, Lea County, New Mexico

Laboratory Sample Designation		Units	NMAC Closure Criteria ¹	627723-001	627723-002	628179-001	627723-003	627723-004	627723-005	627723-006	627723-007	627723-008
Sample Designation				CS-01-F	CS-02-F	BM-02	CS-03-F	CS-04-F	CS-05-F	CS-06-F	CS-07-SW	CS-08-SW
Date Collected				6/13/2019	6/13/2019	6/18/2019	6/13/2019	6/13/2019	6/13/2019	6/13/2019	6/13/2019	6/13/2019
Sample Depth				2'	2'	4'	2'	2'	2'	2'	1'	1'
Method	Analyte											
8015	TPH ²	mg/kg	100	<15.6	<15.7	--	<15.7	<15.7	<16.2	<15.8	<16.2	<15.8
8260	BENZENE	mg/kg	10	<0.00104	<0.00106	--	<0.00105	<0.00104	<0.00108	<0.00106	<0.00107	<0.00105
	ETHYLBENZENE	mg/kg	--	<0.00104	<0.00106	--	<0.00105	<0.00104	<0.00108	<0.00106	<0.00107	<0.00105
	TOLUENE	mg/kg	--	<0.00104	<0.00106	--	<0.00105	<0.00104	<0.00108	<0.00106	<0.00107	<0.00105
	XYLENE	mg/kg	--	<0.00104	<0.00106	--	<0.00105	<0.00104	<0.00108	<0.00106	<0.00107	<0.00105
	TOTAL BTEX ³	mg/kg	50	<0.00104	<0.00106	--	<0.00105	<0.00104	<0.00108	<0.00106	<0.00107	<0.00105
300	CHLORIDE	mg/kg	600	300	2,650	1,240	<5.26	<5.22	<5.46	<5.22	<5.41	<5.33

Notes:

1) New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 29, Table 1 Closure Criteria for Soils Impacted by a Release, issued August 8, 2018

2) TPH = Total petroleum hydrocarbons

3) BTEX = Benzene, toluene, ethylbenzene, and xylenes

mg/kg = milligrams per kilogram

Bold = Analyte was detected at concentrations above laboratory sample detection limits

Highlighted = Analyte was detected at concentrations above NMAC Closure Criteria

"--" = Not applicable



Table 2: GPS Coordinantes
Bert Madera SWD
32.21212184. -103.46117581
Jal, Lea County, New Mexico

Location	Description	Latitude	Longitude
CS1	Confirmation Sample	32.21229	-103.46185
CS2	Confirmation Sample	32.21230	-103.46180
CS3	Confirmation Sample	32.21228	-103.46176
CS4	Confirmation Sample	32.21235	-103.46171
CS5	Confirmation Sample	32.21232	-103.46171
CS6	Confirmation Sample	32.21229	-103.46171
CS7	Confirmation Sample	32.21236	-103.46167
CS8	Confirmation Sample	32.21230	-103.46166
P1M	Perimeter of excavation	32.21226	-103.46185
P2M	Perimeter of excavation	32.21227	-103.46180
P3M	Perimeter of excavation	32.21227	-103.46175
P4M	Perimeter of excavation	32.21228	-103.46169
P5M	Perimeter of excavation	32.21229	-103.46166
P6M	Perimeter of excavation	32.21233	-103.46167
P7M	Perimeter of excavation	32.21235	-103.46168
P8M	Perimeter of excavation	32.21238	-103.46172
P9M	Perimeter of excavation	32.21238	-103.46174
P10M	Perimeter of excavation	32.21236	-103.46176
P11M	Perimeter of excavation	32.21234	-103.46179
P12M	Perimeter of excavation	32.21231	-103.46185
P13M	Perimeter of excavation	32.21229	-103.46188
P14M	Perimeter of excavation	32.21227	-103.46186
PL1	Pipeline	32.21226	-103.46136
PL2	Pipeline	32.21226	-103.46149
PL3	Pipeline	32.21225	-103.46159
PL4	Pipeline	32.21225	-103.46166
PL5	Pipeline	32.21224	-103.46174
PL6	Pipeline	32.21223	-103.46185
PL7	Pipeline	32.21223	-103.46195
PL8	Pipeline	32.21222	-103.46205
PL9	Pipeline	32.21223	-103.46216
PL10	Pipeline	32.21250	-103.46164
PL11	Pipeline	32.21245	-103.46172
PL12	Pipeline	32.21240	-103.46178
PL13	Pipeline	32.21235	-103.46186
PL14	Pipeline	32.21230	-103.46195
PL15	Pipeline	32.21224	-103.46204
SE	Spill Entrance (from Bert Madera SWD)	32.21218	-103.46187

Notes:

GPS coordinates were collected on June 13, 2019, by Mr. William B. Soderstrom utilizing Garmin GPSMAP 64sc unit ID 3951309141.

APPENDIX C

Deferral Request



July 22, 2019

New Mexico, Energy Minerals and Natural Resources (EMNRD)
Oil Conservation Division (OCD)
Mr. Dylan Rose-Coss
1220 South Francis Street
Santa Fe, New Mexico 87505

***Re: Remediation Deferral Due to Possible Reduction of Pipeline Structural Integrity
Bert Madera SWD, Unit Letter N and M, Section 15, T24S, R34E
Lea County, New Mexico – Case No. 1RP – 5498***

Dear Mr. Rose-Coss:

Oilfield Water Logistics (OWL) SWD Operating, LLC and KJE respectfully requests deferral of the OCD requirements to complete further investigations and remediation for Case No. 1RP-5498. The impacted soil is adjacent to, or below one of two OWL produced water pipelines and within the respective setback area. The proposed deferral area is included on Figure 2 in Appendix A. OWL and KJE request that remediation be delayed until the pipelines are removed, plugged, or abandoned; whichever occurs first, to prevent possible damage to, or reduction of the pipelines structural integrity which could cause additional spills or releases. When the pipelines are removed, plugged, or abandoned in the future, OWL will contact NMOCD to discuss required investigations, or remediation which may or may not be required at that time.

If we can be of further assistance, please do not hesitate to contact us at 940-387-0805. We look forward to receiving comments in order to proceed with the project and closure.

Sincerely,

A handwritten signature in blue ink, reading 'William B. Soderstrom'.

William B. Soderstrom
Environmental Project Manager

A handwritten signature in blue ink, reading 'Dena M. Vandenberg'.

Dena M. Vandenberg, REM, LEED AP
Director of Environmental Services

APPENDIX D

Photographic Documentation

Site Photographs



1. View of Bert Madera SWD facility, facing southwest.



2. View of desiccated soil in low depression north of SWD facility, facing south.



3. View of desiccated soil above OWL saltwater pipeline, facing east.



4. View of stockpiled soil and caliche during initial excavation activities followed by Marathon Oil well pad, facing east.



5. View of stockpiled soil and caliche during initial excavation activities, facing east.



6. View of over-excavation and caliche on CS-02-F 2' and BM-02 4', facing east.



APPENDIX E
Waste Manifests



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513582

29176

LEASE OPERATOR/SHIPPER/COMPANY:

OWL

DATE: 6-13-19

LEASE NAME:

Madura Sun

TIME: 12:57 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 867

TRANSPORTER COMPANY:

TIGER OF THE NORTH

PHONE:

GENERATOR COMPANY MAN'S NAME:

Jose Cerrillo

PHONE:

CHARGE TO:

OWL

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

solids

☒ Contaminated Soil

☐ Jet Out

Description:

CD

VOLUME OF MATERIAL

☐ BBLs.

☒ YARD

12

☐

RRC or API #

C-133#

LP9

STICKERS, CODES, NUMBERS, ETC.

PO# 4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

[Signature]

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513606

LEASE OPERATOR/SHIPPER/COMPANY: owl

DATE: 6-13-19

LEASE NAME: Midland Sub

TIME: 3:21 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 867

TRANSPORTER COMPANY: Tiger of the North

PHONE:

GENERATOR COMPANY MAN'S NAME: Jose Cervillo

PHONE:

CHARGE TO: owl

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description: ob

VOLUME OF MATERIAL

☐ BBLS.

☒ YARD

12

☐

RRC or API #

C-133#

Lea.

STICKERS, CODES, NUMBERS, ETC.

PO# 4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

ALSO AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, TRANSPORTER REPRESENTS AND WARRANTS THAT ONLY THE MATERIAL DELIVERED BY OPERATOR/SHIPPER TO TRANSPORTER IS NOW DELIVERED BY TRANSPORTER TO SUNDANCE SERVICES, INC.'S FACILITY FOR DISPOSAL.

THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513721

29078

LEASE OPERATOR/SHIPPER/COMPANY: <u>owl</u>	DATE: <u>6-14-19</u>
LEASE NAME: <u>madera sub</u>	TIME: <u>1:33</u> AM/PM
RIG NAME & NUMBER:	VEHICLE NO: <u>867</u>
TRANSPORTER COMPANY: <u>Tiger of the North</u>	PHONE:
GENERATOR COMPANY MAN'S NAME: <u>Jose Cervillo</u>	PHONE:

CHARGE TO: owl

TYPE OF MATERIAL

☐ Tank Bottoms ☐ Drilling Fluids ☐ Rinsate ☐ BS&W Content:
☐ Solids ☒ Contaminated Soil ☐ Jet Out

Description: oil

VOLUME OF MATERIAL

☐ BBLS. ☒ YARD 12

RRC or API #

C-133# CPA

STICKERS, CODES, NUMBERS, ETC.

