Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM138890

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: MULVA FED COM [328302] 134H

2. Name of Operator: TAP ROCK OPERATING LLC [372043]

9. API Well No.: 30-025-47745

3a. Address: 602 Park Point Drive Suite 200, Golden, CO 80401

3b. Phone No. *(include area code)*: (720) 460-3316

10. Field and Pool, or Exploratory: [98098] WC025G09S243532M/WOLFBONE

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SESE / 235 FSL / 741 FEL / LAT 32.1818844 / LONG -103.3492351

At proposed prod. zone: SENE / 2640 FSL / 660 FEL / LAT 32.1593803 / LONG -103.3489797

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 27/T24S/R35E/NMP

14. Distance in miles and direction from nearest town or post office*: 10 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 741 feet

16. No of acres in lease: 1200

17. Spacing Unit dedicated to this well: 481.78

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 25 feet

19. Proposed Depth: 12103 feet / 19678 feet

20. BLM/BIA Bond No. in file: FED: NMB001443

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3278 feet

22. Approximate date work will start*: 09/01/2020

23. Estimated duration: 90 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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRIAN WOOD / Ph: (720) 460-3316	03/16/2020

Title: President

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575) 234-5959	08/28/2020

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 09/17/2020

SL

APPROVED WITH CONDITIONS

10/02/2020

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 08/28/2020

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	Mulva Fed Com 134H
LOCATION:	Sec 27-24S-35E-NMP
COUNTY:	Eddy 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
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ 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

1. The **13-3/8** inch surface casing shall be set at approximately 550 feet (a minimum of 70 feet (Eddy 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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement should tie-back at least 300 feet into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.

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 **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.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd 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. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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: The flex line must meet the requirements of API 16C. 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, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

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

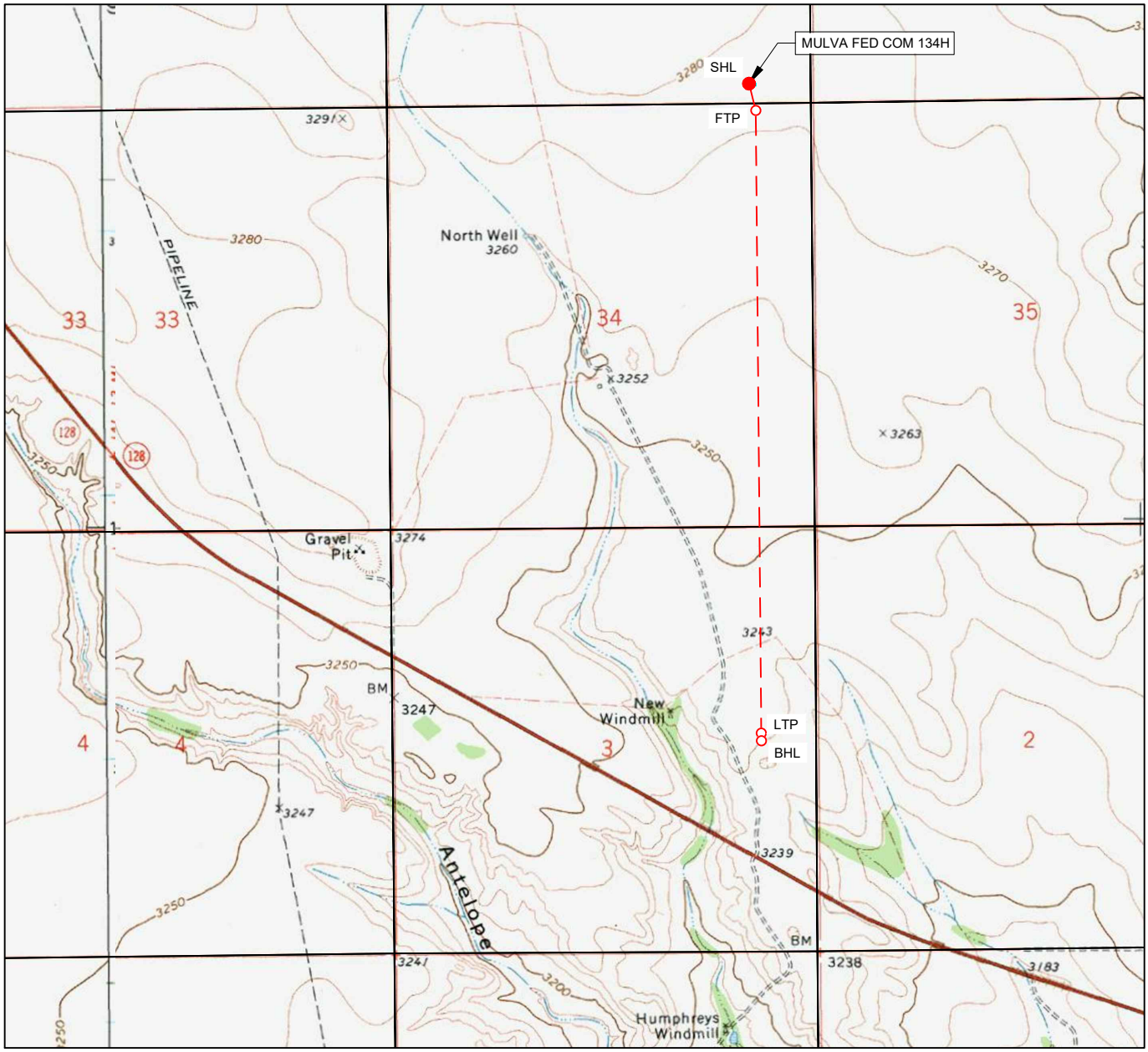
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

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.

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: MULVA FED COM 134H

SECTION 27 TWP 24-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3278'
DESCRIPTION 235' FSL & 741' FEL

LATITUDE N 32.1818844 LONGITUDE W 103.3492351

–N–

SCALE: 1" = 2000'

0' 1000' 2000'

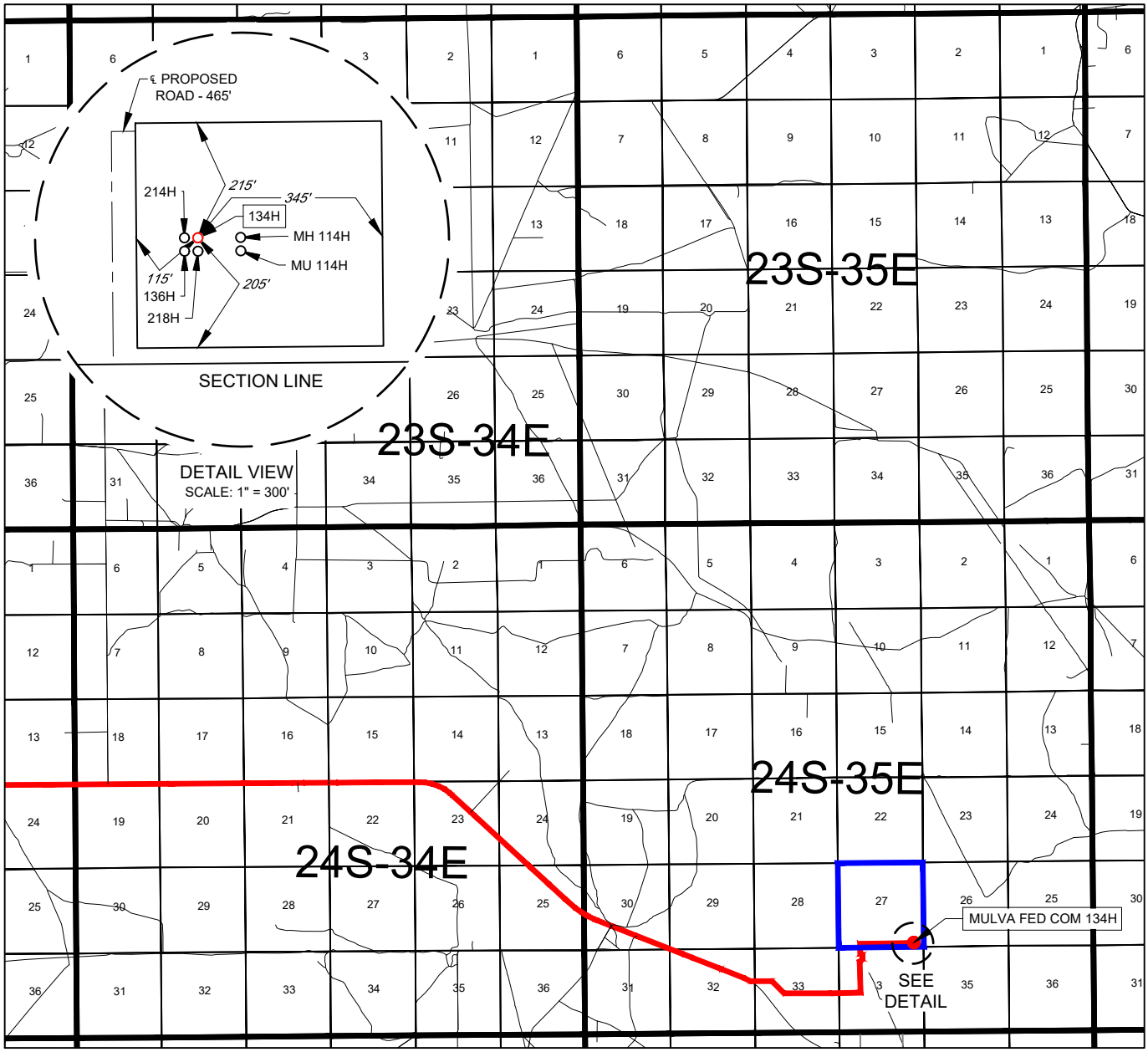
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

EXHIBIT 2

VICINITY MAP



TAP ROCK

LEASE NAME & WELL NO.: MULVA FED COM 134H

SECTION 27 TWP 24-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 235' FSL & 741' FEL

DISTANCE & DIRECTION
FROM INT. OF NM-128 & DELAWARE BASIN RD., GO EAST ON NM-128 ±9.7 MILES, THENCE NORTHEAST (LEFT) ON A LEASE RD. ±3.1 MILES, THENCE NORTH (LEFT) ON A PROPOSED RD. ±465 FEET TO A POINT ±231 FEET NORTHWEST OF THE LOCATION.

