

District I
1625 N. French Dr., Hobbs, NM 88240

District II
811 S. First St., Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

NMOCD-REC'D 11/04/2020

Form C-104

Revised August 1, 2011

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

Submit one copy to appropriate District Office

AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address TAP ROCK OPERATING, LLC 523 PARK POINT DRIVE, SUITE 200 GOLDEN, CO 80401		² OGRID Number 372043
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 0 15-47039	⁵ Pool Name PURPLE SAGE; WOLFCAMP	⁶ Pool Code 98220
⁷ Property Code 326330	⁸ Property Name WTG FED COM	⁹ Well Number 217H

II. ¹⁰ Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
C	27	26-S	29-E	-	259'	NORTH	2025'	WEST	EDDY

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
10	34	26-S	29-E	-	27'	SOUTH	2262'	WEST	EDDY

¹² Lse Code	¹³ Producing Method Code	¹⁴ Gas Connection Date	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
F	F	9/11/2020			

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
373554	SALT CREEK MIDSTREAM, LLC 20329 STATE HIGHWAY 249 HOUSTON, TX U.S.A 77070	O
373554	SALT CREEK MIDSTREAM, LLC 20329 STATE HIGHWAY 249 HOUSTON, TX U.S.A 77070	G

IV. Well Completion Data

²¹ Spud Date	²² Ready Date	²³ TD	²⁴ PBTD	²⁵ Perforations	²⁶ DHC, MC
6/20/2020	9/6/2020	17325'	17264'	10230' - 17179'	

²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement
17.5"	13.375"	630'	850
12.25"	9.625"	3024'	1089
8.75"	7.625"	9574'	1009
6.75"	5.5" / 5"	9205' / 17312'	830

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
9/11/2020	9/11/2020	9/22/2020	24 hrs	0	2450

³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas	⁴¹ Test Method
36/64	1142	4057	4985	Flowing

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Bill Ramsey*

Printed name:
Bill Ramsey

Title:
Regulatory Analyst

E-mail Address:
bramsey@taprk.com

Date:
11/4/2020

Phone:
720-360-4028

OIL CONSERVATION DIVISION

Approved by: John Garcia

Title: Petroleum Specialist

Approval Date: 2/22/21

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
AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47039		² Pool Code 98220		³ Pool Name PURPLE SAGE; WOLFCAMP	
⁴ Property Code 326330		⁵ Property Name WTG FED COM			⁶ Well Number 217H
⁷ OGRID No. #372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 2885'

¹⁰Surface Location

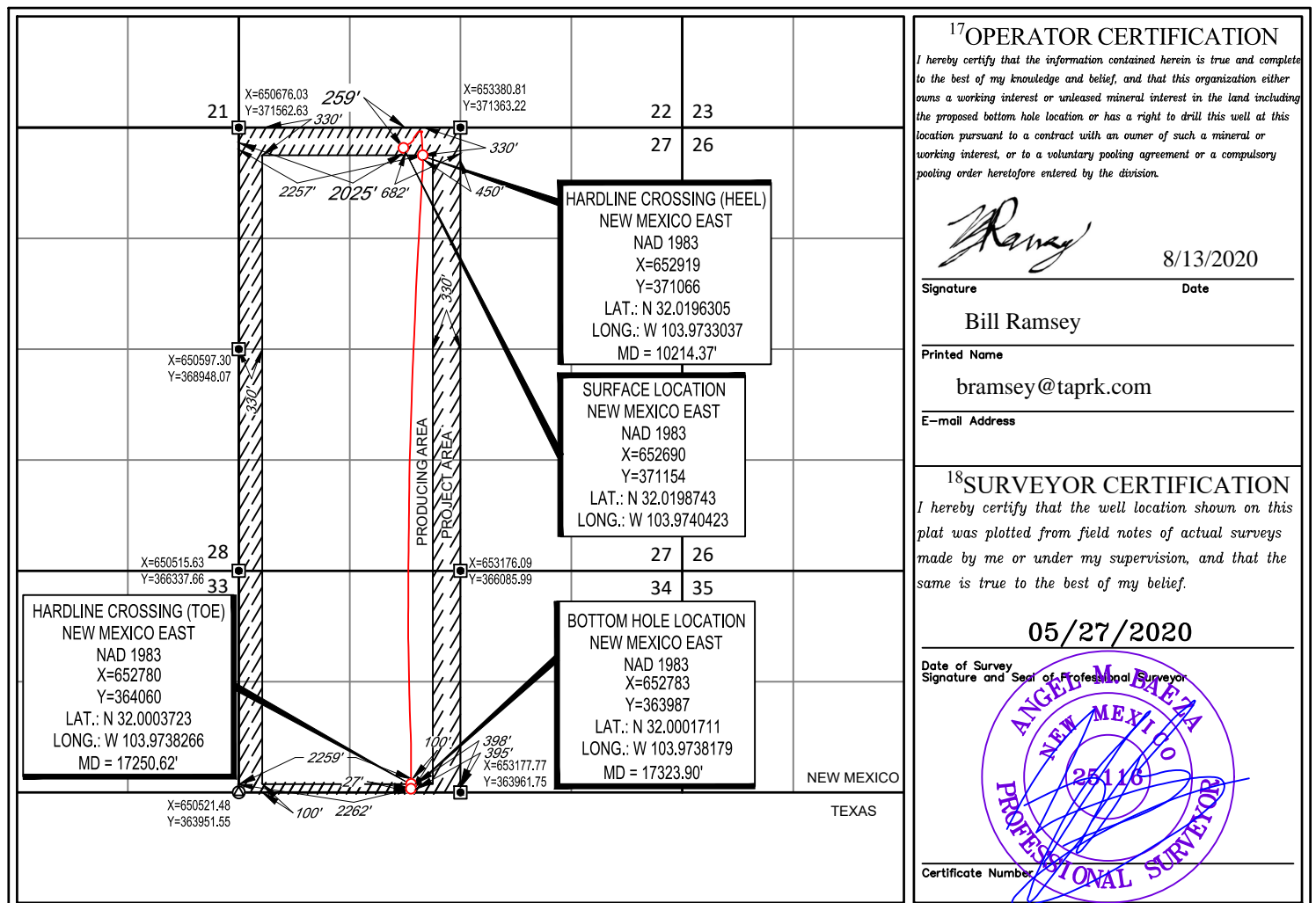
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	27	26-S	29-E	-	259'	NORTH	2025'	WEST	EDDY