4227

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DRIVER: Carlos Mejia
(SIGNATURE)

FACILITY REPRESENTATIVE: [Signature]
(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513698

LEASE OPERATOR/SHIPPER/COMPANY: owl

DATE: 6-14-19

LEASE NAME: Modera Sund

TIME: 11:00 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 867

TRANSPORTER COMPANY: Tiger Oil the North

PHONE:

GENERATOR COMPANY MAN'S NAME: Jose Cervillo

PHONE:

CHARGE TO: owl

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description: oil

VOLUME OF MATERIAL

☐ BBLs. _____:

☒ YARD 12 _____:

☐ _____:

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO #
41227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: Chavez

(SIGNATURE)

FACILITY REPRESENTATIVE: Ky

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513595

LEASE OPERATOR/SHIPPER/COMPANY:

DATE: 6-13-19

LEASE NAME:

TIME: 2:38 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 02

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☐ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs. :

☐ YARD 12 :

☐ :

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO#: 4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513719

LEASE OPERATOR/SHIPPER/COMPANY:

DATE: 6-14-19

LEASE NAME:

TIME: 1:30 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 03

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☐ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs.:

☒ YARD 12:

☐:

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

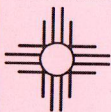
FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513703

LEASE OPERATOR/SHIPPER/COMPANY:

DATE: 6-14-19

LEASE NAME:

TIME: 11:20 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 03

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☐ Contaminated Soil

☐ Jet Out

Description: _____

VOLUME OF MATERIAL

☐ BBLs. _____ :

☐ YARD _____ :

☐ _____

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO #
4327

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513685

LEASE OPERATOR/SHIPPER/COMPANY:	DATE: 6-11-19
LEASE NAME:	TIME: 8:33 AM/PM
RIG NAME & NUMBER:	VEHICLE NO: 03
TRANSPORTER COMPANY:	PHONE:
GENERATOR COMPANY MAN'S NAME:	PHONE:

CHARGE TO:

TYPE OF MATERIAL ☐ Tank Bottoms ☐ Drilling Fluids ☐ Rinsate ☐ BS&W Content:
☐ Solids ☒ Contaminated Soil ☐ Jet Out

Description: _____

VOLUME OF MATERIAL ☐ BBLs. _____ : ☐ YARD 12 : ☐ _____

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO #
4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: 3-8

(SIGNATURE)

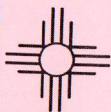
FACILITY REPRESENTATIVE: b

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513686

LEASE OPERATOR/SHIPPER/COMPANY:

DATE:

LEASE NAME:

TIME: 8:37 AM/PM

RIG NAME & NUMBER:

VEHICLE NO:

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs. _____ :

☐ YARD _____ :

☐ _____

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO #
4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 510203

LEASE OPERATOR/SHIPPER/COMPANY:

DATE:

LEASE NAME:

TIME: AM/PM

RIG NAME & NUMBER:

VEHICLE NO:

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☐ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs.:

☐ YARD.:

☐:

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

4160

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 510253

28310

LEASE OPERATOR/SHIPPER/COMPANY:

DATE:

LEASE NAME:

TIME:

AM/PM

RIG NAME & NUMBER:

VEHICLE NO:

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☐ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs.

☐ YARD

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

4100

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

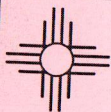
FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No.

510260

28388

LEASE OPERATOR/SHIPPER/COMPANY:

LEASE NAME:

RIG NAME & NUMBER:

TRANSPORTER COMPANY:

GENERATOR COMPANY MAN'S NAME:

DATE:

TIME:

AM/PM

VEHICLE NO:

PHONE:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

BBLs.

☒ YARD

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

4100

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

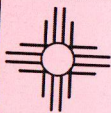
FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No.

510215

28387

LEASE OPERATOR/SHIPPER/COMPANY:

LEASE NAME:

RIG NAME & NUMBER:

TRANSPORTER COMPANY:

GENERATOR COMPANY MAN'S NAME:

DATE:

TIME:

AM/PM

VEHICLE NO:

PHONE:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☐ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs.

☐ YARD

☐

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

4100

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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THIS WILL CERTIFY that the above Transporter loaded the material represented by this Transporter Statement at the above described location, and that it was tendered by the above described shipper. This will certify that no additional materials were added to this load, and that the material was delivered without incident.

DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513695

LEASE OPERATOR/SHIPPER/COMPANY: OWL DATE: 6-11-19
LEASE NAME: Mudera SWD TIME: 10:08 AM/PM
RIG NAME & NUMBER: _____ VEHICLE NO: 6
TRANSPORTER COMPANY: Charles Trucking PHONE: _____
GENERATOR COMPANY MAN'S NAME: Jose Cervillo PHONE: _____

CHARGE TO: OWL

TYPE OF MATERIAL

☐ Tank Bottoms ☐ Drilling Fluids ☐ Rinsate ☐ B5&W Content:
☐ Solids ☒ Contaminated Soil ☐ Jet Out _____

Description: _____

VOLUME OF MATERIAL

☐ BBLs. _____ : ☒ YARD 12 : ☐ _____

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO # 4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 8901, et seq., THE NN HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: _____

(SIGNATURE)

FACILITY REPRESENTATIVE: _____

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513693

LEASE OPERATOR/SHIPPER/COMPANY:

DATE: 6-14-19

LEASE NAME:

TIME: 10:05 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 5

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs. :

YARD 12 :

☐ :

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO # 4227

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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Drove to location
continue digging
help our crew

May-20-19
Backhoe Op
helpers

STINDANCE SERVICES, Inc.



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. **513717**

LEASE OPERATOR/SHIPPER/COMPANY: *OWC*

DATE: *6-19-19*

LEASE NAME: *Mudera Sub*

TIME: *1:24* AM/PM

RIG NAME & NUMBER:

VEHICLE NO: *5*

TRANSPORTER COMPANY: *Jim J*

PHONE:

GENERATOR COMPANY MAN'S NAME: *Jose Cerillo*

PHONE:

CHARGE TO: *owl*

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description: *owl*

VOLUME OF MATERIAL

☐ BBLs. _____ :

☒ YARD *12* :

☐ _____

RRC or API #

C-133# *199*

STICKERS, CODES, NUMBERS, ETC.

owl # 4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: *Elvicio Jimenez*

(SIGNATURE)

FACILITY REPRESENTATIVE: *B*

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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*continue on
help owl crew*

*May-20
Back to*



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513607



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513692

LEA

LEA

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ab
m

LEASE OPERATOR/SHIPPER/COMPANY:

DATE: 6-14-19

LEASE NAME:

TIME: 10:03 AM/PM

RIG NAME & NUMBER:

PHONE:

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLS.

☒ YARD

14

☐

C-133#

6eq.

RRC or API #

STICKERS, CODES, NUMBERS, ETC.

PO# 4227

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513716

LEASE OPERATOR/SHIPPER/COMPANY: *owl*

DATE: *6-14-19*

TIME: *1:22* AM/PM

VEHICLE NO: *11*

LEASE NAME: *muclera sand*

RIG NAME & NUMBER:

PHONE:

TRANSPORTER COMPANY: *owl*

PHONE:

GENERATOR COMPANY MAN'S NAME: *jose carrillo*

CHARGE TO: *owl*

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description: *cb*

VOLUME OF MATERIAL

☐ BBLs.

☒ YARD *15*

C-133# *lea*

RRC or API #

STICKERS, CODES, NUMBERS, ETC.
PO# 4227

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DRIVER: *Pink*

(SIGNATURE)

FACILITY REPRESENTATIVE: *K*

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b

*continue digging
help owl crew*



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

TICKET No. 513607



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231

Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513720

LEASE OPERATOR/SHIPPER/COMPANY:

DATE: 6-14-19

LEASE NAME:

TIME: 1:32 AM/PM

RIG NAME & NUMBER:

VEHICLE NO: 06

TRANSPORTER COMPANY:

PHONE:

GENERATOR COMPANY MAN'S NAME:

PHONE:

CHARGE TO:

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description:

VOLUME OF MATERIAL

☐ BBLs. _____

☒ YARD 12 _____

☐ _____

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

4227

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DRIVER:

(SIGNATURE)

FACILITY REPRESENTATIVE:

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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help own crew



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513608

LEASE OPERATOR/SHIPPER/COMPANY: *owl*

DATE: *6-12-19*

LEASE NAME: *madera sub*

TIME: *3:25* AM/PM

RIG NAME & NUMBER:

VEHICLE NO: *27*

TRANSPORTER COMPANY: *JmJ*

PHONE:

GENERATOR COMPANY MAN'S NAME: *Tsmar-el (Shadig)*

PHONE: *575-964-4289*

CHARGE TO: *owl*

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description: *m*

VOLUME OF MATERIAL

☐ BBLs. _____ :

☒ YARD *12* :

☐ _____

RRC or API #

C-133# *649*

STICKERS, CODES, NUMBERS, ETC.

PO # 4277

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HERewith IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: *Everardo Dominguez*

(SIGNATURE)

FACILITY REPRESENTATIVE: *[Signature]*

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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continue digging and help our crews



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513611

LEASE OPERATOR/SHIPPER/COMPANY: *OWC*

DATE: *6-13-19*

LEASE NAME: *OWC*

TIME: *3:42* AM/PM

RIG NAME & NUMBER:

VEHICLE NO: *6*

TRANSPORTER COMPANY: *Chavez Trucking*

PHONE:

GENERATOR COMPANY MAN'S NAME: *Ismael Estrada*

PHONE: *575-964-4289*

CHARGE TO: *OWC*

TYPE OF MATERIAL

☐ Tank Bottoms

☐ Drilling Fluids

☐ Rinsate

☐ BS&W Content:

☐ Solids

☒ Contaminated Soil

☐ Jet Out

Description: *ch*

VOLUME OF MATERIAL

☐ BBLs.

☒ YARD *12*

☐

RRC or API #

C-133# *(PA)*

STICKERS, CODES, NUMBERS, ETC.

4227
RT#:

AS A CONDITION TO SUNDANCE SERVICES, INC.'S ACCEPTANCE OF THE MATERIALS SHIPPED WITH THIS JOB TICKET, OPERATOR/SHIPPER REPRESENTS AND WARRANTS THAT THE WASTE MATERIAL SHIPPED HEREWITH IS MATERIAL EXEMPT FROM THE RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976, AS AMENDED FROM TIME TO TIME, 40 U.S.C. § 6901, et seq., THE NM HEALTH AND SAF. CODE § 361.001 et seq., AND REGULATIONS RELATED THERETO, BY VIRTUE OF THE EXEMPTION AFFORDED DRILLING FLUIDS, PRODUCED WATERS, AND OTHER WASTE ASSOCIATED WITH THE EXPLORATION, DEVELOPMENT OR PRODUCTION OF CRUDE OIL OR NATURAL GAS OR GEOTHERMAL ENERGY.