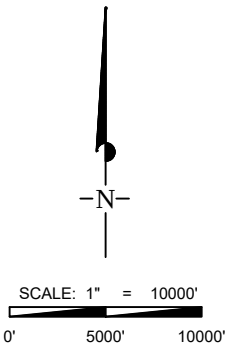


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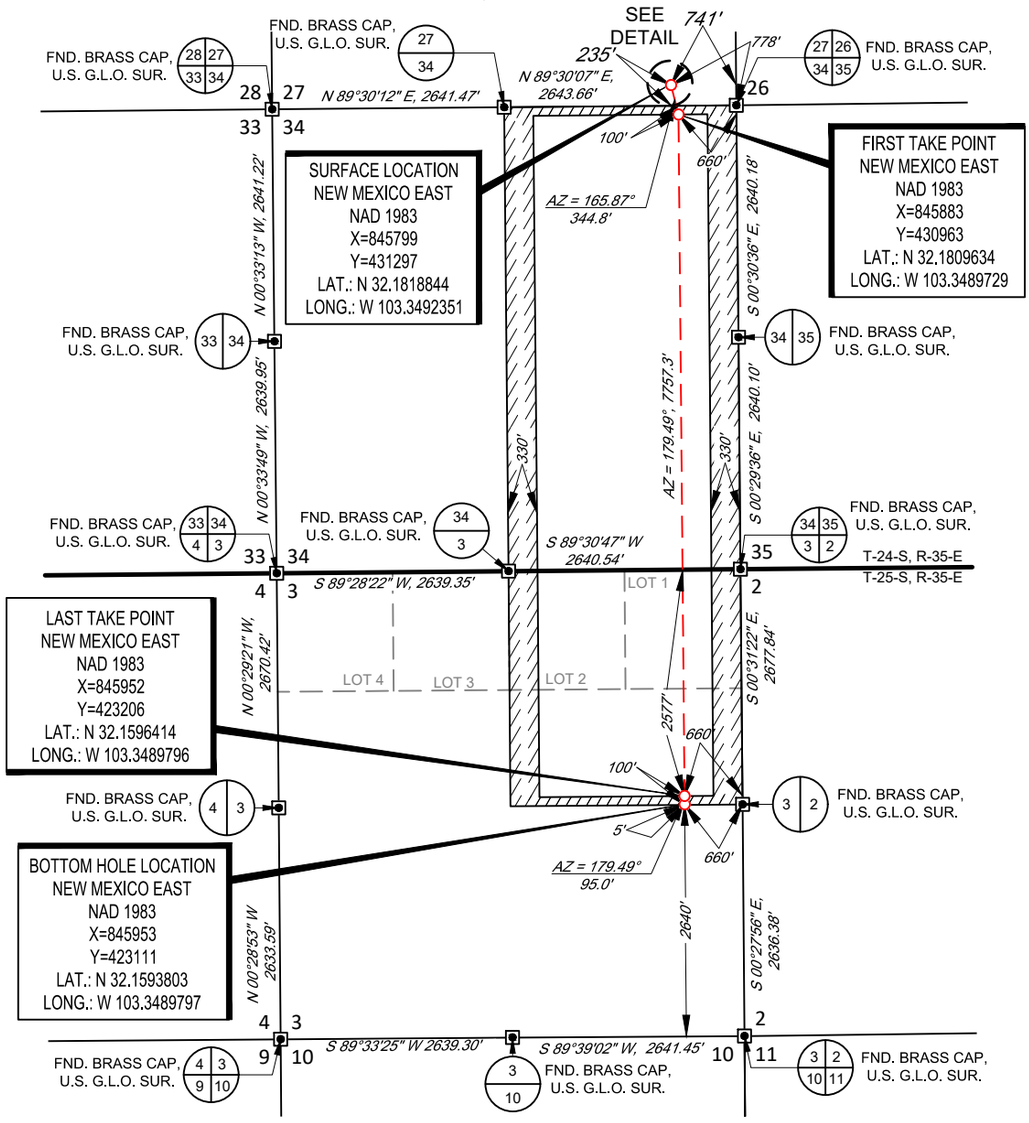
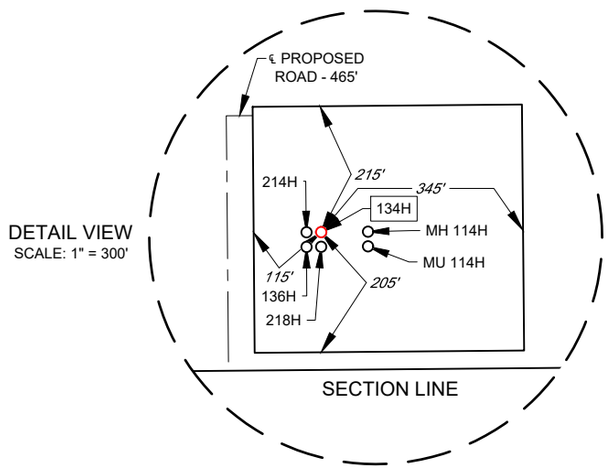
EXHIBIT 2A

SECTION 27, TOWNSHIP 24-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO





DETAIL VIEW
SCALE: 1" = 300'

N

SCALE: 1" = 2000'
0' 1000' 2000'

LEASE NAME & WELL NO.: MULVA FED COM 134H

SECTION 27 TWP 24-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 235' FSL & 741' FEL

DISTANCE & DIRECTION
FROM INT. OF NM-128 & DELAWARE BASIN RD., GO EAST ON NM-128 ±9.7 MILES, THENCE NORTHEAST (LEFT) ON A LEASE RD. ±3.1 MILES, THENCE NORTH (LEFT) ON A PROPOSED RD. ±465 FEET TO A POINT ±231 FEET NORTHWEST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

JOHN TREVOR CARNEGIE
NEW MEXICO
11401
REGISTERED PROFESSIONAL SURVEYOR

John Trevor Carnegie, P.S. No. 11401

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
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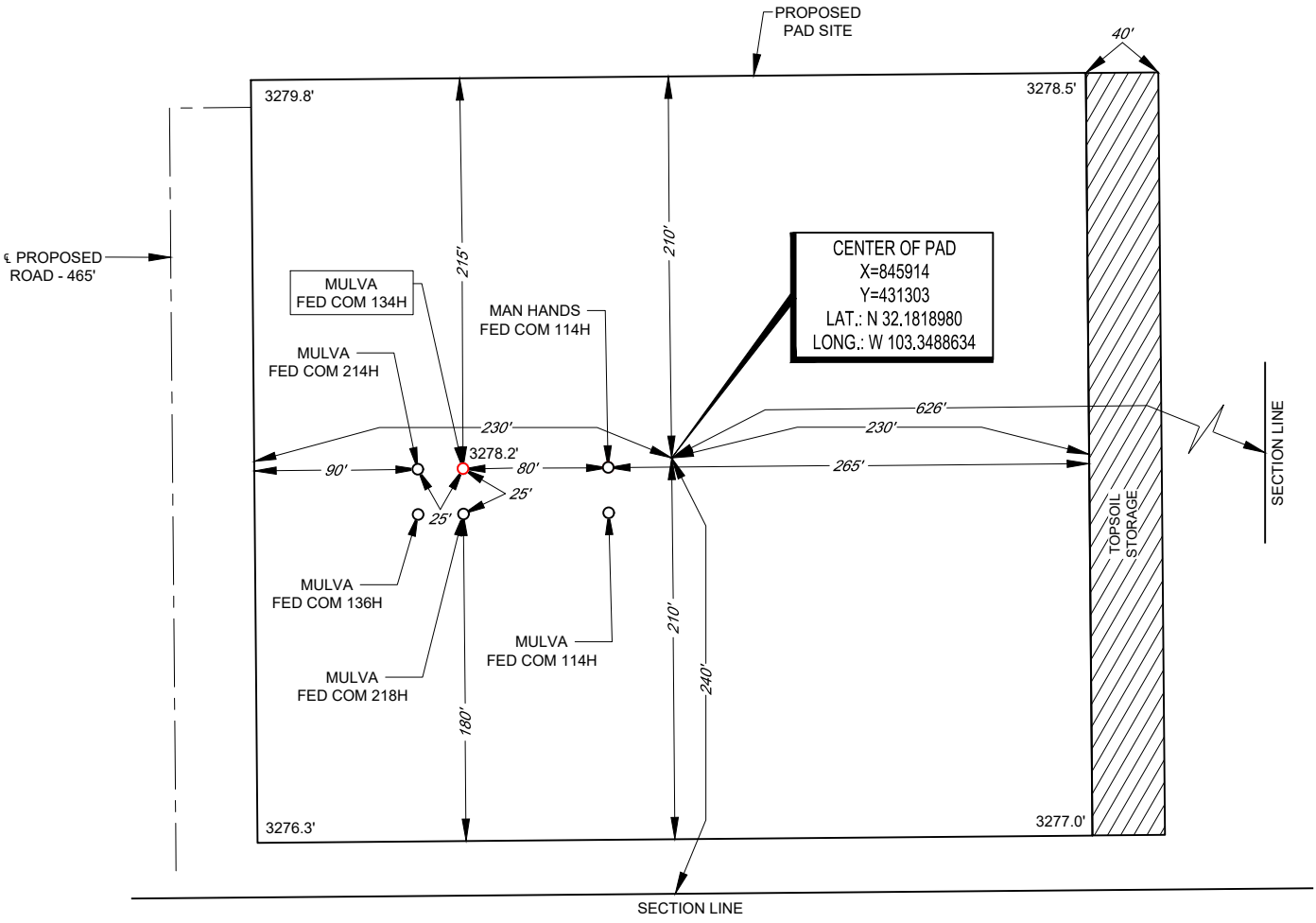
EXHIBIT 2B

