

From: [Yu, Olivia, EMNRD](#)
To: [John Allen](#)
Cc: [Jimenez, Yolanda](#); [Hernandez, Christina, EMNRD](#)
Subject: RE: C-141 for produced water spill
Date: Monday, October 15, 2018 1:05:00 PM

Mr. Allen:

Based on the data provided up to 6 inches bgs, release characterization has not been completed for 1RP-5202. What is the proposed timeline to complete site/release characterization and submit a remediation plan?

Thanks,
Olivia

From: John Allen <Allen@btaoil.com>
Sent: Tuesday, October 2, 2018 1:01 PM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Cc: Jimenez, Yolanda <yjimenez@blm.gov>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>
Subject: [EXT] RE: C-141 for produced water spill

The C-141 with corrections and site characterization is attached. Analytical results are also attached in a separate document.

[John Allen](#)

From: Yu, Olivia, EMNRD [<mailto:Olivia.Yu@state.nm.us>]
Sent: Tuesday, September 25, 2018 8:41 AM
To: John Allen
Cc: Jimenez, Yolanda; Hernandez, Christina, EMNRD
Subject: RE: C-141 for produced water spill

***** EXTERNAL EMAIL - Please use caution and **DO NOT** open attachments or click links from unknown or unexpected emails. *****

Good morning Mr. Allen:

Notes:

- Please confirm the release location. The release GPS coordinates provided on 19 Sept 2018 were 32.05356, -103.60563 at the location of 30-025-42462. However, on the C-141 form, the GPS coordinates are for a release on the adjacent well pad of 30-028-42125.
- According to NMOCD databases, the release point is on Fee surface and mineral ownerships. However, the portion of the release running into a draw, crossing into Section 8 is Federal surface and minerals ownership. BLM can verify.
- Release occurred in a Medium cave karst region and release impacted a watercourse. Please address this release as high priority.

Please be advised that

1. The initial portion of the C-141 form does not include the calculations to determine the release volume. Visual estimation is not sufficient nor adequate. Please submit measurements in volume estimation; including dimensions, soil parameters (porosity, texture, bulk density, etc).
2. Provide dated, geo-referenced photo documentation for verification that the initial response activities have been employed to contain the release.
3. Per 19.15.29.10 NMAC, a major release necessitates immediate notification to NMOCD Environmental Bureau chief, in addition to District office.
4. Per 19.15.29.13 NMAC, regulations of corresponding agencies supersede NMOCD's.

The 1RP for this incident is

5202	9/24/2018	A	BTA oil	Mesa B #2 SWD	30-025-42462	26S-33E-7P	9/11/2018
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Please remember to include this 1RP identifier to all communications. Revised NMAC 19.15.29 was effective on August 14, 2018. Delineate and remediate per regulation. Mind the timelines for submittal of requisite information.

Please be advised that NMOCD recommends a completed site characterization/delineation report be reviewed or approved by NMOCD BEFORE any significant remediation work towards closure.

Thanks,

Olivia Yu
Environmental Specialist
NMOCD, District I
Olivia.yu@state.nm.us
575-393-6161 x113

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: John Allen <JAllen@btaoil.com>
Sent: Thursday, September 20, 2018 11:18 AM
To: Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>
Subject: C-141 for produced water spill

Hi Olivia,

We spoke yesterday about a produced water spill at a SWD. The first 2 pages of form C-141 are attached.

John Allen
Environmental Manager
BTA Oil Producers
104 S Pecos St.
Midland, TX 79701
Cell: 432-701-5808
Office: 432-682-3753 x121

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	IRP-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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered

Cause of Release:

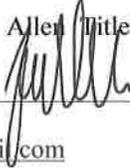
Internal corrosion in pump vibration dampener caused salt water to spray produced water to spray onto the well pad. Some flowed off-site about 300 feet.

