Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Gas Well Oil Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone [327174] 2. Name of Operator 9. API Well No. 30-025-49290 [260297] 3a. Address 3b. Phone No. (include area code) Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Date Name (Printed/Typed) Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. NGMP Rec 08/09/2021 APPROVED WITH CONDITIONS SL (Continued on page 2) \*(Instructions on page 2)

1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 DISTRICT II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 DISTRICT III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

#### State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe. New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

□ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name						
30-025-49290	98158	WC-025 G-09 S253236A;UPR WOLFCA						
Property Code	Prope	Property Name						
327174	MESA 8105 1	I-12 FEDERAL	57H					
OGRID No.	Opera	ator Name	Elevation					
260297	BTA OIL PRO	BTA OIL PRODUCERS, LLC						

#### Surface Location

					Sulface Locati	OII							
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
D	1	26-S	32 <b>-</b> E		280	NORTH	730	WEST	LEA				
	Bottom Hole Location If Different From Surface												
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
M 12 26-S 32-E 50 SOUTH 330 WEST							WEST	LEA					
Dedicated Acres	Joint or	Infill C	onsolidation C	ode Or	der No.		***	1	111				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

NAD 27 NME

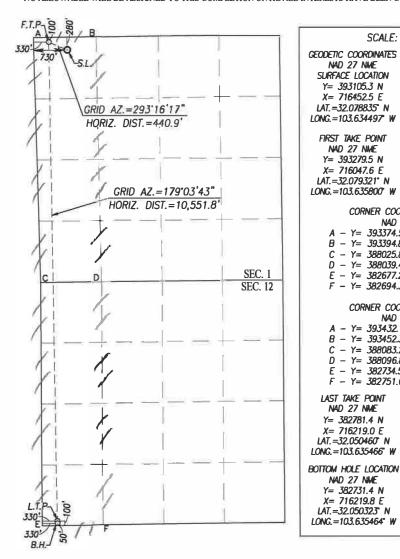
Y= 382731.4 N

X= 716219.8 E

IAT = 32 050323" N

LONG.=103.635464° W

SCALE: 1"=2000"



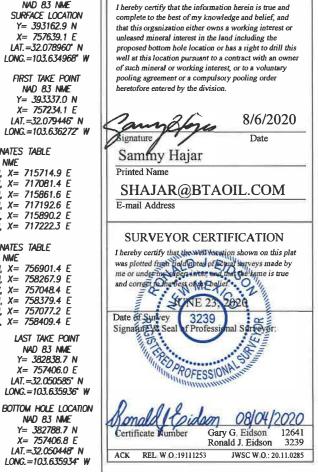
#### **OPERATOR CERTIFICATION** GEODETIC COORDINATES GEODETIC COORDINATES NAD 27 NME NAD 83 NME SURFACE LOCATION SURFACE LOCATION Y= 393105.3 N Y= 393162.9 N X= 716452.5 E X= 757639.1 E LAT. =32.078835° N LAT.=32.078960° N LONG.=103.634497 W LONG.=103.634968° W FIRST TAKE POINT FIRST TAKE POINT NAD 27 NME NAD 83 NME Y= 393279.5 N Y= 393337.0 N X= 716047.6 E X= 757234.1 E LAT.=32.079321° N LAT.=32.079446° N LONG.=103.635800° W LONG.=103.636272° W ignature CORNER COORDINATES TABLE NAD 27 NME A - Y = 393374.5 N, X = 715714.9 EB - Y= 393394.8 N, X= 717081.4 E C - Y = 388025.8 N, X = 715861.6 ED - Y = 388039.4 N, X = 717192.6 EE - Y = 382677.2 N, X = 715890.2 E- Y= 382694.3 N, X= 717222.3 E CORNER COORDINATES TABLE NAD 83 NME - Y= 393432.1 N, X= 756901.4 E - Y = 393452.3 N, X = 758267.9 E- Y= 388083.2 N, X= 757048.4 E D - Y = 388096.8 N, X = 758379.4 E- Y= 382734.5 N, X= 757077.2 E F - Y = 382751.6 N, X = 758409.4 ELAST TAKE POINT LAST TAKE POINT NAD 27 NME NAD 83 NIME Y= 382781.4 N Y= 382838.7 N X= 716219.0 E X= 757406.0 E LAT.=32.050460 N LAT.=32.050585° N LONG.=103.635466" W LONG.=103.635936° W

NAD 83 NME

Y= 382788.7 N

X= 757406.8 E

LAT.=32.050448" N



# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | BTA Oil Producers LLC

**LEASE NO.:** | NMNM014492

**WELL NAME & NO.:** MESA 8105 1-12 Federal 57H

**SURFACE HOLE FOOTAGE:** 280'/N & 730'/W **BOTTOM HOLE FOOTAGE** 50'/S & 330'/W

**LOCATION:** | Section 1, T.26 S., R.32 E., NMP

**COUNTY:** Lea County, New Mexico

COA

H2S	O Yes	• No	
Potash	None	Secretary	© R-111-P
Cave/Karst Potential	O Low	• Medium	O High
Cave/Karst Potential	O Critical		
Variance	O None	Flex Hose	Other
Wellhead	Conventional	• Multibowl	O Both
Other	☐4 String Area	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	□ СОМ	□ Unit

#### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

#### **B. CASING**

#### **Casing Design:**

- 1. The 10-3/4 inch surface casing shall be set at approximately 860 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The **7-5/8** inch intermediate casing shall be set at approximately **11,829** feet. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

#### **Option 1 (Single Stage):**

• Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Excess cement calculates to -45%, additional cement might be required.

#### **Option 2:**

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
  - Excess cement calculates to -7%, additional cement might be required.
- b. Second stage above DV tool:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  - Wait on cement (WOC) time for a primary cement job is to include tlead cement slurry due to cave/karst or potash.
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 5 1/2 X 5 inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

#### C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

### **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
  - \( \sum\_{\text{ounties}} \)
     \( \text{Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201. \)
     \( \text{During office hours call (575) 627-0272. } \)
     \( \text{After office hours call (575)} \)
  - Eddy County
     Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
  - Lea County
     Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
     393-3612

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, no tests shall commence until the cement has had a minimum of 24 hours setup time.
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

#### OTA06212021



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Application Data Report

APD ID: 10400057753

Submission Date: 06/05/2020

Highlighted data reflects the most recent changes

Operator Name: BTA OIL PRODUCERS LLC

Well Number: 57H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

Well Name: MESA 8105 1-12 FEDERAL

APD ID: 10400057753 Tie to previous NOS?

Submission Date: 06/05/2020

**BLM Office:** Carlsbad

User: Sammy Hajar

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM14492

Surface access agreement in place?

**Lease Acres:** Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

**Permitting Agent? NO** 

APD Operator: BTA OIL PRODUCERS LLC

Operator letter of designation:

#### **Operator Info**

Operator Organization Name: BTA OIL PRODUCERS LLC

Operator Address: 104 S. Pecos

**Zip:** 79701

**Operator PO Box:** 

**Operator City: Midland** 

State: TX

Operator Phone: (432)682-3753

**Operator Internet Address:** 

#### **Section 2 - Well Information**

Well in Master Development Plan? NO **Master Development Plan name:** 

Well in Master SUPO? NO Master SUPO name:

Well in Master Drilling Plan? NO Master Drilling Plan name:

Well Name: MESA 8105 1-12 FEDERAL Well API Number: Well Number: 57H

Field/Pool or Exploratory? Field and Pool Field Name: WC-025 Pool Name: UPPER

WOLFCAMP

Is the proposed well in an area containing other mineral resources? NONE

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Is the proposed well in an area containing other mineral resources? NONE

Is the proposed well in a Helium production area? N Use Existing Well Pad? N New surface disturbance?

Type of Well Pad: MULTIPLE WELL Multiple Well Pad Name: MESA Number: 56H and 57H

Well Class: HORIZONTAL

8105 1-12 FEDERAL

Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL
Describe Well Type:
Well sub-Type: INFILL

Describe sub-type:

Distance to town: Distance to nearest well: 767 FT Distance to lease line: 280 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Signed\_Mesa\_8105\_1\_12\_Federal\_57H\_C102\_20200806130219.pdf

Well work start Date: 11/04/2021 Duration: 30 DAYS

#### **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83 Vertical Datum: NGVD29

Survey number: Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL	280	FNL	730	FW	26S	32E	1	Aliquot	32.07896		LEA	l .	—	F	NMNM	333	0	0	Υ
Leg				L				NWN		103.6349			MEXI		014492	6			
#1								W		68		СО	СО						
KOP	100	FNL	330	FW	26S	32E	1	Aliquot	32.07944	-	LEA	NEW	NEW	F	NMNM	-	119	118	Υ
Leg				L				NWN	6	103.6362		MEXI	l		014492	853	03	71	
#1								W		72		CO	CO			5			
PPP	100	FNL	330	FW	26S	32E	1	Aliquot	32.07944	-	LEA	NEW	NEW	F	NMNM	-	121	120	Υ
Leg				L				NWN	6	103.6362		MEXI	MEXI		014492	873	07	69	
#1-1								W		72		CO	CO			3			

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
EXIT Leg #1	100	FSL	330	FW L	26S	32E		Aliquot SWS W	32.05058 5	- 103.6359 36	LEA	NEW MEXI CO	1.1-11	F	NMNM 014492	- 901 3	225 32	123 49	Y
BHL Leg #1	50	FSL	330	FW L	26S	32E		Aliquot SWS W	32.05044 8	- 103.6359 34	LEA	NEW MEXI CO	1.1-11	F	NMNM 014492	- 901 3	228 12	123 49	Y



#### U.S. Department of the Interior **BUREAU OF LAND MANAGEMENT**

# **Drilling Plan Data Report**

07/20/2021

**APD ID:** 10400057753

**Submission Date:** 06/05/2020

Highlighted data reflects the most recent changes

Well Name: MESA 8105 1-12 FEDERAL

Operator Name: BTA OIL PRODUCERS LLC

Well Number: 57H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

#### **Section 1 - Geologic Formations**

Formation			True Vertical	Measured			Producing
ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
753007	QUATERNARY	3334	0	Ö	ALLUVIUM	NONE	N
753008	RUSTLER	2545	789	789	ANHYDRITE	NONE	N
753009	TOP SALT	2075	1259	1259	SALT	NONE	N
753010	BASE OF SALT	-1265	4599	4599	SALT	NONE	N
753011	DELAWARE	-1445	4779	4779	LIMESTONE	NATURAL GAS, OIL	N
753020	BELL CANYON	-1469	4803	4803	SANDSTONE	NATURAL GAS, OIL	N
753013	CHERRY CANYON	-2850	6184	6184	SANDSTONE	NATURAL GAS, OIL	N
753014	BRUSHY CANYON	-4070	7404	7404	SANDSTONE	NATURAL GAS, OIL	N
753015	BONE SPRING LIME	-5665	8999	8999	LIMESTONE	NATURAL GAS, OIL	N
753016	FIRST BONE SPRING SAND	-6585	9919	9919	SANDSTONE	NATURAL GAS, OIL	N
753017	BONE SPRING 2ND	-7150	10484	10484	SANDSTONE	NATURAL GAS, OIL	N
753018	BONE SPRING 3RD	-8280	11614	11614	SANDSTONE	NATURAL GAS, OIL	N
753019	WOLFCAMP	-8735	12069	12069	SHALE	NATURAL GAS, OIL	Y

### **Section 2 - Blowout Prevention**

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Pressure Rating (PSI): 10M Rating Depth: 14000

**Equipment:** The blowout preventer equipment (BOP) shown in Exhibit A will consist of a (10M system) double ram type (10,000 psi WP) preventer and a bag-type (Hydril) preventer (5000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 5" drill pipe rams on bottom. The BOPs will be installed on the 10-3/4" surface casing and utilized continuously until total depth is reached. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. A remote kill line will be used for the 10M system as per onshore order #2. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold having a 10,000 psi WP rating. The 5M annular will be tested as per BLM drilling Operations Order No. 2, and will be test to 100% of working pressure.

#### Requesting Variance? NO

#### Variance request:

**Testing Procedure:** Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. All BOPs and associated equipment will be tested as per BLM drilling Operations Order No. 2.

#### **Choke Diagram Attachment:**

Choke\_Hose\_\_\_Test\_Chart\_and\_Specs\_20190723082742.pdf

10M\_choke\_mannifold\_20200521113335.pdf

#### **BOP Diagram Attachment:**

BLM\_10M\_BOP\_with\_5M\_annular\_20200521113411.pptx

5M\_annular\_well\_control\_plan\_for\_BLM\_20200521113411.docx

10M\_annular\_variance\_20200521113430.pdf

#### **Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.7 5	10.75	NEW	API	N	0	500	0	500	3336	2836	500	J-55	40.5	ST&C	7.3	14.5	DRY	20.7	DRY	31.1
2	INTERMED IATE	9.87 5	7.625	NEW	API	Y	0	8053	0	8000	3018	-4664	8053	P- 110	29.7	BUTT	1.4	2.4	DRY	4	DRY	3.9
	PRODUCTI ON	6.75	5.5	NEW	API	Y	0	11629	0	11597	3018	-8261	11629	P- 110	20	BUTT	1.3	1.5	DRY	2.9	DRY	2.8
4	INTERMED IATE	8.75	7.625	NEW	API	Υ	8053	11829	8000	11797	-4635	-8461	3776	P- 110	29.7	FJ	1.7	1.6	DRY	2.7	DRY	2.7
	PRODUCTI ON	6.75	5.0	NEW	API	Υ	11629	22812	11597	12349	-8261	-9013	11183	P- 110	18	BUTT	1.3	1.4	DRY	1.5	DRY	1.4

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Casing	<b>Attachments</b>

Casing ID: 1

String Type: SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Mesa\_57H\_casing\_assumption\_20200806131636.JPG

Casing ID: 2

String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

7\_5\_8\_tapered\_string\_9\_7\_8\_hole\_spec\_\_20200521134254.jpg

Casing Design Assumptions and Worksheet(s):

Mesa\_57H\_casing\_assumption\_20200806131721.JPG

Casing ID: 3

String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

5.5\_tapered\_string\_spec\_20190930151650.jpg

Casing Design Assumptions and Worksheet(s):

Mesa\_57H\_casing\_assumption\_20200806131816.JPG

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

#### **Casing Attachments**

Casing ID: 4

String Type: INTERMEDIATE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

7\_5\_8\_tapered\_string\_8\_3\_4\_hole\_spec\_for\_FJ\_20200521140259.jpg

Casing Design Assumptions and Worksheet(s):

Mesa\_57H\_casing\_assumption\_20200806131920.JPG

Casing ID: 5

String Type: PRODUCTION

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

5\_tapered\_string\_spec\_20190930151627.jpg

Casing Design Assumptions and Worksheet(s):

Mesa\_57H\_casing\_assumption\_20200806131550.JPG

#### **Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	255	160	1.8	13.5	288	100	Class C	2% CaCl2
SURFACE	Tail		255	500	200	1.34	14.8	268	100	Class C	2% CaCl2
INTERMEDIATE	Lead	4790	0	4365	700	2.19	12.7	1533	50	Class C	0.5% CaCl2
INTERMEDIATE	Tail		4365	4790	150	1.33	14.8	199.5	50	Class C	1% CaCl2
INTERMEDIATE	Lead		4790	8280	355	2.64	10.5	937.2	25	Class H	0.5% CaCl2

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		8280	1182 9	400	1.19	15.6	476	25	Class H	1% CaCl2
PRODUCTION	Lead		1083 0	1162 9	0	0	0	0		n/a	n/a

PRODUCTION	Lead	1162	2281	1165	1.27	14.8	1479.	10	Class H	0.1% Fluid Loss	
		9	2				55				

#### **Section 5 - Circulating Medium**

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

#### **Circulating Medium Table**

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	500	OTHER : FW SPUD	8.3	8.4							
500	1182 9	OTHER : DBE	9	9.4							
1182 9	1234 9	OIL-BASED MUD	11	14							

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

#### Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Drill Stem Tests will be based on geological sample shows.

List of open and cased hole logs run in the well:

MUD LOG/GEOLOGICAL LITHOLOGY LOG, GAMMA RAY LOG, CEMENT BOND LOG,

Coring operation description for the well:

None planned

#### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 8990 Anticipated Surface Pressure: 6273

**Anticipated Bottom Hole Temperature(F): 180** 

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

**Contingency Plans geoharzards description:** 

**Contingency Plans geohazards attachment:** 

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BTA\_Oil\_Producers\_LLC\_\_\_EMERGENCY\_CALL\_LIST\_20190723161502.pdf

H2S\_Equipment\_Schematic\_20190723161502.pdf

H2S\_Plan\_20190723161502.pdf

#### **Section 8 - Other Information**

#### Proposed horizontal/directional/multi-lateral plan submission:

Mesa\_57H\_Wall\_plot\_20200806133340.pdf

Mesa\_57H\_directional\_plan\_20200806133340.pdf

Mesa\_8105\_57H\_Gas\_Capture\_Plan\_20200806133421.pdf

#### Other proposed operations facets description:

A variance is requested for a Multi Bowl Wellhead. See the attached schematic. \*All strings will be kept 1/3 full while running.

Other proposed operations facets attachment:

Other Variance attachment:

BTA\_MB\_10\_34\_\_\_7\_58\_\_\_5\_12\_20200521143833.pdf



Contifech

CONTITECH RUBBER Industrial Kft.

