

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: (505) 748-1283 Fax: (505) 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

EMNRD-OCD ARTESIA
REC'D: 05/11/2020
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 30-015-46451		² Pool Code 98220		³ Pool Name PURPLE SAGE; WOLFCAMP	
⁴ Property Code 326330		⁵ Property Name WTG FED COM			⁶ Well Number 211H
⁷ OGRID No. #372043		⁸ Operator Name TAP ROCK OPERATING, LLC.			⁹ Elevation 2884'

¹⁰Surface Location

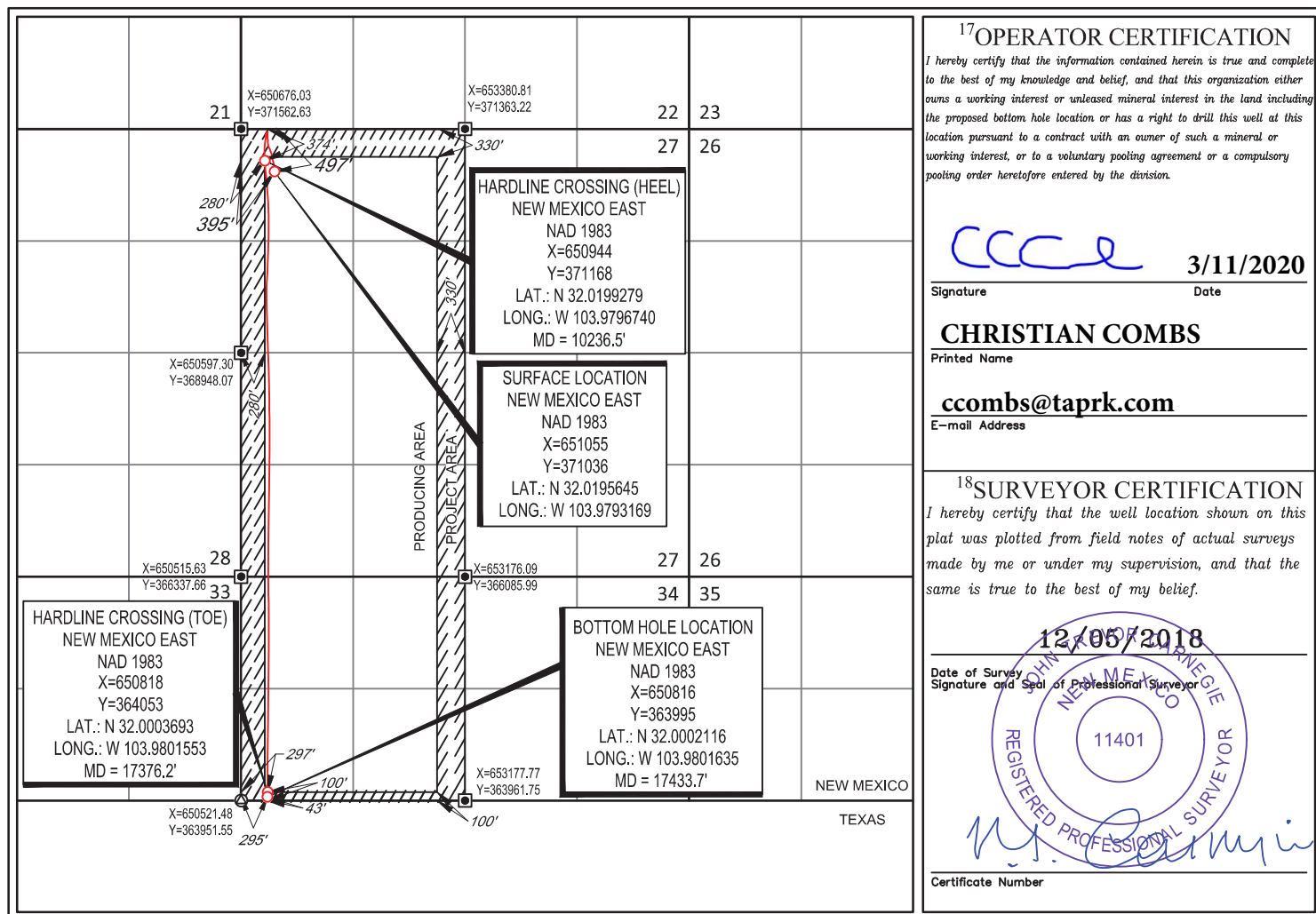
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	26-S	29-E	-	497'	NORTH	395'	WEST	EDDY

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
9	34	26-S	29-E	-	43'	SOUTH	295'	WEST	EDDY