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DRIVER: *[Signature]*

(SIGNATURE)

FACILITY REPRESENTATIVE: *[Signature]*

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

Reorder from: Vertigo Creative Services LLC • www.VertigoCreative.com • Form#SDI-004b



SUNDANCE SERVICES, Inc.

P.O. Box 1737 Eunice, New Mexico 88231
Business: (575) 394-2511 • Disposal: (575) 390-7842

TICKET No. 513807

LEASE OPERATOR/SHIPPER/COMPANY: COAL DATE: 6-13-19
LEASE NAME: UNION TIME: 7:30 AM/PM
RIG NAME & NUMBER: _____ VEHICLE NO: 11
TRANSPORTER COMPANY: SMJ Trucking PHONE: _____
GENERATOR COMPANY MAN'S NAME: T. M. M. M. M. PHONE: 59464-477

CHARGE TO: COAL

TYPE OF MATERIAL ☐ Tank Bottoms ☐ Drilling Fluids ☐ Rinsate ☐ BSW Content
☐ Solids ☒ Contaminated Soil ☐ Jet Out
Description: (1)

VOLUME OF MATERIAL ☐ BBLs. _____ ☒ YARD 14 ☐ _____

RRC or API #

C-133#

STICKERS, CODES, NUMBERS, ETC.

PO # 4227

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DRIVER: Polo

(SIGNATURE)

FACILITY REPRESENTATIVE: K

(SIGNATURE)

White - Sundance

Canary - Sundance Acct #1

Pink - Transporter

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help out

location to

May-20-
Backhoe
helpers

APPENDIX F

Laboratory Analytical Reports



Certificate of Analysis Summary 627723

KJ Environmental & Civil Engineering, Aubrey, TX

Project Name: Bert Meader Well Pad 1RP-5498



Project Id: OWL051319D
Contact: Will Soderstrom
Project Location:

Date Received in Lab: Thu Jun-13-19 06:36 pm
Report Date: 17-JUN-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	627723-001	627723-002	627723-003	627723-004	627723-005	627723-006
	<i>Field Id:</i>	CS-01-F 2'	CS-02-F 2'	CS-03-F 2'	CS-04-F 2'	CS-05-F 2'	CS-06-F 2'
	<i>Depth:</i>	2-	2-	2-	2-	2-	2-
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Jun-13-19 12:55	Jun-13-19 13:05	Jun-13-19 13:15	Jun-13-19 13:25	Jun-13-19 13:35	Jun-13-19 13:45
BTEX by SW 8260C SUB: T104704215-19-29	<i>Extracted:</i>	Jun-16-19 08:40	Jun-16-19 08:40	Jun-16-19 08:40	Jun-16-19 08:40	Jun-16-19 08:40	Jun-16-19 08:40
	<i>Analyzed:</i>	Jun-16-19 10:55	Jun-16-19 10:35	Jun-16-19 11:15	Jun-16-19 11:34	Jun-16-19 11:54	Jun-16-19 12:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00104 0.00104	<0.00106 0.00106	<0.00105 0.00105	<0.00104 0.00104	<0.00108 0.00108	<0.00106 0.00106
Toluene		<0.00104 0.00104	<0.00106 0.00106	<0.00105 0.00105	<0.00104 0.00104	<0.00108 0.00108	<0.00106 0.00106
Ethylbenzene		<0.00104 0.00104	<0.00106 0.00106	<0.00105 0.00105	<0.00104 0.00104	<0.00108 0.00108	<0.00106 0.00106
m,p-Xylenes		<0.00208 0.00208	<0.00211 0.00211	<0.00210 0.00210	<0.00209 0.00209	<0.00216 0.00216	<0.00211 0.00211
o-Xylene		<0.00104 0.00104	<0.00106 0.00106	<0.00105 0.00105	<0.00104 0.00104	<0.00108 0.00108	<0.00106 0.00106
Total Xylenes		<0.00104 0.00104	<0.00106 0.00106	<0.00105 0.00105	<0.00104 0.00104	<0.00108 0.00108	<0.00106 0.00106
Total BTEX		<0.00104 0.00104	<0.00106 0.00106	<0.00105 0.00105	<0.00104 0.00104	<0.00108 0.00108	<0.00106 0.00106
Chloride by EPA 300	<i>Extracted:</i>	Jun-14-19 15:00	Jun-14-19 15:00	Jun-14-19 15:00	Jun-14-19 15:00	Jun-14-19 15:00	Jun-14-19 15:00
	<i>Analyzed:</i>	Jun-14-19 18:09	Jun-14-19 18:16	Jun-14-19 18:23	Jun-14-19 18:45	Jun-14-19 18:52	Jun-14-19 19:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		300 5.20	2650 26.1	<5.26 5.26	<5.22 5.22	<5.46 5.46	<5.22 5.22
Percent Moisture	<i>Extracted:</i>						
	<i>Analyzed:</i>	Jun-14-19 17:35	Jun-14-19 17:35	Jun-14-19 17:35	Jun-14-19 17:35	Jun-14-19 17:35	Jun-14-19 17:35
	<i>Units/RL:</i>	% RL	% RL	% RL	% RL	% RL	% RL
Percent Moisture		3.99	5.14	4.74	4.51	7.63	5.03
TPH by SW8015 Mod	<i>Extracted:</i>	Jun-15-19 10:00	Jun-15-19 10:00	Jun-15-19 10:00	Jun-15-19 10:00	Jun-15-19 10:00	Jun-15-19 10:00
	<i>Analyzed:</i>	Jun-16-19 03:10	Jun-16-19 04:23	Jun-16-19 04:47	Jun-16-19 05:11	Jun-16-19 05:35	Jun-16-19 05:59
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.6 15.6	<15.7 15.7	<15.7 15.7	<15.7 15.7	<16.2 16.2	<15.8 15.8
Diesel Range Organics (DRO)		<15.6 15.6	<15.7 15.7	<15.7 15.7	<15.7 15.7	<16.2 16.2	<15.8 15.8
Motor Oil Range Hydrocarbons (MRO)		<15.6 15.6	<15.7 15.7	<15.7 15.7	<15.7 15.7	<16.2 16.2	<15.8 15.8
Total TPH		<15.6 15.6	<15.7 15.7	<15.7 15.7	<15.7 15.7	<16.2 16.2	<15.8 15.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 627723

KJ Environmental & Civil Engineering, Aubrey, TX

Project Name: Bert Meader Well Pad 1RP-5498



Project Id: OWL051319D
Contact: Will Soderstrom
Project Location:

Date Received in Lab: Thu Jun-13-19 06:36 pm
Report Date: 17-JUN-19
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	627723-007	627723-008				
	Field Id:	CS-07-SW-1'	CS-08-SW-1'				
	Depth:	2-	1-				
	Matrix:	SOIL	SOIL				
	Sampled:	Jun-13-19 13:55	Jun-13-19 14:05				
BTEX by SW 8260C SUB: T104704215-19-29	Extracted:	Jun-16-19 08:40	Jun-16-19 08:40				
	Analyzed:	Jun-16-19 12:33	Jun-16-19 12:53				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00107 0.00107	<0.00105 0.00105				
Toluene		<0.00107 0.00107	<0.00105 0.00105				
Ethylbenzene		<0.00107 0.00107	<0.00105 0.00105				
m,p-Xylenes		<0.00215 0.00215	<0.00210 0.00210				
o-Xylene		<0.00107 0.00107	<0.00105 0.00105				
Total Xylenes		<0.00107 0.00107	<0.00105 0.00105				
Total BTEX		<0.00107 0.00107	<0.00105 0.00105				
Chloride by EPA 300	Extracted:	Jun-14-19 15:00	Jun-14-19 15:00				
	Analyzed:	Jun-14-19 19:21	Jun-14-19 19:28				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		<5.41 5.41	<5.33 5.33				
Percent Moisture	Extracted:						
	Analyzed:	Jun-14-19 17:35	Jun-14-19 17:35				
	Units/RL:	% RL	% RL				
Percent Moisture		7.51	5.55				
TPH by SW8015 Mod	Extracted:	Jun-15-19 10:00	Jun-15-19 10:00				
	Analyzed:	Jun-16-19 06:23	Jun-16-19 06:47				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<16.2 16.2	<15.8 15.8				
Diesel Range Organics (DRO)		<16.2 16.2	<15.8 15.8				
Motor Oil Range Hydrocarbons (MRO)		<16.2 16.2	<15.8 15.8				
Total TPH		<16.2 16.2	<15.8 15.8				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use.
The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories.
XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented.
Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 627723
for
KJ Environmental & Civil Engineering

Project Manager: Will Soderstrom

Bert Meader Well Pad 1RP-5498

0WL051319D

17-JUN-19

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



17-JUN-19

Project Manager: **Will Soderstrom**
KJ Environmental & Civil Engineering
500 Moseley Rd
Aubrey, TX 76227

Reference: XENCO Report No(s): **627723**
Bert Meader Well Pad 1RP-5498
Project Address:

Will Soderstrom:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 627723. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 627723 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Project Assistant

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Sample Cross Reference 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-01-F 2'	S	06-13-19 12:55	2	627723-001
CS-02-F 2'	S	06-13-19 13:05	2	627723-002
CS-03-F 2'	S	06-13-19 13:15	2	627723-003
CS-04-F 2'	S	06-13-19 13:25	2	627723-004
CS-05-F 2'	S	06-13-19 13:35	2	627723-005
CS-06-F 2'	S	06-13-19 13:45	2	627723-006
CS-07-SW-1'	S	06-13-19 13:55	2	627723-007
CS-08-SW-1'	S	06-13-19 14:05	1	627723-008
Dup-01	S	06-13-19 00:00	1	Not Analyzed



CASE NARRATIVE

Client Name: KJ Environmental & Civil Engineering

Project Name: Bert Meader Well Pad IRP-5498

Project ID: 0WL051319D
Work Order Number(s): 627723

Report Date: 17-JUN-19
Date Received: 06/13/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-01-F 2'

