**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**
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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) 476-3470 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

Form C-101
August 1, 2011

Permit 301613

## APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

| 1. Operator Name and Address | 2. OGRID Number |
|---|---|
| TAP ROCK OPERATING, LLC<br>523 Park Point Drive<br>Golden, CO 80401 | 372043 |
| | 3. API Number<br>30-015-48982 |

| 4. Property Code | 5. Property Name | 6. Well No. |
|---|---|---|
| 323012 | PLINY THE ELDER FEE | 232H |

**7. Surface Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 4 | 23S | 27E | 4 | 1027 | N | 355 | W | Eddy |

**8. Proposed Bottom Hole Location**

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |
|---|---|---|---|---|---|---|---|---|---|
| E | 6 | 23S | 27E | E | 2310 | N | 100 | W | Eddy |

**9. Pool Information**

| | |
|---|---|
| PURPLE SAGE;WOLFCAMP (GAS) | 98220 |

**Additional Well Information**

| 11. Work Type | 12. Well Type | 13. Cable/Rotary | 14. Lease Type | 15. Ground Level Elevation |
|---|---|---|---|---|
| New Well | GAS | | Private | 3148 |
| **16. Multiple** | **17. Proposed Depth** | **18. Formation** | **19. Contractor** | **20. Spud Date** |
| N | 20004 | Wolfcamp | | 10/1/2021 |
| Depth to Ground water | | Distance from nearest fresh water well | | Distance to nearest surface water |

☒ **We will be using a closed-loop system in lieu of lined pits**

**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|---|---|---|---|---|---|---|
| Surf | 17.5 | 13.375 | 54.5 | 610 | 600 | 0 |
| Int1 | 12.25 | 9.625 | 40 | 2150 | 600 | 0 |
| Int2 | 8.75 | 7.625 | 29.7 | 9050 | 800 | 1800 |
| Prod | 6.75 | 5.5 | 20 | 20000 | 750 | 8870 |

**Casing/Cement Program: Additional Comments**

**22. Proposed Blowout Prevention Program**

| Type | Working Pressure | Test Pressure | Manufacturer |
|---|---|---|---|
| Annular | 5000 | 2500 | |
| Double Ram | 10000 | 5000 | |
| Pipe | 10000 | 5000 | |

| 23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature: | | **OIL CONSERVATION DIVISION** | |
|---|---|---|---|
| Printed Name: | Electronically filed by Christian Combs | Approved By: | Kurt Simmons |
| Title: | Regulatory Manager | Title: | Petroleum Specialist - A |
| Email Address: | ccombs@taprk.com | Approved Date: | 9/30/2021 Expiration Date: 9/30/2023 |
| Date: | 9/30/2021 Phone: 720-360-4028 | Conditions of Approval Attached | |

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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 |
|---|---|---|
| | 98220 | PURPLE SAGE WOLFCAMP (GAS) |

| [4]Property Code | [5]Property Name | [6]Well Number |
|---|---|---|
| 323012 | PLINY THE ELDER FEE | 232H |

| [7]OGRID No. | [8]Operator Name | [9]Elevation |
|---|---|---|
| 372043 | TAP ROCK OPERATING, LLC. | 3148' |

## [10]Surface Location

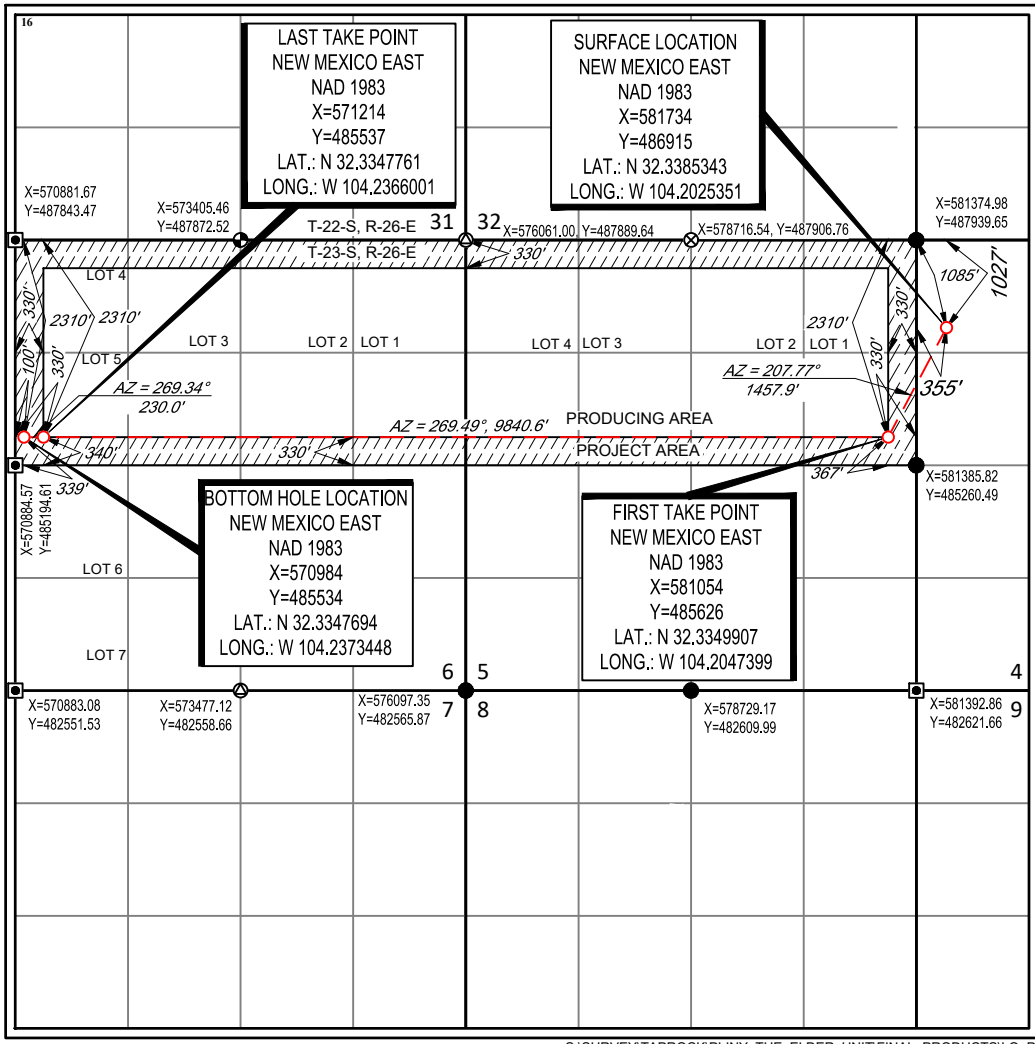
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 4 | 23-S | 27-E | - | 1027' | NORTH | 355' | WEST | EDDY |

## [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 |
|---|---|---|---|---|---|---|---|---|---|
| 5 | 6 | 23-S | 27-E | - | 2310' | NORTH | 100' | WEST | EDDY |

| [12]Dedicated Acres | [13]Joint or Infill | [14]Consolidation Code | [15]Order No. |
|---|---|---|---|
| 640 | | | |

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.*

Signature — Date: 08/26/2021

Bill Ramsey
Printed Name

bramsey@taprk.com
E-mail Address

## [18]SURVEYOR CERTIFICATION

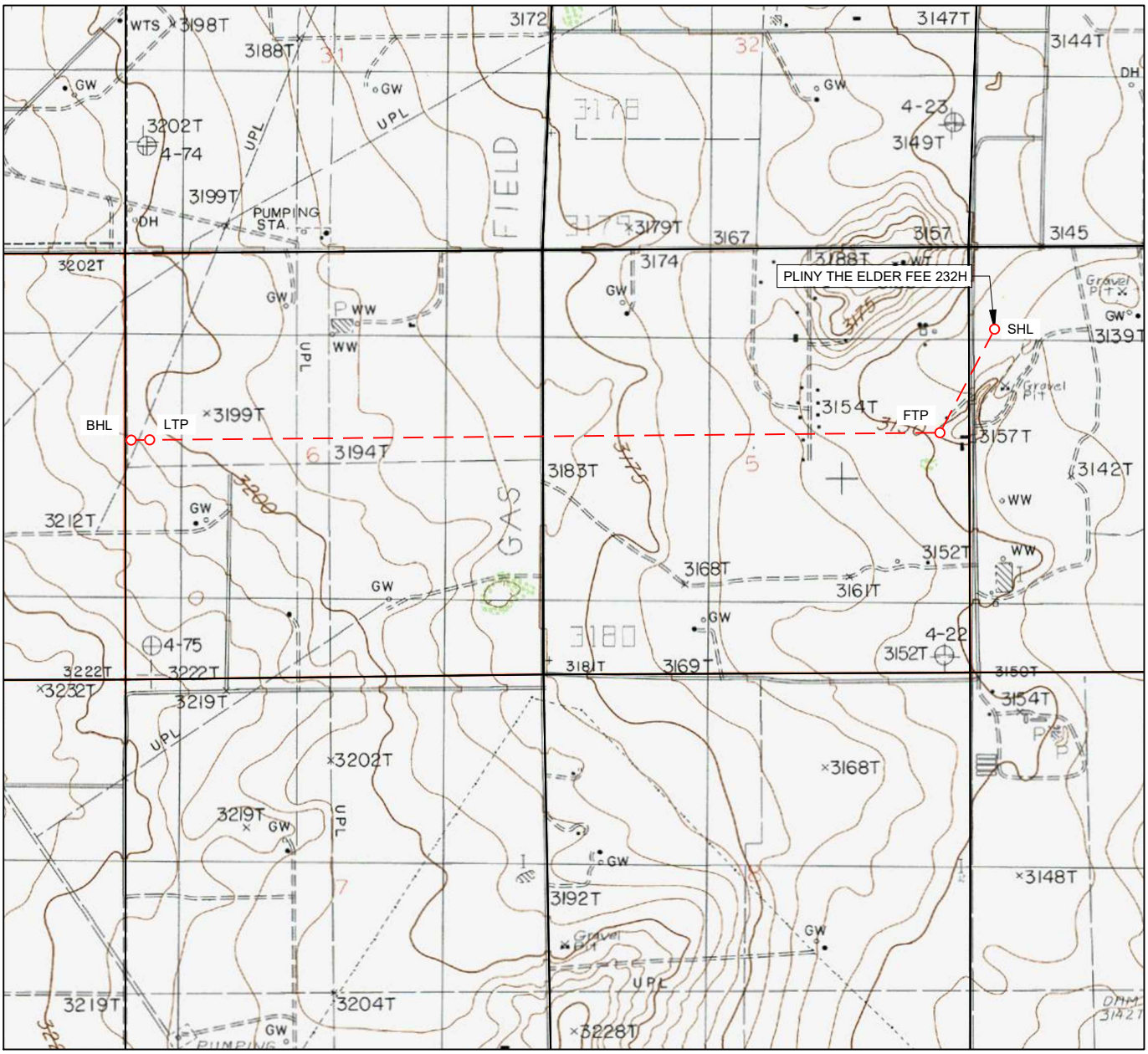
*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.*

