

Well Name: MULVA FED COM	Well Location: T24S / R35E / SEC 27 / SESE / 32.1818157 / -103.3493159	County or Parish/State: LEA / NM
Well Number: 136H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM138890	Unit or CA Name:	Unit or CA Number:
US Well Number: 300254783000X1	Well Status: Approved Application for Permit to Drill	Operator: TAP ROCK OPERATING LLC

Notice of Intent

Sundry ID: 2647966

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 12/08/2021	Time Sundry Submitted: 04:59
Date proposed operation will begin: 01/28/2022	

Procedure Description: Request to move SHL from 210 feet FSL and 776 feet FEL to 210 FSL and 581 FEL, move BHL from 2640 feet FSL and 1320 feet FEL to 2640 feet FSL and 660 feet FEL, and depth to 12759 TVD and 21005 MD. No change to pad or infrastructure is required therefore no new disturbance will occur as a result of this change. New Plats, Directional Plan, and Drill Plan with Casing and Cement details are attached.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Mulva_Fed_Com_136H_BLM_Sundry_SHL__BHL__Depth_Attachements_20210208_20211208165911.pdf

Well Name: MULVA FED COM	Well Location: T24S / R35E / SEC 27 / SESE / 32.1818157 / -103.3493159	County or Parish/State: LEA / NM
Well Number: 136H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM138890	Unit or CA Name:	Unit or CA Number:
US Well Number: 300254783000X1	Well Status: Approved Application for Permit to Drill	Operator: TAP ROCK OPERATING LLC

Conditions of Approval

Additional Reviews

Sec_27_24S_35E_NMP_Mulva_136H_Eddy_NMNM138893_Taprock_COAs____Updated_for_Sundry_2022040114044 4.pdf

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.

Operator Electronic Signature: CHRISTIAN COMBS	Signed on: DEC 08, 2021 04:59 PM
Name: TAP ROCK OPERATING LLC	
Title: Regulatory Manager	
Street Address: 602 Park Point Drive, Suite 200	
City: Golden	State: CO
Phone: (720) 360-4028	
Email address: ccombs@taprk.com	

Field Representative

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Approved	Disposition Date: 04/04/2022
Signature: null	

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

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

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-47830	² Pool Code 98098	³ Pool Name WC025G09S243532M/WOLFBONE
⁴ Property Code 328302	⁵ Property Name MULVA FED COM	
⁷ OGRID No. #372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁶ Well Number 136H
		⁹ Elevation 3279'

¹⁰Surface Location

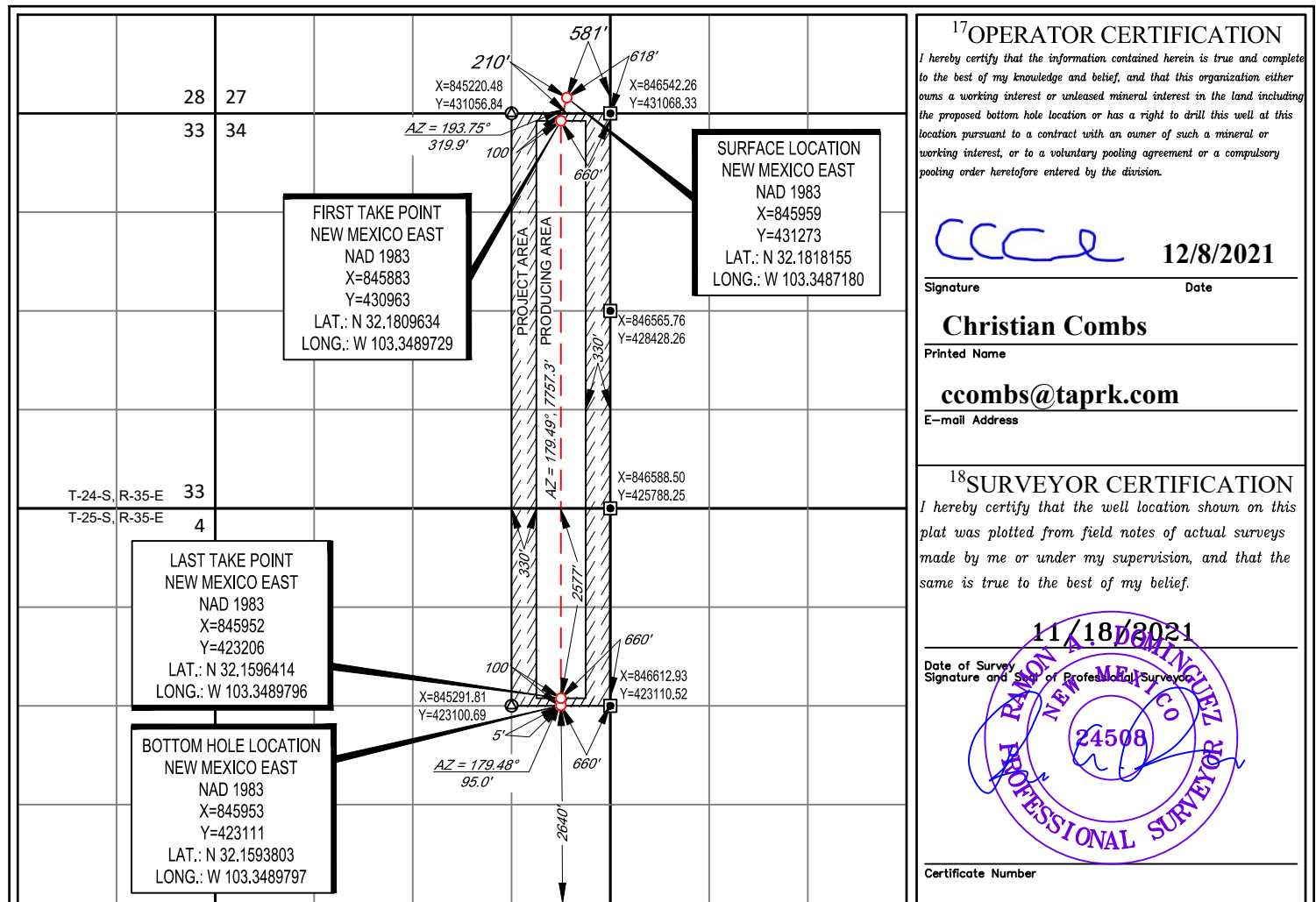
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	27	24-S	35-E	-	210'	SOUTH	581'	EAST	LEA

¹¹Bottom Hole Location If Different From Surface

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

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

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.



Topographic map of the Antelope area. The map shows contour lines, a dashed line for the proposed pipeline route, and various landmarks. A red dashed line indicates the proposed route, with a red dot at the top labeled "MULVA FED COM 136H" and "SHL". Other labels include "FTP", "LTP", "BHL", and "BM". The map is divided into sections 33, 34, 35, 4, and 2.



LATITUDE N 32.1818155 LONGITUDE W 103.3487180



SCALE: 1" = 2000'

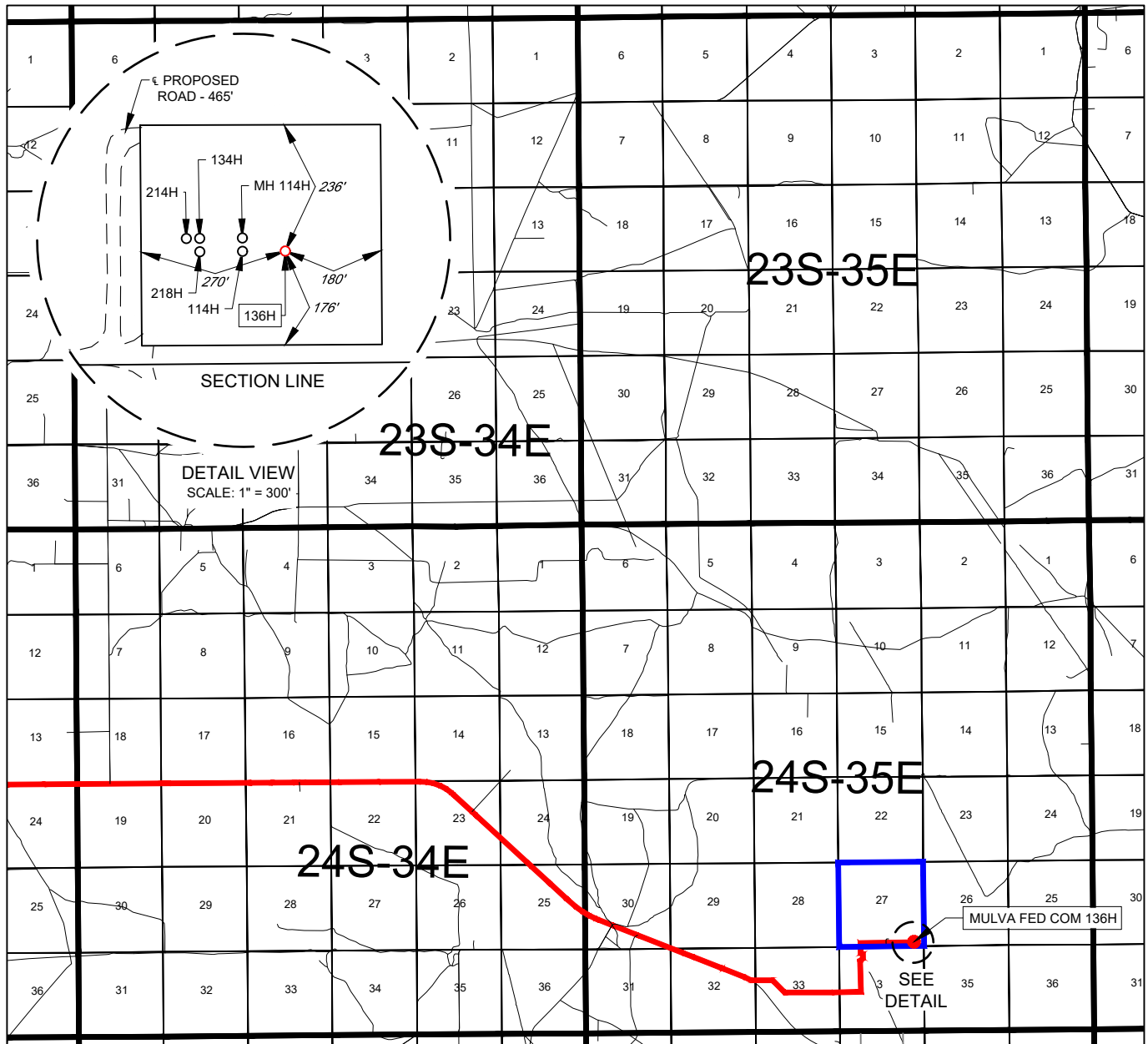


0' 1000' 2000'



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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
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EXHIBIT 2
VICINITY MAPLEASE NAME & WELL NO.: MULVA FED COM 136HSECTION 27 TWP 24-S RGE 35-E SURVEY N.M.P.M.COUNTY LEA STATE NMDESCRIPTION 210' FSL & 581' FEL

DISTANCE & DIRECTION

FROM INT. OF NM-128 & DELAWARE BASIN RD., GO EAST ON NM-128
 ±9.7 MILES, THENCE NORTHEAST (LEFT) ON A LEASE RD. ±3.1 MILES,
 THENCE NORTH (LEFT) ON A PROPOSED RD. ±465 FEET TO A POINT
 ±347 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
 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.



SCALE: 1" = 10000'

0' 5000' 10000'



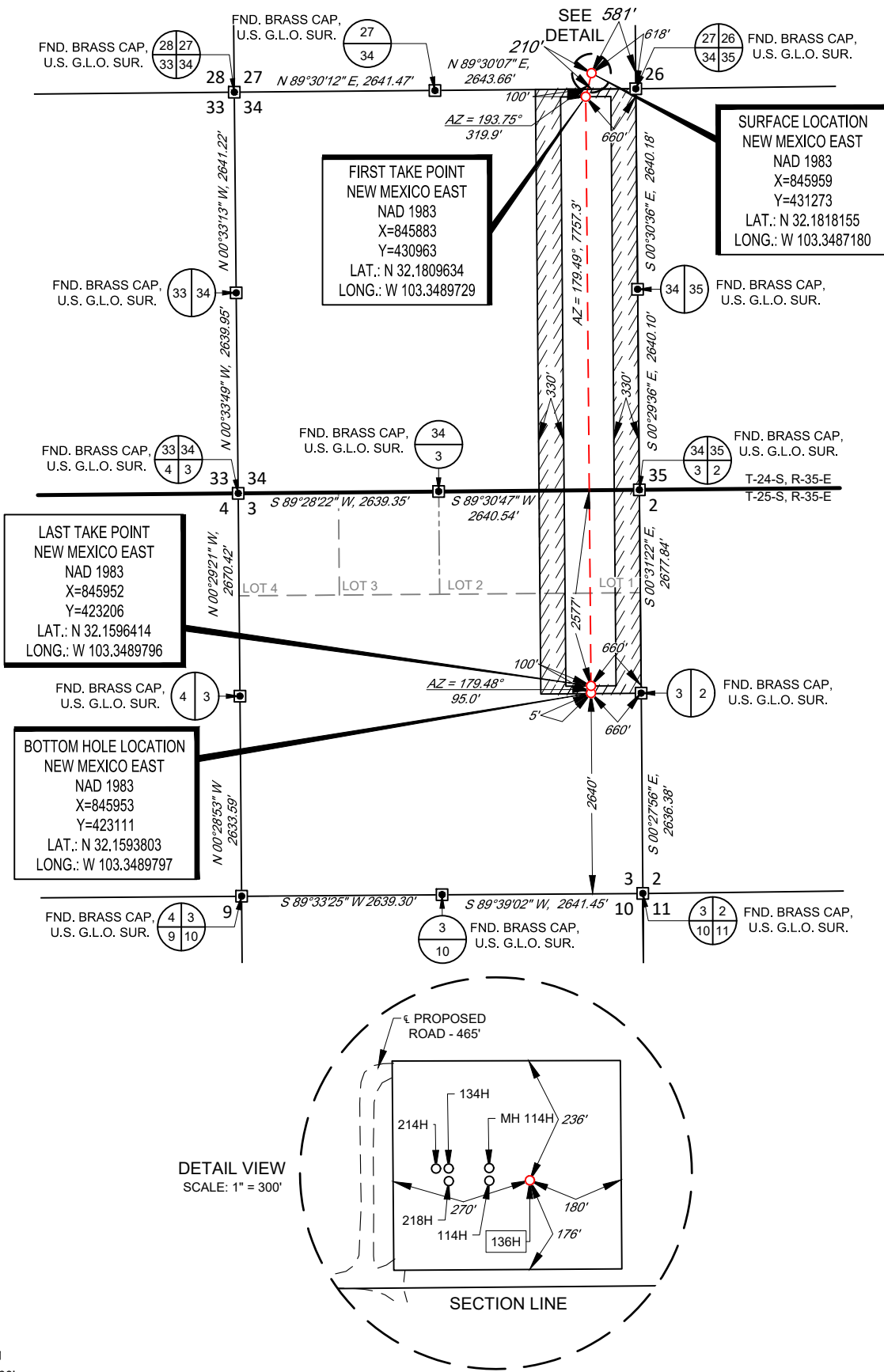
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EXHIBIT 2A

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



LEASE NAME & WELL NO.: _____ MULVA FED COM 136H

SECTION 27 TWP 24-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 210' FSL & 581' FEL

DISTANCE & DIRECTION
FROM INT. OF NM-128 & DELAWARE BASIN RD., GO EAST ON NM-128
±9.7 MILES, THENCE NORTHEAST (LEFT) ON A LEASE RD. ±3.1 MILES,
THENCE NORTH (LEFT) ON A PROPOSED RD. ±465 FEET TO A POINT
±347 FEET NORTHWEST OF THE LOCATION.

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

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



Ramon A. Dominguez, P.S. No. 24508
November 18, 2021

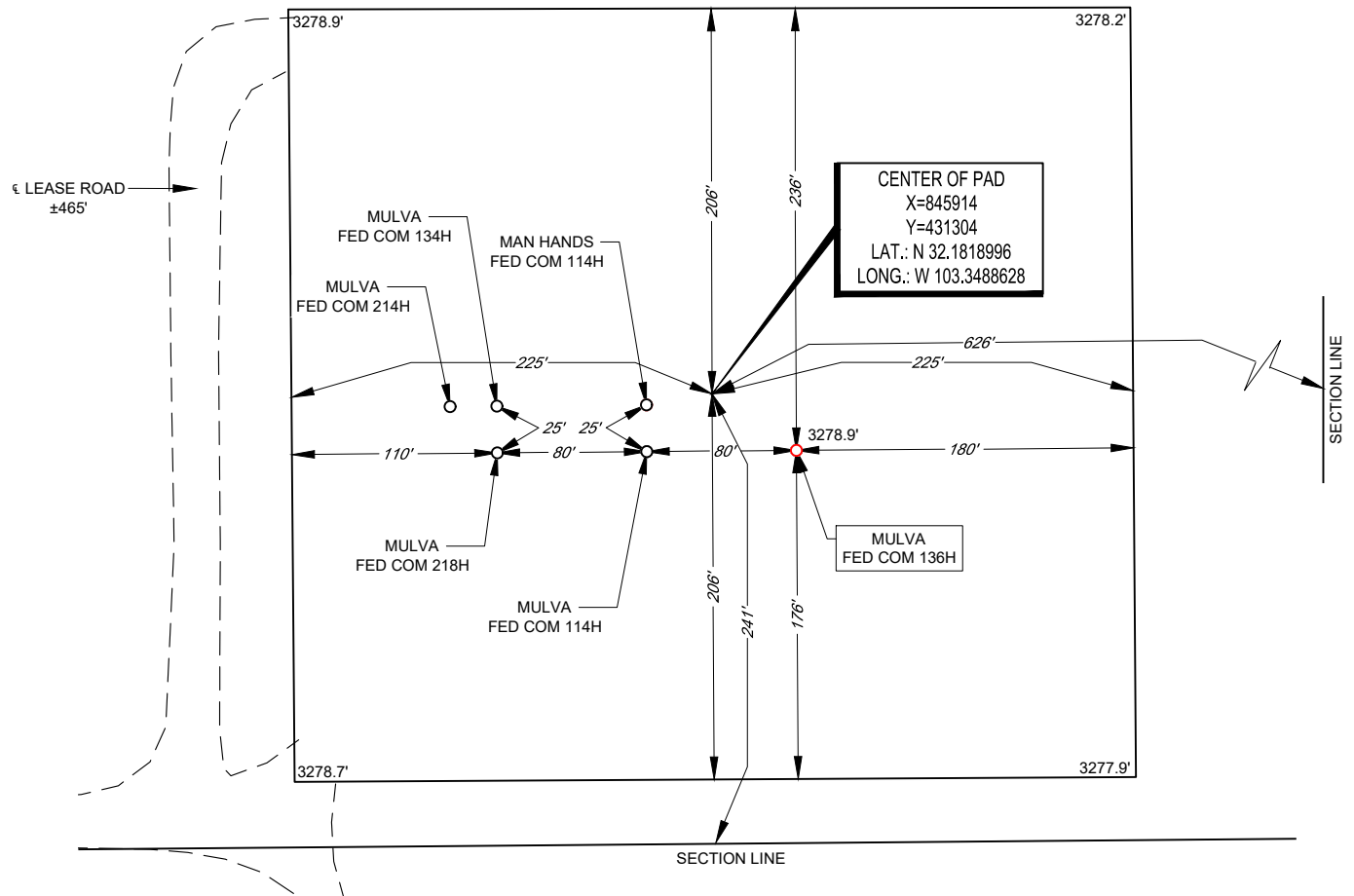
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EXHIBIT 2B



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



LEASE NAME & WELL NO.: _____ MULVA FED COM 136H
136H LATITUDE _____ N 32.1818155 _____ 136H LONGITUDE _____ W 103.3487180

CENTER OF PAD IS 241' FSL & 626' FEL

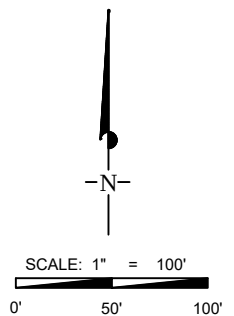


Ramon A. Dominguez, P.S. No. 24508

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 NAVD83, 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"



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Drilling Operations Plan
 Mulva Fed Com #136H
 Tap Rock Operating, LLC
 SHL 210' FSL & 581' FEL, Sec. 27
 T. 24S., R. 35E Lea County, NM
 BHL 2640' FSL & 660' FEL, Sec. 3
 T. 25S., R. 35E Lea County, NM

Elevation above Sea Level: 3279'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler Anhydrite	977	977		Salt
Salado	1198	1198	Salt	Salt
Base Salt	4878	4901	Salt	Salt
Bell Canyon	5114	5138	Sandstone	None
Lamar	5114	5138	Sandstone	Hydrocarbons
Cherry Canyon	6057	6085	Sandstone	Hydrocarbons
Brushy Canyon	7499	7527	Sandstone	Hydrocarbons
Bone Spring	8842	8870	Limestone	Hydrocarbons
1st Bone Spring	10093	10121	Sandstone	Hydrocarbons
2nd Bone Spring	10411	10439	Limestone	Hydrocarbons
3rd Bone Spring	11732	11760	Sandstone	Hydrocarbons
Wolfcamp	12037	12065	Shale	Hydrocarbons
KOP	12116	12143	Sandstone	Hydrocarbons
TD	12759	21005	Shale	Hydrocarbons

2. Notable Zones

Wolfcamp B is the formation target.

3. Pressure Control

Pressure Control Equipment (See Schematics):

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

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. Before drilling out from



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7.625" casing shoe, the BOP pressure tests will be made with a third party tester to 250 psi low, 10,000 psi high, and the annular preventer will be tested to 5,000 psi. The BOP will be tested in this manner if passage of allotted time occurs.

Variance Requests:

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

4. Casing & Cement

All Casing will be new.

Primary Casing Design:

Section	Drilled Interval			Casing Size	Standard	Tapered	Casing Set Depths				Casing Details					
	Hole Size	Top	Btm				Top MD	Bottom MD	Top TVD	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	0	1062	13 3/8	API	No	0	1052	0	1052	J-55	54.5	BUTT	1.13	1.15	1.6
Intermediate	9 7/8	1062	8500	7 5/8	API	No	0	8200	0	8172	P-110	29.7	BUTT	1.13	1.15	1.6
	8 3/4	8500	12053	7 5/8	NON API	Yes	8200	12043	8172	12016	P-110	29.7	W-441	1.13	1.15	1.6
Production	6 3/4	12053	21005	5 1/2	NON API	No	0	11843	0	11816	P-110	20	TXP	1.13	1.15	1.6
Production	6 3/4			5 1/2	NON API	No	11843	21005	11816	12759	P-110	20	W-441	1.13	1.15	1.6

Alternative Casing Design:

Section	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	1052	0	1052	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	5188	0	5164	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	API	No	0	4888	0	4864	P-110	29.7	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	Yes	4888	12043	4864	12016	P-110	29.7	W-441	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	0	11843	0	11816	P-110	20	TXP	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	11843	21005	11816	12759	P-110	20	W-441	1.13	1.15	1.6



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Primary Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	549	1.65	906	13.5	100%	C	5% NCI + LCM
	Tail	652	422	1.35	570	14.8	100%	C	5% NCI + LCM
Intermediate	Stage 1 Lead	0	1087	3.35	3642	10.5	75%	C	Fluid Loss + Dispersant + Retarder + LCM
	Stage 1 Tail	11043	113	1.56	176	13.2	75%	C	Fluid Loss + Dispersant + Retarder + LCM
	Stage 2 Primary	0	793	2.4	1904	11.5	75%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	DVT	5138							
Production	Primary	11543	578	1.71	988	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM

Alternative Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	549	1.65	906	13.5	100%	C	5% NCI + LCM
	Tail	652	412	1.35	556	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	984	2.18	2145	12.7	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	4151	403	1.33	536	14.8	65%	C	5% NaCl + LCM
2nd Intermediate	Lead	4888	291	2.87	835	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
	Tail	11043	87	1.56	136	13.2	35%	H	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	11543	578	1.71	988	14.2	25%	H	Fluid Loss + Dispersant + Retarder + LCM

If a DV tool is ran, the depth will be adjusted depending on current hole conditions. Cement volumes will be adjusted proportionally. The DV tool will be set a minimum of 50' below the previous casing shoe and a maximum of 200' above the current casing shoe. If cement is not circulated to surface on the 1st cement job, the 2nd stage will be pumped as planned. If cement does not return to surface on the 2nd stage the BLM will be notified immediately.

5. Mud Program

Primary Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1052	FW Gel	8.30	28	NC
Intermediate	1052	12053	DBE	9.00	30-32	NC
Production	12053	21005	Oil Base Mud	11.50	50-70	<10

Alternative Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	1052	FW Spud Mud	8.30	28	NC
Intermediate	1052	5188	Brine Water	10.00	30-32	NC
Intermediate 2	5188	12043	FW/Cut Brine	9.00	30-32	NC
Production	12043	21005	Oil Base Mud	11.50	50-70	<10

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



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6. Cores, Tests, & Logs

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

7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is $\approx 7,630$ psi. Expected bottom hole temperature is $\approx 170^{\circ}$ F.

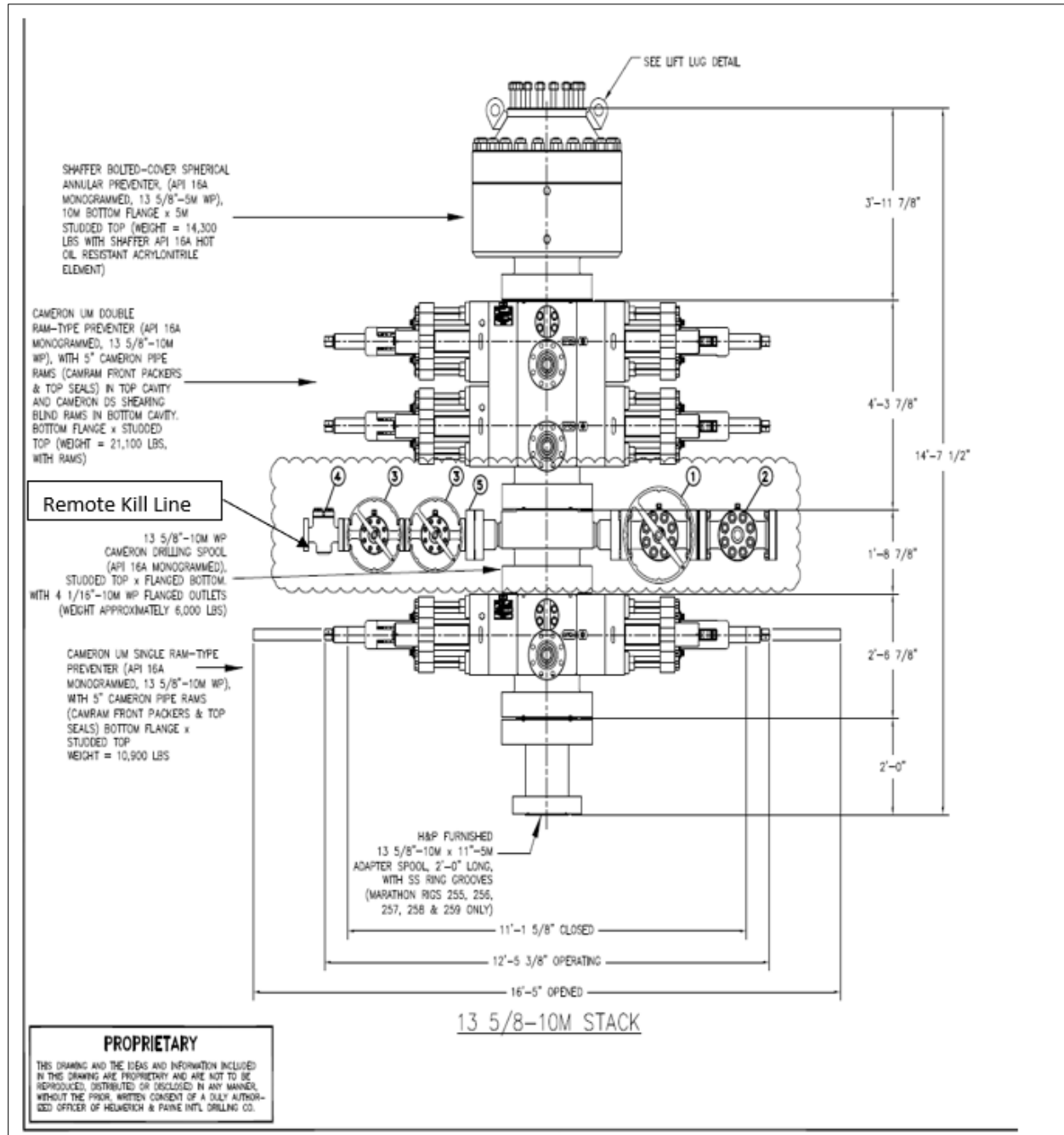
Tap Rock does not anticipate that there will be enough H₂S from the surface to the Wolfcamp formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H₂S safety package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

8. Other Information

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



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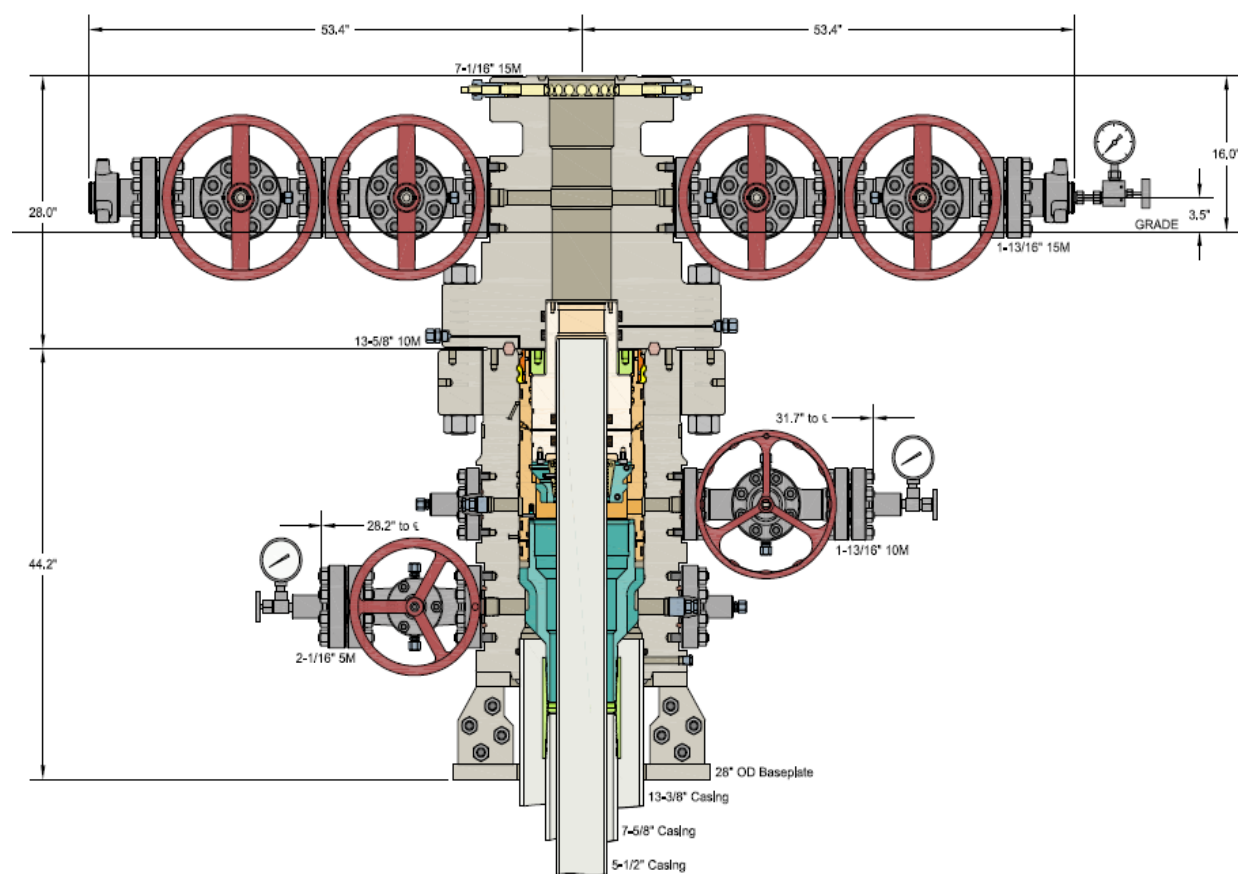






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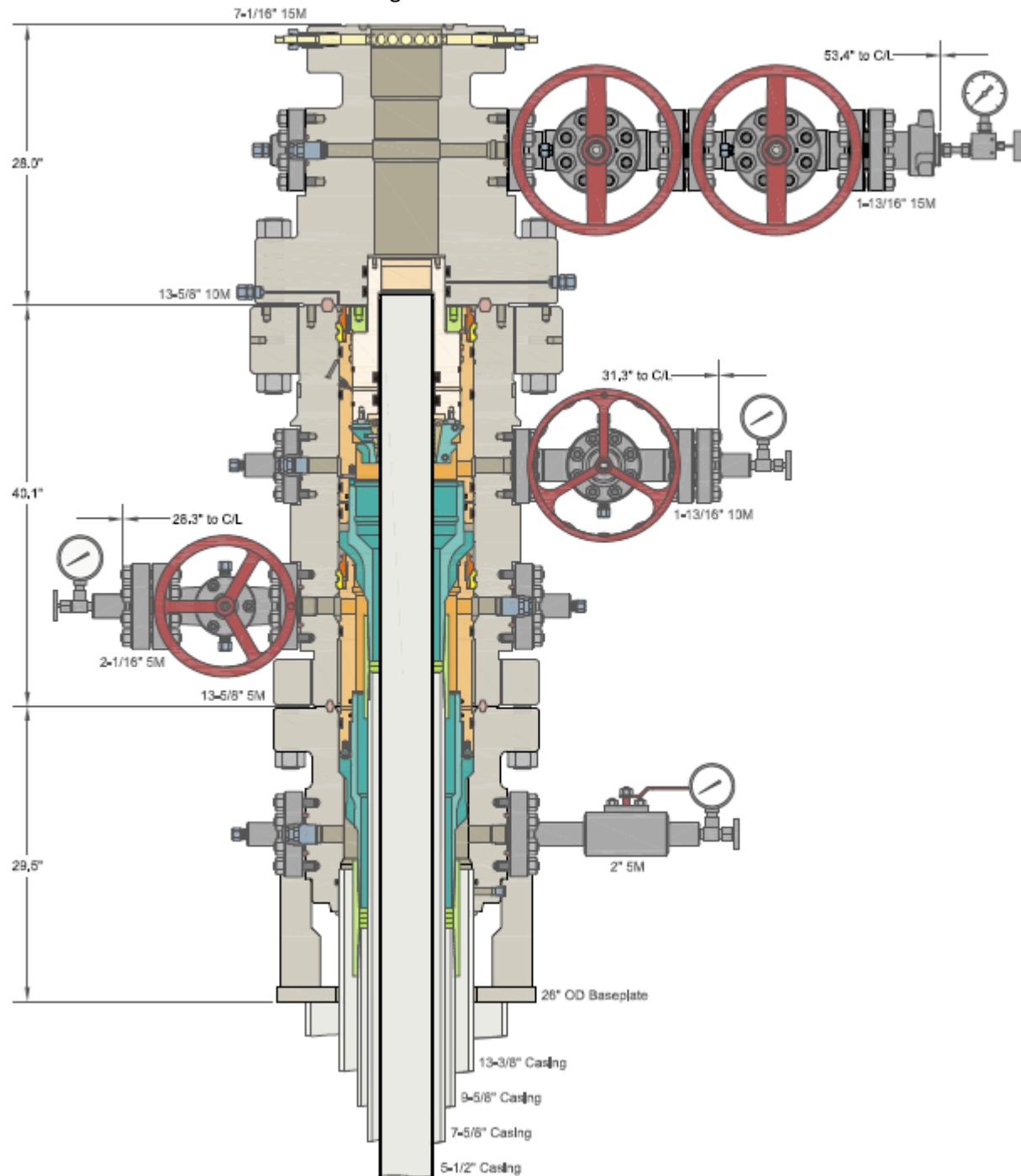
Multi-bowl Wellhead- Primary Design





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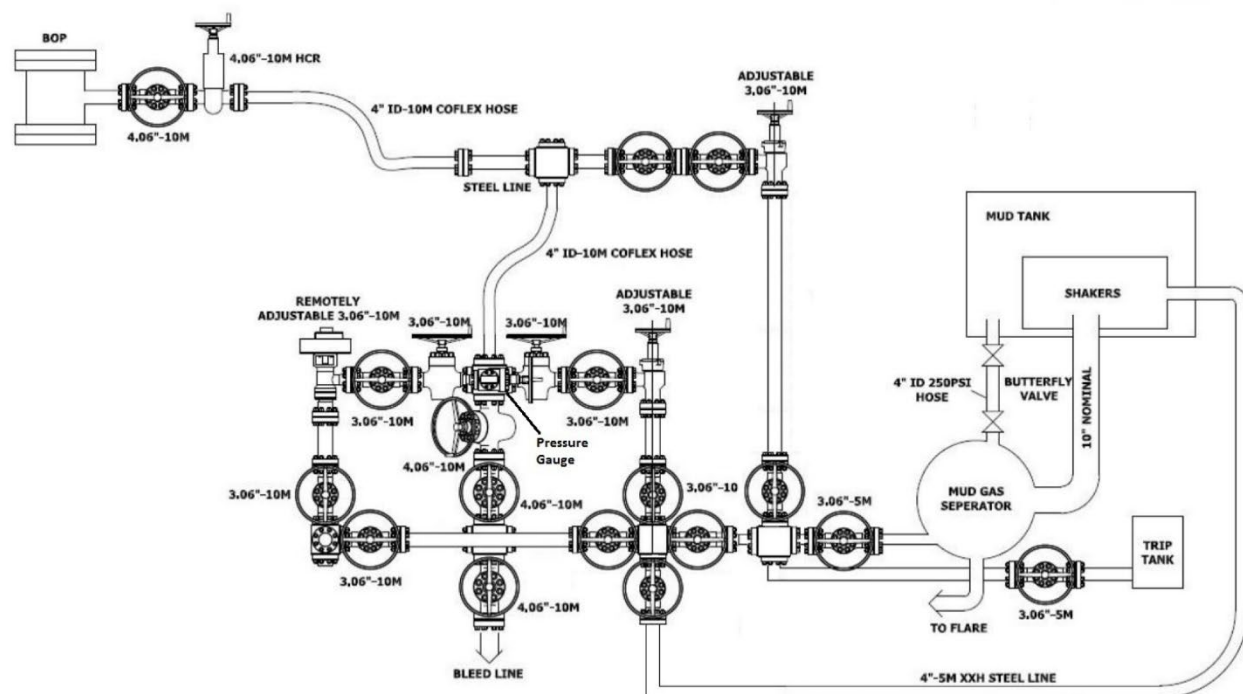
Multi-bowl Wellhead- Alternative Design





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10M Choke Layout





Tap Rock Resources, LLC

**Lea County, NM (NAD 83 NME)
(Mulva Fed) Sec-27_T-24-S_R-35-E
Mulva Fed Com #136H**

OWB

Plan: Plan #3

Standard Planning Report

06 December, 2021





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Mulva Fed Com #136H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	(Mulva Fed) Sec-27_T-24-S_R-35-E		
Site Position:		Northing:	431,446.00 usft
From:	Map	Easting:	841,909.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 10' 56.609 N
		Longitude:	103° 21' 42.490 W
		Grid Convergence:	0.52 °

Well	Mulva Fed Com #136H		
Well Position	+N/-S	-173.0 usft	Northing:
	+E/-W	4,050.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OWB		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2015	01/16/20	6.56
			Dip Angle (°)
			60.02
			Field Strength (nT)
			47,671.44768805

Design	Plan #3		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			179.49

Plan Survey Tool Program	Date	12/06/21		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,054.6	Plan #3 (OWB)	MWD
			OWSG MWD - Standard	



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Mulva Fed Com #136H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,100.0	7.00	344.00	2,098.3	41.1	-11.8	1.00	1.00	0.00	344.00	
2,600.0	7.00	344.00	2,594.5	99.6	-28.6	0.00	0.00	0.00	0.00	
2,845.9	7.00	323.71	2,838.7	126.1	-41.6	1.00	0.00	-8.25	-100.10	
5,386.1	7.00	323.71	5,359.9	375.6	-224.7	0.00	0.00	0.00	0.00	
6,085.9	0.00	0.00	6,058.0	410.0	-250.0	1.00	-1.00	0.00	180.00	
12,143.9	0.00	0.00	12,116.0	410.0	-250.0	0.00	0.00	0.00	0.00	
13,038.9	89.50	172.00	12,688.9	-152.4	-171.0	10.00	10.00	0.00	172.00	
13,573.9	89.50	172.00	12,693.6	-682.2	-96.5	0.00	0.00	0.00	0.00	
13,948.6	89.50	179.49	12,696.9	-1,055.6	-68.7	2.00	0.00	2.00	90.05	
21,055.6	89.50	179.49	12,759.2	-8,162.0	-6.0	0.00	0.00	0.00	0.00	PBHL (Mulva Fed C



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Mulva Fed Com #136H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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	1.00	344.00	1,500.0	0.8	-0.2	-0.8	1.00	1.00	0.00
1,600.0	2.00	344.00	1,600.0	3.4	-1.0	-3.4	1.00	1.00	0.00
1,700.0	3.00	344.00	1,699.9	7.5	-2.2	-7.6	1.00	1.00	0.00
1,800.0	4.00	344.00	1,799.7	13.4	-3.8	-13.5	1.00	1.00	0.00
1,900.0	5.00	344.00	1,899.4	21.0	-6.0	-21.0	1.00	1.00	0.00
2,000.0	6.00	344.00	1,998.9	30.2	-8.7	-30.2	1.00	1.00	0.00
2,100.0	7.00	344.00	2,098.3	41.1	-11.8	-41.2	1.00	1.00	0.00
2,200.0	7.00	344.00	2,197.5	52.8	-15.1	-52.9	0.00	0.00	0.00
2,300.0	7.00	344.00	2,296.8	64.5	-18.5	-64.6	0.00	0.00	0.00
2,400.0	7.00	344.00	2,396.0	76.2	-21.8	-76.4	0.00	0.00	0.00
2,500.0	7.00	344.00	2,495.3	87.9	-25.2	-88.1	0.00	0.00	0.00
2,600.0	7.00	344.00	2,594.5	99.6	-28.6	-99.9	0.00	0.00	0.00
2,700.0	6.89	335.77	2,693.8	111.0	-32.7	-111.2	1.00	-0.11	-8.23
2,800.0	6.93	327.46	2,793.1	121.5	-38.4	-121.9	1.00	0.04	-8.31
2,845.9	7.00	323.71	2,838.7	126.1	-41.6	-126.5	1.00	0.14	-8.16
2,900.0	7.00	323.71	2,892.3	131.4	-45.5	-131.8	0.00	0.00	0.00
3,000.0	7.00	323.71	2,991.6	141.2	-52.7	-141.7	0.00	0.00	0.00
3,100.0	7.00	323.71	3,090.8	151.1	-59.9	-151.6	0.00	0.00	0.00
3,200.0	7.00	323.71	3,190.1	160.9	-67.1	-161.5	0.00	0.00	0.00
3,300.0	7.00	323.71	3,289.4	170.7	-74.3	-171.4	0.00	0.00	0.00
3,400.0	7.00	323.71	3,388.6	180.5	-81.5	-181.2	0.00	0.00	0.00
3,500.0	7.00	323.71	3,487.9	190.4	-88.7	-191.1	0.00	0.00	0.00
3,600.0	7.00	323.71	3,587.1	200.2	-95.9	-201.0	0.00	0.00	0.00
3,700.0	7.00	323.71	3,686.4	210.0	-103.2	-210.9	0.00	0.00	0.00
3,800.0	7.00	323.71	3,785.6	219.8	-110.4	-220.8	0.00	0.00	0.00
3,900.0	7.00	323.71	3,884.9	229.6	-117.6	-230.7	0.00	0.00	0.00
4,000.0	7.00	323.71	3,984.1	239.5	-124.8	-240.6	0.00	0.00	0.00
4,100.0	7.00	323.71	4,083.4	249.3	-132.0	-250.4	0.00	0.00	0.00
4,200.0	7.00	323.71	4,182.6	259.1	-139.2	-260.3	0.00	0.00	0.00
4,300.0	7.00	323.71	4,281.9	268.9	-146.4	-270.2	0.00	0.00	0.00
4,400.0	7.00	323.71	4,381.2	278.7	-153.6	-280.1	0.00	0.00	0.00
4,500.0	7.00	323.71	4,480.4	288.6	-160.8	-290.0	0.00	0.00	0.00
4,600.0	7.00	323.71	4,579.7	298.4	-168.1	-299.9	0.00	0.00	0.00
4,700.0	7.00	323.71	4,678.9	308.2	-175.3	-309.8	0.00	0.00	0.00
4,800.0	7.00	323.71	4,778.2	318.0	-182.5	-319.6	0.00	0.00	0.00
4,900.0	7.00	323.71	4,877.4	327.9	-189.7	-329.5	0.00	0.00	0.00
5,000.0	7.00	323.71	4,976.7	337.7	-196.9	-339.4	0.00	0.00	0.00
5,100.0	7.00	323.71	5,075.9	347.5	-204.1	-349.3	0.00	0.00	0.00
5,200.0	7.00	323.71	5,175.2	357.3	-211.3	-359.2	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Mulva Fed Com #136H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S-R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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	7.00	323.71	5,274.5	367.1	-218.5	-369.1	0.00	0.00	0.00
5,386.1	7.00	323.71	5,359.9	375.6	-224.7	-377.6	0.00	0.00	0.00
5,400.0	6.86	323.71	5,373.7	376.9	-225.7	-378.9	1.00	-1.00	0.00
5,500.0	5.86	323.71	5,473.1	385.9	-232.3	-387.9	1.00	-1.00	0.00
5,600.0	4.86	323.71	5,572.7	393.4	-237.8	-395.5	1.00	-1.00	0.00
5,700.0	3.86	323.71	5,672.4	399.5	-242.3	-401.7	1.00	-1.00	0.00
5,800.0	2.86	323.71	5,772.2	404.3	-245.8	-406.4	1.00	-1.00	0.00
5,900.0	1.86	323.71	5,872.1	407.6	-248.2	-409.8	1.00	-1.00	0.00
6,000.0	0.86	323.71	5,972.1	409.5	-249.6	-411.7	1.00	-1.00	0.00
6,085.9	0.00	0.00	6,058.0	410.0	-250.0	-412.2	1.00	-1.00	0.00
6,100.0	0.00	0.00	6,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,200.0	0.00	0.00	6,172.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,300.0	0.00	0.00	6,272.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,372.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,472.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,572.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,672.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,772.1	410.0	-250.0	-412.2	0.00	0.00	0.00
6,900.0	0.00	0.00	6,872.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,000.0	0.00	0.00	6,972.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,100.0	0.00	0.00	7,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,200.0	0.00	0.00	7,172.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,300.0	0.00	0.00	7,272.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,400.0	0.00	0.00	7,372.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,500.0	0.00	0.00	7,472.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,600.0	0.00	0.00	7,572.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,700.0	0.00	0.00	7,672.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,800.0	0.00	0.00	7,772.1	410.0	-250.0	-412.2	0.00	0.00	0.00
7,900.0	0.00	0.00	7,872.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,972.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,100.0	0.00	0.00	8,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,200.0	0.00	0.00	8,172.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,300.0	0.00	0.00	8,272.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,400.0	0.00	0.00	8,372.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,500.0	0.00	0.00	8,472.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,600.0	0.00	0.00	8,572.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,700.0	0.00	0.00	8,672.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,800.0	0.00	0.00	8,772.1	410.0	-250.0	-412.2	0.00	0.00	0.00
8,900.0	0.00	0.00	8,872.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,000.0	0.00	0.00	8,972.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,100.0	0.00	0.00	9,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,200.0	0.00	0.00	9,172.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,300.0	0.00	0.00	9,272.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,400.0	0.00	0.00	9,372.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,500.0	0.00	0.00	9,472.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,600.0	0.00	0.00	9,572.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,700.0	0.00	0.00	9,672.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,800.0	0.00	0.00	9,772.1	410.0	-250.0	-412.2	0.00	0.00	0.00
9,900.0	0.00	0.00	9,872.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,000.0	0.00	0.00	9,972.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,100.0	0.00	0.00	10,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,200.0	0.00	0.00	10,172.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,300.0	0.00	0.00	10,272.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,400.0	0.00	0.00	10,372.1	410.0	-250.0	-412.2	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Mulva Fed Com #136H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
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Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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)
10,500.0	0.00	0.00	10,472.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,600.0	0.00	0.00	10,572.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,700.0	0.00	0.00	10,672.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,800.0	0.00	0.00	10,772.1	410.0	-250.0	-412.2	0.00	0.00	0.00
10,900.0	0.00	0.00	10,872.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,000.0	0.00	0.00	10,972.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,100.0	0.00	0.00	11,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,200.0	0.00	0.00	11,172.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,300.0	0.00	0.00	11,272.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,400.0	0.00	0.00	11,372.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,500.0	0.00	0.00	11,472.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,600.0	0.00	0.00	11,572.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,700.0	0.00	0.00	11,672.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,800.0	0.00	0.00	11,772.1	410.0	-250.0	-412.2	0.00	0.00	0.00
11,900.0	0.00	0.00	11,872.1	410.0	-250.0	-412.2	0.00	0.00	0.00
12,000.0	0.00	0.00	11,972.1	410.0	-250.0	-412.2	0.00	0.00	0.00
12,100.0	0.00	0.00	12,072.1	410.0	-250.0	-412.2	0.00	0.00	0.00
12,143.9	0.00	0.00	12,116.0	410.0	-250.0	-412.2	0.00	0.00	0.00
12,150.0	0.61	172.00	12,122.1	410.0	-250.0	-412.2	10.00	10.00	0.00
12,200.0	5.61	172.00	12,172.0	407.3	-249.6	-409.5	10.00	10.00	0.00
12,250.0	10.61	172.00	12,221.5	400.3	-248.6	-402.5	10.00	10.00	0.00
12,300.0	15.61	172.00	12,270.2	389.1	-247.1	-391.3	10.00	10.00	0.00
12,350.0	20.61	172.00	12,317.7	373.7	-244.9	-375.9	10.00	10.00	0.00
12,400.0	25.61	172.00	12,363.6	354.3	-242.2	-356.4	10.00	10.00	0.00
12,450.0	30.61	172.00	12,407.7	331.0	-238.9	-333.1	10.00	10.00	0.00
12,500.0	35.61	172.00	12,449.6	303.9	-235.1	-306.0	10.00	10.00	0.00
12,550.0	40.61	172.00	12,488.9	273.4	-230.8	-275.4	10.00	10.00	0.00
12,600.0	45.61	172.00	12,525.4	239.5	-226.0	-241.5	10.00	10.00	0.00
12,650.0	50.61	172.00	12,558.8	202.7	-220.9	-204.7	10.00	10.00	0.00
12,700.0	55.61	172.00	12,588.8	163.1	-215.3	-165.0	10.00	10.00	0.00
12,750.0	60.61	172.00	12,615.2	121.1	-209.4	-122.9	10.00	10.00	0.00
12,800.0	65.61	172.00	12,637.8	76.9	-203.2	-78.7	10.00	10.00	0.00
12,850.0	70.61	172.00	12,656.5	31.0	-196.7	-32.8	10.00	10.00	0.00
12,900.0	75.61	172.00	12,671.0	-16.3	-190.1	14.7	10.00	10.00	0.00
12,950.0	80.61	172.00	12,681.3	-64.8	-183.3	63.2	10.00	10.00	0.00
13,000.0	85.61	172.00	12,687.3	-113.9	-176.4	112.4	10.00	10.00	0.00
13,038.9	89.50	172.00	12,688.9	-152.4	-171.0	150.9	10.00	10.00	0.00
13,100.0	89.50	172.00	12,689.5	-212.9	-162.5	211.5	0.00	0.00	0.00
13,200.0	89.50	172.00	12,690.3	-311.9	-148.5	310.6	0.00	0.00	0.00
13,300.0	89.50	172.00	12,691.2	-411.0	-134.6	409.7	0.00	0.00	0.00
13,400.0	89.50	172.00	12,692.1	-510.0	-120.7	508.9	0.00	0.00	0.00
13,500.0	89.50	172.00	12,693.0	-609.0	-106.8	608.0	0.00	0.00	0.00
13,573.9	89.50	172.00	12,693.6	-682.2	-96.5	681.3	0.00	0.00	0.00
13,600.0	89.50	172.52	12,693.8	-708.0	-93.0	707.2	2.00	0.00	2.00
13,700.0	89.50	174.52	12,694.7	-807.4	-81.7	806.6	2.00	0.00	2.00
13,800.0	89.50	176.52	12,695.6	-907.1	-73.9	906.4	2.00	0.00	2.00
13,900.0	89.50	178.52	12,696.5	-1,007.0	-69.6	1,006.3	2.00	0.00	2.00
13,948.6	89.50	179.49	12,696.9	-1,055.6	-68.7	1,054.9	2.00	0.00	2.00
14,000.0	89.50	179.49	12,697.3	-1,107.0	-68.3	1,106.3	0.00	0.00	0.00
14,100.0	89.50	179.49	12,698.2	-1,207.0	-67.4	1,206.3	0.00	0.00	0.00
14,200.0	89.50	179.49	12,699.1	-1,306.9	-66.5	1,306.3	0.00	0.00	0.00
14,300.0	89.50	179.49	12,700.0	-1,406.9	-65.6	1,406.3	0.00	0.00	0.00
14,400.0	89.50	179.49	12,700.8	-1,506.9	-64.8	1,506.3	0.00	0.00	0.00
14,500.0	89.50	179.49	12,701.7	-1,606.9	-63.9	1,606.3	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Mulva Fed Com #136H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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	89.50	179.49	12,702.6	-1,706.9	-63.0	1,706.3	0.00	0.00	0.00
14,700.0	89.50	179.49	12,703.5	-1,806.9	-62.1	1,806.3	0.00	0.00	0.00
14,800.0	89.50	179.49	12,704.4	-1,906.9	-61.2	1,906.3	0.00	0.00	0.00
14,900.0	89.50	179.49	12,705.2	-2,006.9	-60.3	2,006.3	0.00	0.00	0.00
15,000.0	89.50	179.49	12,706.1	-2,106.9	-59.5	2,106.3	0.00	0.00	0.00
15,100.0	89.50	179.49	12,707.0	-2,206.9	-58.6	2,206.3	0.00	0.00	0.00
15,200.0	89.50	179.49	12,707.9	-2,306.9	-57.7	2,306.3	0.00	0.00	0.00
15,300.0	89.50	179.49	12,708.7	-2,406.9	-56.8	2,406.3	0.00	0.00	0.00
15,400.0	89.50	179.49	12,709.6	-2,506.9	-55.9	2,506.3	0.00	0.00	0.00
15,500.0	89.50	179.49	12,710.5	-2,606.8	-55.0	2,606.3	0.00	0.00	0.00
15,600.0	89.50	179.49	12,711.4	-2,706.8	-54.2	2,706.2	0.00	0.00	0.00
15,700.0	89.50	179.49	12,712.2	-2,806.8	-53.3	2,806.2	0.00	0.00	0.00
15,800.0	89.50	179.49	12,713.1	-2,906.8	-52.4	2,906.2	0.00	0.00	0.00
15,900.0	89.50	179.49	12,714.0	-3,006.8	-51.5	3,006.2	0.00	0.00	0.00
16,000.0	89.50	179.49	12,714.9	-3,106.8	-50.6	3,106.2	0.00	0.00	0.00
16,100.0	89.50	179.49	12,715.8	-3,206.8	-49.7	3,206.2	0.00	0.00	0.00
16,200.0	89.50	179.49	12,716.6	-3,306.8	-48.9	3,306.2	0.00	0.00	0.00
16,300.0	89.50	179.49	12,717.5	-3,406.8	-48.0	3,406.2	0.00	0.00	0.00
16,400.0	89.50	179.49	12,718.4	-3,506.8	-47.1	3,506.2	0.00	0.00	0.00
16,500.0	89.50	179.49	12,719.3	-3,606.8	-46.2	3,606.2	0.00	0.00	0.00
16,600.0	89.50	179.49	12,720.1	-3,706.8	-45.3	3,706.2	0.00	0.00	0.00
16,700.0	89.50	179.49	12,721.0	-3,806.8	-44.4	3,806.2	0.00	0.00	0.00
16,800.0	89.50	179.49	12,721.9	-3,906.7	-43.6	3,906.2	0.00	0.00	0.00
16,900.0	89.50	179.49	12,722.8	-4,006.7	-42.7	4,006.2	0.00	0.00	0.00
17,000.0	89.50	179.49	12,723.7	-4,106.7	-41.8	4,106.2	0.00	0.00	0.00
17,100.0	89.50	179.49	12,724.5	-4,206.7	-40.9	4,206.2	0.00	0.00	0.00
17,200.0	89.50	179.49	12,725.4	-4,306.7	-40.0	4,306.2	0.00	0.00	0.00
17,300.0	89.50	179.49	12,726.3	-4,406.7	-39.2	4,406.2	0.00	0.00	0.00
17,400.0	89.50	179.49	12,727.2	-4,506.7	-38.3	4,506.2	0.00	0.00	0.00
17,500.0	89.50	179.49	12,728.0	-4,606.7	-37.4	4,606.2	0.00	0.00	0.00
17,600.0	89.50	179.49	12,728.9	-4,706.7	-36.5	4,706.2	0.00	0.00	0.00
17,700.0	89.50	179.49	12,729.8	-4,806.7	-35.6	4,806.2	0.00	0.00	0.00
17,800.0	89.50	179.49	12,730.7	-4,906.7	-34.7	4,906.2	0.00	0.00	0.00
17,900.0	89.50	179.49	12,731.5	-5,006.7	-33.9	5,006.2	0.00	0.00	0.00
18,000.0	89.50	179.49	12,732.4	-5,106.7	-33.0	5,106.2	0.00	0.00	0.00
18,100.0	89.50	179.49	12,733.3	-5,206.6	-32.1	5,206.2	0.00	0.00	0.00
18,200.0	89.50	179.49	12,734.2	-5,306.6	-31.2	5,306.1	0.00	0.00	0.00
18,300.0	89.50	179.49	12,735.1	-5,406.6	-30.3	5,406.1	0.00	0.00	0.00
18,400.0	89.50	179.49	12,735.9	-5,506.6	-29.4	5,506.1	0.00	0.00	0.00
18,500.0	89.50	179.49	12,736.8	-5,606.6	-28.6	5,606.1	0.00	0.00	0.00
18,600.0	89.50	179.49	12,737.7	-5,706.6	-27.7	5,706.1	0.00	0.00	0.00
18,700.0	89.50	179.49	12,738.6	-5,806.6	-26.8	5,806.1	0.00	0.00	0.00
18,800.0	89.50	179.49	12,739.4	-5,906.6	-25.9	5,906.1	0.00	0.00	0.00
18,900.0	89.50	179.49	12,740.3	-6,006.6	-25.0	6,006.1	0.00	0.00	0.00
19,000.0	89.50	179.49	12,741.2	-6,106.6	-24.1	6,106.1	0.00	0.00	0.00
19,100.0	89.50	179.49	12,742.1	-6,206.6	-23.3	6,206.1	0.00	0.00	0.00
19,200.0	89.50	179.49	12,742.9	-6,306.6	-22.4	6,306.1	0.00	0.00	0.00
19,300.0	89.50	179.49	12,743.8	-6,406.6	-21.5	6,406.1	0.00	0.00	0.00
19,400.0	89.50	179.49	12,744.7	-6,506.5	-20.6	6,506.1	0.00	0.00	0.00
19,500.0	89.50	179.49	12,745.6	-6,606.5	-19.7	6,606.1	0.00	0.00	0.00
19,600.0	89.50	179.49	12,746.5	-6,706.5	-18.8	6,706.1	0.00	0.00	0.00
19,700.0	89.50	179.49	12,747.3	-6,806.5	-18.0	6,806.1	0.00	0.00	0.00
19,800.0	89.50	179.49	12,748.2	-6,906.5	-17.1	6,906.1	0.00	0.00	0.00
19,900.0	89.50	179.49	12,749.1	-7,006.5	-16.2	7,006.1	0.00	0.00	0.00



Intrepid Planning Report



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Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 3305.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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)	
20,000.0	89.50	179.49	12,750.0	-7,106.5	-15.3	7,106.1	0.00	0.00	0.00	
20,100.0	89.50	179.49	12,750.8	-7,206.5	-14.4	7,206.1	0.00	0.00	0.00	
20,200.0	89.50	179.49	12,751.7	-7,306.5	-13.6	7,306.1	0.00	0.00	0.00	
20,300.0	89.50	179.49	12,752.6	-7,406.5	-12.7	7,406.1	0.00	0.00	0.00	
20,400.0	89.50	179.49	12,753.5	-7,506.5	-11.8	7,506.1	0.00	0.00	0.00	
20,500.0	89.50	179.49	12,754.4	-7,606.5	-10.9	7,606.1	0.00	0.00	0.00	
20,600.0	89.50	179.49	12,755.2	-7,706.4	-10.0	7,706.1	0.00	0.00	0.00	
20,700.0	89.50	179.49	12,756.1	-7,806.4	-9.1	7,806.1	0.00	0.00	0.00	
20,800.0	89.50	179.49	12,757.0	-7,906.4	-8.3	7,906.0	0.00	0.00	0.00	
20,900.0	89.50	179.49	12,757.9	-8,006.4	-7.4	8,006.0	0.00	0.00	0.00	
21,000.0	89.50	179.49	12,758.7	-8,106.4	-6.5	8,106.0	0.00	0.00	0.00	
21,055.6	89.50	179.49	12,759.2	-8,162.0	-6.0	8,161.6	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP (Mulva Fed Com - hit/miss target - Shape - Point)	0.00	0.00	12,689.0	-310.0	-76.0	430,963.00	845,883.00	32° 10' 51.472 N	103° 20' 56.305 W	- plan misses target center by 72.1usft at 13208.2usft MD (12690.4 TVD, -320.0 N, -147.4 E)
LTP (Mulva Fed Com - plan misses target center by 3.4usft at 20960.5usft MD (12758.4 TVD, -8067.0 N, -6.8 E) - Point)	0.00	0.00	12,755.0	-8,067.0	-7.0	423,206.00	845,952.00	32° 9' 34.713 N	103° 20' 56.327 W	
PBHL (Mulva Fed Cor - plan hits target center - Rectangle (sides W100.0 H7,853.0 D40.0))	0.50	179.49	12,759.2	-8,162.0	-6.0	423,111.00	845,953.00	32° 9' 33.773 N	103° 20' 56.326 W	



Intrepid Planning Report



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Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB @ 3305.0usft
Site:	(Mulva Fed) Sec-27_T-24-S_R-35-E	North Reference:	Grid
Well:	Mulva Fed Com #136H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
977.0	977.0	Rustler Anhydrite			
1,198.0	1,198.0	Top Salt			
4,900.6	4,878.0	Base Salt			
5,092.0	5,068.0	Delaware Mountain Gp			
5,097.0	5,073.0	Lamar			
5,118.2	5,094.0	Bell Canyon			
5,138.3	5,114.0	Ramsey Sand			
6,084.9	6,057.0	Cherry Canyon			
7,526.9	7,499.0	Brushy Canyon			
8,869.9	8,842.0	Bone Spring Lime			
8,907.6	8,879.7	Upper Avalon			
9,108.9	9,081.0	Middle Avalon			
9,771.9	9,744.0	Lower Avalon			
10,120.6	10,092.7	1st Bone Spring Sand			
10,439.2	10,411.3	2nd Bone Spring Carb			
10,721.2	10,693.3	2nd Bone Spring Sand			
11,194.9	11,167.0	3rd Bone Spring Carb			
11,759.6	11,731.7	3rd Bone Spring Sand			
12,018.6	11,990.7	3rd BS W Sand			
12,064.6	12,036.7	Wolfcamp A X Sand			
12,105.2	12,077.3	Wolfcamp A Y Sand			
12,174.2	12,146.3	Wolfcamp A Lower			
12,478.6	12,432.0	Wolfcamp B			
12,703.4	12,590.7	Wolfcamp B1			
18,749.8	12,739.0	Wolfcamp C			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,400.0	1,400.0	0.0	0.0	NUDGE - Build 1.00
2,100.0	2,098.3	41.1	-11.8	HOLD - 500.0 at 2100.0 MD
2,600.0	2,594.5	99.6	-28.6	TRN - DLS 1.00 TFO -100.10
2,845.9	2,838.7	126.1	-41.6	HOLD - 2540.1 at 2845.9 MD
5,386.1	5,359.9	375.6	-224.7	DROP - -1.00
6,085.9	6,058.0	410.0	-250.0	HOLD - 6058.0 at 6085.9 MD
12,143.9	12,116.0	410.0	-250.0	KOP - Build 10.00
13,038.9	12,688.9	-152.4	-171.0	EOC - 535.0 hold at 13038.9 MD
13,573.9	12,693.6	-682.2	-96.5	Start DLS 2.00 TFO 90.05
13,948.6	12,696.9	-1,055.6	-68.7	Start 7107.0 hold at 13948.6 MD
21,055.6	12,759.2	-8,162.0	-6.0	TD at 21055.6

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

CONDITIONS

Action 95786

CONDITIONS

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 95786
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	5/23/2022