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-001

Date Collected: 06.13.19 12.55

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture: 3.99

Analyst: CHE

Date Prep: 06.14.19 15.00

Basis: Dry Weight

Seq Number: 3092450

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	300	5.20	mg/kg	06.14.19 18.09		1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture: 3.99

Analyst: ARM

Date Prep: 06.15.19 10.00

Basis: Dry Weight

Seq Number: 3092440

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.6	15.6	mg/kg	06.16.19 03.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.6	15.6	mg/kg	06.16.19 03.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.6	15.6	mg/kg	06.16.19 03.10	U	1
Total TPH	PHC635	<15.6	15.6	mg/kg	06.16.19 03.10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.16.19 03.10	
o-Terphenyl	84-15-1	90	%	70-135	06.16.19 03.10	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: **CS-01-F 2'**

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-001

Date Collected: 06.13.19 12.55

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 3.99

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00104	0.00104	mg/kg	06.16.19 10.55	U	1
Toluene	108-88-3	<0.00104	0.00104	mg/kg	06.16.19 10.55	U	1
Ethylbenzene	100-41-4	<0.00104	0.00104	mg/kg	06.16.19 10.55	U	1
m,p-Xylenes	179601-23-1	<0.00208	0.00208	mg/kg	06.16.19 10.55	U	1
o-Xylene	95-47-6	<0.00104	0.00104	mg/kg	06.16.19 10.55	U	1
Total Xylenes	1330-20-7	<0.00104	0.00104	mg/kg	06.16.19 10.55	U	1
Total BTEX		<0.00104	0.00104	mg/kg	06.16.19 10.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	102	%	74-126	06.16.19 10.55	
1,2-Dichloroethane-D4	17060-07-0	107	%	80-120	06.16.19 10.55	
Toluene-D8	2037-26-5	102	%	73-132	06.16.19 10.55	
4-Bromofluorobenzene	460-00-4	91	%	58-152	06.16.19 10.55	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-02-F 2'

Lab Sample Id: 627723-002

Matrix: Soil

Date Collected: 06.13.19 13.05

Date Received: 06.13.19 18.36

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3092450

Date Prep: 06.14.19 15.00

Prep Method: E300P

% Moisture: 5.14

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2650	26.1	mg/kg	06.14.19 18.16		5

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3092440

Date Prep: 06.15.19 10.00

Prep Method: TX1005P

% Moisture: 5.14

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.7	15.7	mg/kg	06.16.19 04.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.7	15.7	mg/kg	06.16.19 04.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.7	15.7	mg/kg	06.16.19 04.23	U	1
Total TPH	PHC635	<15.7	15.7	mg/kg	06.16.19 04.23	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	112	%	70-135	06.16.19 04.23	
o-Terphenyl		84-15-1	117	%	70-135	06.16.19 04.23	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: **CS-02-F 2'**

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-002

Date Collected: 06.13.19 13.05

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 5.14

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/kg	06.16.19 10.35	U	1
Toluene	108-88-3	<0.00106	0.00106	mg/kg	06.16.19 10.35	U	1
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/kg	06.16.19 10.35	U	1
m,p-Xylenes	179601-23-1	<0.00211	0.00211	mg/kg	06.16.19 10.35	U	1
o-Xylene	95-47-6	<0.00106	0.00106	mg/kg	06.16.19 10.35	U	1
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/kg	06.16.19 10.35	U	1
Total BTEX		<0.00106	0.00106	mg/kg	06.16.19 10.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	74-126	06.16.19 10.35	
1,2-Dichloroethane-D4	17060-07-0	108	%	80-120	06.16.19 10.35	
Toluene-D8	2037-26-5	103	%	73-132	06.16.19 10.35	
4-Bromofluorobenzene	460-00-4	92	%	58-152	06.16.19 10.35	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-03-F 2'

Lab Sample Id: 627723-003

Matrix: Soil

Date Collected: 06.13.19 13.15

Date Received: 06.13.19 18.36

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3092450

Date Prep: 06.14.19 15.00

Prep Method: E300P

% Moisture: 4.74

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.26	5.26	mg/kg	06.14.19 18.23	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3092440

Date Prep: 06.15.19 10.00

Prep Method: TX1005P

% Moisture: 4.74

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.7	15.7	mg/kg	06.16.19 04.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.7	15.7	mg/kg	06.16.19 04.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.7	15.7	mg/kg	06.16.19 04.47	U	1
Total TPH	PHC635	<15.7	15.7	mg/kg	06.16.19 04.47	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	113	%	70-135	06.16.19 04.47	
o-Terphenyl		84-15-1	115	%	70-135	06.16.19 04.47	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: **CS-03-F 2'**

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-003

Date Collected: 06.13.19 13.15

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 4.74

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00105	0.00105	mg/kg	06.16.19 11.15	U	1
Toluene	108-88-3	<0.00105	0.00105	mg/kg	06.16.19 11.15	U	1
Ethylbenzene	100-41-4	<0.00105	0.00105	mg/kg	06.16.19 11.15	U	1
m,p-Xylenes	179601-23-1	<0.00210	0.00210	mg/kg	06.16.19 11.15	U	1
o-Xylene	95-47-6	<0.00105	0.00105	mg/kg	06.16.19 11.15	U	1
Total Xylenes	1330-20-7	<0.00105	0.00105	mg/kg	06.16.19 11.15	U	1
Total BTEX		<0.00105	0.00105	mg/kg	06.16.19 11.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	103	%	74-126	06.16.19 11.15	
1,2-Dichloroethane-D4	17060-07-0	104	%	80-120	06.16.19 11.15	
Toluene-D8	2037-26-5	101	%	73-132	06.16.19 11.15	
4-Bromofluorobenzene	460-00-4	88	%	58-152	06.16.19 11.15	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-04-F 2'

Lab Sample Id: 627723-004

Matrix: Soil

Date Collected: 06.13.19 13.25

Date Received: 06.13.19 18.36

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3092450

Date Prep: 06.14.19 15.00

Prep Method: E300P

% Moisture: 4.51

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.22	5.22	mg/kg	06.14.19 18.45	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3092440

Date Prep: 06.15.19 10.00

Prep Method: TX1005P

% Moisture: 4.51

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.7	15.7	mg/kg	06.16.19 05.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.7	15.7	mg/kg	06.16.19 05.11	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.7	15.7	mg/kg	06.16.19 05.11	U	1
Total TPH	PHC635	<15.7	15.7	mg/kg	06.16.19 05.11	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane		111-85-3	108	%	70-135	06.16.19 05.11	
o-Terphenyl		84-15-1	101	%	70-135	06.16.19 05.11	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: **CS-04-F 2'**

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-004

Date Collected: 06.13.19 13.25

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 4.51

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00104	0.00104	mg/kg	06.16.19 11.34	U	1
Toluene	108-88-3	<0.00104	0.00104	mg/kg	06.16.19 11.34	U	1
Ethylbenzene	100-41-4	<0.00104	0.00104	mg/kg	06.16.19 11.34	U	1
m,p-Xylenes	179601-23-1	<0.00209	0.00209	mg/kg	06.16.19 11.34	U	1
o-Xylene	95-47-6	<0.00104	0.00104	mg/kg	06.16.19 11.34	U	1
Total Xylenes	1330-20-7	<0.00104	0.00104	mg/kg	06.16.19 11.34	U	1
Total BTEX		<0.00104	0.00104	mg/kg	06.16.19 11.34	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	104		%	74-126	06.16.19 11.34	
1,2-Dichloroethane-D4	17060-07-0	100		%	80-120	06.16.19 11.34	
Toluene-D8	2037-26-5	99		%	73-132	06.16.19 11.34	
4-Bromofluorobenzene	460-00-4	90		%	58-152	06.16.19 11.34	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-05-F 2'

Lab Sample Id: 627723-005

Matrix: Soil

Date Collected: 06.13.19 13.35

Date Received: 06.13.19 18.36

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3092450

Date Prep: 06.14.19 15.00

Prep Method: E300P

% Moisture: 7.63

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.46	5.46	mg/kg	06.14.19 18.52	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3092440

Date Prep: 06.15.19 10.00

Prep Method: TX1005P

% Moisture: 7.63

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<16.2	16.2	mg/kg	06.16.19 05.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	<16.2	16.2	mg/kg	06.16.19 05.35	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<16.2	16.2	mg/kg	06.16.19 05.35	U	1
Total TPH	PHC635	<16.2	16.2	mg/kg	06.16.19 05.35	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	109	%	70-135	06.16.19 05.35	
o-Terphenyl	84-15-1	106	%	70-135	06.16.19 05.35	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: **CS-05-F 2'**

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-005

Date Collected: 06.13.19 13.35

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 7.63

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00108	0.00108	mg/kg	06.16.19 11.54	U	1
Toluene	108-88-3	<0.00108	0.00108	mg/kg	06.16.19 11.54	U	1
Ethylbenzene	100-41-4	<0.00108	0.00108	mg/kg	06.16.19 11.54	U	1
m,p-Xylenes	179601-23-1	<0.00216	0.00216	mg/kg	06.16.19 11.54	U	1
o-Xylene	95-47-6	<0.00108	0.00108	mg/kg	06.16.19 11.54	U	1
Total Xylenes	1330-20-7	<0.00108	0.00108	mg/kg	06.16.19 11.54	U	1
Total BTEX		<0.00108	0.00108	mg/kg	06.16.19 11.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	108	%	74-126	06.16.19 11.54	
1,2-Dichloroethane-D4	17060-07-0	107	%	80-120	06.16.19 11.54	
Toluene-D8	2037-26-5	105	%	73-132	06.16.19 11.54	
4-Bromofluorobenzene	460-00-4	87	%	58-152	06.16.19 11.54	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-06-F 2'

Lab Sample Id: 627723-006

Matrix: Soil

Date Collected: 06.13.19 13.45

Date Received: 06.13.19 18.36

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3092450

Date Prep: 06.14.19 15.00

Prep Method: E300P

% Moisture: 5.03

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.22	5.22	mg/kg	06.14.19 19.14	U	1

Analytical Method: TPH by SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3092440

