

Well Name: NAILED IT FED COM	Well Location: T26S / R30E / SEC 36 / LOT 3 / 32.0007877 / -103.8370394	County or Parish/State: EDDY / NM
Well Number: 235H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM138850	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001546844	Well Status: Approved Application for Permit to Drill	Operator: TAP ROCK OPERATING LLC

Notice of Intent

Type of Submission: Notice of Intent	Type of Action Other
Date Sundry Submitted: 03/22/2021	Time Sundry Submitted: 09:32
Date proposed operation will begin: 03/22/2021	

**Procedure Description:** Tap Rock is requesting permission to change the Name, SHL, depth/formation, and casing design for this well. Tap Rock is requesting the well name be changed from the Nailed it Fed Com 235H to the Nailed it Fed Com 152H. Previous approved SHL: 230 FSL, 1945 FWL of Section 36, T26S, R30E New proposed SHL: 230 FSL, 2050 FWL of Section 36, T26S, R30E Previous approved BHL: 2464 FSL, 1590 FWL of Section 25, T26S, R30E New proposed BHL: 2465 FSL, 2160 FWL of Section 25, T26S, R30E Previously Approved Depth and Formation: 16200 ft, Purple Sage Wolfcamp New proposed Depth and Formation: 14432 ft, Bonespring A three-string design will be employed instead of the previously approved four string. The new drilling plan detailing this plan is attached for review. No additional surface is to be disturbed by this sundry.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Nailed\_It\_Fed\_Com\_152H\_Sundry\_Attachments\_20210218204841.pdf

<b>Well Name:</b> NAILED IT FED COM	<b>Well Location:</b> T26S / R30E / SEC 36 / LOT 3 / 32.0007877 / -103.8370394	<b>County or Parish/State:</b> EDDY / NM
<b>Well Number:</b> 235H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM138850	<b>Unit or CA Name:</b>	<b>Unit or CA Number:</b>
<b>US Well Number:</b> 3001546844	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> TAP ROCK OPERATING LLC

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

<b>Operator Electronic Signature:</b> RAMSEY	<b>Signed on:</b> MAR 22, 2021 09:32 AM
<b>Name:</b> TAP ROCK OPERATING LLC	
<b>Title:</b> Regulatory Analyst	
<b>Street Address:</b> 523 PARK POINT DRIVE SUITE 200	
<b>City:</b> GOLDEN	<b>State:</b> CO
<b>Phone:</b> (720) 360-4028	
<b>Email address:</b> BRAMSEY@TAPRK.COM	

Field Representative

<b>Representative Name:</b>		
<b>Street Address:</b>		
<b>City:</b>	<b>State:</b>	<b>Zip:</b>
<b>Phone:</b>		
<b>Email address:</b>		

BLM Point of Contact

<b>BLM POC Name:</b> CHRISTOPHER WALLS	<b>BLM POC Title:</b> Petroleum Engineer
<b>BLM POC Phone:</b> 5752342234	<b>BLM POC Email Address:</b> cwalls@blm.gov
<b>Disposition:</b> Approved	<b>Disposition Date:</b> 04/12/2021
<b>Signature:</b> Chris Walls	

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  
SHL & BHL  
CHANGE

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-46844	<sup>2</sup> Pool Code 98319	<sup>3</sup> Pool Name WC 015 G 06 S242630A;Bone Spring
<sup>4</sup> Property Code	<sup>5</sup> Property Name NAILED IT FED COM	<sup>6</sup> Well Number 152H
<sup>7</sup> OGRID No. 372043	<sup>8</sup> Operator Name TAP ROCK OPERATING, LLC.	<sup>9</sup> Elevation 3018'

<sup>10</sup>Surface Location

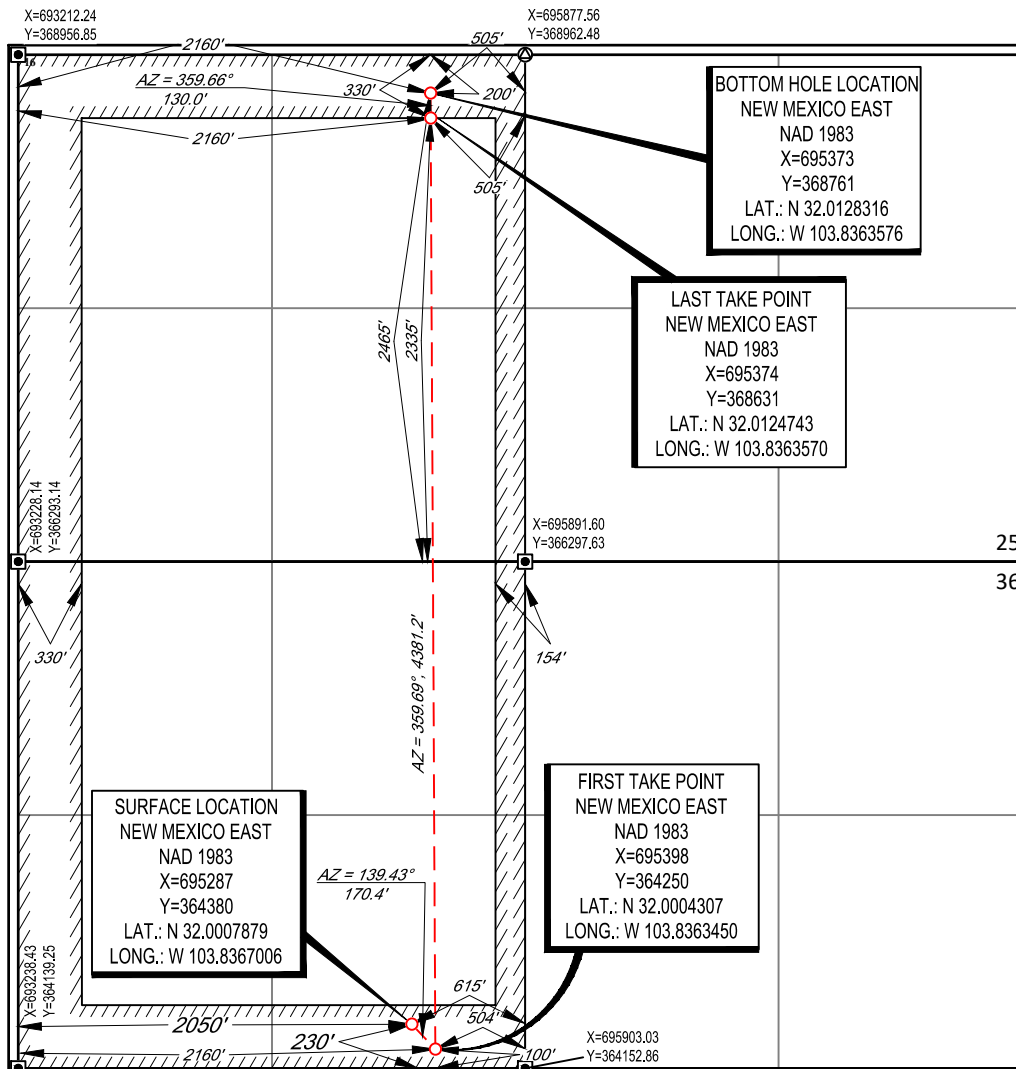
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	36	26-S	30-E	-	230'	SOUTH	2050'	WEST	EDDY

<sup>11</sup>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
K	25	26-S	30-E	-	2465'	SOUTH	2160'	WEST	EDDY

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<sup>17</sup>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.