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

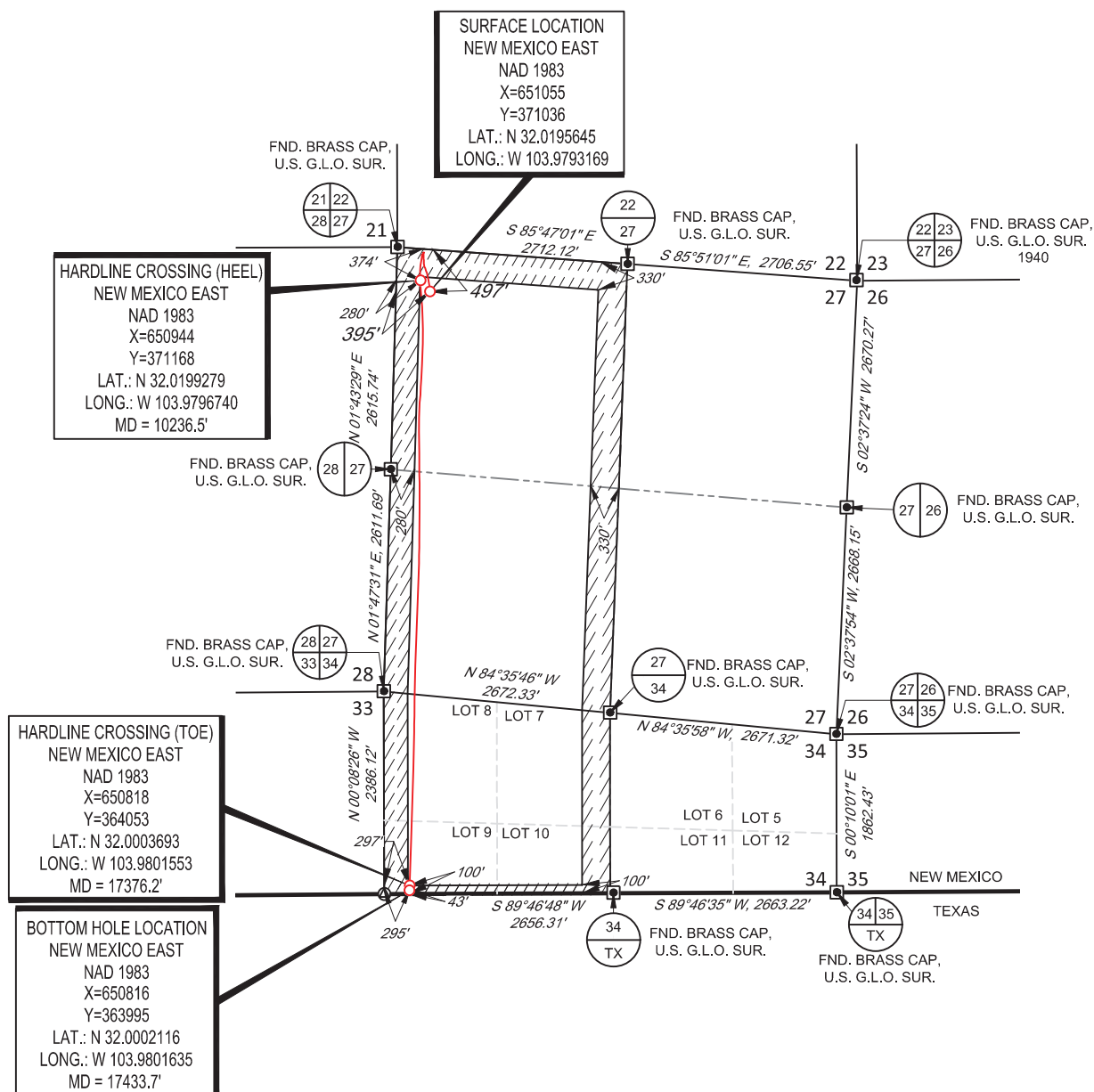
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



SCALE: 1" = 2000'

0' 1000' 2000'

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



LEASE NAME & WELL NO.: _____ WTG FED COM 211H

SECTION 27 TWP 26-S RGE 29-E SURVEY N.M.P.M.

COUNTY EDDY STATE NM ELEVATION 2884'

DESCRIPTION 497' FNL & 395' FWL

INTERNAL
PRE-COMPLETION
PLAT



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

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

WTG FED COM 211H PRE-COMPLETION	REVISION:	
	INT	DATE
DATE: 02/20/2020		
FILE: C_WTG_FED COM_211H		
DRAWN BY: IMU		
SHEET: 1 OF 1		

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 #211H**

OWB

Design: AWB

Standard Survey Report

08 January, 2020





Operator: TapRock Resources LLC
Well Name: WTG Fed Com #211H
County: Eddy
State: New Mexico
Rig Name: H&P 388
API Number: 30-015-46451

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: 180' MD – 17,362' MD
Projection to Bit: 17,435' MD
Dates Performed: 12/08/2019 – 1/08/2020
Type of Survey: MWD

Sincerely,

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

James Burleson
Vice President of MWD Operations
Intrepid Directional Drilling Specialists



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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
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 #211H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 1' 10.430 N
		Longitude:	103° 58' 45.545 W
		Ground Level:	2,884.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/13/19	6.86	59.78	47,522.48316673

