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. NMNM14492 **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: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing ✓ Single Zone Multiple Zone MESA 8105 1-12 FEDERAL [327174] 71H 2. Name of Operator 9. API Well No. 30-025-48961 [260297] BTA OIL PRODUCERS LLC 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory WC-025/MIDDLE WOLFCAMP [98158] 104 SOUTH PECOS STREET, MIDLAND, TX 79701 (432) 682-3753 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 SEC 1/T26S/R32E/NMP At surface NENW / 470 FNL / 1500 FWL / LAT 32.078455 / LONG -103.632469 At proposed prod. zone SESW / 50 FSL / 1650 FWL / LAT 32.050471 / LONG -103.631675 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State I FA NM 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well 470 feet location to nearest property or lease line, ft. 320.0 (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, 740 feet 12637 feet / 23091 feet FED: NMB001711 applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 3352 feet 11/28/2021 30 days 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 Item 20 above). 2. A Drilling Plan. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the Name (Printed/Typed) Date 25. Signature SAMMY HAJAR / Ph: (432) 682-3753 07/01/2020 (Electronic Submission) Title Regulatory Analyst Approved by (Signature) Date Name (Printed/Typed) (Electronic Submission) Cody Layton / Ph: (575) 234-5959 04/12/2021 Title Office Assistant Field Manager Lands & Minerals Carlsbad Field 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.

GCP Rec 04/27/2021

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(Continued on page 2)





\*(Instructions on page 2)

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** | BTA Oil Producers LLC

**LEASE NO.:** | NMNM014492

WELL NAME & NO.: MESA 8105 1-12 Federal 71H

**SURFACE HOLE FOOTAGE:** | 470'/N & 1500'/W **BOTTOM HOLE FOOTAGE** | 50'/S & 1650'/W

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

**COUNTY:** Lea County, New Mexico

COA

H2S	○ Yes	• No	
Potash	None	© Secretary	○ R-111-P
Cave/Karst Potential	○ Low	• Medium	○ High
Cave/Karst Potential	© Critical		
Variance	○ None	Flex Hose	Other Other
Wellhead	© Conventional	• Multibowl	○ 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 850 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 **11,992** 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 -43%, 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 -5%, 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)
  - Chaves and Roosevelt Counties
    Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
    During office hours call (575) 627-0272.
    After office hours call (575)
  - Eddy County
    Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

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(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.

#### **OTA11032020**



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

## **Application Data Report**

04/16/2021

APD ID: 10400058658

Submission Date: 07/01/2020

Highlighted data reflects the most recent changes

**Operator Name: BTA OIL PRODUCERS LLC** 

Well Number: 71H

**Show Final Text** 

Well Name: MESA 8105 1-12 FEDERAL

Well Type: OIL WELL

Well Work Type: Drill

#### Section 1 - General

APD ID: 10400058658 Submission Date: 07/01/2020 Tie to previous NOS?

**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 Lease Acres:

Surface access agreement in place? 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:

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

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H Well API Number:

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

**WOLFCAMP** 

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

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

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

Type of Well Pad: MULTIPLE WELL Multiple Well Pad Name: MESA Number: 70H and 71H

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: 740 FT Distance to lease line: 470 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Signed\_Mesa\_8105\_1\_12\_Federal\_71H\_C102\_20200701124040.pdf

Well work start Date: 11/28/2021 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	470	FNL	150	FW	26S	32E	1	Aliquot	32.07845	-	LEA	NEW	NEW	F	NMNM	335	0	0	Y
Leg			0	L				NENW	5	103.6324			MEXI		014492	2			
#1										69		СО	СО						
KOP	100	FNL	165	FW	26S	32E	1	Aliquot	32.07947	-	LEA	NEW	NEW	F	NMNM	-	121	121	Υ
Leg			0	L				NENW	6	103.6320		MEXI	MEXI		014492	880	87	59	
#1										11		CO	СО			7			
PPP	100	FNL	165	FW	26S	32E	1	Aliquot	32.07947	_	LEA	NEW	NEW	F	NMNM	-	121	120	Υ
Leg			0	L				NENW	6	103.6320		MEXI	MEXI		014492	873	12	84	
#1-1										11		СО	СО			2			

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

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	165 0	FW L	26S	32E	12	Aliquot SESW	32.05060 8	- 103.6316 76	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 014492	- 928 5	228 11	126 37	Y
BHL Leg #1	50	FSL	165 0	FW L	26S	32E	12	Aliquot SESW	32.05047 1	- 103.6316 75	LEA	NEW MEXI CO		F			230 91	126 37	Y



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

### **Drilling Plan Data Report** 04/16/2021

**APD ID**: 10400058658

Well Type: OIL WELL

**Submission Date:** 07/01/2020

Highlighted data reflects the most recent changes

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 1-12 FEDERAL

Well Number: 71H Well Work Type: Drill

**Show Final Text** 

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

Formation Name QUATERNARY  RUSTLER  TOP SALT  BASE OF SALT	Elevation 3352 2545 2075	True Vertical Depth 0 807	0 807	Lithologies ALLUVIUM ANHYDRITE	Mineral Resources NONE	Producing Formation N
QUATERNARY  RUSTLER  TOP SALT	2545 2075	807	807	ALLUVIUM	NONE	N
TOP SALT	2075			ANHYDRITE	NONE	N
		1277	4077			
BASE OF SALT			1277	SALT	NONE	N
	-1265	4617	4617	SALT	NONE	N
DELAWARE	-1440	4792	4792	LIMESTONE	NATURAL GAS, OIL	N
BELL CANYON	-1465	4817	4817	SANDSTONE	NATURAL GAS, OIL	N
CHERRY CANYON	-2845	6197	6197	SANDSTONE	NATURAL GAS, OIL	N
BRUSHY CANYON	-4065	7417	7417	SANDSTONE	NATURAL GAS, OIL	N
BONE SPRING LIME	-5660	9012	9012	LIMESTONE	NATURAL GAS, OIL	N
RST BONE SPRING SAND	-6580	9932	9932	SANDSTONE	NATURAL GAS, OIL	N
BONE SPRING 2ND	-7145	10497	10497	SANDSTONE	NATURAL GAS, OIL	N
BONE SPRING 3RD	-8275	11627	11627	SANDSTONE	NATURAL GAS, OIL	N
IMOLEO AMB	-8732	12084	12084	SHALE	NATURAL GAS, OIL	Y
	BRUSHY CANYON  BONE SPRING LIME  RST BONE SPRING SAND  BONE SPRING 2ND	BRUSHY CANYON -4065  BONE SPRING LIME -5660  RST BONE SPRING SAND -6580  BONE SPRING 2ND -7145  BONE SPRING 3RD -8275	BRUSHY CANYON -4065 7417  BONE SPRING LIME -5660 9012  RST BONE SPRING SAND -6580 9932  BONE SPRING 2ND -7145 10497  BONE SPRING 3RD -8275 11627	BRUSHY CANYON -4065 7417 7417  BONE SPRING LIME -5660 9012 9012  RST BONE SPRING SAND -6580 9932 9932  BONE SPRING 2ND -7145 10497 10497  BONE SPRING 3RD -8275 11627 11627	BRUSHY CANYON -4065 7417 7417 SANDSTONE  BONE SPRING LIME -5660 9012 9012 LIMESTONE  RST BONE SPRING SAND -6580 9932 9932 SANDSTONE  BONE SPRING 2ND -7145 10497 10497 SANDSTONE  BONE SPRING 3RD -8275 11627 11627 SANDSTONE	BRUSHY CANYON         -4065         7417         7417         SANDSTONE         NATURAL GAS, OIL           BONE SPRING LIME         -5660         9012         9012         LIMESTONE         NATURAL GAS, OIL           RST BONE SPRING SAND         -6580         9932         9932         SANDSTONE         NATURAL GAS, OIL           BONE SPRING 2ND         -7145         10497         10497         SANDSTONE         NATURAL GAS, OIL           BONE SPRING 3RD         -8275         11627         11627         SANDSTONE         NATURAL GAS, OIL

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

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

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:**

5M\_annular\_well\_control\_plan\_for\_BLM\_20200521113411.docx
BLM\_10M\_BOP\_with\_5M\_annular\_20200521113411.pptx
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	850	0	850	3352	2502	850	J-55	40.5	ST&C	4.3	8.5	DRY	12.2	DRY	18.3
2	INTERMED IATE	9.87 5	7.625	NEW	API	Υ	0	8028	0	8000	3018	-4648		P- 110	29.7	BUTT	1.4	2.4	DRY	4	DRY	3.9
1	PRODUCTI ON	6.75	5.5	NEW	API	Y	0	11913	0	11885	3018	-8533	11913	P- 110	20	BUTT	1.8	1.4	DRY	2.8	DRY	2.7
4	INTERMED IATE	8.75	7.625	NEW	API	Y	8028	12113	8000	12085	-4635	-8733		P- 110	29.7	FJ	1.6	1.6	DRY	2.7	DRY	2.6
	PRODUCTI ON	6.75	5.0	NEW	API	Υ	11913	23091	11885	12637	-8533	-9285	11178	P- 110	18	BUTT	1.8	1.4	DRY	1.5	DRY	1.4