08/11/2021
Date of Survey
Signature and Seal of Professional Surveyor

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Certificate Number

# LOCATION & ELEVATION VERIFICATION MAP




TAP ROCK

LEASE NAME & WELL NO.: PLINY THE ELDER FEE 232H

SECTION 4 TWP 23-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM ELEVATION 3148'
DESCRIPTION 1027' FNL & 355' FWL

LATITUDE N 32.3385343 LONGITUDE W 104.2025351

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.

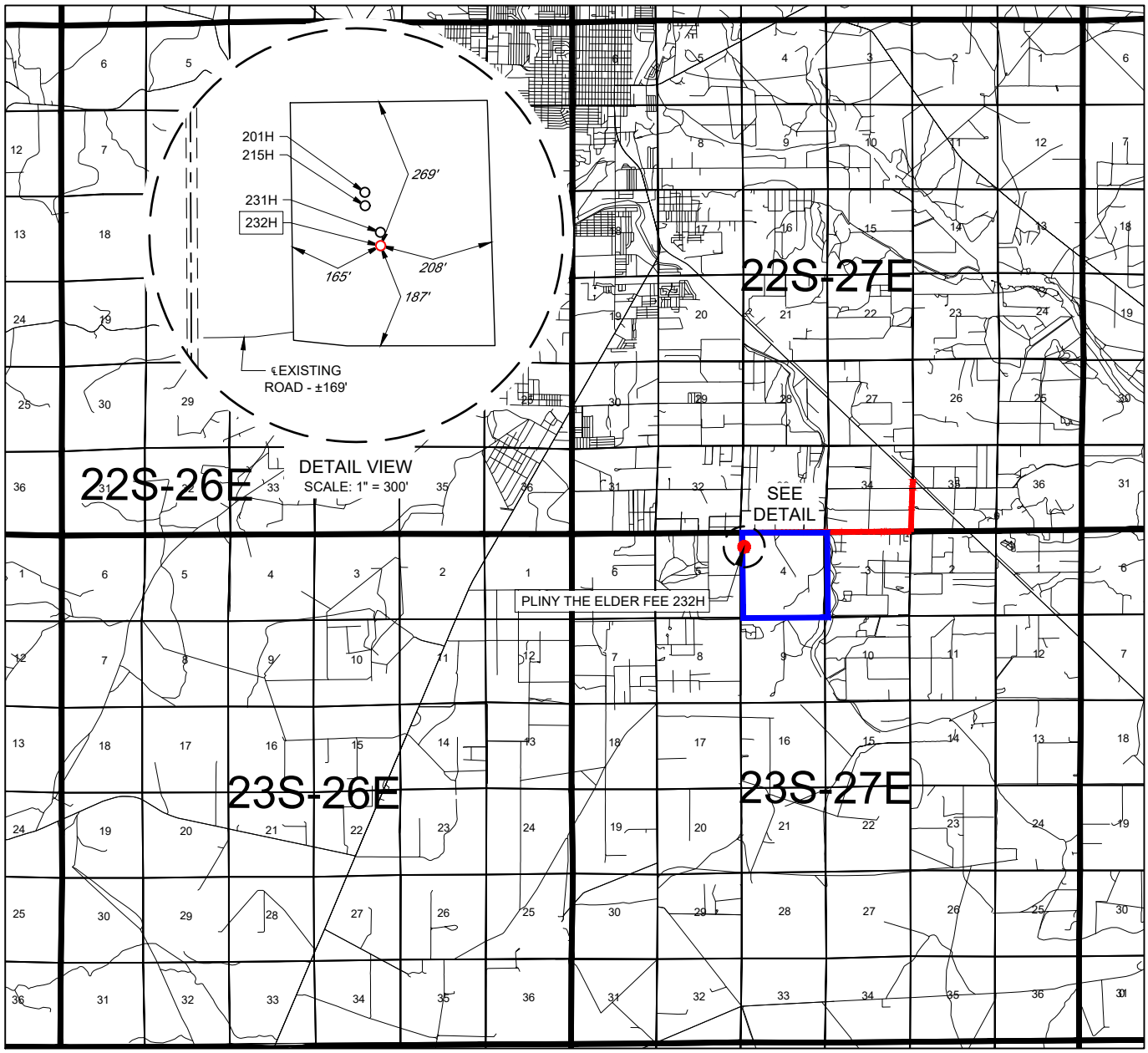
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

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




LEASE NAME & WELL NO.: PLINY THE ELDER FEE 232H

SECTION 4 TWP 23-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 1027' FNL & 355' FWL

DISTANCE & DIRECTION
FROM INT. OF GRANDI RD. & US-285, GO SOUTH ON GRANDI RD. ±0.6 MILES, THENCE WEST (RIGHT) ON E DERRICK RD. ±2.0 MILES, THENCE SOUTH (LEFT) ON S. THOMASON RD. ±1142 FEET, THENCE EAST (LEFT) ±169 FEET TO A POINT ±229 FEET SOUTHWEST OF THE LOCATION.

N

SCALE: 1" = 10000'

0' 5000' 10000'

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.

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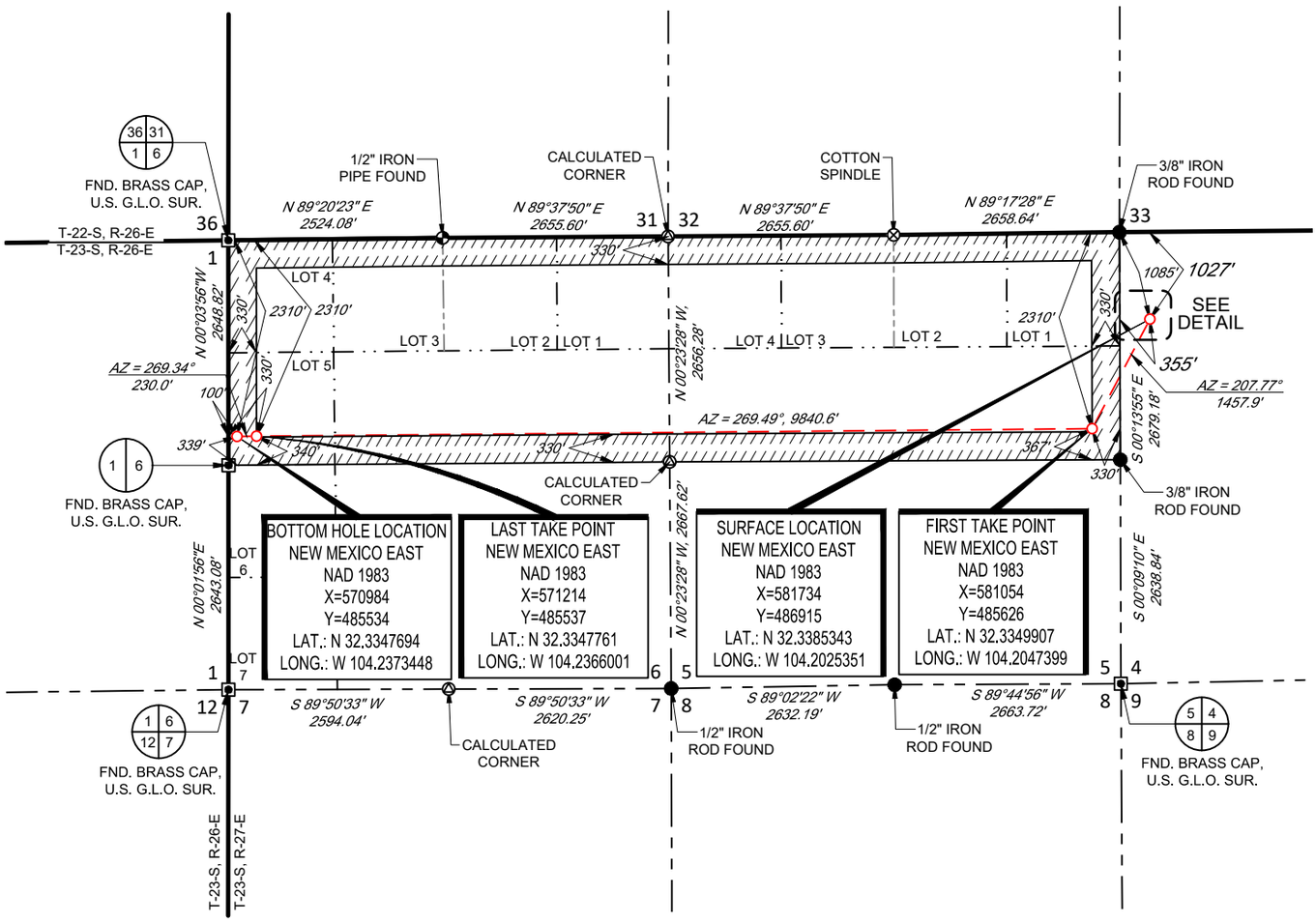
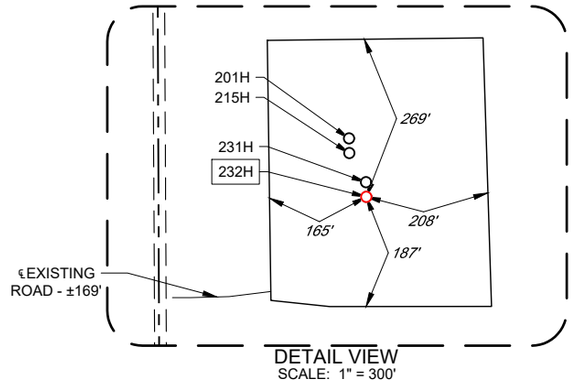
# EXHIBIT 2A