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
10	34	26-S	29-E	-	27'	SOUTH	2262'	WEST	EDDY

¹² Dedicated Acres 461.86	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.



¹⁷OPERATOR CERTIFICATION

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

Bill Ramsey

8/13/2020

Signature

Date

Bill Ramsey

Printed Name

bramsey@taprk.com

E-mail Address

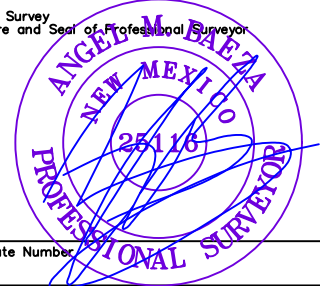
¹⁸SURVEYOR CERTIFICATION

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

05/27/2020

Date of Survey

Signature and Seal of Professional Surveyor



Certificate Number

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

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

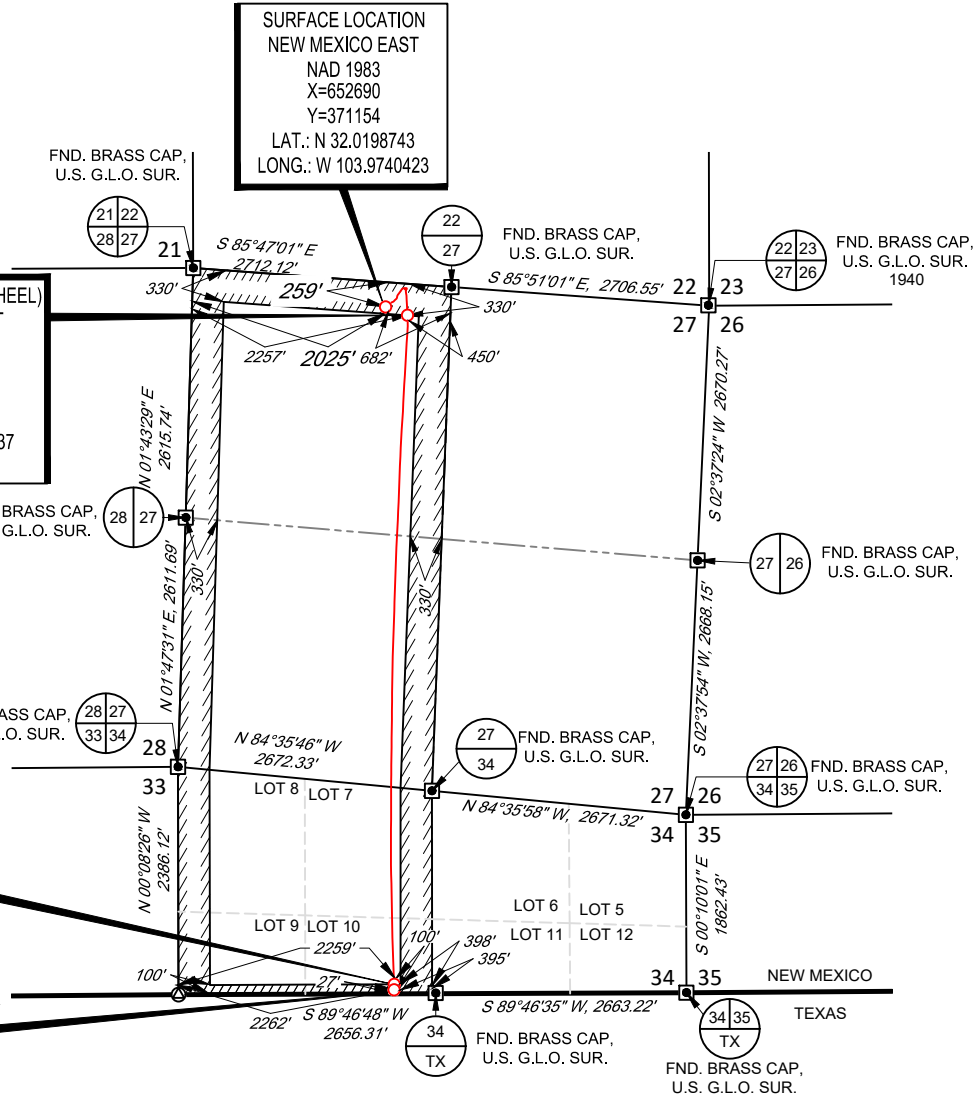


SURFACE LOCATION
 NEW MEXICO EAST
 NAD 1983
 X=652690
 Y=371154
 LAT.: N 32.0198743
 LONG.: W 103.9740423

HARDLINE CROSSING (HEEL)
 NEW MEXICO EAST
 NAD 1983
 X=652919
 Y=371066
 LAT.: N 32.0196305
 LONG.: W 103.9733037
 MD = 10214.37'

