REVIEWED
By CHernandez at 2:31 pm, Nov 09, 2018

See email correspondence.

Mesa B 002 SWD Battery

Remediation Work Plan

API NO: 30-025-42462
RELEASE DATE: 09/11/2018

UNIT LETTER P SEC. 7, TOWNSHIP 26S RANGE 33E
DISTRICT RP: 1RP-5202
INCIDENT ID: NOY1826826475

Prepared by
Michael Alves
Cajun Energy
Environmental Operations Manager
575-631-4310
mike@cajun-energy.com

Olivia Yu
Environmental Specialist
NM Oil Conservation District- Division 1
1625 N French Drive
Hobbs, NM 88240

RE: BTA Oil Producers
Work Plan
UL/P, Section 7, T26S, R33E
NMOCD Case # 1RP-5202

Ms. Yu,

BTA Oil Producers has retained Cajun Energy (Environmental & Dirt Works Division) to address the environmental issues for the site herein.

The site is located Southwest of Jal, in Lea County NM. The release was caused by a vibrating dampener on a pump causing the gasket to rupture and causing a release of produced water in the excess of 60 BBL from this release 30 BBL were recovered and pumped back into the disposal facility. An Initial C-141 was submitted on October 1st, 2018. (Appendix 1)

Site Assessment & Delineation

On 9/26/2018, BTA personal were on site to obtain samples of the spill area. 5 sample points were taken at surface and 1' BGS. These samples were taken to XENCO Labs for conformation.
On 10/17/2018 Cajun Personal went back to site to assess the spill site again. The site had obtained a lot of rain fall which corrupted any sampling that could be done. Sample holes were filling up with water faster then could be cleaned out, so due to this the site could not be fully delineated at the time. The delineation that BTA personal preformed is included. (Appendix 2)

A groundwater study of the of the area and it has been determined, according to the New Mexico Office of the State Engineer there is no known groundwater in this section, township, or range. The USGS (Appendix 3) has a groundwater watch well 18.9

miles to the east of the referenced site with a depth of 178.35 ft. this was recorded on 10-17-2018. This is a real time well watch which gives accurate readings every day.

Conclusion

After careful review Cajun Energy on behalf of BTA Oil Producers would like to propose the following;

Since full delineation was not achieved, all sample points will be excavated 6" BGS at a time. At the time of excavation samples will be taken at 6"-1' intervals. During excavation if the area is still contaminated another 6" BGS will be excavated. Intervals of 6" BGS up to 4' BGS will be excavated until samples and lab samples have confirmed that all contaminates have been removed. If samples confirm contaminates went past 4' BGS, a 20 ml reinforced poly liner will be installed and properly seated. Sidewalls will be obtained before backfill. All contaminates will be hauled off to an approved NM disposal facility. The excavation will be backfilled with clean imported caliche on the pad area and imported topsoil for the pasture. The entire area will be contoured to the surrounding area and re-seeded with an approved blend of native vegetation.

Following the approval of the above remediation work plan, Cajun Energy on behalf of BTA Oil Producers will submit all proper closure documentation to the NMOCD in accordance to the State Guidelines set forth.

If you have any questions or concerns concerning this remediation work plan please feel free to contact me.

Sincerely,

Michael Alves
Cajun Energy (Environmental & Dirt Work Division)
831 East Highland
Hobbs, NM 88240
575-631-4310
mike@cajun-energy.com

Appendixes; Initial C-141
Map
Site Photos
Laboratory Analyses
Groundwater Study
USGS Study

Appendix 1: Initial C-141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NOY1826826475
District RP	1RP-5202
Facility ID	
Application ID	pOY1826825549

Release Notification

Responsible Party

Responsible Party BTA Oil Producers	OGRID 260297
Contact Name John Allen	Contact Telephone 432-701-5808
Contact email jallen@btaoil.com	Incident # NOY1826826475
Contact mailing address 104 S. Pecos St. Midland, TX 79701	

Location of Release Source

Latitude: 32.053884 Longitude: -103.605645

(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Mesa B #2 SWD	Site Type: SWD Battery
Date Release Discovered: 9/11/18	API# *(if applicable)*: 30-025-42462