SECTION 4, TOWNSHIP 23-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO




DETAIL VIEW
SCALE: 1" = 300'

N

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

LEASE NAME & WELL NO.: PLINY THE ELDER FEE 232H

SECTION 4 TWP 23-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 1027' FNL & 355' FWL

DISTANCE & DIRECTION
FROM INT. OF GRANDI RD. & US-285, GO SOUTH ON GRANDI RD. ±0.6 MILES, THENCE WEST (RIGHT) ON E DERRICK RD. ±2.0 MILES, THENCE SOUTH (LEFT) ON S. THOMASON RD. ±1142 FEET, THENCE EAST (LEFT) ±169 FEET TO A POINT ±229 FEET SOUTHWEST 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.

RAMON A. DOMINGUEZ NEW MEXICO 24508 PROFESSIONAL SURVEYOR

Ramon A. Dominguez, P.S. No. 24508
September 2, 2021

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
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WWW.TOPOGRAPHIC.COM

# EXHIBIT 2B

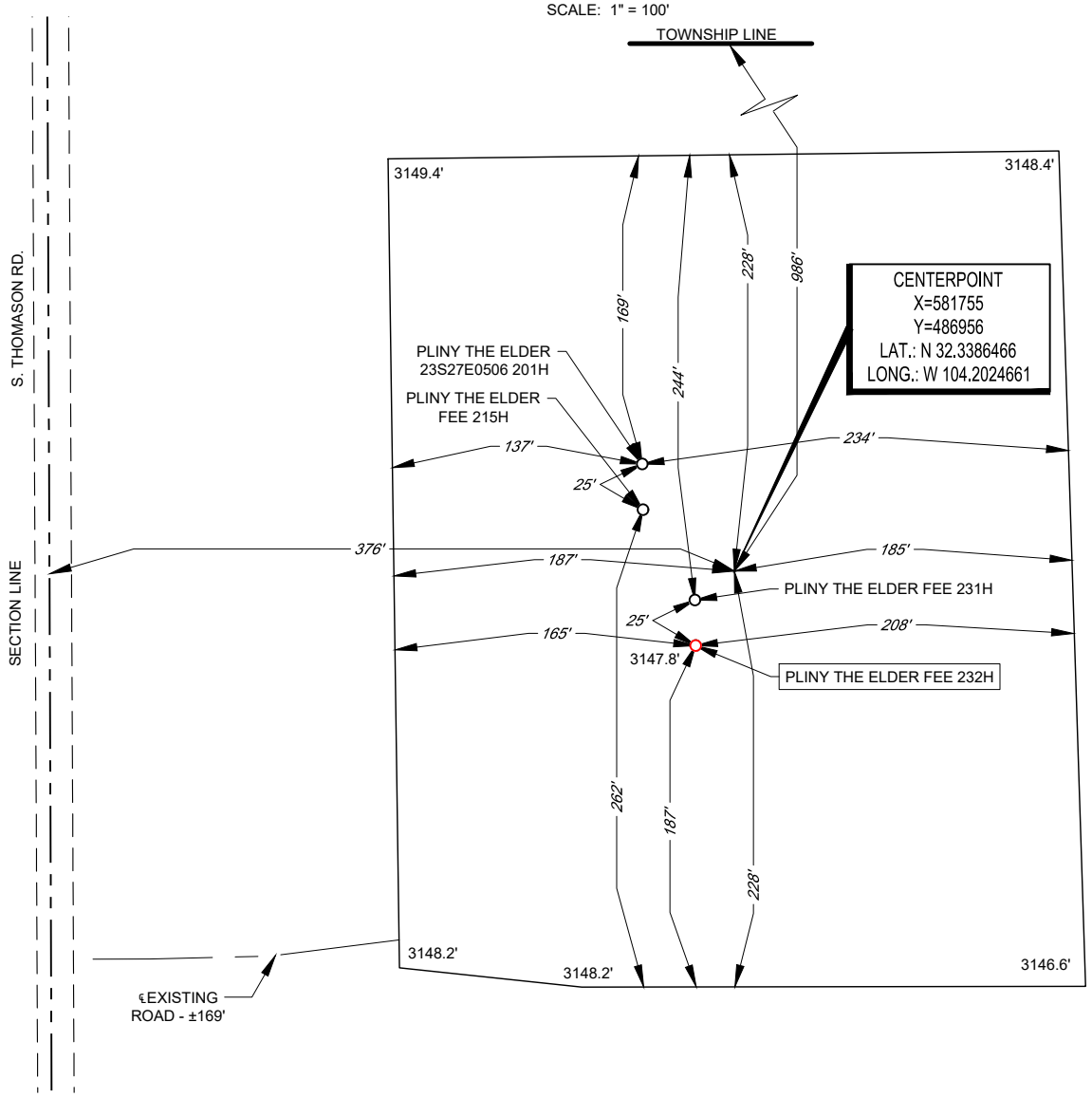
TAP ROCK

SECTION 4, TOWNSHIP 23-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

LEGEND

- SECTION LINE
- TOWNSHIP LINE
- ROAD WAY
- EXISTING ROAD

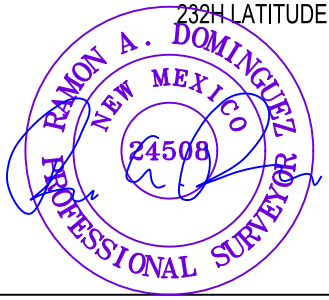
DETAIL VIEW
SCALE: 1" = 100'




LEASE NAME & WELL NO.: PLINY THE ELDER FEE 232H

232H LATITUDE N 32.3385343 232H LONGITUDE W 104.2025351

CENTER OF PAD IS 986' FNL & 376' FWL




Ramon A. Dominguez, P.S. No. 24508

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. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. 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
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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

Form APD Comments

Permit 301613

## PERMIT COMMENTS

| Operator Name and Address: | API Number: |
|---|---|
| TAP ROCK OPERATING, LLC [372043]<br>523 Park Point Drive<br>Golden, CO 80401 | 30-015-48982 |
| | Well: PLINY THE ELDER FEE #232H |

| Created By | Comment | Comment Date |
|---|---|---|
| kpickford | This APD has been rejected due to being an incomplete submission. The “Natural Gas Management Plan” does not have the required check boxes marked. See OCD Notice “Waste Rule C129 NGMP Final Forms” dated May 21, 2021 for further details. | 9/30/2021 |

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

Form APD Conditions

Permit 301613

## PERMIT CONDITIONS OF APPROVAL

| Operator Name and Address: | API Number: |
|---|---|
| TAP ROCK OPERATING, LLC [372043]<br>523 Park Point Drive<br>Golden, CO 80401 | 30-015-48982 |
| | Well: PLINY THE ELDER FEE #232H |

| OCD Reviewer | Condition |
|---|---|
| kpickford | Notify OCD 24 hours prior to casing & cement |
| kpickford | Will require a File As Drilled C-102 and a Directional Survey with the C-104 |
| kpickford | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud |
| kpickford | 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 |
| kpickford | Cement is required to circulate on both surface and intermediate1 strings of casing |
| kpickford | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system |
| kpickford | OCD conditionally approves this permit for drilling and completion activity, subject to the following: |
| kpickford | 1) Operator shall provide, at least 14 days prior to the start of any drilling or completion activities, a notice to OCD with a request for confirmation to proceed from the OCD. |
| kpickford | 2) Prior to the commencement of any drilling or completion activities the operator must first receive written (which includes email) confirmation from the OCD Director or his/her delegate that the OCD has no concerns with such activities proceeding. |
| kpickford | 3) OCD retains the right to require the cessation of any drilling or completion activities associated with this permit due to concerns about potential impacts to ongoing or completed remediation activities at the Carlsbad brine well. |
| kpickford | a. If OCD orders cessation pursuant to this provision, the initial period shall be for 45 days during which time OCD shall share information about the basis for its concern. |
| kpickford | b. If the OCD's concerns cannot be addressed during the initial 45-day period, OCD may extend any such cessation until the concerns requiring the cessation have been addressed to the OCD's satisfaction. |

# Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)**
**(Pliny The Elder Fee) Sec-4_T-23-S_R-27-E**
**Pliny The Elder Fee #232H**

**OWB**

**Plan: Plan #2**

# Standard Planning Report

**25 August, 2021**

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #2 | | |

**Project** Eddy 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** (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E

| | | | | | |
|---|---|---|---|---|---|
| **Site Position:** | | **Northing:** | 485,612.00 usft | **Latitude:** | 32° 20' 5.822 N |
| **From:** | Map | **Easting:** | 581,950.00 usft | **Longitude:** | 104° 12' 6.624 W |
| **Position Uncertainty:** | 0.0 usft | **Slot Radius:** | 13-3/16 " | **Grid Convergence:** | 0.07 ° |

**Well** Pliny The Elder Fee #232H

| | | | | | | |
|---|---|---|---|---|---|---|
| **Well Position** | **+N/-S** | 1,303.0 usft | **Northing:** | 486,915.00 usft | **Latitude:** | 32° 20' 18.719 N |
| | **+E/-W** | -216.0 usft | **Easting:** | 581,734.00 usft | **Longitude:** | 104° 12' 9.123 W |
| **Position Uncertainty** | | 0.0 usft | **Wellhead Elevation:** | | **Ground Level:** | 3,148.0 usft |

**Wellbore** OWB

| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
|---|---|---|---|---|---|
| | IGRF2015 | 08/24/21 | 6.80 | 60.02 | 47,511.40223764 |

**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 | 269.48 |

**Plan Survey Tool Program** **Date** 08/25/21

| | Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
|---|---|---|---|---|---|
| 1 | 0.0 | 20,004.2 | Plan #2 (OWB) | MWD | |
| | | | | OWSG MWD - Standard | |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #2 | | |