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	181.14	

Survey Program	Date	01/08/20			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
180.0	17,435.0	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
180.0	1.49	177.09	180.0	-2.3	0.1	2.3	0.83	0.83	0.00
332.0	2.55	154.77	331.9	-7.4	1.7	7.3	0.86	0.70	-14.68
345.1	2.74	153.46	345.0	-7.9	1.9	7.9	1.52	1.45	-10.01
Rustler Anhydrite									
365.0	3.03	151.78	364.8	-8.8	2.4	8.8	1.52	1.46	-8.43
530.0	4.31	157.75	529.5	-18.4	6.8	18.2	0.81	0.78	3.62
625.0	2.90	171.20	624.3	-24.1	8.5	23.9	1.72	-1.48	14.16
719.0	0.31	265.42	718.3	-26.4	8.6	26.3	3.13	-2.76	100.23
814.0	1.23	331.60	813.3	-25.6	7.9	25.4	1.20	0.97	69.66
909.0	0.62	309.01	908.3	-24.3	7.0	24.2	0.74	-0.64	-23.78

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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)
1,004.0	0.62	305.15	1,003.2	-23.7	6.2	23.6	0.04	0.00	-4.06
1,074.0	0.57	280.89	1,073.2	-23.4	5.5	23.3	0.36	-0.07	-34.66
1,169.0	0.62	265.86	1,168.2	-23.4	4.6	23.3	0.17	0.05	-15.82
1,263.0	0.97	337.58	1,262.2	-22.7	3.7	22.6	1.04	0.37	76.30
1,285.8	1.11	337.20	1,285.0	-22.3	3.6	22.2	0.59	0.59	-1.65
Top Salt									
1,359.0	1.54	336.44	1,358.2	-20.7	2.9	20.7	0.59	0.59	-1.04
1,453.0	1.19	328.53	1,452.2	-18.8	1.9	18.7	0.42	-0.37	-8.41
1,548.0	1.63	352.87	1,547.2	-16.6	1.2	16.5	0.77	0.46	25.62
1,643.0	2.51	5.00	1,642.1	-13.2	1.2	13.1	1.03	0.93	12.77
1,738.0	2.86	353.49	1,737.0	-8.7	1.1	8.7	0.67	0.37	-12.12
1,833.0	3.56	339.25	1,831.8	-3.6	-0.2	3.6	1.11	0.74	-14.99
1,927.0	2.81	340.39	1,925.7	1.3	-2.0	-1.2	0.80	-0.80	1.21
2,022.0	3.69	332.22	2,020.5	6.2	-4.2	-6.1	1.04	0.93	-8.60
2,117.0	4.75	330.11	2,115.3	12.3	-7.6	-12.1	1.13	1.12	-2.22
2,212.0	3.38	344.79	2,210.0	18.4	-10.3	-18.2	1.80	-1.44	15.45
2,306.0	2.99	12.82	2,303.9	23.5	-10.4	-23.3	1.69	-0.41	29.82
2,401.0	3.16	359.81	2,398.8	28.5	-9.9	-28.3	0.75	0.18	-13.69
2,496.0	2.64	34.62	2,493.7	32.9	-8.7	-32.7	1.90	-0.55	36.64
2,590.0	3.52	29.43	2,587.5	37.2	-6.0	-37.1	0.98	0.94	-5.52
2,637.6	3.57	24.14	2,635.0	39.8	-4.7	-39.7	0.70	0.11	-11.11
Base Salt									
2,685.0	3.65	19.06	2,682.3	42.6	-3.6	-42.5	0.70	0.17	-10.72
2,780.0	3.65	3.95	2,777.1	48.5	-2.4	-48.4	1.01	0.00	-15.91
2,874.0	3.87	359.02	2,870.9	54.6	-2.3	-54.6	0.42	0.23	-5.24
2,878.1	3.94	358.77	2,875.0	54.9	-2.3	-54.9	1.87	1.82	-6.03
Delaware Mountain Gp									
2,908.2	4.49	357.21	2,905.0	57.1	-2.3	-57.1	1.87	1.83	-5.19
Lamar - Bell Canyon									
2,915.0	4.62	356.91	2,911.8	57.7	-2.4	-57.6	1.87	1.83	-4.43
2,948.3	4.80	356.59	2,945.0	60.4	-2.5	-60.3	0.55	0.55	-0.97
Ramsey Sand									
3,034.0	5.27	355.86	3,030.4	67.9	-3.0	-67.8	0.55	0.55	-0.85
3,128.0	5.49	354.98	3,124.0	76.7	-3.7	-76.6	0.25	0.23	-0.94
3,223.0	6.99	353.31	3,218.4	87.0	-4.8	-86.9	1.59	1.58	-1.76
3,318.0	8.66	348.83	3,312.5	99.7	-6.9	-99.6	1.87	1.76	-4.72
3,412.0	8.79	349.27	3,405.4	113.7	-9.6	-113.5	0.16	0.14	0.47
3,507.0	8.48	348.65	3,499.4	127.7	-12.3	-127.5	0.34	-0.33	-0.65
3,602.0	8.44	349.00	3,593.3	141.4	-15.0	-141.1	0.07	-0.04	0.37
3,679.5	8.26	349.07	3,670.0	152.5	-17.1	-152.1	0.23	-0.23	0.09
Cherry Canyon									
3,697.0	8.22	349.09	3,687.3	154.9	-17.6	-154.6	0.23	-0.23	0.10
3,792.0	7.47	346.19	3,781.4	167.6	-20.4	-167.2	0.89	-0.79	-3.05
3,887.0	7.47	346.81	3,875.6	179.6	-23.3	-179.1	0.08	0.00	0.65