Unit Letter	Section	Township	Range	County
P	7	26S	33E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name:* Charlotte W. Schuman Living Trust of October 5, 1988 Karlyn S. Doyle and Charlotte W. Schuman, Co-Trustees, 2121 Yorktown, #305, Tulsa, OK 74114, 918-747-7703)

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls): Area of spill on pad (9,143 ft^2)* Average depth of spill (0.25 ft) * Soil porosity (0.15) + Length of spill off pad (302 ft) * Average width of spill off pad (0.6 ft) * Depth of spill off pad (1 ft) * Soil porosity (0.2) = 373.0624 ft^3 = 66.4 bbl	Volume Recovered (bbls): 30
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered

Cause of Release:
Internal corrosion in pump vibration dampener caused salt water to spray produced water to spray onto the well pad. Some flowed off-site about 300 feet.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Over 25 bbl
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

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

☒ The source of the release has been stopped.

☐ The impacted area has been secured to protect human health and the environment.

☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why: All free produced water has been removed so there no possibility that human health will be affected or further damage to the environment. Released materials stopped spreading when the pump was shut down and the leak stopped.

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: John Allen Title: Environmental Manager

Signature: _____ Date: 10/1/18

email: jallen@btaoil.com Telephone: 432-701-5808

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☒ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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: John Allen Title: Environmental Manager