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

Casing	Attach	ments
--------	--------	-------

Casing ID: 1

String Type: SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

Mesa\_71H\_casing\_assumption\_20200701130001.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\_71H\_casing\_assumption\_20200701130051.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\_71H\_casing\_assumption\_20200701130145.JPG

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

#### **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\_71H\_casing\_assumption\_20200701130255.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\_71H\_casing\_assumption\_20200701125913.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	605	375	1.8	13.5	675	100	Class C	2% CaCl2
SURFACE	Tail		605	850	200	1.34	14.8	268	100	Class C	2% CaCl2
INTERMEDIATE	Lead	4799	0	4375	705	2.19	12.7	1543. 95	50	Class C	0.5% CaCl2
INTERMEDIATE	Tail		4375	4799	150	1.33	14.8	199.5	50	Class C	1% CaCl2
INTERMEDIATE	Lead		4799	8560	385	2.64	10.5	1016. 4	25	Class H	0.5% CaCl2

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		8560	1211 3	400	1.19	15.6	476	25	Class H	1% CaCl2
PRODUCTION	Lead		1111 5	1191 3	0	0	0	0		n/a	n/a

PRODUCTION	Lead	1191	2309	1165	1.27	14.8	1479.	10	Class H	0.1% Fluid Loss
		3	1				55			All and a second

#### **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)	Н	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	850	OTHER : FW SPUD	8.3	8.4							
850	1211 3	OTHER : DBE	9	9.4							
1211 3	1263 7	OIL-BASED MUD	11	14							

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

#### **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: 9200 Anticipated Surface Pressure: 6419

**Anticipated Bottom Hole Temperature(F): 182** 

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\_71H\_Wall\_plot\_20200701130940.pdf
Mesa\_71H\_directional\_plan\_20200701130940.pdf
Mesa\_8105\_71H\_Gas\_Capture\_Plan\_20200701130948.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.

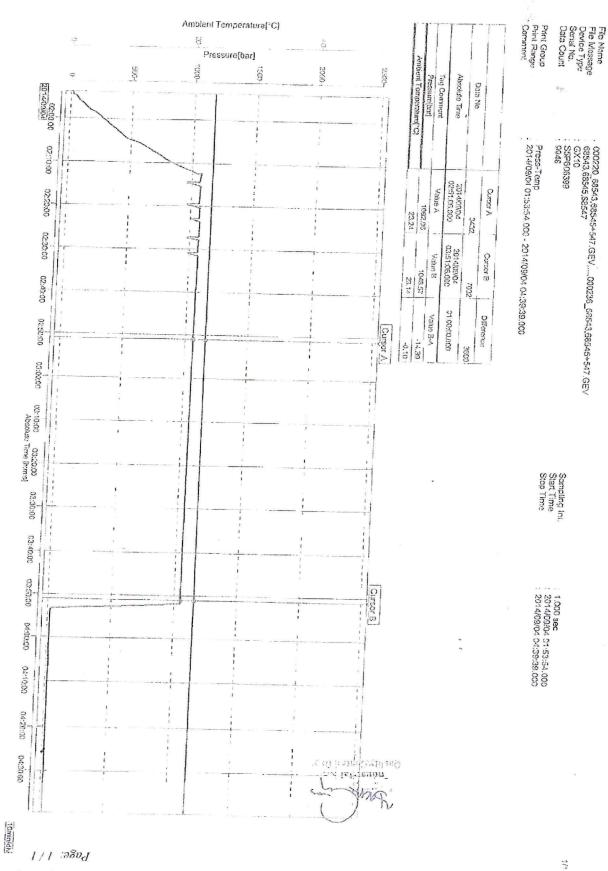
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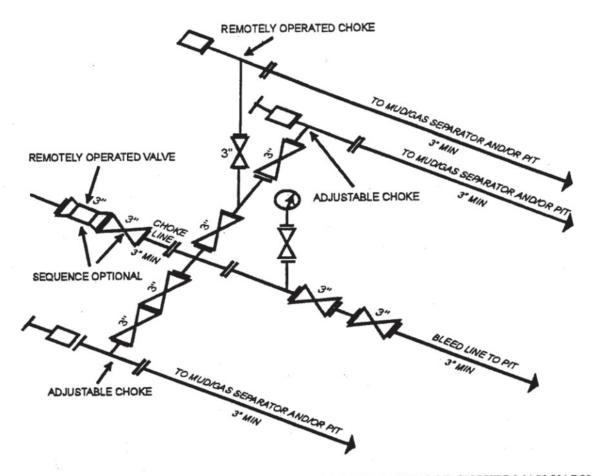
16 / 176

Ria 94				P	1226		244	55				
QUALI INSPECTION A	TY CONT		CATE		CERT. N	Vs.	1592	and a second				
PURCHASER:	ContiTech C	CONTRACTOR OF STREET	02000 000000000	**************************************	P.O. N°:		4500461	753				
CONTITECH ORDER N°:	539225	HOSE TYPE:	3"	ID	L	Choke	& Kill Hose					
HOSE SERIAL Nº:	68547	NOMINAL / AC	CTUAL LE	ENGTH:		7,62 m	/ 7,66 m					
W.P. 68,9 MPa	ieq 00001	T.P. 103,4	MPa	1500	10 psi	Duration:	60	min				
	See attachment. (1 page)  → 10 Min. ↑ 50 MPa											
COUPLINGS Typ	Thomas was to to the standard	Seria	il No		Qua	ality	Heat					
3" coupling with 4 1/16" 10K API Swivel F Hub	1	2574	5533	3	AISI 4 AISI 4	1130	A1582N 588 A1199N					
Not Designed For V	Vell Testing				11107		API Spec					
Fire Rated All metal parts are flawless						Tem	perature	rate:"B"				
WE CERTIFY THAT THE ABOVE	VE 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 CONFORMIT conditions and specifications of accordance with the referenced s	of the above Purci	laser Order and t	hat these i	tems/equ	ipment we	re fabricated	finspected and	tested in				
Date.	Inspector	1 1 main 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Quality	Control	A an Azon Albana Az	***						
04. September 2014.	200 <u>24.200.000</u>		7557		, Indu	ack Rubbs strial Kit. Control De VII	. (	73				

Contificin Rubbertndustnal Rtt. | Budagosti út 10. H: 6728 Szegod | H: 6701 P.O. Box 152 Szagod, Hungary Phone 138-67-565 737 | Fax +3562-556-736 | c-mail inha@hild contient h: | Internet www.contiech-rubbertnu.www.contiech-bu The Count of Coungaid County as Registry Count Registry Count No. Cg 06-09 (02522 | FILMAT No. H: H1087208 Bodit cast Consmerzbard 2tt., Budagost | 14220105-26835003



VILIVCHWENI OE ÕUVTILA CONLBOI INSBECLION VAD LESL CEBLIEICVLE 💎 🗥 0: 1288' 1280' 1285



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.
- 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
- 3. 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.

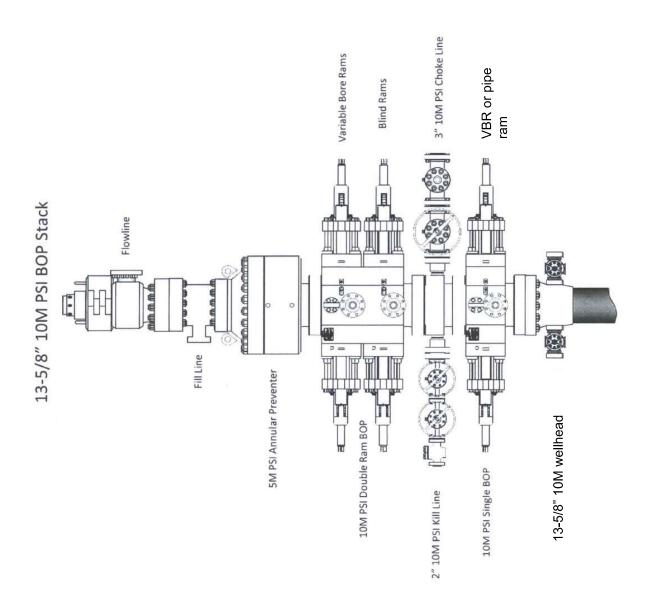
#### No Pipe In Hole (Open Hole)

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.
- Confirm shut in 3.
- 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.
  - a.ii. Stab full opening safety valve and close valve
  - 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.
  - b.iii. Shut in using upper most VBR. HCR and choke in closed position.
  - 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
  - b.vii. Prepare for well kill operation