*Bill Ramsey*  
Signature Date 02/17/2021

Printed Name  
Bill Ramsey

E-mail Address  
bramsey@taprk.com

<sup>18</sup>SURVEYOR CERTIFICATION

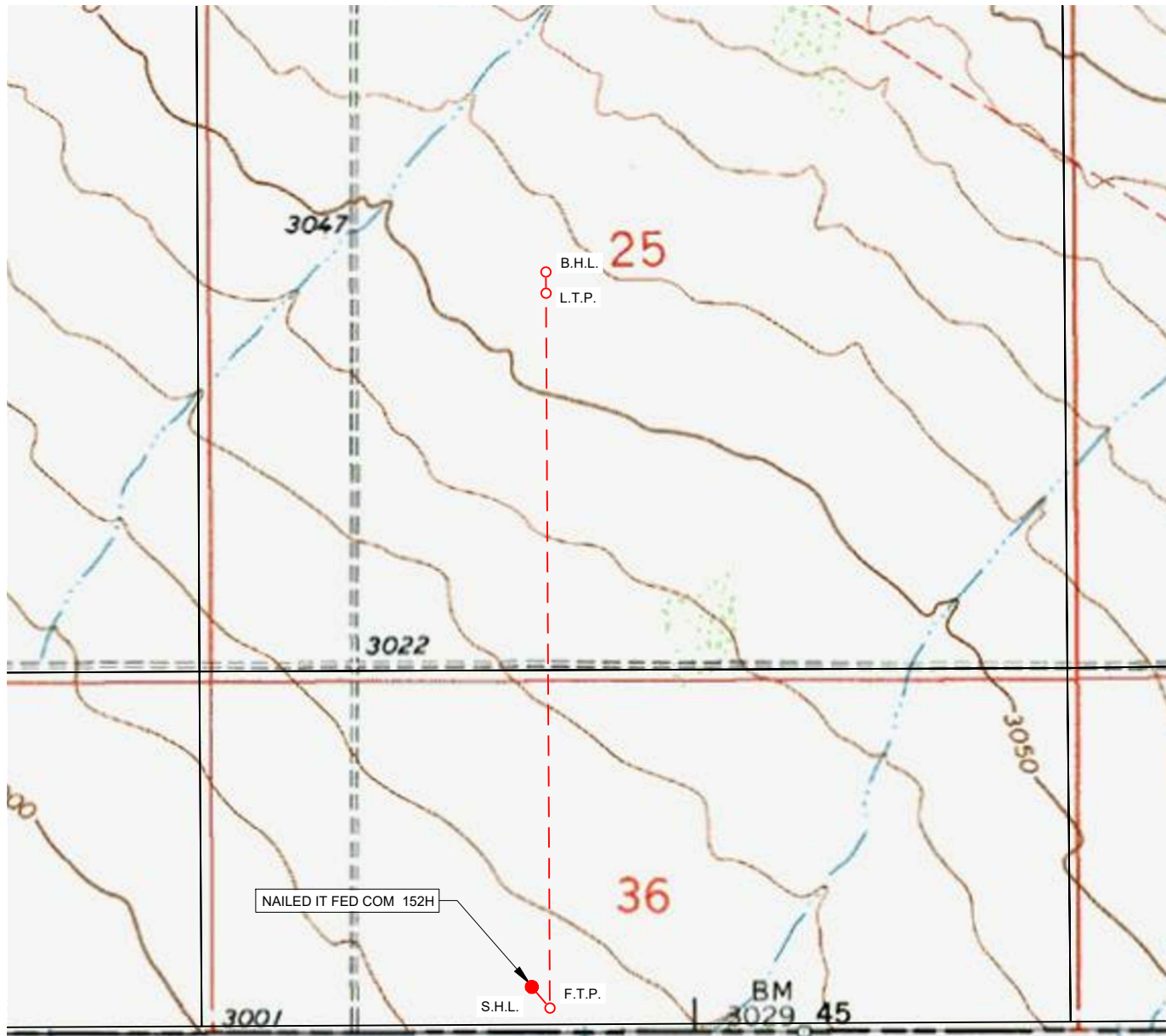
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

08/06/2019

Date of Survey  
Signature and Seal of Professional Surveyor

*ANGEL M. BAEZA*  
PROFESSIONAL SURVEYOR  
Certificate Number

## LOCATION &amp; ELEVATION VERIFICATION MAP

LEASE NAME & WELL NO.: NAILED IT FED COM 152H

SECTION 36 TWP 26-S RGE 30-E SURVEY N.M.P.M.  
 COUNTY EDDY STATE NM ELEVATION 3018'  
 DESCRIPTION 230' FSL & 2050' FWL

LATITUDE N 32.0007879 LONGITUDE W 103.8367006

SCALE: 1" = 1000'  
 0' 500' 1000'

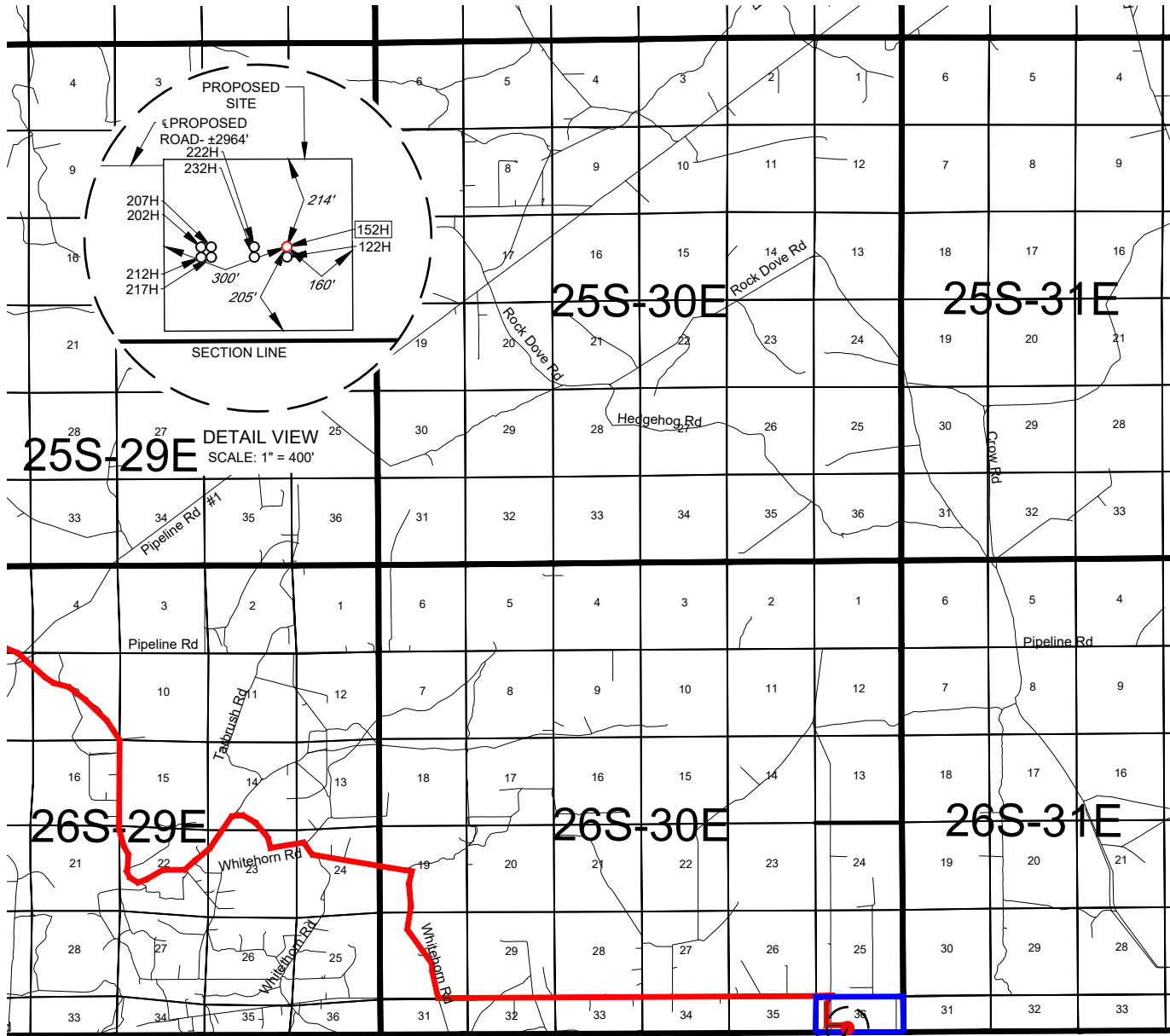
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY TAP ROCK OPERATING, LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF 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, EAST ZONE OF THE NORTH AMERICAN DATUM 1983, 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 MAPLEASE NAME & WELL NO.: NAILED IT FED COM 152HSECTION 36 TWP 26-S RGE 30-E SURVEY N.M.P.M.COUNTY EDDY STATE NMDESCRIPTION 230' FSL & 2050' FWL

## DISTANCE &amp; DIRECTION

FROM INT. OF US-285 & COUNTY RD 720, GO SOUTH ON US-285 ±12.6 MILES,  
 THENCE NORTHEAST (LEFT) ON WHITEHORN RD. ±2.4 MILES, THENCE NORTH  
 (LEFT) ON LONGHORN RD. ±6.6 MILES, THENCE SOUTHEAST (RIGHT) ON  
 LONGHORN RD. ±4.0 MILES, THENCE EAST (LEFT) ON STATE LINE RD. ±4.4  
 MILES, THENCE SOUTH (RIGHT) ON A PROPOSED RD. ±2964 FEET TO A POINT  
 ±361 FEET NORTHWEST OF THE LOCATION.

