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Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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1000 Rio Brazos Road, Aztec, NM 87410
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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: 7/13/2020

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 30-015-46121	² Pool Code 98220	³ Pool Name PURPLE SAGE, WOLFCAMP (GAS)
⁴ Property Code 319943	⁵ Property Name CYPRESS 34	⁶ Well Number 246H
⁷ OGRID No. 372043	⁸ Operator Name TAP ROCK OPERATING, LLC.	⁹ Elevation 3093'

¹⁰Surface Location

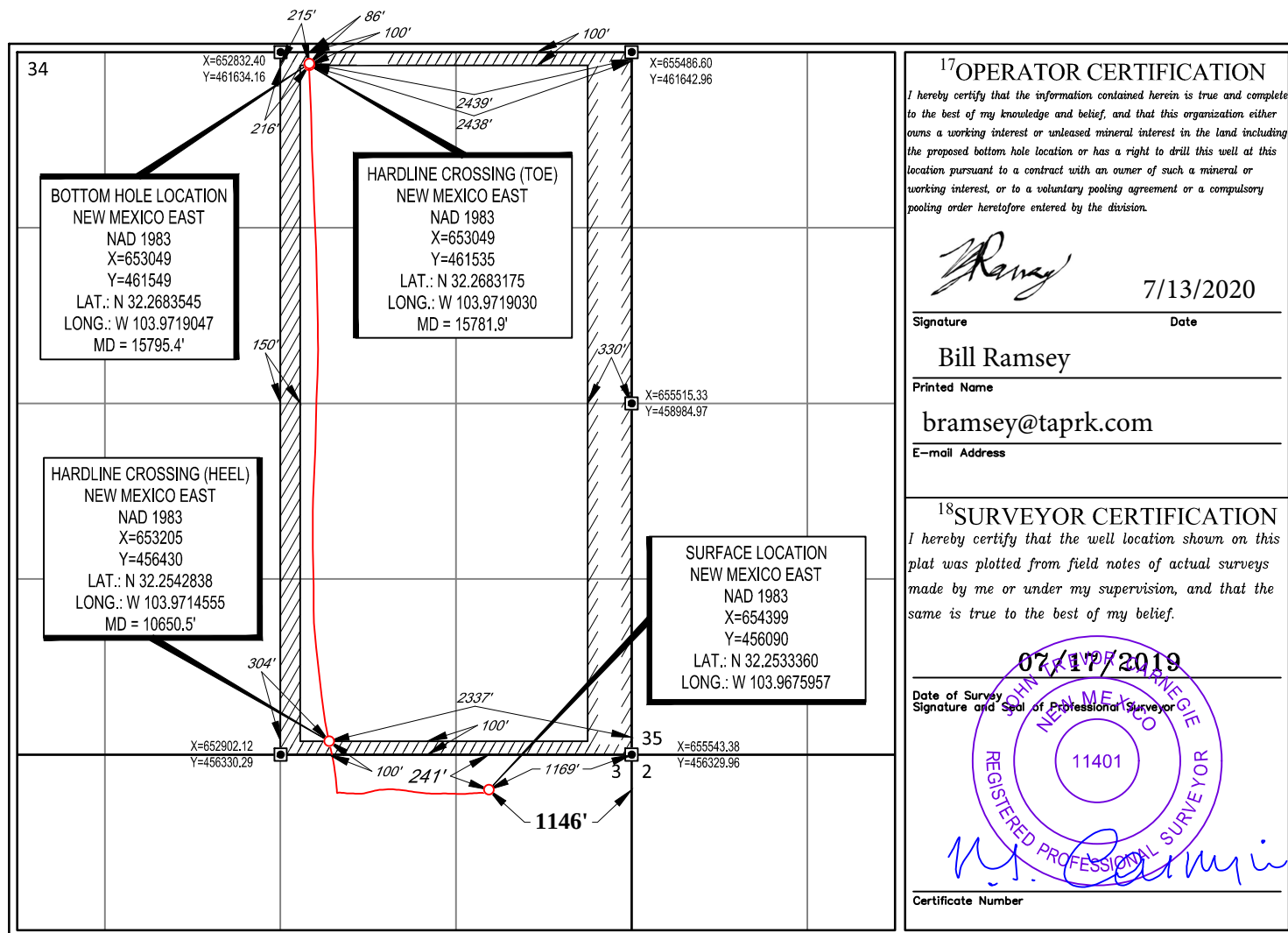
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	3	24-S	29-E	-	241'	NORTH	1146'	EAST	EDDY

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
B	34	23-S	29-E	-	86'	NORTH	2439'	EAST	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.