**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 | |
| 1,500.0 | 0.00 | 0.00 | 1,500.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,750.2 | 12.50 | 189.72 | 2,740.3 | -133.9 | -22.9 | 1.00 | 1.00 | 0.00 | 189.72 | |
| 7,517.7 | 12.50 | 189.72 | 7,394.7 | -1,151.1 | -197.1 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 8,767.8 | 0.00 | 0.00 | 8,635.0 | -1,285.0 | -220.0 | 1.00 | -1.00 | 0.00 | 180.00 | |
| 9,142.9 | 0.00 | 0.00 | 9,010.0 | -1,285.0 | -220.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 10,047.8 | 90.50 | 269.48 | 9,583.0 | -1,290.3 | -797.9 | 10.00 | 10.00 | -10.00 | 269.48 | |
| 10,738.3 | 90.50 | 269.48 | 9,577.0 | -1,296.6 | -1,488.3 | 0.00 | 0.00 | 0.00 | 0.00 | 1500'VS (Pliny The |
| 10,778.8 | 91.31 | 269.48 | 9,576.4 | -1,296.9 | -1,528.8 | 2.00 | 2.00 | 0.00 | 0.09 | |
| 15,751.5 | 91.31 | 269.48 | 9,463.0 | -1,342.1 | -6,500.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 15,786.0 | 92.00 | 269.48 | 9,462.0 | -1,342.5 | -6,534.5 | 2.00 | 2.00 | -0.01 | -0.23 | |
| 20,004.2 | 92.00 | 269.48 | 9,315.0 | -1,381.0 | -10,750.0 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL (Pliny The El |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **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 |
| 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 |
| 1,100.0 | 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 | 1.00 | 189.72 | 1,600.0 | -0.9 | -0.1 | 0.2 | 1.00 | 1.00 | 0.00 |
| 1,700.0 | 2.00 | 189.72 | 1,700.0 | -3.4 | -0.6 | 0.6 | 1.00 | 1.00 | 0.00 |
| 1,800.0 | 3.00 | 189.72 | 1,799.9 | -7.7 | -1.3 | 1.4 | 1.00 | 1.00 | 0.00 |
| 1,900.0 | 4.00 | 189.72 | 1,899.7 | -13.8 | -2.4 | 2.5 | 1.00 | 1.00 | 0.00 |
| 2,000.0 | 5.00 | 189.72 | 1,999.4 | -21.5 | -3.7 | 3.9 | 1.00 | 1.00 | 0.00 |
| 2,100.0 | 6.00 | 189.72 | 2,098.9 | -30.9 | -5.3 | 5.6 | 1.00 | 1.00 | 0.00 |
| 2,200.0 | 7.00 | 189.72 | 2,198.3 | -42.1 | -7.2 | 7.6 | 1.00 | 1.00 | 0.00 |
| 2,300.0 | 8.00 | 189.72 | 2,297.4 | -55.0 | -9.4 | 9.9 | 1.00 | 1.00 | 0.00 |
| 2,400.0 | 9.00 | 189.72 | 2,396.3 | -69.5 | -11.9 | 12.5 | 1.00 | 1.00 | 0.00 |
| 2,500.0 | 10.00 | 189.72 | 2,494.9 | -85.8 | -14.7 | 15.5 | 1.00 | 1.00 | 0.00 |
| 2,600.0 | 11.00 | 189.72 | 2,593.3 | -103.8 | -17.8 | 18.7 | 1.00 | 1.00 | 0.00 |
| 2,700.0 | 12.00 | 189.72 | 2,691.2 | -123.4 | -21.1 | 22.2 | 1.00 | 1.00 | 0.00 |
| 2,750.2 | 12.50 | 189.72 | 2,740.3 | -133.9 | -22.9 | 24.1 | 1.00 | 1.00 | 0.00 |
| 2,800.0 | 12.50 | 189.72 | 2,788.9 | -144.5 | -24.7 | 26.1 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 12.50 | 189.72 | 2,886.6 | -165.9 | -28.4 | 29.9 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 12.50 | 189.72 | 2,984.2 | -187.2 | -32.1 | 33.7 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 12.50 | 189.72 | 3,081.8 | -208.5 | -35.7 | 37.6 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 12.50 | 189.72 | 3,179.4 | -229.9 | -39.4 | 41.4 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 12.50 | 189.72 | 3,277.1 | -251.2 | -43.0 | 45.3 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 12.50 | 189.72 | 3,374.7 | -272.6 | -46.7 | 49.1 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 12.50 | 189.72 | 3,472.3 | -293.9 | -50.3 | 53.0 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 12.50 | 189.72 | 3,570.0 | -315.2 | -54.0 | 56.8 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 12.50 | 189.72 | 3,667.6 | -336.6 | -57.6 | 60.7 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 12.50 | 189.72 | 3,765.2 | -357.9 | -61.3 | 64.5 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 12.50 | 189.72 | 3,862.8 | -379.2 | -64.9 | 68.4 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 12.50 | 189.72 | 3,960.5 | -400.6 | -68.6 | 72.2 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 12.50 | 189.72 | 4,058.1 | -421.9 | -72.2 | 76.1 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 12.50 | 189.72 | 4,155.7 | -443.2 | -75.9 | 79.9 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 12.50 | 189.72 | 4,253.4 | -464.6 | -79.5 | 83.8 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 12.50 | 189.72 | 4,351.0 | -485.9 | -83.2 | 87.6 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 12.50 | 189.72 | 4,448.6 | -507.2 | -86.8 | 91.4 | 0.00 | 0.00 | 0.00 |
| 4,600.0 | 12.50 | 189.72 | 4,546.2 | -528.6 | -90.5 | 95.3 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 12.50 | 189.72 | 4,643.9 | -549.9 | -94.1 | 99.1 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 12.50 | 189.72 | 4,741.5 | -571.3 | -97.8 | 103.0 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 12.50 | 189.72 | 4,839.1 | -592.6 | -101.5 | 106.8 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 12.50 | 189.72 | 4,936.8 | -613.9 | -105.1 | 110.7 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 12.50 | 189.72 | 5,034.4 | -635.3 | -108.8 | 114.5 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 12.50 | 189.72 | 5,132.0 | -656.6 | -112.4 | 118.4 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 5,300.0 | 12.50 | 189.72 | 5,229.6 | -677.9 | -116.1 | 122.2 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 12.50 | 189.72 | 5,327.3 | -699.3 | -119.7 | 126.1 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 12.50 | 189.72 | 5,424.9 | -720.6 | -123.4 | 129.9 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 12.50 | 189.72 | 5,522.5 | -741.9 | -127.0 | 133.8 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 12.50 | 189.72 | 5,620.2 | -763.3 | -130.7 | 137.6 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 12.50 | 189.72 | 5,717.8 | -784.6 | -134.3 | 141.4 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 12.50 | 189.72 | 5,815.4 | -806.0 | -138.0 | 145.3 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 12.50 | 189.72 | 5,913.1 | -827.3 | -141.6 | 149.1 | 0.00 | 0.00 | 0.00 |
| 6,100.0 | 12.50 | 189.72 | 6,010.7 | -848.6 | -145.3 | 153.0 | 0.00 | 0.00 | 0.00 |
| 6,200.0 | 12.50 | 189.72 | 6,108.3 | -870.0 | -148.9 | 156.8 | 0.00 | 0.00 | 0.00 |
| 6,300.0 | 12.50 | 189.72 | 6,205.9 | -891.3 | -152.6 | 160.7 | 0.00 | 0.00 | 0.00 |
| 6,400.0 | 12.50 | 189.72 | 6,303.6 | -912.6 | -156.2 | 164.5 | 0.00 | 0.00 | 0.00 |
| 6,500.0 | 12.50 | 189.72 | 6,401.2 | -934.0 | -159.9 | 168.4 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 12.50 | 189.72 | 6,498.8 | -955.3 | -163.6 | 172.2 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 12.50 | 189.72 | 6,596.5 | -976.6 | -167.2 | 176.1 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 12.50 | 189.72 | 6,694.1 | -998.0 | -170.9 | 179.9 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 12.50 | 189.72 | 6,791.7 | -1,019.3 | -174.5 | 183.8 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 12.50 | 189.72 | 6,889.3 | -1,040.6 | -178.2 | 187.6 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 12.50 | 189.72 | 6,987.0 | -1,062.0 | -181.8 | 191.4 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 12.50 | 189.72 | 7,084.6 | -1,083.3 | -185.5 | 195.3 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 12.50 | 189.72 | 7,182.2 | -1,104.7 | -189.1 | 199.1 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 12.50 | 189.72 | 7,279.9 | -1,126.0 | -192.8 | 203.0 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 12.50 | 189.72 | 7,377.5 | -1,147.3 | -196.4 | 206.8 | 0.00 | 0.00 | 0.00 |
| 7,517.7 | 12.50 | 189.72 | 7,394.7 | -1,151.1 | -197.1 | 207.5 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 11.68 | 189.72 | 7,475.2 | -1,168.1 | -200.0 | 210.6 | 1.00 | -1.00 | 0.00 |
| 7,700.0 | 10.68 | 189.72 | 7,573.3 | -1,187.2 | -203.3 | 214.0 | 1.00 | -1.00 | 0.00 |
| 7,800.0 | 9.68 | 189.72 | 7,671.8 | -1,204.6 | -206.2 | 217.2 | 1.00 | -1.00 | 0.00 |
| 7,900.0 | 8.68 | 189.72 | 7,770.5 | -1,220.3 | -208.9 | 220.0 | 1.00 | -1.00 | 0.00 |
| 8,000.0 | 7.68 | 189.72 | 7,869.5 | -1,234.4 | -211.3 | 222.5 | 1.00 | -1.00 | 0.00 |
| 8,100.0 | 6.68 | 189.72 | 7,968.7 | -1,246.7 | -213.4 | 224.7 | 1.00 | -1.00 | 0.00 |
| 8,200.0 | 5.68 | 189.72 | 8,068.1 | -1,257.3 | -215.3 | 226.7 | 1.00 | -1.00 | 0.00 |
| 8,300.0 | 4.68 | 189.72 | 8,167.7 | -1,266.2 | -216.8 | 228.3 | 1.00 | -1.00 | 0.00 |
| 8,400.0 | 3.68 | 189.72 | 8,267.4 | -1,273.4 | -218.0 | 229.6 | 1.00 | -1.00 | 0.00 |
| 8,500.0 | 2.68 | 189.72 | 8,367.3 | -1,278.8 | -218.9 | 230.5 | 1.00 | -1.00 | 0.00 |
| 8,600.0 | 1.68 | 189.72 | 8,467.2 | -1,282.6 | -219.6 | 231.2 | 1.00 | -1.00 | 0.00 |
| 8,700.0 | 0.68 | 189.72 | 8,567.2 | -1,284.6 | -219.9 | 231.6 | 1.00 | -1.00 | 0.00 |
| 8,767.8 | 0.00 | 0.00 | 8,635.0 | -1,285.0 | -220.0 | 231.7 | 1.00 | -1.00 | 0.00 |
| 8,800.0 | 0.00 | 0.00 | 8,667.2 | -1,285.0 | -220.0 | 231.7 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 0.00 | 0.00 | 8,767.2 | -1,285.0 | -220.0 | 231.7 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 0.00 | 0.00 | 8,867.2 | -1,285.0 | -220.0 | 231.7 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 0.00 | 0.00 | 8,967.2 | -1,285.0 | -220.0 | 231.7 | 0.00 | 0.00 | 0.00 |
| 9,142.9 | 0.00 | 0.00 | 9,010.0 | -1,285.0 | -220.0 | 231.7 | 0.00 | 0.00 | 0.00 |
| 9,150.0 | 0.71 | 269.48 | 9,017.2 | -1,285.0 | -220.0 | 231.7 | 10.00 | 10.00 | 0.00 |
| 9,200.0 | 5.71 | 269.48 | 9,067.1 | -1,285.0 | -222.8 | 234.5 | 10.00 | 10.00 | 0.00 |
| 9,250.0 | 10.71 | 269.48 | 9,116.5 | -1,285.1 | -230.0 | 241.6 | 10.00 | 10.00 | 0.00 |
| 9,300.0 | 15.71 | 269.48 | 9,165.2 | -1,285.2 | -241.4 | 253.1 | 10.00 | 10.00 | 0.00 |
| 9,350.0 | 20.71 | 269.48 | 9,212.7 | -1,285.3 | -257.0 | 268.7 | 10.00 | 10.00 | 0.00 |
| 9,400.0 | 25.71 | 269.48 | 9,258.6 | -1,285.5 | -276.7 | 288.4 | 10.00 | 10.00 | 0.00 |
| 9,450.0 | 30.71 | 269.48 | 9,302.7 | -1,285.7 | -300.4 | 312.0 | 10.00 | 10.00 | 0.00 |
| 9,500.0 | 35.71 | 269.48 | 9,344.5 | -1,286.0 | -327.7 | 339.4 | 10.00 | 10.00 | 0.00 |
| 9,550.0 | 40.71 | 269.48 | 9,383.8 | -1,286.3 | -358.7 | 370.3 | 10.00 | 10.00 | 0.00 |
| 9,600.0 | 45.71 | 269.48 | 9,420.2 | -1,286.6 | -392.9 | 404.5 | 10.00 | 10.00 | 0.00 |
| 9,650.0 | 50.71 | 269.48 | 9,453.5 | -1,286.9 | -430.2 | 441.8 | 10.00 | 10.00 | 0.00 |
| 9,700.0 | 55.71 | 269.48 | 9,483.4 | -1,287.3 | -470.2 | 481.8 | 10.00 | 10.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 9,750.0 | 60.71 | 269.48 | 9,509.8 | -1,287.7 | -512.7 | 524.3 | 10.00 | 10.00 | 0.00 |
| 9,800.0 | 65.71 | 269.48 | 9,532.3 | -1,288.1 | -557.3 | 569.0 | 10.00 | 10.00 | 0.00 |