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  
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 MEXICO COORDINATE SYSTEM, EAST ZONE OF THE NORTH AMERICAN DATUM 1983, U.S. SURVEY FEET.

NAILED IT FED COM 152H

SEE  
DETAIL

SCALE: 1" = 10000'  
 0' 5000' 10000'



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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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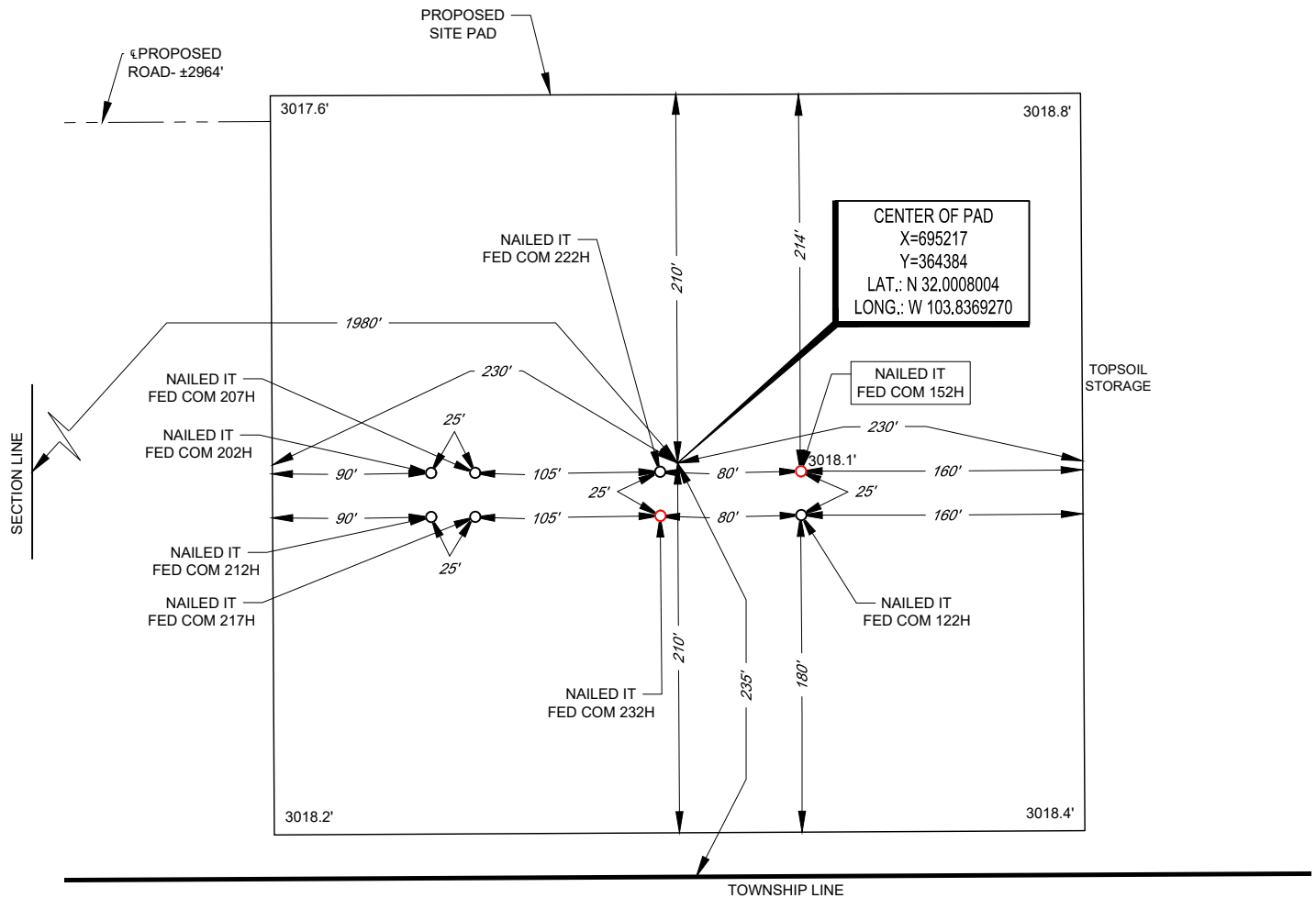
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140  
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554  
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## EXHIBIT 2B



SECTION 36, TOWNSHIP 26-S, RANGE 30-E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

DETAIL VIEW  
SCALE: 1" = 100'



LEASE NAME & WELL NO.: \_\_\_\_\_ NAILED IT FED COM 152H  
152H LATITUDE \_\_\_\_\_ N 32.0007879 152H LONGITUDE \_\_\_\_\_ W 103.8367006

CENTER OF PAD IS 235' FSL & 1980' FWL



Angel M. Baeza, P.S. No. 25116

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"



SCALE: 1" = 100'  
0' 50' 100'



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1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original  
to Appropriate  
District Office

## GAS CAPTURE PLAN

Date: 2/17/2021

☐ Original Operator & OGRID No.: 372043  
☒ Amended - Reason for Amendment: New location/name change.

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple 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
Nailed It Fed Com #152H	30-015-46844	3 Sec 36 T.26S. R.30E	230' FSL 2050' FWL	+/- 1,600	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 is dedicated to Salt Creek Midstream and will be connected to Salt Creek Midstream low/high pressure gathering system located in Eddy County, New Mexico. It will require ~15,000' of pipeline to connect the facility to low/high pressure gathering system. Tap Rock Operating, LLC provides (periodically) to Salt Creek Midstream 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 Salt Creek Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Salt Creek Midstream Processing Plant located in Reeves County, Texas. 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 Salt Creek Midstream'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



Drilling Operations Plan  
 Nailed It Fed Com 152H  
 Tap Rock Operating, LLC  
 SHL 230' FSL & 2050' FWL, Sec. 36  
 BHL 2465' FSL & 2160' FWL, Sec. 25  
 T. 26S., R. 30E, Eddy County, NM

Elevation above Sea Level: 3018'

## **DRILLING PROGRAM**

### **1. Estimated Tops**

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	833	833		Salt
Salado	1385	1385	Salt	Salt
Base Salt	3428	3428		Salt
Lamar	3634	3634	Limestone	None
Bell Canyon	3655	3655	Sandstone	Hydrocarbons
Cherry Canyon	4844	4847	Sandstone	Hydrocarbons
Brushy Canyon	5798	5803	Sandstone	Hydrocarbons
Bone Spring	7565	7573	Limestone	Hydrocarbons
KOP	9506	9514	Sandstone	Hydrocarbons
3rd Bone Spring Carb	9729	9743	Sandstone	Hydrocarbons
TD	10095	14432	Shale	Hydrocarbons

### **2. Notable Zones**

Bone Springs is the target formation.

### **3. Pressure Control**

Pressure Control Equipment (See Schematics):

A 15,000', 5,000 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.

BOP Test procedure will be as follows:

After surface casing is set and the BOP is nipped 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.

Variance Requests:



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Nailed It Fed Com 152H  
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T. 26S., R. 30E, Eddy County, NM

Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, 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, 1<sup>st</sup> intermediate and cementing 1<sup>st</sup> 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 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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 Nailed It Fed Com 152H  
 Tap Rock Operating, LLC  
 SHL 230' FSL & 2050' FWL, Sec. 36  
 BHL 2465' FSL & 2160' FWL, Sec. 25  
 T. 26S., R. 30E, Eddy County, NM

#### 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	908	0	908	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	3659	0	3659	J-55	40	BUTT	1.13	1.15	1.6
Production	8 1/2	5 1/2	NON API	No	0	14432	0	10095	P-110	20	TXP	1.13	1.15	1.6

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Tail	0	934	1.35	1261	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	694	2.18	1513	12.7	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	2659	284	1.33	378	14.8	65%	C	5% NaCl + LCM
Production	Tail	3159	2084	1.71	3564	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM

#### 5. Mud Program

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	908	FW Spud Mud	8.30	28	NC
Intermediate	908	3659	Brine Water	10.00	30-32	NC
Production	3659	14432	Cut Brine	9.00	28-40	<10

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	908	FW Spud Mud	8.30	28	NC
Intermediate	908	3659	Brine Water	10.00	30-32	NC
Production	3659	14432	Oil Based Mud	9.00	40-60	<10

Tap Rock requests the option to run cut brine or OBM in the production interval.