HARDLINE CROSSING (TOE)
 NEW MEXICO EAST
 NAD 1983
 X=652780
 Y=364060
 LAT.: N 32.0003723
 LONG.: W 103.9738266
 MD = 17250.62'

BOTTOM HOLE LOCATION
 NEW MEXICO EAST
 NAD 1983
 X=652783
 Y=363987
 LAT.: N 32.0001711
 LONG.: W 103.9738179
 MD = 17323.90'



LEASE NAME & WELL NO.: WTG FED COM 217H
 SECTION 27 TWP 26-S RGE 29-E SURVEY N.M.P.M.
 COUNTY EDDY STATE NM ELEVATION 2885'
 DESCRIPTION 259' FNL & 2025' FWL

**INTERNAL
 PRE-COMPLETION
 PLAT**



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

WTG FED COM 217H PRE-COMPLETION DATE: 07/29/2020 FILE: C_WTG_FED COM_217H DRAWN BY: H.B. SHEET: 1 OF 1	REVISION:	
	INT	DATE

NOTES:
 1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
 3. THIS WELL 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.



Tap Rock Resources, LLC

Eddy County, NM (NAD 83 NME)
(WTG Fed) Sec-27_T26-S_R-29-E
WTG Fed Com #217H

OWB

Design: AWB

Standard Survey Report

13 July, 2020





Operator: Taprock Resources LLC
Well Name: WTG Fed Com #217H
County: Eddy
State: New Mexico
Rig Name: H&P 388
API#: 30-015-47039

Intrepid Directional Drilling Specialists certifies that the surveys performed on the above referenced well are true and correct MWD surveys, data provided as follows:

Surveyor: Intrepid Directional Drilling Specialists
Survey Depths: 181' MD – 17256' MD
Projection to Bit: 17325' MD
Dates Performed: 07/03/2020 – 07/14/2020
Type of Survey: MWD

Sincerely,

A handwritten signature in blue ink, appearing to read "James Burlison".

James Burlison
Vice President of MWD Operations
Intrepid Directional Drilling Specialists





Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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	Latitude:	32° 1' 10.419 N
From:	Map	Easting:	651,080.00 usft	Longitude:	103° 58' 45.255 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.19 °

Well	WTG Fed Com #217H					
Well Position	+N/-S	0.0 usft	Northing:	371,154.00 usft	Latitude:	32° 1' 11.545 N
	+E/-W	0.0 usft	Easting:	652,690.00 usft	Longitude:	103° 58' 26.549 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	2,886.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	06/23/20	6.67	59.58	47,650.98012325

Design	AWB				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	181.69	

Survey Program	Date	07/13/20			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
181.0	17,325.0	Intrepid MWD (OWB)	MWD	OWSG MWD - Standard	

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	
181.0	0.44	284.39	181.0	0.2	-0.7	-0.2	0.24	0.24	0.00	
242.0	0.35	15.62	242.0	0.4	-0.8	-0.4	0.93	-0.15	149.56	
333.0	0.66	24.94	333.0	1.2	-0.6	-1.1	0.35	0.34	10.24	
515.0	1.32	10.96	515.0	4.2	0.3	-4.2	0.38	0.36	-7.68	
541.0	1.38	7.08	541.0	4.8	0.4	-4.8	0.41	0.21	-14.90	
Rustler Anhydrite										
572.0	1.45	2.88	571.9	5.5	0.4	-5.5	0.41	0.24	-13.57	
689.0	2.15	0.24	688.9	9.2	0.5	-9.2	0.60	0.60	-2.26	
781.0	3.03	31.97	780.8	13.0	1.8	-13.0	1.79	0.96	34.49	
873.0	3.03	47.47	872.7	16.7	4.9	-16.8	0.89	0.00	16.85	