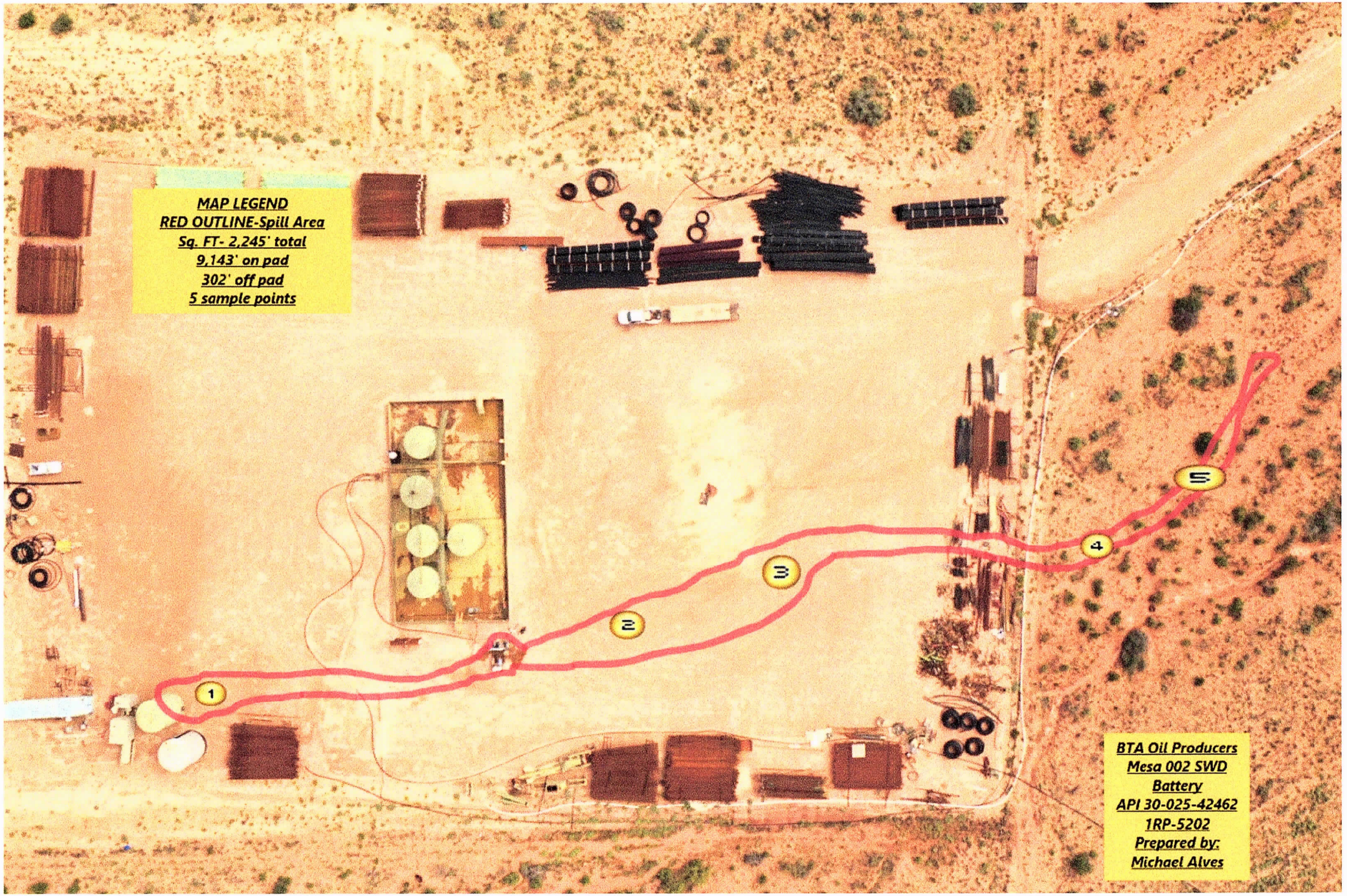
Signature: _____ Date: 10/2/18

email: jallen@btaoil.com Telephone: 432-701-5808

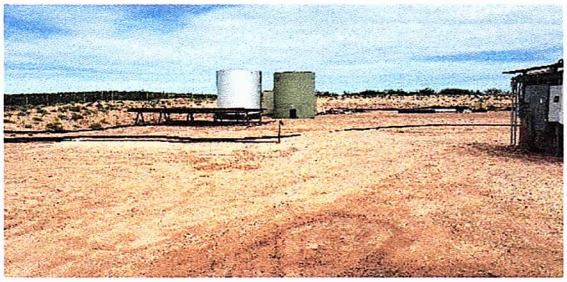
OCD Only

Received by: _____ Date: _____

Appendix 2: Map


MAP LEGEND
RED OUTLINE-Spill Area
Sq. FT- 2,245' total
9,143' on pad
302' off pad
5 sample points
1
2
3
4
5
BTA Oil Producers
Mesa 002 SWD
Battery
API 30-025-42462
1RP-5202
Prepared by:
Michael Alves

Appendix 3: Site Photos



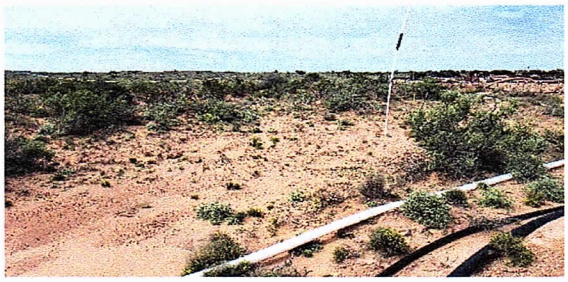
On pad by source (North)

By wellhead looking north

On pad by source (2) (North)

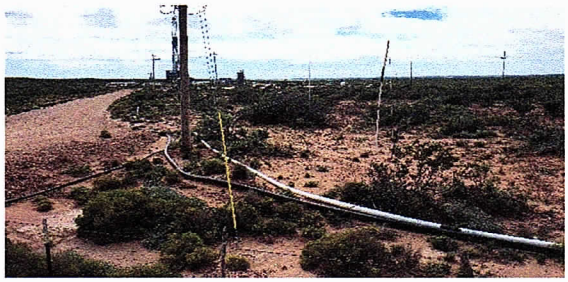
Pasture (Southwest)

On pad (south)

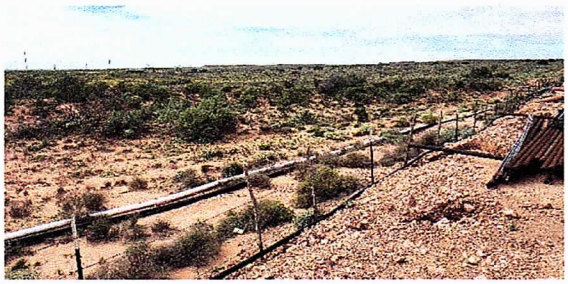


Looking West off pad

On pad (south)