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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)
3,982.0	7.34	345.40	3,969.8	191.5	-26.2	-191.0	0.24	-0.14	-1.48
4,076.0	7.60	346.02	4,063.0	203.4	-29.2	-202.7	0.29	0.28	0.66
4,171.0	7.91	345.22	4,157.2	215.8	-32.4	-215.1	0.35	0.33	-0.84
4,266.0	7.60	343.82	4,251.3	228.1	-35.8	-227.4	0.38	-0.33	-1.47
4,361.0	7.65	343.20	4,345.5	240.2	-39.4	-239.4	0.10	0.05	-0.65
4,455.0	7.87	342.06	4,438.6	252.3	-43.2	-251.4	0.29	0.23	-1.21
4,549.0	6.90	339.78	4,531.8	263.7	-47.1	-262.8	1.08	-1.03	-2.43
4,643.0	6.15	336.79	4,625.2	273.7	-51.1	-272.6	0.88	-0.80	-3.18
4,738.0	6.15	332.92	4,719.7	282.9	-55.4	-281.7	0.44	0.00	-4.07
4,833.0	6.46	333.89	4,814.1	292.2	-60.0	-291.0	0.35	0.33	1.02
4,928.0	7.21	347.07	4,908.4	302.8	-63.7	-301.5	1.82	0.79	13.87
5,022.0	7.65	351.38	5,001.6	314.8	-66.0	-313.4	0.76	0.47	4.59
5,030.5	7.59	351.16	5,010.0	315.9	-66.2	-314.5	0.79	-0.70	-2.65
Brushy Canyon									
5,117.0	6.99	348.65	5,095.8	326.7	-68.1	-325.3	0.79	-0.69	-2.90
5,212.0	7.30	358.94	5,190.1	338.4	-69.3	-336.9	1.38	0.33	10.83
5,306.0	7.25	2.36	5,283.4	350.3	-69.2	-348.8	0.46	-0.05	3.64
5,401.0	7.12	359.81	5,377.6	362.1	-69.0	-360.7	0.36	-0.14	-2.68
5,496.0	6.33	358.23	5,472.0	373.3	-69.1	-371.8	0.85	-0.83	-1.66
5,590.0	5.58	354.98	5,565.4	383.0	-69.7	-381.5	0.87	-0.80	-3.46
5,685.0	5.19	354.10	5,660.0	391.9	-70.6	-390.4	0.42	-0.41	-0.93
5,780.0	4.97	358.76	5,754.7	400.3	-71.1	-398.8	0.49	-0.23	4.91
5,875.0	5.10	2.10	5,849.3	408.6	-71.0	-407.1	0.34	0.14	3.52
5,970.0	4.66	0.34	5,943.9	416.7	-70.8	-415.2	0.49	-0.46	-1.85
6,065.0	4.31	359.99	6,038.7	424.1	-70.8	-422.6	0.37	-0.37	-0.37
6,160.0	4.04	0.34	6,133.4	431.0	-70.8	-429.5	0.29	-0.28	0.37
6,255.0	3.52	355.24	6,228.2	437.3	-71.0	-435.8	0.65	-0.55	-5.37
6,349.0	3.25	357.53	6,322.0	442.8	-71.4	-441.3	0.32	-0.29	2.44
6,444.0	2.99	352.43	6,416.9	448.0	-71.8	-446.4	0.40	-0.27	-5.37
6,539.0	2.73	348.65	6,511.8	452.6	-72.6	-451.1	0.34	-0.27	-3.98
6,577.3	2.51	1.49	6,550.0	454.4	-72.7	-452.8	1.63	-0.57	33.55
Bone Spring Lime									
6,634.0	2.46	22.93	6,606.7	456.7	-72.2	-455.2	1.63	-0.09	37.79
6,695.4	2.07	32.38	6,668.0	458.9	-71.1	-457.4	0.88	-0.63	15.39
Upper Avalon									
6,729.0	1.89	39.10	6,701.6	459.8	-70.5	-458.3	0.88	-0.54	19.99
6,824.0	1.23	54.31	6,796.6	461.6	-68.6	-460.2	0.81	-0.69	16.01
6,918.0	0.57	54.31	6,890.6	462.5	-67.4	-461.1	0.70	-0.70	0.00
7,013.0	0.92	223.14	6,985.6	462.2	-67.6	-460.8	1.56	0.37	177.72
7,079.5	1.47	230.36	7,052.0	461.3	-68.6	-459.8	0.86	0.83	10.86
Middle Avalon									
7,108.0	1.71	232.02	7,080.5	460.8	-69.2	-459.3	0.86	0.84	5.83
7,202.0	2.07	258.21	7,174.5	459.6	-72.0	-458.1	0.98	0.38	27.86
7,281.6	2.31	270.62	7,254.0	459.3	-75.0	-457.7	0.67	0.30	15.60