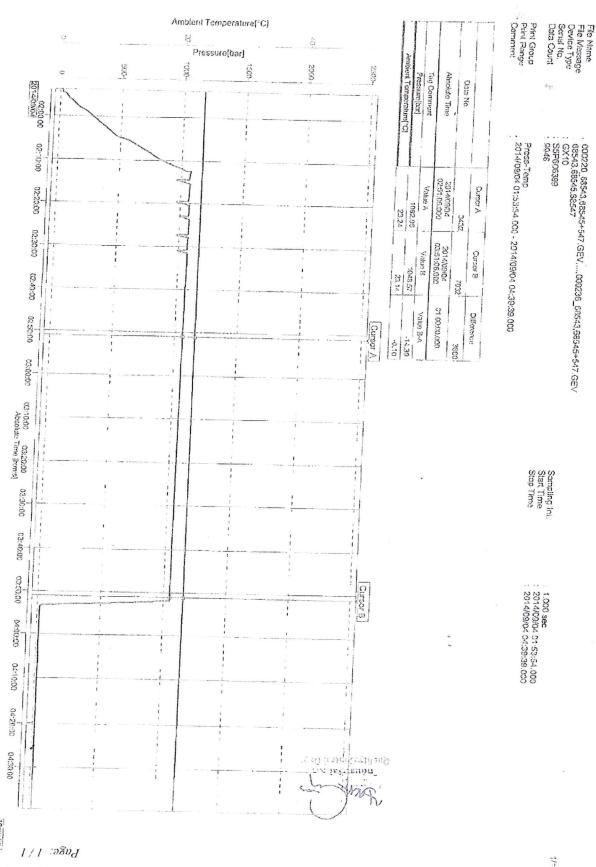
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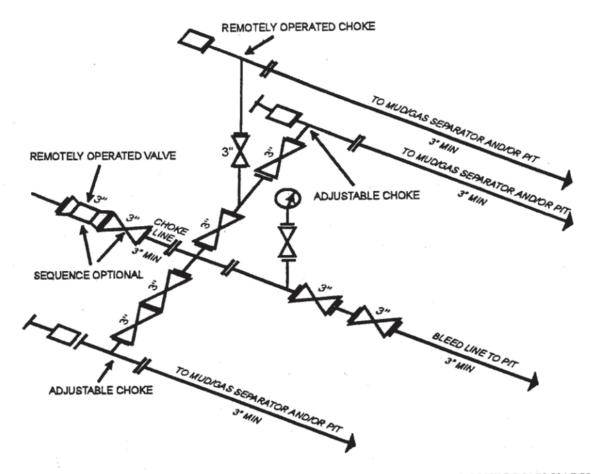
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Ria 94		244	55						
QUALI INSPECTION A	TY CONT ND TEST		CATE	alember (1964)	CERT. N	Λo:	1592	2	
PURCHASER:	ContiTech C	il & Marine	Corp.		P.O. N°:	Eine stein Sings under St.	4500461	753	
CONTITECH ORDER N°:	539225	HOSE TYPE:	3"	ID	L	Choke	& Kill Hose		
HOSE SERIAL N°: 68547 NOMINAL / ACTUAL LENGTH: 7,62 m / 7,66 m						gargaga Millia Milliann a garanta Garana ya saranta a saka da			
W.P. 68,9 MPa 1	0000 psi	T.P. 103,4	MPa	1500	)() psi	Duration:	60	min.	
'See attachment. ( 1 page )  → 10 Min.									
↑ 50 MP2 COUPLINGS Typ		Povi	al Nic		Qua		Uco	: <b>N</b> IO	
3" coupling with		2574	al N°  5533				Heat N°		
4 1/16" 10K API Swivel F	1	2374	3333		AISI 4130 AISI 4130		A1582N H8672 58855		
Hub			1-7-7-1 1-7-1		AISI	4130	A1199N	A1423N	
Not Designed For V	Vell Testinç	j				i	API Spec	16 C	
Fire Rated	Fire Rated Temperature rate:"B"								
All metal parts are flawless									
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.									
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant accoptance criteria and design requirements.									
Date:	Inspector		Quality	Contro	1				
04. September 2014.		~	1857		, Indu	ack, Rubbs atrial Kft. Control De		193	

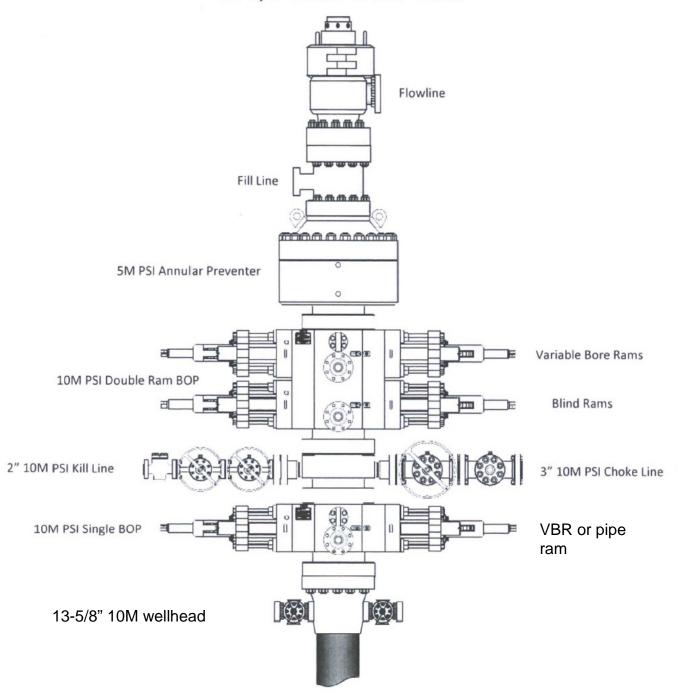
Contificin Ryther Industrial Kit. | Budagosti ĉi 10.11 6728 Szeged | IN-6701 P.O.Box 152 Szaged, Hungshy Phone: 156.67.66 737 | Fax: +36.62.556 738 | e-mail inte@fluid contiects in I Internet www.contiects.rut.evr.in.contiects but The Court of Osongrád County as Registry Court | Registry Court No. Cg 08.69.692527 | FITVAT No. P.I.11087298 Book cots Commerciand, Zit., Budagost | 14220106-26833693



VILIVCHWENI OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE — Vo.: 1588, 1590, 1592



10M AND 15M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY [53 FR 49661, Dec. 9, 1988 and 54 FR 39528, Sept. 27, 1989]



#### Well control plan for 10M BOPE with 5M annular

#### **Drilling**

- 1. Sound alarm (alert crew).
- 2. Space out drill string.
- 3. Shut down pumps (stop pumps and rotary).
- 4. Shut-in Well with annular with HCR and choke in closed position.
- 5. Confirm shut-in.
- 6. Notify tool pusher/company representative.
- 7. Read and record the following:
- a. SIDPP & SICP
- b. Time of shut in
- c. Pit gain
- 8. Regroup and identify forward plan. If pressure has increased to 2500 psi, confirm spacing and close the upper variable bore rams.
- 9. Prepare for well kill operation.

#### **Tripping**

- Sound alarm (alert rig crew)
- 2. Stab full opening safety valve and close valve
- 3. Sapce out drill string
- 4. Shut in the well with the annular with HCR and choke in closed position
- 5. Confirm shut in
- 6. Notify tool pusher/company representative
- 7. Read and record the following
- a. Time of shut in
- b. SIDPP and SICP
- c. Pit gain
- 8. If pressure has increased to 2500 psi, confirm spacing and close the upper most variable bore ram.
- 9. Prepare for well kill operation.

#### While Running Casing

- 1. Sound alarm (alert rig crew)
- 2. Stab crossover and full opening safety valve and close valve
- Space out casing string
- 4. Shut in well with annular with HCR and choke in closed position
- 5. Confirm shut in
- 6. Notify tool pusher/company representative
- 7. Read and record the following:
- a. SIDPP & SICP
- b. Pit gain
- c. Time
- 8. If pressure has increased to 2500 psi, confirm spacing and close the upper most variable bore ram.
- 9. Prepare for well kill operation.

#### No Pipe In Hole (Open Hole)

1. Sound alarm (alert rig crew)

#### Well control plan for 10M BOPE with 5M annular

- Shut in blind rams with HCR and choke in closed position 2.
- 3. Confirm shut in
- 4. Notify tool pusher/company representative
- Read and record the following: 5.
- SICP a.
- Pit gain b.
- Time C.
- Prepare for well kill operation 6.

- Pulling BHA thru Stack
  1. Prior to pulling last joint of drill pipe thru the stack
  - Perform flow check, if flowing: a.
  - Sound Alarm (alert crew) a.i.
  - Stab full opening safety valve and close valve a.ii.
  - Space out drill string a.iii.
  - Shut in using upper most VBR, choke and HCR in closed positon a.iv.
  - Confirm shut in a.v.
  - Notify tool pusher/company representative. a.vi.
  - Read and record the following: a.vii.
    - a.vii.1. SIDPP and SICP
    - a.vii.2. Pit gain
    - a.vii.3. Time
- Prepare for well kill operation a.viii.
  - With BHA in the stack: 2.
  - If possible pull BHA clear of stack a.
  - Follow 'open hole' procedure above a.i.
    - If unable to pull BHA clear of stack b.
  - Stab crossover with full opening safety valve, close valve. b.i.
  - Space out b.ii.
- Shut in using upper most VBR. HCR and choke in closed position. b.iii.
- Confirm shut in b.iv.
- Notify tool pusher/company rep b.v. Read and record the following: b.vi.
  - b.vi.1. SIDPP and SICP
    - b.vi.2. Pit gain
    - b.vi.3. Time
- Prepare for well kill operation b.vii.

## <u>Drilling component and preventer compatibility table</u> <u>for 10M approval</u>

The following table outlines the drilling and production liner components for Wolfcamp targets requiring 10M BOPE approval. Variance is requested to utilize a 5M annular preventer in 6-1/8" hole as all components can be covered using 10M rated VBR's (variable bore rams). 5M annular on the 10M system will be tested to 100% of rated working pressure.

6-1/8" hole section – 10M BOPE requirement (13-5/8" BOP)										
Component	OD	Preventer	RWP							
Drill pipe	4"	3.5"-5.5" VBR	10M							
HWDP	4"	3.5"-5.5" VBR	10M							
Jars	5"	3.5"-5.5" VBR	10M							
DC's and NMDC's	4-3/4"	3.5"-5.5" VBR	10M							
Mud motor	5"	3.5"-5.5" VBR	10M							
Casing	4-1/2"	3.5"-5.5" VBR	10M							
Open hole	NA	Blind rams	10M							

12-1/4" & 8-3/4" hole sections – 5M BOPE requirement (13-5/8" BOP)									
Component OD Preventer RWP									
Drill pipe	5"	3.5"-5.5" VBR or 5" pipe rams	10M						
HWDP	5"	3.5"-5.5" VBR or 5" pipe rams	10M						
Jars	6-1/4"	Annular	5M						
DC's and NMDC's	7"-8"	Annular	5M						
Mud motor	7"-8"	Annular	5M						
Casing	9-5/8" & 7"	Annular	5M						
Open hole	NA	Blind rams	10M						

			Producers, L	LC .						WELL:	MESA 8105 1-12 FEDERAL #57F				7H (W
13		104 S Pe	cos							TVD:	12349				
		Midland,	TX 79701							MD:	22812				
			1			D	RILLING PI	LAN							
Casing P	rogram														
Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
14 3/4	10 3/4	0	500	0	500	No	40.5	J-55	STC	7.3	14.5	31.1	20.7	Dry	8.3
9 7/8	7 5/8	0	8053	0	8000	yes	29.7	P110	Buttress	1.4	2.4	3.9	4.0	Dry	9.4
8 3/4	7 5/8	8053	11829	8000	11797	yes	29.7	P110	FJ	1.7	1.6	2.7	2.7	Dry	9.4
6 3/4	5 1/2	0	11629	0	11597	Yes	20	P110	Buttress	1.3	1.5	2.8	2.9	Dry	14
6 3/4	5	11629	22812	11597	12349	Yes	18	P110	Buttress	1.3	1.4	1.4	1.5	Dry	14
*7 5/8" h	as DV Too	ol @ 4790'			*	2							*		

## **EMERGENCY CALL LIST**

	<u>OFFICE</u>	MOBILE
BTA Oil Producers LLC OFFICE	432-682-3753	
BEN GRIMES, Operations	432-682-3753	432-559-4309
NICK EATON, Drilling	432-682-3753	432-260-7841
TRACE WOHLFAHRT, Completions	432-682-3753	

### **EMERGENCY RESPONSE NUMBERS**

	OFFICE
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

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#### BTA OIL PRODUCERS LLC



#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

#### 1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- a. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

#### 2. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S equipment.

- a. Well Control Equipment:
  - Flare line.
  - Choke manifold with remotely operated choke.
  - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
  - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.
- b. Protective equipment for essential personnel:
  - Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:

- 2 portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems: Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
  The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
  All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
  Company vehicles equipped with cellular telephone.

### WARNING

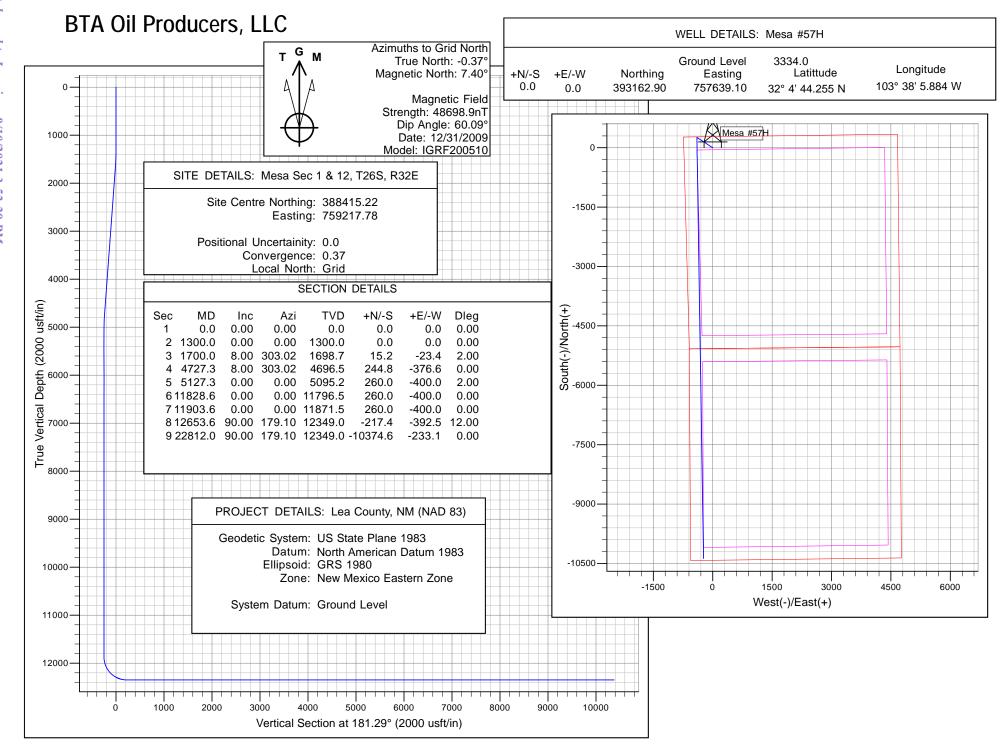
# YOU ARE ENTERING AN H<sub>2</sub>S AREA AUTHORIZED PERSONNEL ONLY

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CK WITH BTA OIL PRODUCERS LLC FOREMAN AT MAIN OFFICE

BTA OIL PRODUCERS LLC

1-432-682-3753

Received by OCD: 8/9/2021 2:05:02 PM



## **BTA Oil Producers, LLC**

Lea County, NM (NAD 83) Mesa Sec 1 & 12, T26S, R32E Mesa #57H

Wellbore #1

Plan: Design #1

## **Standard Planning Report - Geographic**

06 August, 2020

#### Planning Report - Geographic

Database:

Old

BTA Oil Producers, LLC

Project: Site:

Company:

Lea County, NM (NAD 83) Mesa Sec 1 & 12, T26S, R32E

Well: Wellbore: Design:

Mesa #57H Wellbore #1

Design #1

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Mesa #57H

WELL @ 3334.0usft (Original Well Elev) WELL @ 3334.0usft (Original Well Elev)

Minimum Curvature

Project Lea County, NM (NAD 83), Lea County, NM

Map System: Geo Datum:

Map Zone:

US State Plane 1983

New Mexico Eastern Zone

North American Datum 1983

System Datum:

Ground Level

Using geodetic scale factor

Mesa Sec 1 & 12, T26S, R32E Site

Site Position: From:

Position Uncertainty:

Мар

Northing: Easting: Slot Radius: 388,415.22 usft 759,217.78 usft 13-3/16 "

Latitude: Longitude: **Grid Convergence:** 

32° 3' 57.173 N 103° 37' 47.896 W

0.37

Well Mesa #57H

**Well Position** +N/-S

+E/-W

0.0 usft 0.0 usft

0.0 usft

Northing: Easting:

393,162.90 usft 757,639.10 usft

Latitude: Longitude:

32° 4' 44.255 N 103° 38' 5.884 W

**Position Uncertainty** 

0.0 usft

Wellhead Elevation:

Ground Level:

3,334.0 usft

Wellbore #1 Wellbore

Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (°) (nT) 7.77 60.09 48,698.94439652 IGRF200510 12/31/2009

Design #1 Design

Audit Notes:

Version:

Phase:

**PROTOTYPE** 

0.0

Tie On Depth:

0.0

0.0

181.29

**Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°)

**Plan Survey Tool Program** 

8/6/2020 Date

0.0

Depth From Depth To (usft) (usft)

Survey (Wellbore)

**Tool Name** 

Remarks

0.0 22,812.0 Design #1 (Wellbore #1)

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,700.0	8.00	303.02	1,698.7	15.2	-23.4	2.00	2.00	0.00	303.02	
4,727.3	8.00	303.02	4,696.5	244.8	-376.6	0.00	0.00	0.00	0.00	
5,127.3	0.00	0.00	5,095.2	260.0	-400.0	2.00	-2.00	0.00	180.00	
11,828.6	0.00	0.00	11,796.5	260.0	-400.0	0.00	0.00	0.00	0.00	
11,903.6	0.00	0.00	11,871.5	260.0	-400.0	0.00	0.00	0.00	0.00	
12,653.6	90.00	179.10	12,349.0	-217.4	-392.5	12.00	12.00	0.00	179.10	
22,812.0	90.00	179.10	12,349.0	-10,374.6	-233.1	0.00	0.00	0.00	0.00	Mesa #57H BHL

#### Planning Report - Geographic

Database:

Old

BTA Oil Producers, LLC

Company: Project:

Lea County, NM (NAD 83)

Site: Well: Mesa Sec 1 & 12, T26S, R32E

Mesa #57H Wellbore: Wellbore #1 Design: Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Mesa #57H

WELL @ 3334.0usft (Original Well Elev) WELL @ 3334.0usft (Original Well Elev)