Pasture (South)



Looking southwest into pasture

South off pad

Lease Sign

Current aerial photo (10/21/2018)

Appendix 4: Laboratory Analyses

Certificate of Analysis Summary 600280

BTA Oil Producers, LLC .3, Midland, TX

Project Name: Mesa B 2 SWD

Project Id:
Contact: John Allen
Project Location:

Date Received in Lab: Wed Sep-26-18 10:15 am
Report Date: 01-OCT-18
Project Manager: Kelsey Brooks

Analysis Requested	*Lab Id:*	600280-001		600280-002		600280-003		600280-004		600280-005		600280-006	
	Field Id:	#1 0"		#1 6"		#2 0"		#2 6"		#3 0"		#3 6"	
	Depth:	0-		6- In		0-		6- In		0-		6- In	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00	
Chloride by EPA 300	*Extracted:*	Sep-27-18 14:00		Sep-27-18 14:00		Sep-27-18 14:00		Sep-27-18 14:00		Sep-27-18 14:00		Sep-27-18 14:00	
	Analyzed:	Sep-27-18 14:36		Sep-27-18 15:03		Sep-27-18 15:08		Sep-27-18 15:14		Sep-27-18 15:20		Sep-27-18 15:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1150	5.03	5310	49.8	4630	49.6	4420	49.5	20400	250	4050	49.8

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 600280

BTA Oil Producers, LLC .3, Midland, TX

Project Name: Mesa B 2 SWD

Project Id:
Contact: John Allen
Project Location:

Date Received in Lab: Wed Sep-26-18 10:15 am
Report Date: 01-OCT-18
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	600280-007		600280-008		600280-009		600280-010			
	Field Id:	#4 0"		#4 1'		#5 0"		#5 1'			
	Depth:	0-		12- In		0-		12- In			
	Matrix:	SOIL		SOIL		SOIL		SOIL			
	Sampled:	Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00		Sep-25-18 16:00			
Chloride by EPA 300	***Extracted:***	Sep-27-18 14:00		Sep-27-18 14:00		Sep-27-18 14:00		Sep-27-18 14:00			
	Analyzed:	Sep-27-18 15:42		Sep-27-18 15:48		Sep-27-18 15:54		Sep-27-18 15:59			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		25.8	5.00	728	4.97	51.6	5.02	1830	25.2		

Kelsey Brooks
Project Manager

Analytical Report 600280

for

BTA Oil Producers, LLC .3

Project Manager: John Allen

Mesa B 2 SWD

01-OCT-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-27), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-13)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-17)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-16)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

01-OCT-18

Project Manager: **John Allen**
BTA Oil Producers, LLC .3
104 S. Pecos St.
Midland, TX 79701

Reference: XENCO Report No(s): **600280**
Mesa B 2 SWD
Project Address:

John Allen:

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) 600280. 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. 600280 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
#1 0"	S	09-25-18 16:00	0	600280-001
#1 6"	S	09-25-18 16:00	6 In	600280-002
#2 0"	S	09-25-18 16:00	0	600280-003
#2 6"	S	09-25-18 16:00	6 In	600280-004
#3 0"	S	09-25-18 16:00	0	600280-005
#3 6"	S	09-25-18 16:00	6 In	600280-006
#4 0"	S	09-25-18 16:00	0	600280-007
#4 1'	S	09-25-18 16:00	12 In	600280-008
#5 0"	S	09-25-18 16:00	0	600280-009
#5 1'	S	09-25-18 16:00	12 In	600280-010

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3064711 Inorganic Anions by EPA 300

Lab Sample ID 600476-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 600280-001, -002, -003, -004, -005, -006, -007, -008, -009, -010.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

CASE NARRATIVE

Client Name: BTA Oil Producers, LLC .3

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#1 0"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-001	Date Collected:	09.25.18 16.00	Sample Depth:	0
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1150**	5.03	mg/kg	09.27.18 14.36		1