Incident ID	
District RP	
Facility ID	
Application ID	

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why: 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@btaoi.com Telephone: 432-701-5808
<u>OCD Only</u> Received by: _____ Date: _____

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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 1/2-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: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Google Earth - Edit Polygon

Name:

Description	Style, Color	View	Altitude	Measurements
Perimeter:			1,107 Feet	
Area:			9,143 Square Feet	



Google Earth - Edit Path

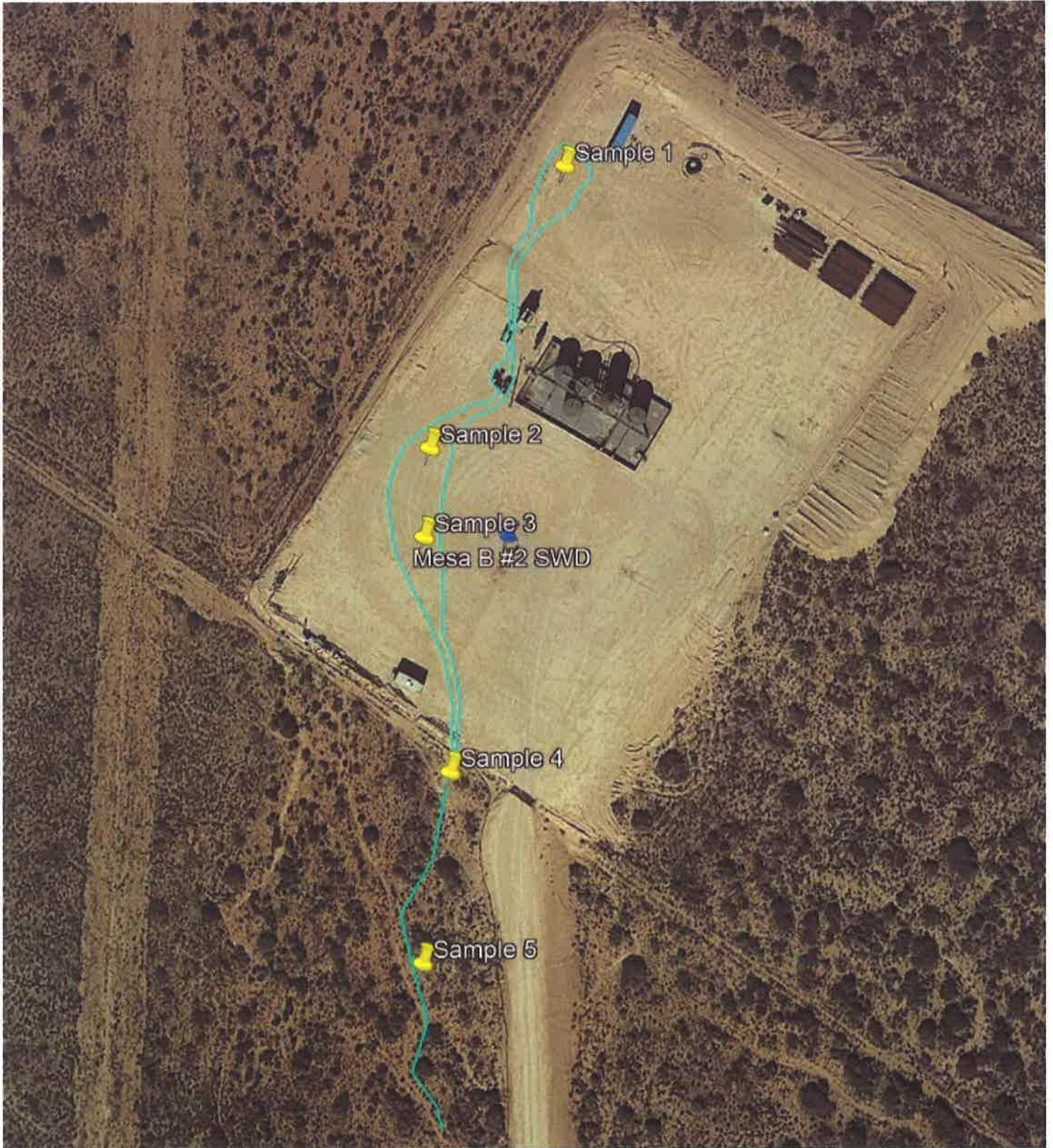
Name:

Description	Style, Color	View	Altitude	Measurements
Length:			302 Feet	



Incident ID	
District RP	
Facility ID	
Application ID	

Sample sites



Incident ID	
District RP	
Facility ID	
Application ID	

Depth to water table



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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

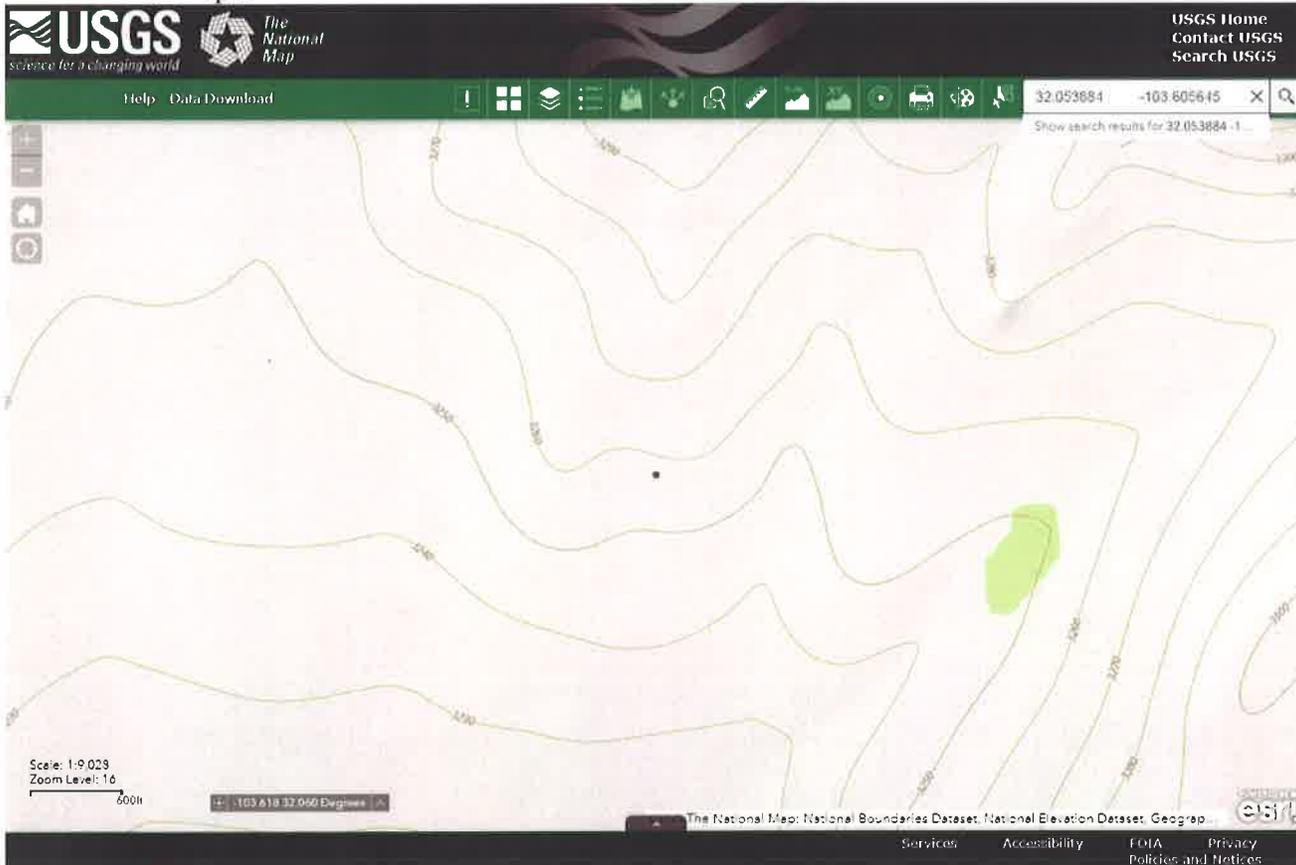
(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twp	Rng	X	Y	Distance	Depth	Well	Depth	Water Column
C 02273		CUB	LE	1	2	21	26S	33E		634549	3545134*	3585	160		120	40
C 02287		C	LE	3	4	4	03	26S	33E	636427	3548708	5018	220			
C 02286		CUB	LE	3	4	4	03	26S	33E	636470	3548714	5060	220		175	45
C 02290		CUB	LE	4	4	4	03	26S	33E	636538	3548770	5142	200		160	40
C 02289		CUB	LE	4	4	4	03	26S	33E	636612	3548675*	5185	200		160	40
C 02285 POD1		CUB	LE	1	4	4	03	26S	33E	636613	3548855	5239	220		220	0
C 02288		CUB	LE	4	4	4	03	26S	33E	636646	3548758	5242	220		180	40
C 03577 POD1		CUB	LE	3	3	3	22	26S	33E	636010	3543771	5572	750		110	640

