

Well Name: WTG FED COM	Well Location: T26S / R29E / SEC 27 / NWNW /	County or Parish/State:
Well Number: 151H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM038636	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001554210	Well Status: Approved Application for Permit to Drill	Operator: TAP ROCK OPERATING LLC

Notice of Intent

Sundry ID: 2767576

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 12/28/2023	Time Sundry Submitted: 03:07
Date proposed operation will begin: 12/28/2023	

Procedure Description: For the referenced well, Tap Rock requests: To change the BHL: From 5' FSL - 990' FWL, Lot 9, Section 34 T26S-R29E Eddy County, NM (32.0001099, -103.9779250) To 5' FSL - 2310' FWL, Lot 10, Section 34 T26S-R29E Eddy County, NM (32.0001125, -103.9736668) (Lease NMLC-65928A) In addition, Tap Rock requests to change the OH size and casing design also included in the updated drilling plans attached. See attached plat, drilling plans and directional plans.

NOI Attachments

Procedure Description

- WTG_Fed_Com_151H_Plan_3_20231228150621.pdf
- APD_Drilling_Plan___WTG_Fed_Com_151H_12_28_23_Sundry_20231228150454.pdf
- LO_WTG_FED_COM_151H_REV1_S_20231228150440.pdf

Well Name: WTG FED COM	Well Location: T26S / R29E / SEC 27 / NWNW /	County or Parish/State:
Well Number: 151H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM038636	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001554210	Well Status: Approved Application for Permit to Drill	Operator: TAP ROCK OPERATING LLC

Conditions of Approval

Additional

Sec_27_26S_29E_NMP_Sundry_2767576_Tap_Rock_WTG_Fed_Com_151H_Engineering_COAs_20240104083121.pdf

Operator

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

Operator Electronic Signature: JEFFREY TRLICA	Signed on: DEC 28, 2023 03:05 PM
Name: TAP ROCK OPERATING LLC	
Title: Regulatory Analyst	
Street Address: 523 PARK POINT DRIVE SUITE 200	
City: GOLDEN	State: CO
Phone: (720) 772-5910	
Email address: JTRLICA@TAPRK.COM	

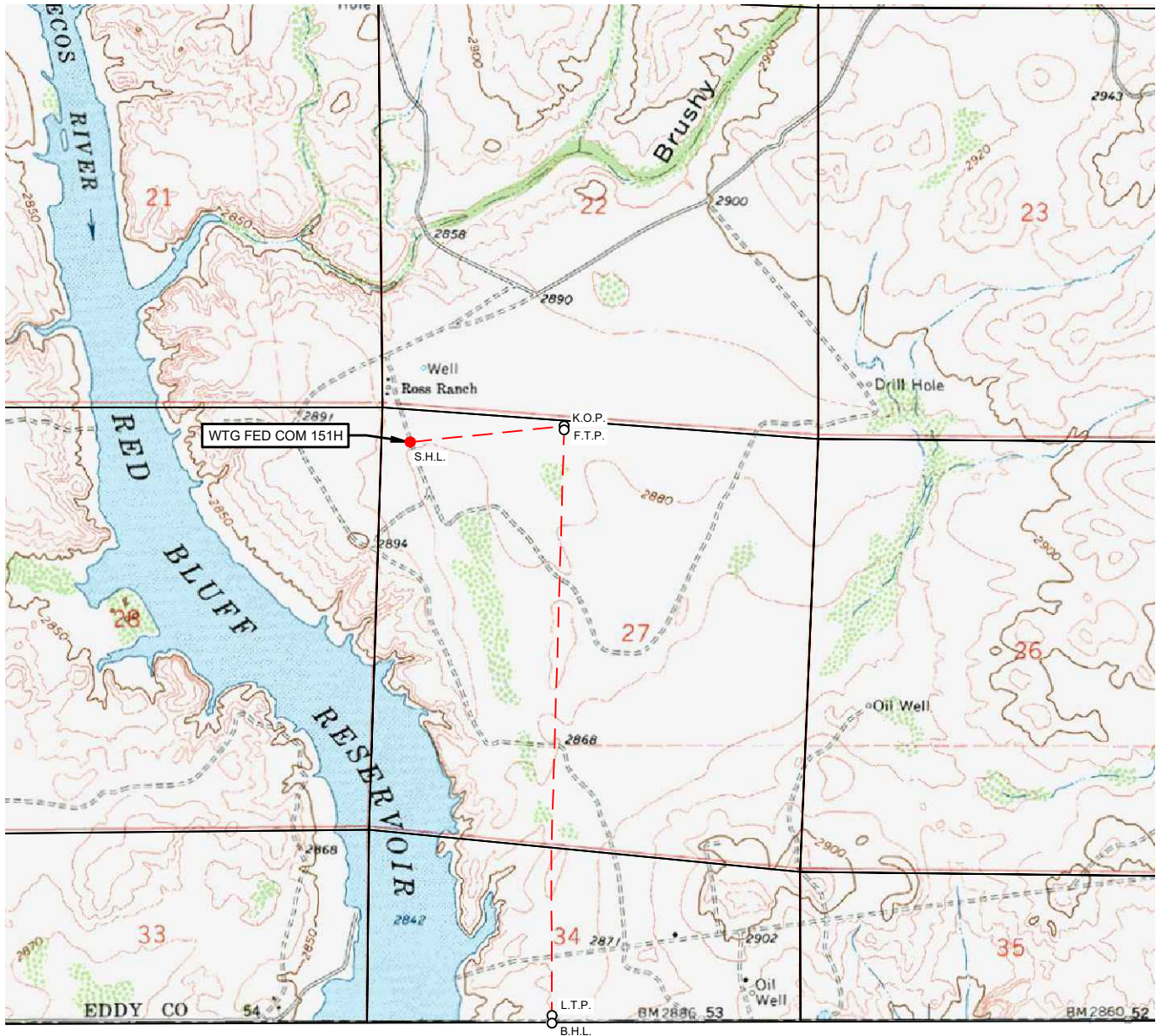
Field

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: 01/05/2024
Signature: Chris Walls	

LOCATION & ELEVATION VERIFICATION MAP

LEASE NAME & WELL NO.: WTG FED COM 151H

SECTION 27 TWP 26-S RGE 29-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 2883'
 DESCRIPTION 384' FNL & 416' FWL

LATITUDE N 32.0198643 LONGITUDE W 103.9792245

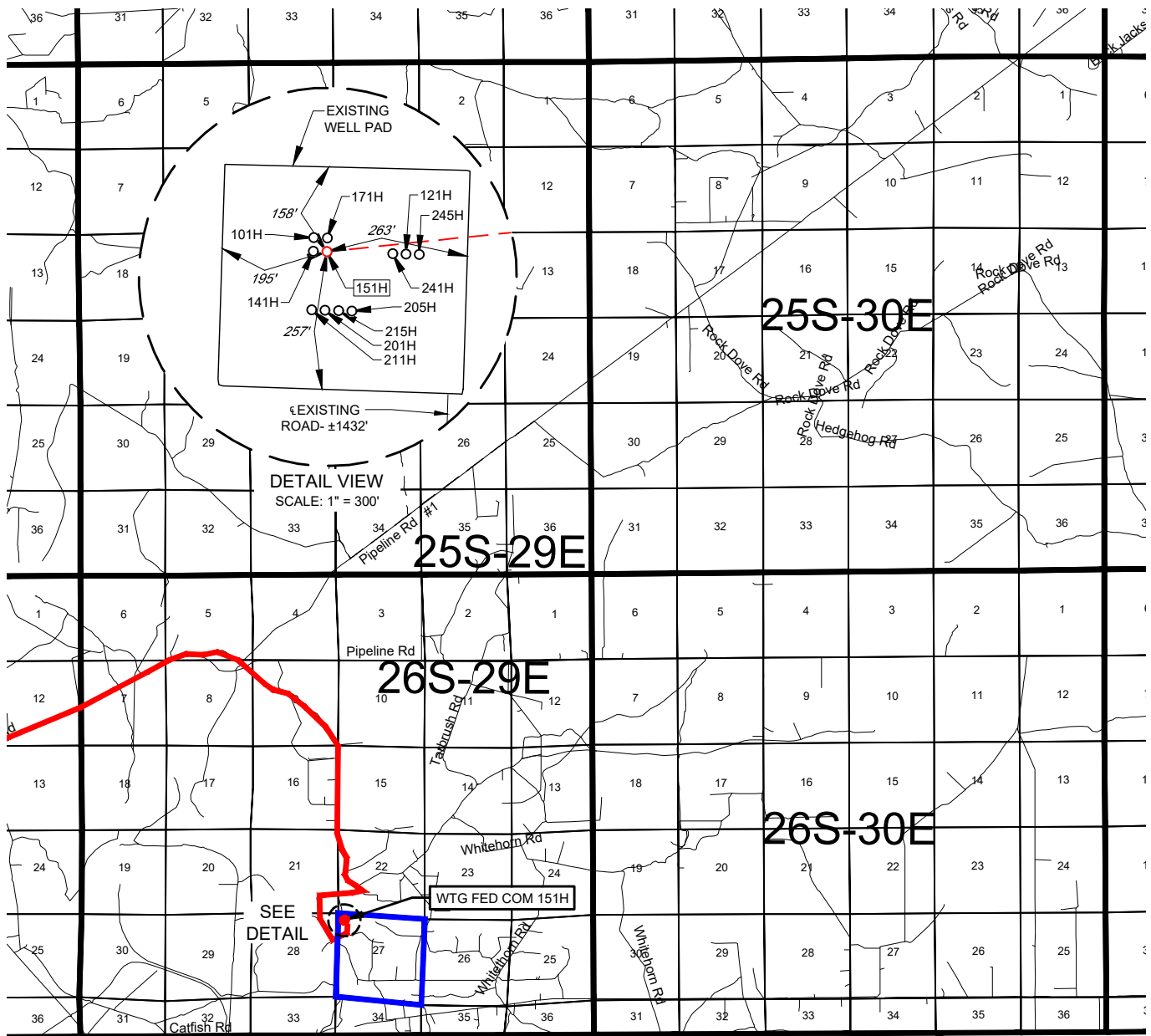
SCALE: 1" = 2000'
 0' 1000' 2000'

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.



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 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
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EXHIBIT 2
VICINITY MAPLEASE NAME & WELL NO.: WTG FED COM 151HSECTION 27 TWP 26-S RGE 29-E SURVEY N.M.P.M.COUNTY EDDY STATE NMDESCRIPTION 384' FNL & 416' FWL

DISTANCE & DIRECTION

FROM INT. OF US-285 & BLACK RIVER VILLAGE RD. GO SOUTH ON
US-285 ±12.6 MILES. THENCE EAST (LEFT) ON WHITEHORN RD. ±2.4
MILES, THENCE NORTH (LEFT) ON LONGHORN RD. ±1.9 MILES,
THENCE SOUTH (RIGHT) ON WHITEHORN RD. ±3.3 MILES, THENCE
NORTHEAST (LEFT) ON PROPOSED RD. ±1432 FEET TO A POINT ±350
FEET SOUTHEAST 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.

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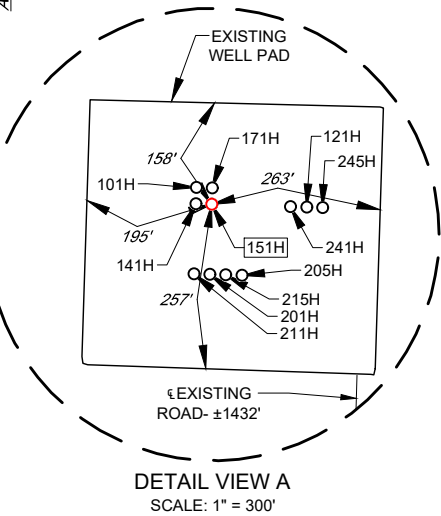
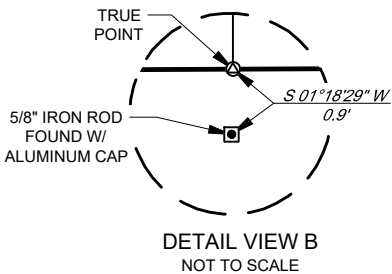
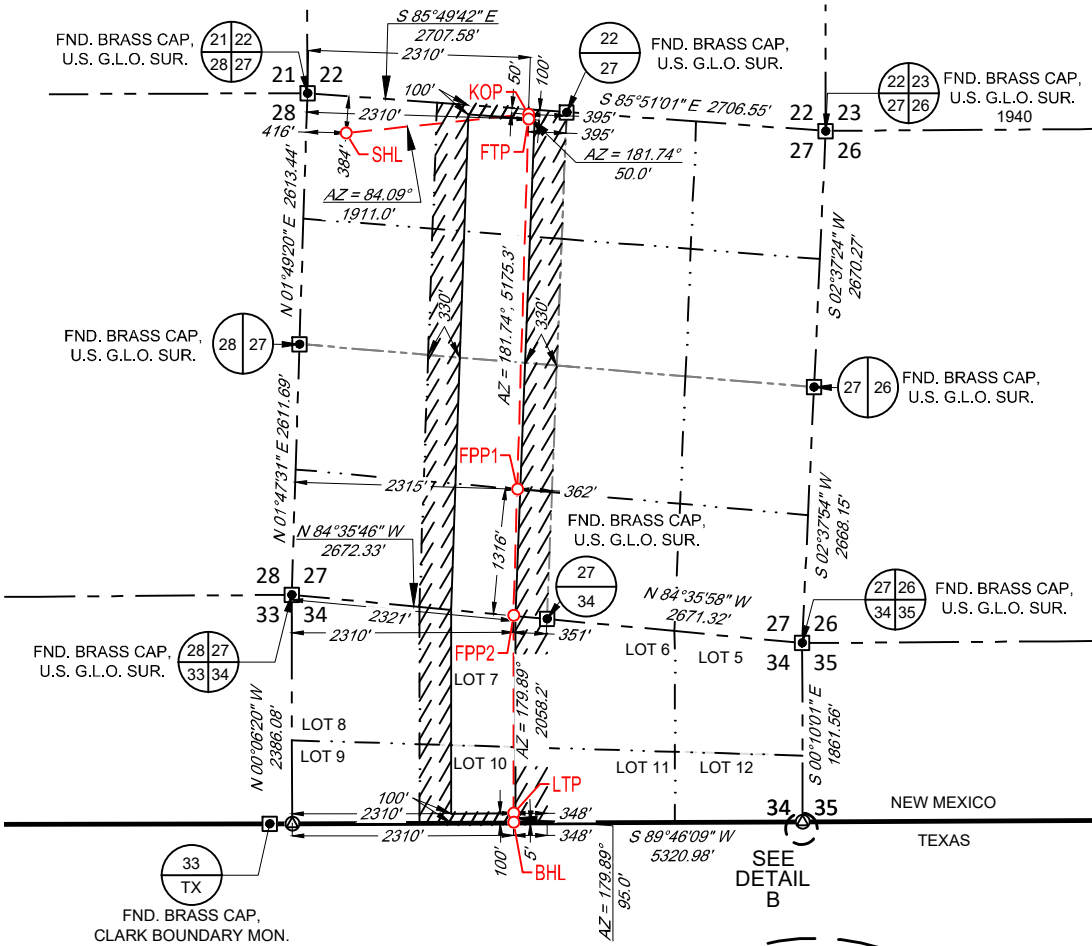
SCALE: 1" = 10000'
 0' 5000' 10000'



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TAP
ROCK
EXHIBIT 2A

SECTION 27, TOWNSHIP 26-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: WTG FED COM 151H

SECTION 27 TWP 26-S RGE 29-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 384' FNL & 416' FWL

DISTANCE & DIRECTION
FROM INT. OF US-285 & BLACK RIVER VILLAGE RD., GO SOUTH ON
US-285 ±12.6 MILES, THENCE EAST (LEFT) ON WHITEHORN RD. ±2.4
MILES, THENCE NORTH (LEFT) ON LONGHORN RD. ±1.9 MILES,
THENCE SOUTH (RIGHT) ON WHITEHORN RD. ±3.3 MILES, THENCE
NORTHEAST (LEFT) ON PROPOSED RD. ±1432 FEET TO A POINT ±350
FEET SOUTHEAST 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.



12/20/2023 8:31:40 AM

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



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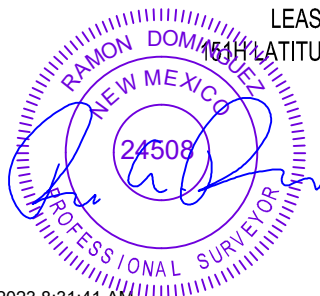
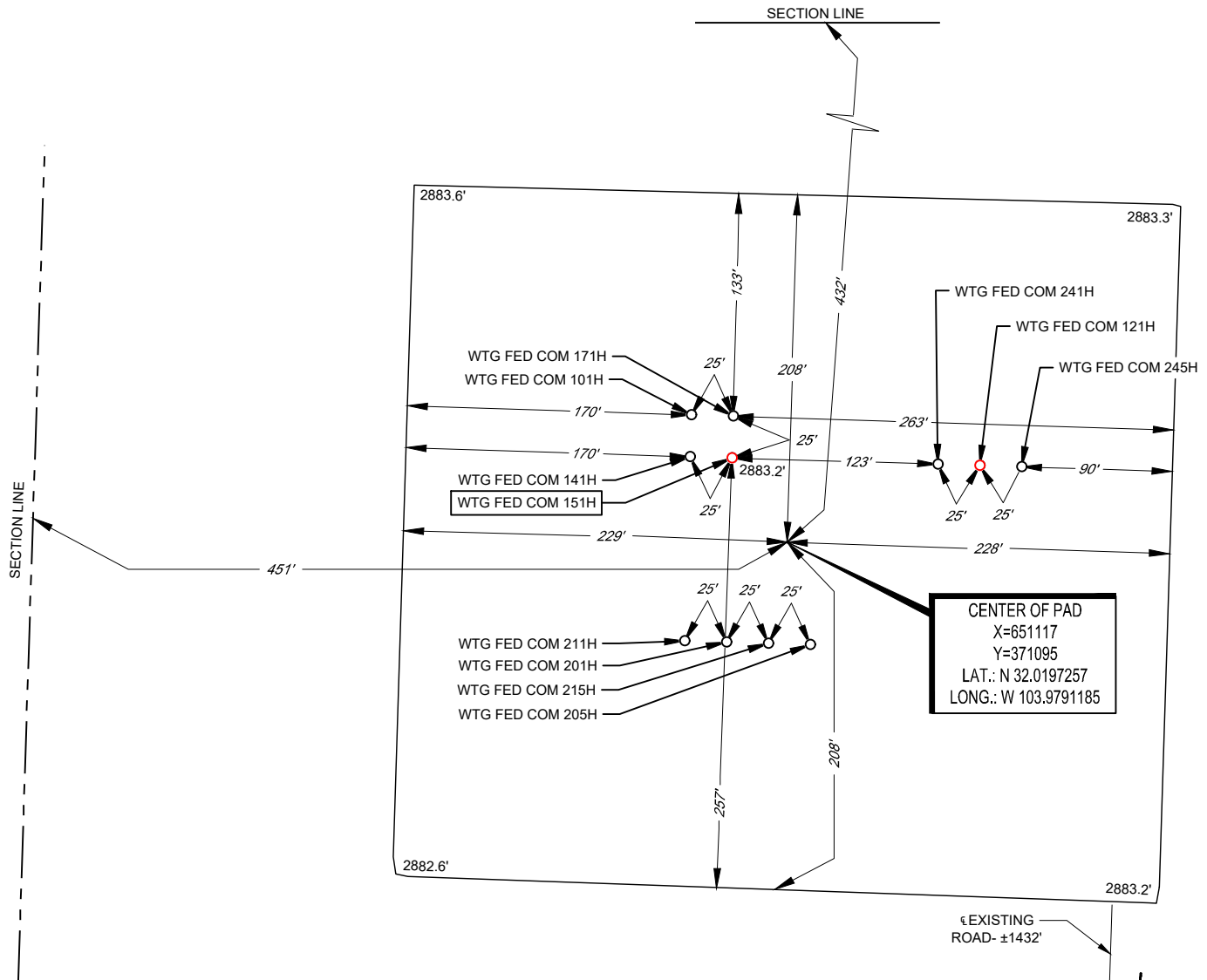


SECTION 27, TOWNSHIP 26-S, RANGE 29-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

LEGEND

----- SECTION LINE
- - - - - PROPOSED ROAD

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: WTG FED COM 151H
151H LATITUDE N 32.0198643 151H LONGITUDE W 103.9792245

CENTER OF PAD IS 432' FNL & 451' FWL

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

12/20/2023 8:31:41 AM

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 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"



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Drilling Operations Plan
WTG Fed Com #151H
Tap Rock Operating, LLC
SHL 384' FNL & 416' FWL, Sec. 27
BHL 5' FSL & 2310' FWL, Sec. 34
T. 26S., R. 29E Eddy County, NM

Elevation above Sea Level: 2883'

DRILLING PROGRAM

1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Surface	None
Rustler	380	380	Salt	Salt
Top Salt	585	585	Salt	Salt
Base Salt	2,705	2,709	Salt	Salt
DMG	2,905	2,910	Sandstone	None
Lamar	2,905	2,910	Sandstone	Hydrocarbons
Bell Canyon	2,930	2,935	Sandstone	Hydrocarbons
Ramsey Sand	2,975	2,981	Sandstone	Hydrocarbons
Cherry Canyon	3,750	3,760	Carbonate	Hydrocarbons
Brushy Canyon	5,385	5,403	Sandstone	Hydrocarbons
Bone Spring Lime	6,640	6,663	Carbonate	Hydrocarbons
Upper Avalon	6,745	6,768	Carbonate	Hydrocarbons
KOP	8689	8910	Carbonate	Hydrocarbons
TD	9172	16446	Carbonate	Hydrocarbons

2. Notable Zones

3rd Bone Spring Carb is the formation target.

3. Pressure Control

Pressure Control Equipment (See Schematics):

At 16,446', a 5M pressure control system is required. The 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 250 psi low, 2500 psi high. The BOP will be tested in this manner after nipple-up if any break of the stack occurs.



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T. 26S., R. 29E Eddy County, NM

Variance Requests:

Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 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 cementing a casing string, a 5M 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.

4. Casing & Cement

All Casing will be new.

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	14 3/4	0	600	11 3/4	API	No	0	600	0	600	J-55	42	BUTT	1.13	1.15	1.6
Intermediate	11	600	2960	8 5/8	API	No	0	2960	0	2955	J-55	32	BUTT	1.13	1.15	1.6
Production- Vert	7 7/8	2960	8910	5 1/2	NON API	No	0	8910	0	8689	P-110	20	TXP	1.13	1.15	1.6
Production	7 7/8	8910	16446	5 1/2	NON API	No	8910	16446	8689	9172	P-110	20	TXP	1.13	1.15	1.6

Cement Volumes:

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	229	1.82	417	13.5	100%	C	5% NCI + LCM
	Tail	300	311	1.34	417	14.8	100%	C	5% NCI + LCM
Intermediate	Lead	0	287	3.21	921	11.0	65%	C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	1960	306	1.33	407	14.8	30%	C	5% NaCl + LCM
Production	Lead	2760	449	4.13	1856	10.5	20%	H	Fluid Loss + Dispersant + Retarder + LCM
	Tail	8910	1835	1.53	2808	13.2	20%	H	Fluid Loss + Dispersant + Retarder + LCM

5. Mud Program

Mud Design:

Name	Top	Bottom	Type	Mud Weight	Visc	Fluid Loss
Surface	0	600	FW Spud Mud	8.40	28	NC
Intermediate	600	2882	Brine Water	10.00	27-30	NC
Production	2882	16329	Cut Brine	9.00	27-30	NC

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (i.e., barite, pac) 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



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T. 26S., R. 29E Eddy County, NM

- 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 KOP to TD.
- A 2-person mud logging program will be used from KOP 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 $\approx 4,283$ psi. Expected bottom hole temperature is $\approx 180^{\circ}$ F.

Tap Rock does not anticipate that there will be enough H₂S from the surface to the 3rd Bone Spring 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.

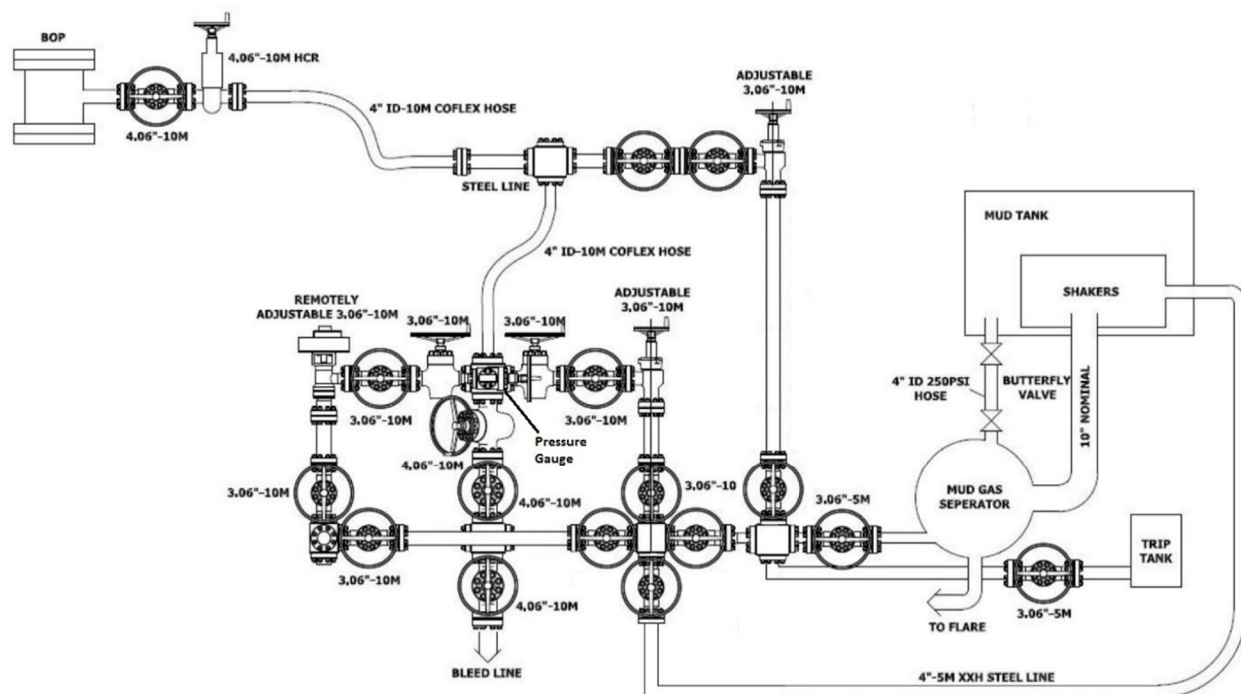
8. Other Information

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 10 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

10M Choke Layout



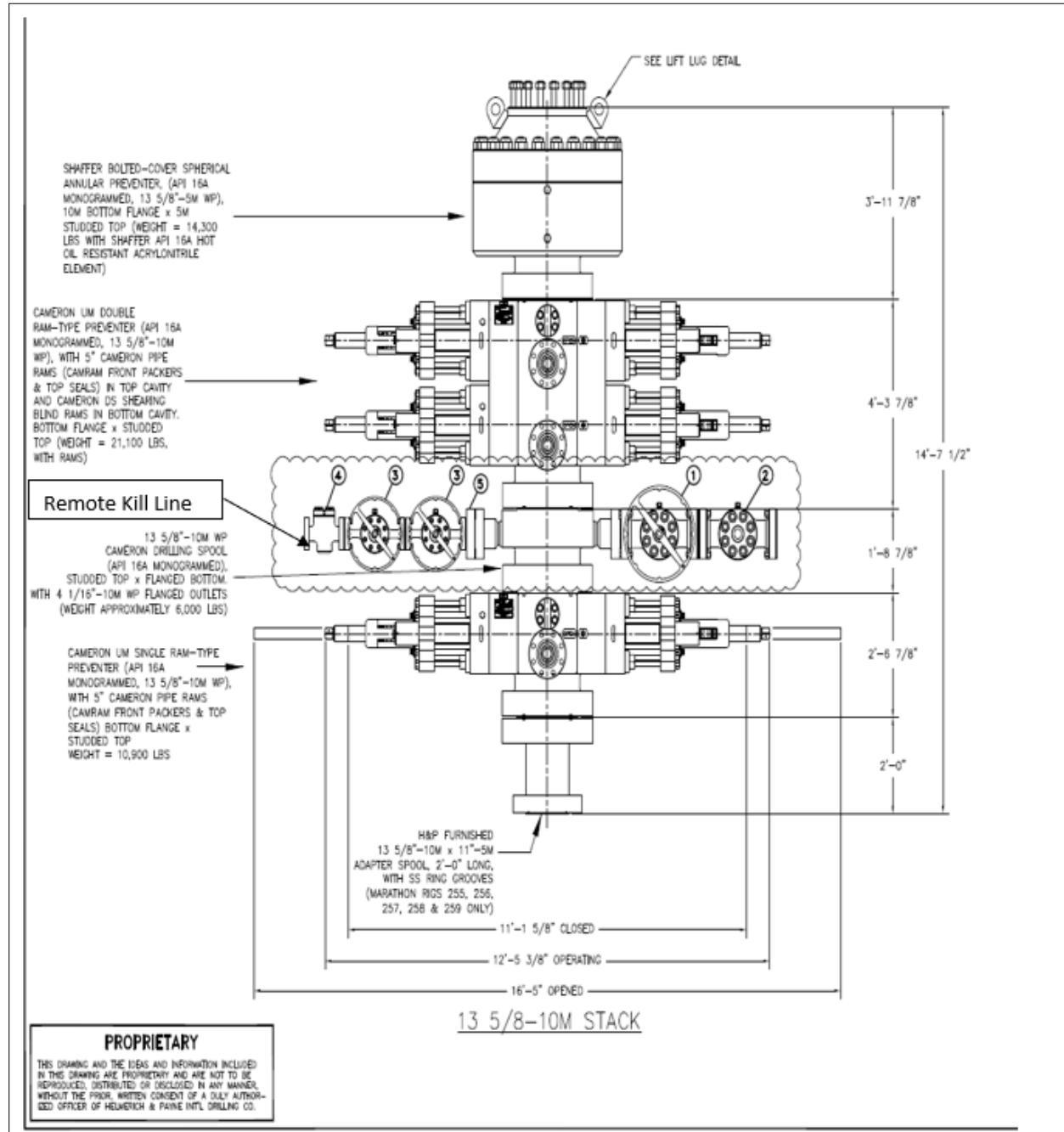
Drilling Operations Plan
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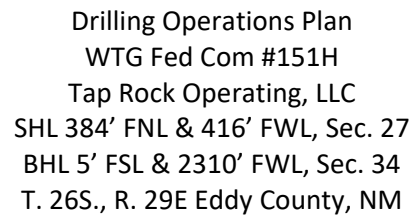




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10M BOP Stack with 5M Annular







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T. 26S., R. 29E Eddy County, NM

Multi-bowl Wellhead Design



Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)
(WTG Fed) Sec-27_T26-S_R-29-E
WTG Fed Com #151H**

OWB

Plan: Plan #3

Standard Planning Report

28 December, 2023





Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well WTG Fed Com #151H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 2909.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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	(WTG Fed) Sec-27_T26-S_R-29-E		
Site Position:		Northing:	371,035.00 usft
From:	Map	Easting:	651,080.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 1' 10.419 N
		Longitude:	103° 58' 45.255 W
		Grid Convergence:	0.19 °

Well	WTG Fed Com #151H		
Well Position	+N/-S	110.0 usft	Northing:
	+E/-W	4.0 usft	Easting:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	10/03/22	6.55	59.74	47,236.57542524

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)	Direction (°)
	0.0	0.0	0.0	181.20

Plan Survey Tool Program	Date	12/28/23		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	16,446.1	Plan #3 (OWB)	MWD
			OWSG MWD - Standard	



Intrepid
Planning Report



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Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 2909.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
450.0	1.50	135.00	450.0	-1.4	1.4	1.00	1.00	0.00	135.00	
1,400.0	1.50	135.00	1,399.7	-19.0	19.0	0.00	0.00	0.00	0.00	
2,788.1	14.85	87.31	2,771.0	-23.5	210.4	1.00	0.96	-3.44	-52.17	
8,910.5	14.85	87.31	8,689.0	50.0	1,777.5	0.00	0.00	0.00	0.00	
9,319.9	45.00	170.00	9,050.5	-97.8	1,859.3	11.00	7.36	20.19	97.65	
9,742.5	90.30	181.74	9,207.5	-477.1	1,880.0	11.00	10.72	2.78	16.29	
12,974.9	90.30	181.74	9,190.7	-3,708.0	1,782.0	0.00	0.00	0.00	0.00	
12,975.9	90.30	181.74	9,190.7	-3,709.0	1,782.0	0.00	0.00	0.00	0.00	
14,250.1	90.30	181.74	9,184.1	-4,982.6	1,743.3	0.00	0.00	0.00	0.00	
14,342.3	90.30	179.89	9,183.6	-5,074.8	1,742.0	2.00	0.00	-2.00	-89.95	
16,446.5	90.30	179.89	9,172.6	-7,179.0	1,746.0	0.00	0.00	0.00	0.00	PBHL (WTG Fed Co



Intrepid Planning Report



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Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	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
DRIFT - Build 1.00									
400.0	1.00	135.00	400.0	-0.6	0.6	0.6	1.00	1.00	0.00
450.0	1.50	135.00	450.0	-1.4	1.4	1.4	1.00	1.00	0.00
HOLD - 950.0 at 450.0 MD									
500.0	1.50	135.00	500.0	-2.3	2.3	2.3	0.00	0.00	0.00
600.0	1.50	135.00	599.9	-4.2	4.2	4.1	0.00	0.00	0.00
700.0	1.50	135.00	699.9	-6.0	6.0	5.9	0.00	0.00	0.00
800.0	1.50	135.00	799.9	-7.9	7.9	7.7	0.00	0.00	0.00
900.0	1.50	135.00	899.8	-9.7	9.7	9.5	0.00	0.00	0.00
1,000.0	1.50	135.00	999.8	-11.6	11.6	11.3	0.00	0.00	0.00
1,100.0	1.50	135.00	1,099.8	-13.4	13.4	13.1	0.00	0.00	0.00
1,200.0	1.50	135.00	1,199.7	-15.3	15.3	14.9	0.00	0.00	0.00
1,300.0	1.50	135.00	1,299.7	-17.1	17.1	16.8	0.00	0.00	0.00
1,400.0	1.50	135.00	1,399.7	-19.0	19.0	18.6	0.00	0.00	0.00
BLD - DLS 1.00 TFO -52.17									
1,500.0	2.26	114.50	1,499.6	-20.7	21.7	20.3	1.00	0.76	-20.50
1,600.0	3.15	104.90	1,599.5	-22.2	26.1	21.7	1.00	0.90	-9.60
1,700.0	4.09	99.63	1,699.3	-23.5	32.3	22.9	1.00	0.94	-5.27
1,800.0	5.06	96.35	1,799.0	-24.6	40.2	23.8	1.00	0.97	-3.28
1,900.0	6.04	94.12	1,898.5	-25.5	49.8	24.4	1.00	0.98	-2.23
2,000.0	7.02	92.51	1,997.9	-26.1	61.2	24.8	1.00	0.98	-1.61
2,100.0	8.01	91.29	2,097.0	-26.6	74.3	25.0	1.00	0.99	-1.21
2,200.0	9.00	90.34	2,195.9	-26.8	89.0	24.9	1.00	0.99	-0.95
2,300.0	9.99	89.58	2,294.5	-26.7	105.5	24.5	1.00	0.99	-0.76
2,400.0	10.98	88.96	2,392.8	-26.5	123.7	23.9	1.00	0.99	-0.63
2,500.0	11.98	88.43	2,490.8	-26.1	143.6	23.0	1.00	0.99	-0.52
2,600.0	12.97	87.99	2,588.5	-25.4	165.2	21.9	1.00	1.00	-0.44
2,700.0	13.97	87.61	2,685.7	-24.5	188.5	20.5	1.00	1.00	-0.38
2,788.1	14.85	87.31	2,771.0	-23.5	210.4	19.1	1.00	1.00	-0.33
HOLD - 6122.4 at 2788.1 MD									
2,800.0	14.85	87.31	2,782.6	-23.4	213.5	18.9	0.00	0.00	0.00
2,900.0	14.85	87.31	2,879.2	-22.2	239.1	17.2	0.00	0.00	0.00
3,000.0	14.85	87.31	2,975.9	-21.0	264.6	15.4	0.00	0.00	0.00
3,100.0	14.85	87.31	3,072.5	-19.8	290.2	13.7	0.00	0.00	0.00
3,200.0	14.85	87.31	3,169.2	-18.6	315.8	11.9	0.00	0.00	0.00
3,300.0	14.85	87.31	3,265.9	-17.4	341.4	10.2	0.00	0.00	0.00
3,400.0	14.85	87.31	3,362.5	-16.2	367.0	8.5	0.00	0.00	0.00
3,500.0	14.85	87.31	3,459.2	-15.0	392.6	6.7	0.00	0.00	0.00
3,600.0	14.85	87.31	3,555.9	-13.8	418.2	5.0	0.00	0.00	0.00
3,700.0	14.85	87.31	3,652.5	-12.6	443.8	3.3	0.00	0.00	0.00
3,800.0	14.85	87.31	3,749.2	-11.4	469.4	1.5	0.00	0.00	0.00
3,900.0	14.85	87.31	3,845.8	-10.2	495.0	-0.2	0.00	0.00	0.00
4,000.0	14.85	87.31	3,942.5	-9.0	520.6	-1.9	0.00	0.00	0.00
4,100.0	14.85	87.31	4,039.2	-7.8	546.2	-3.7	0.00	0.00	0.00
4,200.0	14.85	87.31	4,135.8	-6.6	571.8	-5.4	0.00	0.00	0.00
4,300.0	14.85	87.31	4,232.5	-5.4	597.4	-7.2	0.00	0.00	0.00
4,400.0	14.85	87.31	4,329.1	-4.2	623.0	-8.9	0.00	0.00	0.00
4,500.0	14.85	87.31	4,425.8	-3.0	648.6	-10.6	0.00	0.00	0.00
4,600.0	14.85	87.31	4,522.5	-1.8	674.2	-12.4	0.00	0.00	0.00
4,700.0	14.85	87.31	4,619.1	-0.6	699.8	-14.1	0.00	0.00	0.00



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well WTG Fed Com #151H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 2909.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	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)
4,800.0	14.85	87.31	4,715.8	0.6	725.4	-15.8	0.00	0.00	0.00
4,900.0	14.85	87.31	4,812.4	1.8	751.0	-17.6	0.00	0.00	0.00
5,000.0	14.85	87.31	4,909.1	3.0	776.6	-19.3	0.00	0.00	0.00
5,100.0	14.85	87.31	5,005.8	4.2	802.2	-21.0	0.00	0.00	0.00
5,200.0	14.85	87.31	5,102.4	5.5	827.8	-22.8	0.00	0.00	0.00
5,300.0	14.85	87.31	5,199.1	6.7	853.4	-24.5	0.00	0.00	0.00
5,400.0	14.85	87.31	5,295.8	7.9	879.0	-26.3	0.00	0.00	0.00
5,500.0	14.85	87.31	5,392.4	9.1	904.6	-28.0	0.00	0.00	0.00
5,600.0	14.85	87.31	5,489.1	10.3	930.1	-29.7	0.00	0.00	0.00
5,700.0	14.85	87.31	5,585.7	11.5	955.7	-31.5	0.00	0.00	0.00
5,800.0	14.85	87.31	5,682.4	12.7	981.3	-33.2	0.00	0.00	0.00
5,900.0	14.85	87.31	5,779.1	13.9	1,006.9	-34.9	0.00	0.00	0.00
6,000.0	14.85	87.31	5,875.7	15.1	1,032.5	-36.7	0.00	0.00	0.00
6,100.0	14.85	87.31	5,972.4	16.3	1,058.1	-38.4	0.00	0.00	0.00
6,200.0	14.85	87.31	6,069.0	17.5	1,083.7	-40.1	0.00	0.00	0.00
6,300.0	14.85	87.31	6,165.7	18.7	1,109.3	-41.9	0.00	0.00	0.00
6,400.0	14.85	87.31	6,262.4	19.9	1,134.9	-43.6	0.00	0.00	0.00
6,500.0	14.85	87.31	6,359.0	21.1	1,160.5	-45.4	0.00	0.00	0.00
6,600.0	14.85	87.31	6,455.7	22.3	1,186.1	-47.1	0.00	0.00	0.00
6,700.0	14.85	87.31	6,552.4	23.5	1,211.7	-48.8	0.00	0.00	0.00
6,800.0	14.85	87.31	6,649.0	24.7	1,237.3	-50.6	0.00	0.00	0.00
6,900.0	14.85	87.31	6,745.7	25.9	1,262.9	-52.3	0.00	0.00	0.00
7,000.0	14.85	87.31	6,842.3	27.1	1,288.5	-54.0	0.00	0.00	0.00
7,100.0	14.85	87.31	6,939.0	28.3	1,314.1	-55.8	0.00	0.00	0.00
7,200.0	14.85	87.31	7,035.7	29.5	1,339.7	-57.5	0.00	0.00	0.00
7,300.0	14.85	87.31	7,132.3	30.7	1,365.3	-59.2	0.00	0.00	0.00
7,400.0	14.85	87.31	7,229.0	31.9	1,390.9	-61.0	0.00	0.00	0.00
7,500.0	14.85	87.31	7,325.6	33.1	1,416.5	-62.7	0.00	0.00	0.00
7,600.0	14.85	87.31	7,422.3	34.3	1,442.1	-64.5	0.00	0.00	0.00
7,700.0	14.85	87.31	7,519.0	35.5	1,467.7	-66.2	0.00	0.00	0.00
7,800.0	14.85	87.31	7,615.6	36.7	1,493.3	-67.9	0.00	0.00	0.00
7,900.0	14.85	87.31	7,712.3	37.9	1,518.9	-69.7	0.00	0.00	0.00
8,000.0	14.85	87.31	7,808.9	39.1	1,544.5	-71.4	0.00	0.00	0.00
8,100.0	14.85	87.31	7,905.6	40.3	1,570.1	-73.1	0.00	0.00	0.00
8,200.0	14.85	87.31	8,002.3	41.5	1,595.7	-74.9	0.00	0.00	0.00
8,300.0	14.85	87.31	8,098.9	42.7	1,621.2	-76.6	0.00	0.00	0.00
8,400.0	14.85	87.31	8,195.6	43.9	1,646.8	-78.4	0.00	0.00	0.00
8,500.0	14.85	87.31	8,292.3	45.1	1,672.4	-80.1	0.00	0.00	0.00
8,600.0	14.85	87.31	8,388.9	46.3	1,698.0	-81.8	0.00	0.00	0.00
8,700.0	14.85	87.31	8,485.6	47.5	1,723.6	-83.6	0.00	0.00	0.00
8,800.0	14.85	87.31	8,582.2	48.7	1,749.2	-85.3	0.00	0.00	0.00
8,900.0	14.85	87.31	8,678.9	49.9	1,774.8	-87.0	0.00	0.00	0.00
8,910.5	14.85	87.31	8,689.0	50.0	1,777.5	-87.2	0.00	0.00	0.00
KOP - DLS 11.00 TFO 97.65									
8,950.0	14.89	104.32	8,727.2	49.0	1,787.5	-86.4	11.00	0.11	43.01
9,000.0	16.63	123.66	8,775.4	43.4	1,799.7	-81.1	11.00	3.47	38.66
9,050.0	19.75	138.24	8,822.9	33.1	1,811.3	-71.1	11.00	6.26	29.16
9,100.0	23.73	148.55	8,869.4	18.3	1,822.2	-56.4	11.00	7.95	20.62
9,150.0	28.20	155.90	8,914.3	-1.1	1,832.2	-37.2	11.00	8.94	14.71
9,200.0	32.96	161.33	8,957.4	-24.8	1,841.4	-13.8	11.00	9.52	10.87
9,250.0	37.90	165.51	8,998.1	-52.6	1,849.6	13.8	11.00	9.88	8.35
9,300.0	42.96	168.84	9,036.1	-84.2	1,856.8	45.3	11.00	10.12	6.67
9,319.9	45.00	170.00	9,050.5	-97.8	1,859.3	58.9	11.00	10.24	5.80



Intrepid Planning Report



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Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 2909.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	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)
BLD/TRN - DLS 11.00 TFO 16.29									
9,350.0	48.18	171.24	9,071.2	-119.4	1,862.9	80.3	11.00	10.58	4.14
9,400.0	53.50	173.06	9,102.7	-157.7	1,868.1	118.6	11.00	10.63	3.64
9,450.0	58.84	174.65	9,130.5	-199.0	1,872.5	159.8	11.00	10.68	3.17
9,500.0	64.20	176.06	9,154.4	-242.8	1,876.1	203.5	11.00	10.72	2.83
9,550.0	69.57	177.35	9,174.0	-288.7	1,878.7	249.3	11.00	10.74	2.58
9,600.0	74.95	178.56	9,189.2	-336.3	1,880.4	296.8	11.00	10.76	2.41
9,650.0	80.33	179.70	9,199.9	-385.1	1,881.2	345.6	11.00	10.77	2.29
9,700.0	85.72	180.81	9,206.0	-434.7	1,880.9	395.2	11.00	10.78	2.22
9,742.5	90.30	181.74	9,207.5	-477.1	1,880.0	437.6	11.00	10.78	2.19
EOC - 3232.4 hold at 9742.5 MD									
9,800.0	90.30	181.74	9,207.2	-534.6	1,878.2	495.2	0.00	0.00	0.00
9,900.0	90.30	181.74	9,206.7	-634.6	1,875.2	595.2	0.00	0.00	0.00
10,000.0	90.30	181.74	9,206.2	-734.5	1,872.2	695.2	0.00	0.00	0.00
10,100.0	90.30	181.74	9,205.6	-834.5	1,869.1	795.2	0.00	0.00	0.00
10,200.0	90.30	181.74	9,205.1	-934.4	1,866.1	895.2	0.00	0.00	0.00
10,300.0	90.30	181.74	9,204.6	-1,034.4	1,863.1	995.1	0.00	0.00	0.00
10,400.0	90.30	181.74	9,204.1	-1,134.3	1,860.1	1,095.1	0.00	0.00	0.00
10,500.0	90.30	181.74	9,203.6	-1,234.3	1,857.0	1,195.1	0.00	0.00	0.00
10,600.0	90.30	181.74	9,203.0	-1,334.2	1,854.0	1,295.1	0.00	0.00	0.00
10,700.0	90.30	181.74	9,202.5	-1,434.2	1,851.0	1,395.1	0.00	0.00	0.00
10,800.0	90.30	181.74	9,202.0	-1,534.2	1,847.9	1,495.1	0.00	0.00	0.00
10,900.0	90.30	181.74	9,201.5	-1,634.1	1,844.9	1,595.1	0.00	0.00	0.00
11,000.0	90.30	181.74	9,201.0	-1,734.1	1,841.9	1,695.1	0.00	0.00	0.00
11,100.0	90.30	181.74	9,200.4	-1,834.0	1,838.8	1,795.1	0.00	0.00	0.00
11,200.0	90.30	181.74	9,199.9	-1,934.0	1,835.8	1,895.1	0.00	0.00	0.00
11,300.0	90.30	181.74	9,199.4	-2,033.9	1,832.8	1,995.1	0.00	0.00	0.00
11,400.0	90.30	181.74	9,198.9	-2,133.9	1,829.7	2,095.1	0.00	0.00	0.00
11,500.0	90.30	181.74	9,198.4	-2,233.8	1,826.7	2,195.1	0.00	0.00	0.00
11,600.0	90.30	181.74	9,197.8	-2,333.8	1,823.7	2,295.1	0.00	0.00	0.00
11,700.0	90.30	181.74	9,197.3	-2,433.7	1,820.6	2,395.1	0.00	0.00	0.00
11,800.0	90.30	181.74	9,196.8	-2,533.7	1,817.6	2,495.1	0.00	0.00	0.00
11,900.0	90.30	181.74	9,196.3	-2,633.6	1,814.6	2,595.1	0.00	0.00	0.00
12,000.0	90.30	181.74	9,195.8	-2,733.6	1,811.6	2,695.0	0.00	0.00	0.00
12,100.0	90.30	181.74	9,195.2	-2,833.5	1,808.5	2,795.0	0.00	0.00	0.00
12,200.0	90.30	181.74	9,194.7	-2,933.5	1,805.5	2,895.0	0.00	0.00	0.00
12,300.0	90.30	181.74	9,194.2	-3,033.4	1,802.5	2,995.0	0.00	0.00	0.00
12,400.0	90.30	181.74	9,193.7	-3,133.4	1,799.4	3,095.0	0.00	0.00	0.00
12,500.0	90.30	181.74	9,193.2	-3,233.4	1,796.4	3,195.0	0.00	0.00	0.00
12,600.0	90.30	181.74	9,192.6	-3,333.3	1,793.4	3,295.0	0.00	0.00	0.00
12,700.0	90.30	181.74	9,192.1	-3,433.3	1,790.3	3,395.0	0.00	0.00	0.00
12,800.0	90.30	181.74	9,191.6	-3,533.2	1,787.3	3,495.0	0.00	0.00	0.00
12,900.0	90.30	181.74	9,191.1	-3,633.2	1,784.3	3,595.0	0.00	0.00	0.00
12,974.9	90.30	181.74	9,190.7	-3,708.0	1,782.0	3,669.9	0.00	0.00	0.00
Start 1.0 hold at 12974.9 MD									
12,975.9	90.30	181.74	9,190.7	-3,709.0	1,782.0	3,670.9	0.00	0.00	0.00
Start 1274.2 hold at 12975.9 MD									
13,000.0	90.30	181.74	9,190.6	-3,733.1	1,781.2	3,695.0	0.00	0.00	0.00
13,100.0	90.30	181.74	9,190.0	-3,833.1	1,778.2	3,795.0	0.00	0.00	0.00
13,200.0	90.30	181.74	9,189.5	-3,933.0	1,775.2	3,895.0	0.00	0.00	0.00
13,300.0	90.30	181.74	9,189.0	-4,033.0	1,772.1	3,995.0	0.00	0.00	0.00
13,400.0	90.30	181.74	9,188.5	-4,132.9	1,769.1	4,095.0	0.00	0.00	0.00
13,500.0	90.30	181.74	9,188.0	-4,232.9	1,766.1	4,195.0	0.00	0.00	0.00



Intrepid Planning Report



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Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	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)	
13,600.0	90.30	181.74	9,187.5	-4,332.8	1,763.0	4,295.0	0.00	0.00	0.00	
13,700.0	90.30	181.74	9,186.9	-4,432.8	1,760.0	4,395.0	0.00	0.00	0.00	
13,800.0	90.30	181.74	9,186.4	-4,532.7	1,757.0	4,494.9	0.00	0.00	0.00	
13,900.0	90.30	181.74	9,185.9	-4,632.7	1,754.0	4,594.9	0.00	0.00	0.00	
14,000.0	90.30	181.74	9,185.4	-4,732.6	1,750.9	4,694.9	0.00	0.00	0.00	
14,100.0	90.30	181.74	9,184.9	-4,832.6	1,747.9	4,794.9	0.00	0.00	0.00	
14,200.0	90.30	181.74	9,184.3	-4,932.5	1,744.9	4,894.9	0.00	0.00	0.00	
14,250.1	90.30	181.74	9,184.1	-4,982.6	1,743.3	4,945.0	0.00	0.00	0.00	
Start DLS 2.00 TFO -89.95										
14,300.0	90.30	180.74	9,183.8	-5,032.5	1,742.3	4,994.9	2.00	0.00	-2.00	
14,342.3	90.30	179.89	9,183.6	-5,074.8	1,742.0	5,037.3	2.00	0.00	-2.00	
Start 2104.2 hold at 14342.3 MD										
14,400.0	90.30	179.89	9,183.3	-5,132.5	1,742.1	5,094.9	0.00	0.00	0.00	
14,500.0	90.30	179.89	9,182.8	-5,232.5	1,742.3	5,194.9	0.00	0.00	0.00	
14,600.0	90.30	179.89	9,182.3	-5,332.5	1,742.5	5,294.8	0.00	0.00	0.00	
14,700.0	90.30	179.89	9,181.7	-5,432.5	1,742.7	5,394.8	0.00	0.00	0.00	
14,800.0	90.30	179.89	9,181.2	-5,532.5	1,742.9	5,494.8	0.00	0.00	0.00	
14,900.0	90.30	179.89	9,180.7	-5,632.5	1,743.1	5,594.8	0.00	0.00	0.00	
15,000.0	90.30	179.89	9,180.2	-5,732.5	1,743.3	5,694.7	0.00	0.00	0.00	
15,100.0	90.30	179.89	9,179.6	-5,832.5	1,743.5	5,794.7	0.00	0.00	0.00	
15,200.0	90.30	179.89	9,179.1	-5,932.5	1,743.6	5,894.7	0.00	0.00	0.00	
15,300.0	90.30	179.89	9,178.6	-6,032.5	1,743.8	5,994.7	0.00	0.00	0.00	
15,400.0	90.30	179.89	9,178.1	-6,132.5	1,744.0	6,094.6	0.00	0.00	0.00	
15,500.0	90.30	179.89	9,177.6	-6,232.5	1,744.2	6,194.6	0.00	0.00	0.00	
15,600.0	90.30	179.89	9,177.0	-6,332.5	1,744.4	6,294.6	0.00	0.00	0.00	
15,700.0	90.30	179.89	9,176.5	-6,432.5	1,744.6	6,394.5	0.00	0.00	0.00	
15,800.0	90.30	179.89	9,176.0	-6,532.5	1,744.8	6,494.5	0.00	0.00	0.00	
15,900.0	90.30	179.89	9,175.5	-6,632.5	1,745.0	6,594.5	0.00	0.00	0.00	
16,000.0	90.30	179.89	9,174.9	-6,732.5	1,745.2	6,694.5	0.00	0.00	0.00	
16,100.0	90.30	179.89	9,174.4	-6,832.5	1,745.3	6,794.4	0.00	0.00	0.00	
16,200.0	90.30	179.89	9,173.9	-6,932.5	1,745.5	6,894.4	0.00	0.00	0.00	
16,300.0	90.30	179.89	9,173.4	-7,032.5	1,745.7	6,994.4	0.00	0.00	0.00	
16,400.0	90.30	179.89	9,172.9	-7,132.5	1,745.9	7,094.3	0.00	0.00	0.00	
16,446.5	90.30	179.89	9,172.6	-7,179.0	1,746.0	7,140.9	0.00	0.00	0.00	
TD at 16446.5										



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well WTG Fed Com #151H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 2909.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

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)		
KOP (WTG Fed Com : - plan misses target center by 308.9usft at 9250.0usft MD (8998.1 TVD, -52.6 N, 1849.6 E) - Point	0.00	0.00	9,172.6	197.0	1,901.0	371,342.00	652,985.00	32° 1' 13.395 N	103° 58' 23.115 W
LTP (WTG Fed Com # - plan misses target center by 0.5usft at 16351.5usft MD (9173.1 TVD, -7084.0 N, 1745.8 E) - Point	0.00	0.00	9,172.6	-7,084.0	1,746.0	364,061.00	652,830.00	32° 0' 1.346 N	103° 58' 25.197 W
PBHL (WTG Fed Corr - plan hits target center - Rectangle (sides W100.0 H2,283.0 D30.0)	-0.30	179.89	9,172.6	-7,179.0	1,746.0	363,966.00	652,830.00	32° 0' 0.406 N	103° 58' 25.201 W
P.I. (WTG Fed Com # - plan misses target center by 6.3usft at 12974.9usft MD (9190.7 TVD, -3708.0 N, 1782.0 E) - Rectangle (sides W100.0 H5,144.0 D30.0)	-0.30	181.78	9,184.4	-3,708.0	1,782.0	367,437.00	652,866.00	32° 0' 34.755 N	103° 58' 24.648 W
P.I.2 (WTG Fed Com : - plan misses target center by 0.7usft at 14293.5usft MD (9183.9 TVD, -5026.0 N, 1742.4 E) - Rectangle (sides W100.0 H5,144.0 D30.0)	-0.30	181.78	9,184.4	-5,026.0	1,742.0	366,119.00	652,826.00	32° 0' 21.713 N	103° 58' 25.164 W
FTP (WTG Fed Com # - plan misses target center by 291.9usft at 9292.2usft MD (9030.4 TVD, -79.0 N, 1855.7 E) - Point	0.00	0.00	9,210.0	147.0	1,899.0	371,292.00	652,983.00	32° 1' 12.901 N	103° 58' 23.140 W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
385.0	385.0	Rustler Anhydrite				
590.1	590.0	Top Salt				
2,725.0	2,710.0	Base Salt				
2,931.8	2,910.0	Delaware Mountain Gp				
2,931.8	2,910.0	Lamar				
2,957.7	2,935.0	Bell Canyon				
3,004.3	2,980.0	Ramsey Sand				
3,806.0	3,755.0	Cherry Canyon				
5,497.5	5,390.0	Brushy Canyon				
6,795.8	6,645.0	Bone Spring Lime				
6,904.5	6,750.0	Upper Avalon				
7,271.7	7,105.0	Middle Avalon				
7,587.3	7,410.0	Lower Avalon				
7,737.3	7,555.0	1st Bone Spring Sand				
7,995.9	7,805.0	2nd Bone Spring Flood Surface				
8,337.3	8,135.0	2nd Bone Spring Sand				
8,968.4	8,745.0	3rd Bone Spring Carb				



Intrepid Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well WTG Fed Com #151H
Company:	Tap Rock Resources, LLC	TVD Reference:	KB @ 2909.0usft
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	KB @ 2909.0usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	North Reference:	Grid
Well:	WTG Fed Com #151H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #3		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.0	300.0	0.0	0.0	DRIFT - Build 1.00
450.0	450.0	-1.4	1.4	HOLD - 950.0 at 450.0 MD
1,400.0	1,399.7	-19.0	19.0	BLD - DLS 1.00 TFO -52.17
2,788.1	2,771.0	-23.5	210.4	HOLD - 6122.4 at 2788.1 MD
8,910.5	8,689.0	50.0	1,777.5	KOP - DLS 11.00 TFO 97.65
9,319.9	9,050.5	-97.8	1,859.3	BLD/TRN - DLS 11.00 TFO 16.29
9,742.5	9,207.5	-477.1	1,880.0	EOC - 3232.4 hold at 9742.5 MD
12,974.9	9,190.7	-3,708.0	1,782.0	Start 1.0 hold at 12974.9 MD
12,975.9	9,190.7	-3,709.0	1,782.0	Start 1274.2 hold at 12975.9 MD
14,250.1	9,184.1	-4,982.6	1,743.3	Start DLS 2.00 TFO -89.95
14,342.3	9,183.6	-5,074.8	1,742.0	Start 2104.2 hold at 14342.3 MD
16,446.5	9,172.6	-7,179.0	1,746.0	TD at 16446.5

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	WTG Fed Come 151H
LOCATION:	Sec 27-26S-29E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2767576** on 01/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

H₂S	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
Cave / Karst	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Variance	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
Variance	<input type="checkbox"/> Four-String	<input type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> Batch APD / Sundry				

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **11-3/4** inch surface casing shall be set at approximately 600 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.
 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)**Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
 - b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
 - c. BOPE tests (minimum of 4 hours)
 - **Eddy County (API No. / US Well No. contains 30-015-#####)**
Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, **BLM_NM_CFO_DrillingNotifications@BLM.GOV**
(575) 361-2822
 - **Lea County (API No. / US Well No. contains 30-025-#####)**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981
1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

- a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
- b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours.

WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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 300463

CONDITIONS

Operator: TAP ROCK OPERATING, LLC 523 Park Point Drive Golden, CO 80401	OGRID: 372043
	Action Number: 300463
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply.	1/18/2024