Tap Rock Resources, LLC

**Eddy County, NM (NAD 83 NME)
(Cypress) Sec-3_T-24-S_R-29-E
Cypress 34 Federal #246H**

OWB

Design: AWB

Standard Survey Report

15 October, 2019





Operator: Taprock Resources LLC
Well Name: Cypress 34 Federal #246H
County: Eddy
State: New Mexico
Rig Name: H&P 388
API Number: 30-015-46121

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: 120' MD – 15796' MD
Projection to Bit: 15875' MD
Dates Performed: 08/31/2019 – 09/08/2019 & 10/06/2019 – 10/13/2019
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 Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft (H&P 245)
Well:	Cypress 34 Federal #246H	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		(Cypress) Sec-3_T-24-S_R-29-E				
Site Position:		Northing:	456,089.00 usft	Latitude:	32° 15' 12.005 N	
From:	Map	Easting:	654,400.00 usft	Longitude:	103° 58' 3.336 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	Cypress 34 Federal #246H					
Well Position	+N/-S	0.0 usft	Northing:	456,089.00 usft	Latitude:	32° 15' 12.005 N
	+E/-W	0.0 usft	Easting:	654,400.00 usft	Longitude:	103° 58' 3.336 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,093.0 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/25/19	6.90	60.00	47,691.17792194

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	359.39	

Survey Program	Date	10/15/19			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
120.0	15,875.0	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
120.0	0.50	218.00	120.0	-0.4	-0.3	-0.4	0.42	0.42	0.00
206.0	0.60	309.00	206.0	-0.4	-0.9	-0.4	0.92	0.12	105.81
296.0	0.50	205.00	296.0	-0.5	-1.4	-0.5	0.97	-0.11	-115.56
390.0	0.80	198.00	390.0	-1.5	-1.8	-1.5	0.33	0.32	-7.45
434.0	0.70	179.00	434.0	-2.0	-1.9	-2.0	0.61	-0.23	-43.18
596.0	0.97	185.13	596.0	-4.4	-2.0	-4.4	0.18	0.17	3.78
670.0	1.21	176.22	670.0	-5.8	-2.0	-5.8	0.39	0.32	-12.03
Rustler Anhydrite									
688.0	1.27	174.58	687.9	-6.2	-2.0	-6.2	0.39	0.34	-9.15
781.0	1.49	183.37	780.9	-8.4	-2.0	-8.4	0.33	0.24	9.45