Date Prep: 06.15.19 10.00

Prep Method: TX1005P

% Moisture: 5.03

Basis: Dry Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.8	15.8	mg/kg	06.16.19 05.59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.8	15.8	mg/kg	06.16.19 05.59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.8	15.8	mg/kg	06.16.19 05.59	U	1
Total TPH	PHC635	<15.8	15.8	mg/kg	06.16.19 05.59	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	06.16.19 05.59	
o-Terphenyl	84-15-1	80	%	70-135	06.16.19 05.59	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: **CS-06-F 2'**

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-006

Date Collected: 06.13.19 13.45

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 5.03

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/kg	06.16.19 12.14	U	1
Toluene	108-88-3	<0.00106	0.00106	mg/kg	06.16.19 12.14	U	1
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/kg	06.16.19 12.14	U	1
m,p-Xylenes	179601-23-1	<0.00211	0.00211	mg/kg	06.16.19 12.14	U	1
o-Xylene	95-47-6	<0.00106	0.00106	mg/kg	06.16.19 12.14	U	1
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/kg	06.16.19 12.14	U	1
Total BTEX		<0.00106	0.00106	mg/kg	06.16.19 12.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
Dibromofluoromethane	1868-53-7	107	%	74-126	06.16.19 12.14		
1,2-Dichloroethane-D4	17060-07-0	106	%	80-120	06.16.19 12.14		
Toluene-D8	2037-26-5	97	%	73-132	06.16.19 12.14		
4-Bromofluorobenzene	460-00-4	90	%	58-152	06.16.19 12.14		



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-07-SW-1'

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-007

Date Collected: 06.13.19 13.55

Sample Depth: 2

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture: 7.51

Analyst: CHE

Date Prep: 06.14.19 15.00

Basis: Dry Weight

Seq Number: 3092450

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.41	5.41	mg/kg	06.14.19 19.21	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture: 7.51

Analyst: ARM

Date Prep: 06.15.19 10.00

Basis: Dry Weight

Seq Number: 3092440

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<16.2	16.2	mg/kg	06.16.19 06.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<16.2	16.2	mg/kg	06.16.19 06.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<16.2	16.2	mg/kg	06.16.19 06.23	U	1
Total TPH	PHC635	<16.2	16.2	mg/kg	06.16.19 06.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	06.16.19 06.23	
o-Terphenyl	84-15-1	81	%	70-135	06.16.19 06.23	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-07-SW-1'

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-007

Date Collected: 06.13.19 13.55

Sample Depth: 2

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 7.51

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00107	0.00107	mg/kg	06.16.19 12.33	U	1
Toluene	108-88-3	<0.00107	0.00107	mg/kg	06.16.19 12.33	U	1
Ethylbenzene	100-41-4	<0.00107	0.00107	mg/kg	06.16.19 12.33	U	1
m,p-Xylenes	179601-23-1	<0.00215	0.00215	mg/kg	06.16.19 12.33	U	1
o-Xylene	95-47-6	<0.00107	0.00107	mg/kg	06.16.19 12.33	U	1
Total Xylenes	1330-20-7	<0.00107	0.00107	mg/kg	06.16.19 12.33	U	1
Total BTEX		<0.00107	0.00107	mg/kg	06.16.19 12.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	107	%	74-126	06.16.19 12.33	
1,2-Dichloroethane-D4	17060-07-0	108	%	80-120	06.16.19 12.33	
Toluene-D8	2037-26-5	100	%	73-132	06.16.19 12.33	
4-Bromofluorobenzene	460-00-4	90	%	58-152	06.16.19 12.33	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-08-SW-1'

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-008

Date Collected: 06.13.19 14.05

Sample Depth: 1

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture: 5.55

Analyst: CHE

Date Prep: 06.14.19 15.00

Basis: Dry Weight

Seq Number: 3092450

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<5.33	5.33	mg/kg	06.14.19 19.28	U	1

Analytical Method: TPH by SW8015 Mod

Prep Method: TX1005P

Tech: ARM

% Moisture: 5.55

Analyst: ARM

Date Prep: 06.15.19 10.00

Basis: Dry Weight

Seq Number: 3092440

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.8	15.8	mg/kg	06.16.19 06.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.8	15.8	mg/kg	06.16.19 06.47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.8	15.8	mg/kg	06.16.19 06.47	U	1
Total TPH	PHC635	<15.8	15.8	mg/kg	06.16.19 06.47	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	06.16.19 06.47	
o-Terphenyl	84-15-1	84	%	70-135	06.16.19 06.47	



Certificate of Analytical Results 627723



KJ Environmental & Civil Engineering, Aubrey, TX

Bert Meader Well Pad 1RP-5498

Sample Id: CS-08-SW-1'

Matrix: Soil

Date Received: 06.13.19 18.36

Lab Sample Id: 627723-008

Date Collected: 06.13.19 14.05

Sample Depth: 1

Analytical Method: BTEX by SW 8260C

Prep Method: SW5035A

Tech: HOP

% Moisture: 5.55

Analyst: HOP

Date Prep: 06.16.19 08.40

Basis: Dry Weight

Seq Number: 3092387

SUB: T104704215-19-29

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00105	0.00105	mg/kg	06.16.19 12.53	U	1
Toluene	108-88-3	<0.00105	0.00105	mg/kg	06.16.19 12.53	U	1
Ethylbenzene	100-41-4	<0.00105	0.00105	mg/kg	06.16.19 12.53	U	1
m,p-Xylenes	179601-23-1	<0.00210	0.00210	mg/kg	06.16.19 12.53	U	1
o-Xylene	95-47-6	<0.00105	0.00105	mg/kg	06.16.19 12.53	U	1
Total Xylenes	1330-20-7	<0.00105	0.00105	mg/kg	06.16.19 12.53	U	1
Total BTEX		<0.00105	0.00105	mg/kg	06.16.19 12.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Dibromofluoromethane	1868-53-7	105	%	74-126	06.16.19 12.53	
1,2-Dichloroethane-D4	17060-07-0	110	%	80-120	06.16.19 12.53	
Toluene-D8	2037-26-5	102	%	73-132	06.16.19 12.53	
4-Bromofluorobenzene	460-00-4	90	%	58-152	06.16.19 12.53	

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit

MQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD

Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



KJ Environmental & Civil Engineering

Bert Meader Well Pad 1RP-5498

Analytical Method: Chloride by EPA 300

Seq Number: 3092450

MB Sample Id: 7680025-1-BLK

Matrix: Solid

LCS Sample Id: 7680025-1-BKS

Prep Method: E300P

Date Prep: 06.14.19

LCSD Sample Id: 7680025-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	238	95	238	95	90-110	0	20	mg/kg	06.14.19 16:11	

Analytical Method: Chloride by EPA 300

Seq Number: 3092450

Parent Sample Id: 627654-002

Matrix: Soil

MS Sample Id: 627654-002 S

Prep Method: E300P

Date Prep: 06.14.19

MSD Sample Id: 627654-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	87.1	250	330	97	330	97	90-110	0	20	mg/kg	06.14.19 16:32	

Analytical Method: Chloride by EPA 300

Seq Number: 3092450

Parent Sample Id: 627723-003

Matrix: Soil

MS Sample Id: 627723-003 S

Prep Method: E300P

Date Prep: 06.14.19

MSD Sample Id: 627723-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	4.56	263	277	104	277	104	90-110	0	20	mg/kg	06.14.19 18:30	

Analytical Method: Percent Moisture

Seq Number: 3092414

Matrix: Solid

MB Sample Id: 3092414-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Percent Moisture	<	%	06.14.19 17:35	

Analytical Method: Percent Moisture

Seq Number: 3092414

Matrix: Soil

Parent Sample Id: 627723-001

MD Sample Id: 627723-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	3.99	3.94	1	20	%	06.14.19 17:35	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



KJ Environmental & Civil Engineering

Bert Meader Well Pad 1RP-5498

Analytical Method: Percent Moisture

Seq Number: 3092414

Parent Sample Id: 627806-001

Matrix: Soil

MD Sample Id: 627806-001 D

Parameter	Parent Result	MD Result	%RPD	RPD Limit	Units	Analysis Date	Flag
Percent Moisture	12.3	12.5	2	20	%	06.14.19 17:35	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3092440

MB Sample Id: 7680005-1-BLK

Matrix: Solid

LCS Sample Id: 7680005-1-BKS

Prep Method: TX1005P

Date Prep: 06.15.19

LCSD Sample Id: 7680005-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	885	89	865	87	70-135	2	20	mg/kg	06.16.19 02:20	
Diesel Range Organics (DRO)	<8.13	1000	939	94	855	86	70-135	9	20	mg/kg	06.16.19 02:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	103		100		97		70-135	%	06.16.19 02:20
o-Terphenyl	90		109		89		70-135	%	06.16.19 02:20

Analytical Method: TPH by SW8015 Mod

Seq Number: 3092440

Parent Sample Id: 627723-001

Matrix: Soil

MS Sample Id: 627723-001 S

Prep Method: TX1005P

Date Prep: 06.15.19

MSD Sample Id: 627723-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	13.1	1040	889	84	887	84	70-135	0	20	mg/kg	06.16.19 03:35	
Diesel Range Organics (DRO)	<8.47	1040	941	90	885	85	70-135	6	20	mg/kg	06.16.19 03:35	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	86		87		70-135	%	06.16.19 03:35
o-Terphenyl	87		81		70-135	%	06.16.19 03:35

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



KJ Environmental & Civil Engineering

Bert Meader Well Pad 1RP-5498

Analytical Method: BTEX by SW 8260C

Seq Number: 3092387

MB Sample Id: 7679987-1-BLK

Matrix: Solid

LCS Sample Id: 7679987-1-BKS

Prep Method: SW5035A

Date Prep: 06.16.19

LCSD Sample Id: 7679987-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00100	0.0500	0.0416	83	0.0462	92	62-132	10	25	mg/kg	06.16.19 08:13	
Toluene	<0.00100	0.0500	0.0457	91	0.0492	98	66-124	7	25	mg/kg	06.16.19 08:13	
Ethylbenzene	<0.00100	0.0500	0.0467	93	0.0520	104	71-134	11	25	mg/kg	06.16.19 08:13	
m,p-Xylenes	<0.00200	0.100	0.0927	93	0.103	103	69-128	11	25	mg/kg	06.16.19 08:13	
o-Xylene	<0.00100	0.0500	0.0466	93	0.0510	102	72-131	9	25	mg/kg	06.16.19 08:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	99		99		101		74-126	%	06.16.19 08:13
1,2-Dichloroethane-D4	103		100		103		80-120	%	06.16.19 08:13
Toluene-D8	99		102		98		73-132	%	06.16.19 08:13
4-Bromofluorobenzene	90		104		102		58-152	%	06.16.19 08:13