SECTION 27, TOWNSHIP 24-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: MULVA FED COM 134H

134H LATITUDE N 32.1818844 134H LONGITUDE W 103.3492351

CENTER OF PAD IS 240' FSL & 626' FEL

JOHN TREVOR CARNEGIE
NEW MEXICO
11401
REGISTERED PROFESSIONAL SURVEYOR

John Trevor Carnegie, P.S. No. 11401

N

SCALE: 1" = 100'

0' 50' 100'

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
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Hydrogen Sulfide Drilling

Operations Plan

Tap Rock Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible
- Windsock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
    - Green Flag – Normal Safe Operation Condition
    - Yellow Flag – Potential Pressure and Danger
    - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See Drilling Operations Plan Schematics

6 Communication:

- While working under masks chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drilling Stem Testing:

- No DST cores are planned at this time

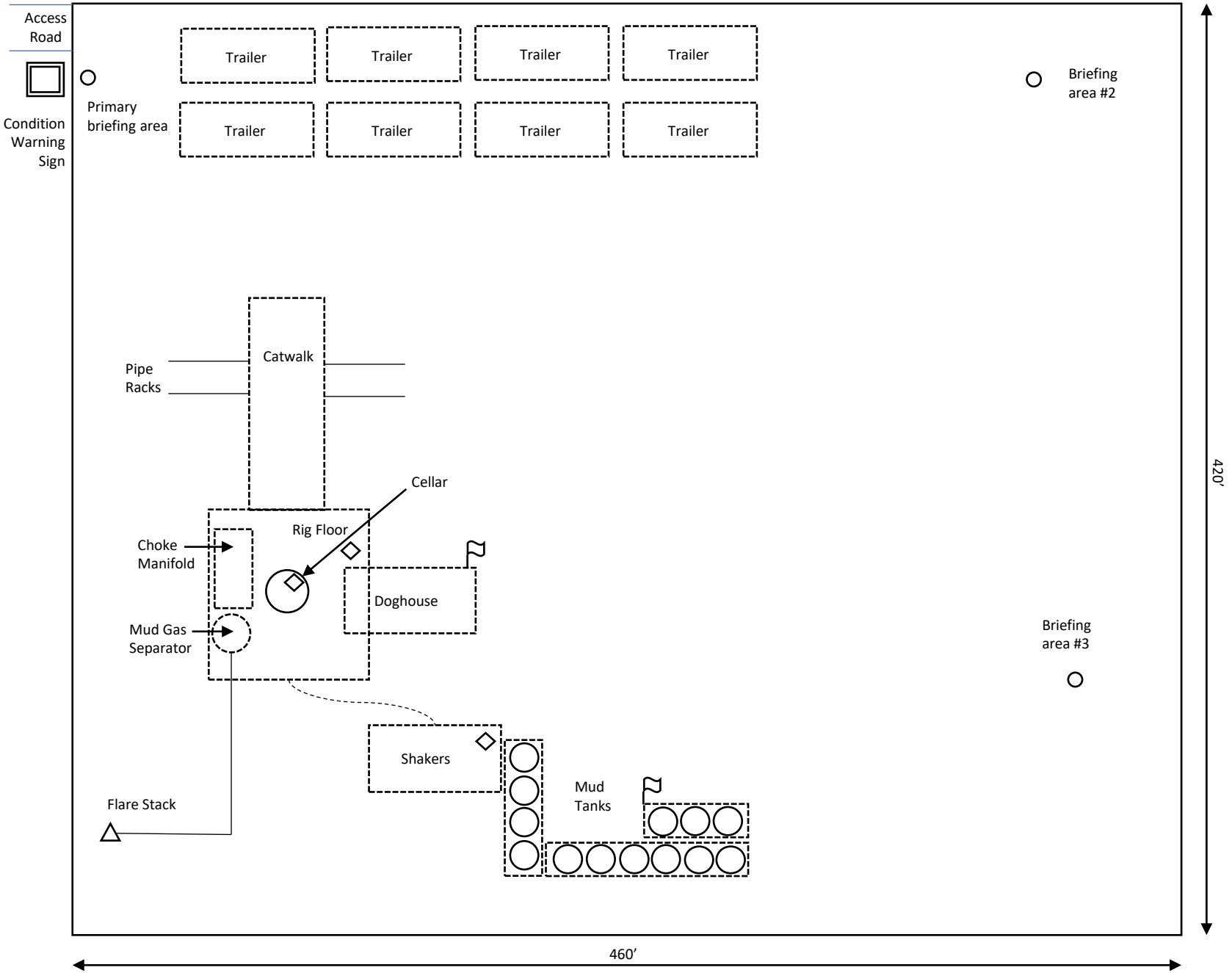
8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubulars good and other mechanical equipment

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary

11 Emergency Contacts

Emergency Contacts		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911
Jal Fire Department	575.395.2221	911
Tap Rock Resources	720.772.5090	

H2S Diagram
Mulva E2E2 Pad
Tap Rock Operating, LLC
27-24S-35E
Lea County, NM



N

- Briefing Area
- Current Well
- Flare Stack
- H2S Monitor
- Wind Indicator
- Mud Gas Separator

Tap Rock Operating, LLC

Mulva E2E2 Pad
H2S Contingency Plan:
Radius Map

Section 27, Township 24S, Range 35E
Lea County, New Mexico

Pad Center Point

1:27,000

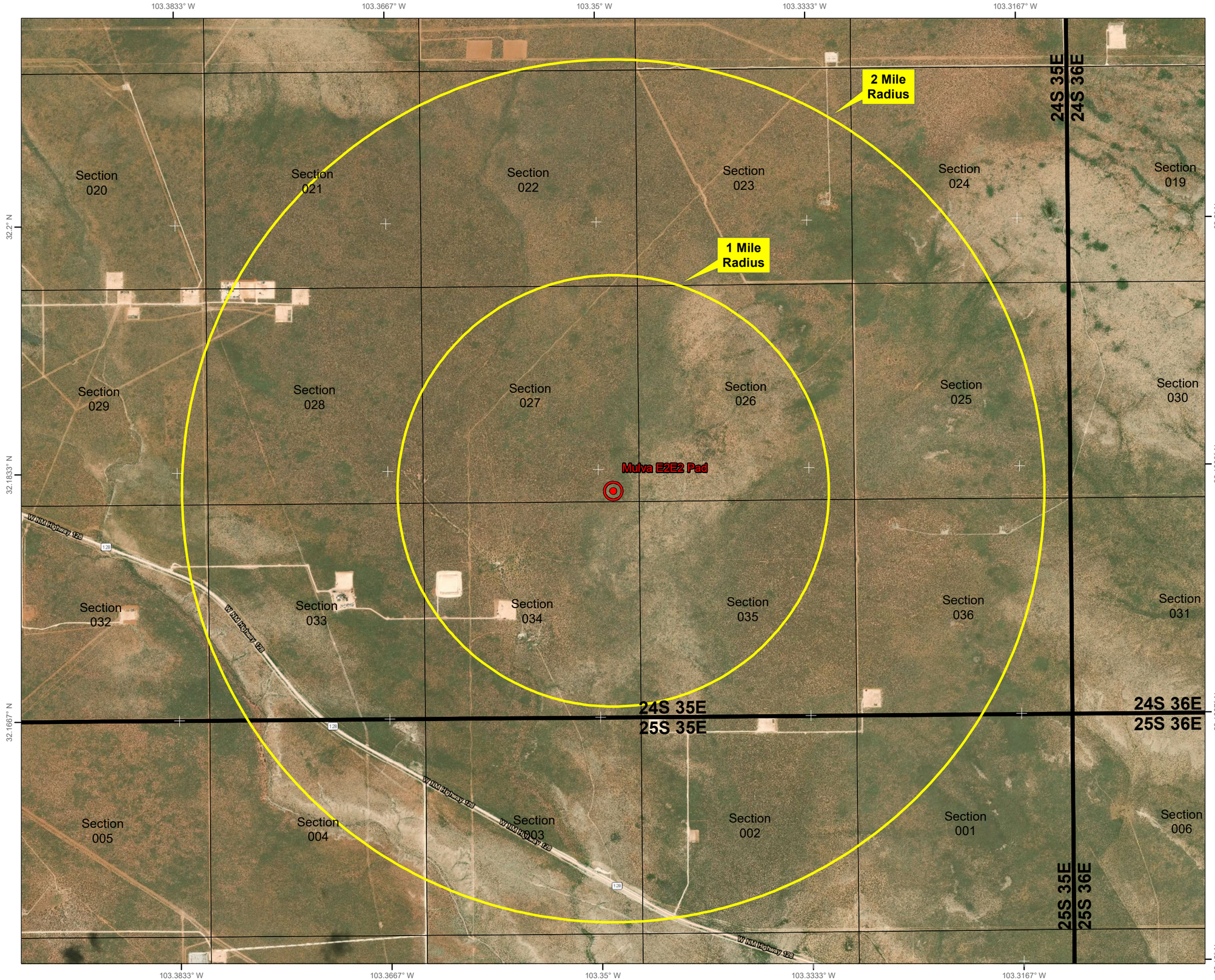
0 0.25 0.5 1

Miles

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., February 7, 2020
for Tap Rock Operating, LLC



Tap Rock Resources, LLC

Lea County, NM (NAD 83 NME)
(Mulva Fed) Sec-27_T-24-S_R-35-E
Mulva Fed Com #134H

OWB

Plan: Plan #2

Standard Planning Report

02 June, 2020

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Mulva Fed Com #134H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3304.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3304.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	**North Reference:**	Grid
Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Project Lea County, NM (NAD 83 NME)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site (Mulva Fed) Sec-27_T-24-S_R-35-E