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Well:	Cypress 34 Federal #246H	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)
904.0	0.57	57.60	903.9	-9.7	-1.5	-9.7	1.53	-0.75	-102.25
967.0	0.70	46.44	966.9	-9.3	-1.0	-9.2	0.28	0.21	-17.71
1,061.0	0.26	94.42	1,060.9	-8.9	-0.4	-8.9	0.60	-0.47	51.04
1,155.0	0.22	185.30	1,154.9	-9.1	-0.2	-9.1	0.37	-0.04	96.68
1,248.0	0.44	144.43	1,247.9	-9.5	0.0	-9.5	0.33	0.24	-43.95
1,342.0	0.44	152.17	1,341.9	-10.2	0.4	-10.2	0.06	0.00	8.23
1,435.0	0.44	94.07	1,434.9	-10.5	0.9	-10.5	0.46	0.00	-62.47
1,529.0	0.48	91.17	1,528.9	-10.5	1.7	-10.5	0.05	0.04	-3.09
1,620.1	0.35	78.44	1,620.0	-10.5	2.3	-10.5	0.17	-0.14	-13.97
Top Salt									
1,622.0	0.35	78.08	1,621.9	-10.5	2.4	-10.5	0.17	-0.13	-19.00
1,716.0	0.44	64.72	1,715.9	-10.3	3.0	-10.3	0.14	0.10	-14.21
1,810.0	0.44	75.97	1,809.9	-10.0	3.6	-10.1	0.09	0.00	11.97
1,903.0	0.53	66.92	1,902.9	-9.8	4.4	-9.8	0.13	0.10	-9.73
1,996.0	0.40	78.78	1,995.9	-9.5	5.1	-9.6	0.17	-0.14	12.75
2,090.0	0.62	81.86	2,089.9	-9.4	5.9	-9.5	0.24	0.23	3.28
2,183.0	0.79	87.39	2,182.9	-9.3	7.1	-9.4	0.20	0.18	5.95
2,277.0	0.84	106.38	2,276.9	-9.5	8.4	-9.6	0.29	0.05	20.20
2,370.0	0.84	123.34	2,369.8	-10.0	9.6	-10.1	0.27	0.00	18.24
2,463.0	1.27	120.09	2,462.8	-10.9	11.0	-11.0	0.47	0.46	-3.49
2,555.0	2.29	117.98	2,554.8	-12.3	13.6	-12.4	1.11	1.11	-2.29
2,649.0	1.76	133.89	2,648.7	-14.2	16.3	-14.3	0.82	-0.56	16.93
2,742.0	1.71	151.11	2,741.7	-16.4	18.0	-16.6	0.56	-0.05	18.52
2,836.0	1.36	170.10	2,835.7	-18.7	18.8	-18.9	0.65	-0.37	20.20
2,929.0	1.49	206.13	2,928.6	-20.9	18.5	-21.1	0.96	0.14	38.74
2,954.4	1.29	215.94	2,954.0	-21.4	18.2	-21.6	1.23	-0.80	38.65
Base Salt									
3,023.0	1.05	256.76	3,022.6	-22.2	17.1	-22.4	1.23	-0.34	59.49
3,099.0	1.45	280.58	3,098.6	-22.2	15.5	-22.3	0.85	0.53	31.34
3,174.4	1.64	266.52	3,174.0	-22.0	13.5	-22.2	0.56	0.25	-18.64
Delaware Mountain Gp - Lamar									
3,199.5	1.72	262.62	3,199.0	-22.1	12.7	-22.3	0.56	0.32	-15.60
Bell Canyon									
3,212.0	1.76	260.80	3,211.5	-22.2	12.4	-22.3	0.56	0.34	-14.49
3,234.5	2.11	263.05	3,234.0	-22.3	11.6	-22.4	1.60	1.56	10.01
Ramsey Sand									
3,304.0	3.21	266.87	3,303.5	-22.5	8.4	-22.6	1.60	1.58	5.49
3,397.0	4.79	267.66	3,396.2	-22.8	1.9	-22.9	1.70	1.70	0.85
3,491.0	6.51	267.92	3,489.8	-23.2	-7.3	-23.1	1.83	1.83	0.28
3,584.0	8.31	271.44	3,582.0	-23.2	-19.3	-23.0	2.00	1.94	3.78
3,677.0	10.07	272.75	3,673.8	-22.7	-34.2	-22.3	1.91	1.89	1.41
3,771.0	11.47	269.24	3,766.1	-22.4	-51.7	-21.8	1.64	1.49	-3.73
3,864.0	11.74	267.75	3,857.2	-22.9	-70.4	-22.1	0.43	0.29	-1.60
3,957.0	11.78	267.13	3,948.3	-23.7	-89.4	-22.8	0.14	0.04	-0.67