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
925.4	2.90	47.55	925.0	18.5	6.9	-18.7	0.24	-0.24	0.16
Top Salt									
1,055.0	2.59	47.79	1,054.5	22.7	11.5	-23.0	0.24	-0.24	0.18
1,146.0	2.55	52.80	1,145.4	25.3	14.6	-25.7	0.25	-0.04	5.51
1,241.0	2.37	49.46	1,240.3	27.9	17.8	-28.4	0.24	-0.19	-3.52
1,336.0	1.80	62.20	1,335.2	29.8	20.6	-30.4	0.77	-0.60	13.41
1,431.0	1.67	51.74	1,430.2	31.4	23.0	-32.1	0.36	-0.14	-11.01
1,526.0	1.58	60.71	1,525.1	32.9	25.3	-33.6	0.28	-0.09	9.44
1,621.0	1.76	77.23	1,620.1	33.9	27.8	-34.7	0.54	0.19	17.39
1,716.0	2.59	82.94	1,715.0	34.4	31.4	-35.4	0.90	0.87	6.01
1,811.0	2.29	86.28	1,809.9	34.8	35.4	-35.9	0.35	-0.32	3.52
1,906.0	2.07	89.62	1,904.9	35.0	39.0	-36.1	0.27	-0.23	3.52
2,001.0	2.20	63.78	1,999.8	35.8	42.4	-37.0	1.01	0.14	-27.20
2,096.0	2.42	49.02	2,094.7	37.9	45.5	-39.2	0.67	0.23	-15.54
2,191.0	1.76	58.34	2,189.7	40.0	48.3	-41.4	0.78	-0.69	9.81
2,286.0	2.86	72.13	2,284.6	41.5	51.8	-43.0	1.29	1.16	14.52
2,381.0	3.52	63.43	2,379.4	43.5	56.6	-45.2	0.86	0.69	-9.16
2,476.0	4.00	60.09	2,474.2	46.5	62.1	-48.3	0.56	0.51	-3.52
2,571.0	4.75	67.12	2,569.0	49.6	68.6	-51.6	0.97	0.79	7.40
2,650.3	5.18	69.81	2,648.0	52.2	75.0	-54.3	0.62	0.55	3.39
Base Salt									
2,666.0	5.27	70.29	2,663.6	52.6	76.3	-54.9	0.62	0.55	3.06
2,762.0	3.96	54.20	2,759.3	56.1	83.2	-58.5	1.91	-1.36	-16.76
2,857.0	3.74	36.27	2,854.1	60.5	87.7	-63.0	1.28	-0.23	-18.87
2,890.0	3.56	39.05	2,887.0	62.2	89.0	-64.7	0.76	-0.54	8.42
Delaware Mountain Gp									
2,920.0	3.41	41.82	2,917.0	63.5	90.1	-66.2	0.76	-0.52	9.24
Lamar									
2,921.1	3.40	41.92	2,918.0	63.6	90.2	-66.2	0.76	-0.50	9.67
Bell Canyon									
2,952.0	3.25	45.06	2,948.9	64.9	91.4	-67.6	0.76	-0.49	10.14
2,961.1	3.25	45.06	2,958.0	65.3	91.8	-67.9	0.00	0.00	0.00
Ramsey Sand									
3,115.0	3.21	44.80	3,111.6	71.4	97.9	-74.2	0.03	-0.03	-0.17
3,210.0	3.21	45.15	3,206.5	75.2	101.7	-78.1	0.02	0.00	0.37
3,306.0	3.03	45.33	3,302.3	78.8	105.4	-81.9	0.19	-0.19	0.19
3,399.0	3.21	47.96	3,395.2	82.3	109.0	-85.5	0.25	0.19	2.83
3,494.0	3.16	50.34	3,490.1	85.8	113.0	-89.1	0.15	-0.05	2.51
3,589.0	3.30	37.68	3,584.9	89.6	116.7	-93.0	0.76	0.15	-13.33
3,684.0	4.13	14.39	3,679.7	95.1	119.2	-98.5	1.79	0.87	-24.52
3,777.0	3.65	14.57	3,772.5	101.2	120.8	-104.7	0.52	-0.52	0.19
3,821.6	3.56	12.12	3,817.0	103.9	121.5	-107.4	0.40	-0.20	-5.49
Cherry Canyon									
3,869.0	3.47	9.38	3,864.3	106.8	122.0	-110.3	0.40	-0.19	-5.78