| 9,850.0 | 70.71 | 269.48 | 9,550.8 | -1,288.5 | -603.7 | 615.4 | 10.00 | 10.00 | 0.00 |
| 9,900.0 | 75.71 | 269.48 | 9,565.3 | -1,288.9 | -651.5 | 663.2 | 10.00 | 10.00 | 0.00 |
| 9,950.0 | 80.71 | 269.48 | 9,575.5 | -1,289.4 | -700.5 | 712.1 | 10.00 | 10.00 | 0.00 |
| 10,000.0 | 85.71 | 269.48 | 9,581.4 | -1,289.8 | -750.1 | 761.8 | 10.00 | 10.00 | 0.00 |
| 10,047.8 | 90.50 | 269.48 | 9,583.0 | -1,290.3 | -797.9 | 809.6 | 10.00 | 10.00 | 0.00 |
| 10,100.0 | 90.50 | 269.48 | 9,582.5 | -1,290.7 | -850.1 | 861.7 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.50 | 269.48 | 9,581.7 | -1,291.7 | -950.1 | 961.7 | 0.00 | 0.00 | 0.00 |
| 10,300.0 | 90.50 | 269.48 | 9,580.8 | -1,292.6 | -1,050.0 | 1,061.7 | 0.00 | 0.00 | 0.00 |
| 10,400.0 | 90.50 | 269.48 | 9,579.9 | -1,293.5 | -1,150.0 | 1,161.7 | 0.00 | 0.00 | 0.00 |
| 10,500.0 | 90.50 | 269.48 | 9,579.1 | -1,294.4 | -1,250.0 | 1,261.7 | 0.00 | 0.00 | 0.00 |
| 10,600.0 | 90.50 | 269.48 | 9,578.2 | -1,295.3 | -1,350.0 | 1,361.7 | 0.00 | 0.00 | 0.00 |
| 10,700.0 | 90.50 | 269.48 | 9,577.3 | -1,296.2 | -1,450.0 | 1,461.7 | 0.00 | 0.00 | 0.00 |
| 10,738.3 | 90.50 | 269.48 | 9,577.0 | -1,296.6 | -1,488.3 | 1,500.0 | 0.00 | 0.00 | 0.00 |
| 10,778.8 | 91.31 | 269.48 | 9,576.4 | -1,296.9 | -1,528.8 | 1,540.5 | 2.00 | 2.00 | 0.00 |
| 10,800.0 | 91.31 | 269.48 | 9,575.9 | -1,297.1 | -1,550.0 | 1,561.7 | 0.00 | 0.00 | 0.00 |
| 10,900.0 | 91.31 | 269.48 | 9,573.6 | -1,298.0 | -1,650.0 | 1,661.7 | 0.00 | 0.00 | 0.00 |
| 11,000.0 | 91.31 | 269.48 | 9,571.3 | -1,298.9 | -1,749.9 | 1,761.7 | 0.00 | 0.00 | 0.00 |
| 11,100.0 | 91.31 | 269.48 | 9,569.0 | -1,299.9 | -1,849.9 | 1,861.6 | 0.00 | 0.00 | 0.00 |
| 11,200.0 | 91.31 | 269.48 | 9,566.8 | -1,300.8 | -1,949.9 | 1,961.6 | 0.00 | 0.00 | 0.00 |
| 11,300.0 | 91.31 | 269.48 | 9,564.5 | -1,301.7 | -2,049.8 | 2,061.6 | 0.00 | 0.00 | 0.00 |
| 11,400.0 | 91.31 | 269.48 | 9,562.2 | -1,302.6 | -2,149.8 | 2,161.5 | 0.00 | 0.00 | 0.00 |
| 11,500.0 | 91.31 | 269.48 | 9,559.9 | -1,303.5 | -2,249.8 | 2,261.5 | 0.00 | 0.00 | 0.00 |
| 11,600.0 | 91.31 | 269.48 | 9,557.6 | -1,304.4 | -2,349.8 | 2,361.5 | 0.00 | 0.00 | 0.00 |
| 11,700.0 | 91.31 | 269.48 | 9,555.4 | -1,305.3 | -2,449.7 | 2,461.5 | 0.00 | 0.00 | 0.00 |
| 11,800.0 | 91.31 | 269.48 | 9,553.1 | -1,306.2 | -2,549.7 | 2,561.4 | 0.00 | 0.00 | 0.00 |
| 11,900.0 | 91.31 | 269.48 | 9,550.8 | -1,307.1 | -2,649.7 | 2,661.4 | 0.00 | 0.00 | 0.00 |
| 12,000.0 | 91.31 | 269.48 | 9,548.5 | -1,308.0 | -2,749.6 | 2,761.4 | 0.00 | 0.00 | 0.00 |
| 12,100.0 | 91.31 | 269.48 | 9,546.2 | -1,308.9 | -2,849.6 | 2,861.4 | 0.00 | 0.00 | 0.00 |
| 12,200.0 | 91.31 | 269.48 | 9,544.0 | -1,309.9 | -2,949.6 | 2,961.3 | 0.00 | 0.00 | 0.00 |
| 12,300.0 | 91.31 | 269.48 | 9,541.7 | -1,310.8 | -3,049.5 | 3,061.3 | 0.00 | 0.00 | 0.00 |
| 12,400.0 | 91.31 | 269.48 | 9,539.4 | -1,311.7 | -3,149.5 | 3,161.3 | 0.00 | 0.00 | 0.00 |
| 12,500.0 | 91.31 | 269.48 | 9,537.1 | -1,312.6 | -3,249.5 | 3,261.3 | 0.00 | 0.00 | 0.00 |
| 12,600.0 | 91.31 | 269.48 | 9,534.8 | -1,313.5 | -3,349.5 | 3,361.2 | 0.00 | 0.00 | 0.00 |
| 12,700.0 | 91.31 | 269.48 | 9,532.6 | -1,314.4 | -3,449.4 | 3,461.2 | 0.00 | 0.00 | 0.00 |
| 12,800.0 | 91.31 | 269.48 | 9,530.3 | -1,315.3 | -3,549.4 | 3,561.2 | 0.00 | 0.00 | 0.00 |
| 12,900.0 | 91.31 | 269.48 | 9,528.0 | -1,316.2 | -3,649.4 | 3,661.2 | 0.00 | 0.00 | 0.00 |
| 13,000.0 | 91.31 | 269.48 | 9,525.7 | -1,317.1 | -3,749.3 | 3,761.1 | 0.00 | 0.00 | 0.00 |
| 13,100.0 | 91.31 | 269.48 | 9,523.4 | -1,318.0 | -3,849.3 | 3,861.1 | 0.00 | 0.00 | 0.00 |
| 13,200.0 | 91.31 | 269.48 | 9,521.2 | -1,318.9 | -3,949.3 | 3,961.1 | 0.00 | 0.00 | 0.00 |
| 13,300.0 | 91.31 | 269.48 | 9,518.9 | -1,319.9 | -4,049.2 | 4,061.1 | 0.00 | 0.00 | 0.00 |
| 13,400.0 | 91.31 | 269.48 | 9,516.6 | -1,320.8 | -4,149.2 | 4,161.0 | 0.00 | 0.00 | 0.00 |
| 13,500.0 | 91.31 | 269.48 | 9,514.3 | -1,321.7 | -4,249.2 | 4,261.0 | 0.00 | 0.00 | 0.00 |
| 13,600.0 | 91.31 | 269.48 | 9,512.0 | -1,322.6 | -4,349.2 | 4,361.0 | 0.00 | 0.00 | 0.00 |
| 13,700.0 | 91.31 | 269.48 | 9,509.8 | -1,323.5 | -4,449.1 | 4,461.0 | 0.00 | 0.00 | 0.00 |
| 13,800.0 | 91.31 | 269.48 | 9,507.5 | -1,324.4 | -4,549.1 | 4,560.9 | 0.00 | 0.00 | 0.00 |
| 13,900.0 | 91.31 | 269.48 | 9,505.2 | -1,325.3 | -4,649.1 | 4,660.9 | 0.00 | 0.00 | 0.00 |
| 14,000.0 | 91.31 | 269.48 | 9,502.9 | -1,326.2 | -4,749.0 | 4,760.9 | 0.00 | 0.00 | 0.00 |
| 14,100.0 | 91.31 | 269.48 | 9,500.6 | -1,327.1 | -4,849.0 | 4,860.8 | 0.00 | 0.00 | 0.00 |
| 14,200.0 | 91.31 | 269.48 | 9,498.4 | -1,328.0 | -4,949.0 | 4,960.8 | 0.00 | 0.00 | 0.00 |
| 14,300.0 | 91.31 | 269.48 | 9,496.1 | -1,328.9 | -5,048.9 | 5,060.8 | 0.00 | 0.00 | 0.00 |
| 14,400.0 | 91.31 | 269.48 | 9,493.8 | -1,329.9 | -5,148.9 | 5,160.8 | 0.00 | 0.00 | 0.00 |
| 14,500.0 | 91.31 | 269.48 | 9,491.5 | -1,330.8 | -5,248.9 | 5,260.7 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 14,600.0 | 91.31 | 269.48 | 9,489.3 | -1,331.7 | -5,348.9 | 5,360.7 | 0.00 | 0.00 | 0.00 |
| 14,700.0 | 91.31 | 269.48 | 9,487.0 | -1,332.6 | -5,448.8 | 5,460.7 | 0.00 | 0.00 | 0.00 |
| 14,800.0 | 91.31 | 269.48 | 9,484.7 | -1,333.5 | -5,548.8 | 5,560.7 | 0.00 | 0.00 | 0.00 |
| 14,900.0 | 91.31 | 269.48 | 9,482.4 | -1,334.4 | -5,648.8 | 5,660.6 | 0.00 | 0.00 | 0.00 |
| 15,000.0 | 91.31 | 269.48 | 9,480.1 | -1,335.3 | -5,748.7 | 5,760.6 | 0.00 | 0.00 | 0.00 |
| 15,100.0 | 91.31 | 269.48 | 9,477.9 | -1,336.2 | -5,848.7 | 5,860.6 | 0.00 | 0.00 | 0.00 |
| 15,200.0 | 91.31 | 269.48 | 9,475.6 | -1,337.1 | -5,948.7 | 5,960.6 | 0.00 | 0.00 | 0.00 |
| 15,300.0 | 91.31 | 269.48 | 9,473.3 | -1,338.0 | -6,048.6 | 6,060.5 | 0.00 | 0.00 | 0.00 |
| 15,400.0 | 91.31 | 269.48 | 9,471.0 | -1,338.9 | -6,148.6 | 6,160.5 | 0.00 | 0.00 | 0.00 |
| 15,500.0 | 91.31 | 269.48 | 9,468.7 | -1,339.9 | -6,248.6 | 6,260.5 | 0.00 | 0.00 | 0.00 |
| 15,600.0 | 91.31 | 269.48 | 9,466.5 | -1,340.8 | -6,348.6 | 6,360.5 | 0.00 | 0.00 | 0.00 |
| 15,700.0 | 91.31 | 269.48 | 9,464.2 | -1,341.7 | -6,448.5 | 6,460.4 | 0.00 | 0.00 | 0.00 |
| 15,751.5 | 91.31 | 269.48 | 9,463.0 | -1,342.1 | -6,500.0 | 6,511.9 | 0.00 | 0.00 | 0.00 |
| 15,786.0 | 92.00 | 269.48 | 9,462.0 | -1,342.5 | -6,534.5 | 6,546.4 | 2.00 | 2.00 | -0.01 |
| 15,800.0 | 92.00 | 269.48 | 9,461.5 | -1,342.6 | -6,548.5 | 6,560.4 | 0.00 | 0.00 | 0.00 |
| 15,900.0 | 92.00 | 269.48 | 9,458.0 | -1,343.5 | -6,648.4 | 6,660.3 | 0.00 | 0.00 | 0.00 |
| 16,000.0 | 92.00 | 269.48 | 9,454.5 | -1,344.4 | -6,748.4 | 6,760.3 | 0.00 | 0.00 | 0.00 |
| 16,100.0 | 92.00 | 269.48 | 9,451.1 | -1,345.3 | -6,848.3 | 6,860.2 | 0.00 | 0.00 | 0.00 |
| 16,200.0 | 92.00 | 269.48 | 9,447.6 | -1,346.2 | -6,948.2 | 6,960.2 | 0.00 | 0.00 | 0.00 |
| 16,300.0 | 92.00 | 269.48 | 9,444.1 | -1,347.2 | -7,048.2 | 7,060.1 | 0.00 | 0.00 | 0.00 |
| 16,400.0 | 92.00 | 269.48 | 9,440.6 | -1,348.1 | -7,148.1 | 7,160.0 | 0.00 | 0.00 | 0.00 |
| 16,500.0 | 92.00 | 269.48 | 9,437.1 | -1,349.0 | -7,248.0 | 7,260.0 | 0.00 | 0.00 | 0.00 |
| 16,600.0 | 92.00 | 269.48 | 9,433.6 | -1,349.9 | -7,348.0 | 7,359.9 | 0.00 | 0.00 | 0.00 |
| 16,700.0 | 92.00 | 269.48 | 9,430.2 | -1,350.8 | -7,447.9 | 7,459.8 | 0.00 | 0.00 | 0.00 |
| 16,800.0 | 92.00 | 269.48 | 9,426.7 | -1,351.7 | -7,547.8 | 7,559.8 | 0.00 | 0.00 | 0.00 |
| 16,900.0 | 92.00 | 269.48 | 9,423.2 | -1,352.6 | -7,647.8 | 7,659.7 | 0.00 | 0.00 | 0.00 |
| 17,000.0 | 92.00 | 269.48 | 9,419.7 | -1,353.6 | -7,747.7 | 7,759.7 | 0.00 | 0.00 | 0.00 |
| 17,100.0 | 92.00 | 269.48 | 9,416.2 | -1,354.5 | -7,847.6 | 7,859.6 | 0.00 | 0.00 | 0.00 |
| 17,200.0 | 92.00 | 269.48 | 9,412.7 | -1,355.4 | -7,947.6 | 7,959.5 | 0.00 | 0.00 | 0.00 |
| 17,300.0 | 92.00 | 269.48 | 9,409.2 | -1,356.3 | -8,047.5 | 8,059.5 | 0.00 | 0.00 | 0.00 |
| 17,400.0 | 92.00 | 269.48 | 9,405.8 | -1,357.2 | -8,147.4 | 8,159.4 | 0.00 | 0.00 | 0.00 |
| 17,500.0 | 92.00 | 269.48 | 9,402.3 | -1,358.1 | -8,247.4 | 8,259.4 | 0.00 | 0.00 | 0.00 |
| 17,600.0 | 92.00 | 269.48 | 9,398.8 | -1,359.0 | -8,347.3 | 8,359.3 | 0.00 | 0.00 | 0.00 |
| 17,700.0 | 92.00 | 269.48 | 9,395.3 | -1,359.9 | -8,447.2 | 8,459.2 | 0.00 | 0.00 | 0.00 |
| 17,800.0 | 92.00 | 269.48 | 9,391.8 | -1,360.9 | -8,547.2 | 8,559.2 | 0.00 | 0.00 | 0.00 |
| 17,900.0 | 92.00 | 269.48 | 9,388.3 | -1,361.8 | -8,647.1 | 8,659.1 | 0.00 | 0.00 | 0.00 |
| 18,000.0 | 92.00 | 269.48 | 9,384.8 | -1,362.7 | -8,747.1 | 8,759.1 | 0.00 | 0.00 | 0.00 |
| 18,100.0 | 92.00 | 269.48 | 9,381.4 | -1,363.6 | -8,847.0 | 8,859.0 | 0.00 | 0.00 | 0.00 |
| 18,200.0 | 92.00 | 269.48 | 9,377.9 | -1,364.5 | -8,946.9 | 8,958.9 | 0.00 | 0.00 | 0.00 |
| 18,300.0 | 92.00 | 269.48 | 9,374.4 | -1,365.4 | -9,046.9 | 9,058.9 | 0.00 | 0.00 | 0.00 |
| 18,400.0 | 92.00 | 269.48 | 9,370.9 | -1,366.3 | -9,146.8 | 9,158.8 | 0.00 | 0.00 | 0.00 |
| 18,500.0 | 92.00 | 269.48 | 9,367.4 | -1,367.3 | -9,246.7 | 9,258.8 | 0.00 | 0.00 | 0.00 |
| 18,600.0 | 92.00 | 269.48 | 9,363.9 | -1,368.2 | -9,346.7 | 9,358.7 | 0.00 | 0.00 | 0.00 |
| 18,700.0 | 92.00 | 269.48 | 9,360.5 | -1,369.1 | -9,446.6 | 9,458.6 | 0.00 | 0.00 | 0.00 |
| 18,800.0 | 92.00 | 269.48 | 9,357.0 | -1,370.0 | -9,546.5 | 9,558.6 | 0.00 | 0.00 | 0.00 |
| 18,900.0 | 92.00 | 269.48 | 9,353.5 | -1,370.9 | -9,646.5 | 9,658.5 | 0.00 | 0.00 | 0.00 |
| 19,000.0 | 92.00 | 269.48 | 9,350.0 | -1,371.8 | -9,746.4 | 9,758.5 | 0.00 | 0.00 | 0.00 |
| 19,100.0 | 92.00 | 269.48 | 9,346.5 | -1,372.7 | -9,846.3 | 9,858.4 | 0.00 | 0.00 | 0.00 |
| 19,200.0 | 92.00 | 269.48 | 9,343.0 | -1,373.7 | -9,946.3 | 9,958.3 | 0.00 | 0.00 | 0.00 |
| 19,300.0 | 92.00 | 269.48 | 9,339.5 | -1,374.6 | -10,046.2 | 10,058.3 | 0.00 | 0.00 | 0.00 |
| 19,400.0 | 92.00 | 269.48 | 9,336.1 | -1,375.5 | -10,146.1 | 10,158.2 | 0.00 | 0.00 | 0.00 |
| 19,500.0 | 92.00 | 269.48 | 9,332.6 | -1,376.4 | -10,246.1 | 10,258.1 | 0.00 | 0.00 | 0.00 |
| 19,600.0 | 92.00 | 269.48 | 9,329.1 | -1,377.3 | -10,346.0 | 10,358.1 | 0.00 | 0.00 | 0.00 |
| 19,700.0 | 92.00 | 269.48 | 9,325.6 | -1,378.2 | -10,445.9 | 10,458.0 | 0.00 | 0.00 | 0.00 |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **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) |
|---|---|---|---|---|---|---|---|---|---|
| 19,800.0 | 92.00 | 269.48 | 9,322.1 | -1,379.1 | -10,545.9 | 10,558.0 | 0.00 | 0.00 | 0.00 |
| 19,900.0 | 92.00 | 269.48 | 9,318.6 | -1,380.0 | -10,645.8 | 10,657.9 | 0.00 | 0.00 | 0.00 |
| 20,004.2 | 92.00 | 269.48 | 9,315.0 | -1,381.0 | -10,750.0 | 10,762.1 | 0.00 | 0.00 | 0.00 |