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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)
4,050.0	10.99	266.69	4,039.4	-24.7	-107.7	-23.6	0.85	-0.85	-0.47
4,096.4	10.73	266.43	4,085.0	-25.2	-116.4	-24.0	0.58	-0.57	-0.56
Cherry Canyon									
4,143.0	10.46	266.16	4,130.8	-25.8	-125.0	-24.5	0.58	-0.57	-0.58
4,234.0	10.59	264.84	4,220.3	-27.1	-141.5	-25.6	0.30	0.14	-1.45
4,325.0	10.68	264.14	4,309.7	-28.7	-158.2	-27.0	0.17	0.10	-0.77
4,416.0	10.68	268.80	4,399.2	-29.7	-175.1	-27.9	0.95	0.00	5.12
4,507.0	10.64	267.92	4,488.6	-30.2	-191.9	-28.2	0.18	-0.04	-0.97
4,599.0	10.33	266.43	4,579.0	-31.1	-208.6	-28.8	0.45	-0.34	-1.62
4,690.0	9.49	274.34	4,668.7	-31.0	-224.2	-28.6	1.76	-0.92	8.69
4,783.0	9.27	273.02	4,760.4	-30.0	-239.4	-27.5	0.33	-0.24	-1.42
4,876.0	9.10	271.52	4,852.3	-29.4	-254.2	-26.7	0.32	-0.18	-1.61
4,969.0	9.49	269.77	4,944.0	-29.3	-269.2	-26.4	0.52	0.42	-1.88
5,062.0	11.21	274.25	5,035.5	-28.6	-285.9	-25.6	2.04	1.85	4.82
5,155.0	11.69	272.93	5,126.7	-27.5	-304.3	-24.2	0.59	0.52	-1.42
5,248.0	11.82	270.91	5,217.7	-26.8	-323.3	-23.4	0.46	0.14	-2.17
5,341.0	11.43	269.33	5,308.8	-26.8	-342.0	-23.2	0.54	-0.42	-1.70
5,342.2	11.43	269.29	5,310.0	-26.8	-342.2	-23.2	0.73	0.32	-3.30
Brushy Canyon									
5,434.0	11.74	266.34	5,399.9	-27.5	-360.6	-23.7	0.73	0.33	-3.21
5,527.0	11.25	270.21	5,491.1	-28.1	-379.2	-24.0	0.98	-0.53	4.16
5,618.0	10.90	270.29	5,580.4	-28.0	-396.6	-23.8	0.38	-0.38	0.09
5,712.0	9.80	268.54	5,672.8	-28.2	-413.5	-23.8	1.22	-1.17	-1.86
5,805.0	10.59	272.75	5,764.4	-28.0	-430.0	-23.4	1.17	0.85	4.53
5,898.0	11.60	274.51	5,855.6	-26.8	-447.8	-22.0	1.15	1.09	1.89
5,991.0	10.77	272.67	5,946.9	-25.7	-465.8	-20.7	0.97	-0.89	-1.98
6,085.0	10.73	273.90	6,039.2	-24.7	-483.3	-19.5	0.25	-0.04	1.31
6,178.0	11.30	276.80	6,130.5	-23.0	-501.0	-17.7	0.85	0.61	3.12
6,272.0	12.35	278.47	6,222.5	-20.4	-520.1	-14.9	1.17	1.12	1.78
6,365.0	11.91	277.41	6,313.4	-17.7	-539.5	-12.0	0.53	-0.47	-1.14
6,459.0	12.62	278.91	6,405.3	-14.9	-559.2	-8.9	0.83	0.76	1.60
6,553.0	13.23	278.29	6,496.9	-11.7	-580.0	-5.6	0.67	0.65	-0.66
6,646.0	12.66	277.41	6,587.5	-8.9	-600.7	-2.5	0.65	-0.61	-0.95
6,739.0	12.18	277.50	6,678.4	-6.3	-620.5	0.3	0.52	-0.52	0.10
6,833.0	11.74	277.33	6,770.3	-3.8	-639.8	3.0	0.47	-0.47	-0.18
6,926.0	11.16	276.27	6,861.5	-1.6	-658.1	5.4	0.66	-0.62	-1.14
7,011.0	10.41	276.27	6,945.0	0.1	-674.0	7.3	0.88	-0.88	0.00
Bone Spring Lime									
7,020.0	10.33	276.27	6,953.8	0.3	-675.6	7.5	0.88	-0.88	0.00
7,066.9	9.89	275.10	7,000.0	1.1	-683.7	8.4	1.04	-0.94	-2.50
Upper Avalon									
7,114.0	9.45	273.81	7,046.4	1.8	-691.6	9.1	1.04	-0.93	-2.73
7,207.0	9.45	276.01	7,138.2	3.1	-706.8	10.6	0.39	0.00	2.37
7,300.0	9.63	278.03	7,229.9	4.9	-722.1	12.6	0.41	0.19	2.17