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#1 6"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-002	Date Collected:	09.25.18 16.00	Sample Depth:	6 In
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5310**	49.8	mg/kg	09.27.18 15.03		10

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#2 0"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-003	Date Collected:	09.25.18 16.00	Sample Depth:	0
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4630**	49.6	mg/kg	09.27.18 15.08		10

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#2 6"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-004	Date Collected:	09.25.18 16.00	Sample Depth:	6 In
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4420**	49.5	mg/kg	09.27.18 15.14		10

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#3 0"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-005	Date Collected:	09.25.18 16.00	Sample Depth:	0
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**20400**	250	mg/kg	09.27.18 15.20		50

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#3 6"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-006	Date Collected:	09.25.18 16.00	Sample Depth:	6 In
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**4050**	49.8	mg/kg	09.27.18 15.37		10

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#4 0"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-007	Date Collected:	09.25.18 16.00	Sample Depth:	0
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**25.8**	5.00	mg/kg	09.27.18 15.42		1

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#4 1'**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-008	Date Collected:	09.25.18 16.00	Sample Depth:	12 In
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**728**	4.97	mg/kg	09.27.18 15.48		1

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#5 0"**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-009	Date Collected:	09.25.18 16.00	Sample Depth:	0
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**51.6**	5.02	mg/kg	09.27.18 15.54		1

Certificate of Analytical Results 600280

BTA Oil Producers, LLC .3, Midland, TX

Mesa B 2 SWD

Sample Id:	**#5 1'**	Matrix:	Soil	Date Received:	09.26.18 10.15
Lab Sample Id:	600280-010	Date Collected:	09.25.18 16.00	Sample Depth:	12 In
Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	SCM			% Moisture:	
Analyst:	CHE	Date Prep:	09.27.18 14.00	Basis:	Wet Weight
Seq Number:	3064711				

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1830**	25.2	mg/kg	09.27.18 15.59		5

Flagging Criteria

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

QC Summary 600280

BTA Oil Producers, LLC .3

Mesa B 2 SWD

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3064711 — Matrix: Solid — Date Prep: 09.27.18
MB Sample Id: 7663113-1-BLK — LCS Sample Id: 7663113-1-BKS — LCSD Sample Id: 7663113-1-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	247	99	246	98	90-110	0	20	mg/kg	09.27.18 14:24	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3064711 — Matrix: Soil — Date Prep: 09.27.18
Parent Sample Id: 600280-001 — MS Sample Id: 600280-001 S — MSD Sample Id: 600280-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1150	252	1370	87	1370	87	90-110	0	20	mg/kg	09.27.18 14:41	X

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3064711 — Matrix: Soil — Date Prep: 09.27.18
Parent Sample Id: 600476-001 — MS Sample Id: 600476-001 S — MSD Sample Id: 600476-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	836	250	1060	90	1070	94	90-110	1	20	mg/kg	09.27.18 16:11	

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

Final 1.000

Chain of Custody

XENCO LABORATORIES

Work Order No: 600780

Houston,TX (281) 240-4200 Dallas,TX (214) 902-0300 San Antonio,TX (210) 509-3334
Midland,TX (432-704-5440) EL Paso,TX (915)585-3443 Lubbock,TX (806)794-1296
Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

www.xenco.com Page _____ of _____

Project Manager:	John Allen	Bill to: (if different)	
Company Name:	BTA	Company Name:	
Address:	104 S. Pecos	Address:	
City, State ZIP:	Midland TX 79707	City, State ZIP:	
Phone:	432-701-5808	Email:	~~John~~ Jallen@BTAoil.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Mesa B 2 SWD	Turn Around	
Project Number:		Routine	☑
P.O. Number:		Rush:	
Sampler's Name:	John Allen	Due Date:	

SAMPLE RECEIPT			
Temperature (°C):	3.5	Temp Blank: Yes (No)	Wet Ice: (Yes) No
Received Intact:	(Yes) No	Thermometer ID:	68
Cooler Custody Seals:	Yes (No) N/A	Correction Factor:	0.0
Sample Custody Seals:	Yes (No) N/A	Total Containers:	