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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)
Lower Avalon									
7,297.0	2.37	272.71	7,269.4	459.3	-75.6	-457.7	0.67	0.38	13.52
7,391.0	0.44	283.44	7,363.4	459.5	-77.9	-457.9	2.06	-2.05	11.41
7,486.0	0.18	161.27	7,458.4	459.4	-78.2	-457.8	0.59	-0.27	-128.60
7,572.6	0.74	196.40	7,545.0	458.8	-78.3	-457.1	0.69	0.65	40.56
1st Bone Spring Sand									
7,580.0	0.79	197.04	7,552.4	458.7	-78.4	-457.0	0.69	0.68	8.67
7,675.0	1.10	181.66	7,647.4	457.1	-78.6	-455.5	0.42	0.33	-16.19
7,771.0	1.58	187.37	7,743.3	454.9	-78.8	-453.3	0.52	0.50	5.95
7,860.7	1.42	179.20	7,833.0	452.6	-78.9	-450.9	0.30	-0.18	-9.11
2nd Bone Spring Carb									
7,865.0	1.41	178.76	7,837.3	452.5	-78.9	-450.8	0.30	-0.16	-10.17
7,960.0	0.92	166.10	7,932.3	450.6	-78.7	-448.9	0.58	-0.52	-13.33
8,055.0	1.54	177.44	8,027.3	448.5	-78.5	-446.9	0.70	0.65	11.94
8,122.8	2.14	183.76	8,095.0	446.4	-78.5	-444.7	0.93	0.88	9.33
2nd Bone Spring Sand									
8,149.0	2.37	185.35	8,121.2	445.3	-78.6	-443.7	0.93	0.90	6.05
8,244.0	2.15	200.12	8,216.1	441.7	-79.4	-440.0	0.65	-0.23	15.55
8,339.0	2.33	178.06	8,311.1	438.1	-79.9	-436.4	0.92	0.19	-23.22
8,433.0	2.90	177.71	8,405.0	433.8	-79.8	-432.2	0.61	0.61	-0.37
8,528.0	0.88	179.46	8,499.9	430.7	-79.7	-429.0	2.13	-2.13	1.84
8,623.0	0.53	314.81	8,594.9	430.3	-80.0	-428.6	1.38	-0.37	142.47
8,718.0	0.88	301.89	8,689.9	431.0	-80.9	-429.3	0.40	0.37	-13.60
8,729.1	1.01	296.66	8,701.0	431.1	-81.1	-429.4	1.38	1.14	-47.13
3rd Bone Spring Carb									
8,812.0	2.07	279.83	8,783.9	431.6	-83.2	-429.9	1.38	1.28	-20.30
8,907.0	1.67	304.80	8,878.8	432.7	-86.0	-430.9	0.95	-0.42	26.28
9,002.0	1.05	329.40	8,973.8	434.3	-87.6	-432.4	0.88	-0.65	25.89
9,097.0	0.79	291.17	9,068.8	435.3	-88.7	-433.4	0.68	-0.27	-40.24
9,192.0	0.18	289.50	9,163.8	435.5	-89.4	-433.7	0.64	-0.64	-1.76
9,286.0	0.53	293.02	9,257.8	435.8	-90.0	-433.9	0.37	0.37	3.74
9,381.0	0.57	256.81	9,352.8	435.8	-90.8	-433.9	0.36	0.04	-38.12
9,393.2	0.57	252.52	9,365.0	435.8	-90.9	-433.9	0.35	-0.03	-35.05
3rd Bone Spring Sand									
9,475.0	0.62	225.17	9,446.8	435.4	-91.6	-433.4	0.35	0.07	-33.45
9,615.0	1.05	179.55	9,586.8	433.5	-92.2	-431.6	0.54	0.31	-32.59
9,703.4	5.43	156.31	9,675.0	428.9	-90.5	-427.0	5.07	4.95	-26.29
3rd BS W Sand									
9,710.0	5.76	156.00	9,681.6	428.3	-90.2	-426.4	5.07	5.05	-4.67
9,795.7	19.59	186.31	9,765.0	410.0	-90.0	-408.1	17.38	16.14	35.39
Wolfcamp A X Sand									
9,804.0	21.01	187.11	9,772.8	407.1	-90.4	-405.3	17.38	17.06	9.56
9,899.0	31.69	193.53	9,857.8	365.8	-98.4	-363.8	11.62	11.24	6.76
9,913.4	32.55	192.34	9,870.0	358.4	-100.1	-356.3	7.42	5.97	-8.29
Wolfcamp A Y Sand									