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Survey

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7,393.0	9.80	268.01	7,321.5	5.8	-737.7	13.6	1.82	0.18	-10.77
7,432.1	10.29	266.41	7,360.0	5.4	-744.6	13.4	1.44	1.25	-4.09
Middle Avalon									
7,487.0	10.99	264.41	7,414.0	4.6	-754.7	12.6	1.44	1.27	-3.65
7,579.0	14.29	267.83	7,503.8	3.3	-774.7	11.6	3.68	3.59	3.72
7,673.0	14.51	265.46	7,594.8	2.0	-798.1	10.4	0.67	0.23	-2.52
7,767.0	12.92	264.14	7,686.1	-0.1	-820.3	8.7	1.72	-1.69	-1.40
7,861.0	9.63	257.64	7,778.3	-2.8	-838.4	6.1	3.75	-3.50	-6.91
7,893.2	9.49	256.99	7,810.0	-4.0	-843.6	5.0	0.54	-0.43	-2.01
Lower Avalon									
7,955.0	9.23	255.70	7,871.0	-6.4	-853.4	2.7	0.54	-0.42	-2.09
7,984.4	9.55	256.12	7,900.0	-7.5	-858.0	1.6	1.11	1.08	1.42
1st Bone Spring Sand									
8,048.0	10.24	256.93	7,962.7	-10.1	-868.7	-0.8	1.11	1.09	1.28
8,142.0	11.87	258.34	8,054.9	-13.9	-886.3	-4.5	1.76	1.73	1.50
8,235.0	10.68	256.50	8,146.1	-17.9	-904.0	-8.2	1.34	-1.28	-1.98
8,284.7	10.45	255.90	8,195.0	-20.0	-912.9	-10.3	0.52	-0.47	-1.20
2nd Bone Spring Carb									
8,329.0	10.24	255.35	8,238.6	-22.0	-920.6	-12.2	0.52	-0.47	-1.25
8,424.0	10.42	256.93	8,332.0	-26.1	-937.1	-16.1	0.35	0.19	1.66
8,517.0	11.38	264.93	8,423.4	-28.8	-954.5	-18.6	1.92	1.03	8.60
8,610.0	10.24	273.11	8,514.7	-29.2	-971.8	-18.8	2.05	-1.23	8.80
8,704.0	8.70	274.16	8,607.4	-28.2	-987.3	-17.7	1.65	-1.64	1.12
8,787.6	9.05	270.94	8,690.0	-27.6	-1,000.2	-17.0	0.73	0.42	-3.85
2nd Bone Spring Sand									
8,798.0	9.10	270.56	8,700.3	-27.6	-1,001.8	-16.9	0.73	0.44	-3.68
8,892.0	10.42	273.72	8,792.9	-27.0	-1,017.7	-16.1	1.51	1.40	3.36
8,986.0	10.07	271.35	8,885.4	-26.2	-1,034.4	-15.2	0.58	-0.37	-2.52
9,080.0	9.01	267.83	8,978.1	-26.3	-1,050.0	-15.1	1.29	-1.13	-3.74
9,132.5	8.71	270.31	9,030.0	-26.4	-1,058.1	-15.2	0.93	-0.58	4.73
3rd Bone Spring Carb									
9,174.0	8.48	272.40	9,071.1	-26.3	-1,064.3	-15.0	0.93	-0.55	5.03
9,267.0	7.56	279.52	9,163.1	-25.0	-1,077.2	-13.5	1.45	-0.99	7.66
9,361.0	8.48	278.82	9,256.2	-22.9	-1,090.1	-11.3	0.98	0.98	-0.74
9,455.0	8.48	274.16	9,349.2	-21.4	-1,103.9	-9.6	0.73	0.00	-4.96
9,548.0	5.49	270.65	9,441.5	-20.8	-1,115.2	-8.9	3.25	-3.22	-3.77
9,642.0	4.31	272.58	9,535.2	-20.6	-1,123.2	-8.6	1.27	-1.26	2.05
9,736.0	2.64	261.94	9,629.0	-20.7	-1,128.9	-8.7	1.90	-1.78	-11.32
9,855.0	2.11	248.94	9,747.9	-21.9	-1,133.6	-9.8	0.63	-0.45	-10.92
9,927.2	1.75	243.83	9,820.0	-22.9	-1,135.8	-10.8	0.55	-0.50	-7.09
3rd Bone Spring Sand									
9,952.0	1.63	241.55	9,844.8	-23.2	-1,136.5	-11.1	0.55	-0.48	-9.16
9,994.0	1.58	232.68	9,886.8	-23.8	-1,137.5	-11.7	0.60	-0.12	-21.12
10,041.0	4.88	344.74	9,933.7	-22.3	-1,138.5	-10.2	12.05	7.02	238.43