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.



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SHL 230' FSL & 2050' FWL, Sec. 36  
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T. 26S., R. 30E, Eddy County, NM

**7. Down Hole Conditions**

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is  $\approx 4,725$  psi. Expected bottom hole temperature is  $\approx 170^{\circ}$  F.

Tap Rock does not anticipate that there will be enough H<sub>2</sub>S from the surface to the Wolfcamp formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H<sub>2</sub>S safety package on all wells and an "H<sub>2</sub>S 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**

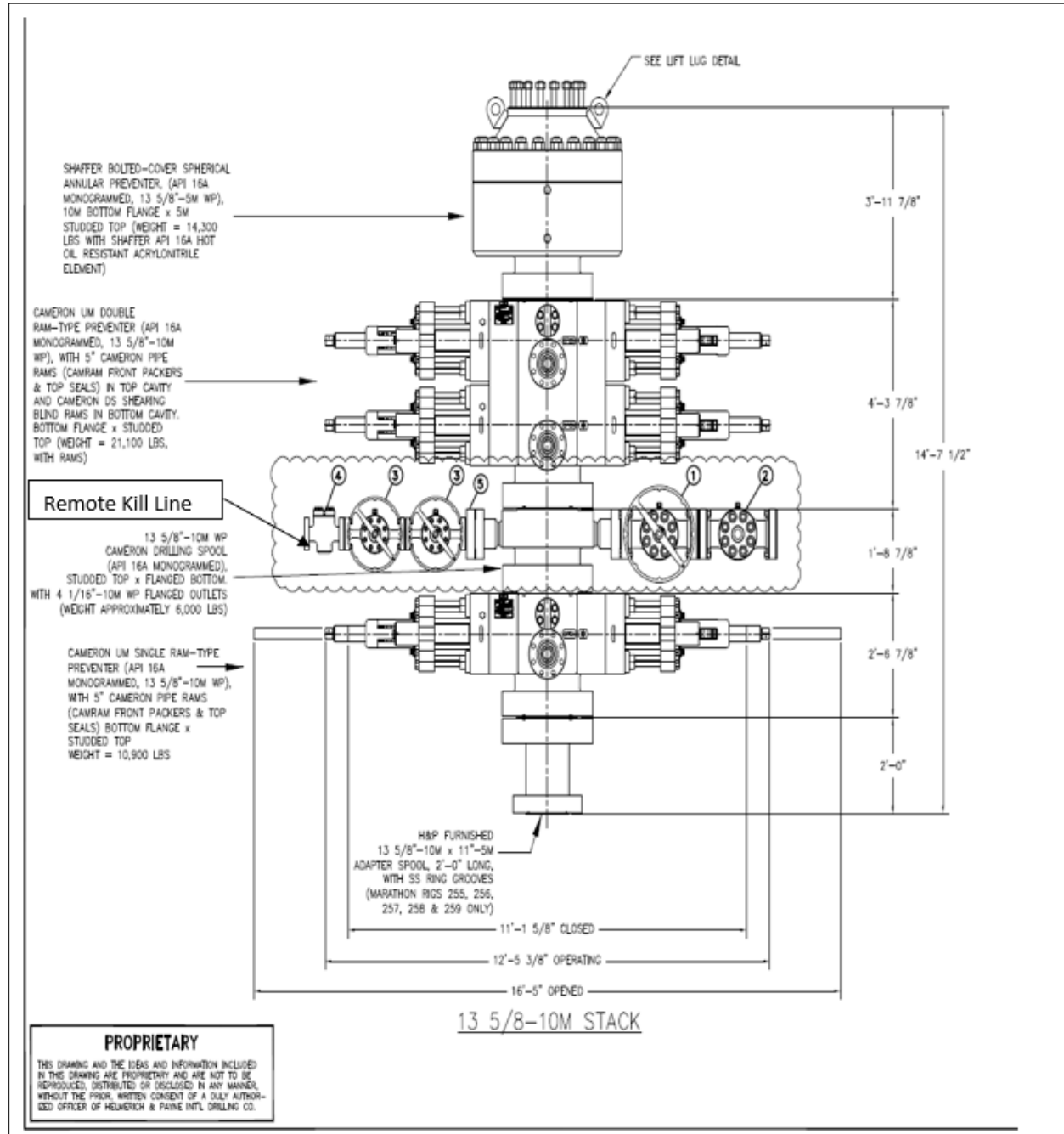
Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.





Drilling Operations Plan  
 Nailed It Fed Com 152H  
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 BHL 2465' FSL & 2160' FWL, Sec. 25  
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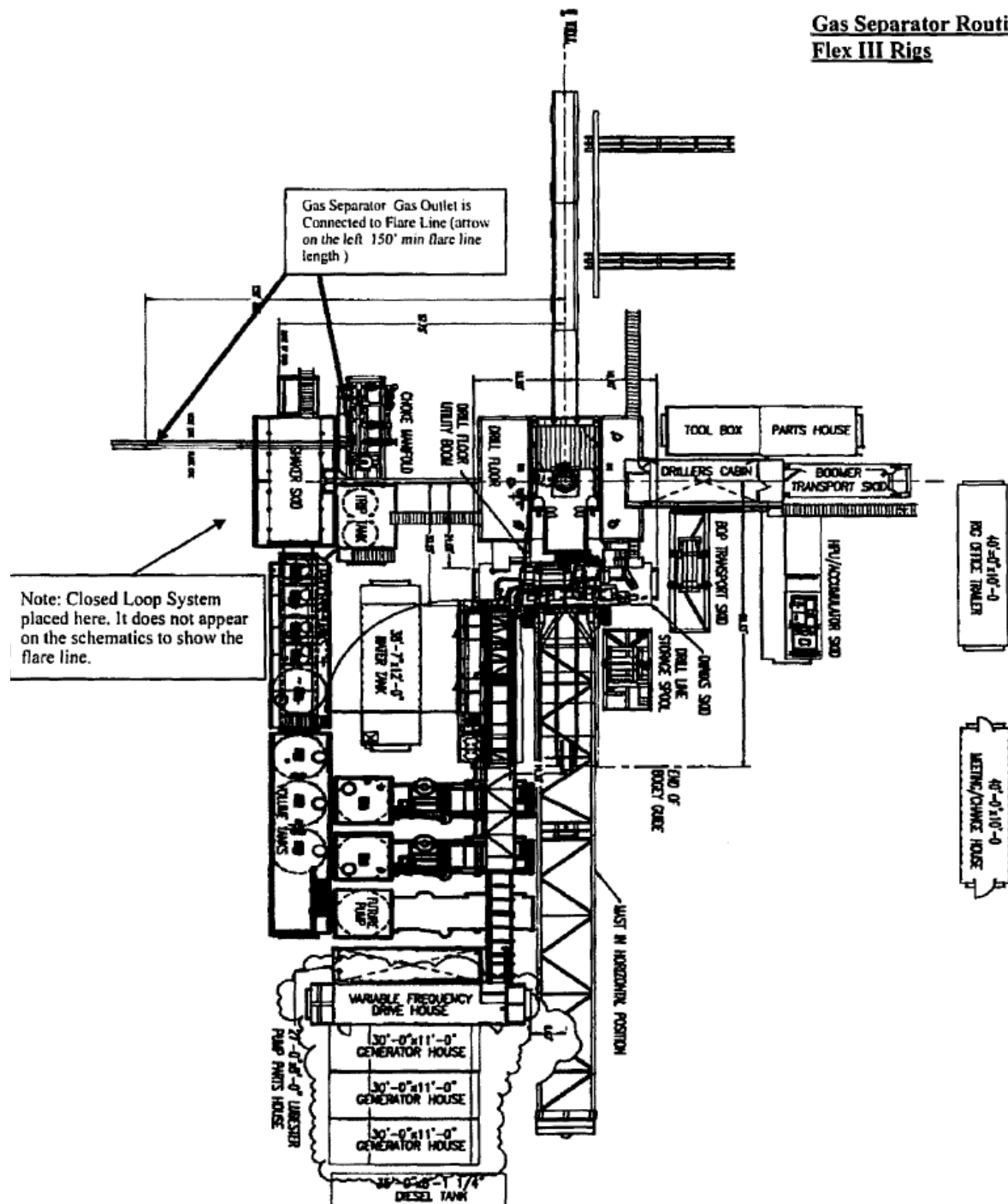
5,000 psi BOP Stack