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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)
9,994.0	37.54	186.58	9,936.0	312.8	-107.5	-310.6	7.42	6.19	-7.14
10,044.8	42.25	183.92	9,975.0	280.3	-110.5	-278.1	9.85	9.26	-5.24
Wolfcamp A Lower									
10,088.0	46.29	182.01	10,005.9	250.2	-112.0	-248.0	9.85	9.36	-4.42
10,183.0	52.57	179.20	10,067.7	178.1	-112.7	-175.8	6.98	6.61	-2.96
10,185.5	52.89	179.13	10,069.2	176.1	-112.7	-173.9	12.88	12.70	-2.64
FTP @ 10185.5'MD, 330'FNL & 276.9'FWL									
10,278.0	64.66	177.00	10,117.1	97.2	-109.9	-95.0	12.88	12.73	-2.31
10,373.0	72.26	175.07	10,151.9	9.1	-103.8	-7.1	8.22	8.00	-2.03
10,468.0	75.03	175.33	10,178.7	-81.7	-96.1	83.6	2.93	2.92	0.27
10,562.0	84.84	176.30	10,195.1	-173.9	-89.4	175.6	10.49	10.44	1.03
10,654.0	92.04	177.53	10,197.6	-265.6	-84.4	267.3	7.94	7.83	1.34
10,749.0	91.08	178.67	10,195.0	-360.6	-81.3	362.1	1.57	-1.01	1.20
10,843.0	88.44	179.46	10,195.4	-454.5	-79.8	456.0	2.93	-2.81	0.84
10,938.0	88.57	180.25	10,197.9	-549.5	-79.5	551.0	0.84	0.14	0.83
11,033.0	88.09	181.75	10,200.6	-644.4	-81.2	645.9	1.66	-0.51	1.58
11,128.0	87.52	182.01	10,204.3	-739.3	-84.3	740.9	0.66	-0.60	0.27
11,222.0	87.12	182.63	10,208.7	-833.1	-88.1	834.7	0.78	-0.43	0.66
11,247.8	86.99	182.87	10,210.0	-858.9	-89.3	860.5	1.05	-0.51	0.93
Wolfcamp B									
11,317.0	86.64	183.51	10,213.8	-927.9	-93.2	929.5	1.05	-0.51	0.93
11,411.0	86.07	183.24	10,219.8	-1,021.5	-98.7	1,023.3	0.67	-0.61	-0.29
11,505.0	87.52	182.54	10,225.1	-1,115.2	-103.4	1,117.1	1.71	1.54	-0.74
11,600.0	88.84	184.74	10,228.1	-1,210.0	-109.5	1,211.9	2.70	1.39	2.32
11,694.0	89.05	184.82	10,229.8	-1,303.7	-117.3	1,305.7	0.24	0.22	0.09
11,789.0	88.70	181.48	10,231.7	-1,398.5	-122.5	1,400.6	3.53	-0.37	-3.52
11,883.0	88.13	181.48	10,234.3	-1,492.4	-124.9	1,494.6	0.61	-0.61	0.00
11,978.0	90.11	179.73	10,235.7	-1,587.4	-125.9	1,589.6	2.78	2.08	-1.84
12,073.0	90.24	179.46	10,235.5	-1,682.4	-125.3	1,684.5	0.32	0.14	-0.28
12,168.0	91.30	179.29	10,234.2	-1,777.4	-124.2	1,779.5	1.13	1.12	-0.18
12,263.0	91.30	179.29	10,232.0	-1,872.3	-123.1	1,874.4	0.00	0.00	0.00
12,357.0	90.86	179.29	10,230.3	-1,966.3	-121.9	1,968.3	0.47	-0.47	0.00
12,452.0	90.15	179.29	10,229.4	-2,061.3	-120.7	2,063.3	0.75	-0.75	0.00
12,547.0	92.40	179.64	10,227.3	-2,156.3	-119.8	2,158.2	2.40	2.37	0.37
12,641.0	92.48	179.38	10,223.3	-2,250.2	-119.0	2,252.1	0.29	0.09	-0.28
12,735.0	92.44	179.81	10,219.3	-2,344.1	-118.4	2,346.0	0.46	-0.04	0.46
12,830.0	92.44	180.17	10,215.2	-2,439.0	-118.3	2,440.9	0.38	0.00	0.38
12,924.0	92.40	180.43	10,211.3	-2,532.9	-118.8	2,534.8	0.28	-0.04	0.28
13,019.0	92.18	180.43	10,207.5	-2,627.8	-119.5	2,629.7	0.23	-0.23	0.00
13,114.0	91.78	180.43	10,204.2	-2,722.8	-120.3	2,724.6	0.42	-0.42	0.00
13,208.0	90.81	180.34	10,202.1	-2,816.7	-120.9	2,818.6	1.04	-1.03	-0.10
13,302.0	90.51	180.34	10,201.0	-2,910.7	-121.5	2,912.6	0.32	-0.32	0.00
13,397.0	89.23	180.61	10,201.2	-3,005.7	-122.2	3,007.6	1.38	-1.35	0.28
13,491.0	88.92	181.05	10,202.7	-3,099.7	-123.6	3,101.6	0.57	-0.33	0.47