Analytical Method: BTEX by SW 8260C

Seq Number: 3092387

Parent Sample Id: 627723-002

Matrix: Soil

MS Sample Id: 627723-002 S

Prep Method: SW5035A

Date Prep: 06.16.19

MSD Sample Id: 627723-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00105	0.0527	0.0412	78	0.0401	76	62-132	3	25	mg/kg	06.16.19 08:56	
Toluene	<0.00105	0.0527	0.0420	80	0.0414	78	66-124	1	25	mg/kg	06.16.19 08:56	
Ethylbenzene	<0.00105	0.0527	0.0445	84	0.0434	82	71-134	3	25	mg/kg	06.16.19 08:56	
m,p-Xylenes	<0.00211	0.105	0.0880	84	0.0851	80	69-128	3	25	mg/kg	06.16.19 08:56	
o-Xylene	<0.00105	0.0527	0.0424	80	0.0409	77	72-131	4	25	mg/kg	06.16.19 08:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Dibromofluoromethane	110		104		74-126	%	06.16.19 08:56
1,2-Dichloroethane-D4	108		105		80-120	%	06.16.19 08:56
Toluene-D8	97		97		73-132	%	06.16.19 08:56
4-Bromofluorobenzene	103		106		58-152	%	06.16.19 08:56

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Setting the Standard since 1990
Stafford, Texas (281-240-4200)
Dallas Texas (214-902-0300)

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

[illegible]

Inter-Office Shipment

IOS Number : 41441

Date/Time: 06.14.2019 07:57 Created by: Brianna Teel
 Lab# From: **Midland** Delivery Priority:
 Lab# To: **Houston** Air Bill No.: 775481660596

Please send report to: Jessica Kramer
 Address: 1211 W. Florida Ave
 E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
627723-001	S	CS-01-F 2'	06.13.2019 12:55	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-002	S	CS-02-F 2'	06.13.2019 13:05	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-003	S	CS-03-F 2'	06.13.2019 13:15	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-004	S	CS-04-F 2'	06.13.2019 13:25	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-005	S	CS-05-F 2'	06.13.2019 13:35	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-006	S	CS-06-F 2'	06.13.2019 13:45	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-007	S	CS-07-SW-1'	06.13.2019 13:55	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-008	S	CS-08-SW-1'	06.13.2019 14:05	SW8260CBTEX	BTEX by SW 8260C	06.14.2019	06.27.2019	JKR	BZ BZME EBZ XYLENE	
627723-009	S	Dup-01	06.13.2019 00:00	SW8260CBTEX	BTEX by SW 8260C	HOLD	06.27.2019	JKR	BZ BZME EBZ XYLENE	

Inter Office Shipment or Sample Comments:

Relinquished By: Jessica Kramer
 Jessica Kramer
 Date Relinquished: 06.14.2019

Received By: Ashly Kowalski
 Ashly Kowalski
 Date Received: 06.15.2019 10:00
 Cooler Temperature: 0.2



XENCO Laboratories



Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 41441

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : HOU-068

Sent By: Brianna Teel

Date Sent: 06.14.2019 07.57 AM

Received By: Ashly Kowalski

Date Received: 06.15.2019 10.00 AM

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received with appropriate temperature?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 *Custody Seals Signed and dated for Containers/coolers	Yes
#6 *IOS present?	Yes
#7 Any missing/extra samples?	No
#8 IOS agrees with sample label(s)/matrix?	Yes
#9 Sample matrix/ properties agree with IOS?	Yes
#10 Samples in proper container/ bottle?	Yes
#11 Samples properly preserved?	Yes
#12 Sample container(s) intact?	Yes
#13 Sufficient sample amount for indicated test(s)?	Yes
#14 All samples received within hold time?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ Contacted by : _____ Date: _____

Checklist reviewed by:

Ashly Kowalski

Date: 06.15.2019



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: KJ Environmental & Civil Engineering

Date/ Time Received: 06/13/2019 06:36:00 PM

Work Order #: 627723

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	Yes	Xenco Stafford-BTEX
#18 Water VOC samples have zero headspace?	N/A	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Brianna Teel

Date: 06/14/2019

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: 06/14/2019



Certificate of Analysis Summary 628179

KJ Environmental & Civil Engineering, Aubrey, TX

Project Name: OWL Delineation



Project Id: OWL051319D

Contact: Will Soderstrom

Project Location: Bert Madera Well Pad 1RP-5498

Date Received in Lab: Tue Jun-18-19 05:27 pm

Report Date: 20-JUN-19

Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	628179-001					
	Field Id:	BM-02					
	Depth:	4- ft					
	Matrix:	SOIL					
	Sampled:	Jun-18-19 14:41					
Chloride by EPA 300	Extracted:	Jun-19-19 15:50					
	Analyzed:	Jun-19-19 17:23					
	Units/RL:	mg/kg RL					
Chloride		1240 5.02					

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Jessica Kramer
Project Assistant

Analytical Report 628179
for
KJ Environmental & Civil Engineering

Project Manager: Will Soderstrom

OWL Delineation

OWL051319D

20-JUN-19

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)



20-JUN-19

Project Manager: **Will Soderstrom**
KJ Environmental & Civil Engineering
500 Moseley Rd
Aubrey, TX 76227

Reference: XENCO Report No(s): **628179**
OWL Delineation
Project Address: Bert Madera Well Pad 1RP-5498

Will Soderstrom:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 628179. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 628179 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 628179



KJ Environmental & Civil Engineering, Aubrey, TX

OWL Delineation

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BM-02	S	06-18-19 14:41	4 ft	628179-001



CASE NARRATIVE

Client Name: KJ Environmental & Civil Engineering

Project Name: OWL Delineation

Project ID: OWL051319D
Work Order Number(s): 628179

Report Date: 20-JUN-19
Date Received: 06/18/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 628179



KJ Environmental & Civil Engineering, Aubrey, TX OWL Delineation

Sample Id: BM-02	Matrix: Soil	Date Received: 06.18.19 17.27
Lab Sample Id: 628179-001	Date Collected: 06.18.19 14.41	Sample Depth: 4 ft
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 06.19.19 15.50	Basis: Wet Weight
Seq Number: 3092944		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1240	5.02	mg/kg	06.19.19 17.23		1

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

SDL Sample Detection Limit

LOD Limit of Detection

PQL Practical Quantitation Limit

SQL Method Quantitation Limit

LOQ Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample

BLK

Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample

BKSD/LCSD

Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate

MS

Matrix Spike

MSD: Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



KJ Environmental & Civil Engineering
OWL Delineation

Analytical Method: Chloride by EPA 300

Seq Number: 3092944

MB Sample Id: 7680338-1-BLK

Matrix: Solid

LCS Sample Id: 7680338-1-BKS

Prep Method: E300P

Date Prep: 06.19.19

LCSD Sample Id: 7680338-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	250	100	251	100	90-110	0	20	mg/kg	06.19.19 16:44	

Analytical Method: Chloride by EPA 300

Seq Number: 3092944

Parent Sample Id: 628030-008

Matrix: Soil

MS Sample Id: 628030-008 S

Prep Method: E300P

Date Prep: 06.19.19

MSD Sample Id: 628030-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	21.1	250	280	104	279	103	90-110	0	20	mg/kg	06.19.19 16:59	

Analytical Method: Chloride by EPA 300

Seq Number: 3092944

Parent Sample Id: 628181-002

Matrix: Soil

MS Sample Id: 628181-002 S

Prep Method: E300P

Date Prep: 06.19.19

MSD Sample Id: 628181-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.96	248	259	104	257	104	90-110	1	20	mg/kg	06.19.19 18:07	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Setting the Standard since 1990
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Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page ___ of ___

San Antonio, Texas (210-509-3334)
Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

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Xenco Quote #

Xenco Job #

1028179

Client / Reporting Information				Project Information				Analytical Information				Matrix Codes																			
Company Name / Branch: KJ Environmental & Civil Engineering				Project Number: 0WLD051319D																											
Company Address: 500 Moseley Rd Cross Road TX 76227				Project Name/Local Bert Madera Well Pad 1RP-5498																											
Email: W.soderstrom@kje-us.com				Phone No: 640-387-0805				Invoice To: OIL CO. WITH PHILIP SANDERS 8201 Preston Rd #520 Dallas TX 75225																							
Project Contact: Will Soderstrom				PO Number:																											
Sampler's Name																															
No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MeOH	NONE	TPH (GRO, DRO, MRO) by 8015M	BTEX by 8260C	Benzene by 8260C	E300 (Chloride)	Field Comments												
1	BM-02	4ft	6/18/19	1441	BS	1																									
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
Turnaround Time (Business days)																Data Deliverable Information				Notes:											
<input type="checkbox"/> Same Day TAT																<input type="checkbox"/> Level II Std QC				<input type="checkbox"/> Level IV (Full Data Pkg /raw data)											
<input checked="" type="checkbox"/> Next Day EMERGENCY																<input type="checkbox"/> 7 Day TAT				<input type="checkbox"/> Level III Std QC+ Forms				<input type="checkbox"/> TRRP Level IV							
<input type="checkbox"/> 2 Day EMERGENCY																<input type="checkbox"/> Contract TAT				<input type="checkbox"/> Level 3 (CLP Forms)				<input type="checkbox"/> UST / RG 411							
<input type="checkbox"/> 3 Day EMERGENCY																<input type="checkbox"/> TRRP Checklist															
TAT Starts Day received by Lab, if received by 5:00 pm																															
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																															
Relinquished by Sampler:																Date Time:				Received By:				Date Time:							
1																16/18/19 1727				1				2							
Relinquished by:																Date Time:				Received By:				Date Time:							
3																				3				4							
Relinquished by:																Date Time:				Received By:				Date Time:							
5																				5											
Custody Seal #																Preserved where applicable				On Ice				Cooler Temp				Thermo, Corr. Factor			
																								8.5183				R8-0.2			