Drilling Operations Plan  
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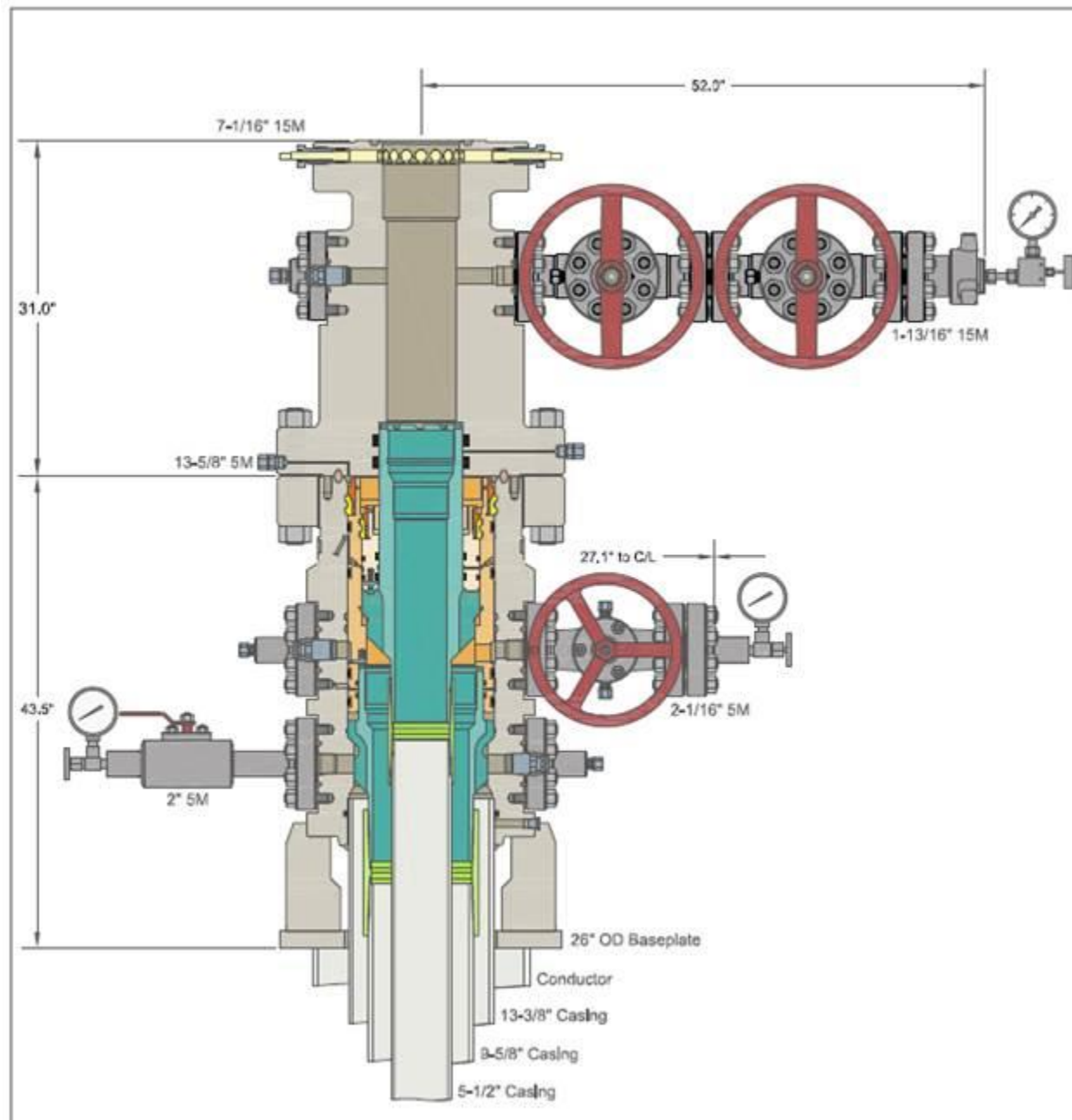
### Gas Separator Routing Flex III Rigs





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BHL 2465' FSL & 2160' FWL, Sec. 25  
T. 26S., R. 30E, Eddy County, NM

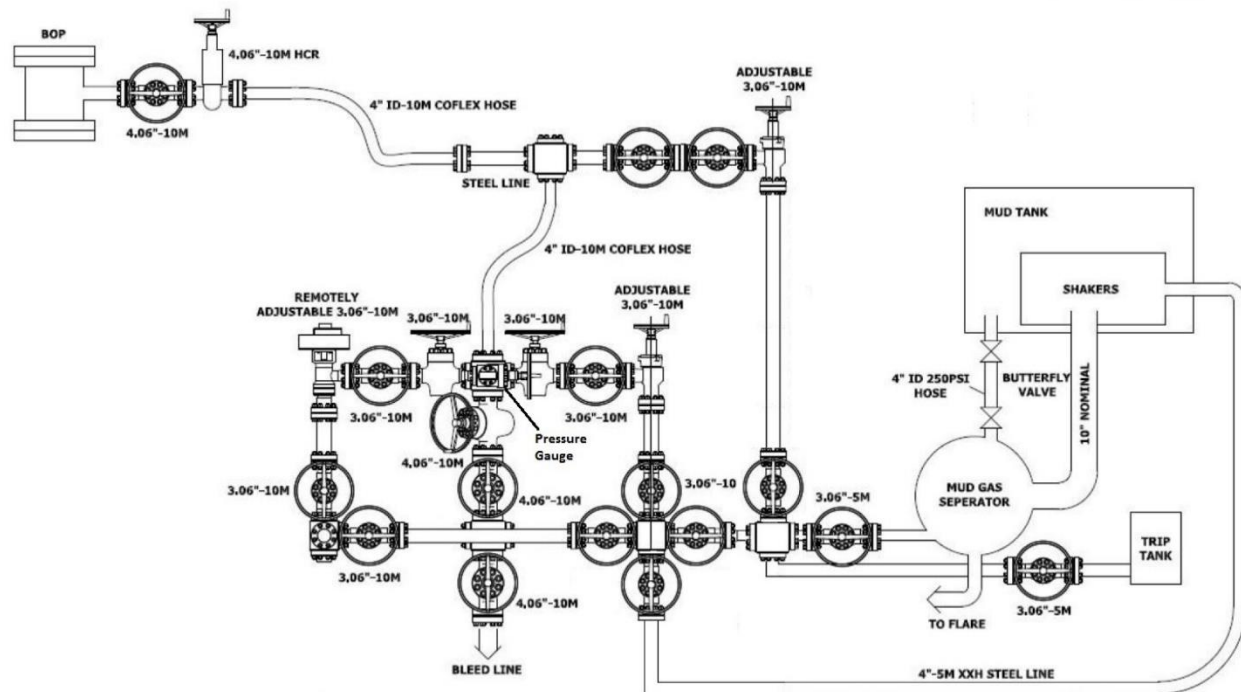
## Multi-bowl Wellhead





Drilling Operations Plan  
 Nailed It Fed Com 152H  
 Tap Rock Operating, LLC  
 SHL 230' FSL & 2050' FWL, Sec. 36  
 BHL 2465' FSL & 2160' FWL, Sec. 25  
 T. 26S., R. 30E, Eddy County, NM

10M Choke Layout





## Casing and Tubing Performance Data

### PIPE BODY DATA

#### GEOMETRY

Outside Diameter	13.375 in	Wall Thickness	0.380 in	API Drift Diameter	12.459 in
Nominal Weight	54.50 lbs/ft	Nominal ID	12.615 in	Alternative Drift Diameter	n.a.
Plain End Weight	52.79 lbs/ft	Nominal cross section	15.513 in		