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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)
13,586.0	88.70	181.57	10,204.7	-3,194.7	-125.8	3,196.5	0.59	-0.23	0.55
13,681.0	88.40	181.75	10,207.1	-3,289.6	-128.5	3,291.5	0.37	-0.32	0.19
13,775.0	88.75	181.92	10,209.4	-3,383.5	-131.5	3,385.5	0.41	0.37	0.18
13,870.0	90.11	182.45	10,210.4	-3,478.4	-135.2	3,480.4	1.54	1.43	0.56
13,964.0	91.38	182.45	10,209.1	-3,572.3	-139.2	3,574.4	1.35	1.35	0.00
14,059.0	91.08	182.28	10,207.1	-3,667.2	-143.1	3,669.4	0.36	-0.32	-0.18
14,154.0	90.64	182.10	10,205.7	-3,762.2	-146.7	3,764.3	0.50	-0.46	-0.19
14,248.0	90.02	181.92	10,205.1	-3,856.1	-150.0	3,858.3	0.69	-0.66	-0.19
14,342.0	91.25	181.92	10,204.1	-3,950.0	-153.2	3,952.3	1.31	1.31	0.00
14,437.0	92.40	182.10	10,201.1	-4,044.9	-156.5	4,047.2	1.23	1.21	0.19
14,531.0	92.44	181.92	10,197.1	-4,138.8	-159.8	4,141.2	0.20	0.04	-0.19
14,626.0	92.22	181.92	10,193.2	-4,233.7	-163.0	4,236.1	0.23	-0.23	0.00
14,721.0	92.26	181.92	10,189.5	-4,328.5	-166.2	4,331.0	0.04	0.04	0.00
14,815.0	92.35	182.28	10,185.7	-4,422.4	-169.6	4,424.9	0.39	0.10	0.38
14,910.0	92.35	182.28	10,181.8	-4,517.2	-173.4	4,519.8	0.00	0.00	0.00
15,005.0	91.21	180.96	10,178.9	-4,612.2	-176.1	4,614.7	1.84	-1.20	-1.39
15,100.0	89.76	180.43	10,178.1	-4,707.1	-177.2	4,709.7	1.63	-1.53	-0.56
15,194.0	89.93	180.52	10,178.3	-4,801.1	-178.0	4,803.7	0.20	0.18	0.10
15,289.0	89.49	180.52	10,178.8	-4,896.1	-178.8	4,898.7	0.46	-0.46	0.00
15,384.0	89.54	180.69	10,179.6	-4,991.1	-179.9	4,993.7	0.19	0.05	0.18
15,479.0	88.84	180.87	10,181.0	-5,086.1	-181.1	5,088.7	0.76	-0.74	0.19
15,573.0	89.76	180.69	10,182.1	-5,180.1	-182.4	5,182.7	1.00	0.98	-0.19
15,668.0	91.08	181.05	10,181.4	-5,275.1	-183.9	5,277.7	1.44	1.39	0.38
15,762.0	90.95	181.22	10,179.8	-5,369.0	-185.7	5,371.7	0.23	-0.14	0.18
15,857.0	90.59	181.05	10,178.5	-5,464.0	-187.6	5,466.7	0.42	-0.38	-0.18
15,952.0	90.11	181.31	10,177.9	-5,559.0	-189.6	5,561.7	0.57	-0.51	0.27
16,046.0	89.98	181.57	10,177.8	-5,653.0	-191.9	5,655.7	0.31	-0.14	0.28
16,141.0	89.71	181.92	10,178.1	-5,747.9	-194.8	5,750.7	0.47	-0.28	0.37
16,235.0	89.19	181.92	10,179.0	-5,841.9	-198.0	5,844.6	0.55	-0.55	0.00
16,329.0	88.22	182.19	10,181.1	-5,935.8	-201.3	5,938.6	1.07	-1.03	0.29
16,424.0	90.11	181.66	10,182.5	-6,030.7	-204.5	6,033.6	2.07	1.99	-0.56
16,518.0	91.56	181.84	10,181.1	-6,124.6	-207.4	6,127.6	1.55	1.54	0.19
16,613.0	91.60	181.92	10,178.5	-6,219.6	-210.5	6,222.5	0.09	0.04	0.08
16,708.0	91.47	181.66	10,176.0	-6,314.5	-213.5	6,317.5	0.31	-0.14	-0.27
16,803.0	91.30	181.92	10,173.7	-6,409.4	-216.4	6,412.4	0.33	-0.18	0.27
16,898.0	91.12	181.75	10,171.7	-6,504.3	-219.5	6,507.4	0.26	-0.19	-0.18
16,992.0	90.81	181.92	10,170.1	-6,598.3	-222.5	6,601.4	0.38	-0.33	0.18
17,087.0	90.20	182.10	10,169.2	-6,693.2	-225.8	6,696.4	0.67	-0.64	0.19
17,182.0	89.80	182.10	10,169.2	-6,788.1	-229.3	6,791.4	0.42	-0.42	0.00
17,276.0	88.88	182.28	10,170.3	-6,882.1	-232.9	6,885.3	1.00	-0.98	0.19
17,362.0	88.66	182.36	10,172.2	-6,968.0	-236.4	6,971.3	0.27	-0.26	0.09
LAST SVY									
17,377.3	88.66	182.36	10,172.5	-6,983.3	-237.0	6,986.6	0.00	0.00	0.00