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft (H&P 245)
Well:	Cypress 34 Federal #246H	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)
10,088.0	13.49	355.02	9,980.1	-14.9	-1,139.5	-2.8	18.58	18.32	21.87
10,135.0	21.45	356.78	10,024.9	-0.8	-1,140.5	11.3	16.97	16.94	3.74
10,182.0	26.24	354.84	10,067.9	18.1	-1,141.9	30.3	10.33	10.19	-4.13
10,212.6	28.70	355.14	10,095.0	32.1	-1,143.1	44.3	8.05	8.04	0.98
3rd BS W Sand									
10,229.0	30.02	355.28	10,109.3	40.2	-1,143.8	52.3	8.05	8.04	0.86
10,270.6	32.01	355.21	10,145.0	61.6	-1,145.6	73.7	4.78	4.78	-0.17
Wolfcamp A X Sand									
10,275.0	32.22	355.20	10,148.7	63.9	-1,145.8	76.1	4.78	4.78	-0.16
10,322.0	36.44	351.42	10,187.5	90.2	-1,148.9	102.4	10.06	8.98	-8.04
10,369.0	39.03	351.33	10,224.7	118.6	-1,153.2	130.9	5.51	5.51	-0.19
10,408.9	42.13	351.79	10,255.0	144.3	-1,157.0	156.6	7.80	7.77	1.14
Wolfcamp A Y Sand									
10,416.0	42.68	351.86	10,260.2	149.0	-1,157.7	161.3	7.80	7.77	1.06
10,462.0	49.54	351.50	10,292.1	181.8	-1,162.5	194.2	14.92	14.91	-0.78
10,509.0	57.10	349.40	10,320.1	218.9	-1,168.8	231.4	16.48	16.09	-4.47
10,556.0	59.82	348.78	10,344.7	258.3	-1,176.4	270.8	5.90	5.79	-1.32
10,556.5	59.86	348.77	10,345.0	258.7	-1,176.5	271.2	7.47	7.09	-2.70
Wolfcamp A Lower									
10,603.0	63.16	347.55	10,367.2	298.7	-1,184.9	311.3	7.47	7.11	-2.62
10,651.0	65.49	347.02	10,388.0	340.9	-1,194.4	353.6	4.96	4.85	-1.10
10,651.5	65.52	347.02	10,388.2	341.3	-1,194.5	354.0	6.09	6.09	0.20
FTP @ 10651.5'MD, 100'FSL & 304.7'FWL									
10,698.0	68.35	347.11	10,406.4	383.0	-1,204.1	395.8	6.09	6.09	0.19
10,744.0	70.68	348.87	10,422.5	425.2	-1,213.0	438.0	6.20	5.07	3.83
10,790.0	71.08	348.69	10,437.5	467.8	-1,221.5	480.8	0.94	0.87	-0.39
10,837.0	73.45	350.71	10,451.9	511.8	-1,229.5	524.9	6.49	5.04	4.30
10,884.0	76.00	352.03	10,464.2	556.6	-1,236.3	569.8	6.06	5.43	2.81
10,931.0	82.15	353.44	10,473.1	602.4	-1,242.1	615.6	13.41	13.09	3.00
10,978.0	86.81	352.82	10,477.7	648.8	-1,247.7	662.1	10.00	9.91	-1.32
11,025.0	87.87	352.65	10,479.8	695.4	-1,253.6	708.7	2.28	2.26	-0.36
11,119.0	90.59	353.17	10,481.1	788.7	-1,265.2	802.1	2.95	2.89	0.55
11,213.0	90.51	353.44	10,480.2	882.0	-1,276.2	895.6	0.30	-0.09	0.29
11,307.0	91.12	354.32	10,478.9	975.5	-1,286.2	989.1	1.14	0.65	0.94
11,401.0	89.89	353.97	10,478.0	1,069.0	-1,295.8	1,082.7	1.36	-1.31	-0.37
11,495.0	89.63	354.32	10,478.4	1,162.5	-1,305.4	1,176.3	0.46	-0.28	0.37
11,588.0	91.03	357.13	10,477.9	1,255.2	-1,312.3	1,269.1	3.38	1.51	3.02
11,682.0	90.15	359.68	10,476.9	1,349.2	-1,314.9	1,363.1	2.87	-0.94	2.71
11,775.0	89.58	359.68	10,477.2	1,442.2	-1,315.5	1,456.1	0.61	-0.61	0.00
11,869.0	88.22	359.33	10,479.0	1,536.1	-1,316.3	1,550.1	1.49	-1.45	-0.37
11,963.0	88.53	358.71	10,481.6	1,630.1	-1,317.9	1,644.0	0.74	0.33	-0.66
12,057.0	89.05	358.80	10,483.6	1,724.0	-1,319.9	1,738.0	0.56	0.55	0.10
12,150.0	89.19	359.42	10,485.0	1,817.0	-1,321.4	1,831.0	0.68	0.15	0.67
12,243.0	93.14	0.03	10,483.1	1,910.0	-1,321.8	1,923.9	4.30	4.25	0.66