Watercourses near spill





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

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

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 - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

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

<i>Analysis Requested</i>	<i>Lab Id:</i>	600280-007	600280-008	600280-009	600280-010		
	<i>Field Id:</i>	#4 0"	#4 1'	#5 0"	#5 1'		
	<i>Depth:</i>	0-	12- In	0-	12- In		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL		
	<i>Sampled:</i>	Sep-25-18 16:00	Sep-25-18 16:00	Sep-25-18 16:00	Sep-25-18 16:00		
Chloride by EPA 300	<i>Extracted:</i>	Sep-27-18 14:00	Sep-27-18 14:00	Sep-27-18 14:00	Sep-27-18 14:00		
	<i>Analyzed:</i>	Sep-27-18 15:42	Sep-27-18 15:48	Sep-27-18 15:54	Sep-27-18 15:59		
	<i>Units/RL:</i>	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		

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 - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

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

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

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

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



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



CASE NARRATIVE

Client Name: BTA Oil Producers, LLC .3

Project Name: Mesa B 2 SWD

Project ID:
Work Order Number(s): 600280

Report Date: 01-OCT-18
Date Received: 09/26/2018

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.



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: #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: #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



QC Summary 600280

BTA Oil Producers, LLC .3 Mesa B 2 SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3064711

MB Sample Id: 7663113-1-BLK

Matrix: Solid

LCS Sample Id: 7663113-1-BKS

Prep Method: E300P

Date Prep: 09.27.18

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

Seq Number: 3064711

Parent Sample Id: 600280-001

Matrix: Soil

MS Sample Id: 600280-001 S

Prep Method: E300P

Date Prep: 09.27.18

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

Seq Number: 3064711

Parent Sample Id: 600476-001

Matrix: Soil

MS Sample Id: 600476-001 S

Prep Method: E300P

Date Prep: 09.27.18

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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



Chain of Custody

Work Order No: 100280

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)

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

Project Name:	Mesa B-2 SWD	Turn Around:	<input checked="" type="checkbox"/> Routine
Project Number:		Rush:	
P.O. Number:		Due Date:	
Sampler's Name:	John Allen		

SAMPLE RECEIPT	Temp Blank:	Yes	No	Wet Ice:	Yes	No
Temperature (°C):	3.0	Thermometer ID:				
Received Intact:	Yes	No	Correction Factor:	0.0		
Cooler Custody Seals:	Yes	No	N/A	Total Containers:		
Sample Custody Seals:	Yes	No	N/A			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	ANALYSIS REQUEST											Work Order Notes						
#1 D"	Soil	9/25	4:00PM	6"	1	<input checked="" type="checkbox"/>																	
#2 D"	Soil	9/25	4:00PM	6"	1	<input checked="" type="checkbox"/>																	
#3 D"	Soil	9/25	4:00PM	6"	1	<input checked="" type="checkbox"/>																	
#4 D"	Soil	9/25	4:00PM	6"	1	<input checked="" type="checkbox"/>																	
#5 D"	Soil	9/25	4:00PM	6"	1	<input checked="" type="checkbox"/>																	

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti 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 Ti U 1631 / 245.1 / 7470 / 7471 : Hg

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 \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		9/26/18 10:15			



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