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,959.0	3.38	5.60	3,954.2	112.1	122.7	-115.7	0.27	-0.10	-4.20	
4,050.0	3.91	14.48	4,045.0	117.8	123.8	-121.4	0.85	0.58	9.76	
4,141.0	5.80	35.75	4,135.7	124.5	127.2	-128.2	2.83	2.08	23.37	
4,236.0	5.80	36.27	4,230.2	132.3	132.9	-136.1	0.06	0.00	0.55	
4,329.0	5.41	36.80	4,322.7	139.6	138.3	-143.6	0.42	-0.42	0.57	
4,421.0	5.49	36.80	4,414.3	146.6	143.5	-150.7	0.09	0.09	0.00	
4,515.0	5.71	35.13	4,507.9	154.0	148.9	-158.3	0.29	0.23	-1.78	
4,608.0	5.32	35.22	4,600.4	161.3	154.0	-165.8	0.42	-0.42	0.10	
4,703.0	5.14	35.48	4,695.0	168.4	159.0	-173.0	0.19	-0.19	0.27	
4,798.0	5.45	33.81	4,789.6	175.6	164.0	-180.3	0.36	0.33	-1.76	
4,893.0	5.19	33.11	4,884.2	182.9	168.9	-187.8	0.28	-0.27	-0.74	
4,988.0	4.26	45.68	4,978.9	189.0	173.8	-194.0	1.46	-0.98	13.23	
5,082.0	4.13	71.61	5,072.7	192.5	179.5	-197.7	2.01	-0.14	27.59	
5,175.0	3.52	73.63	5,165.4	194.4	185.4	-199.7	0.67	-0.66	2.17	
5,268.0	3.43	77.06	5,258.3	195.8	190.8	-201.3	0.24	-0.10	3.69	
5,360.0	3.52	81.54	5,350.1	196.8	196.3	-202.5	0.31	0.10	4.87	
5,456.0	3.16	85.49	5,445.9	197.5	201.9	-203.3	0.44	-0.38	4.11	
5,479.1	3.04	86.47	5,469.0	197.5	203.1	-203.4	0.56	-0.51	4.23	
Brushy Canyon										
5,551.0	2.68	90.06	5,540.8	197.7	206.7	-203.7	0.56	-0.50	5.00	
5,646.0	2.33	92.61	5,635.7	197.6	210.8	-203.7	0.39	-0.37	2.68	
5,741.0	2.33	94.63	5,730.7	197.3	214.7	-203.6	0.09	0.00	2.13	
5,836.0	2.29	95.25	5,825.6	197.0	218.5	-203.4	0.05	-0.04	0.65	
5,929.0	1.76	112.30	5,918.5	196.3	221.7	-202.7	0.86	-0.57	18.33	
6,025.0	1.58	174.97	6,014.5	194.4	223.2	-200.9	1.82	-0.19	65.28	
6,120.0	1.63	176.55	6,109.4	191.7	223.4	-198.3	0.07	0.05	1.66	
6,215.0	1.93	176.11	6,204.4	188.8	223.5	-195.3	0.32	0.32	-0.46	
6,309.0	1.19	252.13	6,298.4	186.9	222.7	-193.4	2.14	-0.79	80.87	
6,403.0	1.93	281.31	6,392.3	186.9	220.2	-193.3	1.13	0.79	31.04	
6,497.0	1.63	271.73	6,486.3	187.3	217.4	-193.6	0.45	-0.32	-10.19	
6,580.7	1.28	266.06	6,570.0	187.3	215.2	-193.5	0.46	-0.42	-6.77	
Bone Spring Lime										
6,592.0	1.23	265.05	6,581.3	187.2	215.0	-193.5	0.46	-0.41	-8.96	
6,687.0	1.14	219.44	6,676.2	186.4	213.4	-192.6	0.97	-0.09	-48.01	
6,708.8	1.17	213.11	6,698.0	186.1	213.1	-192.3	0.60	0.13	-29.08	
Upper Avalon										
6,783.0	1.36	194.74	6,772.2	184.6	212.5	-190.8	0.60	0.26	-24.75	
6,878.0	0.57	247.04	6,867.2	183.3	211.8	-189.5	1.17	-0.83	55.05	
6,973.0	0.40	230.60	6,962.2	182.9	211.1	-189.1	0.23	-0.18	-17.31	
7,067.0	0.84	158.97	7,056.2	182.1	211.1	-188.2	0.86	0.47	-76.20	
7,092.8	0.84	157.75	7,082.0	181.7	211.2	-187.9	0.07	0.00	-4.72	
Middle Avalon										
7,162.0	0.84	154.49	7,151.2	180.8	211.6	-186.9	0.07	0.00	-4.72	
7,257.0	1.05	175.85	7,246.2	179.3	212.0	-185.5	0.43	0.22	22.48	



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
7,294.8	0.96	164.59	7,284.0	178.6	212.1	-184.8	0.57	-0.23	-29.76	
Lower Avalon										
7,352.0	0.92	144.91	7,341.2	177.8	212.5	-184.0	0.57	-0.08	-34.42	
7,447.0	0.92	6.92	7,436.2	177.9	213.0	-184.1	1.81	0.00	-145.25	
7,541.0	1.45	2.35	7,530.1	179.9	213.1	-186.1	0.57	0.56	-4.86	
7,588.9	1.45	5.02	7,578.0	181.1	213.2	-187.3	0.14	0.00	5.57	
1st Bone Spring Sand										
7,634.0	1.45	7.53	7,623.1	182.2	213.3	-188.4	0.14	0.00	5.57	
7,730.0	1.14	1.73	7,719.1	184.4	213.5	-190.6	0.35	-0.32	-6.04	
7,825.0	1.10	3.05	7,814.1	186.2	213.6	-192.4	0.05	-0.04	1.39	
7,876.9	0.73	339.88	7,866.0	187.0	213.5	-193.2	0.99	-0.70	-44.61	
2nd Bone Spring Carb										
7,920.0	0.62	304.52	7,909.1	187.4	213.2	-193.6	0.99	-0.27	-82.12	
8,015.0	0.92	271.47	8,004.1	187.7	212.0	-193.9	0.55	0.32	-34.79	
8,109.0	1.23	254.77	8,098.0	187.5	210.3	-193.6	0.47	0.33	-17.77	
8,139.0	1.20	244.02	8,128.0	187.3	209.7	-193.4	0.77	-0.11	-35.88	
2nd Bone Spring Sand										
8,204.0	1.27	220.93	8,193.0	186.4	208.6	-192.5	0.77	0.11	-35.50	
8,299.0	0.97	164.33	8,288.0	184.9	208.2	-190.9	1.15	-0.32	-59.58	
8,395.0	2.37	145.61	8,384.0	182.4	209.5	-188.5	1.55	1.46	-19.50	
8,486.0	1.85	119.51	8,474.9	180.2	211.9	-186.3	1.19	-0.57	-28.68	
8,581.0	1.23	93.67	8,569.9	179.3	214.2	-185.6	0.96	-0.65	-27.20	
8,676.0	0.70	50.51	8,664.8	179.6	215.7	-185.9	0.91	-0.56	-45.43	
8,745.2	0.10	49.03	8,734.0	179.9	216.0	-186.2	0.87	-0.87	-2.14	
3rd Bone Spring Carb										
8,771.0	0.13	232.01	8,759.8	179.9	216.0	-186.2	0.87	0.13	-684.87	
8,866.0	0.62	284.48	8,854.8	180.0	215.5	-186.3	0.58	0.52	55.23	
8,961.0	0.66	191.23	8,949.8	179.6	214.8	-185.9	0.98	0.04	-98.16	
9,055.0	1.10	190.52	9,043.8	178.2	214.6	-184.4	0.47	0.47	-0.76	
9,151.0	1.10	191.14	9,139.8	176.4	214.2	-182.6	0.01	0.00	0.65	
9,246.0	1.19	194.21	9,234.8	174.5	213.8	-180.7	0.11	0.09	3.23	
9,341.0	1.19	193.34	9,329.8	172.6	213.3	-178.8	0.02	0.00	-0.92	
9,409.2	1.22	194.35	9,398.0	171.2	213.0	-177.4	0.05	0.04	1.49	
3rd Bone Spring Sand										
9,436.0	1.23	194.74	9,424.8	170.7	212.9	-176.9	0.05	0.04	1.44	
9,527.0	1.41	193.60	9,515.7	168.6	212.3	-174.8	0.20	0.20	-1.25	
9,623.0	1.71	182.70	9,611.7	166.0	212.0	-172.2	0.44	0.31	-11.35	
9,687.0	3.25	174.97	9,675.6	163.3	212.1	-169.5	2.46	2.41	-12.08	
9,719.5	7.43	172.34	9,708.0	160.3	212.5	-166.5	12.87	12.85	-8.09	
3rd BS W Sand										
9,782.0	15.47	171.27	9,769.2	148.0	214.3	-154.3	12.87	12.87	-1.71	
9,812.1	17.73	171.60	9,798.0	139.5	215.6	-145.8	7.52	7.51	1.08	
Wolfcamp A X Sand										
9,875.0	22.46	172.07	9,857.1	118.1	218.6	-124.5	7.52	7.52	0.75	
9,925.6	27.01	176.33	9,903.0	97.1	220.7	-103.6	9.65	8.99	8.43	