#### PERFORMANCE

Steel Grade	J55	Minimum Yield	55,000 psi	Minimum Ultimate	75,000 psi
Tension Yield	853,000 in	Internal Pressure Yield	2,730 psi	Collapse Pressure	1,130 psi
Available Seamless	Yes	Available Welded	Yes		

### CONNECTION DATA

TYPE: BTC

#### GEOMETRY

Coupling Reg OD	14.375 in	Threads per in	5	Thread turns make up	1
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#### PERFORMANCE

Steel Grade	J55	Coupling Min Yield	55,000 psi	Coupling Min Ultimate	75,000 psi
Joint Strength	909,000 lbs			Internal Pressure Resistance	2,730 psi





## Casing and Tubing Performance Data

### PIPE BODY DATA

#### GEOMETRY

Outside Diameter	9.625 in	Wall Thickness	0.395 in	API Drift Diameter	8.679 in
Nominal Weight	40.00 lbs/ft	Nominal ID	8.835 in	Alternative Drift Diameter	8.75 in
Plain End Weight	38.97 lbs/ft	Nominal cross section	11.454 in		

#### PERFORMANCE

Steel Grade	J55	Minimum Yield	55,000 psi	Minimum Ultimate	75,000 psi
Tension Yield	630,000 in	Internal Pressure Yield	3,950 psi	Collapse Pressure	2,570 psi
Available Seamless	Yes	Available Welded	Yes		

### CONNECTION DATA

TYPE: BTC


#### GEOMETRY

Coupling Reg OD	10.625 in	Threads per in	5	Thread turns make up	1
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#### PERFORMANCE

Steel Grade	J55	Coupling Min Yield	55,000 psi	Coupling Min Ultimate	75,000 psi
Joint Strength	714,000 lbs			Internal Pressure Resistance	3,950 psi

5.5", 20#, P-110, TXP connection (modified buttress connection that provides a torque rating of nearly 24000ft-lbs)



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Outside Diameter	5.500 in.	Min. Wall Thickness	87.5%	
		Drift	API Standard	
Wall Thickness	0.361 in.	Type	Casing	
Grade	<a href="#">P110</a>	Connection OD Option	REGULAR	

[Clear Filters](#)  
[Compare](#)  
[Request Info](#)

**CONNECTION INFORMATION**  
[Blanking Dimensions](#)  
[Connection's Page](#)  
[Brochure](#)  
[Datasheet Manual](#)

PIPE BODY DATA					
GEOMETRY					
Nominal OD	5.500 in.	Nominal Weight	20 lbs/ft	Drift	4.653 in.
Nominal ID	4.778 in.	Wall Thickness	0.361 in.	Plain End Weight	19.83 lbs/ft
OD Tolerance	API				
PERFORMANCE					
Body Yield Strength	641 x1000 lbs	Internal Yield	12640 psi	SMYS	110000 psi
Collapse	11100 psi				

CONNECTION DATA					
GEOMETRY					
Connection OD	6.100 in.	Coupling Length	9.450 in.	Connection ID	4.766 in.
Make-up Loss	4.204 in.	Threads per in	5	Connection OD Option	REGULAR
PERFORMANCE					
Tension Efficiency	100.0 %	Joint Yield Strength	641.000 x1000 lbs	Internal Pressure Capacity <sup>[1]</sup>	12640.000 psi
Compression Efficiency	100 %	Compression Strength	641.000 x1000 lbs	Max. Allowable Bending	92 °/100 ft
External Pressure Capacity	11100.000 psi				
MAKE-UP TORQUES					
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs	Maximum	13770 ft-lbs
OPERATION LIMIT TORQUES					
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs		

# **Tap Rock Operating, LLC.**

**Eddy County, NM (NAD83)**

**Nailed It Fed Com**

**152H**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**15 February, 2021**

## Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 152H
<b>Company:</b>	Tap Rock Operating, LLC.	<b>TVD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Project:</b>	Eddy County, NM (NAD83)	<b>MD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Site:</b>	Nailed It Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	152H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<b>Project</b>	Eddy County, NM (NAD83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

Site	Nailed It Fed Com				
Site Position:		Northing:	364,471.20 usft	Latitude:	32° 0' 3.817 N
From:	Lat/Long	Easting:	693,621.04 usft	Longitude:	103° 50' 31.467 W
Position Uncertainty:	2.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.26 °

Well	152H					
Well Position	+N/-S	-91.5 usft	Northing:	364,379.72 usft	Latitude:	32° 0' 2.836 N
	+E/-W	1,666.2 usft	Easting:	695,287.25 usft	Longitude:	103° 50' 12.122 W
Position Uncertainty		2.0 usft	Wellhead Elevation:		Ground Level:	3,018.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	2/14/2021	6.69	59.67	47,372

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	359.69

<b>Plan Sections</b>										
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	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,766.7	4.00	152.00	3,766.5	-8.2	4.4	1.50	1.50	0.00	152.00	
6,896.7	4.00	152.00	6,888.8	-201.0	106.9	0.00	0.00	0.00	0.00	
7,163.3	0.00	0.00	7,155.3	-209.2	111.2	1.50	-1.50	0.00	180.00	
9,514.1	0.00	0.00	9,506.0	-209.2	111.2	0.00	0.00	0.00	0.00	
10,411.7	89.76	359.69	10,079.0	361.4	108.2	10.00	10.00	0.00	359.69	
10,492.4	89.76	359.69	10,079.3	442.1	107.7	0.01	0.01	0.00	-24.82	
14,301.7	89.76	359.69	10,095.0	4,251.2	87.0	0.00	0.00	0.00	0.00	LTP_NIF.152H
14,432.1	89.76	359.69	10,095.5	4,381.7	86.3	0.00	0.00	0.00	0.00	PBHL_NIF.152H

## Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 152H
<b>Company:</b>	Tap Rock Operating, LLC.	<b>TVD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Project:</b>	Eddy County, NM (NAD83)	<b>MD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Site:</b>	Nailed It Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	152H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

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
833.0	0.00	0.00	833.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydrite									
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
1,385.0	0.00	0.00	1,385.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
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
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,428.0	0.00	0.00	3,428.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Salt									
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.50									
3,600.0	1.50	152.00	3,600.0	-1.2	0.6	-1.2	1.50	1.50	0.00
3,628.0	1.92	152.00	3,628.0	-1.9	1.0	-1.9	1.50	1.50	0.00
Delaware Mountain Gp									
3,634.0	2.01	152.00	3,634.0	-2.1	1.1	-2.1	1.50	1.50	0.00
Lamar									
3,655.0	2.33	152.00	3,655.0	-2.8	1.5	-2.8	1.50	1.50	0.00
Bell Canyon									
3,667.1	2.51	152.00	3,667.0	-3.2	1.7	-3.2	1.50	1.50	0.00
Ramsey Sand									
3,700.0	3.00	152.00	3,699.9	-4.6	2.5	-4.6	1.50	1.50	0.00



## Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 152H
<b>Company:</b>	Tap Rock Operating, LLC.	<b>TVD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Project:</b>	Eddy County, NM (NAD83)	<b>MD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Site:</b>	Nailed It Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	152H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