Minimum Curvature

esign:	Desig	,							
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 V
100.0	0.00	0.00	100.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 V
200.0	0.00	0.00	200.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 V
300.0	0.00	0.00	300.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 V
400.0	0.00	0.00	400.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 V
500.0	0.00	0.00	500.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 V
600.0	0.00	0.00	600.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 \
700.0	0.00	0.00	700.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 \
800.0	0.00	0.00	0.008	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 '
900.0	0.00	0.00	900.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 \
1,000.0	0.00	0.00	1,000.0	0.0	0.0	393,162.90	757,639.10	32° 4' 44.255 N	103° 38' 5.884 \
1,100.0	0.00	0.00	1,100.0	0.0	0.0	393,162.90	757,639.10	32° 4′ 44.255 N	103° 38' 5.884 \
1,200.0	0.00	0.00	1,200.0	0.0	0.0	393,162.90	757,639.10	32° 4′ 44.255 N	103° 38' 5.884 \
1,300.0	0.00	0.00	1,300.0	0.0	0.0	393,162.90	757,639.10	32° 4′ 44.255 N	103° 38' 5.884 \
1,400.0	2.00	303.02	1,400.0	1.0	-1.5	393,163.85	757,637.63	32° 4′ 44.265 N	103° 38' 5.901 \
1,500.0	4.00	303.02	1,499.8	3.8	-5.9	393,166.70	757,633.25	32° 4′ 44.293 N	103° 38' 5.952 \
1,600.0	6.00	303.02	1,599.5	8.6	-13.2	393,171.45	757,625.94	32° 4′ 44.341 N	103° 38' 6.036 '
1,700.0	8.00	303.02	1,698.7	15.2	-23.4	393,178.09	757,615.72	32° 4′ 44.407 N	103° 38' 6.155
1,800.0	8.00	303.02	1,797.7	22.8	-35.0	393,185.68	757,604.05	32° 4' 44.483 N	103° 38' 6.290
1,900.0	8.00	303.02	1,896.8	30.4	-46.7	393,193.26	757,592.39	32° 4′ 44.559 N	103° 38' 6.425
2,000.0	8.00	303.02	1,995.8	37.9	-58.4	393,200.85	757,580.72	32° 4′ 44.635 N	103° 38' 6.560
2,100.0	8.00	303.02	2,094.8	45.5	-70.1	393,208.43	757,569.05	32° 4' 44.711 N	103° 38' 6.695
2,200.0	8.00	303.02	2,193.8	53.1	-81.7	393,216.01	757,557.38	32° 4' 44.786 N	103° 38' 6.830
2,300.0	8.00	303.02	2,292.9	60.7	-93.4	393,223.60	757,545.71	32° 4′ 44.862 N	103° 38' 6.965
2,400.0	8.00	303.02	2,391.9	68.3	-105.1	393,231.18	757,534.04	32° 4' 44.938 N	103° 38' 7.100
2,500.0	8.00	303.02	2,490.9	75.9	-116.7	393,238.77	757,522.37	32° 4' 45.014 N	103° 38' 7.235
2,600.0	8.00	303.02	2,589.9	83.5	-128.4	393,246.35	757,510.71	32° 4′ 45.090 N	103° 38' 7.370
2,700.0	8.00	303.02	2,689.0	91.0	-140.1	393,253.94	757,499.04	32° 4' 45.165 N	103° 38' 7.505
2,800.0	8.00	303.02	2,788.0	98.6	-151.7	393,261.52	757,487.37	32° 4' 45.241 N	103° 38' 7.640
2,900.0	8.00	303.02	2,887.0	106.2	-163.4	393,269.11	757,475.70	32° 4' 45.317 N	103° 38' 7.775
3,000.0	8.00	303.02	2,986.1	113.8	-175.1	393,276.69	757,464.03	32° 4' 45.393 N	103° 38' 7.910
3,100.0	8.00	303.02	3,085.1	121.4	-186.7	393,284.28	757,452.36	32° 4' 45.469 N	103° 38' 8.045
3,200.0	8.00	303.02	3,184.1	129.0	-198.4	393,291.86	757,440.70	32° 4' 45.544 N	103° 38' 8.180
3,300.0	8.00	303.02	3,283.1	136.6	-210.1	393,299.44	757,429.03	32° 4' 45.620 N	103° 38' 8.315
3,400.0	8.00	303.02	3,382.2	144.1	-221.7	393,307.03	757,417.36	32° 4' 45.696 N	103° 38' 8.450
3,500.0	8.00	303.02	3,481.2	151.7	-233.4	393,314.61	757,405.69	32° 4' 45.772 N	103° 38' 8.585
3,600.0	8.00	303.02	3,580.2	159.3	-245.1	393,322.20	757,394.02	32° 4' 45.848 N	103° 38' 8.721
3,700.0	8.00	303.02	3,679.2	166.9	-256.8	393,329.78	757,382.35	32° 4' 45.923 N	103° 38' 8.856
3,800.0	8.00	303.02	3,778.3	174.5	-268.4	393,337.37	757,370.68	32° 4' 45.999 N	103° 38' 8.991
3,900.0	8.00	303.02	3,877.3	182.1	-280.1	393,344.95	757,359.02	32° 4' 46.075 N	103° 38' 9.126
4,000.0	8.00	303.02	3,976.3	189.6	-291.8	393,352.54	757,347.35	32° 4' 46.151 N	103° 38' 9.261
4,100.0	8.00	303.02	4,075.3	197.2	-303.4	393,360.12	757,335.68	32° 4' 46.227 N	103° 38' 9.396
4,200.0	8.00	303.02	4,174.4	204.8	-315.1	393,367.70	757,324.01	32° 4' 46.302 N	103° 38' 9.531
4,300.0	8.00	303.02	4,273.4	212.4	-326.8	393,375.29	757,312.34	32° 4' 46.378 N	103° 38' 9.666
4,400.0	8.00	303.02	4,372.4	220.0	-338.4	393,382.87	757,300.67	32° 4' 46.454 N	103° 38' 9.801
4,500.0	8.00	303.02	4,471.5 4.570.5	227.6	-350.1	393,390.46	757,289.01	32° 4' 46.530 N	103° 38' 9.936
4,600.0	8.00	303.02	4,570.5	235.2	-361.8	393,398.04	757,277.34	32° 4' 46.606 N	103° 38' 10.071
4,700.0	8.00	303.02	4,669.5	242.7	-373.4	393,405.63	757,265.67	32° 4' 46.681 N	103° 38' 10.206
4,727.3	8.00	303.02	4,696.5	244.8	-376.6	393,407.70	757,262.49	32° 4' 46.702 N	103° 38' 10.243
4,800.0	6.55	303.02	4,768.7	249.8	-384.3	393,412.71	757,254.77	32° 4' 46.752 N	103° 38' 10.332
4,900.0	4.55	303.02	4,868.2	255.1	-392.4	393,417.98	757,246.67	32° 4' 46.805 N	103° 38' 10.426
5,000.0	2.55	303.02	4,968.0	258.5	-397.6	393,421.35	757,241.48	32° 4' 46.838 N	103° 38' 10.486
5,100.0	0.55	303.02	5,067.9	259.9	-399.9	393,422.82	757,239.22	32° 4' 46.853 N	103° 38' 10.512
5,127.3	0.00	0.00	5,095.2	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 '
5,200.0	0.00	0.00	5,167.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513

#### Planning Report - Geographic

Database:

Old

Wellbore #1

Design #1

BTA Oil Producers, LLC

Company: Project:

Lea County, NM (NAD 83)

Site: Well: Mesa Sec 1 & 12, T26S, R32E Mesa #57H

Wellbore: Design:

Local Co-ordinate Reference: TVD Reference:

MD Reference: North Reference:

**Survey Calculation Method:** 

Well Mesa #57H

WELL @ 3334.0usft (Original Well Elev) WELL @ 3334.0usft (Original Well Elev)

Minimum Curvature

resign:	Desig	,							
Planned Survey	,								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,300.0	0.00	0.00	5,267.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
5,400.0	0.00	0.00	5,367.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
5,500.0	0.00	0.00	5,467.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
5,600.0	0.00	0.00	5,567.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
5,700.0	0.00	0.00	5,667.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
5,800.0	0.00	0.00	5,767.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
5,900.0	0.00	0.00	5,867.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,000.0	0.00	0.00	5,967.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,100.0	0.00	0.00	6,067.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,200.0	0.00	0.00	6,167.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,300.0	0.00	0.00	6,267.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,400.0	0.00	0.00	6,367.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,500.0	0.00	0.00	6,467.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,600.0	0.00	0.00	6,567.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,700.0	0.00	0.00	6,667.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,800.0	0.00	0.00	6,767.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
6,900.0	0.00	0.00	6,867.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,000.0	0.00	0.00	6,967.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,100.0	0.00	0.00	7,067.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,200.0	0.00	0.00	7,167.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,300.0	0.00	0.00	7,267.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,400.0	0.00	0.00	7,367.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,500.0	0.00	0.00	7,467.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,600.0	0.00	0.00	7,567.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,700.0	0.00	0.00	7,667.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,800.0	0.00	0.00	7,767.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
7,900.0	0.00	0.00	7,867.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,000.0	0.00	0.00	7,967.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,100.0	0.00	0.00	8,067.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,200.0	0.00	0.00	8,167.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,300.0	0.00	0.00	8,267.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,400.0	0.00	0.00	8,367.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,500.0	0.00	0.00	8,467.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,600.0	0.00	0.00	8,567.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,700.0	0.00	0.00	8,667.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,800.0	0.00	0.00	8,767.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
8,900.0	0.00	0.00	8,867.9	260.0	-400.0	393,422.89	757,239.11	32° 4′ 46.854 N	103° 38' 10.513 W
9,000.0	0.00	0.00	8,967.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,100.0	0.00	0.00	9,067.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,200.0	0.00	0.00	9,167.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,300.0	0.00	0.00	9,267.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,400.0	0.00	0.00	9,367.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,500.0	0.00	0.00	9,467.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,600.0	0.00	0.00	9,567.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,700.0	0.00	0.00	9,667.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,800.0	0.00	0.00	9,767.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
9,900.0	0.00	0.00	9,867.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,000.0	0.00	0.00	9,967.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,100.0	0.00	0.00	10,067.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,200.0	0.00	0.00	10,167.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,300.0	0.00	0.00	10,267.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,400.0	0.00	0.00	10,367.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,500.0	0.00	0.00	10,467.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,600.0	0.00	0.00	10,567.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
10,700.0	0.00	0.00	10,667.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W

#### Planning Report - Geographic

Database:

Old

BTA Oil Producers, LLC

Company: Project: Site:

Lea County, NM (NAD 83)

Well:

Mesa Sec 1 & 12, T26S, R32E

Wellbore: Design:

Mesa #57H Wellbore #1 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Mesa #57H

WELL @ 3334.0usft (Original Well Elev) WELL @ 3334.0usft (Original Well Elev)