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
Wolfcamp A Y Sand									
9,970.0	31.08	179.10	9,941.8	75.5	221.5	-82.0	9.65	9.17	6.23
10,050.6	38.46	176.49	10,008.0	29.7	223.4	-36.2	9.34	9.15	-3.24
Wolfcamp A Lower									
10,065.0	39.78	176.11	10,019.2	20.6	224.0	-27.2	9.34	9.19	-2.62
10,161.0	48.48	177.95	10,088.0	-46.1	227.3	39.4	9.16	9.06	1.92
10,214.7	53.25	177.00	10,121.9	-87.7	229.2	80.9	8.99	8.89	-1.78
FTP @ 10214.7'MD, 330'FNL & 449.5'FEL									
10,254.0	56.75	176.37	10,144.4	-119.8	231.1	113.0	8.99	8.90	-1.59
10,346.0	66.81	181.82	10,187.9	-200.7	232.2	193.8	12.11	10.93	5.92
10,438.0	76.75	184.19	10,216.7	-287.9	227.5	281.0	11.08	10.80	2.58
10,530.0	80.66	183.49	10,234.7	-377.9	221.5	371.2	4.31	4.25	-0.76
10,622.0	90.51	182.96	10,241.7	-469.3	216.3	462.8	10.72	10.71	-0.58
10,716.0	89.67	184.02	10,241.6	-563.2	210.6	556.7	1.44	-0.89	1.13
10,776.0	87.30	183.05	10,243.2	-623.0	206.9	616.7	4.27	-3.95	-1.62
10,837.1	87.41	183.17	10,246.0	-684.0	203.6	677.7	0.27	0.18	0.19
Wolfcamp B									
10,869.0	87.47	183.23	10,247.4	-715.8	201.8	709.5	0.27	0.18	0.19
10,964.0	89.27	183.49	10,250.1	-810.6	196.3	804.4	1.91	1.89	0.27
11,059.0	90.42	182.70	10,250.4	-905.4	191.1	899.4	1.47	1.21	-0.83
11,154.0	90.07	182.88	10,250.0	-1,000.3	186.5	994.4	0.41	-0.37	0.19
11,249.0	90.42	182.79	10,249.6	-1,095.2	181.8	1,089.4	0.38	0.37	-0.09
11,344.0	92.44	184.28	10,247.2	-1,190.0	176.0	1,184.3	2.64	2.13	1.57
11,440.0	90.20	183.05	10,245.0	-1,285.8	169.8	1,280.2	2.66	-2.33	-1.28
11,534.0	89.05	183.14	10,245.6	-1,379.6	164.7	1,374.2	1.23	-1.22	0.10
11,628.0	88.09	182.96	10,247.9	-1,473.5	159.7	1,468.1	1.04	-1.02	-0.19
11,723.0	88.57	182.52	10,250.7	-1,568.3	155.2	1,563.1	0.69	0.51	-0.46
11,816.0	89.10	182.61	10,252.6	-1,661.2	151.0	1,656.0	0.58	0.57	0.10
11,912.0	89.23	182.00	10,254.0	-1,757.1	147.2	1,752.0	0.65	0.14	-0.64
12,007.0	89.71	182.00	10,254.9	-1,852.1	143.9	1,847.0	0.51	0.51	0.00
12,103.0	91.38	182.26	10,254.0	-1,948.0	140.3	1,943.0	1.76	1.74	0.27
12,198.0	90.68	182.35	10,252.3	-2,042.9	136.5	2,038.0	0.74	-0.74	0.09
12,293.0	90.51	182.35	10,251.3	-2,137.8	132.6	2,133.0	0.18	-0.18	0.00
12,388.0	90.33	182.61	10,250.6	-2,232.7	128.5	2,228.0	0.33	-0.19	0.27
12,483.0	89.76	182.96	10,250.5	-2,327.6	123.9	2,322.9	0.70	-0.60	0.37
12,578.0	89.98	182.70	10,250.7	-2,422.5	119.2	2,417.9	0.36	0.23	-0.27
12,674.0	90.51	183.05	10,250.3	-2,518.4	114.4	2,513.9	0.66	0.55	0.36
12,769.0	90.55	182.44	10,249.4	-2,613.2	109.8	2,608.9	0.64	0.04	-0.64
12,864.0	91.43	181.56	10,247.8	-2,708.2	106.5	2,703.9	1.31	0.93	-0.93
12,960.0	91.47	181.65	10,245.4	-2,804.1	103.8	2,799.8	0.10	0.04	0.09
13,055.0	91.08	181.91	10,243.2	-2,899.0	100.9	2,894.8	0.49	-0.41	0.27
13,150.0	90.46	181.91	10,242.0	-2,994.0	97.7	2,989.8	0.65	-0.65	0.00
13,245.0	90.20	181.91	10,241.4	-3,088.9	94.5	3,084.8	0.27	-0.27	0.00
13,340.0	89.76	182.00	10,241.5	-3,183.9	91.3	3,179.8	0.47	-0.46	0.09