Site Position:		**Northing:**	431,446.00 usft	**Latitude:**	32° 10' 56.609 N
From:	Map	**Easting:**	841,909.00 usft	**Longitude:**	103° 21' 42.490 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.52 °

Well Mulva Fed Com #134H

Well Position	**+N/-S**	-149.0 usft	**Northing:**	431,297.00 usft	**Latitude:**	32° 10' 54.785 N
	+E/-W	3,890.0 usft	**Easting:**	845,799.00 usft	**Longitude:**	103° 20' 57.246 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,278.0 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	01/16/20	6.56	60.02	47,671.44387744

Design Plan #2

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.49

Plan Survey Tool Program **Date** 06/02/20

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,762.7	Plan #2 (OWB)	MWD	
				OWSG MWD - Standard	

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	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,306.4	6.13	173.51	3,305.8	-16.3	1.9	2.00	2.00	0.00	173.51	
5,733.6	6.13	173.51	5,719.2	-273.7	31.1	0.00	0.00	0.00	0.00	
6,040.0	0.00	0.00	6,025.0	-290.0	33.0	2.00	-2.00	0.00	180.00	
11,537.0	0.00	0.00	11,522.0	-290.0	33.0	0.00	0.00	0.00	0.00	
12,434.9	89.79	175.20	12,095.0	-858.9	80.8	10.00	10.00	0.00	175.20	
12,649.4	89.79	179.49	12,095.7	-1,073.1	90.7	2.00	0.00	2.00	90.03	
19,762.7	89.79	179.49	12,122.0	-8,186.0	154.0	0.00	0.00	0.00	0.00	PBHL (Mulva Fed C

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Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	**North Reference:**	Grid
Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
685.0	0.00	0.00	685.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydrite									
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,065.0	0.00	0.00	1,065.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
NUDGE - Build 2.00									
3,100.0	2.00	173.51	3,100.0	-1.7	0.2	1.7	2.00	2.00	0.00
3,200.0	4.00	173.51	3,199.8	-6.9	0.8	6.9	2.00	2.00	0.00
3,306.4	6.13	173.51	3,305.8	-16.3	1.9	16.3	2.00	2.00	0.00
HOLD - 2427.2 at 3306.4 MD									
3,400.0	6.13	173.51	3,398.9	-26.2	3.0	26.2	0.00	0.00	0.00
3,500.0	6.13	173.51	3,498.3	-36.8	4.2	36.8	0.00	0.00	0.00
3,600.0	6.13	173.51	3,597.7	-47.4	5.4	47.5	0.00	0.00	0.00
3,700.0	6.13	173.51	3,697.2	-58.0	6.6	58.1	0.00	0.00	0.00
3,800.0	6.13	173.51	3,796.6	-68.6	7.8	68.7	0.00	0.00	0.00
3,900.0	6.13	173.51	3,896.0	-79.2	9.0	79.3	0.00	0.00	0.00
4,000.0	6.13	173.51	3,995.5	-89.8	10.2	89.9	0.00	0.00	0.00
4,100.0	6.13	173.51	4,094.9	-100.4	11.4	100.5	0.00	0.00	0.00
4,200.0	6.13	173.51	4,194.3	-111.1	12.6	111.2	0.00	0.00	0.00
4,300.0	6.13	173.51	4,293.7	-121.7	13.8	121.8	0.00	0.00	0.00
4,400.0	6.13	173.51	4,393.2	-132.3	15.1	132.4	0.00	0.00	0.00
4,500.0	6.13	173.51	4,492.6	-142.9	16.3	143.0	0.00	0.00	0.00
4,600.0	6.13	173.51	4,592.0	-153.5	17.5	153.6	0.00	0.00	0.00
4,668.4	6.13	173.51	4,660.0	-160.7	18.3	160.9	0.00	0.00	0.00

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Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	**North Reference:**	Grid
Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Base Salt									
4,700.0	6.13	173.51	4,691.5	-164.1	18.7	164.3	0.00	0.00	0.00
4,800.0	6.13	173.51	4,790.9	-174.7	19.9	174.9	0.00	0.00	0.00
4,900.0	6.13	173.51	4,890.3	-185.3	21.1	185.5	0.00	0.00	0.00
5,000.0	6.13	173.51	4,989.7	-195.9	22.3	196.1	0.00	0.00	0.00
5,100.0	6.13	173.51	5,089.2	-206.5	23.5	206.7	0.00	0.00	0.00
5,200.0	6.13	173.51	5,188.6	-217.1	24.7	217.3	0.00	0.00	0.00
5,221.5	6.13	173.51	5,210.0	-219.4	25.0	219.6	0.00	0.00	0.00
Delaware Mountain Gp									
5,226.6	6.13	173.51	5,215.0	-219.9	25.0	220.2	0.00	0.00	0.00
Lamar									
5,246.7	6.13	173.51	5,235.0	-222.1	25.3	222.3	0.00	0.00	0.00
Bell Canyon									
5,256.7	6.13	173.51	5,245.0	-223.1	25.4	223.4	0.00	0.00	0.00
Ramsey Sand									
5,300.0	6.13	173.51	5,288.0	-227.7	25.9	228.0	0.00	0.00	0.00
5,400.0	6.13	173.51	5,387.5	-238.3	27.1	238.6	0.00	0.00	0.00
5,500.0	6.13	173.51	5,486.9	-249.0	28.3	249.2	0.00	0.00	0.00
5,600.0	6.13	173.51	5,586.3	-259.6	29.5	259.8	0.00	0.00	0.00
5,700.0	6.13	173.51	5,685.7	-270.2	30.7	270.4	0.00	0.00	0.00
5,733.6	6.13	173.51	5,719.2	-273.7	31.1	274.0	0.00	0.00	0.00
DROP - -2.00									
5,800.0	4.80	173.51	5,785.2	-280.0	31.9	280.3	2.00	-2.00	0.00
5,900.0	2.80	173.51	5,885.0	-286.6	32.6	286.9	2.00	-2.00	0.00
6,000.0	0.80	173.51	5,985.0	-289.7	33.0	290.0	2.00	-2.00	0.00
6,040.0	0.00	0.00	6,025.0	-290.0	33.0	290.3	2.00	-2.00	0.00
HOLD - 5497.0 at 6040.0 MD									
6,100.0	0.00	0.00	6,085.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,165.0	0.00	0.00	6,150.0	-290.0	33.0	290.3	0.00	0.00	0.00
Cherry Canyon									
6,200.0	0.00	0.00	6,185.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,300.0	0.00	0.00	6,285.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,400.0	0.00	0.00	6,385.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,500.0	0.00	0.00	6,485.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,600.0	0.00	0.00	6,585.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,700.0	0.00	0.00	6,685.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,800.0	0.00	0.00	6,785.0	-290.0	33.0	290.3	0.00	0.00	0.00
6,900.0	0.00	0.00	6,885.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,000.0	0.00	0.00	6,985.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,100.0	0.00	0.00	7,085.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,200.0	0.00	0.00	7,185.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,300.0	0.00	0.00	7,285.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,400.0	0.00	0.00	7,385.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,500.0	0.00	0.00	7,485.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,600.0	0.00	0.00	7,585.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,625.0	0.00	0.00	7,610.0	-290.0	33.0	290.3	0.00	0.00	0.00
Brushy Canyon									
7,700.0	0.00	0.00	7,685.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,800.0	0.00	0.00	7,785.0	-290.0	33.0	290.3	0.00	0.00	0.00
7,900.0	0.00	0.00	7,885.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,000.0	0.00	0.00	7,985.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,100.0	0.00	0.00	8,085.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,200.0	0.00	0.00	8,185.0	-290.0	33.0	290.3	0.00	0.00	0.00