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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)
LTP @ 17377.3'MD, 100'FSL & 296.8'FWL									
17,435.0	88.66	182.36	10,173.9	-7,040.9	-239.4	7,044.3	0.00	0.00	0.00
Projection to TD @ 17435'MD, 42.4'FSL & 294.2'FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL (WTG Fed Corr	-0.50	179.87	10,158.0	-7,078.0	-203.0	363,958.00	650,852.00	32° 0' 0.391 N	103° 58' 48.172 W
- actual wellpath misses target center by 54.3usft at 17435.0usft MD (10173.9 TVD, -7040.9 N, -239.4 E)									
- Rectangle (sides W100.0 H2,348.1 D30.0)									
LTP (WTG Fed Com #	0.00	0.00	10,158.0	-6,983.0	-203.0	364,053.00	650,852.00	32° 0' 1.332 N	103° 58' 48.168 W
- actual wellpath misses target center by 36.9usft at 17375.3usft MD (10172.5 TVD, -6981.3 N, -236.9 E)									
- Point									
P.I. (WTG Fed Com #	-0.50	181.73	10,178.5	-4,730.0	-207.0	366,306.00	650,848.00	32° 0' 23.628 N	103° 58' 48.129 W
- actual wellpath misses target center by 29.6usft at 15123.1usft MD (10178.2 TVD, -4730.2 N, -177.4 E)									
- Rectangle (sides W100.0 H4,904.0 D30.0)									
FTP (WTG Fed Com #	0.00	0.00	10,200.0	172.0	-59.0	371,208.00	650,996.00	32° 1' 12.134 N	103° 58' 46.224 W
- actual wellpath misses target center by 119.9usft at 10258.6usft MD (10108.4 TVD, 114.6 N, -110.7 E)									
- Point									

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well WTG Fed Com #211H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 2910.5usft
Site:	(WTG Fed) Sec-27_T26-S_R-29-E	MD Reference:	KB @ 2910.5usft
Well:	WTG Fed Com #211H	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 (°)
345.1	345.0	Rustler Anhydrite			
1,285.8	1,285.0	Top Salt			
2,637.6	2,635.0	Base Salt			
2,878.1	2,875.0	Delaware Mountain Gp			
2,908.2	2,905.0	Lamar			
2,908.2	2,905.0	Bell Canyon			
2,948.3	2,945.0	Ramsey Sand			
3,679.5	3,670.0	Cherry Canyon			
5,030.5	5,010.0	Brushy Canyon			
6,577.3	6,550.0	Bone Spring Lime			
6,695.4	6,668.0	Upper Avalon			
7,079.5	7,052.0	Middle Avalon			
7,281.6	7,254.0	Lower Avalon			
7,572.6	7,545.0	1st Bone Spring Sand			
7,860.7	7,833.0	2nd Bone Spring Carb			
8,122.8	8,095.0	2nd Bone Spring Sand			
8,729.1	8,701.0	3rd Bone Spring Carb			
9,393.2	9,365.0	3rd Bone Spring Sand			
9,703.4	9,675.0	3rd BS W Sand			
9,795.7	9,765.0	Wolfcamp A X Sand			
9,913.4	9,870.0	Wolfcamp A Y Sand			
10,044.8	9,975.0	Wolfcamp A Lower			
11,247.8	10,210.0	Wolfcamp B			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,185.5	10,069.2	176.1	-112.7	FTP @ 10185.5'MD, 330'FNL & 276.9'FWL
17,362.0	10,172.2	-6,968.0	-236.4	LAST SVY
17,377.3	10,172.5	-6,983.3	-237.0	LTP @ 17377.3'MD, 100'FSL & 296.8'FWL
17,435.0	10,173.9	-7,040.9	-239.4	Projection to TD @ 17435'MD, 42.4'FSL & 294.2'FWL

Checked By: _____ Approved By: _____ Date: _____