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)	
13,435.0	91.12	181.65	10,240.7	-3,278.8	88.3	3,274.8	1.48	1.43	-0.37	
13,530.0	91.56	181.73	10,238.5	-3,373.7	85.5	3,369.8	0.47	0.46	0.08	
13,625.0	91.21	181.82	10,236.2	-3,468.7	82.5	3,464.7	0.38	-0.37	0.09	
13,721.0	90.68	182.00	10,234.6	-3,564.6	79.3	3,560.7	0.58	-0.55	0.19	
13,817.0	90.37	182.17	10,233.7	-3,660.5	75.8	3,656.7	0.37	-0.32	0.18	
13,912.0	90.46	181.12	10,233.1	-3,755.5	73.1	3,751.7	1.11	0.09	-1.11	
14,007.0	91.34	180.68	10,231.6	-3,850.5	71.6	3,846.7	1.04	0.93	-0.46	
14,102.0	91.34	180.77	10,229.3	-3,945.4	70.4	3,941.6	0.09	0.00	0.09	
14,198.0	90.86	180.68	10,227.5	-4,041.4	69.2	4,037.6	0.51	-0.50	-0.09	
14,293.0	90.64	180.59	10,226.3	-4,136.4	68.1	4,132.6	0.25	-0.23	-0.09	
14,388.0	90.64	180.59	10,225.2	-4,231.4	67.2	4,227.6	0.00	0.00	0.00	
14,483.0	90.29	180.50	10,224.4	-4,326.4	66.3	4,322.5	0.38	-0.37	-0.09	
14,578.0	89.41	180.59	10,224.7	-4,421.4	65.3	4,417.5	0.93	-0.93	0.09	
14,673.0	89.10	180.86	10,225.9	-4,516.4	64.1	4,512.5	0.43	-0.33	0.28	
14,768.0	90.73	180.50	10,226.1	-4,611.3	63.0	4,607.5	1.76	1.72	-0.38	
14,863.0	90.77	180.59	10,224.8	-4,706.3	62.1	4,702.5	0.10	0.04	0.09	
14,958.0	90.42	180.86	10,223.8	-4,801.3	60.9	4,797.4	0.47	-0.37	0.28	
15,053.0	90.02	180.59	10,223.5	-4,896.3	59.7	4,892.4	0.51	-0.42	-0.28	
15,147.0	89.58	180.42	10,223.8	-4,990.3	58.9	4,986.4	0.50	-0.47	-0.18	
15,242.0	90.33	180.06	10,223.9	-5,085.3	58.5	5,081.4	0.88	0.79	-0.38	
15,338.0	90.99	180.06	10,222.8	-5,181.3	58.4	5,177.3	0.69	0.69	0.00	
15,432.0	91.08	180.06	10,221.1	-5,275.3	58.3	5,271.3	0.10	0.10	0.00	
15,527.0	90.46	180.33	10,219.8	-5,370.3	58.0	5,366.2	0.71	-0.65	0.28	
15,623.0	90.33	180.33	10,219.1	-5,466.3	57.4	5,462.2	0.14	-0.14	0.00	
15,717.0	90.37	180.33	10,218.5	-5,560.3	56.9	5,556.2	0.04	0.04	0.00	
15,812.0	89.89	180.33	10,218.3	-5,655.3	56.3	5,651.1	0.51	-0.51	0.00	
15,907.0	89.27	179.98	10,219.0	-5,750.3	56.1	5,746.1	0.75	-0.65	-0.37	
16,002.0	90.73	178.66	10,219.0	-5,845.2	57.2	5,841.0	2.07	1.54	-1.39	
16,097.0	90.51	178.83	10,218.0	-5,940.2	59.3	5,935.9	0.29	-0.23	0.18	
16,191.0	90.42	178.83	10,217.2	-6,034.2	61.2	6,029.8	0.10	-0.10	0.00	
16,286.0	91.16	178.92	10,215.9	-6,129.2	63.1	6,124.6	0.78	0.78	0.09	
16,381.0	92.75	179.01	10,212.7	-6,224.1	64.8	6,219.5	1.68	1.67	0.09	
16,476.0	92.97	179.10	10,207.9	-6,319.0	66.3	6,314.3	0.25	0.23	0.09	
16,571.0	91.21	178.57	10,204.5	-6,413.9	68.3	6,409.1	1.93	-1.85	-0.56	
16,666.0	90.95	178.75	10,202.7	-6,508.8	70.5	6,503.9	0.33	-0.27	0.19	
16,761.0	90.73	178.83	10,201.3	-6,603.8	72.5	6,598.8	0.25	-0.23	0.08	
16,856.0	89.27	178.22	10,201.3	-6,698.8	74.9	6,693.6	1.67	-1.54	-0.64	
16,951.0	89.89	178.04	10,202.0	-6,793.7	78.0	6,788.5	0.68	0.65	-0.19	
17,046.0	89.10	177.52	10,202.8	-6,888.6	81.7	6,883.2	1.00	-0.83	-0.55	
17,141.0	88.40	177.52	10,204.9	-6,983.5	85.8	6,978.0	0.74	-0.74	0.00	
17,251.4	87.68	177.68	10,208.7	-7,093.8	90.4	7,088.0	0.67	-0.65	0.15	
LTP @ 17251.4'MD, 100'FSL & 397.3'FEL										
17,256.0	87.65	177.69	10,208.9	-7,098.4	90.6	7,092.6	0.67	-0.65	0.15	