**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 |
|---|---|---|---|---|---|---|---|---|---|
| LTP (Pliny The Elder I<br>- plan misses target center by 8.1usft at 19774.4usft MD (9323.0 TVD, -1378.9 N, -10520.3 E)<br>- Point | 0.00 | 0.00 | 9,315.0 | -1,378.0 | -10,520.0 | 485,537.00 | 571,214.00 | 32° 20' 5.193 N | 104° 14' 11.763 W |
| PBHL (Pliny The Elde<br>- plan hits target center<br>- Rectangle (sides W100.0 H4,252.7 D30.0) | -2.00 | 269.48 | 9,315.0 | -1,381.0 | -10,750.0 | 485,534.00 | 570,984.00 | 32° 20' 5.165 N | 104° 14' 14.443 W |
| 6500'VS (Pliny The El<br>- plan misses target center by 0.3usft at 15739.6usft MD (9463.3 TVD, -1342.0 N, -6488.1 E)<br>- Rectangle (sides W100.0 H5,013.2 D30.0) | -1.30 | 269.48 | 9,463.0 | -1,342.1 | -6,488.1 | 485,572.86 | 575,245.90 | 32° 20' 5.509 N | 104° 13' 24.767 W |
| 1500'VS (Pliny The El<br>- plan hits target center<br>- Rectangle (sides W100.0 H808.0 D30.0) | -0.50 | 269.48 | 9,577.0 | -1,296.6 | -1,488.3 | 485,618.44 | 580,245.70 | 32° 20' 5.906 N | 104° 12' 26.489 W |
| FTP (Pliny The Elder I<br>- plan misses target center by 8.1usft at 9930.9usft MD (9572.1 TVD, -1289.2 N, -681.7 E)<br>- Point | 0.00 | 0.00 | 9,580.0 | -1,289.0 | -680.0 | 485,626.00 | 581,054.00 | 32° 20' 5.971 N | 104° 12' 17.067 W |