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: KJ Environmental & Civil Engineering

Date/ Time Received: 06/18/2019 05:27:00 PM

Work Order #: 628179

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	8.3	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	Cooling in progress
#4 *Custody Seals intact on shipping container/ cooler?	N/A	
#5 Custody Seals intact on sample bottles?	N/A	
#6 *Custody Seals Signed and dated?	N/A	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	N/A	
#18 Water VOC samples have zero headspace?	N/A	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Brianna Teel

Date: 06/19/2019

Checklist reviewed by:

Jessica Kramer

Jessica Kramer

Date: 06/19/2019

APPENDIX G

NMOCD Approved C-141 Form

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

State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NDHR1914435909
District RP	IRP-5498
Facility ID	fDHR1914435624
Application ID	pDHR1914435194

Release Notification

Responsible Party

Responsible Party	OWL SWD Operating, LLC	OGRID
Contact Name	Mr. Phillip Sanders	Contact Telephone 210-906-3551
Contact email	psanders@oilfieldwaterlogistics.com	Incident # (assigned by OCD) NDHR1914435909
Contact mailing address	8201 Preston Road, Suite 520, Dallas, Texas 75225	

Location of Release Source

Latitude 32.21212184 Longitude -103.46117581
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Bert Madera	Site Type	SWD
Date Release Discovered	5/11/19 14:15 PM	API# (if applicable)	

Unit Letter	Section	Township	Range	County
M and N	15	24S	34E	Lea County

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

Nature and Volume of Release

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

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 40 BBLs	Volume Recovered (bbls) None
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Desander caught on fire and exploded resulting in the release of produced water. Please see attached OCD GIS map for the approximate spill path.

Incident ID	NDHR1914435909
District RP	1RP-5498
Facility ID	fDHR1914435624
Application ID	pDHR1914435194

Was this a major release as defined by 19.15.29.7(A) NMAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Yes; release was greater than 25 BBLs
---	---

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, William Soderstrom, with KJ Environmental (KJE), called and left a voicemail with Jim Griswold, NMOCD, in the Santa Fe, NM office; spoke via telephone to Jim Amos in the Carlsbad office and described what happened. KJE submitted C-141 form electronically to Jim Amos and EMNRD-OCD-District1spills@state.nm.us.

Initial Response

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


<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
--

If all the actions described above have not been undertaken, explain why:

N/A

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Phillip Sanders Title: Safety Director
 Signature:  Date: 5/16/2019
 email: psanders@oilfieldwaterlogistics.com Telephone: 210-906-3551

OCD Only

Received by: Dylan Rose-Coss Date: 05/24/2019


APPENDIX H

New Mexico Well Logs



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)						(NAD83 UTM in meters)	
		(quarters are smallest to largest)							
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	03943 POD1	2	4	2	21	24S	34E	644523	3564266 

Driller License:	1737	Driller Company:	NOT FOR HIRE AT THIS TIME	
Driller Name:	JUSTIN MULLINS			
Drill Start Date:	04/21/2016	Drill Finish Date:	04/24/2016	Plug Date:
Log File Date:	04/25/2016	PCW Rev Date:		Source: Shallow
Pump Type:		Pipe Discharge Size:		Estimated Yield: 5 GPM
Casing Size:	6.00	Depth Well:	610 feet	Depth Water: 431 feet

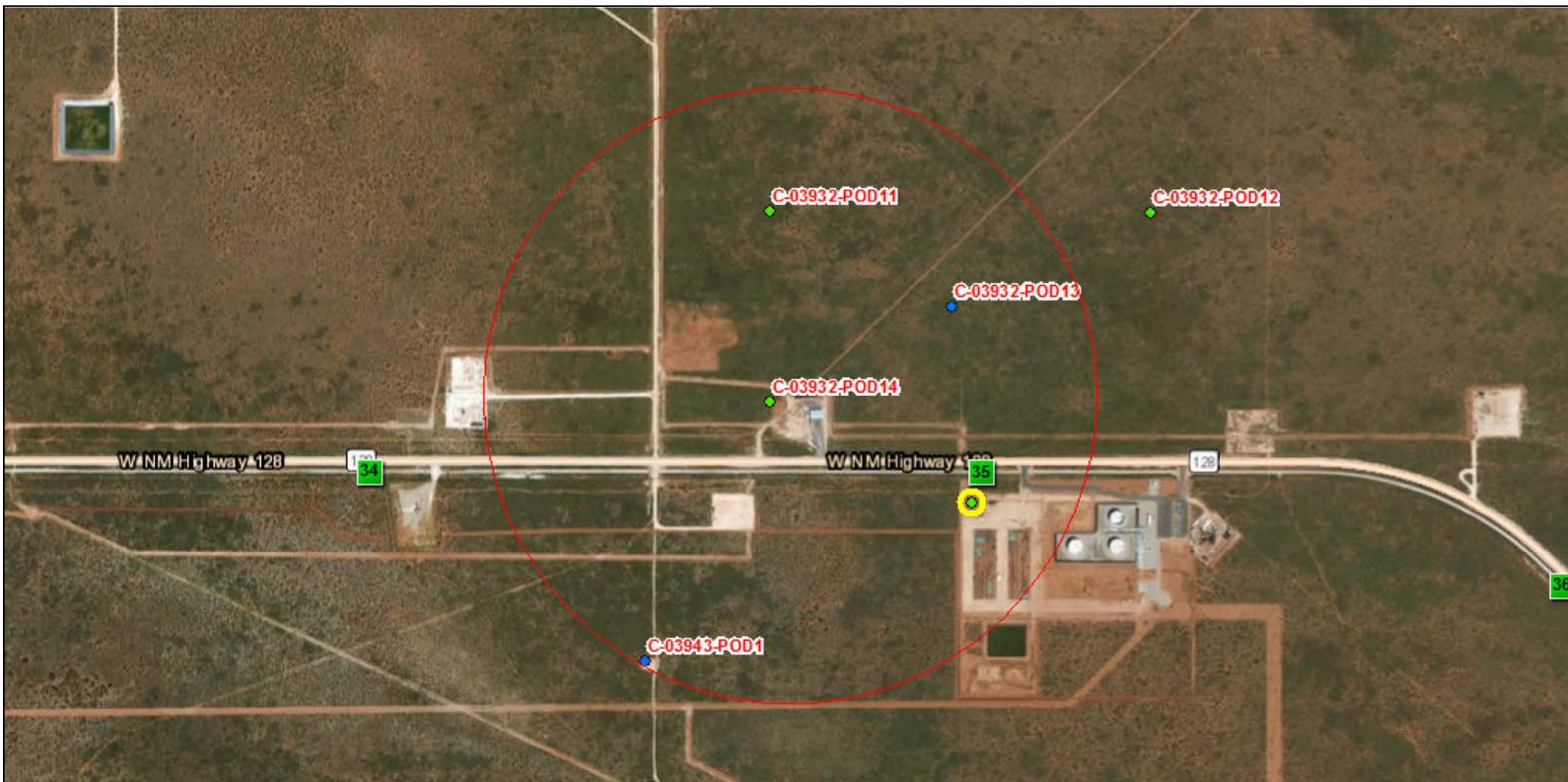
Water Bearing Stratifications:	Top	Bottom	Description
	39	431	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	420	480

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/26/19 1:21 PM

POINT OF DIVERSION SUMMARY



Coordinates

UTM - NAD 83 (m) - Zone 13

Easting 645372.800

Northing 3564694.600

State Plane - NAD 83 (f) - Zone E

Easting 812220.862

Northing 441033.608

Degrees Minutes Seconds

Latitude 32 : 12 : 34.019376

Longitude -103 : 27 : 27.034280

Location pulled from POD Search

Image Information
Source: DigitalGlobe
Date: 9/19/2016
Resolution (m): 0.5
Accuracy (m): 10.2

NEW MEXICO OFFICE OF THE STATE ENGINEER

POD Information

File Number: C-04303-POD1

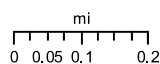
Owner: ENERGY TRANSFER

Permit Use: NoData

POD Status: PEN

Permit Status: PMT

1:18,056



Author:

Purpose: DOM

7/17/2019



0.5 Miles Buffer



Selected POD



Milepost - 1
Mile Intervals

Spatial Information

OSE Administrative Area: District 2

County: Lea

Groundwater Basin: Carlsbad

Abstract Area: Carlsbad

Carlsbad Underground Basin

Sub-Basin: Landreth-Monumnet Draws

Land Grant: Not in Land Grant

Restrictions:

NA

PLSS Description

NWNWNNE Qtr of Sec 22 of 024S 034E

Derived from CADNSDI- Qtr Sec. locations are calculated and are only approximations

APPENDIX I

Environmental Professional's Credentials

William Soderstrom

500 Moseley Road
Cross Roads, Texas 76225
(405) 258-8623
WSoderstrom@kje-us.com

WORK EXPERIENCE

Remediation Project Manager –Environmental Department KJ Environmental Management, Inc. – Denton, TX

07/2018 – Present

- Managed and reviewed Phase I Environmental Site Assessments (ESAs) and Limited Phase II ESAs for active and historical service stations, dry cleaners, commercial and retail properties, and vacant or undeveloped land throughout New Mexico, Oklahoma and Texas utilizing hand auger equipment, truck-mounted hollow-stem augers (HSA), and direct-push technologies (Geoprobe).
- Provided professional environmental consulting services to individual businesses, real estate developers (commercial, industrial, and multi-family residential), financial institutions, manufacturing facilities and corporate representatives to ensure compliance with the United States Environmental Protection Agency (USEPA), Oklahoma Corporation Commission (OCC), Oklahoma Department of Environmental Quality (ODEQ) and Texas Commission on Environmental Quality (TCEQ) rules and regulations.
- Supervised and coordinated the remediation of various produced water releases ranging from 95 barrels to 12,000 barrels in conjunction with state regulatory agencies including the Railroad Commission of Texas, TCEQ Emergency Response, New Mexico Oil Conservation Division, New Mexico Bureau of Land Management, New Mexico State Land Office, and the United States Army Corps of Engineers.
- Enrolled and managed chemical manufacturing and industrial facilities into the TCEQ Voluntary Cleanup Program (VCP), Corrective Action (CA) and Municipal Setting Designation (MSD) regulatory programs throughout north Texas.
- Managed the characterization and remediation of exploration and production (E&P) exempt waste for multiple oil and gas companies in south and west Texas.