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Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,300.0	0.00	0.00	8,285.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,400.0	0.00	0.00	8,385.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,500.0	0.00	0.00	8,485.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,600.0	0.00	0.00	8,585.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,700.0	0.00	0.00	8,685.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,800.0	0.00	0.00	8,785.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,900.0	0.00	0.00	8,885.0	-290.0	33.0	290.3	0.00	0.00	0.00
8,925.0	0.00	0.00	8,910.0	-290.0	33.0	290.3	0.00	0.00	0.00
Bone Spring Lime									
8,975.0	0.00	0.00	8,960.0	-290.0	33.0	290.3	0.00	0.00	0.00
Upper Avalon									
9,000.0	0.00	0.00	8,985.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,100.0	0.00	0.00	9,085.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,200.0	0.00	0.00	9,185.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,215.0	0.00	0.00	9,200.0	-290.0	33.0	290.3	0.00	0.00	0.00
Middle Avalon									
9,300.0	0.00	0.00	9,285.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,400.0	0.00	0.00	9,385.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,500.0	0.00	0.00	9,485.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,600.0	0.00	0.00	9,585.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,650.0	0.00	0.00	9,635.0	-290.0	33.0	290.3	0.00	0.00	0.00
Lower Avalon									
9,700.0	0.00	0.00	9,685.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,800.0	0.00	0.00	9,785.0	-290.0	33.0	290.3	0.00	0.00	0.00
9,900.0	0.00	0.00	9,885.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,000.0	0.00	0.00	9,985.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,100.0	0.00	0.00	10,085.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,130.0	0.00	0.00	10,115.0	-290.0	33.0	290.3	0.00	0.00	0.00
1st Bone Spring Sand									
10,200.0	0.00	0.00	10,185.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,300.0	0.00	0.00	10,285.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,325.0	0.00	0.00	10,310.0	-290.0	33.0	290.3	0.00	0.00	0.00
2nd Bone Spring Carb									
10,400.0	0.00	0.00	10,385.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,500.0	0.00	0.00	10,485.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,600.0	0.00	0.00	10,585.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,680.0	0.00	0.00	10,665.0	-290.0	33.0	290.3	0.00	0.00	0.00
2nd Bone Spring Sand									
10,700.0	0.00	0.00	10,685.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,800.0	0.00	0.00	10,785.0	-290.0	33.0	290.3	0.00	0.00	0.00
10,900.0	0.00	0.00	10,885.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,000.0	0.00	0.00	10,985.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,100.0	0.00	0.00	11,085.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,200.0	0.00	0.00	11,185.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,235.0	0.00	0.00	11,220.0	-290.0	33.0	290.3	0.00	0.00	0.00
3rd Bone Spring Carb									
11,300.0	0.00	0.00	11,285.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,400.0	0.00	0.00	11,385.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,500.0	0.00	0.00	11,485.0	-290.0	33.0	290.3	0.00	0.00	0.00
11,537.0	0.00	0.00	11,522.0	-290.0	33.0	290.3	0.00	0.00	0.00
KOP - Build 10.00									
11,550.0	1.30	175.20	11,535.0	-290.1	33.0	290.4	10.00	10.00	0.00
11,600.0	6.30	175.20	11,584.8	-293.4	33.3	293.7	10.00	10.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Mulva Fed Com #134H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3304.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3304.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	**North Reference:**	Grid
Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,650.0	11.30	175.20	11,634.2	-301.1	33.9	301.4	10.00	10.00	0.00
11,700.0	16.30	175.20	11,682.8	-312.9	34.9	313.2	10.00	10.00	0.00
11,750.0	21.30	175.20	11,730.1	-329.0	36.3	329.3	10.00	10.00	0.00
11,800.0	26.30	175.20	11,775.8	-349.1	38.0	349.4	10.00	10.00	0.00
11,850.0	31.30	175.20	11,819.6	-373.1	40.0	373.4	10.00	10.00	0.00
11,900.0	36.30	175.20	11,861.2	-400.8	42.3	401.1	10.00	10.00	0.00
11,950.0	41.30	175.20	11,900.1	-432.0	44.9	432.4	10.00	10.00	0.00
12,000.0	46.30	175.20	11,936.2	-466.5	47.8	466.9	10.00	10.00	0.00
12,035.6	49.86	175.20	11,960.0	-492.9	50.0	493.3	10.00	10.00	0.00
3rd Bone Spring Sand									
12,050.0	51.30	175.20	11,969.1	-503.9	51.0	504.4	10.00	10.00	0.00
12,100.0	56.30	175.20	11,998.7	-544.1	54.3	544.6	10.00	10.00	0.00
12,150.0	61.30	175.20	12,024.5	-586.7	57.9	587.2	10.00	10.00	0.00
12,200.0	66.30	175.20	12,046.6	-631.4	61.7	631.9	10.00	10.00	0.00
12,221.8	68.48	175.20	12,055.0	-651.5	63.4	652.0	10.00	10.00	0.00
3rd BS W Sand									
12,250.0	71.30	175.20	12,064.7	-677.9	65.6	678.4	10.00	10.00	0.00
12,300.0	76.30	175.20	12,078.6	-725.7	69.6	726.3	10.00	10.00	0.00
12,350.0	81.30	175.20	12,088.4	-774.5	73.7	775.2	10.00	10.00	0.00
12,400.0	86.30	175.20	12,093.8	-824.1	77.8	824.7	10.00	10.00	0.00
12,434.9	89.79	175.20	12,095.0	-858.9	80.8	859.5	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO 90.03									
12,500.0	89.79	176.50	12,095.2	-923.7	85.5	924.5	2.00	0.00	2.00
12,600.0	89.79	178.50	12,095.6	-1,023.6	89.8	1,024.4	2.00	0.00	2.00
12,649.4	89.79	179.49	12,095.7	-1,073.1	90.7	1,073.8	2.00	0.00	2.00
Start 7113.3 hold at 12649.4 MD									
12,700.0	89.79	179.49	12,095.9	-1,123.6	91.2	1,124.4	0.00	0.00	0.00
12,800.0	89.79	179.49	12,096.3	-1,223.6	92.0	1,224.4	0.00	0.00	0.00
12,900.0	89.79	179.49	12,096.7	-1,323.6	92.9	1,324.4	0.00	0.00	0.00
13,000.0	89.79	179.49	12,097.0	-1,423.6	93.8	1,424.4	0.00	0.00	0.00
13,100.0	89.79	179.49	12,097.4	-1,523.6	94.7	1,524.4	0.00	0.00	0.00
13,200.0	89.79	179.49	12,097.8	-1,623.6	95.6	1,624.4	0.00	0.00	0.00
13,300.0	89.79	179.49	12,098.1	-1,723.6	96.5	1,724.4	0.00	0.00	0.00
13,400.0	89.79	179.49	12,098.5	-1,823.6	97.4	1,824.4	0.00	0.00	0.00
13,500.0	89.79	179.49	12,098.9	-1,923.6	98.3	1,924.4	0.00	0.00	0.00
13,600.0	89.79	179.49	12,099.3	-2,023.6	99.2	2,024.4	0.00	0.00	0.00
13,700.0	89.79	179.49	12,099.6	-2,123.6	100.1	2,124.4	0.00	0.00	0.00
13,800.0	89.79	179.49	12,100.0	-2,223.6	100.9	2,224.4	0.00	0.00	0.00
13,900.0	89.79	179.49	12,100.4	-2,323.6	101.8	2,324.4	0.00	0.00	0.00
14,000.0	89.79	179.49	12,100.7	-2,423.6	102.7	2,424.4	0.00	0.00	0.00
14,100.0	89.79	179.49	12,101.1	-2,523.6	103.6	2,524.4	0.00	0.00	0.00
14,200.0	89.79	179.49	12,101.5	-2,623.6	104.5	2,624.4	0.00	0.00	0.00
14,300.0	89.79	179.49	12,101.8	-2,723.6	105.4	2,724.4	0.00	0.00	0.00
14,400.0	89.79	179.49	12,102.2	-2,823.6	106.3	2,824.4	0.00	0.00	0.00
14,500.0	89.79	179.49	12,102.6	-2,923.5	107.2	2,924.4	0.00	0.00	0.00
14,600.0	89.79	179.49	12,102.9	-3,023.5	108.1	3,024.4	0.00	0.00	0.00
14,700.0	89.79	179.49	12,103.3	-3,123.5	108.9	3,124.4	0.00	0.00	0.00
14,800.0	89.79	179.49	12,103.7	-3,223.5	109.8	3,224.4	0.00	0.00	0.00
14,900.0	89.79	179.49	12,104.1	-3,323.5	110.7	3,324.4	0.00	0.00	0.00
15,000.0	89.79	179.49	12,104.4	-3,423.5	111.6	3,424.4	0.00	0.00	0.00
15,100.0	89.79	179.49	12,104.8	-3,523.5	112.5	3,524.4	0.00	0.00	0.00
15,200.0	89.79	179.49	12,105.2	-3,623.5	113.4	3,624.4	0.00	0.00	0.00
15,300.0	89.79	179.49	12,105.5	-3,723.5	114.3	3,724.4	0.00	0.00	0.00

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Mulva Fed Com #134H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3304.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3304.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	**North Reference:**	Grid
Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,400.0	89.79	179.49	12,105.9	-3,823.5	115.2	3,824.4	0.00	0.00	0.00
15,500.0	89.79	179.49	12,106.3	-3,923.5	116.1	3,924.4	0.00	0.00	0.00
15,600.0	89.79	179.49	12,106.6	-4,023.5	117.0	4,024.4	0.00	0.00	0.00
15,700.0	89.79	179.49	12,107.0	-4,123.5	117.8	4,124.4	0.00	0.00	0.00
15,800.0	89.79	179.49	12,107.4	-4,223.5	118.7	4,224.4	0.00	0.00	0.00
15,900.0	89.79	179.49	12,107.7	-4,323.5	119.6	4,324.4	0.00	0.00	0.00
16,000.0	89.79	179.49	12,108.1	-4,423.5	120.5	4,424.4	0.00	0.00	0.00
16,100.0	89.79	179.49	12,108.5	-4,523.5	121.4	4,524.4	0.00	0.00	0.00
16,200.0	89.79	179.49	12,108.8	-4,623.5	122.3	4,624.4	0.00	0.00	0.00
16,300.0	89.79	179.49	12,109.2	-4,723.5	123.2	4,724.4	0.00	0.00	0.00
16,400.0	89.79	179.49	12,109.6	-4,823.5	124.1	4,824.4	0.00	0.00	0.00
16,500.0	89.79	179.49	12,110.0	-4,923.5	125.0	4,924.4	0.00	0.00	0.00
16,600.0	89.79	179.49	12,110.3	-5,023.5	125.9	5,024.4	0.00	0.00	0.00
16,700.0	89.79	179.49	12,110.7	-5,123.4	126.7	5,124.4	0.00	0.00	0.00
16,800.0	89.79	179.49	12,111.1	-5,223.4	127.6	5,224.4	0.00	0.00	0.00
16,900.0	89.79	179.49	12,111.4	-5,323.4	128.5	5,324.4	0.00	0.00	0.00
17,000.0	89.79	179.49	12,111.8	-5,423.4	129.4	5,424.4	0.00	0.00	0.00
17,100.0	89.79	179.49	12,112.2	-5,523.4	130.3	5,524.4	0.00	0.00	0.00
17,200.0	89.79	179.49	12,112.5	-5,623.4	131.2	5,624.4	0.00	0.00	0.00
17,300.0	89.79	179.49	12,112.9	-5,723.4	132.1	5,724.4	0.00	0.00	0.00
17,400.0	89.79	179.49	12,113.3	-5,823.4	133.0	5,824.4	0.00	0.00	0.00
17,500.0	89.79	179.49	12,113.6	-5,923.4	133.9	5,924.4	0.00	0.00	0.00
17,600.0	89.79	179.49	12,114.0	-6,023.4	134.8	6,024.4	0.00	0.00	0.00
17,700.0	89.79	179.49	12,114.4	-6,123.4	135.6	6,124.4	0.00	0.00	0.00
17,800.0	89.79	179.49	12,114.8	-6,223.4	136.5	6,224.4	0.00	0.00	0.00
17,900.0	89.79	179.49	12,115.1	-6,323.4	137.4	6,324.4	0.00	0.00	0.00
18,000.0	89.79	179.49	12,115.5	-6,423.4	138.3	6,424.4	0.00	0.00	0.00
18,100.0	89.79	179.49	12,115.9	-6,523.4	139.2	6,524.4	0.00	0.00	0.00
18,200.0	89.79	179.49	12,116.2	-6,623.4	140.1	6,624.4	0.00	0.00	0.00
18,300.0	89.79	179.49	12,116.6	-6,723.4	141.0	6,724.4	0.00	0.00	0.00
18,400.0	89.79	179.49	12,117.0	-6,823.4	141.9	6,824.4	0.00	0.00	0.00
18,500.0	89.79	179.49	12,117.3	-6,923.4	142.8	6,924.4	0.00	0.00	0.00
18,600.0	89.79	179.49	12,117.7	-7,023.4	143.7	7,024.4	0.00	0.00	0.00
18,700.0	89.79	179.49	12,118.1	-7,123.4	144.5	7,124.4	0.00	0.00	0.00
18,800.0	89.79	179.49	12,118.4	-7,223.3	145.4	7,224.4	0.00	0.00	0.00
18,900.0	89.79	179.49	12,118.8	-7,323.3	146.3	7,324.4	0.00	0.00	0.00
19,000.0	89.79	179.49	12,119.2	-7,423.3	147.2	7,424.4	0.00	0.00	0.00
19,100.0	89.79	179.49	12,119.6	-7,523.3	148.1	7,524.4	0.00	0.00	0.00
19,200.0	89.79	179.49	12,119.9	-7,623.3	149.0	7,624.4	0.00	0.00	0.00
19,300.0	89.79	179.49	12,120.3	-7,723.3	149.9	7,724.4	0.00	0.00	0.00
19,400.0	89.79	179.49	12,120.7	-7,823.3	150.8	7,824.4	0.00	0.00	0.00
19,500.0	89.79	179.49	12,121.0	-7,923.3	151.7	7,924.4	0.00	0.00	0.00
19,600.0	89.79	179.49	12,121.4	-8,023.3	152.6	8,024.4	0.00	0.00	0.00
19,700.0	89.79	179.49	12,121.8	-8,123.3	153.4	8,124.4	0.00	0.00	0.00
19,762.7	89.79	179.49	12,122.0	-8,186.0	154.0	8,187.0	0.00	0.00	0.00
TD at 19762.7									