## <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" ho	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					

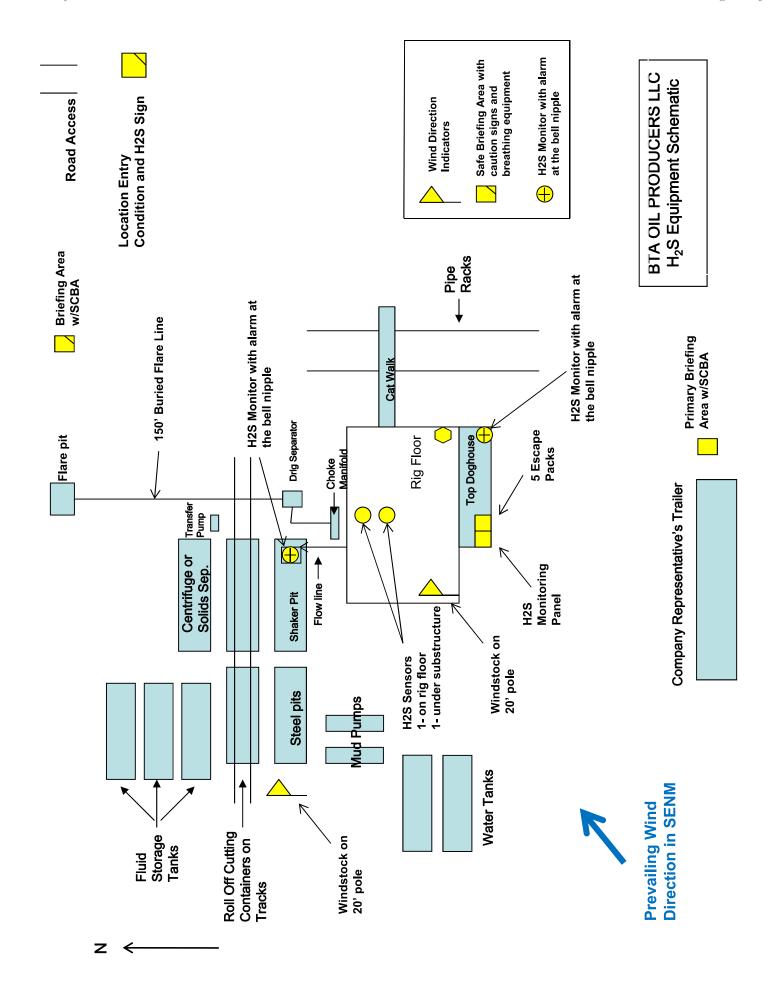
	^	BTA Oil	Producers, L	LC						WELL:	Mesa 8	105 1-1	2 Feder	al #71H	(WMCI
13	TAT	104 S Pe	cos							TVD:	12637				
		Midland,	TX 79701							MD:	23091				
						E	RILLING PI	LAN							
Casing P	rogram														
Hole Size	Csg.Size	From (MD)	To (MD)	From (TVD)	To (TVD)	Tapered String	Weight (lbs)	Grade	Conn.	Collapse	Burst	Body Tension	Joint Tension	Dry/ Buoyant	Mud Weight (ppg)
14 3/4	10 3/4	0	850	0	850	No	40.5	J-55	STC	4.3	8.5	18.3	12.2	Dry	8.3
9 7/8	7 5/8	0	8028	0	8000	yes	29.7	P110	Buttress	1.4	2.4	3.9	4.0	Dry	9.4
8 3/4	7 5/8	8028	12113	8000	12085	yes	29.7	P110	FJ	1.6	1.6	2.6	2.7	Dry	9.4
6 3/4	5 1/2	0	11913	0	11885	Yes	20	P110	Buttress	1.8	1.4	2.7	2.8	Dry	14
6 3/4	5	11913	23091	11885	12637	Yes	18	P110	Buttress	1.8	1.4	1.4	1.5	Dry	14

### **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**

	<u>OFFICE</u>
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



#### 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  $(H_2S)$ .
- 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.

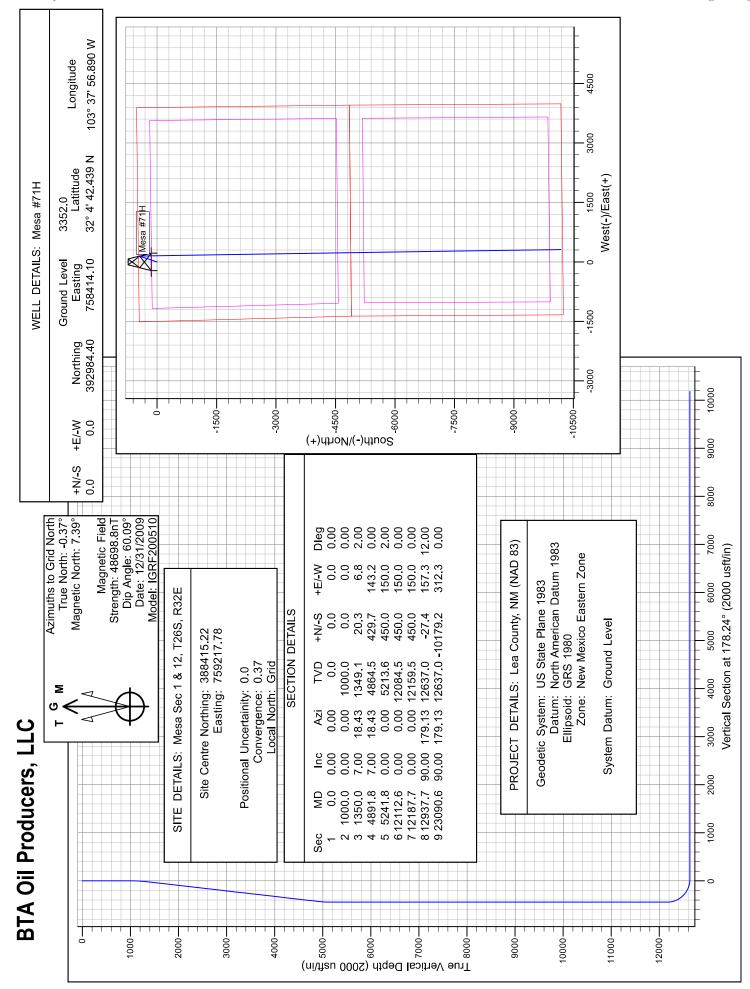
### WARNING

# 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



### **BTA Oil Producers, LLC**

Lea County, NM (NAD 83) Mesa Sec 1 & 12, T26S, R32E Mesa #71H

Wellbore #1

Plan: Design #1

### **Standard Planning Report - Geographic**

26 June, 2020

#### Planning Report - Geographic

Old Database:

Site:

BTA Oil Producers, LLC Company: Lea County, NM (NAD 83) Project:

Well: Mesa #71H

Wellbore #1 Wellbore: Design #1 Design:

Local Co-ordinate Reference

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (Original Well Elev)

Grid

Minimum Curvature

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

Mesa Sec 1 & 12, T26S, R32E

US State Plane 1983 Map System: North American Datum 1983 Geo Datum:

New Mexico Eastern Zone Map Zone:

Ground Level System Datum:

Using geodetic scale factor

Mesa Sec 1 & 12, T26S, R32E Site

388,415.22 usft Site Position: Northing: Latitude: 32° 3' 57.173 N 759,217.78 usft 103° 37' 47.896 W From: Мар Easting: Longitude: 0.0 usft 13-3/16 " 0.37 **Position Uncertainty:** Slot Radius: **Grid Convergence:** 

Mesa #71H Well

32° 4' 42.439 N 0.0 usft 392,984.40 usft **Well Position** +N/-S Northing: Latitude: 0.0 usft 758,414.10 usft 103° 37' 56.890 W +E/-W Easting: Longitude:

0.0 usft Wellhead Elevation: **Ground Level:** 3,352.0 usft **Position Uncertainty** 

Wellbore Wellbore #1 Dip Angle Magnetics **Model Name** Sample Date Declination Field Strength (°) (nT) (°) 48,698.78308705 IGRF200510 12/31/2009 7.77 60.09

Design #1 Design Audit Notes: PROTOTYPE 0.0 Version: Tie On Depth: Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 178.24 0.0 0.0 0.0

6/26/2020 Plan Survey Tool Program **Depth From** Depth To **Tool Name** (usft) (usft) Survey (Wellbore) Remarks 1 0.0 23,090.6 Design #1 (Wellbore #1)

#### 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 #71H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (Original Well Elev)

Grid

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,350.0	7.00	18.43	1,349.1	20.3	6.8	2.00	2.00	0.00	18.43	
4,891.8	7.00	18.43	4,864.5	429.7	143.2	0.00	0.00	0.00	0.00	
5,241.8	0.00	0.00	5,213.6	450.0	150.0	2.00	-2.00	0.00	180.00	
12,112.6	0.00	0.00	12,084.5	450.0	150.0	0.00	0.00	0.00	0.00	
12,187.7	0.00	0.00	12,159.5	450.0	150.0	0.00	0.00	0.00	0.00	
12,937.7	90.00	179.13	12,637.0	-27.4	157.3	12.00	12.00	0.00	179.13	
23,090.6	90.00	179.13	12,637.0	-10,179.2	312.3	0.00	0.00	0.00	0.00	Mesa #71H BHL

#### 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 #71H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (Original Well Elev)

Grid

Planned Survey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42,439 N	103° 37' 56.890 W
100.0	0.00	0.00	100.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
200.0	0.00	0.00	200.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
300.0	0.00	0.00	300.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
400.0	0.00	0.00	400.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
500.0	0.00	0.00	500.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
600.0	0.00	0.00	600.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
700.0	0.00	0.00	700.0	0.0	0.0	392,984.40	758,414.10	32° 4' 42.439 N	103° 37' 56.890 W
800.0 900.0	0.00 0.00	0.00 0.00	800.0 900.0	0.0 0.0	0.0	392,984.40 392,984.40	758,414.10 758,414.10	32° 4' 42.439 N 32° 4' 42.439 N	103° 37' 56.890 W 103° 37' 56.890 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0 0.0	392,984.40	758,414.10 758,414.10	32° 4' 42.439 N	103° 37′ 56.890 W
1,100.0	2.00	18.43	1,100.0	1.7	0.6	392,986.05	758,414.65	32° 4' 42.456 N	103° 37′ 56.884 W
1,200.0	4.00	18.43	1,199.8	6.6	2.2	392,991.02	758,416.30	32° 4' 42.505 N	103° 37' 56.864 W
1,300.0	6.00	18.43	1,299.5	14.9	5.0	392,999.29	758,419.06	32° 4' 42.586 N	103° 37' 56.831 W
1,350.0	7.00	18.43	1,349.1	20.3	6.8	393,004.66	758,420.85	32° 4' 42.639 N	103° 37' 56.810 W
1,400.0	7.00	18.43	1,398.8	26.0	8.7	393,010.44	758,422.78	32° 4' 42.696 N	103° 37' 56.787 W
1,500.0	7.00	18.43	1,498.0	37.6	12.5	393,022.00	758,426.63	32° 4' 42.811 N	103° 37' 56.742 W
1,600.0	7.00	18.43	1,597.3	49.2	16.4	393,033.56	758,430.48	32° 4′ 42.925 N	103° 37' 56.696 W
1,700.0	7.00	18.43	1,696.5	60.7	20.2	393,045.12	758,434.34	32° 4' 43.039 N	103° 37' 56.650 W
1,800.0	7.00	18.43	1,795.8	72.3	24.1	393,056.68	758,438.19	32° 4' 43.153 N	103° 37' 56.605 W
1,900.0	7.00	18.43	1,895.0	83.8	27.9	393,068.24	758,442.04	32° 4' 43.267 N	103° 37' 56.559 W
2,000.0	7.00	18.43	1,994.3	95.4	31.8	393,079.80	758,445.90	32° 4' 43.381 N	103° 37' 56.513 W
2,100.0 2,200.0	7.00	18.43	2,093.5	107.0	35.7	393,091.36	758,449.75	32° 4' 43.496 N	103° 37' 56.468 W
2,300.0	7.00 7.00	18.43 18.43	2,192.8 2,292.0	118.5 130.1	39.5 43.4	393,102.93 393,114.49	758,453.61 758,457.46	32° 4' 43.610 N 32° 4' 43.724 N	103° 37' 56.422 W 103° 37' 56.376 W
2,400.0	7.00	18.43	2,292.0	141.7	43.4 47.2	393,114.49	758,461.31	32° 4' 43.838 N	103° 37' 56.331 W
2,500.0	7.00	18.43	2,490.6	153.2	51.1	393,137.61	758,465.17	32° 4' 43.952 N	103° 37' 56.285 W
2,600.0	7.00	18.43	2,589.8	164.8	54.9	393,149.17	758,469.02	32° 4' 44.066 N	103° 37' 56.239 W
2,700.0	7.00	18.43	2,689.1	176.3	58.8	393,160.73	758,472.87	32° 4' 44 181 N	103° 37' 56.194 W
2,800.0	7.00	18.43	2,788.3	187.9	62.6	393,172.29	758,476.73	32° 4' 44.295 N	103° 37' 56.148 W
2,900.0	7.00	18.43	2,887.6	199.5	66.5	393,183.85	758,480.58	32° 4' 44.409 N	103° 37' 56.102 W
3,000.0	7.00	18.43	2,986.8	211.0	70.3	393,195.41	758,484.44	32° 4' 44.523 N	103° 37' 56.057 W
3,100.0	7.00	18.43	3,086.1	222.6	74.2	393,206.98	758,488.29	32° 4' 44.637 N	103° 37' 56.011 W
3,200.0	7.00	18.43	3,185.3	234.1	78.0	393,218.54	758,492.14	32° 4' 44.751 N	103° 37' 55.965 W
3,300.0	7.00	18.43	3,284.6	245.7	81.9	393,230.10	758,496.00	32° 4' 44.865 N	103° 37' 55.920 W
3,400.0	7.00	18.43	3,383.8	257.3	85.8	393,241.66	758,499.85	32° 4' 44.980 N	103° 37' 55.874 W
3,500.0 3,600.0	7.00 7.00	18.43 18.43	3,483.1	268.8 280.4	89.6 93.5	393,253.22 393,264.78	758,503.70 758,507.56	32° 4' 45.094 N	103° 37' 55.828 W 103° 37' 55.783 W
3,700.0	7.00	18.43	3,582.4 3,681.6	292.0	93.3 97.3	393,276.34	758,511.41	32° 4' 45.208 N 32° 4' 45.322 N	103° 37' 55.763 W
3,800.0		18.43	3,780.9	303.5	101.2	393,287.90	758,515.27	32° 4' 45.436 N	103° 37' 55.691 W
3,900.0		18.43	3,880.1	315.1	105.0	393,299.46	758,519.12	32° 4' 45.550 N	103° 37' 55.646 W
4,000.0	7.00	18.43	3,979.4	326.6	108.9	393,311.03	758,522.97	32° 4' 45.665 N	103° 37' 55.600 W
4,100.0	7.00	18.43	4,078.6	338.2	112.7	393,322.59	758,526.83	32° 4' 45.779 N	103° 37' 55.554 W
4,200.0	7.00	18.43	4,177.9	349.8	116.6	393,334.15	758,530.68	32° 4' 45.893 N	103° 37' 55.509 W
4,300.0	7.00	18.43	4,277.1	361.3	120.4	393,345.71	758,534.53	32° 4′ 46.007 N	103° 37' 55.463 W
4,400.0	7.00	18.43	4,376.4	372.9	124.3	393,357.27	758,538.39	32° 4′ 46.121 N	103° 37' 55.417 W
4,500.0	7.00	18.43	4,475.7	384.4	128.1	393,368.83	758,542.24	32° 4′ 46.235 N	103° 37' 55.372 W
4,600.0	7.00	18.43	4,574.9	396.0	132.0	393,380.39	758,546.09	32° 4′ 46.349 N	103° 37' 55.326 W
4,700.0	7.00	18.43	4,674.2	407.6	135.9	393,391.95	758,549.95	32° 4' 46.464 N	103° 37' 55.280 W
4,800.0	7.00	18.43	4,773.4	419.1	139.7	393,403.51	758,553.80	32° 4' 46.578 N	103° 37' 55.235 W
4,891.8	7.00 6.84	18.43	4,864.5 4,872.7	429.7 430.7	143.2	393,414.13	758,557.34 758,557.65	32° 4' 46.683 N	103° 37' 55.193 W
4,900.0 5,000.0	6.84 4.84	18.43 18.43	4,872.7 4,972.1	430.7 440.3	143.6 146.8	393,415.06 393,424.71	758,557.65 758,560.87	32° 4' 46.692 N 32° 4' 46.787 N	103° 37' 55.189 W 103° 37' 55.151 W
5,100.0	2.84	18.43	5,071.9	440.3 446.7	148.9	393,431.05	758,562.98	32° 4' 46.850 N	103° 37' 55.131 W
3,100.0	2.04	10.43	5,071.8	740.1	140.9	000,401.00	1 30,302.30	JZ 7 70.0JU IN	100 01 00.120 W

#### 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 #71H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (Original Well Elev)

Grid

Planned Survey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
5,200.0	0.84	18.43	5,171.9	449.7	149.9	393,434.09	758,564.00	32° 4' 46.880 N	103° 37' 55.114 W
5,241.8	0.00	0.00	5,213.6	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
5,300.0	0.00	0.00	5,271.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
5,400.0	0.00	0.00	5,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
5,500.0	0.00	0.00	5,471.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
5,600.0	0.00	0.00	5,571.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
5,700.0	0.00	0.00	5,671.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
5,800.0	0.00	0.00	5,771.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
5,900.0	0.00	0.00	5,871.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,000.0 6,100.0	0.00 0.00	0.00 0.00	5,971.9 6,071.9	450.0 450.0	150.0 150.0	393,434.38 393,434.38	758,564.09 758,564.09	32° 4' 46.883 N	103° 37' 55.113 W 103° 37' 55.113 W
6,100.0	0.00	0.00	6,071.9	450.0 450.0	150.0	393,434.38	758,564.09 758,564.09	32° 4' 46.883 N 32° 4' 46.883 N	103° 37′ 55.113 W
6,300.0	0.00	0.00	6,271.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,400.0	0.00	0.00	6,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,500.0	0.00	0.00	6,471.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,600.0	0.00	0.00	6,571.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,700.0	0.00	0.00	6,671.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,800.0	0.00	0.00	6,771.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
6,900.0	0.00	0.00	6,871.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
7,000.0	0.00	0.00	6,971.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
7,100.0	0.00	0.00	7,071.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
7,200.0	0.00	0.00	7,171.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
7,300.0	0.00	0.00	7,271.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
7,400.0	0.00	0.00	7,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
7,500.0 7,600.0	0.00 0.00	0.00 0.00	7,471.9 7,571.9	450.0 450.0	150.0 150.0	393,434.38 393,434.38	758,564.09 758,564.09	32° 4' 46.883 N 32° 4' 46.883 N	103° 37' 55.113 W 103° 37' 55.113 W
7,700.0	0.00	0.00	7,571.9	450.0 450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
7,800.0	0.00	0.00	7,771.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
7,900.0	0.00	0.00	7,871.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,000.0	0.00	0.00	7,971.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,100.0	0.00	0.00	8,071.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,200.0	0.00	0.00	8,171.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
8,300.0	0.00	0.00	8,271.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
8,400.0	0.00	0.00	8,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,500.0	0.00	0.00	8,471.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,600.0	0.00	0.00	8,571.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,700.0	0.00	0.00	8,671.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
8,800.0	0.00	0.00	8,771.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
8,900.0	0.00	0.00	8,871.9 8,071.0	450.0 450.0	150.0 150.0	393,434.38	758,564.09	32° 4' 46.883 N 32° 4' 46.883 N	103° 37' 55.113 W
9,000.0 9,100.0	0.00 0.00	0.00 0.00	8,971.9 9,071.9	450.0 450.0	150.0 150.0	393,434.38 393,434.38	758,564.09 758,564.09	32° 4' 46.883 N	103° 37' 55.113 W 103° 37' 55.113 W
9,200.0	0.00	0.00	9,171.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
9,300.0	0.00	0.00	9,271.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
9,400.0	0.00	0.00	9,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
9,500.0	0.00	0.00	9,471.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
9,600.0	0.00	0.00	9,571.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
9,700.0	0.00	0.00	9,671.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
9,800.0	0.00	0.00	9,771.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
9,900.0	0.00	0.00	9,871.9	450.0	150.0	393,434.38	758,564.09	32° 4′ 46.883 N	103° 37' 55.113 W
10,000.0	0.00	0.00	9,971.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,100.0	0.00	0.00	10,071.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,200.0	0.00	0.00	10,171.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,300.0	0.00	0.00	10,271.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,400.0	0.00	0.00	10,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W

#### 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 #71H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (Original Well Elev)

Grid

Planned Survey									
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
10,500.0	0.00	0.00	10,471.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,600.0	0.00	0.00	10,571.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,700.0	0.00	0.00	10,671.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,800.0	0.00	0.00	10,771.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
10,900.0	0.00	0.00	10,871.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,000.0	0.00	0.00	10,971.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,100.0	0.00	0.00	11,071.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,200.0	0.00	0.00	11,171.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,300.0	0.00	0.00	11,271.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,400.0	0.00	0.00	11,371.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,500.0	0.00	0.00	11,471.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,600.0	0.00	0.00	11,571.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,700.0	0.00 0.00	0.00	11,671.9	450.0	150.0	393,434.38	758,564.09 758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
11,800.0 11,900.0	0.00	0.00 0.00	11,771.9 11,871.9	450.0 450.0	150.0 150.0	393,434.38 393,434.38	758,564.09 758,564.09	32° 4' 46.883 N 32° 4' 46.883 N	103° 37' 55.113 W 103° 37' 55.113 W
12,000.0	0.00	0.00	11,971.9	450.0 450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
12,100.0	0.00	0.00	12,071.9	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
12,112.6	0.00	0.00	12,084.5	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
12,187.7		0.00	12,159.5	450.0	150.0	393,434.38	758,564.09	32° 4' 46.883 N	103° 37' 55.113 W
12,200.0	1.48	179.13	12,171.9	449.8	150.0	393,434.22	758,564.09	32° 4' 46.881 N	103° 37' 55.113 W
12,300.0	13.48	179.13	12,270.8	436.8	150.2	393,421.23	758,564.29	32° 4' 46.752 N	103° 37' 55.112 W
12,400.0	25.48	179.13	12,364.9	403.6	150.7	393,387.95	758,564.80	32° 4' 46.423 N	103° 37' 55.108 W
12,500.0	37.48	179.13	12,450.1	351.5	151.5	393,335.84	758,565.60	32° 4' 45.907 N	103° 37' 55.103 W
12,600.0	49.48	179.13	12,522.5	282.8	152.6	393,267.16	758,566.64	32° 4′ 45.228 N	103° 37' 55.096 W
12,700.0	61.48	179.13	12,579.1	200.5	153.8	393,184.94	758,567.90	32° 4' 44.414 N	103° 37' 55.087 W
12,800.0	73.48	179.13	12,617.3	108.4	155.2	393,092.75	758,569.31	32° 4' 43.502 N	103° 37' 55.078 W
12,900.0	85.48	179.13	12,635.5	10.2	156.7	392,994.62	758,570.81	32° 4' 42.530 N	103° 37' 55.068 W
12,937.7	90.00	179.13	12,637.0	-27.4	157.3	392,956.99	758,571.38	32° 4' 42.158 N	103° 37' 55.064 W
13,000.0	90.00	179.13	12,637.0	-89.7	158.2	392,894.68	758,572.33	32° 4' 41.541 N	103° 37' 55.058 W
13,100.0 13,200.0	90.00 90.00	179.13 179.13	12,637.0 12,637.0	-189.7 -289.7	159.8 161.3	392,794.69 392,694.71	758,573.86 758,575.39	32° 4' 40.552 N 32° 4' 39.562 N	103° 37' 55.048 W 103° 37' 55.038 W
13,300.0	90.00	179.13	12,637.0	-389.7	162.8	392,594.71	758,576.91	32° 4' 38.573 N	103° 37' 55.038 W
13,400.0	90.00	179.13	12,637.0	-489.7	164.3	392,494.74	758,578.44	32° 4' 37.583 N	103° 37' 55.017 W
13,500.0	90.00	179.13	12,637.0	-589.7	165.9	392,394.75	758,579.97	32° 4' 36.594 N	103° 37' 55.007 W
13,600.0	90.00	179.13	12,637.0	-689.7	167.4	392,294.77	758,581.49	32° 4' 35.604 N	103° 37' 54.997 W
13,700.0	90.00	179.13	12,637.0	-789.6	168.9	392,194.78	758,583.02	32° 4' 34.615 N	103° 37' 54.987 W
13,800.0	90.00	179.13	12,637.0	-889.6	170.5	392,094.80	758,584.55	32° 4' 33.625 N	103° 37' 54.976 W
13,900.0	90.00	179.13	12,637.0	-989.6	172.0	391,994.81	758,586.07	32° 4′ 32.636 N	103° 37' 54.966 W
14,000.0	90.00	179.13	12,637.0	-1,089.6	173.5	391,894.83	758,587.60	32° 4' 31.646 N	103° 37' 54.956 W
14,100.0		179.13	12,637.0	-1,189.6	175.0	391,794.84	758,589.13	32° 4' 30.657 N	103° 37' 54.946 W
14,200.0	90.00	179.13	12,637.0	-1,289.6	176.6	391,694.86	758,590.65	32° 4' 29.667 N	103° 37' 54.936 W
14,300.0	90.00	179.13	12,637.0	-1,389.6	178.1	391,594.87	758,592.18	32° 4' 28.678 N	103° 37' 54.925 W
14,400.0	90.00	179.13	12,637.0	-1,489.6	179.6	391,494.89	758,593.71	32° 4' 27.688 N	103° 37' 54.915 W
14,500.0	90.00	179.13	12,637.0	-1,589.6	181.1	391,394.91	758,595.23	32° 4' 26.699 N	103° 37' 54.905 W
14,600.0 14,700.0	90.00 90.00	179.13 179.13	12,637.0 12,637.0	-1,689.5 -1,789.5	182.7 184.2	391,294.92 391,194.94	758,596.76 758,598.29	32° 4' 25.709 N 32° 4' 24.720 N	103° 37' 54.895 W 103° 37' 54.885 W
14,800.0	90.00	179.13	12,637.0	-1,769.5 -1,889.5	185.7	391,094.95	758,598.29	32° 4' 23.730 N	103° 37' 54.863 W
14,900.0	90.00	179.13	12,637.0	-1,009.5 -1,989.5	187.3	390,994.97	758,601.34	32° 4' 22.741 N	103° 37' 54.864 W
15,000.0	90.00	179.13	12,637.0	-2,089.5	188.8	390,894.98	758,602.87	32° 4' 21.751 N	103° 37' 54.854 W
15,100.0	90.00	179.13	12,637.0	-2,189.5	190.3	390,795.00	758,604.40	32° 4' 20.762 N	103° 37' 54.844 W
15,200.0	90.00	179.13	12,637.0	-2,289.5	191.8	390,695.01	758,605.92	32° 4' 19.772 N	103° 37' 54.834 W
15,300.0	90.00	179.13	12,637.0	-2,389.5	193.4	390,595.03	758,607.45	32° 4' 18.783 N	103° 37' 54.824 W
15,400.0	90.00	179.13	12,637.0	-2,489.4	194.9	390,495.04	758,608.98	32° 4' 17.793 N	103° 37' 54.813 W
15,500.0	90.00	179.13	12,637.0	-2,589.4	196.4	390,395.06	758,610.50	32° 4' 16.804 N	103° 37' 54.803 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 #71H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (Original Well Elev)

Grid

Minimum Curvature

Planned Survey	,								
Measured			Vertical			Мар	Мар		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
15,600.0	90.00	179.13	12,637.0	-2,689.4	197.9	390,295.07	758,612.03	32° 4' 15.814 N	103° 37' 54.793 W
15,700.0	90.00	179.13	12,637.0	-2,789.4	199.5	390,195.09	758,613.56	32° 4' 14.825 N	103° 37' 54.783 W
15,800.0	90.00	179.13	12,637.0	-2,889.4	201.0	390,095.11	758,615.08	32° 4′ 13.835 N	103° 37' 54.773 W
15,900.0	90.00	179.13	12,637.0	-2,989.4	202.5	389,995.12	758,616.61	32° 4' 12.846 N	103° 37' 54.762 W
16,000.0	90.00	179.13	12,637.0	-3,089.4	204.0	389,895.14	758,618.14	32° 4' 11.856 N	103° 37' 54.752 W
16,100.0	90.00	179.13	12,637.0	-3,189.4	205.6	389,795.15	758,619.66	32° 4' 10.867 N	103° 37' 54.742 W
16,200.0	90.00	179.13	12,637.0	-3,289.4	207.1	389,695.17	758,621.19	32° 4' 9.877 N	103° 37' 54.732 W
16,300.0	90.00	179.13	12,637.0	-3,389.3	208.6	389,595.18	758,622.72	32° 4' 8.888 N	103° 37' 54.722 W
16,400.0 16,500.0	90.00 90.00	179.13 179.13	12,637.0 12,637.0	-3,489.3 -3,589.3	210.2 211.7	389,495.20 389,395.21	758,624.24 758,625.77	32° 4' 7.898 N 32° 4' 6.909 N	103° 37' 54.711 W 103° 37' 54.701 W
16,600.0	90.00	179.13	12,637.0	-3,689.3	213.2	389,295.23	758,627.30	32° 4' 5.919 N	103° 37' 54.691 W
16,700.0	90.00	179.13	12,637.0	-3,789.3	214.7	389,195.24	758,628.82	32° 4' 4.930 N	103° 37' 54.681 W
16,800.0	90.00	179.13	12,637.0	-3,889.3	216.3	389,095.26	758,630.35	32° 4' 3.940 N	103° 37' 54.671 W
16,900.0	90.00	179.13	12,637.0	-3,989.3	217.8	388,995.27	758,631.88	32° 4' 2.951 N	103° 37' 54.660 W
17,000.0	90.00	179.13	12,637.0	-4,089.3	219.3	388,895.29	758,633.41	32° 4' 1.961 N	103° 37' 54.650 W
17,100.0	90.00	179.13	12,637.0	-4,189.2	220.8	388,795.30	758,634.93	32° 4′ 0.972 N	103° 37' 54.640 W
17,200.0	90.00	179.13	12,637.0	-4,289.2	222.4	388,695.32	758,636.46	32° 3′ 59.982 N	103° 37' 54.630 W
17,300.0	90.00	179.13	12,637.0	-4,389.2	223.9	388,595.34	758,637.99	32° 3′ 58.993 N	103° 37' 54.620 W
17,400.0	90.00	179.13	12,637.0	-4,489.2	225.4	388,495.35	758,639.51	32° 3′ 58.003 N	103° 37' 54.610 W
17,500.0	90.00	179.13	12,637.0	-4,589.2	227.0	388,395.37	758,641.04	32° 3′ 57.014 N	103° 37' 54.599 W
17,600.0	90.00	179.13	12,637.0	-4,689.2	228.5	388,295.38	758,642.57	32° 3′ 56.024 N	103° 37' 54.589 W
17,700.0	90.00	179.13	12,637.0	-4,789.2	230.0	388,195.40	758,644.09	32° 3′ 55.035 N	103° 37' 54.579 W
17,800.0 17,900.0	90.00 90.00	179.13 179.13	12,637.0 12,637.0	-4,889.2 -4,989.2	231.5 233.1	388,095.41 387,995.43	758,645.62 758,647.15	32° 3' 54.045 N 32° 3' 53.056 N	103° 37' 54.569 W 103° 37' 54.559 W
18,000.0	90.00	179.13	12,637.0	-4,969.2 -5,089.1	234.6	387,895.44	758,648.67	32° 3′ 52.066 N	103° 37′ 54.539 W
18,100.0	90.00	179.13	12,637.0	-5,003.1 -5,189.1	236.1	387,795.46	758,650.20	32° 3′ 51.077 N	103° 37' 54.538 W
18,200.0	90.00	179.13	12,637.0	-5,289.1	237.6	387,695.47	758,651.73	32° 3' 50.087 N	103° 37' 54.528 W
18,300.0	90.00	179.13	12,637.0	-5,389.1	239.2	387,595.49	758,653.25	32° 3′ 49.098 N	103° 37' 54.518 W
18,400.0	90.00	179.13	12,637.0	-5,489.1	240.7	387,495.50	758,654.78	32° 3′ 48.108 N	103° 37' 54.508 W
18,500.0	90.00	179.13	12,637.0	-5,589.1	242.2	387,395.52	758,656.31	32° 3′ 47.119 N	103° 37' 54.497 W
18,600.0	90.00	179.13	12,637.0	-5,689.1	243.7	387,295.53	758,657.83	32° 3′ 46.129 N	103° 37' 54.487 W
18,700.0	90.00	179.13	12,637.0	-5,789.1	245.3	387,195.55	758,659.36	32° 3′ 45.140 N	103° 37' 54.477 W
18,800.0	90.00	179.13	12,637.0	-5,889.1	246.8	387,095.57	758,660.89	32° 3′ 44.150 N	103° 37' 54.467 W
18,900.0	90.00	179.13	12,637.0	-5,989.0	248.3	386,995.58	758,662.41	32° 3′ 43.161 N	103° 37' 54.457 W
19,000.0	90.00	179.13	12,637.0	-6,089.0	249.9	386,895.60	758,663.94	32° 3' 42.171 N	103° 37' 54.447 W
19,100.0	90.00	179.13	12,637.0	-6,189.0	251.4	386,795.61	758,665.47	32° 3′ 41.182 N	103° 37' 54.436 W
19,200.0 19,300.0	90.00 90.00	179.13 179.13	12,637.0 12,637.0	-6,289.0 -6,389.0	252.9 254.4	386,695.63 386,595.64	758,666.99 758,668.52	32° 3′ 40.192 N 32° 3′ 39.203 N	103° 37' 54.426 W 103° 37' 54.416 W
19,400.0	90.00	179.13	12,637.0	-6,489.0 -6,489.0	256.0	386,495.66	758,670.05	32° 3' 38.213 N	103° 37′ 54.416 W
19,500.0	90.00	179.13	12,637.0	-6,589.0	257.5	386,395.67	758,671.58	32° 3' 37.224 N	103° 37' 54.396 W
19,600.0	90.00	179.13	12,637.0	-6,689.0	259.0	386,295.69	758,673.10	32° 3′ 36.234 N	103° 37' 54.385 W
19,700.0	90.00	179.13	12,637.0	-6,788.9	260.5	386,195.70	758,674.63	32° 3′ 35.245 N	103° 37' 54.375 W
19,800.0	90.00	179.13	12,637.0	-6,888.9	262.1	386,095.72	758,676.16	32° 3′ 34.255 N	103° 37' 54.365 W
19,900.0	90.00	179.13	12,637.0	-6,988.9	263.6	385,995.73	758,677.68	32° 3′ 33.266 N	103° 37' 54.355 W
20,000.0	90.00	179.13	12,637.0	-7,088.9	265.1	385,895.75	758,679.21	32° 3′ 32.276 N	103° 37' 54.345 W
20,100.0	90.00	179.13	12,637.0	-7,188.9	266.6	385,795.77	758,680.74	32° 3′ 31.287 N	103° 37' 54.334 W
20,200.0	90.00	179.13	12,637.0	-7,288.9	268.2	385,695.78	758,682.26	32° 3′ 30.297 N	103° 37' 54.324 W
20,300.0	90.00	179.13	12,637.0	-7,388.9	269.7	385,595.80	758,683.79	32° 3′ 29.308 N	103° 37' 54.314 W
20,400.0	90.00	179.13	12,637.0	-7,488.9	271.2	385,495.81	758,685.32	32° 3′ 28.318 N	103° 37' 54.304 W
20,500.0	90.00	179.13	12,637.0	-7,588.9 7,000.0	272.8	385,395.83	758,686.84	32° 3′ 27.329 N	103° 37' 54.294 W
20,600.0	90.00	179.13	12,637.0	-7,688.8 7,788.8	274.3 275.8	385,295.84	758,688.37	32° 3′ 26.339 N	103° 37' 54.283 W
20,700.0 20,800.0	90.00 90.00	179.13 179.13	12,637.0 12,637.0	-7,788.8 -7,888.8	275.8 277.3	385,195.86 385,095.87	758,689.90 758,691.42	32° 3' 25.350 N 32° 3' 24.360 N	103° 37' 54.273 W 103° 37' 54.263 W
20,800.0	90.00	179.13	12,637.0	-7,000.0 -7,988.8	277.3	384,995.89	758,692.95	32° 3′ 23.371 N	103° 37′ 54.263 W
20,300.0	30.00	179.10	12,001.0	1,500.0	210.0	00-,000.00	100,002.00	02 0 20.07 1 IN	100 01 04.200 11

#### **Microsoft**

#### Planning Report - Geographic

Database: Old

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

Well: Mesa #71H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Mesa #71H

WELL @ 3352.0usft (Original Well Elev) WELL @ 3352.0usft (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
21,000.0	90.00	179.13	12.637.0	-8,088,8	280.4	384,895,90	758,694,48	32° 3' 22,381 N	103° 37' 54,243 W
21,100.0	90.00	179.13	12,637.0	-8,188.8	281.9	384,795.92	758,696.00	32° 3' 21.392 N	103° 37' 54.233 W
21,200.0	90.00	179.13	12,637.0	-8,288.8	283.4	384,695.93	758,697.53	32° 3' 20.402 N	103° 37' 54.222 W
21,300.0	90.00	179.13	12.637.0	-8,388.8	285.0	384,595,95	758,699,06	32° 3′ 19.413 N	103° 37' 54.212 W
21,400.0	90.00	179.13	12,637.0	-8,488.7	286.5	384,495.96	758,700.58	32° 3′ 18.423 N	103° 37' 54.202 W
21,500.0	90.00	179.13	12,637.0	-8,588.7	288.0	384,395.98	758,702.11	32° 3′ 17.434 N	103° 37' 54.192 W
21,600.0	90.00	179.13	12,637.0	-8,688.7	289.6	384,296.00	758,703.64	32° 3' 16.444 N	103° 37' 54.182 W
21,700.0	90.00	179.13	12,637.0	-8,788.7	291.1	384,196.01	758,705.16	32° 3' 15.455 N	103° 37' 54.171 W
21,800.0	90.00	179.13	12,637.0	-8,888.7	292.6	384,096.03	758,706.69	32° 3' 14.465 N	103° 37' 54.161 W
21,900.0	90.00	179.13	12,637.0	-8,988.7	294.1	383,996.04	758,708.22	32° 3′ 13.476 N	103° 37' 54.151 W
22,000.0	90.00	179.13	12,637.0	-9,088.7	295.7	383,896.06	758,709.75	32° 3′ 12.486 N	103° 37' 54.141 W
22,100.0	90.00	179.13	12,637.0	-9,188.7	297.2	383,796.07	758,711.27	32° 3' 11.497 N	103° 37' 54.131 W
22,200.0	90.00	179.13	12,637.0	-9,288.7	298.7	383,696.09	758,712.80	32° 3′ 10.507 N	103° 37' 54.120 W
22,300.0	90.00	179.13	12,637.0	-9,388.6	300.2	383,596.10	758,714.33	32° 3′ 9.518 N	103° 37' 54.110 W
22,400.0	90.00	179.13	12,637.0	-9,488.6	301.8	383,496.12	758,715.85	32° 3′ 8.528 N	103° 37' 54.100 W
22,500.0	90.00	179.13	12,637.0	-9,588.6	303.3	383,396.13	758,717.38	32° 3′ 7.539 N	103° 37' 54.090 W
22,600.0	90.00	179.13	12,637.0	-9,688.6	304.8	383,296.15	758,718.91	32° 3′ 6.549 N	103° 37' 54.080 W
22,700.0	90.00	179.13	12,637.0	-9,788.6	306.3	383,196.16	758,720.43	32° 3′ 5.560 N	103° 37' 54.069 W
22,800.0	90.00	179.13	12,637.0	-9,888.6	307.9	383,096.18	758,721.96	32° 3′ 4.570 N	103° 37' 54.059 W
22,900.0	90.00	179.13	12,637.0	-9,988.6	309.4	382,996.19	758,723.49	32° 3′ 3.581 N	103° 37' 54.049 W
23,000.0	90.00	179.13	12,637.0	-10,088.6	310.9	382,896.21	758,725.01	32° 3′ 2.591 N	103° 37' 54.039 W
23,090.6	90.00	179.13	12,637.0	-10,179.2	312.3	382,805.60	758,726.40	32° 3′ 1.694 N	103° 37' 54.030 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 #71H BHL - plan hits target cent - Point	0.00 ter	0.00	12,637.0	-10,179.2	312.3	382,805.60	758,726.40	32° 3′ 1.694 N	103° 37' 54.030 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

# SW-MB SPOOL ASSEMBLY UPPER MBH

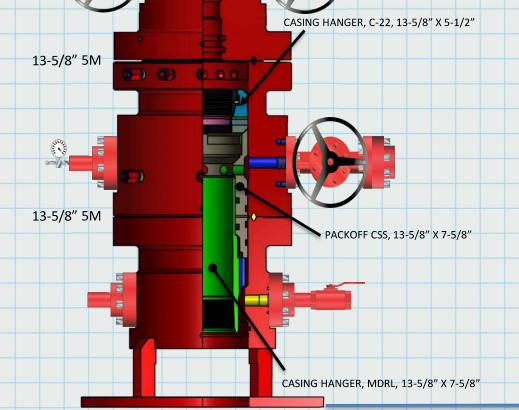
13-5/8" 5M x 13-5/8" 5M

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"







U.S. Department of the Interior BUREAU OF LAND MANAGEMENT SUPO Data Report
04/16/2021

**APD ID**: 10400058658

Submission Date: 07/01/2020

Highlighted data reflects the most recent changes

Well Name: MESA 8105 1-12 FEDERAL

Operator Name: BTA OIL PRODUCERS LLC

Well Number: 71H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

# **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

19111262 Mesa 8105 1 12 Fed 71H Topographical Access Rd 20200701131004.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:

19111262\_Mesa\_8105\_1\_12\_Fed\_71H\_1\_Mile\_Radius\_20200701131020.pdf

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

# 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: 71H

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: 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.

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

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: 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.

#### **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: 71H

**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

19111262 Mesa 8105 1 12 Fed 71H Well Site Plan 600s 20200701131108.pdf

Comments:

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

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

Multiple Well Pad Number: 70H and 71H

#### 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 long term disturbance Well pad proposed disturbance Well pad interim reclamation (acres):

(acres): 3.95 (acres): 3.49

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

Powerline proposed disturbance Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0 (acres): 0

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

(acres): 0 (acres): 0

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

Total interim reclamation: 0.46

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

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: 71H

**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: 71H

Disturbance type: WELL PAD

Describe:

Surface Owner:

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** 

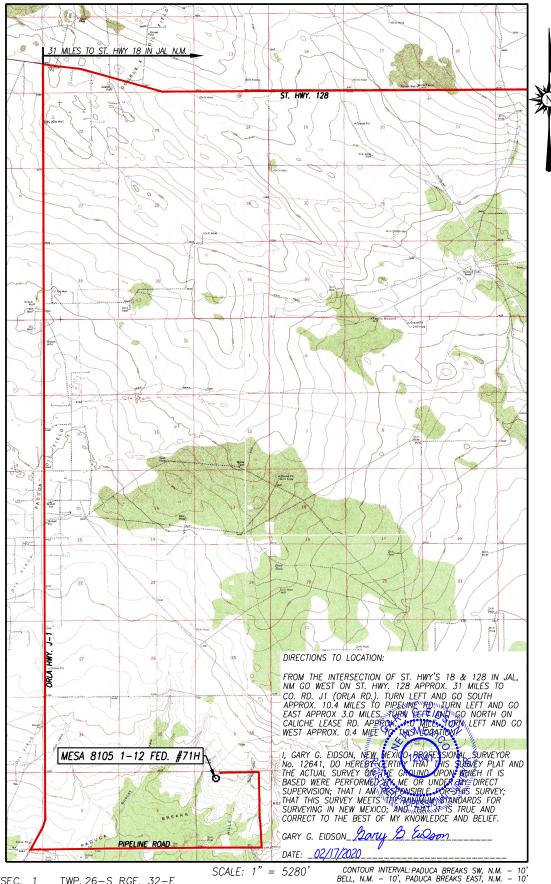
**SUPO Additional Information:** 

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



SEC. 1 TWP. 26-S RGE. 32-E
COUNTY LEA STATE NEW MEXICO
DESCRIPTION 470' FNL & 1500' FWL ELEVATION\_ BTA OIL PRODUCERS, LLC OPERATOR\_ MESA 8105 1-12 FED LEASE



PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

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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

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

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Code Pool Name		
		WC-025; Middle Wolfcamp		
Property Code	Pro	Well Number		
	MESA 8105	71H		
OGRID No.	Оре	Elevation		
260297	BTA OIL PR	ODUCERS, LLC	3352'	

#### Surface Location

Γ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	C	1	26-S	32-E		470	NORTH	1500	WEST	LEA

#### Bottom Hole Location If Different From Surface

UL or lot No.	Section 12	Township 26-S	Range 32-E	Lot Idn	Feet from the 50	North/South line SOUTH	Feet from the 1650	East/West line WEST	County LEA
Dedicated Acres 320	Joint or	Infill (	Consolidation C	ode Ord	er No.				

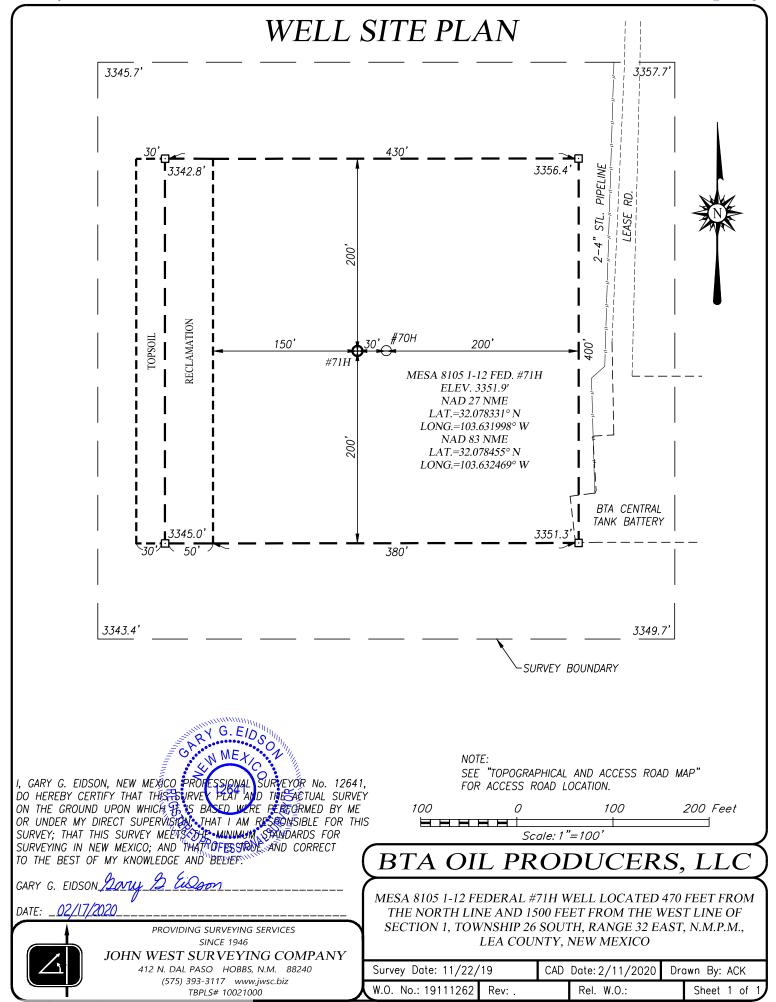
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION NWNE 30-025-4552 4 30-025-4552 4 30-025-4552 4 30-025-428 92 NENW (C) NWNE LEGEND (D) O DENOTES PROPOSED WELL 436 ft 25S 33E 25S 32E SENE 30-025-40572 SWNE SENW SENE SWNW SENW (G) (F) (F) (G) (H) 025-4157230-025 P. 530. NE30-025 NESW (1) (L) (1) (1) 30-025-0839 SESW SWISE 30-075-44441 (O) 4265 30-025-442643 0-02 5-43 787 30-025-44568) (P) (0) (P) 30-025-41825 30-025-44265 30-025-4426430-025-44263 30-025-41826 30-025-44567 30-025-46024 30-025-43726 30-025-43724 30-025-43725 30-025-46203 30-025-46026 30-025 NWNE NENE NENV NWNE NENE (B) 30-025-4372 (C) (B) (A) (C) #71H SURVEYOR CERTIFICATION SEME SENW L2 SENW (F) SENE I hereby certify that the well-location shown on this plat (H) (G) (H) (G) was plotted from field notes of actual surveys made by me or under my supervision, and thables same is true and correct to the less of my trelie! NOVEMBER 22 2019 30-025-27600 NWSE NWSW NESE NWSE NESW (L) (K) Date of Survey (J) (1) (L) Signature & Sea ıal Sarçeyor: 26S 33E STAVEY 265 32F ROFESSIONAL 30-025-21861 (M) 1.4 (0)30-025-43 (P) 930-025-428 (N) 30-025-42847 4582730-025-40001 -45835 30-025-45832 ■30-0 30-025-42853 30-025-42851 5-42 951 30-025-42 30-025-42857 025-42842 30-025-42844 2000 2000 Feet Certificate Number Gary G. Eidson 12641 Ronald J. Eidson Scale:1"=2000' JWSC W.O.: 19.11.1262





WATER TRANSPORTATION MAP MESA 8105 FEDERAL WATER TRANSPORT 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
04/16/2021

**APD ID:** 10400058658 **Submission Date:** 07/01/2020

Operator Name: BTA OIL PRODUCERS LLC

Well Name: MESA 8105 1-12 FEDERAL Well Number: 71H

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: PWD disturbance (acres):

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: 71H

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: 71H

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: 71H

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** 04/16/2021

APD ID: 10400058658

Submission Date: 07/01/2020

Highlighted data reflects the most recent changes

Operator Name: BTA OIL PRODUCERS LLC

Well Number: 71H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

# **Bond Information**

Federal/Indian APD: FED

**BLM Bond number: NMB001711** 

**BIA Bond number:** 

Do you have a reclamation bond? NO

Well Name: MESA 8105 1-12 FEDERAL

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:

DISTRICT 1
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DISTRICT III
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Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Pax: (505) 476-3462

N

Dedicated Acres

320

API Number

# 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

**LEA** 

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

30-025-4	8961	100	98158 WC-025 G-09 S253236A; UPR							
Property (	Code			W	Well Number					
327174				MESA 8105 1-12 FEDERAL					Well Number 71H Elevation 3352' est line County ST LEA	
OGRID	No.			Operator Name						
260297	1		BTA OIL PRODUCERS, LLC						3352'	
					Surface Locat	ion		•		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
C	1	26-S	32-E		470	NORTH	1500	WEST	LEA	
				Bottom Hol	e Location If Diffe	erent From Surface				
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
				1		I I				

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

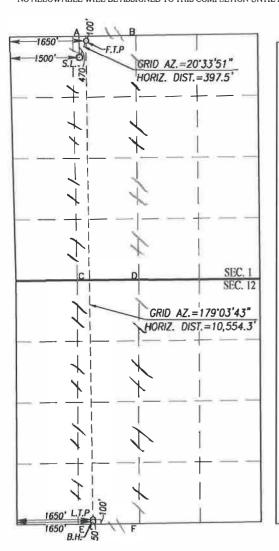
50

Order No.

SOUTH

1650

WEST



26-S

Joint or Infill

32-E

Consolidation Code



District 1 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original to Appropriate District Office

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

Date: 5/27/2020	GAS CAPTURE PLAN	
<ul><li>☑ Original</li><li>☐ Amended - Reason for Amendment:</li></ul>	Operator & OGRID No.:	260297
This Gas Capture Plan outlines actions to be new completion (new drill, recomplete to no	be taken by the Operator to reduce zone, re-frac) activity.	ce well/production facility flaring/venting for

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

# Well(s)/Production Facility - Name of facility

The well(s) that will be located at the production facility are shown in the table below.

	Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Ì	MESA 8105 1-12 30	-025-48961	SEC 1; 26S; 32E	470 FNL 1500 FWL	2000	Flared	Battery Connected
Ì	FEDERAL 71H						To ETP System

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter low/high pressure gathering system located in LEA County, New Mexico. It will require 0 'of pipeline to (ETP) connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in Sec.\_\_\_\_, Twn.\_\_\_\_, Rng. County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s)

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

# Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease
  - . Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal On lease

Released to Imaging: 0/3/2021 10:38:34 AM

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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 25840

#### **CONDITIONS**

Operator:	OGRID:
BTA OIL PRODUCERS, LLC	260297
104 S Pecos	Action Number:
Midland, TX 79701	25840
	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	6/3/2021
	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 zones and shall immediately set in cement the water protection string	6/3/2021