Assistant Project Manager –Remediation Division The VERTEX Companies, Inc. – Irving, TX

07/2015 – 07/2018

- Conducted Phase I ESAs and Limited Phase II ESAs for active and historical service stations, dry cleaners, commercial and retail properties, and vacant or undeveloped land throughout Alabama, Arizona, Arkansas, California, Georgia, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, Oregon, Tennessee, and Texas utilizing hand auger equipment, truck-mounted HSAs, and direct push technologies (Geoprobe).
- Performed a Phase II ESA at an active bulk petroleum storage facility in Alabama to delineate impacted soils for a potential real estate transaction.
- Provided consulting services to individual businesses, real estate developers (commercial, industrial, and multi-family residential), financial institutions, and corporate representatives to ensure compliance with Alabama Department of Environmental Management (ADEM), Arkansas Department of Environmental Quality (ADEQ), Kansas Department of Health and Environment (KDHE), Missouri Department of Natural Resources (MDNR), OCC, ODEQ, Oregon Department of Environmental Quality (Oregon DEQ), and TCEQ rules and regulations.
- Screened impacted soils within Operable Unit 1 (OU-1) and coordinated the characterization, transportation, and disposal of approximately 7,500 cubic yards of soil to approved Class I and Class II landfill.
- Provided technical support for the VCP, MSD, and TCEQ Subchapter T: Use of Land Over Closed Municipal Solid Waste (MSW) Landfills throughout the Dallas-Fort Worth Metroplex.
- Installed and sampled soil vapor probes to adhere to TCEQ Subchapter T reporting limits for MSW Landfills in Dallas.
- Operated as team leader for the removal, disposal, characterization, and transportation of ghost storage tanks, aboveground storage tanks (ASTs), underground storage tanks (USTs) and stockpiled backfill at former and current gas stations, tank batteries, and manufacturing facilities throughout the Dallas-Fort Worth Metroplex and Oklahoma.
- Provided construction oversight for the installation and verification of a low-profile ventilation system and vapor mitigation system at various multi-family complexes for sub-grade areas and first floor living spaces.

Staff Scientist – Real Estate Division W&M Environmental Group, LLC – Plano, TX

09/2013 – 07/2015

- Conducted Phase I ESAs and Limited Phase II Investigations for active and historical manufacturing facilities, active and historical service stations, commercial and retail properties, dry cleaners, and vacant or undeveloped land throughout Texas utilizing hand auger equipment, truck-mounted HSA, and direct push technologies (Geoprobe).
- Provided consulting services to real estate developers (commercial and multi-family residential), financial institutions, and corporate representatives to ensure compliance with the ODEQ, OCC, and TCEQ.
- Provided technical support for MSD, VCP, Affected Property Assessment Report (APAR), and Innocent Owner/Operator Program (IOP) applications for a former service station and auto repair shop.
- Provided emergency response to multiple pipeline and tank battery spills in Texas and Oklahoma and collected confirmation soil samples to delineate vertical and horizontal extent.

- Acted as field team leader for the removal, disposal, and transportation of underground storage tanks at various sites throughout the Dallas-Fort Worth Metroplex.
- Acted as field team leader for the collection of pond sediment samples to delineate heavy metals and polychlorinated biphenyls (PCBs) at a former Naval Air Station.
- Installed and sampled soil vapor probes at historical dry cleaners, leaking petroleum storage tank sites, auto body repair shops and commercial properties throughout Texas.
- Performed Stormwater Pollution Prevention Plan (SWPPP) site reconnaissance for various manufacturing facilities in the Dallas-Fort Worth Metroplex.

**Staff Environmental Scientist –Environmental Department
Terracon Consultants, Inc – Oklahoma City, OK**

06/2010 – 09/2013

- Conducted Limited Phase II Environmental Site Assessments for active manufacturing facilities, historical dry cleaners, service stations, and vacant or undeveloped land throughout Oklahoma utilizing hand auger equipment, air-rotary drilling, and truck-mounted HSA.
- Provided emergency response to brine water spill and screened approximately 2,000 cubic yards of soil for off-site disposal.
- Provided consulting services to real estate developers, financial institutions, and corporate representatives to ensure compliance with the ODEQ and OCC.
- Acted as field team leader for screening impacted soils and coordinating the management, transportation, and disposal of approximately 28,000 cubic yards of impacted soil to land-farm for treatment.
- Served as field team professional on the investigation and plume delineation of two dry-cleaner sites within the ODEQ VCP and Brownfields program.
- Provided support for state environmental regulatory activities regarding Concentrated Animal Feeding Operation (CAFO) permits of numerous swine facilities in Oklahoma and Texas.
- Completed due diligence services for Oklahoma based oil/gas company to assess the potential impact to threatened or endangered species, wetlands, and potential locations of archeological or cultural significance throughout Oklahoma.

PROFESSIONAL DEVELOPMENT

- | | |
|--|---------|
| • 40-Hour HAZWOPER | 05/2010 |
| • 10-Hour OSHA Outreach Training Program – Construction | 08/2015 |
| • Geo-Seal Vapor Intrusion Barrier - Certified Inspector | 03/2018 |
| • First AID CPR – AED – American Heart Association | 04/2018 |
| • 8-Hour WAZWOPER Refresher Training | 08/2018 |

EDUCATIONAL BACKGROUND

Bachelor of Science, Environmental Sciences
Option: Natural Resources
Minor: Soil Science
 Oklahoma State University, Stillwater, OK

May 2010

Dena Marie Vandenberg, REM, LEED AP

ENVIRONMENTAL PROFESSIONAL

WORK HISTORY

Director of Environmental Services

KJ Environmental Management, Inc.

June 2011 – Present (8 years)

I am currently working as the Director of Environmental Services at KJ Environmental. I have fifteen years of experience as an environmental professional in consulting. I lead a team of Engineers and Scientists to complete projects for a variety of industries, while ensuring the delivery of the highest quality work product, customer service, and professionalism.

Project Manager

KJ Environmental Management, Inc.

April 2010 – June 2011 (1 year 3 months)

When I began working at KJ Environmental in Denton, Texas as a Project Manager, I provided regulatory compliance services for various industries including oil and gas storage and trucking facilities, sand and cement handling facilities, manufacturing facilities, and municipal agencies. My areas of expertise included project management, construction and industrial storm water pollution prevention plans (SWPPP), NPDES/TPDES permit applications, management of PST tank pulls, oil pollution prevention compliance (SPCC), Permit-By-Rule (PBR) Applications, New Source Review (NSR) Applications, Barnett Shale Phase I & Phase II Special Emissions Inventories, Saltwater Disposal Well Permitting, Underground Injection Control Permitting, TCEQ Public Water System compliance, drinking water, storm water, ground water, and waste sampling, asbestos sampling, mold assessments, radon testing, lead-based paint sampling, lead in drinking water sampling, Phase I Environmental Site Assessments, Limited Phase II Environmental Site Assessments, noise monitoring, and brownfield redevelopment. I have also served as the Environmental Professional on record and designated expert for oil & gas production and commercial saltwater disposal clients in handling multiple produced water spill investigations and remediation activities completed under the jurisdiction of the Railroad Commission of Texas.

Environmental Scientist

Terracon

Privately Held; 1001-5000 employees; Civil Engineering industry

April 2006 – February 2010 (3 years 11 months)

At Terracon, I conducted hundreds of Phase I ESAs for various types of properties from vacant land to industrial/manufacturing facilities and gas stations. I also did regulatory compliance consulting for oil & gas clients, industrial/manufacturing facilities, and municipalities. I completed SWPPPs and SPCCs, conducted storm water sampling, and operated a public water system on behalf of a municipality. I became a licensed Asbestos Inspector, Mold Assessment Technician, and LEED Accredited Professional.

Environmental Geologist

Cirrus Associates

March 2006 – March 2006 (1 month)

At Cirrus Associates, I acted as a contract employee on a VCP project for a client in Odessa, Texas. I conducted sampling of groundwater monitoring wells using low-flow sampling techniques.

Environmental Scientist

Delta Environmental

August 2004 – December 2005 (1 year 5 months)

At Delta Environmental, I performed public drinking water sampling under the TCEQ contract. I collected over 3,000 drinking water samples. I was recognized as one of the top 5 samplers in the state for productivity and was trusted with the responsibility of training other samplers associated with the project. In addition, I conducted several ESAs to obtain more experience, when time would allow.

EDUCATION

University of North Texas

Bachelor of Science in Geography with a focus in Earth Science, Geology Minor

1999 – 2004

Activities and Societies:

Vice Chairman of the Planning & Zoning Commission for the Town of Providence Village, Texas

Delta Zeta Sorority

ADDITIONAL INFORMATION

Professional Education & Certifications:

National Registry of Environmental Professionals (NREP) Registered Environmental Manager (REM) No. 832509140161111

OSHA 29 CFR 1910.120 HAZWOPER 40 HR Certification

EPA Accredited Asbestos Inspector

TDSHS License Asbestos Inspector (License No. 602837)

TDSHS Licensed Mold Assessment Technician (License No. MAT1011)

TCEQ Class C Water Distribution Operator (License No. WD0007445)

Leadership in Energy and Environmental Design (LEED) Accredited Professional

Texas Commission on Environmental Quality (TCEQ) Certified Water Sampler under the Safe Drinking Water Act and State Regulations (ID No. 2005-006)

ORIS-Enviromod University- AERMOD Modeling For Permits Certification

Certified NORM Surveyor

Affiliations:

The North Texas Association of Environmental Professionals

Society of Texas Environmental Professionals

Association of American Geographers

U.S. Green Building Council

CONTACT INFORMATION

Email: denavandenberg@yahoo.com

Phone: (214) 364-7627