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)
3,766.7	4.00	152.00	3,766.5	-8.2	4.4	-8.2	1.50	1.50	0.00
<b>Start 3130.0 hold at 3766.7 MD</b>									
3,800.0	4.00	152.00	3,799.7	-10.3	5.5	-10.3	0.00	0.00	0.00
3,900.0	4.00	152.00	3,899.5	-16.4	8.7	-16.5	0.00	0.00	0.00
4,000.0	4.00	152.00	3,999.2	-22.6	12.0	-22.7	0.00	0.00	0.00
4,100.0	4.00	152.00	4,099.0	-28.7	15.3	-28.8	0.00	0.00	0.00
4,200.0	4.00	152.00	4,198.7	-34.9	18.6	-35.0	0.00	0.00	0.00
4,300.0	4.00	152.00	4,298.5	-41.1	21.8	-41.2	0.00	0.00	0.00
4,400.0	4.00	152.00	4,398.2	-47.2	25.1	-47.4	0.00	0.00	0.00
4,500.0	4.00	152.00	4,498.0	-53.4	28.4	-53.5	0.00	0.00	0.00
4,600.0	4.00	152.00	4,597.8	-59.5	31.7	-59.7	0.00	0.00	0.00
4,700.0	4.00	152.00	4,697.5	-65.7	34.9	-65.9	0.00	0.00	0.00
4,800.0	4.00	152.00	4,797.3	-71.9	38.2	-72.1	0.00	0.00	0.00
4,846.8	4.00	152.00	4,844.0	-74.7	39.7	-75.0	0.00	0.00	0.00
<b>Cherry Canyon</b>									
4,900.0	4.00	152.00	4,897.0	-78.0	41.5	-78.2	0.00	0.00	0.00
5,000.0	4.00	152.00	4,996.8	-84.2	44.8	-84.4	0.00	0.00	0.00
5,100.0	4.00	152.00	5,096.5	-90.3	48.0	-90.6	0.00	0.00	0.00
5,200.0	4.00	152.00	5,196.3	-96.5	51.3	-96.8	0.00	0.00	0.00
5,300.0	4.00	152.00	5,296.0	-102.7	54.6	-102.9	0.00	0.00	0.00
5,400.0	4.00	152.00	5,395.8	-108.8	57.9	-109.1	0.00	0.00	0.00
5,500.0	4.00	152.00	5,495.6	-115.0	61.1	-115.3	0.00	0.00	0.00
5,600.0	4.00	152.00	5,595.3	-121.1	64.4	-121.5	0.00	0.00	0.00
5,700.0	4.00	152.00	5,695.1	-127.3	67.7	-127.7	0.00	0.00	0.00
5,800.0	4.00	152.00	5,794.8	-133.5	71.0	-133.8	0.00	0.00	0.00
5,803.2	4.00	152.00	5,798.0	-133.6	71.1	-134.0	0.00	0.00	0.00
<b>Brushy Canyon</b>									
5,900.0	4.00	152.00	5,894.6	-139.6	74.2	-140.0	0.00	0.00	0.00
6,000.0	4.00	152.00	5,994.3	-145.8	77.5	-146.2	0.00	0.00	0.00
6,100.0	4.00	152.00	6,094.1	-151.9	80.8	-152.4	0.00	0.00	0.00
6,200.0	4.00	152.00	6,193.9	-158.1	84.1	-158.5	0.00	0.00	0.00
6,300.0	4.00	152.00	6,293.6	-164.2	87.3	-164.7	0.00	0.00	0.00
6,400.0	4.00	152.00	6,393.4	-170.4	90.6	-170.9	0.00	0.00	0.00
6,500.0	4.00	152.00	6,493.1	-176.6	93.9	-177.1	0.00	0.00	0.00
6,600.0	4.00	152.00	6,592.9	-182.7	97.2	-183.2	0.00	0.00	0.00
6,700.0	4.00	152.00	6,692.6	-188.9	100.4	-189.4	0.00	0.00	0.00
6,800.0	4.00	152.00	6,792.4	-195.0	103.7	-195.6	0.00	0.00	0.00
6,896.7	4.00	152.00	6,888.8	-201.0	106.9	-201.6	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
6,900.0	3.95	152.00	6,892.2	-201.2	107.0	-201.8	1.50	-1.50	0.00
7,000.0	2.45	152.00	6,992.0	-206.1	109.6	-206.7	1.50	-1.50	0.00
7,100.0	0.95	152.00	7,091.9	-208.7	111.0	-209.3	1.50	-1.50	0.00
7,163.3	0.00	0.00	7,155.3	-209.2	111.2	-209.8	1.50	-1.50	0.00
<b>Start 2350.7 hold at 7163.3 MD</b>									
7,200.0	0.00	0.00	7,191.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,291.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,391.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,491.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,573.1	0.00	0.00	7,565.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>Bone Spring Lime</b>									
7,600.0	0.00	0.00	7,591.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,670.1	0.00	0.00	7,662.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>Upper Avalon</b>									

## Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 152H
<b>Company:</b>	Tap Rock Operating, LLC.	<b>TVD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Project:</b>	Eddy County, NM (NAD83)	<b>MD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Site:</b>	Nailed It Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	152H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

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)
7,700.0	0.00	0.00	7,691.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,791.9	-209.2	111.2	-209.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,891.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,991.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,060.1	0.00	0.00	8,052.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>Middle Avalon</b>									
8,100.0	0.00	0.00	8,091.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,191.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,291.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,326.1	0.00	0.00	8,318.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>Lower Avalon</b>									
8,400.0	0.00	0.00	8,391.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,491.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,500.1	0.00	0.00	8,492.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>1st Bone Spring Sand</b>									
8,600.0	0.00	0.00	8,591.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,691.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,791.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,891.9	-209.2	111.2	-209.8	0.00	0.00	0.00
8,993.1	0.00	0.00	8,985.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>2nd Bone Spring Carb</b>									
9,000.0	0.00	0.00	8,991.9	-209.2	111.2	-209.8	0.00	0.00	0.00
9,100.0	0.00	0.00	9,091.9	-209.2	111.2	-209.8	0.00	0.00	0.00
9,146.1	0.00	0.00	9,138.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>2nd Bone Spring Sand</b>									
9,200.0	0.00	0.00	9,191.9	-209.2	111.2	-209.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,291.9	-209.2	111.2	-209.8	0.00	0.00	0.00
9,400.0	0.00	0.00	9,391.9	-209.2	111.2	-209.8	0.00	0.00	0.00
9,500.0	0.00	0.00	9,491.9	-209.2	111.2	-209.8	0.00	0.00	0.00
9,514.1	0.00	0.00	9,506.0	-209.2	111.2	-209.8	0.00	0.00	0.00
<b>Start Build 10.00</b>									
9,550.0	3.59	359.69	9,541.9	-208.1	111.2	-208.7	10.00	10.00	0.00
9,600.0	8.59	359.69	9,591.6	-202.8	111.2	-203.4	10.00	10.00	0.00
9,650.0	13.59	359.69	9,640.7	-193.2	111.2	-193.8	10.00	10.00	0.00
9,700.0	18.59	359.69	9,688.7	-179.3	111.1	-179.9	10.00	10.00	0.00
9,743.1	22.90	359.69	9,729.0	-164.0	111.0	-164.6	10.00	10.00	0.00
<b>3rd Bone Spring Carb</b>									
9,750.0	23.59	359.69	9,735.3	-161.3	111.0	-161.9	10.00	10.00	0.00
9,800.0	28.59	359.69	9,780.2	-139.3	110.9	-139.9	10.00	10.00	0.00
9,850.0	33.59	359.69	9,823.0	-113.5	110.7	-114.1	10.00	10.00	0.00
9,900.0	38.59	359.69	9,863.4	-84.1	110.6	-84.7	10.00	10.00	0.00
9,950.0	43.59	359.69	9,901.1	-51.2	110.4	-51.8	10.00	10.00	0.00
10,000.0	48.59	359.69	9,935.8	-15.2	110.2	-15.8	10.00	10.00	0.00
10,050.0	53.59	359.69	9,967.1	23.7	110.0	23.1	10.00	10.00	0.00
10,100.0	58.59	359.69	9,995.0	65.2	109.8	64.6	10.00	10.00	0.00
10,150.0	63.59	359.69	10,019.2	108.9	109.5	108.3	10.00	10.00	0.00
10,200.0	68.59	359.69	10,039.5	154.6	109.3	154.0	10.00	10.00	0.00
10,250.0	73.59	359.69	10,055.7	201.9	109.0	201.3	10.00	10.00	0.00
10,300.0	78.59	359.69	10,067.7	250.4	108.8	249.8	10.00	10.00	0.00
10,350.0	83.59	359.69	10,075.4	299.8	108.5	299.2	10.00	10.00	0.00
10,400.0	88.59	359.69	10,078.8	349.7	108.2	349.1	10.00	10.00	0.00
10,411.7	89.76	359.69	10,079.0	361.4	108.2	360.8	10.00	10.00	0.00
<b>EOC - 10411.7°MD, 89.76°INC, 359.69°AZI</b>									

## Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 152H
<b>Company:</b>	Tap Rock Operating, LLC.	<b>TVD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Project:</b>	Eddy County, NM (NAD83)	<b>MD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Site:</b>	Nailed It Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	152H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