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well Mulva Fed Com #134H
Company:	Tap Rock Resources, LLC	**TVD Reference:**	KB @ 3304.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB @ 3304.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	**North Reference:**	Grid
Well:	Mulva Fed Com #134H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

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
FTP (Mulva Fed Com - plan misses target center by 209.5usft at 12010.1usft MD (11943.1 TVD, -473.8 N, 48.4 E) - Point	0.00	0.00	12,095.0	-334.0	84.0	430,963.00	845,883.00	32° 10' 51.472 N	103° 20' 56.305 W
PBHL (Mulva Fed Cor - plan hits target center - Rectangle (sides W100.0 H7,853.0 D30.0)	0.21	179.49	12,122.0	-8,186.0	154.0	423,111.00	845,953.00	32° 9' 33.773 N	103° 20' 56.326 W
LTP (Mulva Fed Com - plan misses target center by 0.4usft at 19667.7usft MD (12121.6 TVD, -8091.0 N, 153.2 E) - Point	0.00	0.00	12,122.0	-8,091.0	153.0	423,206.00	845,952.00	32° 9' 34.713 N	103° 20' 56.327 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
685.0	685.0	Rustler Anhydrite			
1,065.0	1,065.0	Top Salt			
4,668.4	4,660.0	Base Salt			
5,221.5	5,210.0	Delaware Mountain Gp			
5,226.6	5,215.0	Lamar			
5,246.7	5,235.0	Bell Canyon			
5,256.7	5,245.0	Ramsey Sand			
6,165.0	6,150.0	Cherry Canyon			
7,625.0	7,610.0	Brushy Canyon			
8,925.0	8,910.0	Bone Spring Lime			
8,975.0	8,960.0	Upper Avalon			
9,215.0	9,200.0	Middle Avalon			
9,650.0	9,635.0	Lower Avalon			
10,130.0	10,115.0	1st Bone Spring Sand			
10,325.0	10,310.0	2nd Bone Spring Carb			
10,680.0	10,665.0	2nd Bone Spring Sand			
11,235.0	11,220.0	3rd Bone Spring Carb			
12,035.6	11,960.0	3rd Bone Spring Sand			
12,221.8	12,055.0	3rd BS W Sand			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,000.0	3,000.0	0.0	0.0	NUDGE - Build 2.00
3,306.4	3,305.8	-16.3	1.9	HOLD - 2427.2 at 3306.4 MD
5,733.6	5,719.2	-273.7	31.1	DROP - -2.00
6,040.0	6,025.0	-290.0	33.0	HOLD - 5497.0 at 6040.0 MD
11,537.0	11,522.0	-290.0	33.0	KOP - Build 10.00
12,434.9	12,095.0	-858.9	80.8	EOC/TRN - DLS 2.00 TFO 90.03
12,649.4	12,095.7	-1,073.1	90.7	Start 7113.3 hold at 12649.4 MD
19,762.7	12,122.0	-8,186.0	154.0	TD at 19762.7

Drilling Operations Plan
Mulva Fed Com 134H
Tap Rock Operating, LLC
SHL 235' FSL & 741' FEL, Sec. 27
BHL 2640' FSL & 660' FEL, Sec. 3
Surface- T. 24S, R. 35E Lea County, NM
BHL- T. 25S, R. 35E Lea County, NM

Elevation above Sea Level: 3278'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	685	685		Salt
Salado	1065	1065	Salt	Salt
Base Salt	4660	4668		Salt
Lamar	5215	5227	Limestone	None
Bell Canyon	5235	5247	Sandstone	Hydrocarbons
Cherry Canyon	6150	6165	Sandstone	Hydrocarbons
Brushy Canyon	7610	7625	Sandstone	Hydrocarbons
Bone Spring	8910	8925	Limestone	Hydrocarbons
1st Bone Spring	10115	10130	Sandstone	Hydrocarbons
2nd Bone Spring	10310	10325	Sandstone	Hydrocarbons
3rd Bone Spring	11220	11235	Sandstone	Hydrocarbons
KOP	11522	11537	Sandstone	Hydrocarbons
3rd BS W Sand	12055	12222	Shale	Hydrocarbons
TD	12122	19762	Shale	Hydrocarbons

2. Notable Zones

3rd BS W Sand is the formation target.

3. Pressure Control

Pressure Control Equipment (See Schematics):
A 15,000', 10,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

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BHL- T. 25S, R. 35E Lea County, NM

BOP Test procedure will be as follows:
After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be tested in this manner after nipple-up if any break of the stack occurs. Before drilling out from 7.625" casing shoe, the BOP pressure tests will be made with a third party tester to 250 psi low, 10,000 psi high, and the annular preventer will be tested to 5,000 psi. The BOP will be tested in this manner if passage of allotted time occurs.

Variance Requests:
Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after drilling surface, 1st intermediate, and 2nd intermediate hole sections and cementing 2nd intermediate casing, a 10M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Tap Rock requests a variance to run 7-5/8" BTC casing inside 9-5/8" BTC casing will be less than the 0.422" stand off regulation. Through conversations with BLM representatives, Tap Rock has received approval for this design as long as the 7-5/8" flush casing was run throughout the entire 300' cement tie back section between 9-5/8" and 7-5/8" casing. Tap Rock requests a variance to use a 5000 psi annular BOP on a 10M BOP stack. The annular will be tested to 250 psi low and 5000 psi high.

Tap Rock requests approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized in order to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Tap Rock will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operations are expected to take 2-3 days per well. Three wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the pre-set wells. Tap Rock will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.

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4. Casing & Cement

All Casing will be new.

Name	Hole Size	Casing Size	Standard	Tapered	Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	760	0	760	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	5247	0	5235	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	API	No	0	4947	0	4935	P-110	29.7	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	Yes	4947	11437	4935	11422	P-110	29.7	W-513	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	0	11237	0	11222	P-110	20	TXP	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	11237	19762	11222	12122	P-110	18	W-521	1.13	1.15	1.6

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	782	1.35	1056	14.8	100%	C	5% NCl + LCM
1st Intermediate	Lead	0	995	2.18	2169	12.7	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	4197	408	1.33	542	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	4947	335	2.22	745	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	10437	99	1.37	136	13.2	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	10737	1063	1.19	1265	15.8	25%	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	760	FW Spud Mud	8.30	28	NC
Intermediate	760	5247	Brine Water	10.00	30-32	NC
Intermediate 2	5247	11437	FW/Cut Brine	9.00	30-32	NC
Production	11437	19762	Oil Base Mud	11.50	50-70	<10

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.
- GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD.
- A 2-person mud logging program will be used from 9.625" casing shoe to TD.
- No DSTs or cores are planned at this time.
- CBL w/ CCL from as far as gravity will let it fall to TOC.

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈7,240 psi. Expected bottom hole temperature is ≈170˚ F.