Minimum Curvature

10,900.0 0.00 0.00 10,967.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 11,679.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,679.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,879.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,879.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,657.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,657.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,657.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,657.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,657.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.9 280.0 400.0 333,422.99 757,239.11 32° 44.68.54 N 103° 38° 10.513 W 11,100.0 0.00 0.00 0.00 11,757.0 12,340.0 40.00 333,422.99 757,239			,							
Depth   Inclination   Azimuth   Depth   (usft)	Planned Survey									
11,000.0 0.00 0.00 10,067.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,067.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,167.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,267.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,267.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,467.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,467.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 23.57 179.10 11,100.0 23.57 179.10 11,100.0 33.0 422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 23.57 179.10 12,100.0 33.50 33.	Depth			Depth			Northing	Easting	Latitude	Longitude
11,000.0 0.00 0.00 10,067.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,067.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,167.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,267.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,267.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,467.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,467.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,667.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 0.00 0.00 11,767.9 280.0 400.0 333,422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 23.57 179.10 11,100.0 23.57 179.10 11,100.0 33.0 422.89 757,239.11 32" 44.68.54 N 103" 38" 10.513 W 11,100.0 23.57 179.10 12,100.0 33.50 33.	10.800.0	0.00	0.00	10.767.9	260.0	-400.0	393,422,89	757.239.11	32° 4' 46.854 N	103° 38' 10.513 W
11,000 0 0.00 0.00 10,067.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,300.0 0.00 0.00 11,167.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,300.0 0.00 0.00 11,367.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,300.0 0.00 0.00 0.00 11,367.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,467.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.9 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 0.00 0.00 11,567.3 280.0 400.0 333,422.99 757,239.11 32" 44.88.54 N 103" 38" 10.513 W 11,500.0 11,										
11,000										
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11,300										
11,400.0	1									103° 38' 10.513 W
11,500	1									103° 38' 10.513 W
11,600	1									103° 38' 10.513 W
11,700.0			0.00	11,567.9						
11,828.6 0.00 0.00 11,867.9 260.0 400.0 393,422.89 757,239.11 32*4*48.654 N 103*38*10.513 N 11,903.6 0.00 0.00 11,871.5 260.0 400.0 393,422.89 757,239.11 32*4*48.654 N 103*38*10.513 N 12,000.0 11,57 179.10 11,967.3 250.3 -399.8 393,413.19 757,239.21 32*4*46.854 N 103*38*10.513 N 12,000.0 23.57 179.10 12,062.4 220.2 399.4 393,383.07 757,239.74 32*4*46.865 N 103*38*10.513 N 12,200.0 35.57 179.10 12,149.3 170.9 -398.6 393,333.82 757,240.51 32*4*45.972 N 103*38*10.513 N 12,200.0 47.57 179.10 12,223.9 14.7 -397.6 393,267.60 757,240.51 32*4*45.972 N 103*38*10.549 N 12,400.0 59.57 179.10 12,283.2 24.4 -396.3 393,187.30 757,242.81 32*4*45.20 N 103*38*10.497 N 12,500.0 71.57 179.10 12,234.5 -66.5 -394.9 393,096.43 757,244.23 32*4*45.20 N 103*38*10.468 N 12,500.0 83.57 179.10 12,346.0 -166.9 -393.3 399.99.99.97 757,246.56 32*4*42.659 N 103*38*10.468 N 12,663.6 90.00 179.10 12,349.0 -217.4 -392.5 392.945.50 757,246.50 32*4*42.659 N 103*38*10.468 N 12,500.0 90.00 179.10 12,349.0 -263.8 -391.8 392.899.10 757,245.0 32*4*4.660 N 103*38*10.468 N 12,500.0 90.00 179.10 12,349.0 -363.8 -380.1 392.699.13 757,252.0 4 32*4*3.670 N 103*38*10.486 N 12,500.0 90.00 179.10 12,349.0 -363.8 -380.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.486 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.486 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,253.61 32*4*3.754 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.15 757,255.6 1 32*4*3.754 N 103*38*10.350 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.999.10 757,255.8 32*4*3.7545 N 103*38*10.350 N 13,000.0 90.00 179.10 12,349.0 -1,653.7 -377.7 391.999.25 757,255.8 32*4*3.7546 N 103*38*10.350 N 103*38*10.350 N 13,000.0 90.00	1					-400.0				103° 38' 10.513 W
11,828.6 0.00 0.00 11,867.9 260.0 400.0 393,422.89 757,239.11 32*4*48.654 N 103*38*10.513 N 11,903.6 0.00 0.00 11,871.5 260.0 400.0 393,422.89 757,239.11 32*4*48.654 N 103*38*10.513 N 12,000.0 11,57 179.10 11,967.3 250.3 -399.8 393,413.19 757,239.21 32*4*46.854 N 103*38*10.513 N 12,000.0 23.57 179.10 12,062.4 220.2 399.4 393,383.07 757,239.74 32*4*46.865 N 103*38*10.513 N 12,200.0 35.57 179.10 12,149.3 170.9 -398.6 393,333.82 757,240.51 32*4*45.972 N 103*38*10.513 N 12,200.0 47.57 179.10 12,223.9 14.7 -397.6 393,267.60 757,240.51 32*4*45.972 N 103*38*10.549 N 12,400.0 59.57 179.10 12,283.2 24.4 -396.3 393,187.30 757,242.81 32*4*45.20 N 103*38*10.497 N 12,500.0 71.57 179.10 12,234.5 -66.5 -394.9 393,096.43 757,244.23 32*4*45.20 N 103*38*10.468 N 12,500.0 83.57 179.10 12,346.0 -166.9 -393.3 399.99.99.97 757,246.56 32*4*42.659 N 103*38*10.468 N 12,663.6 90.00 179.10 12,349.0 -217.4 -392.5 392.945.50 757,246.50 32*4*42.659 N 103*38*10.468 N 12,500.0 90.00 179.10 12,349.0 -263.8 -391.8 392.899.10 757,245.0 32*4*4.660 N 103*38*10.468 N 12,500.0 90.00 179.10 12,349.0 -363.8 -380.1 392.699.13 757,252.0 4 32*4*3.670 N 103*38*10.486 N 12,500.0 90.00 179.10 12,349.0 -363.8 -380.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.486 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.486 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,252.0 4 32*4*3.691 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.13 757,253.61 32*4*3.754 N 103*38*10.425 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.699.15 757,255.6 1 32*4*3.754 N 103*38*10.350 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.999.10 757,255.8 32*4*3.7545 N 103*38*10.350 N 13,000.0 90.00 179.10 12,349.0 -1,653.7 -377.7 391.999.25 757,255.8 32*4*3.7546 N 103*38*10.350 N 103*38*10.350 N 13,000.0 90.00	11,800.0	0.00	0.00	11,767.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
11,903.6 0.00 0.00 11,871.5 260.0 400.0 393,422.89 757,239.11 32° 4' 46,758 N 103° 38' 10.512 W 12,000.0 11.57 179.10 11,967.3 250.3 -399.8 393,413.19 757,239.26 32° 4' 46,758 N 103° 38' 10.512 W 12,100.0 23.57 179.10 12,062.4 220.2 -399.4 393,383.07 757,239.74 32° 4' 46,60 N 103° 38' 10.512 W 12,200.0 35.57 179.10 12,249.3 170.9 -398.6 393,333.82 757,240.51 32° 4' 45,972 N 103° 38' 10.497 W 12,300.0 47.57 179.10 12,223.9 104.7 397.6 393,333.82 757,240.51 32° 4' 45,972 N 103° 38' 10.497 W 12,240.0 59.57 179.10 12,234.5 465.5 394.9 393,367.60 757,242.81 32° 4' 44,522 N 103° 38' 10.497 W 12,500.0 71.57 179.10 12,346.0 -163.9 -393.3 392,998.97 757,245.76 32° 4' 42,129 N 103° 38' 10.488 W 12,500.0 71.57 179.10 12,346.0 -163.9 -393.3 392,998.97 757,245.76 32° 4' 42,129 N 103° 38' 10.488 W 12,653.6 90.00 179.10 12,349.0 -263.8 391.8 392.899.10 757,245.60 32° 4' 42,129 N 103° 38' 10.457 W 12,800.0 90.00 179.10 12,349.0 -363.8 391.8 392.899.10 757,245.80 32° 4' 44,129 N 103° 38' 10.457 W 12,900.0 90.00 179.10 12,349.0 -463.8 -391.8 392.899.10 757,245.0 32° 4' 39.601 N 103° 38' 10.457 W 12,900.0 90.00 179.10 12,349.0 -563.8 -386.6 392.999.13 757,250.47 32° 4' 39.601 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -563.8 -385.5 392.495.15 757,250.47 32° 4' 39.601 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -563.8 -385.5 392.499.17 757,250.51 32° 4' 39.601 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -563.8 -385.5 392.499.17 757,250.51 32° 4' 39.601 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -563.8 -385.5 392.499.17 757,250.51 32° 4' 37.712 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -563.8 -385.5 392.499.17 757,250.51 32° 4' 37.712 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -563.8 -385.5 392.499.17 757,250.51 32° 4' 37.712 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -1.663.6 -368.9 392.999.17 757,255.8 32° 4' 37.712 N 103° 38' 10.458 W 13,000.0 90.00 179.10 12,349.0 -1.663.6 -368.9 392.999.10 757,256.49 32° 4' 38.754 N 103° 38' 10.390 N 13,000.0 90.00 179.10 12,349.0 -1.663.6	11,828.6	0.00	0.00	11,796.5	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
11,903.6 0.00 0.00 11,871.5 280.0 400.0 393,422.89 757,239.11 32° 4' 46,854 N 103° 38' 10,512 W 12,000.0 11,57 179.10 11,967.3 250.3 399.8 393,413.19 757,239.26 32° 4' 46,758 N 103° 38' 10,512 W 12,100.0 23.57 179.10 12,062.4 220.2 399.4 393,383.07 757,239.74 32° 4' 46,460 N 103° 38' 10,512 W 12,200.0 35.57 179.10 12,149.3 170.9 398.6 393,333.82 757,240.51 32° 4' 45,972 N 103° 38' 10,512 W 12,300.0 47.57 179.10 12,223.9 104.7 397.6 393,333.82 757,240.51 32° 4' 45,972 N 103° 38' 10,497 W 12,400.0 59.57 179.10 12,232.9 104.7 397.6 393,353.82 757,241.55 32° 4' 45,972 N 103° 38' 10,497 W 12,500.0 71,57 179.10 12,346.0 -163.9 393,367.00 757,242.81 32° 4' 44,522 N 103° 38' 10,488 W 12,500.0 83.57 179.10 12,346.0 -163.9 393,33 392,988.97 757,245.76 32° 4' 42,129 N 103° 38' 10,488 W 12,650.0 90.00 179.10 12,349.0 -263.8 391.8 392,898.10 757,245.60 32° 4' 42,129 N 103° 38' 10,458 W 12,600.0 90.00 179.10 12,349.0 -263.8 391.8 392,899.10 757,245.60 32° 4' 44,129 N 103° 38' 10,458 W 12,800.0 90.00 179.10 12,349.0 -363.8 390.2 392,999.12 757,248.90 32° 4' 41,670 N 103° 38' 10,458 W 12,900.0 90.00 179.10 12,349.0 -563.8 386.6 392,999.13 757,250.47 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -563.8 385.1 392,999.10 757,250.47 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -563.8 385.1 392,999.15 757,255.10 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -563.8 385.5 392,499.17 757,255.10 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -563.8 385.5 392,499.17 757,255.10 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -563.8 385.5 392,499.17 757,255.10 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -563.8 385.5 392,499.17 757,255.10 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -1,653.6 385.7 392,999.20 757,256.57 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -1,653.6 385.7 392,999.20 757,256.14 32° 4' 38,702 N 103° 38' 10,458 W 13,000.0 90.00 179.10 12,349.0 -1,653.6 366.7 391,999.30	11,900.0	0.00	0.00	11,867.9	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
12,100.0 23.57 179.10 12,062.4 220.2 399.4 393,383.07 757,239.74 32° 4'64.60 N 103° 38' 10.509 W 12,200.0 35.57 179.10 12,149.3 170.9 398.6 393,333.82 07 757,240.51 32° 4' 45.972 N 103° 38' 10.509 W 12,300.0 47.57 179.10 12,223.9 104.7 397.6 393,267.60 757,241.55 32° 4' 45.972 N 103° 38' 10.504 W 12,400.0 59.57 179.10 12,223.9 104.7 397.6 393,267.60 757,241.55 32° 4' 45.972 N 103° 38' 10.480 W 12,500.0 71.57 179.10 12,232.5 24.4 3.96.3 393,187.30 757,242.81 32° 4' 44.522 N 103° 38' 10.488 W 12,600.0 83.57 179.10 12,346.0 -163.9 393.9 393,396.3 757,245.76 32° 4' 42.659 N 103° 38' 10.468 W 12,653.6 90.00 179.10 12,349.0 -217.4 392.5 392,989.97 757,245.76 32° 4' 42.659 N 103° 38' 10.468 W 12,800.0 90.00 179.10 12,349.0 -263.8 391.8 392,899.0 757,247.33 32° 4' 41.670 N 103° 38' 10.465 W 12,800.0 90.00 179.10 12,349.0 -363.8 390.2 392,799.12 757,248.90 32° 4' 40.681 N 103° 38' 10.446 W 12,800.0 90.00 179.10 12,349.0 -463.8 388.6 392.699.17 757,255.60 32° 4' 38.702 N 103° 38' 10.445 W 13,000.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,000.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -663.8 385.5 392,499.17 757,255.81 32° 4' 37.712 N 103° 38' 10.425 W 13,200.0 90.00 179.10 12,349.0 -163.3 73.73 N 103° 38' 10.945 W 13,200.0 90.00 179.10 12,349.0 -163.3 73.73 N 103° 38' 10.945 W 13,200.0 90.00 179.10 12,349.0 -163.3 73.73 N 103° 38' 10.945 W 13,200.0 90.00 179.10 12,349.0 -1.663.6 366.7 391,299.2 757,	11,903.6	0.00	0.00	11,871.5	260.0	-400.0	393,422.89	757,239.11	32° 4' 46.854 N	103° 38' 10.513 W
12,200.0	12,000.0	11.57	179.10	11,967.3	250.3	-399.8	393,413.19	757,239.26	32° 4' 46.758 N	103° 38' 10.512 W
12,300.0	12,100.0	23.57	179.10	12,062.4	220.2	-399.4	393,383.07	757,239.74	32° 4' 46.460 N	103° 38' 10.509 W
12,400.0 59.57 179.10 12,283.2 24.4 -396.3 393,187.30 757,242.81 32° 4'44.522 N 103° 38' 10.488 M 12,500.0 83.57 179.10 12,345.6 -66.5 -394.9 393,096.43 757,244.23 32° 4'44.522 N 103° 38' 10.478 M 12,500.0 83.57 179.10 12,346.0 -163.9 -393.3 392,989.97 757,245.76 32° 4'42.659 N 103° 38' 10.488 M 12,653.6 90.00 179.10 12,349.0 -263.8 -391.8 392,894.5 0 757,246.60 32° 4'42.129 N 103° 38' 10.486 M 12,700.0 90.00 179.10 12,349.0 -263.8 -391.8 392,899.10 757,247.33 32° 4'41.670 N 103° 38' 10.465 M 12,900.0 90.00 179.10 12,349.0 -363.8 -391.8 392.899.10 757,248.90 32° 4'40.681 N 103° 38' 10.445 M 12,900.0 90.00 179.10 12,349.0 -563.8 -386.6 392.699.13 757,226.47 32° 4'39.661 N 103° 38' 10.435 M 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392.599.15 757,252.04 32° 4'38.702 N 103° 38' 10.435 M 13,000.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4'37.712 N 103° 38' 10.445 M 13,200.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,255.16 32° 4'35.733 N 103° 38' 10.445 M 13,200.0 90.00 179.10 12,349.0 -663.7 -382.4 392.99.20 757,255.518 32° 4'35.733 N 103° 38' 10.445 M 13,200.0 90.00 179.10 12,349.0 -863.7 -382.4 392.99.20 757,256.55 32° 4'35.733 N 103° 38' 10.445 M 13,500.0 90.00 179.10 12,349.0 -963.7 -380.8 392,399.18 757,258.32 32° 4'35.733 N 103° 38' 10.445 M 13,500.0 90.00 179.10 12,349.0 -1,663.7 -372.7 391.999.25 757,256.75 32° 4'35.733 N 103° 38' 10.345 M 13,500.0 90.00 179.10 12,349.0 -1,663.7 -377.7 391.999.25 757,261.45 32° 4'35.756 N 103° 38' 10.356 M 13,500.0 90.00 179.10 12,349.0 -1,663.7 -377.7 391.999.25 757,261.45 32° 4'35.756 N 103° 38' 10.358 M 13,500.0 90.00 179.10 12,349.0 -1,663.7 -376.1 391,899.26 757,261.59 32° 4'37.75 N 103° 38' 10.358 M 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.1 391,899.26 757,261.69 32° 4'27.786 N 103° 38' 10.328 M 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.1 391,999.31 757,267.73 32° 4'28.807 N 103° 38' 10.258 M 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.1 391,999.39 757,264.59 32° 4'27.786 N 103° 38' 10.258 M 14,000.0 90.00 179.10 12,349.0 -1,66	12,200.0	35.57	179.10	12,149.3	170.9	-398.6	393,333.82	757,240.51	32° 4' 45.972 N	103° 38' 10.504 W
12,500.0 71,57 179,10 12,345.5 -66.5 -394.9 393,096.43 757,244.23 32° 4'42,623 N 103° 38' 10.478 N 12,660.0 83.57 179.10 12,346.0 -163.9 -393.3 392,985.7 757,245.76 32° 4'42,6259 N 103° 38' 10.478 N 12,663.6 90.00 179.10 12,349.0 -263.8 -391.8 392,895.10 757,246.60 32° 4'42,129 N 103° 38' 10.462 N 12,700.0 90.00 179.10 12,349.0 -263.8 -391.8 392,899.10 757,246.80 32° 4'42,129 N 103° 38' 10.462 N 12,900.0 90.00 179.10 12,349.0 -363.8 -390.2 392,799.12 757,248.90 32° 4'40.681 N 103° 38' 10.456 N 12,900.0 90.00 179.10 12,349.0 -463.8 -387.1 392,599.13 757,250.47 32° 4'39.691 N 103° 38' 10.456 N 13,000.0 90.00 179.10 12,349.0 -563.8 -387.1 392,599.15 757,252.04 32° 4'39.691 N 103° 38' 10.456 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392,599.15 757,252.04 32° 4'38,702 N 103° 38' 10.454 N 13,200.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4'37,712 N 103° 38' 10.444 N 13,200.0 90.00 179.10 12,349.0 -763.7 -383.9 392,399.18 757,255.18 32° 4'36,723 N 103° 38' 10.454 N 13,300.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4'35,733 N 103° 38' 10.350 N 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.82 32° 4'33,754 N 103° 38' 10.350 N 13,600.0 90.00 179.10 12,349.0 -1,663.7 -379.2 392,099.23 757,259.88 32° 4'33,754 N 103° 38' 10.350 N 13,600.0 90.00 179.10 12,349.0 -1,663.7 -377.7 391,999.25 757,251.45 32° 4'32,754 N 103° 38' 10.350 N 13,600.0 90.00 179.10 12,349.0 -1,663.7 -377.7 391,999.25 757,264.59 32° 4'30,766 N 103° 38' 10.350 N 13,600.0 90.00 179.10 12,349.0 -1,663.6 -361.3 391,899.26 757,264.59 32° 4'30,766 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.2 391,399.34 757,275.8 32° 4'22,875 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.2 391,399.34 757,276.14 32° 4'22,875 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,264.59 32° 4'30,786 N 103° 38' 10.250 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.2 391,399.34 757,276.14 32° 4'28,875 N 103° 38' 10.250 N 14,000.0 90.00 179.10 12,349.0 -	12,300.0	47.57	179.10	12,223.9	104.7	-397.6	393,267.60	757,241.55	32° 4' 45.317 N	103° 38' 10.497 W
12,600.0 83.57 179.10 12,346.0 -163.9 -393.3 392,998.97 757,245.76 32° 4' 42.659 N 103° 38' 10.488 N 12,653.6 90.00 179.10 12,349.0 -263.8 -391.8 392,945.50 757,245.66 32° 4' 42.129 N 103° 38' 10.462 N 12,700.0 90.00 179.10 12,349.0 -263.8 -391.8 392,991.0 757,246.60 32° 4' 42.129 N 103° 38' 10.462 N 12,800.0 90.00 179.10 12,349.0 -363.8 -390.2 392,799.12 757,248.90 32° 4' 40.681 N 103° 38' 10.446 N 13,000.0 90.00 179.10 12,349.0 -463.8 -388.6 392,699.13 757,250.47 32° 4' 39.691 N 103° 38' 10.436 N 13,000.0 90.00 179.10 12,349.0 -663.8 -387.1 392,599.15 757,252.04 32° 4' 39.691 N 103° 38' 10.446 N 13,200.0 90.00 179.10 12,349.0 -663.8 -387.1 392,599.15 757,252.04 32° 4' 38.702 N 103° 38' 10.446 N 13,200.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4' 36.723 N 103° 38' 10.404 N 13,200.0 90.00 179.10 12,349.0 -663.8 -385.7 -382.4 392,299.10 757,255.61 32° 4' 36.723 N 103° 38' 10.404 N 13,300.0 90.00 179.10 12,349.0 -663.7 -382.4 392,299.10 757,255.32 32° 4' 34.744 N 103° 38' 10.390 N 13,500.0 90.00 179.10 12,349.0 -663.7 -382.4 392,299.2 757,256.75 32 32° 4' 34.744 N 103° 38' 10.390 N 13,600.0 90.00 179.10 12,349.0 -1,063.7 -379.2 392,099.23 757,259.88 32° 4' 33.754 N 103° 38' 10.390 N 13,600.0 90.00 179.10 12,349.0 -1,063.7 -379.2 392,099.23 757,259.88 32° 4' 33.754 N 103° 38' 10.390 N 13,600.0 90.00 179.10 12,349.0 -1,663.7 -374.5 391,799.25 757,261.45 32° 4' 32.765 N 103° 38' 10.390 N 13,800.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,899.26 757,266.16 32° 4' 32.796 N 103° 38' 10.390 N 13,800.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.33 757,266.16 32° 4' 22.870 N 103° 38' 10.390 N 14,200.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.33 757,266.16 32° 4' 22.870 N 103° 38' 10.390 N 14,200.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,274.4 32° 4' 22.870 N 103° 38' 10.275 N 14,500.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,274.4 32° 4' 22.880 N 103° 38' 10.286 N 14,500.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.30 757,274.4 32° 4' 22.870 N 103° 38' 10.225 N 14,	12,400.0	59.57	179.10	12,283.2	24.4	-396.3	393,187.30	757,242.81	32° 4' 44.522 N	103° 38' 10.488 W