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)
10,492.4	89.76	359.69	10,079.3	442.1	107.7	441.5	0.01	0.01	0.00
Start 3809.2 hold at 10492.4 MD									
10,500.0	89.76	359.69	10,079.4	449.7	107.7	449.1	0.00	0.00	0.00
10,600.0	89.76	359.69	10,079.8	549.6	107.1	549.1	0.00	0.00	0.00
10,700.0	89.76	359.69	10,080.2	649.6	106.6	649.1	0.00	0.00	0.00
10,800.0	89.76	359.69	10,080.6	749.6	106.0	749.1	0.00	0.00	0.00
10,900.0	89.76	359.69	10,081.0	849.6	105.5	849.1	0.00	0.00	0.00
11,000.0	89.76	359.69	10,081.4	949.6	105.0	949.1	0.00	0.00	0.00
11,100.0	89.76	359.69	10,081.8	1,049.6	104.4	1,049.1	0.00	0.00	0.00
11,200.0	89.76	359.69	10,082.2	1,149.6	103.9	1,149.1	0.00	0.00	0.00
11,300.0	89.76	359.69	10,082.7	1,249.6	103.3	1,249.1	0.00	0.00	0.00
11,400.0	89.76	359.69	10,083.1	1,349.6	102.8	1,349.1	0.00	0.00	0.00
11,500.0	89.76	359.69	10,083.5	1,449.6	102.2	1,449.1	0.00	0.00	0.00
11,600.0	89.76	359.69	10,083.9	1,549.6	101.7	1,549.1	0.00	0.00	0.00
11,700.0	89.76	359.69	10,084.3	1,649.6	101.1	1,649.1	0.00	0.00	0.00
11,800.0	89.76	359.69	10,084.7	1,749.6	100.6	1,749.1	0.00	0.00	0.00
11,900.0	89.76	359.69	10,085.1	1,849.6	100.0	1,849.0	0.00	0.00	0.00
12,000.0	89.76	359.69	10,085.5	1,949.6	99.5	1,949.0	0.00	0.00	0.00
12,100.0	89.76	359.69	10,085.9	2,049.6	99.0	2,049.0	0.00	0.00	0.00
12,200.0	89.76	359.69	10,086.4	2,149.6	98.4	2,149.0	0.00	0.00	0.00
12,300.0	89.76	359.69	10,086.8	2,249.6	97.9	2,249.0	0.00	0.00	0.00
12,400.0	89.76	359.69	10,087.2	2,349.6	97.3	2,349.0	0.00	0.00	0.00
12,500.0	89.76	359.69	10,087.6	2,449.6	96.8	2,449.0	0.00	0.00	0.00
12,600.0	89.76	359.69	10,088.0	2,549.6	96.2	2,549.0	0.00	0.00	0.00
12,700.0	89.76	359.69	10,088.4	2,649.6	95.7	2,649.0	0.00	0.00	0.00
12,800.0	89.76	359.69	10,088.8	2,749.6	95.1	2,749.0	0.00	0.00	0.00
12,900.0	89.76	359.69	10,089.2	2,849.6	94.6	2,849.0	0.00	0.00	0.00
13,000.0	89.76	359.69	10,089.6	2,949.6	94.1	2,949.0	0.00	0.00	0.00
13,100.0	89.76	359.69	10,090.1	3,049.6	93.5	3,049.0	0.00	0.00	0.00
13,200.0	89.76	359.69	10,090.5	3,149.6	93.0	3,149.0	0.00	0.00	0.00
13,300.0	89.76	359.69	10,090.9	3,249.6	92.4	3,249.0	0.00	0.00	0.00
13,400.0	89.76	359.69	10,091.3	3,349.6	91.9	3,349.0	0.00	0.00	0.00
13,500.0	89.76	359.69	10,091.7	3,449.6	91.3	3,449.0	0.00	0.00	0.00
13,600.0	89.76	359.69	10,092.1	3,549.6	90.8	3,549.0	0.00	0.00	0.00
13,700.0	89.76	359.69	10,092.5	3,649.6	90.2	3,649.0	0.00	0.00	0.00
13,800.0	89.76	359.69	10,092.9	3,749.6	89.7	3,749.0	0.00	0.00	0.00
13,900.0	89.76	359.69	10,093.3	3,849.6	89.2	3,849.0	0.00	0.00	0.00
14,000.0	89.76	359.69	10,093.8	3,949.6	88.6	3,949.0	0.00	0.00	0.00
14,100.0	89.76	359.69	10,094.2	4,049.6	88.1	4,049.0	0.00	0.00	0.00
14,200.0	89.76	359.69	10,094.6	4,149.6	87.5	4,149.0	0.00	0.00	0.00
14,301.7	89.76	359.69	10,095.0	4,251.2	87.0	4,250.7	0.00	0.00	0.00
14,400.0	89.76	359.69	10,095.4	4,349.6	86.4	4,349.0	0.00	0.00	0.00
14,432.1	89.76	359.69	10,095.5	4,381.7	86.3	4,381.1	0.00	0.00	0.00
TD at 14432.1									

## Planning Report

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 152H
<b>Company:</b>	Tap Rock Operating, LLC.	<b>TVD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Project:</b>	Eddy County, NM (NAD83)	<b>MD Reference:</b>	WELL @ 3043.0usft (25' RKB)
<b>Site:</b>	Nailed It Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	152H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
FTP_NIF.152H	0.00	0.00	10,079.0	-129.4	110.8	364,250.29	695,398.08	32° 0' 1.551 N	103° 50' 10.842 W
- plan misses target center by 183.2usft at 10001.1usft MD (9936.5 TVD, -14.4 N, 110.2 E)									
- Point									
LTP_NIF.152H	0.00	0.00	10,095.0	4,251.2	87.0	368,630.95	695,374.22	32° 0' 44.903 N	103° 50' 10.885 W
- plan hits target center									
- Point									
PBHL_NIF.152H	0.00	0.00	10,095.5	4,381.7	86.2	368,761.40	695,373.44	32° 0' 46.194 N	103° 50' 10.887 W
- plan misses target center by 0.1usft at 14432.1usft MD (10095.5 TVD, 4381.7 N, 86.3 E)									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
833.0	833.0	Rustler Anhydrite				
1,385.0	1,385.0	Top Salt				
3,428.0	3,428.0	Base Salt				
3,628.0	3,628.0	Delaware Mountain Gp				
3,634.0	3,634.0	Lamar				
3,655.0	3,655.0	Bell Canyon				
3,667.1	3,667.0	Ramsey Sand				
4,846.8	4,844.0	Cherry Canyon				
5,803.2	5,798.0	Brushy Canyon				
7,573.1	7,565.0	Bone Spring Lime				
7,670.1	7,662.0	Upper Avalon				
8,060.1	8,052.0	Middle Avalon				
8,326.1	8,318.0	Lower Avalon				
8,500.1	8,492.0	1st Bone Spring Sand				
8,993.1	8,985.0	2nd Bone Spring Carb				
9,146.1	9,138.0	2nd Bone Spring Sand				
9,743.1	9,729.0	3rd Bone Spring Carb				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(usft)	(usft)	+N/-S	+E/-W	Comment	
(usft)	(usft)	(usft)	(usft)		
3,500.0	3,500.0	0.0	0.0	Start Build 1.50	
3,766.7	3,766.5	-8.2	4.4	Start 3130.0 hold at 3766.7 MD	
6,896.7	6,888.8	-201.0	106.9	Start Drop -1.50	
7,163.3	7,155.3	-209.2	111.2	Start 2350.7 hold at 7163.3 MD	
9,514.1	9,506.0	-209.2	111.2	Start Build 10.00	
10,411.7	10,079.0	361.4	108.2	EOC - 10411.7MD, 89.76°INC, 359.69°AZI	
10,492.4	10,079.3	442.1	107.7	Start 3809.2 hold at 10492.4 MD	
14,432.1	10,095.5	4,251.2	87.0	TD at 14432.1	

**District I**

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

**District II**

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

**District III**

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

**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**

COMMENTS

Action 24437

**COMMENTS**

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 24437
	Action Type: [C-103] NOI Change of Plans (C-103A)

**COMMENTS**

Created By	Comment	Comment Date
kpickford	KP GEO Review 4/20/2021	4/20/2021



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**State of New Mexico**  
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CONDITIONS

Action 24437

**CONDITIONS**

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 24437
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	4/20/2021