Tap Rock does not anticipate that there will be enough H2S from the surface to the Wolfcamp formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

8. Other Information

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

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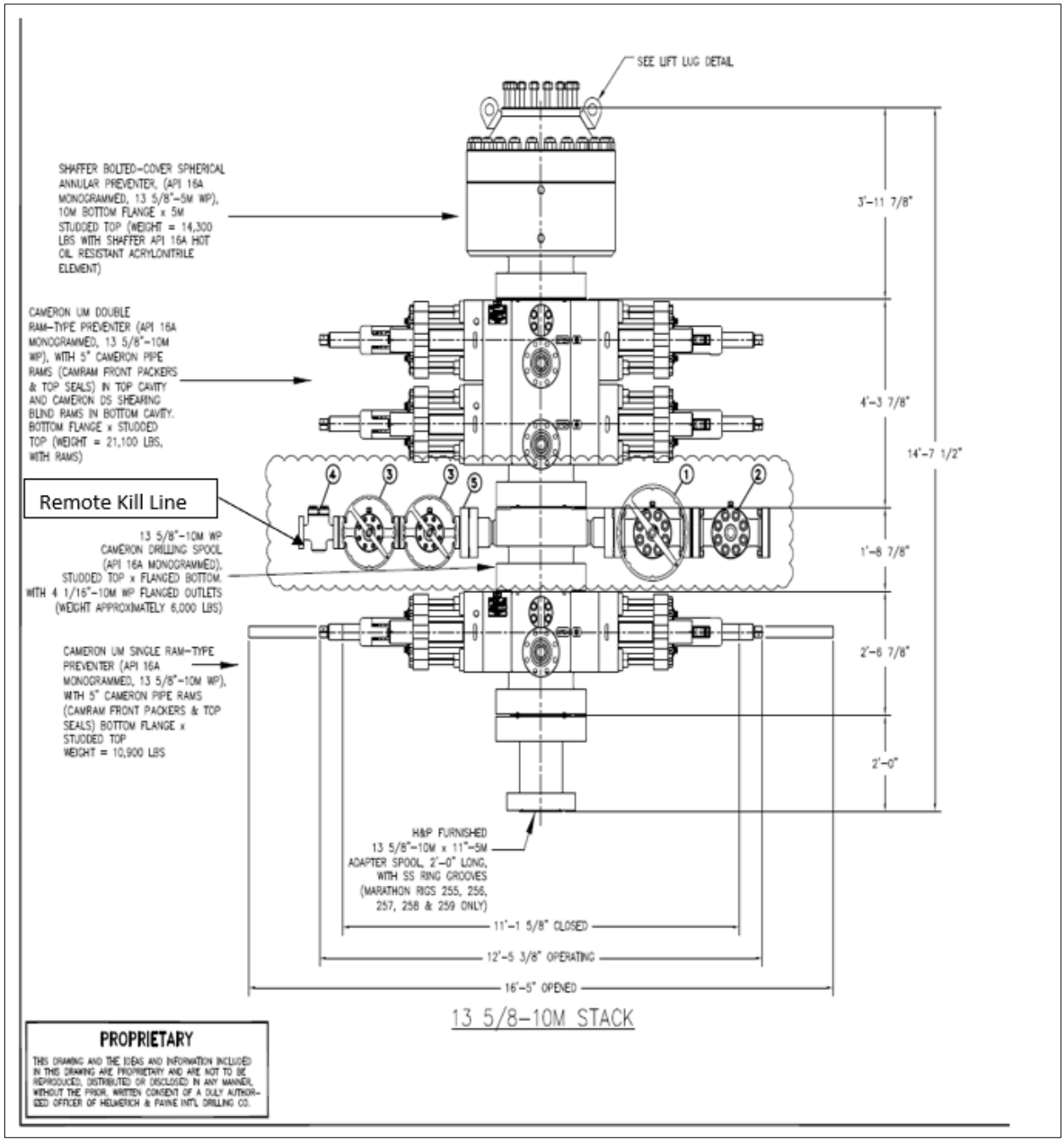
10,000 psi BOP Stack



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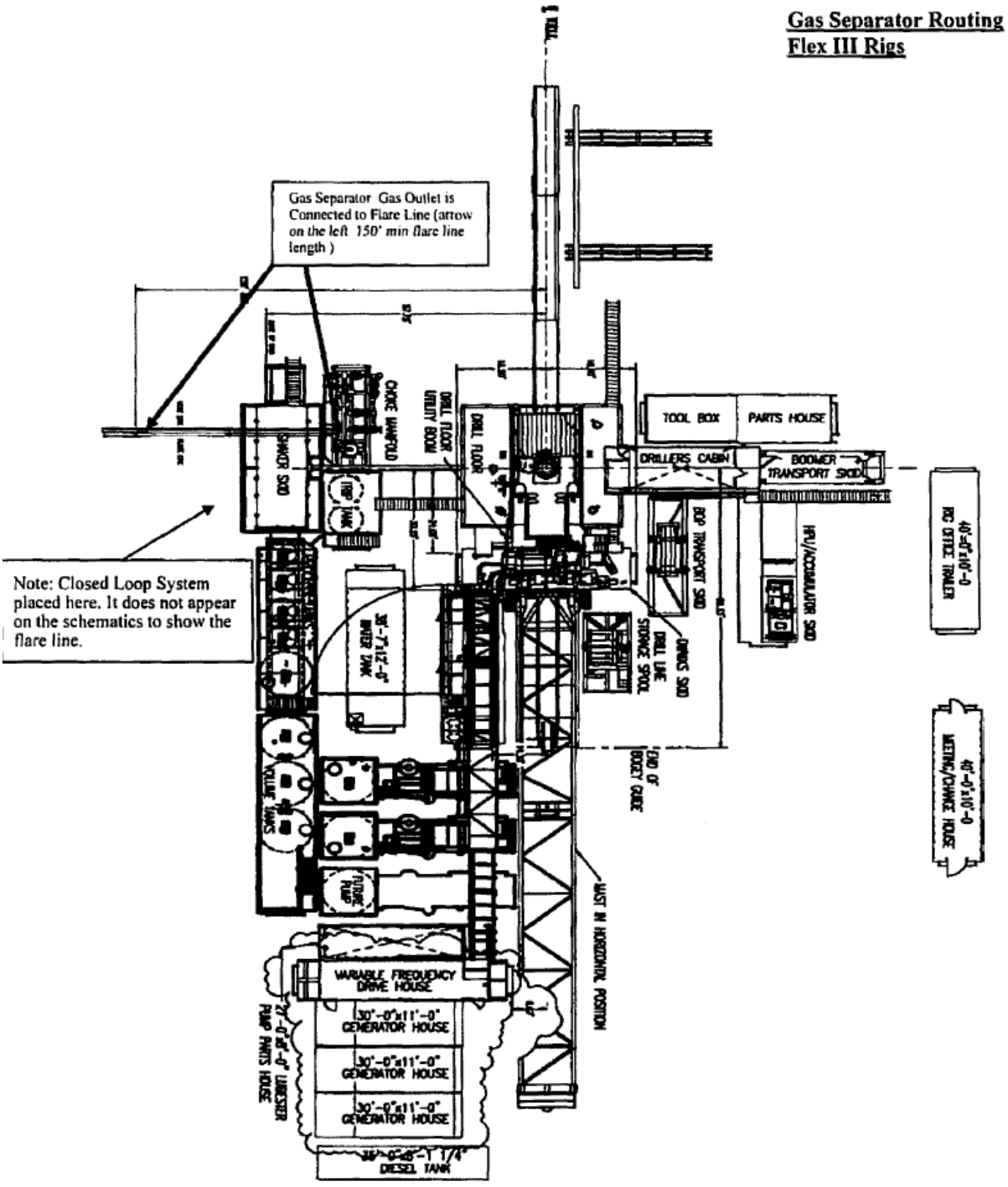

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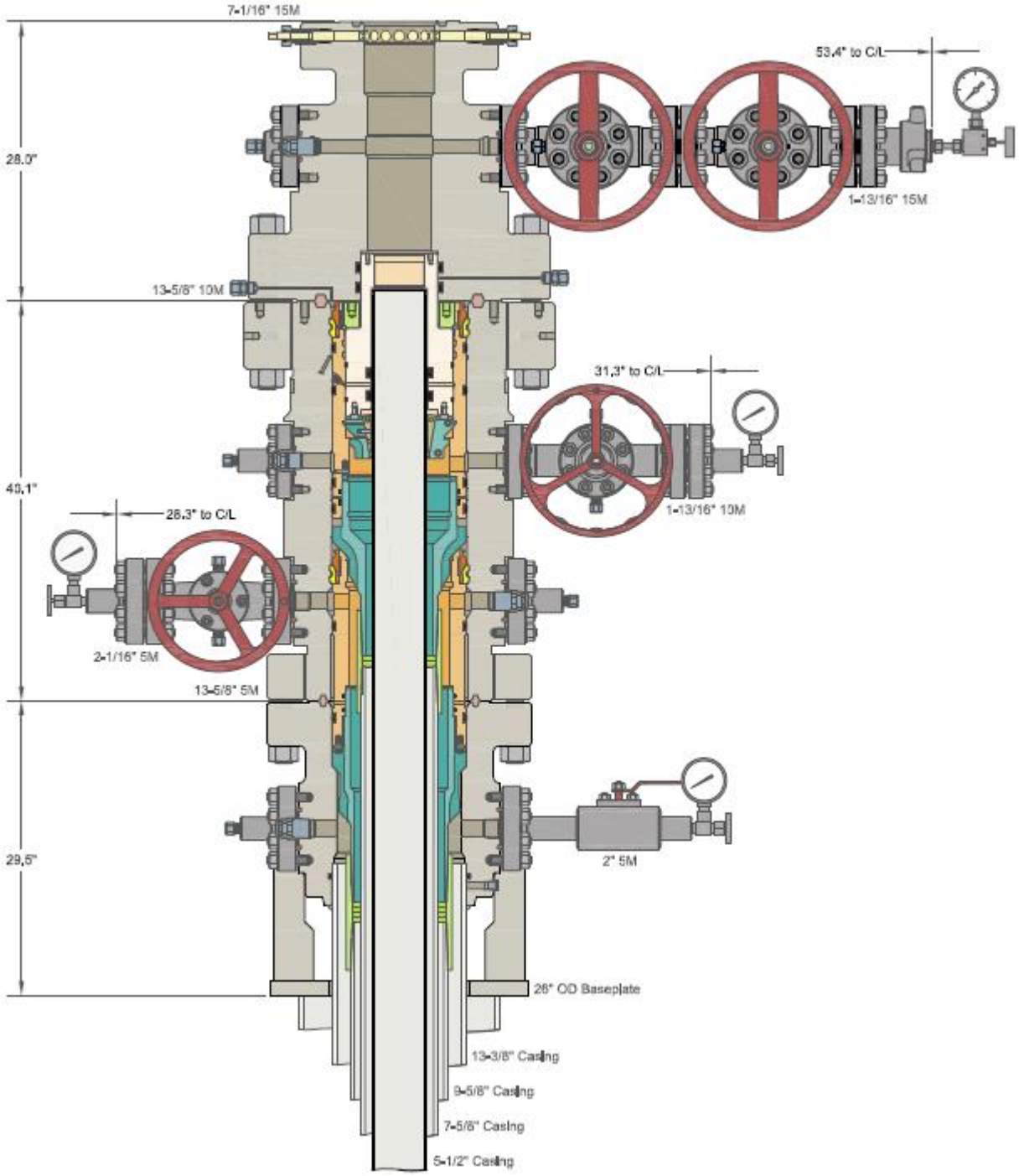
Multi-bowl Wellhead