12,653.6 90.00 179.10 12,349.0 -217.4 -392.5 392,945.50 757,246.60 32° 4' 42.129 N 103° 38' 10.462 N 12,700.0 90.00 179.10 12,349.0 -263.8 -391.8 392,899.10 757,247.33 32° 4' 41.670 N 103° 38' 10.462 N 12,800.0 90.00 179.10 12,349.0 -363.8 -390.2 392,799.12 757,248.90 32° 4' 40.681 N 103° 38' 10.462 N 12,900.0 90.00 179.10 12,349.0 -463.8 -388.6 392,699.13 757,250.47 32° 4' 39.691 N 103° 38' 10.404 N 13,000.0 90.00 179.10 12,349.0 -563.8 -387.1 392,599.15 757,250.47 32° 4' 38.702 N 103° 38' 10.445 N 13,200.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4' 38.702 N 103° 38' 10.445 N 13,200.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,255.18 32° 4' 35.723 N 103° 38' 10.404 N 13,300.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,255.18 32° 4' 35.723 N 103° 38' 10.404 N 13,300.0 90.00 179.10 12,349.0 -663.7 -380.8 392,199.10 757,256.32 32° 4' 35.733 N 103° 38' 10.393 N 13,400.0 90.00 179.10 12,349.0 -663.7 -380.8 392,199.21 757,256.32 32° 4' 34.744 N 103° 38' 10.314 N 13,600.0 90.00 179.10 12,349.0 -1,163.7 -379.2 392,099.23 757,256.32 32° 4' 34.744 N 103° 38' 10.314 N 13,700.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,261.45 32° 4' 32.765 N 103° 38' 10.350 N 13,800.0 90.00 179.10 12,349.0 -1,63.6 -371.4 391,899.26 757,263.02 32° 4' 31.775 N 103° 38' 10.350 N 13,800.0 90.00 179.10 12,349.0 -1,63.6 -371.4 391,899.26 757,266.16 32° 4' 29.796 N 103° 38' 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.33 757,266.16 32° 4' 29.796 N 103° 38' 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.2 391,399.34 757,276.14 32° 4' 24.849 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,276.616 32° 4' 29.796 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.37 757,276.14 32° 4' 24.849 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.34 757,277.40 32° 4' 24.849 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.34 757,277.40 32° 4' 24.849 N 103° 38' 10.286 N 14,000.	12,500.0	71.57	179.10	12,324.5	-66.5	-394.9	393,096.43	757,244.23	32° 4' 43.623 N	103° 38' 10.478 W
12,700.0 90.00 179.10 12,349.0 -263.8 -391.8 392,899.10 757,247.33 32° 4′ 41.670 N 103° 38′ 10.457 N 12,800.0 90.00 179.10 12,349.0 -363.8 -390.2 392,799.12 757,248.90 32° 4′ 40.681 N 103° 38′ 10.456 N 13,000.0 90.00 179.10 12,349.0 -563.8 -381.1 392,699.13 757,250.4 32° 4′ 38.691 N 103° 38′ 10.456 N 13,000.0 90.00 179.10 12,349.0 -563.8 -387.1 392,599.15 757,252.04 32° 4′ 38.702 N 103° 38′ 10.455 N 13,000.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,255.361 32° 4′ 37.712 N 103° 38′ 10.445 N 13,300.0 90.00 179.10 12,349.0 -763.7 -383.9 392,399.18 757,255.361 32° 4′ 35.733 N 103° 38′ 10.444 N 13,300.0 90.00 179.10 12,349.0 -763.7 -382.4 392,299.20 757,256.75 32° 4′ 35.733 N 103° 38′ 10.349 N 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,255.83 2 32° 4′ 34.744 N 103° 38′ 10.393 N 13,500.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,261.45 32° 4′ 32.756 N 103° 38′ 10.351 N 13,500.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,263.02 32° 4′ 31.757 N 103° 38′ 10.351 N 13,800.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,261.45 32° 4′ 32.765 N 103° 38′ 10.350 N 13,800.0 90.00 179.10 12,349.0 -1,663.6 -361.3 391,899.26 757,266.59 32° 4′ 30.786 N 103° 38′ 10.338 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -361.3 391,899.29 757,266.16 32° 4′ 29.796 N 103° 38′ 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -361.8 391,499.3 757,267.73 32° 4′ 28.807 N 103° 38′ 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.3 757,267.73 32° 4′ 28.807 N 103° 38′ 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,399.34 757,267.73 32° 4′ 28.807 N 103° 38′ 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,399.34 757,267.73 32° 4′ 28.807 N 103° 38′ 10.296 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,399.34 757,268.50 32° 4′ 28.787 N 103° 38′ 10.296 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,399.34 757,275.81.8 32° 4′ 28.807 N 103° 38′ 10.296 N 14,000.0 90.00 179.10 12,349.0 -2,663.6 -366.7 391,999.37 757,275.11 32° 4′ 28.808 N 103° 38′ 10.296 N	12,600.0	83.57	179.10	12,346.0	-163.9	-393.3	392,998.97	757,245.76	32° 4' 42.659 N	103° 38' 10.468 W
12,800.0 90.00 179.10 12,349.0 -363.8 -390.2 392,799.12 757,248.90 32° 4' 40.681 N 103° 38' 10.446 N 13,000.0 90.00 179.10 12,349.0 -663.8 -388.6 392,699.13 757,250.47 32° 4' 39.691 N 103° 38' 10.436 N 13,000.0 90.00 179.10 12,349.0 -563.8 -387.1 392,599.15 757,252.04 32° 4' 38.702 N 103° 38' 10.436 N 13,000.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4' 37.712 N 103° 38' 10.445 N 13,000.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,255.16 32° 4' 36.723 N 103° 38' 10.444 N 13,000.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4' 35.733 N 103° 38' 10.393 N 13,000.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4' 35.733 N 103° 38' 10.393 N 13,000.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.32 32° 4' 34.744 N 103° 38' 10.392 N 13,600.0 90.00 179.10 12,349.0 -1,663.7 -377.7 391,999.25 757,259.88 32° 4' 32.765 N 103° 38' 10.31 N 13,000.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,259.88 32° 4' 32.765 N 103° 38' 10.350 N 13,800.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,264.59 32° 4' 31.775 N 103° 38' 10.350 N 13,800.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,264.59 32° 4' 31.775 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -371.4 391,899.26 757,264.59 32° 4' 29.796 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -360.8 391,499.31 757,266.16 32° 4' 29.796 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.33 757,266.16 32° 4' 27.817 N 103° 38' 10.350 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.33 757,266.16 32° 4' 27.817 N 103° 38' 10.250 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.33 757,266.16 32° 4' 28.807 N 103° 38' 10.250 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,499.30 757,272.44 32' 4' 25.838 N 103° 38' 10.250 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.40 32° 4' 26.828 N 103° 38' 10.250 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.40 32° 4' 22.870 N 103° 38' 10.250 N 14,	12,653.6	90.00	179.10	12,349.0	-217.4	-392.5	392,945.50	757,246.60	32° 4′ 42.129 N	103° 38' 10.462 W
12,900.0 90.00 179.10 12,349.0 -463.8 -388.6 392,699.13 757,250.47 32° 4'38,702 N 103° 38' 10.436 N 13,000.0 90.00 179.10 12,349.0 -563.8 -387.1 392,599.15 757,252.04 32° 4'38,702 N 103° 38' 10.425 N 13,000.0 90.00 179.10 12,349.0 -763.7 -383.9 392,399.18 757,253.61 32° 4'36,723 N 103° 38' 10.440 N 13,300.0 90.00 179.10 12,349.0 -763.7 -383.9 392,399.18 757,255.18 32° 4'36,723 N 103° 38' 10.404 N 13,300.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4'35,733 N 103° 38' 10.393 N 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.32 32° 4'36,733 N 103° 38' 10.393 N 13,500.0 90.00 179.10 12,349.0 -1,063.7 -379.2 392,099.23 757,259.88 32° 4'33,754 N 103° 38' 10.381 N 13,500.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,99.25 757,261.45 32° 4'32,765 N 103° 38' 10.361 N 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,263.02 32° 4'31,775 N 103° 38' 10.380 N 13,900.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4'32,7766 N 103° 38' 10.350 N 13,900.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4'29,796 N 103° 38' 10.350 N 13,900.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.29 757,266.16 32° 4'29,796 N 103° 38' 10.338 N 14,000.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.31 757,270.87 32° 4'28,807 N 103° 38' 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,563.6 -368.2 391,399.34 757,270.87 32° 4'28,807 N 103° 38' 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4'28,807 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,99.39 757,275.58 32° 4'28,807 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.3 391,99.39 757,275.58 32° 4'28,808 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -366.8 391,99.39 757,275.58 32° 4'28,808 N 103° 38' 10.286 N 14,000.0 90.00 179.10 12,349.0 -2,663.6 -366.2 391,99.39 757,275.58 32° 4'28,809 N 103° 38' 10.256 N 14,000.0 90.00 179.10 12,349.0 -2,663.6 -366.3 390,99.94 757,275.58 32° 4'28,809 N 103° 38' 10.225 N 14,000.0 90.00 179.10 1	12,700.0	90.00	179.10	12,349.0	-263.8	-391.8	392,899.10	757,247.33	32° 4′ 41.670 N	103° 38' 10.457 W
13,000.0 90.00 179.10 12,349.0 -563.8 -387.1 392,599.15 757,252.04 32° 4' 38.702 N 103° 38' 10.425 N 13,100.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4' 36.723 N 103° 38' 10.414 W 13,200.0 90.00 179.10 12,349.0 -863.7 -382.4 392,399.18 757,255.18 32° 4' 36.723 N 103° 38' 10.404 W 13,300.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4' 35.733 N 103° 38' 10.393 W 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.32 32° 4' 33.754 N 103° 38' 10.393 W 13,500.0 90.00 179.10 12,349.0 -1,063.7 -377.7 391,999.25 757,261.45 32° 4' 32.766 N 103° 38' 10.361 W 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,261.45 32° 4' 32.766 N 103° 38' 10.361 W 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,261.45 32° 4' 32.766 N 103° 38' 10.361 W 13,900.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,261.45 32° 4' 30.766 N 103° 38' 10.380 W 13,900.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4' 30.766 N 103° 38' 10.328 W 14,000.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.31 757,267.73 32° 4' 29.796 N 103° 38' 10.328 W 14,000.0 90.00 179.10 12,349.0 -1,563.6 -369.8 391,499.31 757,267.73 32° 4' 28.807 N 103° 38' 10.338 W 14,100.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4' 27.817 N 103° 38' 10.328 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4' 27.817 N 103° 38' 10.286 W 14,300.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,99.36 757,270.87 32° 4' 28.807 N 103° 38' 10.286 W 14,300.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,99.39 757,255.8 32° 4' 28.808 N 103° 38' 10.286 W 14,400.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,199.37 757,270.87 32° 4' 28.808 N 103° 38' 10.286 W 14,400.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,199.37 757,275.58 32° 4' 28.808 N 103° 38' 10.286 W 14,400.0 90.00 179.10 12,349.0 -2,663.5 -365.8 391,999.39 757,275.58 32° 4' 28.808 N 103° 38' 10.286 W 14,600.0 90.00 179.10 12,349.0 -2,663.5 -365.5 390,999.47 757,281.85 32° 4' 18.912 N 103° 38' 10.230 W	12,800.0	90.00	179.10	12,349.0	-363.8	-390.2	392,799.12	757,248.90	32° 4′ 40.681 N	
13,100.0 90.00 179.10 12,349.0 -663.8 -385.5 392,499.17 757,253.61 32° 4' 37.712 N 103° 38' 10.414 W 13,200.0 90.00 179.10 12,349.0 -763.7 -383.9 392,399.18 757,255.18 32° 4' 36.723 N 103° 38' 10.404 W 13,300.0 90.00 179.10 12,349.0 -863.7 -388.4 392,299.20 757,256.75 32° 4' 35.733 N 103° 38' 10.393 W 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.32 32° 4' 35.733 N 103° 38' 10.382 W 13,500.0 90.00 179.10 12,349.0 -1,063.7 -379.2 392,099.23 757,259.88 32° 4' 33.754 N 103° 38' 10.382 W 13,500.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,261.45 32° 4' 32.766 N 103° 38' 10.382 W 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,261.45 32° 4' 31.755 N 103° 38' 10.350 W 13,800.0 90.00 179.10 12,349.0 -1,463.7 -376.1 391,899.26 757,264.59 32° 4' 30.786 N 103° 38' 10.350 W 13,900.0 90.00 179.10 12,349.0 -1,463.7 -373.0 391,699.29 757,266.16 32° 4' 29.796 N 103° 38' 10.339 W 14,000.0 90.00 179.10 12,349.0 -1,563.6 -361.4 391,599.31 757,267.73 32° 4' 28.807 N 103° 38' 10.339 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,499.33 757,269.30 32° 4' 27.817 N 103° 38' 10.328 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,276.73 32° 4' 28.828 N 103° 38' 10.296 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.44 32° 4' 26.828 N 103° 38' 10.296 W 14,400.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.44 32° 4' 26.828 N 103° 38' 10.296 W 14,400.0 90.00 179.10 12,349.0 -1,663.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.286 W 14,600.0 90.00 179.10 12,349.0 -2,263.6 -366.1 390,199.39 757,275.58 32° 4' 28.870 N 103° 38' 10.286 W 14,600.0 90.00 179.10 12,349.0 -2,263.6 -366.1 390,199.39 757,275.58 32° 4' 28.890 N 103° 38' 10.286 W 14,600.0 90.00 179.10 12,349.0 -2,263.6 -366.1 390,199.41 757,277.14 32° 4' 24.890 N 103° 38' 10.286 W 14,600.0 90.00 179.10 12,349.0 -2,263.6 -366.1 390,999.41 757,275.58 32° 4' 12.880 N 103° 38' 10.243 W 14,600.0 90.00 179.10 12,349.0 -2,263.5 -355.8 390,999.41 757,278.49 32° 4' 18.912 N 103° 38' 10.	12,900.0	90.00	179.10	12,349.0	-463.8	-388.6	392,699.13	757,250.47	32° 4′ 39.691 N	103° 38' 10.436 W
13,200.0 90.00 179.10 12,349.0 -763.7 -383.9 392,399.18 757,255.18 32° 4' 36.723 N 103° 38' 10.404 W 13,300.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4' 35.733 N 103° 38' 10.393 W 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.32 32° 4' 34.744 N 103° 38' 10.382 W 13,500.0 90.00 179.10 12,349.0 -1,063.7 -379.2 392,099.23 757,259.88 32° 4' 33.754 N 103° 38' 10.371 W 13,600.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,261.45 32° 4' 32.765 N 103° 38' 10.361 W 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,263.02 32° 4' 31.775 N 103° 38' 10.350 W 13,800.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4' 30.766 N 103° 38' 10.350 W 14,000.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.31 757,267.73 32° 4' 28.807 N 103° 38' 10.328 W 14,000.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4' 27.817 N 103° 38' 10.300 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4' 28.807 N 103° 38' 10.300 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4' 26.828 N 103° 38' 10.264 W 14,200.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4' 26.828 N 103° 38' 10.264 W 14,400.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4' 26.828 N 103° 38' 10.266 W 14,400.0 90.00 179.10 12,349.0 -1,663.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.266 W 14,400.0 90.00 179.10 12,349.0 -2,663.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.266 W 14,600.0 90.00 179.10 12,349.0 -2,663.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.264 W 14,600.0 90.00 179.10 12,349.0 -2,663.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.264 W 14,600.0 90.00 179.10 12,349.0 -2,663.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.264 W 14,600.0 90.00 179.10 12,349.0 -2,663.6 -365.1 391,199.37 757,274.01 32° 4' 22.870 N 103° 38' 10.264 W 14,600.0 90.00 179.10 12,349.0 -2,663.5 -365.1 390,199.44 757,280.28 32° 4' 19.901 N 103° 38' 1	13,000.0		179.10	12,349.0			392,599.15	757,252.04	32° 4′ 38.702 N	103° 38' 10.425 W
13,300.0 90.00 179.10 12,349.0 -863.7 -382.4 392,299.20 757,256.75 32° 4' 35.733 N 103° 38' 10.393 N 13,400.0 90.00 179.10 12,349.0 -963.7 -380.8 392,199.21 757,258.32 32° 4' 34.744 N 103° 38' 10.382 N 13,500.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,259.88 32° 4' 33.754 N 103° 38' 10.382 N 13,700.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,261.45 32° 4' 32.765 N 103° 38' 10.361 N 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,261.45 32° 4' 31.775 N 103° 38' 10.361 N 13,800.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4' 31.775 N 103° 38' 10.339 N 13,900.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,899.29 757,266.16 32° 4' 28.807 N 103° 38' 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.31 757,267.73 32° 4' 28.807 N 103° 38' 10.318 N 14,100.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4' 28.807 N 103° 38' 10.328 N 14,200.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4' 28.807 N 103° 38' 10.296 N 14,300.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.44 32° 4' 28.807 N 103° 38' 10.296 N 14,500.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.44 32° 4' 28.808 N 103° 38' 10.296 N 14,500.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.44 32° 4' 28.808 N 103° 38' 10.296 N 14,500.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,199.37 757,275.58 32° 4' 28.809 N 103° 38' 10.226 N 14,600.0 90.00 179.10 12,349.0 -2,663.6 -365.1 391,199.37 757,275.58 32° 4' 28.809 N 103° 38' 10.226 N 14,600.0 90.00 179.10 12,349.0 -2,663.6 -363.5 391,099.39 757,275.58 32° 4' 28.809 N 103° 38' 10.225 N 14,500.0 90.00 179.10 12,349.0 -2,663.6 -363.5 391,099.39 757,275.58 32° 4' 28.809 N 103° 38' 10.225 N 14,500.0 90.00 179.10 12,349.0 -2,663.6 -363.5 391,099.39 757,275.58 32° 4' 28.809 N 103° 38' 10.225 N 14,500.0 90.00 179.10 12,349.0 -2,663.6 -363.5 391,099.39 757,275.58 32° 4' 28.809 N 103° 38' 10.225 N 14,500.0 90.00 179.10 12,349.0 -2,663.5 -355.7 390,599.47 757,286.56 32° 4' 19,901 N 103° 38'	13,100.0	90.00	179.10	12,349.0	-663.8		392,499.17	757,253.61	32° 4′ 37.712 N	103° 38' 10.414 W
13,400.0       90.00       179.10       12,349.0       -963.7       -380.8       392,199.21       757,258.32       32° 4' 34.744 N       103° 38' 10.382 N         13,500.0       90.00       179.10       12,349.0       -1,063.7       -379.2       392,099.23       757,259.88       32° 4' 33.754 N       103° 38' 10.371 N         13,600.0       90.00       179.10       12,349.0       -1,163.7       -377.7       391,999.25       757,261.45       32° 4' 32.765 N       103° 38' 10.361 N         13,700.0       90.00       179.10       12,349.0       -1,263.7       -376.1       391,799.28       757,261.45       32° 4' 30.786 N       103° 38' 10.339 N         13,800.0       90.00       179.10       12,349.0       -1,363.7       -374.5       391,799.28       757,266.16       32° 4' 30.786 N       103° 38' 10.339 N         13,900.0       90.00       179.10       12,349.0       -1,663.6       -371.4       391,599.31       757,266.16       32° 4' 29.796 N       103° 38' 10.339 N         14,000.0       90.00       179.10       12,349.0       -1,663.6       -369.8       391,499.33       757,267.73       32° 4' 28.807 N       103° 38' 10.307 N         14,200.0       90.00       179.10       12,349.0       -1,663.6 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>103° 38' 10.404 W</td></t<>										103° 38' 10.404 W
13,500.0 90.00 179.10 12,349.0 -1,063.7 -379.2 392,099.23 757,259.88 32° 4' 33.754 N 103° 38' 10.371 N 13,600.0 90.00 179.10 12,349.0 -1,163.7 -377.7 391,999.25 757,261.45 32° 4' 32.765 N 103° 38' 10.361 N 13,700.0 90.00 179.10 12,349.0 -1,263.7 -376.1 391,899.26 757,263.02 32° 4' 31.775 N 103° 38' 10.350 N 13,800.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4' 30.786 N 103° 38' 10.339 N 13,900.0 90.00 179.10 12,349.0 -1,663.6 -371.4 391,599.29 757,266.16 32° 4' 29.796 N 103° 38' 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4' 28.807 N 103° 38' 10.328 N 14,200.0 90.00 179.10 12,349.0 -1,663.6 -368.2 391,399.34 757,270.87 32° 4' 28.807 N 103° 38' 10.296 N 14,400.0 90.00 179.10 12,349.0 -1,663.6 -366.7 391,299.36 757,272.44 32° 4' 26.828 N 103° 38' 10.296 N 14,400.0 90.00 179.10 12,349.0 -1,663.6 -365.1 391,199.37 757,274.01 32° 4' 28.89 N 103° 38' 10.226 N 14,500.0 90.00 179.10 12,349.0 -2,063.6 -365.1 391,199.37 757,274.01 32° 4' 28.89 N 103° 38' 10.226 N 14,500.0 90.00 179.10 12,349.0 -2,063.6 -365.1 391,199.37 757,274.01 32° 4' 28.89 N 103° 38' 10.250 N 14,500.0 90.00 179.10 12,349.0 -2,063.6 -365.5 391,099.39 757,275.58 32° 4' 28.89 N 103° 38' 10.250 N 14,500.0 90.00 179.10 12,349.0 -2,063.6 -362.0 390,999.41 757,277.14 32° 4' 28.89 N 103° 38' 10.250 N 14,500.0 90.00 179.10 12,349.0 -2,663.6 -360.4 390,899.42 757,278.71 32° 4' 28.89 N 103° 38' 10.250 N 14,500.0 90.00 179.10 12,349.0 -2,663.5 -358.8 390,799.44 757,280.28 32° 4' 28.89 N 103° 38' 10.224 N 14,500.0 90.00 179.10 12,349.0 -2,663.5 -355.7 390,599.47 757,281.85 32° 4' 19.901 N 103° 38' 10.221 N 15,000.0 90.00 179.10 12,349.0 -2,663.5 -355.7 390,599.47 757,281.85 32° 4' 19.901 N 103° 38' 10.220 N 15,000.0 90.00 179.10 12,349.0 -2,663.5 -355.7 390,599.47 757,281.85 32° 4' 19.901 N 103° 38' 10.210 N 15,000.0 90.00 179.10 12,349.0 -2,663.5 -355.7 390,599.47 757,281.85 32° 4' 18.912 N 103° 38' 10.210 N 15,000.0 90.00 179.10 12,349.0 -2,663.5 -355.6 390,499.49 757,286.56 32° 4' 16.933 N 103° 38' 10										
13,600.0       90.00       179.10       12,349.0       -1,163.7       -377.7       391,999.25       757,261.45       32° 4' 32.765 N       103° 38' 10.361 N         13,700.0       90.00       179.10       12,349.0       -1,263.7       -376.1       391,899.26       757,263.02       32° 4' 30.786 N       103° 38' 10.350 N         13,800.0       90.00       179.10       12,349.0       -1,363.7       -374.5       391,799.28       757,266.16       32° 4' 30.786 N       103° 38' 10.339 N         13,900.0       90.00       179.10       12,349.0       -1,663.6       -371.4       391,599.31       757,266.16       32° 4' 29.796 N       103° 38' 10.338 N         14,000.0       90.00       179.10       12,349.0       -1,663.6       -369.8       391,499.33       757,266.16       32° 4' 27.817 N       103° 38' 10.318 N         14,200.0       90.00       179.10       12,349.0       -1,663.6       -368.2       391,399.34       757,270.87       32° 4' 26.828 N       103° 38' 10.296 N         14,300.0       90.00       179.10       12,349.0       -1,663.6       -366.7       391,299.36       757,272.44       32° 4' 26.828 N       103° 38' 10.286 N         14,400.0       90.00       179.10       12,349.0       -1,663.6										
13,700.0       90.00       179.10       12,349.0       -1,263.7       -376.1       391,899.26       757,263.02       32° 4' 31.775 N       103° 38' 10.350 N         13,800.0       90.00       179.10       12,349.0       -1,363.7       -374.5       391,799.28       757,264.59       32° 4' 30.786 N       103° 38' 10.339 N         13,900.0       90.00       179.10       12,349.0       -1,463.7       -373.0       391,699.29       757,266.16       32° 4' 29.796 N       103° 38' 10.328 N         14,000.0       90.00       179.10       12,349.0       -1,563.6       -371.4       391,599.31       757,267.73       32° 4' 28.807 N       103° 38' 10.318 N         14,100.0       90.00       179.10       12,349.0       -1,663.6       -369.8       391,499.33       757,267.73       32° 4' 28.807 N       103° 38' 10.378 N         14,200.0       90.00       179.10       12,349.0       -1,663.6       -368.2       391,399.34       757,270.87       32° 4' 26.838 N       103° 38' 10.296 N         14,300.0       90.00       179.10       12,349.0       -1,663.6       -366.7       391,299.36       757,272.44       32° 4' 26.838 N       103° 38' 10.275 N         14,400.0       90.00       179.10       12,349.0       -1,963.6										
13,800.0 90.00 179.10 12,349.0 -1,363.7 -374.5 391,799.28 757,264.59 32° 4′ 30.786 N 103° 38′ 10.339 N 13,900.0 90.00 179.10 12,349.0 -1,463.7 -373.0 391,699.29 757,266.16 32° 4′ 29.796 N 103° 38′ 10.328 N 14,000.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.31 757,267.73 32° 4′ 28.807 N 103° 38′ 10.318 N 14,100.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4′ 27.817 N 103° 38′ 10.307 N 14,200.0 90.00 179.10 12,349.0 -1,763.6 -368.2 391,399.34 757,270.87 32° 4′ 26.828 N 103° 38′ 10.296 N 14,300.0 90.00 179.10 12,349.0 -1,863.6 -366.7 391,299.36 757,272.44 32° 4′ 25.838 N 103° 38′ 10.256 N 14,400.0 90.00 179.10 12,349.0 -1,963.6 -365.1 391,199.37 757,274.01 32° 4′ 24.849 N 103° 38′ 10.257 N 14,500.0 90.00 179.10 12,349.0 -2,063.6 -365.1 391,199.37 757,275.58 32° 4′ 28.859 N 103° 38′ 10.258 N 14,700.0 90.00 179.10 12,349.0 -2,163.6 -362.0 390,999.41 757,277.14 32° 4′ 22.870 N 103° 38′ 10.253 N 14,700.0 90.00 179.10 12,349.0 -2,263.6 -360.4 390,899.42 757,278.71 32° 4′ 21.880 N 103° 38′ 10.234 N 14,800.0 90.00 179.10 12,349.0 -2,263.5 -358.8 390,799.44 757,280.28 32° 4′ 19.901 N 103° 38′ 10.234 N 14,900.0 90.00 179.10 12,349.0 -2,263.5 -358.8 390,799.44 757,281.85 32° 4′ 19.901 N 103° 38′ 10.221 N 15,000.0 90.00 179.10 12,349.0 -2,563.5 -355.7 390,599.47 757,283.42 32° 4′ 18.912 N 103° 38′ 10.221 N 15,000.0 90.00 179.10 12,349.0 -2,563.5 -355.7 390,599.47 757,284.99 32° 4′ 18.912 N 103° 38′ 10.210 N 15,100.0 90.00 179.10 12,349.0 -2,563.5 -355.7 390,599.47 757,284.99 32° 4′ 18.912 N 103° 38′ 10.210 N 15,100.0 90.00 179.10 12,349.0 -2,563.5 -355.7 390,599.47 757,284.99 32° 4′ 18.912 N 103° 38′ 10.210 N 15,100.0 90.00 179.10 12,349.0 -2,663.5 -354.1 390,499.49 757,286.56 32° 4′ 16.933 N 103° 38′ 10.210 N 15,200.0 90.00 179.10 12,349.0 -2,663.5 -355.6 390,399.50 757,286.56 32° 4′ 16.933 N 103° 38′ 10.210 N 15,200.0 90.00 179.10 12,349.0 -2,663.5 -356.6 390,399.50 757,286.56 32° 4′ 16.933 N 103° 38′ 10.210 N 15,200.0 90.00 179.10 12,349.0 -2,663.5 -355.6 390,399.50 757,286.56 32° 4′ 16.933 N 103°										
13,900.0 90.00 179.10 12,349.0 -1,463.7 -373.0 391,699.29 757,266.16 32° 4' 29.796 N 103° 38' 10.328 W 14,000.0 90.00 179.10 12,349.0 -1,563.6 -371.4 391,599.31 757,267.73 32° 4' 28.807 N 103° 38' 10.318 W 14,100.0 90.00 179.10 12,349.0 -1,663.6 -369.8 391,499.33 757,269.30 32° 4' 27.817 N 103° 38' 10.307 W 14,200.0 90.00 179.10 12,349.0 -1,763.6 -368.2 391,399.34 757,270.87 32° 4' 26.828 N 103° 38' 10.296 W 14,300.0 90.00 179.10 12,349.0 -1,863.6 -366.7 391,299.36 757,272.44 32° 4' 25.838 N 103° 38' 10.286 W 14,400.0 90.00 179.10 12,349.0 -1,963.6 -365.1 391,199.37 757,274.01 32° 4' 24.849 N 103° 38' 10.275 W 14,500.0 90.00 179.10 12,349.0 -2,063.6 -365.1 391,099.39 757,275.58 32° 4' 23.859 N 103° 38' 10.264 W 14,600.0 90.00 179.10 12,349.0 -2,163.6 -362.0 390,999.41 757,277.14 32° 4' 22.870 N 103° 38' 10.253 W 14,700.0 90.00 179.10 12,349.0 -2,263.6 -360.4 390,899.42 757,278.71 32° 4' 21.880 N 103° 38' 10.232 W 14,800.0 90.00 179.10 12,349.0 -2,263.5 -358.8 390,799.44 757,280.28 32° 4' 20.891 N 103° 38' 10.232 W 14,900.0 90.00 179.10 12,349.0 -2,463.5 -357.3 390,699.45 757,281.85 32° 4' 19.901 N 103° 38' 10.221 W 15,000.0 90.00 179.10 12,349.0 -2,563.5 -355.7 390,599.47 757,281.85 32° 4' 18.912 N 103° 38' 10.210 W 15,100.0 90.00 179.10 12,349.0 -2,663.5 -355.7 390,599.47 757,284.99 32° 4' 18.912 N 103° 38' 10.200 W 15,100.0 90.00 179.10 12,349.0 -2,663.5 -354.1 390,499.49 757,284.99 32° 4' 17.922 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,663.5 -354.1 390,499.49 757,284.99 32° 4' 17.922 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,663.5 -354.1 390,499.49 757,286.56 32° 4' 16.933 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,663.5 -356.6 390,399.50 757,286.56 32° 4' 16.933 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,663.5 -356.6 390,399.50 757,286.56 32° 4' 16.933 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,663.5 -356.6 390,399.50 757,286.56 32° 4' 16.933 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,663.5 -356.6 390,399.50 757,286.56 32° 4' 16.933 N 103°										
14,000.0       90.00       179.10       12,349.0       -1,563.6       -371.4       391,599.31       757,267.73       32° 4' 28.807 N       103° 38' 10.318 W         14,100.0       90.00       179.10       12,349.0       -1,663.6       -369.8       391,499.33       757,269.30       32° 4' 27.817 N       103° 38' 10.307 W         14,200.0       90.00       179.10       12,349.0       -1,763.6       -368.2       391,399.34       757,270.87       32° 4' 26.828 N       103° 38' 10.296 W         14,300.0       90.00       179.10       12,349.0       -1,863.6       -366.7       391,299.36       757,272.44       32° 4' 24.849 N       103° 38' 10.286 W         14,400.0       90.00       179.10       12,349.0       -1,963.6       -365.1       391,199.37       757,274.01       32° 4' 24.849 N       103° 38' 10.255 W         14,500.0       90.00       179.10       12,349.0       -2,063.6       -365.1       391,099.39       757,275.58       32° 4' 23.859 N       103° 38' 10.264 W         14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6					,					
14,100.0       90.00       179.10       12,349.0       -1,663.6       -369.8       391,499.33       757,269.30       32° 4' 27.817 N       103° 38' 10.307 W         14,200.0       90.00       179.10       12,349.0       -1,763.6       -368.2       391,399.34       757,270.87       32° 4' 26.828 N       103° 38' 10.296 W         14,300.0       90.00       179.10       12,349.0       -1,863.6       -366.7       391,299.36       757,272.44       32° 4' 24.849 N       103° 38' 10.286 W         14,400.0       90.00       179.10       12,349.0       -1,963.6       -365.1       391,199.37       757,274.01       32° 4' 24.849 N       103° 38' 10.275 W         14,500.0       90.00       179.10       12,349.0       -2,063.6       -363.5       391,099.39       757,275.58       32° 4' 23.859 N       103° 38' 10.264 W         14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.232 W         14,800.0       90.00       179.10       12,349.0       -2,463.5	1			,						
14,200.0       90.00       179.10       12,349.0       -1,763.6       -368.2       391,399.34       757,270.87       32° 4' 26.828 N       103° 38' 10.296 W         14,300.0       90.00       179.10       12,349.0       -1,863.6       -366.7       391,299.36       757,272.44       32° 4' 25.838 N       103° 38' 10.296 W         14,400.0       90.00       179.10       12,349.0       -1,963.6       -365.1       391,199.37       757,274.01       32° 4' 24.849 N       103° 38' 10.275 W         14,500.0       90.00       179.10       12,349.0       -2,063.6       -363.5       391,099.39       757,275.58       32° 4' 23.859 N       103° 38' 10.264 W         14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.232 W         14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         15,000.0       90.00       179.10       12,349.0       -2,663.5	1									
14,300.0       90.00       179.10       12,349.0       -1,863.6       -366.7       391,299.36       757,272.44       32° 4' 25.838 N       103° 38' 10.286 W         14,400.0       90.00       179.10       12,349.0       -1,963.6       -365.1       391,199.37       757,274.01       32° 4' 24.849 N       103° 38' 10.275 W         14,500.0       90.00       179.10       12,349.0       -2,063.6       -363.5       391,099.39       757,275.58       32° 4' 23.859 N       103° 38' 10.264 W         14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.243 W         14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         14,900.0       90.00       179.10       12,349.0       -2,463.5       -357.3       390,699.45       757,281.85       32° 4' 19.901 N       103° 38' 10.221 W         15,000.0       90.00       179.10       12,349.0       -2,563.5	1									
14,400.0       90.00       179.10       12,349.0       -1,963.6       -365.1       391,199.37       757,274.01       32° 4' 24.849 N       103° 38' 10.275 W         14,500.0       90.00       179.10       12,349.0       -2,063.6       -363.5       391,099.39       757,275.58       32° 4' 23.859 N       103° 38' 10.264 W         14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.243 W         14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         14,900.0       90.00       179.10       12,349.0       -2,463.5       -357.3       390,699.45       757,281.85       32° 4' 19.901 N       103° 38' 10.221 W         15,000.0       90.00       179.10       12,349.0       -2,563.5       -355.7       390,599.47       757,283.42       32° 4' 18.912 N       103° 38' 10.210 W         15,100.0       90.00       179.10       12,349.0       -2,663.5	· ·							,		
14,500.0       90.00       179.10       12,349.0       -2,063.6       -363.5       391,099.39       757,275.58       32° 4' 23.859 N       103° 38' 10.264 W         14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.243 W         14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         14,900.0       90.00       179.10       12,349.0       -2,463.5       -357.3       390,699.45       757,281.85       32° 4' 19.901 N       103° 38' 10.221 W         15,000.0       90.00       179.10       12,349.0       -2,563.5       -355.7       390,599.47       757,283.42       32° 4' 18.912 N       103° 38' 10.210 W         15,100.0       90.00       179.10       12,349.0       -2,663.5       -354.1       390,499.49       757,284.99       32° 4' 17.922 N       103° 38' 10.200 W         15,200.0       90.00       179.10       12,349.0       -2,663.5										
14,600.0       90.00       179.10       12,349.0       -2,163.6       -362.0       390,999.41       757,277.14       32° 4' 22.870 N       103° 38' 10.253 W         14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.243 W         14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         14,900.0       90.00       179.10       12,349.0       -2,463.5       -357.3       390,699.45       757,281.85       32° 4' 19.901 N       103° 38' 10.221 W         15,000.0       90.00       179.10       12,349.0       -2,563.5       -355.7       390,599.47       757,283.42       32° 4' 18.912 N       103° 38' 10.210 W         15,100.0       90.00       179.10       12,349.0       -2,663.5       -354.1       390,499.49       757,284.99       32° 4' 17.922 N       103° 38' 10.200 W         15,200.0       90.00       179.10       12,349.0       -2,763.5       -352.6       390,399.50       757,286.56       32° 4' 16.933 N       103° 38' 10.189 W										
14,700.0       90.00       179.10       12,349.0       -2,263.6       -360.4       390,899.42       757,278.71       32° 4' 21.880 N       103° 38' 10.243 W         14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         14,900.0       90.00       179.10       12,349.0       -2,463.5       -357.3       390,699.45       757,281.85       32° 4' 19.901 N       103° 38' 10.221 W         15,000.0       90.00       179.10       12,349.0       -2,563.5       -355.7       390,599.47       757,283.42       32° 4' 18.912 N       103° 38' 10.210 W         15,100.0       90.00       179.10       12,349.0       -2,663.5       -354.1       390,499.49       757,284.99       32° 4' 17.922 N       103° 38' 10.200 W         15,200.0       90.00       179.10       12,349.0       -2,763.5       -352.6       390,399.50       757,286.56       32° 4' 16.933 N       103° 38' 10.189 W										
14,800.0       90.00       179.10       12,349.0       -2,363.5       -358.8       390,799.44       757,280.28       32° 4' 20.891 N       103° 38' 10.232 W         14,900.0       90.00       179.10       12,349.0       -2,463.5       -357.3       390,699.45       757,281.85       32° 4' 19.901 N       103° 38' 10.221 W         15,000.0       90.00       179.10       12,349.0       -2,563.5       -355.7       390,599.47       757,283.42       32° 4' 18.912 N       103° 38' 10.210 W         15,100.0       90.00       179.10       12,349.0       -2,663.5       -354.1       390,499.49       757,284.99       32° 4' 17.922 N       103° 38' 10.200 W         15,200.0       90.00       179.10       12,349.0       -2,763.5       -352.6       390,399.50       757,286.56       32° 4' 16.933 N       103° 38' 10.189 W										
14,900.0     90.00     179.10     12,349.0     -2,463.5     -357.3     390,699.45     757,281.85     32° 4' 19.901 N     103° 38' 10.221 W       15,000.0     90.00     179.10     12,349.0     -2,563.5     -355.7     390,599.47     757,283.42     32° 4' 18.912 N     103° 38' 10.210 W       15,100.0     90.00     179.10     12,349.0     -2,663.5     -354.1     390,499.49     757,284.99     32° 4' 17.922 N     103° 38' 10.200 W       15,200.0     90.00     179.10     12,349.0     -2,763.5     -352.6     390,399.50     757,286.56     32° 4' 16.933 N     103° 38' 10.189 W										
15,000.0     90.00     179.10     12,349.0     -2,563.5     -355.7     390,599.47     757,283.42     32° 4' 18.912 N     103° 38' 10.210 W       15,100.0     90.00     179.10     12,349.0     -2,663.5     -354.1     390,499.49     757,284.99     32° 4' 17.922 N     103° 38' 10.200 W       15,200.0     90.00     179.10     12,349.0     -2,763.5     -352.6     390,399.50     757,286.56     32° 4' 16.933 N     103° 38' 10.189 W					,		*			
15,100.0 90.00 179.10 12,349.0 -2,663.5 -354.1 390,499.49 757,284.99 32° 4' 17.922 N 103° 38' 10.200 W 15,200.0 90.00 179.10 12,349.0 -2,763.5 -352.6 390,399.50 757,286.56 32° 4' 16.933 N 103° 38' 10.189 W										
15,200.0 90.00 179.10 12,349.0 -2,763.5 -352.6 390,399.50 757,286.56 32° 4' 16.933 N 103° 38' 10.189 W	,									
15,300.0 90.00 179.10 12,349.0 -2,863.5 -351.0 390,299.52 757,288.13 32° 4' 15.943 N 103° 38' 10.178 W							*			103° 38' 10.178 W
										103° 38' 10.168 W
										103° 38' 10.157 W
										103° 38' 10.146 W
							*			103° 38' 10.135 W
										103° 38' 10.125 W
										103° 38' 10.114 W

#### **Microsoft**

#### Planning Report - Geographic

Database: Old

Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Mesa Sec 1 & 12, T26S, R32E

Well: Mesa #57H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #57H

WELL @ 3334.0usft (Original Well Elev) WELL @ 3334.0usft (Original Well Elev)

Grid

Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,000.0	90.00	179.10	12,349.0	-3,563.4	-340.0	389,599.63	757,299.11	32° 4′ 9.017 N	103° 38' 10.103 W
16,100.0	90.00	179.10	12,349.0	-3,663.4	-338.4	389,499.65	757,300.68	32° 4' 8.027 N	103° 38' 10.092 W
16,200.0	90.00	179.10	12,349.0	-3,763.4	-336.9	389,399.66	757,302.25	32° 4' 7.038 N	103° 38' 10.082 W
16,300.0	90.00	179.10	12,349.0	-3,863.4	-335.3	389,299.68	757,303.82	32° 4' 6.048 N	103° 38' 10.071 W
16,400.0	90.00	179.10 179.10	12,349.0	-3,963.4	-333.7 -332.2	389,199.70	757,305.39	32° 4' 5.059 N	103° 38' 10.060 W
16,500.0 16,600.0	90.00 90.00	179.10	12,349.0 12,349.0	-4,063.3 -4,163.3	-332.2 -330.6	389,099.71 388,999.73	757,306.96 757,308.53	32° 4' 4.069 N 32° 4' 3.080 N	103° 38' 10.050 W 103° 38' 10.039 W
16,700.0	90.00	179.10	12,349.0	-4,163.3 -4,263.3	-329.0	388,899.74	757,310.09	32° 4' 2.090 N	103° 38′ 10.039 W
16,800.0	90.00	179.10	12,349.0	-4,363.3	-327.4	388,799.76	757,311.66	32° 4' 1.101 N	103° 38' 10.017 W
16,900.0	90.00	179.10	12,349.0	-4,463.3	-325.9	388,699.78	757,313.23	32° 4' 0.111 N	103° 38' 10.007 W
17,000.0	90.00	179.10	12,349.0	-4,563.3	-324.3	388,599.79	757,314.80	32° 3' 59.122 N	103° 38' 9.996 W
17,100.0	90.00	179.10	12,349.0	-4,663.3	-322.7	388,499.81	757,316.37	32° 3′ 58.132 N	103° 38' 9.985 W
17,200.0	90.00	179.10	12,349.0	-4,763.3	-321.2	388,399.82	757,317.94	32° 3′ 57.143 N	103° 38' 9.974 W
17,300.0	90.00	179.10	12,349.0	-4,863.2	-319.6	388,299.84	757,319.51	32° 3′ 56.153 N	103° 38' 9.964 W
17,400.0	90.00	179.10	12,349.0	-4,963.2	-318.0	388,199.86	757,321.08	32° 3′ 55.164 N	103° 38' 9.953 W
17,500.0	90.00	179.10	12,349.0	-5,063.2	-316.5	388,099.87	757,322.65	32° 3′ 54.174 N	103° 38' 9.942 W
17,600.0	90.00	179.10	12,349.0	-5,163.2	-314.9	387,999.89	757,324.22	32° 3′ 53.185 N	103° 38' 9.932 W
17,700.0	90.00	179.10	12,349.0	-5,263.2	-313.3	387,899.90	757,325.79	32° 3′ 52.195 N	103° 38' 9.921 W
17,800.0	90.00	179.10	12,349.0	-5,363.2	-311.8	387,799.92	757,327.35	32° 3′ 51.206 N	103° 38' 9.910 W
17,900.0	90.00 90.00	179.10 179.10	12,349.0	-5,463.2 -5,563.2	-310.2 -308.6	387,699.94	757,328.92 757,330.49	32° 3′ 50.216 N 32° 3′ 49.227 N	103° 38' 9.899 W 103° 38' 9.889 W
18,000.0 18,100.0	90.00	179.10	12,349.0 12,349.0	-5,563.2 -5,663.1	-306.6 -307.0	387,599.95 387,499.97	757,330.49 757,332.06	32° 3' 48.237 N	103° 38' 9.878 W
18,200.0	90.00	179.10	12,349.0	-5,763.1	-307.0 -305.5	387,399.98	757,332.00	32° 3′ 47.248 N	103° 38' 9.867 W
18,300.0	90.00	179.10	12,349.0	-5,863.1	-303.9	387,300.00	757,335.20	32° 3' 46.258 N	103° 38' 9.856 W
18,400.0	90.00	179.10	12,349.0	-5,963.1	-302.3	387,200.02	757,336.77	32° 3' 45.269 N	103° 38' 9.846 W
18,500.0	90.00	179.10	12,349.0	-6,063.1	-300.8	387,100.03	757,338.34	32° 3' 44.279 N	103° 38' 9.835 W
18,600.0	90.00	179.10	12,349.0	-6,163.1	-299.2	387,000.05	757,339.91	32° 3' 43.290 N	103° 38' 9.824 W
18,700.0	90.00	179.10	12,349.0	-6,263.1	-297.6	386,900.06	757,341.48	32° 3′ 42.300 N	103° 38' 9.814 W
18,800.0	90.00	179.10	12,349.0	-6,363.1	-296.1	386,800.08	757,343.05	32° 3′ 41.311 N	103° 38' 9.803 W
18,900.0	90.00	179.10	12,349.0	-6,463.0	-294.5	386,700.10	757,344.61	32° 3′ 40.321 N	103° 38' 9.792 W
19,000.0	90.00	179.10	12,349.0	-6,563.0	-292.9	386,600.11	757,346.18	32° 3′ 39.332 N	103° 38' 9.781 W
19,100.0	90.00	179.10	12,349.0	-6,663.0	-291.4	386,500.13	757,347.75	32° 3′ 38.342 N	103° 38' 9.771 W
19,200.0	90.00	179.10	12,349.0	-6,763.0	-289.8	386,400.14	757,349.32	32° 3′ 37.353 N	103° 38' 9.760 W
19,300.0	90.00	179.10	12,349.0	-6,863.0	-288.2	386,300.16	757,350.89	32° 3′ 36.363 N	103° 38' 9.749 W
19,400.0	90.00	179.10	12,349.0	-6,963.0 7,063.0	-286.6 -285.1	386,200.18 386,100.19	757,352.46	32° 3′ 35.374 N	103° 38' 9.738 W
19,500.0 19,600.0	90.00 90.00	179.10 179.10	12,349.0 12,349.0	-7,063.0 -7,163.0	-265.1 -283.5	386,000.21	757,354.03 757,355.60	32° 3′ 34.384 N 32° 3′ 33.395 N	103° 38' 9.728 W 103° 38' 9.717 W
19,700.0	90.00	179.10	12,349.0	-7,163.0 -7,262.9	-263.5 -281.9	385,900.22	757,353.00	32° 3' 32.405 N	103° 38' 9.706 W
19,800.0	90.00	179.10	12,349.0	-7,362.9	-280.4	385,800.24	757,358.74	32° 3' 31.416 N	103° 38' 9.696 W
19,900.0	90.00	179.10	12,349.0	-7,462.9	-278.8	385,700.26	757,360.31	32° 3' 30.426 N	103° 38' 9.685 W
20,000.0	90.00	179.10	12,349.0	-7,562.9	-277.2	385,600.27	757,361.87	32° 3' 29.437 N	103° 38' 9.674 W
20,100.0	90.00	179.10	12,349.0	-7,662.9	-275.7	385,500.29	757,363.44	32° 3′ 28.447 N	103° 38' 9.663 W
20,200.0	90.00	179.10	12,349.0	-7,762.9	-274.1	385,400.30	757,365.01	32° 3′ 27.458 N	103° 38' 9.653 W
20,300.0	90.00	179.10	12,349.0	-7,862.9	-272.5	385,300.32	757,366.58	32° 3′ 26.468 N	103° 38' 9.642 W
20,400.0	90.00	179.10	12,349.0	-7,962.9	-271.0	385,200.34	757,368.15	32° 3′ 25.479 N	103° 38' 9.631 W
20,500.0	90.00	179.10	12,349.0	-8,062.8	-269.4	385,100.35	757,369.72	32° 3′ 24.489 N	103° 38' 9.620 W
20,600.0	90.00	179.10	12,349.0	-8,162.8	-267.8	385,000.37	757,371.29	32° 3′ 23.500 N	103° 38' 9.610 W
20,700.0	90.00	179.10	12,349.0	-8,262.8	-266.2	384,900.38	757,372.86	32° 3' 22.510 N	103° 38' 9.599 W
20,800.0	90.00	179.10	12,349.0	-8,362.8	-264.7	384,800.40	757,374.43	32° 3' 21.521 N	103° 38' 9.588 W
20,900.0	90.00	179.10	12,349.0	-8,462.8	-263.1	384,700.42	757,376.00	32° 3′ 20.531 N	103° 38' 9.578 W
21,000.0 21,100.0	90.00 90.00	179.10 179.10	12,349.0 12,349.0	-8,562.8 -8,662.8	-261.5 -260.0	384,600.43 384,500.45	757,377.56 757,379.13	32° 3' 19.542 N 32° 3' 18.552 N	103° 38' 9.567 W 103° 38' 9.556 W
21,100.0	90.00	179.10	12,349.0	-8,762.8	-260.0 -258.4	384,400.47	757,379.13 757,380.70	32° 3' 17.563 N	103° 38' 9.545 W
21,300.0	90.00	179.10	12,349.0	-8,862.7	-256.8	384,300.48	757,382.27	32° 3' 16.573 N	103° 38' 9.535 W
21,400.0	90.00	179.10	12,349.0	-8,962.7	-255.3	384,200.50	757,383.84	32° 3' 15.584 N	103° 38' 9.524 W
_1,100.0	00.00	., 0.10	,0.0.0	5,502.7	_00.0	33., <b>2</b> 00.00	,000.0 r	32 3 10.00111	.00 00 0.02 1 11

#### **Microsoft**

#### Planning Report - Geographic

Database: Old

Company: BTA Oil Producers, LLC
Project: Lea County, NM (NAD 83)
Site: Mesa Sec 1 & 12, T26S, R32E

Well: Mesa #57H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #57H

WELL @ 3334.0usft (Original Well Elev) WELL @ 3334.0usft (Original Well Elev)

Grid

Minimum Curvature

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
21,500.0	90.00	179.10	12,349.0	-9,062.7	-253.7	384,100.51	757,385.41	32° 3′ 14.594 N	103° 38' 9.513 W
21,600.0	90.00	179.10	12,349.0	-9,162.7	-252.1	384,000.53	757,386.98	32° 3' 13.605 N	103° 38' 9.502 W
21,700.0	90.00	179.10	12,349.0	-9,262.7	-250.6	383,900.55	757,388.55	32° 3' 12.615 N	103° 38' 9.492 W
21,800.0	90.00	179.10	12,349.0	-9,362.7	-249.0	383,800.56	757,390.12	32° 3' 11.626 N	103° 38' 9.481 W
21,900.0	90.00	179.10	12,349.0	-9,462.7	-247.4	383,700.58	757,391.69	32° 3' 10.636 N	103° 38' 9.470 W
22,000.0	90.00	179.10	12,349.0	-9,562.7	-245.9	383,600.59	757,393.26	32° 3' 9.647 N	103° 38' 9.460 W
22,100.0	90.00	179.10	12,349.0	-9,662.6	-244.3	383,500.61	757,394.82	32° 3' 8.657 N	103° 38' 9.449 W
22,200.0	90.00	179.10	12,349.0	-9,762.6	-242.7	383,400.63	757,396.39	32° 3' 7.668 N	103° 38' 9.438 W
22,300.0	90.00	179.10	12,349.0	-9,862.6	-241.1	383,300.64	757,397.96	32° 3' 6.678 N	103° 38' 9.427 W
22,400.0	90.00	179.10	12,349.0	-9,962.6	-239.6	383,200.66	757,399.53	32° 3' 5.689 N	103° 38' 9.417 W
22,500.0	90.00	179.10	12,349.0	-10,062.6	-238.0	383,100.67	757,401.10	32° 3' 4.699 N	103° 38' 9.406 W
22,600.0	90.00	179.10	12,349.0	-10,162.6	-236.4	383,000.69	757,402.67	32° 3' 3.710 N	103° 38' 9.395 W
22,700.0	90.00	179.10	12,349.0	-10,262.6	-234.9	382,900.71	757,404.24	32° 3' 2.720 N	103° 38' 9.384 W
22,800.0	90.00	179.10	12,349.0	-10,362.6	-233.3	382,800.72	757,405.81	32° 3′ 1.731 N	103° 38' 9.374 W
22,812.0	90.00	179.10	12,349.0	-10,374.6	-233.1	382,788.70	757,406.00	32° 3' 1.612 N	103° 38' 9.372 W

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Mesa #57H BHL - plan hits target cent - Point	0.00 ter	0.00	12,349.0	-10,374.6	-233.1	382,788.70	757,406.00	32° 3' 1.612 N	103° 38' 9.372 W



### **TOTAL LENGTH = 78'-3/8"**

7-1/16" 10M

#### **TUBING SPOOL**

SW-TCM

13-5/8" 5M x 7-1/16" 10M 5-1/2" PP SEAL

w/ (2) 1-13/16" 10M SSO

# CASING HANGER, C-22, 13-5/8" X 5-1/2" 13-5/8" 5M

#### SW-MB SPOOL ASSEMBLY

**UPPER MBH** 

13-5/8" 5M x 13-5/8" 5M w/ (2) 2-1/16" 5M SSO



#### CASING HEAD ASSEMBLY

**LOWER MBH** 

13-5/8" 5M x 10-3/4" SOW w/ (2) 2-1/16" 5M SSO

10-3/4" SOW x 7-5/8" x 5-1/2"





CASING HANGER, MDRL, 13-5/8" X 7-5/8"



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

SUPO Data Report

**APD ID:** 10400057753

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 1-12 FEDERAL

Well Type: OIL WELL

Submission Date: 06/05/2020

Well Number: 57H

Well Work Type: Drill

Highlighted data reflects the most recent changes

**Show Final Text** 

#### **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

20110285\_Mesa\_8105\_1\_12\_Fed\_57H\_Vicinity\_Topographical\_\_\_Access\_Rd\_20200806133758.pdf

Existing Road Purpose: ACCESS Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

#### **Section 2 - New or Reconstructed Access Roads**

Will new roads be needed? NO

#### **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

Attach Well map:

20110285\_Mesa\_8105\_1\_12\_Fed\_57H\_1\_Mile\_Radius\_\_\_C102\_20200806133816.pdf

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

#### Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Defer, CTB will be sundried at a later date.

#### **Section 5 - Location and Types of Water Supply**

#### **Water Source Table**

Water source type: OTHER

Describe type: PIT

Water source use type: SURFACE CASING

**STIMULATION** 

**DUST CONTROL** 

INTERMEDIATE/PRODUCTION

**CASING** 

Source latitude: Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: PRIVATE

Water source volume (barrels): 100000 Source volume (acre-feet): 12.88930963

Source volume (gal): 4200000

#### Water source and transportation map:

MESA\_8105\_FEDERAL\_WATER\_TRANSPORT\_MAP\_20200527085530.pdf

Water source comments: Water Pit is in SESE QUARTER QUARTER OF SEC 1; T26S; R32E

New water well? N

#### **New Water Well Info**

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Well latitude: Well Longitude: Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft): Est thickness of aquifer:

**Aquifer comments:** 

Aquifer documentation:

Well depth (ft): Well casing type:

Well casing outside diameter (in.): Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method: Drill material:

Grout material: Grout depth:

Casing length (ft.): Casing top depth (ft.):

Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

**Additional information attachment:** 

#### **Section 6 - Construction Materials**

Using any construction materials: YES

**Construction Materials description:** Caliche used for construction of the drilling pad and access road will be obtained from the closest existing caliche pit as approved by the BLM or from prevailing deposits found under the location. If there is not sufficient material available, caliche will be purchased from the nearest caliche pit located in the SESE Quarter Quarter of Section 4 T26S R32E Lea County, NM.

**Construction Materials source location attachment:** 

#### **Section 7 - Methods for Handling Waste**

Waste type: GARBAGE

Waste content description: Trash

**Amount of waste:** 500 pounds

Waste disposal frequency: One Time Only

Safe containment description: Trash produced during drilling and completion operations will be collected in a trash

container and disposed of properly. Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

**Disposal location description:** Trucked to a state approved disposal facility.

Received by OCD: 8/9/2021 2:05:02 PM

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Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Waste type: SEWAGE

Waste content description: Human waste and grey water.

Amount of waste: 1000 gallons

Waste disposal frequency: One Time Only

Safe containment description: Waste material will be stored safely and disposed of properly.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

**Disposal location description:** Trucked to a state approved disposal facility.

Waste type: DRILLING

Waste content description: Drilling fluids and cuttings.

Amount of waste: 4164 barrels

Waste disposal frequency: One Time Only

Safe containment description: All drilling fluids will be stored safely and disposed of properly.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

**Disposal location description:** Trucked to a state approved disposal facility.

#### **Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

#### **Cuttings Area**

Cuttings Area being used? NO

Are you storing cuttings on location? N

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

**Description of cuttings location** 

**Cuttings area length (ft.)** Cuttings area width (ft.)

Cuttings area depth (ft.) Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

#### **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities attachment:** 

#### **Comments:**

#### **Section 9 - Well Site Layout**

#### Well Site Layout Diagram:

Rig Layout 20190930140859.pdf

20110285\_Mesa\_8105\_1\_12\_Fed\_57H\_Well\_Site\_Plan\_\_600s\_\_20200806133844.pdf

Comments:

#### **Section 10 - Plans for Surface Reclamation**

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: MESA 8105 1-12 FEDERAL

Multiple Well Pad Number: 56H and 57H

#### Recontouring attachment:

Drainage/Erosion control construction: During construction proper erosion control methods will be used to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Well pad proposed disturbance

(acres): 3.95

Well pad interim reclamation (acres):

Road proposed disturbance (acres): 0 Road interim reclamation (acres): 0

(acres): 3.49

Road long term disturbance (acres): 0

Powerline proposed disturbance

(acres): 0

Powerline interim reclamation (acres): Powerline long term disturbance

Well pad long term disturbance

(acres): 0

Pipeline proposed disturbance

(acres): 0

Other interim reclamation (acres): 0 Other proposed disturbance (acres): 0

Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0

Other long term disturbance (acres): 0

Total interim reclamation: 0.46

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Total proposed disturbance: 3.95 Total long term disturbance: 3.49

#### **Disturbance Comments:**

**Reconstruction method:** The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

**Topsoil redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations.

**Soil treatment:** To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

**Existing Vegetation at the well pad:** The historic climax plant community is a grassland dominated by black grama, dropseeds, and blue stems with sand sage and shinnery oak distributed evenly throughout. Current landscape displays mesquite, shinnery oak, yucca, desert sage, fourwing saltbush, snakeweed, and bunch grasses.

**Existing Vegetation at the well pad attachment:** 

Existing Vegetation Community at the road: Refer to "Existing Vegetation at the well pad"

**Existing Vegetation Community at the road attachment:** 

Existing Vegetation Community at the pipeline: Refer to "Existing Vegetation at the well pad"

**Existing Vegetation Community at the pipeline attachment:** 

Existing Vegetation Community at other disturbances: Refer to "Existing Vegetation at the well pad"

**Existing Vegetation Community at other disturbances attachment:** 

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation?

Seed harvest description:

Seed harvest description attachment:

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

**Seed Management** 

**Seed Table** 

**Seed Summary** 

**Total pounds/Acre:** 

Seed Type

Pounds/Acre

Seed reclamation attachment:

**Operator Contact/Responsible Official Contact Info** 

First Name: Chad Last Name: Smith

Phone: (432)682-3753 Email: CSMITH@BTAOIL.COM

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

**Existing invasive species treatment description:** 

Existing invasive species treatment attachment:

**Weed treatment plan description:** No invasive species present. Standard regular maintenance to maintain a clear location and road.

Weed treatment plan attachment:

**Monitoring plan description:** Identify areas supporting weeds prior to construction; prevent the introduction and spread of weeds from construction equipment during construction; and contain weed seeds and propagules by preventing segregated topsoil from being spread to adjacent areas. No invasive species present. Standard regular maintenance to maintain a clear location and road.

Monitoring plan attachment:

Success standards: To maintain all disturbed areas as per Gold Book standards.

Pit closure description: N/A

Pit closure attachment:

**Section 11 - Surface Ownership** 

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

**NPS Local Office:** 

**State Local Office:** 

**Military Local Office:** 

**USFWS Local Office:** 

Other Local Office:

**USFS** Region:

**USFS Forest/Grassland:** 

**USFS Ranger District:** 

**Section 12 - Other Information** 

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

**ROW Applications** 

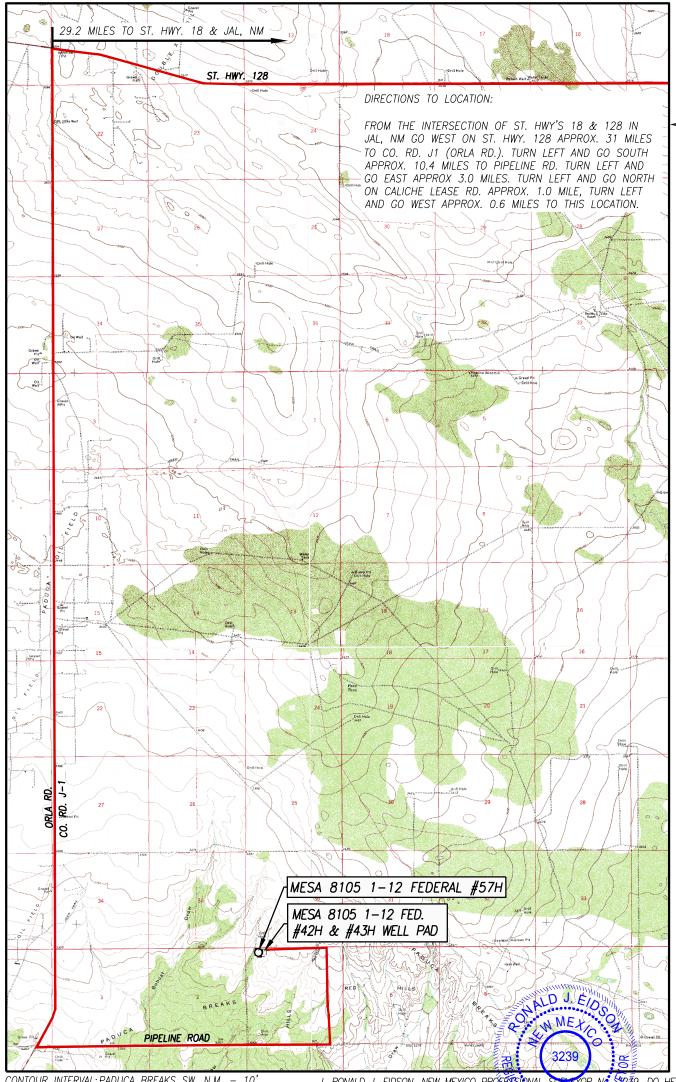
**SUPO Additional Information:** 

Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted by McKenna Ryder BLM on 2/26/2020

**Other SUPO Attachment** 

# VICINITY, TOPOGRAPHIC AND ACCESS ROAD MAP



CONTOUR INTERVAL: PADUCA BREAKS SW, N.M. - 10' BELL, N.M. - 10', PADUCA BREAKS EAST, N.M. - 10' SCALE: 1" = 5280'

SEC. 1 TWP. 26-S RGE. 32-E COUNTY LEA STATE NEW MEXICO DESCRIPTION 280' FNL & 730' FWL 3336' BTA OIL PRODUCERS, LLC ELEVATION OPERATOR\_ MESA 8105 1-12 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP PADUCA BREAKS EAST, N.M. SURVEY N.M.P.M. Released to Imaging: 8/10/2021 3:52:29 PM I, RONALD J. EIDSON, NEW MEXICO PRÓFESSIONAL SURVEYOR NO. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR JANGER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON JONALD TO JONALD TO JONALD J. EIDSON JONALD TO JONALD J. EIDSON JONALD TO JONALD J. EIDSON J. EIDSON JONALD J. EIDSON J. EIDSON JONALD J. EIDSON J. EIDSON J. EIDSON JONALD J. EIDSON J. EIDSON J. EID



PROVIDING SURVEYING SERVICES

SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240 (575) 393-3117 www.jwsc.biz TBPLS# 10021000

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

DISTRICT IV

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

□AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name		
		fcamp		
Property Code	Pr	Well Number		
	MESA 810:	57H		
OGRID No.	Oj	perator Name	Elevation	
260297	BTA OIL PI	RODUCERS, LLC	3336'	

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	1	26-S	32-E		280	NORTH	730	WEST	LEA

#### Bottom Hole Location If Different From Surface

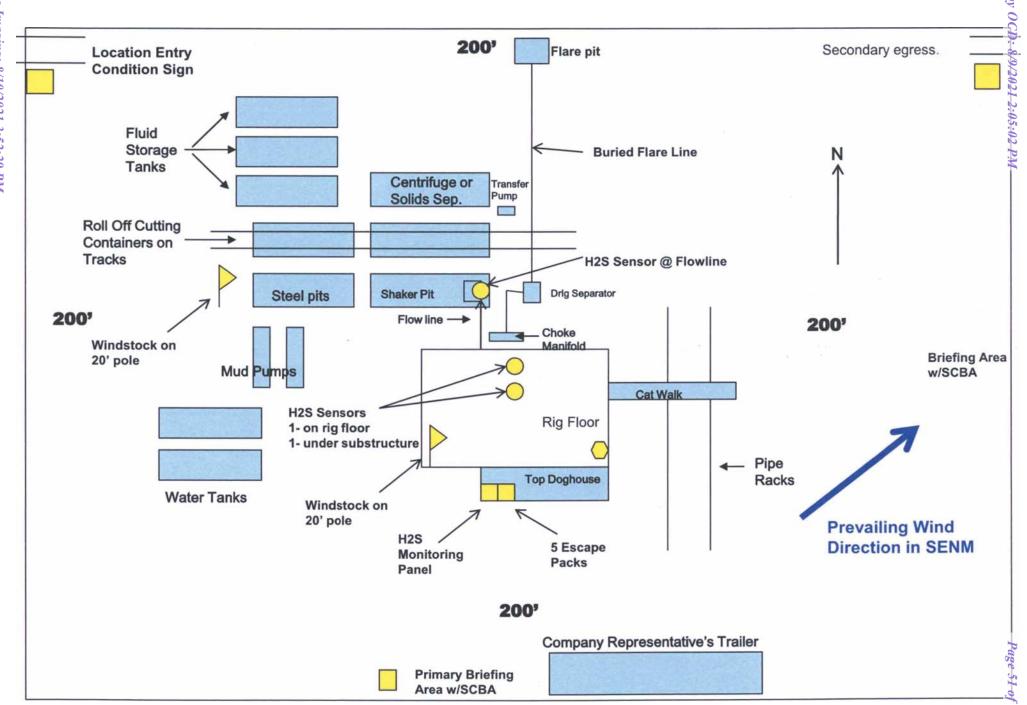
UL or lot No.  M	Section 12	Township 26-S	Range 32-E	Lot Idn	Feet from the 50	North/South line SOUTH	Feet from the 330	East/West line WEST	County LEA
Dedicated Acres 320	Joint or	Infill	Consolidation C	ode Ord	er No.				

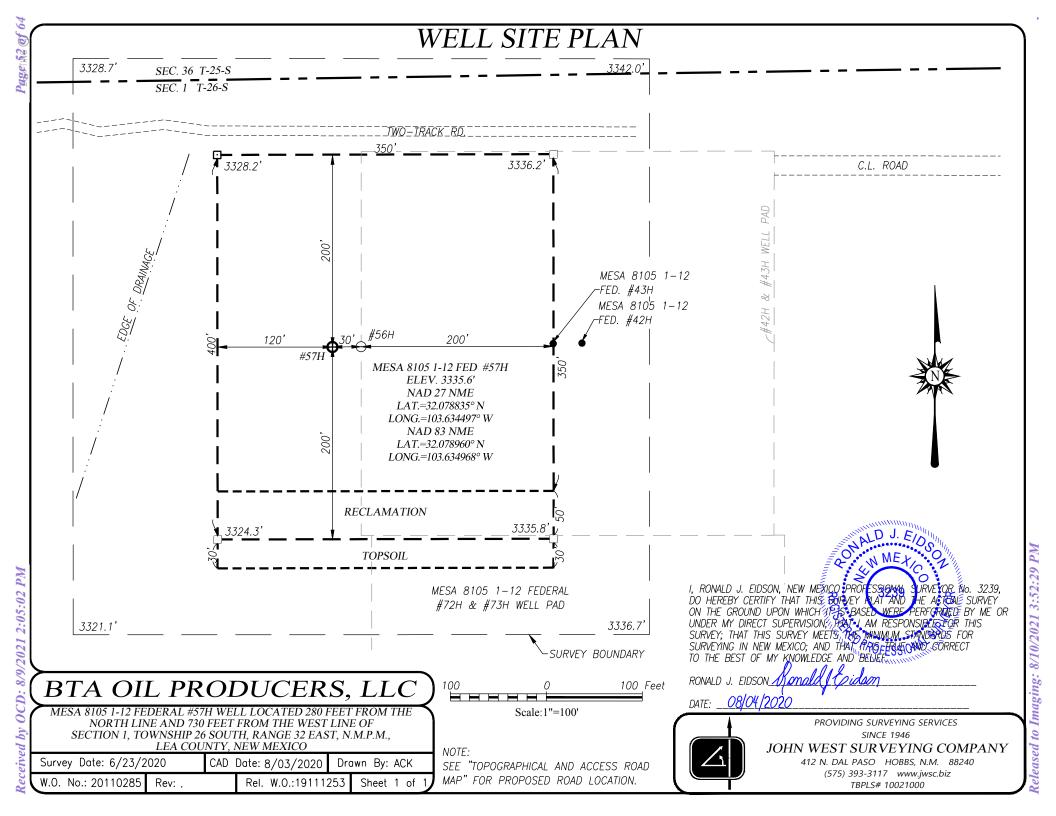
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 782 NWNE 30-025-455293,0-025-30-025-4552 4 30-025-45527 30-025-42892 025-45831 WNW LEGEND D) (C) (B) (D) (C) O DENOTES PROPOSED WELL 25S 32E SWN0-025-40572 SENE SWNW SENW WNW L2 E) (G) (H) (E) (G) 0-025-45572 5386 30-02 L 3 NWSE NE:30-025 VSW NESW NWSE NWSW (1) (1) L) (K) (1) 30-025-08248 (P) 30-025-41825 SESE SESW SWSF SESE SESW SWSE 30-025-44441 (O) 25-4426530-025-4426430-025-43787 30-025-44267 30-025-44263 3 (0) 30-025-44568 30-025-4 30-025-41826 30-025-43726 30-025-437 30-025-46024 30-025-46203 30-025-46026 30-025-NWN⊏ 30-025-43725 NENW NENE NWNW NENW NWNE NENE WNW D (C) (B) 30-025-43723 (C) (B) (A) #57H SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat SENW SWNE SENE SWNW SENW WNW was plotted from field notes of a qualistic very smale by me or under the supervision, and dispute same is true and correctly the best MARY belief. E) (G) (H) (E) (F) (G) (H) SJONE 23 2020 NSW NESW NWSF NESE NIWSW MESW NWSE Date of Survey (J) L) (K) (K) (L) (1) (L) Signature & S of Profe ional Surveyor: 26S 32E IJ, POFESSIONA 30-025-24861 (M) SESW L4 (N) 30-025-4284 0-025-39947 30-025-4582730-025-40001 -30-025-45835 30-025-45832 30-025-4284930-025-42850 30-025-42854 30-025-42844 2000 Feet 2000 0 Gary G. Eidson 12641 Ronald J. Eidson 3239 Scale:1"=2000' ACK REL. W.O.:19111253 JWSC W.O.: 20.11.0285



BTA OIL PRODUCERS, LLC
WATER TRANSPORTATION MAP
MESA 8105 FEDERAL WATER TRANSPORT MAP
SEC 1; T26S; R32E (Water Pit is in SESE QUARTER QUARTER)
LEA COUNTY, NM









U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

PWD Data Report

PWD disturbance (acres):

**APD ID:** 10400057753 **Submission Date:** 06/05/2020

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Well Type: OIL WELL Well Work Type: Drill

#### **Section 1 - General**

Would you like to address long-term produced water disposal? NO

#### **Section 2 - Lined Pits**

Would you like to utilize Lined Pit PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

**Lined pit Monitor description:** 

**Lined pit Monitor attachment:** 

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

#### **Section 3 - Unlined Pits**

Would you like to utilize Unlined Pit PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD disturbance (acres): PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

**Unlined pit Monitor description:** 

**Unlined pit Monitor attachment:** 

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

**TDS lab results:** 

Geologic and hydrologic evidence:

State authorization:

**Unlined Produced Water Pit Estimated percolation:** 

Unlined pit: do you have a reclamation bond for the pit?

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

**Section 4 - Injection** 

Would you like to utilize Injection PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: Injection well name:

Assigned injection well API number? Injection well API number:

Injection well new surface disturbance (acres):

**Minerals protection information:** 

Mineral protection attachment:

**Underground Injection Control (UIC) Permit?** 

**UIC Permit attachment:** 

**Section 5 - Surface Discharge** 

Would you like to utilize Surface Discharge PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

**Surface Discharge NPDES Permit?** 

**Surface Discharge NPDES Permit attachment:** 

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Well Name: MESA 8105 1-12 FEDERAL Well Number: 57H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Bond Info Data Report

07/20/2021

APD ID: 10400057753

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 1-12 FEDERAL

Well Type: OIL WELL

**Submission Date:** 06/05/2020

Highlighted data reflects the most recent changes

**Show Final Text** 

Well Number: 57H

Well Work Type: Drill

#### **Bond Information**

Federal/Indian APD: FED

**BLM Bond number: NMB001711** 

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

**BLM** reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

**Reclamation bond number:** 

**Reclamation bond amount:** 

**Reclamation bond rider amount:** 

Additional reclamation bond information attachment:

#### State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

#### NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

#### Section 1 – Plan Description Effective May 25, 2021

I. Operator: BTA (	Dil Producer	s, LLC	OGRID:	260297	Date:	08 / 09 / 2021	
II. Type:   Original	☐ Amendment	due to □ 19.15.27.	9.D(6)(a) NMA	C □ 19.15.27.9.D(	(6)(b) NMAC □	Other.	
If Other, please describe	e:						
III. Well(s): Provide the be recompleted from a s					wells proposed to	be drilled or prop	osed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Wa BBL/D	
MESA 8105 1-12 <b>30-0</b> 2	5-49290	D, SEC 1; 26S; 32E	280 FNL,730 FWL	+/- 800	+/- 2000	+/- 1200	
FEDERAL 57H							
IV. Central Delivery P V. Anticipated Schedu proposed to be recomple	le: Provide the	following informat	nected to a cent	ral delivery point.	vell or set of wells		rilled or
Well Name	API	Spud Date	TD Reached Date	Completion Commencement			
MESA 8105 1-12 <b>30-0</b>	25-49290	8/9/2022	8/29/2022	9/12/2022	10/3/20	022 11/2/20	122
FEDERAL 57H							
VI. Separation Equipm VII. Operational Prac Subsection A through F VIII. Best Management during active and planne	tices: \( \times \) Attac of 19.15.27.8	h a complete descr NMAC.	iption of the ac	tions Operator wil	l take to comply	with the requirem	nents of

#### Section 2 Enhanced Plan

			E APRIL 1, 2022	
Beginning April 1, 2 reporting area must of			with its statewide natural ga	as capture requirement for the applicable
☐ Operator certifies capture requirement	-	-	tion because Operator is in o	compliance with its statewide natural gas
IX. Anticipated Nat	tural Gas Producti	on:		
Well		API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
X. Natural Gas Gat	hering System (NC	GGS):		
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
production operation the segment or portion the segment or portion in the segment or portion in the segment or portion in the segment or segment in the segment of the segment in the segm	s to the existing or pon of the natural gas gas. The natural gas gas rom the well prior to the compact of the c	planned interconnect of to gathering system(s) to we thering system will to the date of first product does not anticipate that above will continue to eduction in response to the terts confidentiality purs	he natural gas gathering systewhich the well(s) will be considered will not have capacity to go tion.  at its existing well(s) connect meet anticipated increases in the increased line pressure.  uant to Section 71-2-8 NMS 27.9 NMAC, and attaches a fixewhich which is the increased of the increased line pressure.	atticipated pipeline route(s) connecting the em(s), and the maximum daily capacity of nected.  ather 100% of the anticipated natural gas ted to the same segment, or portion, of the a line pressure caused by the new well(s).  SA 1978 for the information provided in full description of the specific information

## Section 3 - Certifications Effective May 25, 2021

Effective May 25, 2021								
Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:								
© Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or								
□ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. <i>If Operator checks this box, Operator will select one of the following:</i>								
Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or								
Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:  (a) power generation on lease; (b) power generation for grid; (c) compression on lease; (d) liquids removal on lease; (e) reinjection for underground storage; (f) reinjection for temporary storage; (g) reinjection for enhanced oil recovery; (h) fuel cell production; and (i) other alternative beneficial uses approved by the division.								

#### **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature Samplejan -
Printed Name: Sammy Hajar
Title: Regulatory Analyst
E-mail Address: SHAJAR@BTAOIL.COM
Date: 8/9/2021
Phone: 432-682-3753
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

# VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Separation equipment will allow for adequate retention time to allow gas and liquids to separate.
- Separation equipment will separate all three phases (Oil, Water, and Gas).
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

# VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

#### **Drilling Operations**

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment
  malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and
  the environment, at which point the gas will be vented.

#### **Completions/Recompletions Operations**

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

#### **Production Operations**

- Weekly AVOs will be performed on all facilities that produce more than 60 MCFD.
- Leaking thief hatches and pressure safety valves found during AVOs will be cleaned and properly re-sealed.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All gas lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.

#### **Performance Standards**

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- All gas will have multiple points of separation to ensure no liquids enter flares, combustors, or gas sales line.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 MCFD.
- All OOOOa facilities will be filmed with an Optical Gas Imaging Thermographer camera once per month to check for fugitive emissions.

#### **Measurement & Estimation**

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- All meters will be calibrated at regular intervals according to meter manufacturer recommendations.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

# VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- During downhole well maintenance, BTA will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

#### **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

CONDITIONS

Action 40768

#### **CONDITIONS**

Operator:	OGRID:
BTA OIL PRODUCERS, LLC	260297
104 S Pecos	Action Number:
Midland, TX 79701	40768
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created	Condition	Condition
Ву		Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	8/10/2021
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or	8/10/2021
	zones and shall immediately set in cement the water protection string	