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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)
LAST SVY									
17,325.0	87.65	177.69	10,211.7	-7,167.2	93.4	7,161.4	0.00	0.00	0.00
Projection to TD @ 17325'MD, 26.5'FSL & 394.3'FEL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (WTG Fed Com # - hit/miss target - Shape - Point	0.00	0.00	10,195.0	-7,094.0	59.0	364,060.00	652,749.00	32° 0' 1.339 N	103° 58' 26.138 W
- actual wellpath misses target center by 34.3usft at 17249.9usft MD (10208.6 TVD, -7092.2 N, 90.4 E)									
PBHL (WTG Fed Corr - actual wellpath misses target center by 38.0usft at 17319.7usft MD (10211.5 TVD, -7161.9 N, 93.2 E) - Rectangle (sides W100.0 H2,142.0 D40.0)	-0.50	179.86	10,195.0	-7,164.0	59.0	363,990.00	652,749.00	32° 0' 0.646 N	103° 58' 26.140 W
PI (WTG Fed Com #2 - actual wellpath misses target center by 11.9usft at 15179.7usft MD (10224.0 TVD, -5023.0 N, 58.7 E) - Rectangle (sides W100.0 H4,942.0 D40.0)	-0.50	181.69	10,213.0	-5,023.0	54.0	366,131.00	652,744.00	32° 0' 21.834 N	103° 58' 26.116 W
FTP (WTG Fed Com # - actual wellpath misses target center by 115.2usft at 10274.4usft MD (10155.3 TVD, -137.0 N, 232.0 E) - Point	0.00	0.00	10,253.0	-85.0	200.0	371,069.00	652,890.00	32° 1' 10.697 N	103° 58' 24.229 W



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #217H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2912.0usft (H&P 388)
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2912.0usft (H&P 388)
Well:	WTG Fed Com #217H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
541.0	541.0	Rustler Anhydrite			
925.4	925.0	Top Salt			
2,650.3	2,648.0	Base Salt			
2,890.0	2,887.0	Delaware Mountain Gp			
2,920.0	2,917.0	Lamar			
2,921.1	2,918.0	Bell Canyon			
2,961.1	2,958.0	Ramsey Sand			
3,821.6	3,817.0	Cherry Canyon			
5,479.1	5,469.0	Brushy Canyon			
6,580.7	6,570.0	Bone Spring Lime			
6,708.8	6,698.0	Upper Avalon			
7,092.8	7,082.0	Middle Avalon			
7,294.8	7,284.0	Lower Avalon			
7,588.9	7,578.0	1st Bone Spring Sand			
7,876.9	7,866.0	2nd Bone Spring Carb			
8,139.0	8,128.0	2nd Bone Spring Sand			
8,745.2	8,734.0	3rd Bone Spring Carb			
9,409.2	9,398.0	3rd Bone Spring Sand			
9,719.5	9,708.0	3rd BS W Sand			
9,812.1	9,798.0	Wolfcamp A X Sand			
9,925.6	9,903.0	Wolfcamp A Y Sand			
10,050.6	10,008.0	Wolfcamp A Lower			
10,837.1	10,246.0	Wolfcamp B			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,214.7	10,121.9	-87.7	229.2	FTP @ 10214.7'MD, 330'FNL & 449.5'FEL
17,251.4	10,208.7	-7,093.8	90.4	LTP @ 17251.4'MD, 100'FSL & 397.3'FEL
17,256.0	10,208.9	-7,098.4	90.6	LAST SVY
17,325.0	10,211.7	-7,167.2	93.4	Projection to TD @ 17325'MD, 26.5'FSL & 394.3'FEL

Checked By: _____	Approved By: _____	Date: _____
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