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft (H&P 245)
Well:	Cypress 34 Federal #246H	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)
12,337.0	94.46	359.77	10,476.9	2,003.8	-1,322.0	2,017.7	1.43	1.40	-0.28
12,431.0	92.88	0.65	10,470.9	2,097.6	-1,321.6	2,111.5	1.92	-1.68	0.94
12,524.0	91.56	1.79	10,467.3	2,190.5	-1,319.6	2,204.4	1.87	-1.42	1.23
12,617.0	89.85	2.40	10,466.2	2,283.4	-1,316.2	2,297.3	1.95	-1.84	0.66
12,711.0	89.36	3.63	10,466.8	2,377.3	-1,311.3	2,391.1	1.41	-0.52	1.31
12,803.0	88.53	2.58	10,468.5	2,469.1	-1,306.3	2,482.9	1.45	-0.90	-1.14
12,897.0	87.12	0.73	10,472.1	2,563.0	-1,303.6	2,576.7	2.47	-1.50	-1.97
12,990.0	88.31	1.96	10,475.8	2,655.9	-1,301.4	2,669.6	1.84	1.28	1.32
13,084.0	88.84	1.17	10,478.1	2,749.8	-1,298.9	2,763.5	1.01	0.56	-0.84
13,177.0	89.19	1.35	10,479.7	2,842.8	-1,296.8	2,856.4	0.42	0.38	0.19
13,271.0	89.27	1.96	10,481.0	2,936.8	-1,294.1	2,950.4	0.65	0.09	0.65
13,364.0	93.10	2.84	10,479.0	3,029.6	-1,290.2	3,043.2	4.23	4.12	0.95
13,458.0	93.98	2.23	10,473.2	3,123.4	-1,286.1	3,136.9	1.14	0.94	-0.65
13,551.0	93.01	1.08	10,467.6	3,216.1	-1,283.4	3,229.6	1.62	-1.04	-1.24
13,645.0	91.96	0.21	10,463.5	3,310.1	-1,282.3	3,323.5	1.45	-1.12	-0.93
13,739.0	89.41	359.06	10,462.4	3,404.0	-1,282.9	3,417.5	2.98	-2.71	-1.22
13,832.0	88.44	358.80	10,464.1	3,497.0	-1,284.7	3,510.5	1.08	-1.04	-0.28
13,926.0	88.31	358.62	10,466.8	3,590.9	-1,286.8	3,604.4	0.24	-0.14	-0.19
14,020.0	88.09	358.89	10,469.7	3,684.9	-1,288.8	3,698.4	0.37	-0.23	0.29
14,114.0	87.78	358.80	10,473.1	3,778.8	-1,290.7	3,792.3	0.34	-0.33	-0.10
14,207.0	87.65	359.15	10,476.8	3,871.7	-1,292.4	3,885.2	0.40	-0.14	0.38
14,301.0	86.46	358.45	10,481.7	3,965.6	-1,294.3	3,979.1	1.47	-1.27	-0.74
14,395.0	87.43	357.92	10,486.7	4,059.4	-1,297.3	4,073.0	1.18	1.03	-0.56
14,488.0	88.53	357.31	10,489.9	4,152.2	-1,301.2	4,165.9	1.35	1.18	-0.66
14,581.0	89.85	357.48	10,491.3	4,245.1	-1,305.4	4,258.8	1.43	1.42	0.18
14,674.0	91.25	358.01	10,490.4	4,338.0	-1,309.1	4,351.7	1.61	1.51	0.57
14,768.0	91.30	358.10	10,488.3	4,432.0	-1,312.2	4,445.7	0.11	0.05	0.10
14,861.0	90.33	357.13	10,487.0	4,524.9	-1,316.1	4,538.6	1.47	-1.04	-1.04
14,954.0	90.90	357.66	10,486.0	4,617.8	-1,320.3	4,631.6	0.84	0.61	0.57
15,048.0	89.85	357.48	10,485.3	4,711.7	-1,324.3	4,725.5	1.13	-1.12	-0.19
15,141.0	90.37	358.36	10,485.2	4,804.6	-1,327.7	4,818.5	1.10	0.56	0.95
15,235.0	90.64	358.71	10,484.3	4,898.6	-1,330.1	4,912.5	0.47	0.29	0.37
15,328.0	90.20	358.80	10,483.7	4,991.6	-1,332.1	5,005.5	0.48	-0.47	0.10
15,422.0	90.11	358.10	10,483.4	5,085.5	-1,334.7	5,099.5	0.75	-0.10	-0.74
15,515.0	90.90	357.31	10,482.6	5,178.4	-1,338.4	5,192.4	1.20	0.85	-0.85
15,609.0	91.34	357.48	10,480.7	5,272.3	-1,342.7	5,286.3	0.50	0.47	0.18
15,703.0	92.62	357.83	10,477.5	5,366.2	-1,346.5	5,380.2	1.41	1.36	0.37
15,782.9	92.81	357.38	10,473.7	5,445.9	-1,349.8	5,460.0	0.61	0.24	-0.56
LTP @ 15782.9'MD, 100'FNL & 216.4'FWL									
15,796.0	92.84	357.31	10,473.1	5,459.0	-1,350.4	5,473.1	0.61	0.24	-0.56
LAST SVY									
15,875.0	92.84	357.31	10,469.1	5,537.8	-1,354.2	5,551.9	0.00	0.00	0.00
Projection to TD @ 15875'MD, 8'FNL & 213.3'FWL									

Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft (H&P 245)
Well:	Cypress 34 Federal #246H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Cypress 34 Fed - actual wellpath misses target center by 118.6usft at 10701.3usft MD (10407.6 TVD, 386.0 N, -1204.7 E) - Point	0.00	0.00	10,479.0	341.0	-1,288.0	456,430.00	653,112.00	32° 15' 15.422 N	103° 58' 18.322 W
LTP (Cypress 34 Fed - actual wellpath misses target center by 9.4usft at 15782.4usft MD (10473.7 TVD, 5445.4 N, -1349.8 E) - Point	0.00	0.00	10,479.0	5,446.0	-1,342.0	461,535.00	653,058.00	32° 16' 5.942 N	103° 58' 18.751 W
PBHL (Cypress 34 Fe - actual wellpath misses target center by 15.2usft at 15875.0usft MD (10469.1 TVD, 5537.8 N, -1354.2 E) - Rectangle (sides W100.0 H5,200.0 D20.0)	0.00	359.39	10,479.0	5,541.0	-1,343.0	461,630.00	653,057.00	32° 16' 6.882 N	103° 58' 18.759 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
670.0	670.0	Rustler Anhydrite			
1,620.1	1,620.0	Top Salt			
2,954.4	2,954.0	Base Salt			
3,174.4	3,174.0	Delaware Mountain Gp			
3,174.4	3,174.0	Lamar			
3,199.5	3,199.0	Bell Canyon			
3,234.5	3,234.0	Ramsey Sand			
4,096.4	4,085.0	Cherry Canyon			
5,342.2	5,310.0	Brushy Canyon			
7,011.0	6,945.0	Bone Spring Lime			
7,066.9	7,000.0	Upper Avalon			
7,432.1	7,360.0	Middle Avalon			
7,893.2	7,810.0	Lower Avalon			
7,984.4	7,900.0	1st Bone Spring Sand			
8,284.7	8,195.0	2nd Bone Spring Carb			
8,787.6	8,690.0	2nd Bone Spring Sand			
9,132.5	9,030.0	3rd Bone Spring Carb			
9,927.2	9,820.0	3rd Bone Spring Sand			
10,212.6	10,095.0	3rd BS W Sand			
10,270.6	10,145.0	Wolfcamp A X Sand			
10,408.9	10,255.0	Wolfcamp A Y Sand			
10,556.5	10,345.0	Wolfcamp A Lower			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,651.5	10,388.2	341.3	-1,194.5	FTP @ 10651.5'MD, 100'FSL & 304.7'FWL
15,782.9	10,473.7	5,445.9	-1,349.8	LTP @ 15782.9'MD, 100'FNL & 216.4'FWL
15,796.0	10,473.1	5,459.0	-1,350.4	LAST SVY
15,875.0	10,469.1	5,537.8	-1,354.2	Projection to TD @ 15875'MD, 8'FNL & 213.3'FWL



Intrepid
Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Cypress 34 Federal #246H
Project:	Eddy County, NM (NAD 83 NME)	TVD Reference:	KB @ 3119.0usft (H&P 245)
Site:	(Cypress) Sec-3_T-24-S_R-29-E	MD Reference:	KB @ 3119.0usft (H&P 245)
Well:	Cypress 34 Federal #246H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

Checked By: _____	Approved By: _____	Date: _____
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