ANALYSIS REQUEST

Work Order Notes

TAT starts the day recevied by the lab, if received by 4:30pm

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	Sample Comments
#1 0"	Soil	9/25	4:00PM	0	1	X	
#1 6"				6"	1	X	
#2 0"				0	1	X	
#2 6"				6"	1	X	
#3 0"				0	1	X	
#3 6"				6"	1	X	
#4 0"				0	1	X	
#4 ~~1'~~ 12"				12"	1	X	
#5 0"				0	1	X	
#5 1'				12"	1	X	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U **1631 / 245.1 / 7470 / 7471** : Hg

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9/26/18 10:15	2		
3			4		
5			6		

Revised Date 051418 Rev. 2018.1

Final 1.000

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: BTA Oil Producers, LLC .3

Date/ Time Received: 09/26/2018 10:15:00 AM

Work Order #: 600280

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)?	3.5
#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)?	**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 Date: 09/26/2018
Brianna Teel

Checklist reviewed by: Kelsey Brooks Date: 09/27/2018
Kelsey Brooks

Appendix 5: Groundwater Study

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

Basin/County Search:

Basin: Jal **County:** Lea

PLSS Search:

Section(s): 7 **Township:** 26S **Range:** 33E

New Mexico Office of the State Engineer

Wells with Well Log Information

No wells found.

Basin/County Search:

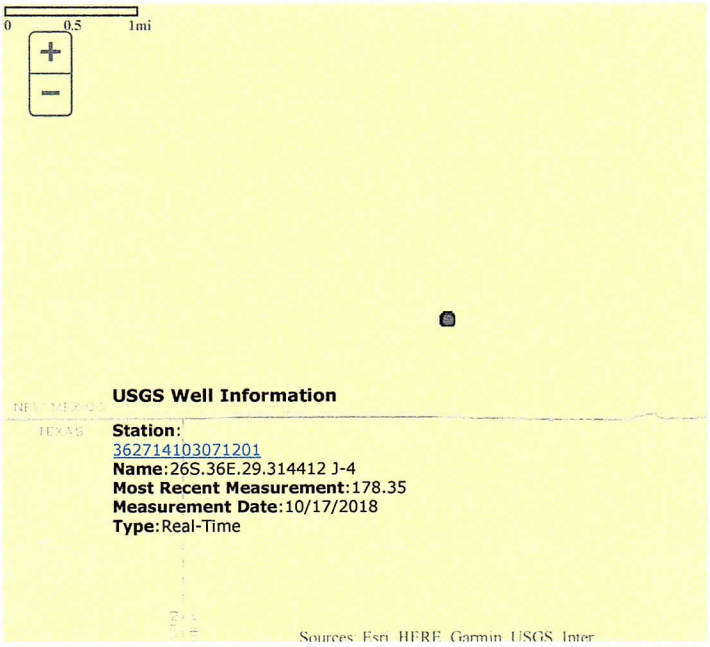
Basin: Jal County: Lea

PLSS Search:

Section(s): 7 Township: 26S Range: 33E

Appendix 6: USGS Study

Site Number: 362714103071201 - 26S.36E.29.314412 J-4



DESCRIPTION:
Latitude 32°00'41.38", Longitude 103°17'31.10" NAD83
Lea County, New Mexico, Hydrologic Unit 13070007
Well depth: 604 feet
Land surface altitude: 2,916.00feet above NGVD29.
Well completed in "Pecos River Basin alluvial aquifer" (N100PCSRVR) national aquifer.
Well completed in "Alluvium, Bolson Deposits and Other Surface Deposits" (110AVMB) local aquifer

AVAILABLE DATA:

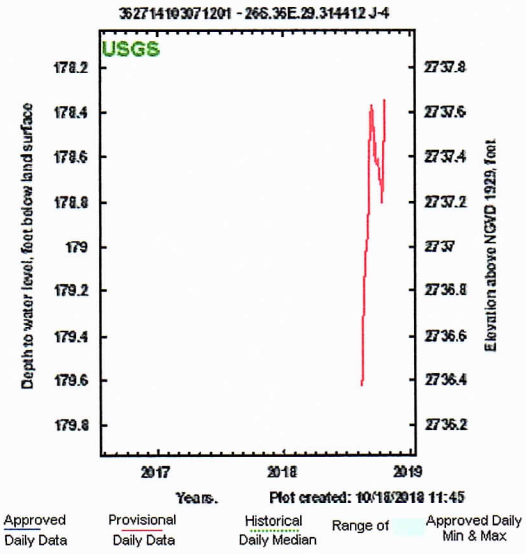
Data Type	Begin Date	End Date	Count
Current / Historical Observations	2018-03-07	2018-07-21	
Daily Data			
Depth to water level, feet below land surface	2018-03-08	2018-07-20	129
Field groundwater-level measurements	1970-12-01	2018-03-06	37
Revisions	Loading...		

Additional Data Sources	Begin Date	End Date	Count
Groundwater Watch **offsite**	1970	2018	158

OPERATION:
Record for this site is maintained by the USGS New Mexico Water Science Center
Email questions about this site toNew Mexico Water Science Center Water-Data Inquiries

Groundwater Watch Help Page

Daily Groundwater Data



There are no approved daily data for this well.

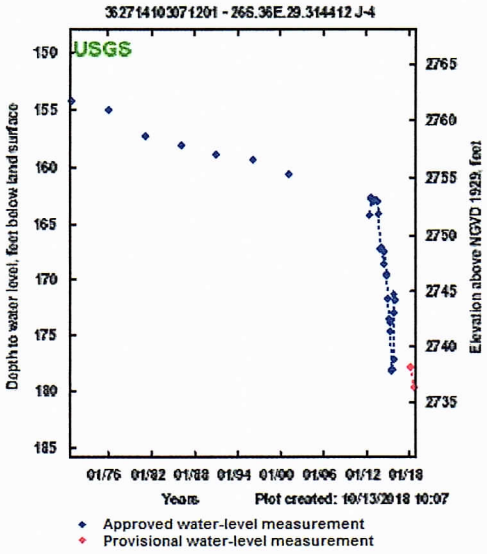
Daily Data Options
View latest data on NWISWeb
View data in calendar format
Download data in text format
View daily medians

Periodic Groundwater Data

Summary for Period of Record Periodic Water Levels
Depth to water level, feet below land surface
Approved Periodic Water Level Values

Begin Date	End Date	Number of Values
12/01/70	08/15/18	38

Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
154.29	12/01/70	179.55	08/15/18

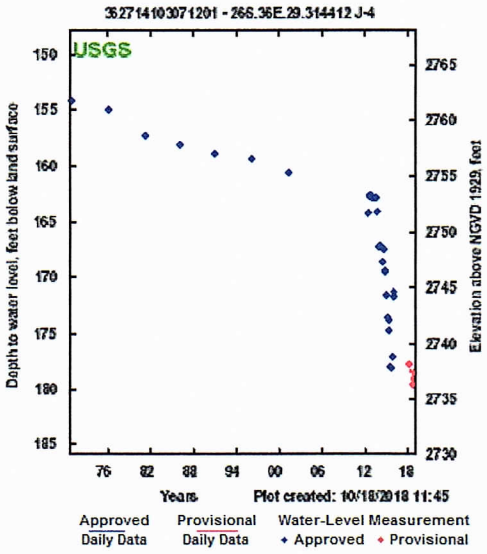


Groundwater Levels Options

View latest data on NWISWeb

Download groundwater levels in text format

Period of Record - All Data Types



Summary for Period of Record - All Data Types

Depth to water level, feet below land surface

Begin Date	End Date	Number of Values
12/01/70	10/17/18	165

Highest WL	Date of Highest WL	Lowest WL	Date of Lowest WL
154.29	12/01/70	179.62	08/16/18

Period of Record Options

View latest data on NWISWeb for all data types

View month/year statistics

Download groundwater levels in text format of all data types

Return to Groundwater Watch | Return to County Page | Return to State Page