# Intrepid
## Planning Report

| | | | |
|---|---|---|---|
| **Database:** | EDM 5000.15 Single User Db | **Local Co-ordinate Reference:** | Well Pliny The Elder Fee #232H |
| **Company:** | Tap Rock Resources, LLC | **TVD Reference:** | KB @ 3174.0usft |
| **Project:** | Eddy County, NM (NAD 83 NME) | **MD Reference:** | KB @ 3174.0usft |
| **Site:** | (Pliny The Elder Fee) Sec-4_T-23-S_R-27-E | **North Reference:** | Grid |
| **Well:** | Pliny The Elder Fee #232H | **Survey Calculation Method:** | Minimum Curvature |
| **Wellbore:** | OWB | | |
| **Design:** | Plan #2 | | |

**Formations**

| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---|---|---|---|---|---|
| 35.0 | 35.0 | Rustler Anhydrite | | | |
| 295.0 | 295.0 | Top Salt | | | |
| 1,685.0 | 1,685.0 | Base Salt | | | |
| 1,925.4 | 1,925.0 | Delaware Mountain Gp | | | |
| 1,960.5 | 1,960.0 | Lamar | | | |
| 2,076.0 | 2,075.0 | Bell Canyon | | | |
| 2,888.2 | 2,875.0 | Cherry Canyon | | | |
| 3,973.9 | 3,935.0 | Brushy Canyon | | | |
| 5,515.5 | 5,440.0 | Bone Spring Lime | | | |
| 5,607.6 | 5,530.0 | Upper Avalon | | | |
| 5,827.9 | 5,745.0 | Middle Avalon | | | |
| 6,273.4 | 6,180.0 | Lower Avalon | | | |
| 6,555.1 | 6,455.0 | 1st Bone Spring Sand | | | |
| 6,841.9 | 6,735.0 | 2nd Bone Spring Carb | | | |
| 7,108.2 | 6,995.0 | 2nd Bone Spring Sand | | | |
| 7,282.4 | 7,165.0 | 3rd Bone Spring Carb | | | |
| 8,647.8 | 8,515.0 | 3rd Bone Spring Sand | | | |
| 8,932.8 | 8,800.0 | 3rd BS W Sand | | | |
| 8,997.8 | 8,865.0 | Wolfcamp A X Sand | | | |
| 9,067.8 | 8,935.0 | Wolfcamp A Y Sand | | | |
| 9,152.8 | 9,020.0 | Wolfcamp A Lower | | | |
| 9,305.0 | 9,170.0 | Wolfcamp B | | | |
| 9,585.6 | 9,410.0 | Wolfcamp B1 | | | |

**Plan Annotations**

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates +N/-S (usft) | Local Coordinates +E/-W (usft) | Comment |
|---|---|---|---|---|
| 1,500.0 | 1,500.0 | 0.0 | 0.0 | NUDE - Build 1.00 |
| 2,750.2 | 2,740.3 | -133.9 | -22.9 | HOLD - 4767.5 at 2750.2 MD |
| 7,517.7 | 7,394.7 | -1,151.1 | -197.1 | DROP - -1.00 |
| 8,767.8 | 8,635.0 | -1,285.0 | -220.0 | HOLD - 375.0 at 8767.8 MD |
| 9,142.9 | 9,010.0 | -1,285.0 | -220.0 | KOP - DLS 10.00 TFO 269.48 |
| 10,047.8 | 9,583.0 | -1,290.3 | -797.9 | EOC - 690.5 hold at 10047.8 MD |
| 10,738.3 | 9,577.0 | -1,296.6 | -1,488.3 | Start DLS 2.00 TFO 0.09 |
| 10,778.8 | 9,576.4 | -1,296.9 | -1,528.8 | Start 4972.7 hold at 10778.8 MD |
| 15,751.5 | 9,463.0 | -1,342.1 | -6,500.0 | Start DLS 2.00 TFO -0.23 |
| 15,786.0 | 9,462.0 | -1,342.5 | -6,534.5 | Start 4218.2 hold at 15786.0 MD |
| 20,004.2 | 9,315.0 | -1,381.0 | -10,750.0 | TD at 20004.2 |

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

# NATURAL GAS MANAGEMENT PLAN

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

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

**I. Operator:** _____Tap Rock Operating LLC_____ **OGRID:** _____372043_____ **Date:** _08_/_26_/2021_

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | ULSTR | Footages | Anticipated Oil BBL/D | Anticipated Gas MCF/D | Anticipated Produced Water |
|---|---|---|---|---|---|---|
| Pliny the Elder Fee #232H | | Sec 4, T23S R 27E | 1027 FNL, 355 FWL | 1002 | 6932 | 5228 |
| | | | | | | |

**IV. Central Delivery Point Name:** ___Pliny the Elder CDP_____ [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name | API | Spud Date | TD Reached Date | Completion Commencement Date | Initial Flow Back Date | First Production Date |
|---|---|---|---|---|---|---|
| Pliny the Elder Fee #232H | | 10/1/21 | 10/12/21 | 11/4/21 | 11/26/21 | 11/26/21 |
| | | | | | | |

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

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

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

# Section 2 – Enhanced Plan

**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

| Well | API | Anticipated Average Natural Gas Rate MCF/D | Anticipated Volume of Natural Gas for the First Year MCF |
|---|---|---|---|
| | | | |
| | | | |

**X. Natural Gas Gathering System (NGGS):**

| Operator | System | ULSTR of Tie-in | Anticipated Gathering Start Date | Available Maximum Daily Capacity of System Segment Tie-in |
|---|---|---|---|---|
| | | | | |
| | | | | |

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

## Section 3 - Certifications

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

## Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

**(a)** Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

**(b)** Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

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

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| Signature:  |
| Printed Name: Bill Ramsey |
| Title: Regulatory Analyst |
| E-mail Address: bramsey@taprk.com |
| Date: 9/30/2021 |
| Phone: 720-238-2787 |

| **OIL CONSERVATION DIVISION**<br>**(Only applicable when submitted as a standalone form)** |
|---|
| Approved By: |
| Title: |
| Approval Date: |
| Conditions of Approval: |

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

Each surface facility design includes the following process equipment: 3-phase separators (1 separator per well), a sales gas scrubber, one or two 3-phase heater treaters, a vapor recovery tower (VRT), a VRU compressor, multiple water and oil tanks, as well as flare knockouts (HP & LP), and flares (HP & LP). All process vessels will be sized to separate oil, water, gas based upon typical/historical & predicted well performance. Each process vessel will be fitted with an appropriately sized PSV as per ASME code requirements to mitigate vessel rupture and loss of containment. Additionally, the process vessels will be fitted with pressure transmitters tied to the facility control system which will allow operations to monitor pressures and when necessary, shut-in the facility to avoid vessel over-pressure and the potential vent of natural gas. Natural gas will preferentially be sold to pipeline, and only during upset/emergency conditions will gas be directed to the HP flare system. Flash gas from both the 3-phase heater treater and the VRT will be recompressed using a VRU compressor and this gas will also preferentially be directed to the gas sales pipeline. Oil tanks & water tanks will be fitted with 16 oz thief hatches as well as PVRVs to protect the tanks from rupture/collapse. Additionally, the tank vapor outlets and tank vapor capture system will be sized to keep tank pressures below 12 oz. The tank vapor capture system will include a tank vapor blower & knockout as well as a low-pressure flare and knockout. Tank vapors will preferentially be directed to the VRU and the sales gas pipeline. Only during process upsets/emergency conditions will tank vapors be directed to the LP flare system.

VII. **Operational Practices:** Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC. ← See attached reg for requirements.

- During drilling operations- Gas meters will be installed at the shakers and Volume Totalizers will be installed on the pits. In the event that elevated gas levels, or a pit gain are observed, returns will be diverted to a gas buster. Gas coming off the gas buster will be combusted at the flare stack. A 10’ or taller flare will be located at least 100’ from the SHL.

- During completions operations, including stimulation and frac plug drill out operations, hydrocarbon production to surface is minimized. When gas production does occur, gas will be combusted at a flare stack. A 10’ or taller flare will be located at least 100’ from the SHL.

- During production operations, all process vessels (separators, heater treaters, VRTs, Tanks) will recompress (where necessary) and route gas outlets into the natural gas gathering pipeline. Gas will preferentially be routed to natural gas gathering pipeline and the flare system will be used only during emergency, malfunction, or if the gas does not meet pipeline specifications. In the event of flaring off-specification gas, operations will pull gas samples twice a week and will also route gas back to pipeline as soon as the gas meets specification. Exceptions to this will include only those qualified exceptions per the regulation 19.15.27.8 Subsection D.

- To comply with state performance standards, separation and storage equipment will be designed to handle the maximum anticipated throughput and pressure to minimize waste and reduce the likelihood of venting gas to atmosphere. Additionally, each storage atmospheric tank (Oil & Water) will be fitted with a level transmitter to facilitate gauging of the tank without opening of the thief hatch. Any gas collected through the tank vent system is expected to be recompressed and routed to sales. However, in the event of an emergency, the tank vapor capture system will be designed to combust the gas using a flare stack fitted with a continuous or automatic ignitor. The flare stack will be properly anchored and will be located a minimum of 100 feet from the well and storage tanks. Operators will conduct weekly AVO inspections. These AVO inspection records will be stored for the required 5-year period and will be made available upon Division request.

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

- When performing routine or preventive maintenance on a vessel or tank, initially all inlet valves are closed, and the vessel or tank is allowed to depressurize through the normal outlet connections to gas sales and/or liquid tanks. Once the vessel or tank is depressurized to lowest acceptable sales outlet pressure, usually around 20 psig, a temporary low-pressure flowline is connected from the vessel or tank to the Vapor Recovery Unit (VRU) for further pressure reduction. Once depressurized to less than 1-2 psig, the remaining natural gas in the vessel or tank is vented to atmosphere through a controlled pressure relief valve. Once the vessel or tank is depressurized to atmospheric pressure, the vessel or tank can be safely opened, and maintenance performed.