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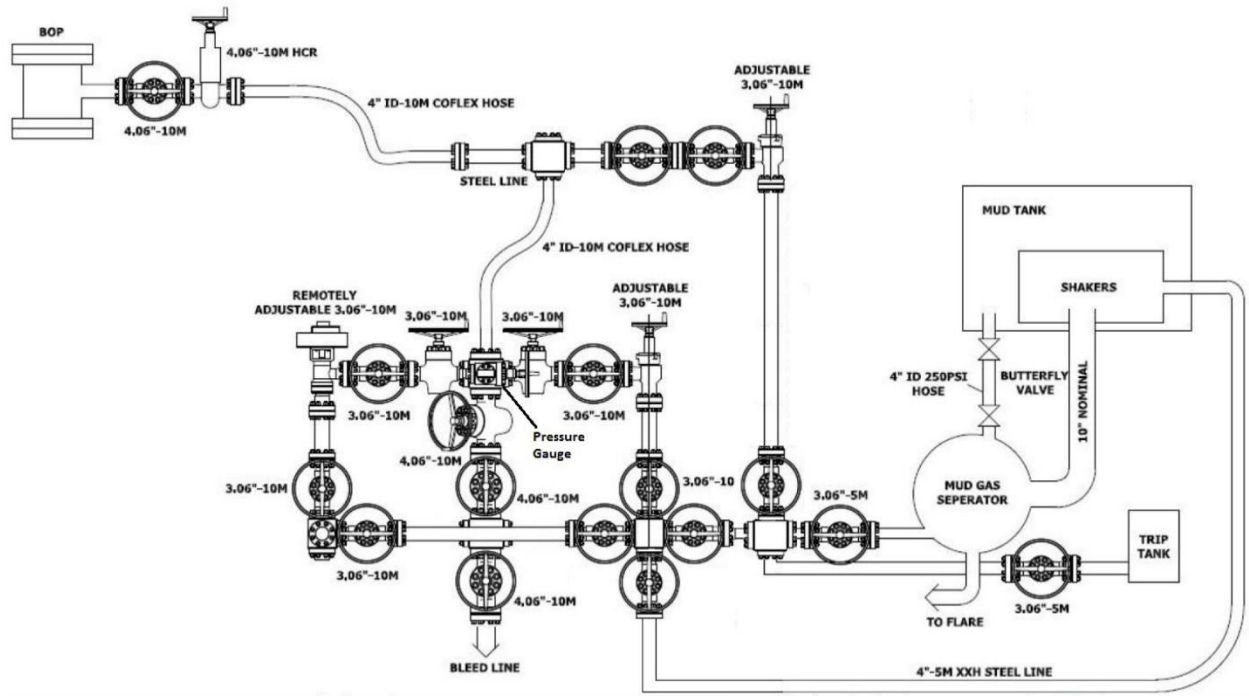
10M Choke Layout



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

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

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

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-025-47745	98098	WC-025 G-09 S243532M; WOLFBONE

[4]Property Code	[5]Property Name	[6]Well Number
328302	MULVA FED COM	134H

[7]OGRID No.	[8]Operator Name	[9]Elevation
372043	TAP ROCK OPERATING, LLC.	3278'

[10]Surface Location

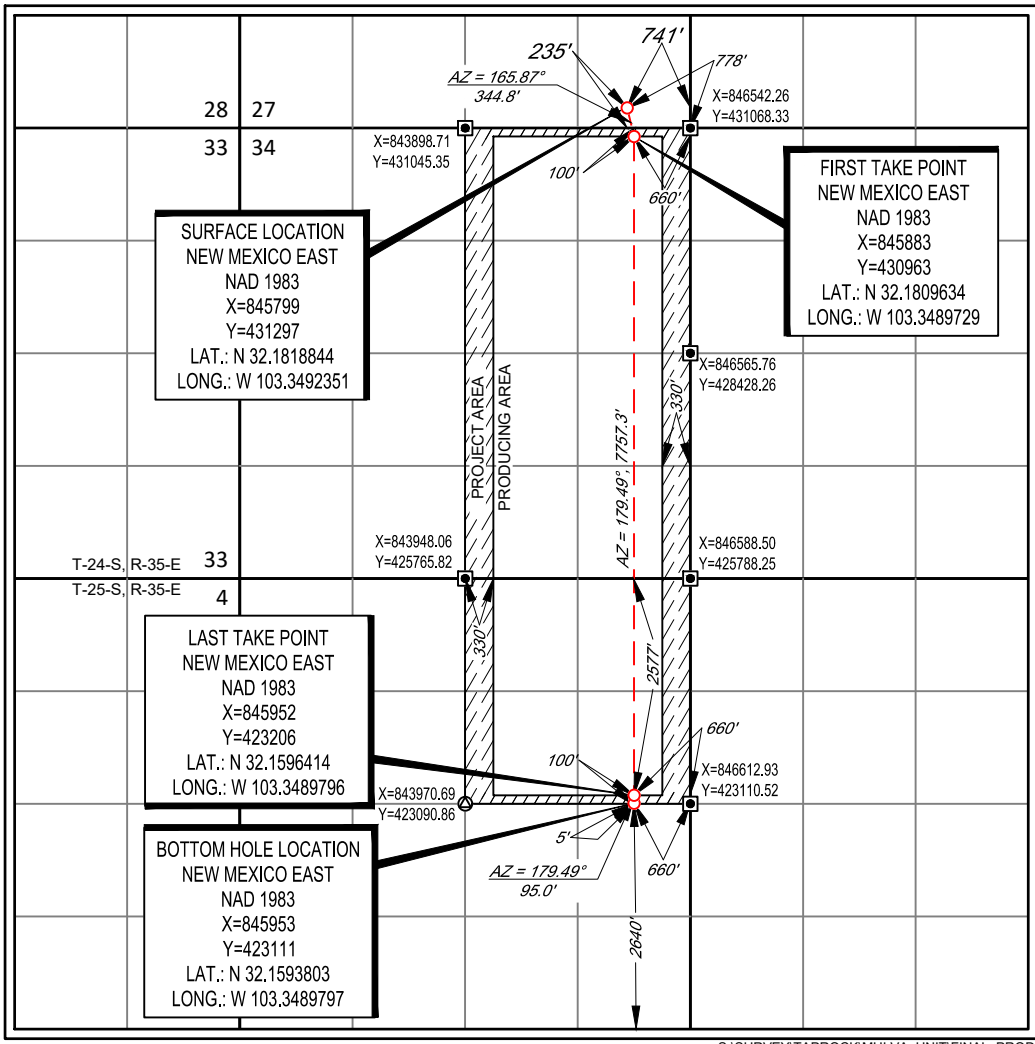
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	27	24-S	35-E	–	235'	SOUTH	741'	EAST	LEA

[11]Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	3	25-S	35-E	–	2640'	SOUTH	660'	EAST	LEA

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.
481.78			

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.



[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Cory Walk — 2-20-20
Signature — Date

Cory Walk
Printed Name

cory@permitswest.com
E-mail Address

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

10/25/2019
Date of Survey
Signature and Seal of Professional Surveyor

JOHN KEDDY CARNEGIE
NEW MEXICO
11401
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number

S:\SURVEY\TAPROCK\MULVA_UNIT\FINAL_PRODUCTS\LO_MULVA_FED_COM_134H.DWG 11/7/2019 1:48:12 PM kmatheny

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State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 1/22/2020

☒ Original Operator & OGRID No.: 372043

☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

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
MULVA FED COM #134	**30-025-47745**	P SEC 27 T24S R35E	235' FSL 741' FEL	+/- 8000	21 days	Gas will be flared for ~21 days during flowback before being turned to the TB. Time est. depends on sales connect and well cleanup.

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 should be connected to Lucid Energy Group, LLC and will be connected to Lucid Energy Group LLC's low/high pressure gathering system located in Eddy County, New Mexico. It will require approximately 2500' of pipeline to connect the facility to low/high pressure gathering system. Tap Rock Operating, LLC provides (periodically) to Lucid Energy Group, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Tap Rock Operating, LLC and Lucid Energy Group, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be Processed at Lucid Energy Group, LLC 's Red Hills processing facility located in Lea County, New Mexico, and, although unanticipated, any issues with downstream facilities could cause flaring at the wellhead. 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 Lucid's system at that time. Based on current information, it is Tap Rock Operating, LLC'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
    - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines