



HOBBS OCD
FEB 27 2020
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Tap Rock Resources, LLC

Lea County, NM (NAD 83 NME)
(Poseidon) Sec-9_T-24-E_R-33-E
Poseidon State Com #202H

OWB

Design: AWB

Standard Survey Report

24 September, 2019

 **INTREPID**



Intrepid Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #202H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3635.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3635.0usft (H&P 388)
Well:	Poseidon State Com #202H	North Reference:	Grid
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	AWB	Database:	EDM 5000.15 Single User Db

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

Site	(Poseidon) Sec-9_T-24-E_R-33-E		
Site Position:		Northing:	446,745.00 usft
From:	Map	Easting:	773,665.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 13' 33.403 N
		Longitude:	103° 34' 55.279 W
		Grid Convergence:	0.40 °

Well	Poseidon State Com #202H		
Well Position	+N/-S	0.0 usft	Northing: 446,691.00 usft
	+E/-W	0.0 usft	Easting: 773,796.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 13' 32.860 N
		Longitude:	103° 34' 53.759 W
		Ground Level:	3,609.0 usft

Wellbore	OWB		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	08/24/19	6.72	60.03	47,711.97386134

Design	AWB		
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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	359.58

Survey Program	Date 09/24/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
94.4	12,203.2	VES Gyro (OWB)	GYRO-NS
12,258.0	22,880.0	Intrepid MWD Crv/Lat (OWB)	MWD+IFR1+MS
			Description
			OWSG Gyrocompass Gyro
			OWSG MWD + IFR1 + Multi-Station Correction

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
94.4	0.57	228.13	94.4	-0.3	-0.3	-0.3	0.60	0.60	0.00
189.0	0.52	155.20	189.0	-1.0	-0.5	-1.0	0.69	-0.05	-77.09
283.6	0.54	164.73	283.6	-1.8	-0.2	-1.8	0.10	0.02	10.07
378.2	0.59	166.67	378.2	-2.7	0.0	-2.7	0.06	0.05	2.05
472.8	0.60	141.36	472.8	-3.6	0.4	-3.6	0.28	0.01	-26.75
567.4	0.63	158.47	567.4	-4.5	0.9	-4.5	0.20	0.03	18.09
662.0	0.66	165.80	662.0	-5.5	1.3	-5.5	0.09	0.03	7.75
756.6	0.65	186.46	756.6	-6.5	1.3	-6.6	0.25	-0.01	21.84
851.2	0.59	201.08	851.2	-7.5	1.1	-7.5	0.18	-0.06	15.45



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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)
945.8	0.61	196.27	945.8	-8.5	0.8	-8.5	0.06	0.02	-5.08
1,040.4	0.70	175.04	1,040.4	-9.5	0.7	-9.5	0.27	0.10	-22.44
1,135.0	0.48	201.85	1,135.0	-10.5	0.6	-10.5	0.37	-0.23	28.34
1,229.6	0.63	189.74	1,229.6	-11.4	0.4	-11.4	0.20	0.16	-12.80
1,271.1	0.67	181.53	1,271.0	-11.8	0.3	-11.8	0.25	0.10	-19.82
Rustler Anhydrite									
1,324.2	0.74	172.55	1,324.2	-12.5	0.3	-12.5	0.25	0.13	-16.89
1,418.8	0.49	81.13	1,418.8	-13.0	0.8	-13.0	0.95	-0.26	-96.64
1,513.4	0.12	168.15	1,513.4	-13.1	1.2	-13.1	0.53	-0.39	91.99
1,608.0	0.14	283.54	1,608.0	-13.1	1.1	-13.1	0.23	0.02	121.98
1,702.6	0.21	308.02	1,702.6	-13.0	0.9	-13.0	0.11	0.07	25.88
1,797.2	0.13	9.91	1,797.2	-12.8	0.8	-12.8	0.20	-0.08	65.42
1,803.1	0.13	9.91	1,803.0	-12.8	0.8	-12.8	0.00	0.00	0.00
Top Salt									
1,891.8	0.07	30.74	1,891.8	-12.6	0.8	-12.6	0.08	-0.07	23.46
1,986.4	0.27	355.30	1,986.4	-12.3	0.8	-12.4	0.23	0.21	-37.46
2,081.0	1.27	69.33	2,081.0	-11.8	1.8	-11.8	1.29	1.06	78.26
2,175.6	3.22	72.42	2,175.5	-10.6	5.3	-10.6	2.06	2.06	3.27
2,270.2	4.04	81.41	2,269.9	-9.3	11.1	-9.4	1.05	0.87	9.50
2,364.8	7.92	85.78	2,364.0	-8.3	20.9	-8.5	4.13	4.10	4.62
2,459.4	9.54	90.32	2,457.5	-7.9	35.3	-8.1	1.86	1.71	4.80
2,554.0	11.60	105.56	2,550.5	-10.5	52.3	-10.8	3.65	2.18	16.11
2,648.6	12.05	113.54	2,643.1	-17.0	70.5	-17.5	1.79	0.48	8.44
2,743.2	12.23	120.97	2,735.6	-26.1	88.2	-26.7	1.66	0.19	7.85
2,837.8	12.16	123.10	2,828.0	-36.7	105.1	-37.4	0.48	-0.07	2.25
2,932.4	12.03	124.27	2,920.5	-47.6	121.6	-48.5	0.29	-0.14	1.24
3,027.0	11.63	126.54	3,013.1	-58.9	137.4	-59.9	0.65	-0.42	2.40
3,121.6	11.33	124.58	3,105.8	-69.8	152.7	-70.9	0.52	-0.32	-2.07
3,216.2	11.05	126.46	3,198.6	-80.5	167.6	-81.7	0.49	-0.30	1.99
3,310.8	10.77	123.69	3,291.5	-90.8	182.3	-92.1	0.63	-0.30	-2.93
3,405.4	10.40	122.73	3,384.5	-100.3	196.8	-101.7	0.43	-0.39	-1.01
3,500.0	10.12	123.99	3,477.6	-109.6	210.9	-111.1	0.38	-0.30	1.33
3,594.6	9.60	122.48	3,570.8	-118.4	224.4	-120.1	0.61	-0.55	-1.60
3,689.2	9.01	124.95	3,664.2	-126.9	237.2	-128.7	0.75	-0.62	2.61
3,783.8	8.07	126.00	3,757.7	-135.1	248.6	-136.9	1.01	-0.99	1.11
3,878.4	7.32	125.47	3,851.5	-142.5	258.9	-144.4	0.80	-0.79	-0.56
3,973.0	7.32	124.29	3,945.3	-149.4	268.8	-151.3	0.16	0.00	-1.25
4,067.6	6.19	126.90	4,039.2	-155.8	277.8	-157.9	1.24	-1.19	2.76
4,162.2	5.54	127.13	4,133.3	-161.6	285.6	-163.7	0.69	-0.69	0.24
4,256.8	5.01	126.79	4,227.5	-166.9	292.5	-169.0	0.56	-0.56	-0.36
4,351.4	4.88	130.73	4,321.8	-172.0	298.9	-174.2	0.38	-0.14	4.16
4,446.0	5.12	127.86	4,416.0	-177.2	305.3	-179.4	0.37	0.25	-3.03
4,540.6	4.73	126.32	4,510.3	-182.1	311.7	-184.4	0.44	-0.41	-1.63



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4,635.2	4.50	124.78	4,604.6	-186.5	317.9	-188.8	0.28	-0.24	-1.63
4,729.8	4.88	125.83	4,698.8	-191.0	324.2	-193.4	0.41	0.40	1.11
4,824.4	5.08	113.24	4,793.1	-195.0	331.3	-197.4	1.17	0.21	-13.31
4,919.0	6.06	109.55	4,887.2	-198.3	339.9	-200.8	1.10	1.04	-3.90
5,013.3	6.16	108.44	4,981.0	-201.6	349.4	-204.1	0.16	0.11	-1.17
Base Salt									
5,013.6	6.16	108.44	4,981.3	-201.6	349.4	-204.2	0.16	0.11	-1.15
5,108.2	5.29	110.40	5,075.4	-204.7	358.3	-207.3	0.94	-0.92	2.07
5,202.8	4.56	109.19	5,169.7	-207.5	366.0	-210.2	0.78	-0.77	-1.28
5,261.3	4.22	110.97	5,228.0	-209.0	370.2	-211.7	0.63	-0.58	3.04
Delaware Mountain Gp									
5,277.4	4.13	111.51	5,244.0	-209.4	371.2	-212.2	0.63	-0.58	3.36
Lamar									
5,284.4	4.09	111.75	5,251.0	-209.6	371.7	-212.3	0.63	-0.58	3.47
Bell Canyon									
5,297.4	4.01	112.22	5,264.0	-210.0	372.6	-212.7	0.63	-0.58	3.57
5,304.4	4.01	112.31	5,271.0	-210.1	373.0	-212.9	0.09	0.01	1.27
Ramsey Sand									
5,392.0	4.02	113.43	5,358.4	-212.5	378.7	-215.3	0.09	0.01	1.28
5,486.6	4.62	104.68	5,452.7	-214.8	385.4	-217.6	0.94	0.63	-9.25
5,581.2	6.74	99.58	5,546.8	-216.7	394.6	-219.6	2.30	2.24	-5.39
5,675.8	9.09	94.62	5,640.5	-218.2	407.5	-221.2	2.58	2.48	-5.24
5,770.4	9.12	90.42	5,734.0	-218.9	422.4	-222.0	0.70	0.03	-4.44
5,865.0	9.46	91.22	5,827.3	-219.1	437.7	-222.3	0.38	0.36	0.85
5,959.6	10.02	92.55	5,920.5	-219.6	453.7	-223.0	0.64	0.59	1.41
6,054.2	9.88	93.83	6,013.7	-220.6	470.0	-224.0	0.28	-0.15	1.35
6,148.8	9.15	91.61	6,107.0	-221.3	485.6	-224.9	0.86	-0.77	-2.35
6,217.7	8.94	90.00	6,175.0	-221.5	496.5	-225.1	0.47	-0.30	-2.34
Cherry Canyon									
6,243.4	8.87	89.38	6,200.5	-221.4	500.4	-225.1	0.47	-0.29	-2.41
6,338.0	8.72	86.07	6,293.9	-220.9	514.9	-224.6	0.56	-0.16	-3.50
6,432.6	8.38	89.06	6,387.5	-220.3	528.9	-224.1	0.59	-0.36	3.16
6,527.2	8.63	88.87	6,481.1	-220.0	542.9	-224.0	0.27	0.26	-0.20
6,621.8	10.36	92.60	6,574.4	-220.3	558.5	-224.3	1.94	1.83	3.94
6,716.4	10.44	91.13	6,667.4	-220.8	575.6	-225.0	0.29	0.08	-1.55
6,811.0	10.54	93.23	6,760.4	-221.5	592.8	-225.8	0.42	0.11	2.22
6,905.6	9.29	94.78	6,853.6	-222.6	609.0	-227.0	1.35	-1.32	1.64
7,000.2	8.47	95.78	6,947.1	-223.9	623.6	-228.5	0.88	-0.87	1.06
7,094.8	7.81	93.79	7,040.7	-225.1	636.9	-229.7	0.76	-0.70	-2.10
7,189.4	7.75	95.58	7,134.4	-226.1	649.7	-230.9	0.26	-0.06	1.89
7,284.0	8.06	99.31	7,228.1	-227.8	662.6	-232.6	0.63	0.33	3.94
7,378.6	7.59	106.25	7,321.9	-230.6	675.1	-235.6	1.11	-0.50	7.34
7,473.2	5.80	121.43	7,415.8	-234.9	685.2	-239.9	2.65	-1.89	16.05
7,567.8	4.20	147.12	7,510.1	-240.3	691.2	-245.3	2.87	-1.69	27.16
7,662.4	2.79	168.18	7,604.5	-245.4	693.5	-250.5	1.99	-1.49	22.26



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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)
7,745.0	1.74	169.52	7,687.0	-248.6	694.2	-253.7	1.27	-1.27	1.62
Brushy Canyon									
7,757.0	1.59	169.86	7,699.0	-249.0	694.2	-254.0	1.27	-1.27	2.84
7,851.6	1.59	167.30	7,793.6	-251.5	694.7	-256.6	0.08	0.00	-2.71
7,946.2	1.80	160.76	7,888.2	-254.2	695.5	-259.3	0.30	0.22	-6.91
8,040.8	2.16	154.77	7,982.7	-257.2	696.8	-262.3	0.44	0.38	-6.33
8,135.4	1.84	165.04	8,077.2	-260.3	697.9	-265.4	0.51	-0.34	10.86
8,230.0	1.36	176.95	8,171.8	-262.9	698.4	-268.0	0.61	-0.51	12.59
8,324.6	1.17	178.33	8,266.4	-265.0	698.5	-270.1	0.20	-0.20	1.46
8,419.2	1.18	188.94	8,361.0	-266.9	698.3	-272.0	0.23	0.01	11.22
8,513.8	1.23	187.85	8,455.5	-268.9	698.0	-274.0	0.06	0.05	-1.15
8,608.4	1.36	182.34	8,550.1	-271.0	697.9	-276.1	0.19	0.14	-5.82
8,703.0	1.32	184.76	8,644.7	-273.2	697.7	-278.3	0.07	-0.04	2.56
8,797.6	1.22	186.72	8,739.3	-275.3	697.5	-280.4	0.12	-0.11	2.07
8,892.2	1.13	196.04	8,833.8	-277.2	697.1	-282.3	0.22	-0.10	9.85
8,986.8	1.18	195.77	8,928.4	-279.0	696.6	-284.1	0.05	0.05	-0.29
9,081.4	1.39	223.03	9,023.0	-280.8	695.6	-285.9	0.68	0.22	28.82
9,176.0	1.45	231.60	9,117.6	-282.4	693.9	-287.5	0.23	0.06	9.06
9,188.5	1.51	233.34	9,130.0	-282.6	693.6	-287.7	0.59	0.47	14.01
Bone Spring Lime									
9,270.6	1.92	242.07	9,212.1	-283.9	691.5	-288.9	0.59	0.50	10.62
9,324.5	1.46	241.71	9,266.0	-284.6	690.1	-289.7	0.85	-0.85	-0.66
Upper Avalon									
9,365.2	1.12	241.25	9,306.7	-285.1	689.3	-290.1	0.85	-0.85	-1.14
9,459.8	1.05	246.68	9,401.3	-285.9	687.7	-290.9	0.13	-0.07	5.74
9,554.4	0.22	337.03	9,495.9	-286.0	686.8	-291.1	1.14	-0.88	95.51
9,648.6	0.68	254.31	9,590.0	-286.0	686.2	-291.0	0.73	0.49	-87.88
Middle Avalon									
9,649.0	0.68	254.22	9,590.5	-286.0	686.2	-291.0	0.73	0.69	-19.54
9,743.6	0.87	260.95	9,685.1	-286.3	685.0	-291.3	0.22	0.20	7.11
9,838.2	0.65	298.40	9,779.7	-286.1	683.8	-291.1	0.56	-0.23	39.59
9,932.8	1.06	331.29	9,874.2	-285.1	682.9	-290.1	0.66	0.43	34.77
9,967.6	1.13	327.91	9,909.0	-284.5	682.6	-289.5	0.28	0.21	-9.74
Lower Avalon									
10,027.4	1.27	323.04	9,968.8	-283.5	681.8	-288.5	0.28	0.23	-8.13
10,122.0	1.93	310.98	10,063.4	-281.6	680.0	-286.6	0.78	0.70	-12.75
10,214.7	2.01	291.15	10,156.0	-280.0	677.3	-285.0	0.74	0.08	-21.40
1st Bone Spring Sand									
10,216.6	2.01	290.76	10,157.9	-280.0	677.3	-285.0	0.74	0.21	-20.14
10,311.2	1.79	283.70	10,252.5	-279.1	674.3	-284.0	0.34	-0.23	-7.46
10,405.8	1.81	284.49	10,347.0	-278.3	671.4	-283.3	0.03	0.02	0.84
10,415.8	1.79	283.67	10,357.0	-278.3	671.1	-283.2	0.31	-0.16	-8.22
2nd Bone Spring Carb									
10,500.4	1.67	276.11	10,441.6	-277.8	668.6	-282.7	0.31	-0.15	-8.93



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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)
10,595.0	1.41	261.77	10,536.2	-277.8	666.0	-282.7	0.49	-0.27	-15.16
10,689.6	0.56	268.25	10,630.7	-278.0	664.4	-282.9	0.90	-0.90	6.85
10,784.2	0.46	136.32	10,725.3	-278.3	664.2	-283.2	0.99	-0.11	-139.46
10,878.8	1.34	146.55	10,819.9	-279.5	665.1	-284.4	0.94	0.93	10.81
10,973.4	2.68	140.99	10,914.5	-282.1	667.1	-287.0	1.43	1.42	-5.88
10,981.0	2.66	141.41	10,922.0	-282.4	667.3	-287.3	0.40	-0.31	5.56
2nd Bone Spring Sand									
11,068.0	2.40	146.82	11,009.0	-285.5	669.6	-290.4	0.40	-0.29	6.22
11,162.6	1.88	139.59	11,103.5	-288.4	671.7	-293.3	0.62	-0.55	-7.64
11,257.2	1.84	140.01	11,198.1	-290.7	673.7	-295.6	0.04	-0.04	0.44
11,351.8	2.28	130.97	11,292.6	-293.1	676.1	-298.1	0.58	0.47	-9.56
11,379.3	2.37	131.98	11,320.0	-293.8	676.9	-298.8	0.35	0.31	3.69
3rd Bone Spring Carb									
11,446.4	2.58	134.17	11,387.1	-295.8	679.0	-300.8	0.35	0.32	3.26
11,541.0	1.52	137.40	11,481.7	-298.2	681.4	-303.2	1.13	-1.12	3.41
11,635.6	1.14	173.82	11,576.2	-300.1	682.3	-305.1	0.96	-0.40	38.50
11,730.2	1.25	185.99	11,670.8	-302.1	682.3	-307.0	0.29	0.12	12.86
11,824.8	1.31	190.23	11,765.4	-304.1	682.0	-309.1	0.12	0.06	4.48
11,919.4	1.48	195.88	11,860.0	-306.4	681.5	-311.4	0.23	0.18	5.97
12,014.0	1.31	176.14	11,954.5	-308.6	681.2	-313.6	0.54	-0.18	-20.87
12,030.5	0.88	209.52	11,971.0	-308.9	681.2	-313.9	4.56	-2.61	202.59
3rd Bone Spring Sand									
12,108.6	3.42	301.83	12,049.1	-308.2	678.9	-313.2	4.56	3.25	118.16
12,203.2	11.92	343.60	12,142.8	-297.3	673.7	-302.3	10.19	8.99	44.15
12,258.0	18.16	1.28	12,195.7	-283.4	672.3	-288.3	14.02	11.40	32.29
12,333.5	31.58	6.26	12,264.0	-251.8	674.8	-256.7	17.98	17.78	6.59
3rd BS W Sand									
12,353.0	35.07	6.96	12,280.3	-241.2	676.0	-246.1	17.98	17.87	3.60
12,389.0	39.86	6.24	12,308.9	-219.4	678.5	-224.4	13.37	13.31	-2.01
FTP @ 12389'MD, 100'FSL & 1972.5'FWL									
12,431.4	45.51	5.55	12,340.0	-190.9	681.4	-195.8	13.37	13.32	-1.62
Wolfcamp A X Sand									
12,447.0	47.59	5.33	12,350.8	-179.6	682.5	-184.6	13.37	13.33	-1.41
12,542.0	59.82	3.02	12,406.9	-103.3	688.0	-108.4	13.02	12.87	-2.43
12,636.0	66.48	0.68	12,449.3	-19.6	690.6	-24.6	7.42	7.09	-2.49
12,674.6	68.77	359.84	12,464.0	16.1	690.8	11.0	6.27	5.94	-2.17
Wolfcamp A Y Sand									
12,731.0	72.13	358.66	12,482.9	69.3	690.1	64.2	6.27	5.95	-2.09
12,826.0	82.78	2.01	12,503.5	161.8	690.7	156.8	11.73	11.21	3.53
12,908.0	86.88	2.19	12,510.9	243.4	693.7	238.3	5.00	5.00	0.22
13,003.0	86.25	1.87	12,516.6	338.2	697.0	333.1	0.74	-0.66	-0.34
13,098.0	85.68	1.33	12,523.3	432.9	699.7	427.8	0.83	-0.60	-0.57
13,193.0	87.58	359.76	12,528.8	527.8	700.6	522.6	2.59	2.00	-1.65
13,288.0	89.07	358.42	12,531.6	622.7	699.1	617.6	2.11	1.57	-1.41
13,383.0	90.00	358.36	12,532.4	717.7	696.4	712.5	0.98	0.98	-0.06



Intrepid Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #202H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3635.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3635.0usft (H&P 388)
Well:	Poseidon State Com #202H	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)
13,478.0	90.20	357.76	12,532.2	812.6	693.2	807.5	0.67	0.21	-0.63
13,573.0	90.06	358.67	12,532.0	907.6	690.2	902.5	0.97	-0.15	0.96
13,667.0	90.18	359.90	12,531.8	1,001.5	689.0	996.5	1.31	0.13	1.31
13,762.0	89.13	359.11	12,532.4	1,096.5	688.2	1,091.5	1.38	-1.11	-0.83
13,857.0	89.76	359.00	12,533.3	1,191.5	686.7	1,186.5	0.67	0.66	-0.12
13,952.0	90.80	359.23	12,532.8	1,286.5	685.2	1,281.5	1.12	1.09	0.24
14,046.0	90.11	358.73	12,532.1	1,380.5	683.5	1,375.4	0.91	-0.73	-0.53
14,141.0	89.63	358.65	12,532.3	1,475.5	681.3	1,470.4	0.51	-0.51	-0.08
14,236.0	90.94	359.41	12,531.8	1,570.4	679.7	1,565.4	1.59	1.38	0.80
14,331.0	91.14	359.98	12,530.1	1,665.4	679.2	1,660.4	0.64	0.21	0.60
14,426.0	92.55	0.77	12,527.1	1,760.4	679.9	1,755.3	1.70	1.48	0.83
14,521.0	93.42	1.12	12,522.1	1,855.2	681.4	1,850.2	0.99	0.92	0.37
14,615.0	92.88	3.37	12,516.9	1,949.0	685.1	1,943.9	2.46	-0.57	2.39
14,710.0	90.34	1.44	12,514.3	2,043.9	689.1	2,038.8	3.36	-2.67	-2.03
14,805.0	88.88	0.24	12,514.9	2,138.9	690.5	2,133.7	1.99	-1.54	-1.26
14,900.0	88.97	0.07	12,516.7	2,233.8	690.7	2,228.7	0.20	0.09	-0.18
14,995.0	87.27	0.83	12,519.8	2,328.8	691.5	2,323.7	1.96	-1.79	0.80
15,090.0	87.16	1.26	12,524.4	2,423.7	693.2	2,418.5	0.47	-0.12	0.45
15,184.0	88.15	2.54	12,528.3	2,517.5	696.3	2,512.4	1.72	1.05	1.36
15,279.0	87.72	2.48	12,531.7	2,612.4	700.5	2,607.2	0.46	-0.45	-0.06
15,373.0	90.41	1.68	12,533.2	2,706.3	703.9	2,701.1	2.99	2.86	-0.85
15,468.0	91.36	1.50	12,531.8	2,801.2	706.5	2,796.0	1.02	1.00	-0.19
15,562.0	91.39	1.28	12,529.5	2,895.2	708.8	2,889.9	0.24	0.03	-0.23
15,657.0	91.60	1.53	12,527.0	2,990.1	711.1	2,984.8	0.34	0.22	0.26
15,752.0	90.06	1.64	12,525.7	3,085.1	713.8	3,079.8	1.63	-1.62	0.12
15,847.0	89.24	1.43	12,526.2	3,180.0	716.3	3,174.7	0.89	-0.86	-0.22
15,942.0	89.79	1.11	12,527.0	3,275.0	718.4	3,269.7	0.67	0.58	-0.34
16,036.0	89.60	0.79	12,527.5	3,369.0	720.0	3,363.6	0.40	-0.20	-0.34
16,131.0	89.72	0.27	12,528.1	3,464.0	720.8	3,458.6	0.56	0.13	-0.55
16,226.0	88.68	359.81	12,529.4	3,559.0	720.9	3,553.6	1.20	-1.09	-0.48
16,321.0	88.01	359.35	12,532.2	3,653.9	720.2	3,648.6	0.86	-0.71	-0.48
16,416.0	90.26	359.61	12,533.6	3,748.9	719.4	3,743.5	2.38	2.37	0.27
16,510.0	92.01	359.65	12,531.8	3,842.9	718.7	3,837.5	1.86	1.86	0.04
16,605.0	91.96	359.64	12,528.5	3,937.8	718.2	3,932.5	0.05	-0.05	-0.01
16,699.0	90.92	359.75	12,526.1	4,031.8	717.7	4,026.4	1.11	-1.11	0.12
16,794.0	89.22	359.62	12,526.0	4,126.8	717.1	4,121.4	1.79	-1.79	-0.14
16,889.0	89.55	359.87	12,527.0	4,221.8	716.7	4,216.4	0.44	0.35	0.26
16,984.0	88.15	359.08	12,528.9	4,316.8	715.8	4,311.4	1.69	-1.47	-0.83
17,078.0	88.31	0.13	12,531.8	4,410.7	715.2	4,405.4	1.13	0.17	1.12
17,173.0	89.29	1.13	12,533.8	4,505.7	716.2	4,500.3	1.47	1.03	1.05
17,268.0	91.05	3.65	12,533.5	4,600.6	720.2	4,595.2	3.24	1.85	2.65
17,362.0	90.60	3.97	12,532.2	4,694.4	726.4	4,688.9	0.59	-0.48	0.34
17,457.0	89.87	3.62	12,531.8	4,789.2	732.7	4,783.7	0.85	-0.77	-0.37



Intrepid
Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #202H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3635.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3635.0usft (H&P 388)
Well:	Poseidon State Com #202H	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)
17,552.0	89.22	3.10	12,532.5	4,884.0	738.3	4,878.5	0.88	-0.68	-0.55
17,647.0	88.20	2.87	12,534.7	4,978.8	743.2	4,973.3	1.10	-1.07	-0.24
17,742.0	86.95	2.33	12,538.7	5,073.7	747.6	5,068.0	1.43	-1.32	-0.57
17,837.0	89.01	1.22	12,542.0	5,168.5	750.5	5,162.9	2.46	2.17	-1.17
17,931.0	89.45	1.41	12,543.3	5,262.5	752.7	5,256.9	0.51	0.47	0.20
18,026.0	89.81	1.63	12,543.9	5,357.5	755.2	5,351.8	0.44	0.38	0.23
18,121.0	88.90	1.42	12,545.0	5,452.4	757.7	5,446.7	0.98	-0.96	-0.22
18,216.0	88.10	359.41	12,547.5	5,547.4	758.4	5,541.7	2.28	-0.84	-2.12
18,310.0	88.85	357.59	12,550.0	5,641.3	755.9	5,635.6	2.09	0.80	-1.94
18,405.0	89.77	356.43	12,551.1	5,736.2	751.0	5,730.5	1.56	0.97	-1.22
18,500.0	90.92	357.35	12,550.5	5,831.0	745.8	5,825.4	1.55	1.21	0.97
18,595.0	90.52	358.64	12,549.4	5,926.0	742.5	5,920.4	1.42	-0.42	1.36
18,690.0	90.69	359.22	12,548.3	6,021.0	740.7	6,015.4	0.64	0.18	0.61
18,785.0	91.22	359.77	12,546.8	6,115.9	739.9	6,110.3	0.80	0.56	0.58
18,879.0	90.39	359.46	12,545.4	6,209.9	739.3	6,204.3	0.94	-0.88	-0.33
18,973.0	89.72	359.84	12,545.4	6,303.9	738.7	6,298.3	0.82	-0.71	0.40
19,068.0	88.77	0.47	12,546.6	6,398.9	738.9	6,393.3	1.20	-1.00	0.66
19,163.0	88.87	0.49	12,548.6	6,493.9	739.7	6,488.3	0.11	0.11	0.02
19,257.0	87.71	359.28	12,551.4	6,587.8	739.5	6,582.2	1.78	-1.23	-1.29
19,351.0	89.17	356.89	12,553.9	6,681.7	736.4	6,676.2	2.98	1.55	-2.54
19,446.0	93.39	355.46	12,551.8	6,776.5	730.1	6,770.9	4.69	4.44	-1.51
19,540.0	91.46	355.28	12,547.8	6,870.1	722.5	6,864.6	2.06	-2.05	-0.19
19,635.0	89.27	354.83	12,547.2	6,964.7	714.3	6,959.3	2.35	-2.31	-0.47
19,730.0	87.70	357.37	12,549.7	7,059.5	707.8	7,054.1	3.14	-1.65	2.67
19,825.0	87.03	356.97	12,554.1	7,154.2	703.2	7,148.9	0.82	-0.71	-0.42
19,919.0	87.47	356.35	12,558.6	7,248.0	697.7	7,242.7	0.81	0.47	-0.66
20,014.0	89.60	356.72	12,561.0	7,342.8	691.9	7,337.5	2.28	2.24	0.39
20,109.0	89.71	356.06	12,561.6	7,437.6	686.0	7,432.3	0.70	0.12	-0.69
20,203.0	89.59	358.37	12,562.2	7,531.5	681.4	7,526.3	2.46	-0.13	2.46
20,298.0	91.34	0.63	12,561.4	7,626.4	680.6	7,621.2	3.01	1.84	2.38
20,392.0	90.48	5.70	12,559.9	7,720.3	685.8	7,715.0	5.47	-0.91	5.39
20,487.0	90.10	9.51	12,559.4	7,814.4	698.3	7,809.1	4.03	-0.40	4.01
20,581.0	91.46	6.36	12,558.2	7,907.5	711.3	7,902.0	3.65	1.45	-3.35
20,676.0	91.90	4.46	12,555.4	8,002.0	720.3	7,996.5	2.05	0.46	-2.00
20,771.0	90.84	3.07	12,553.1	8,096.8	726.5	8,091.2	1.84	-1.12	-1.46
20,866.0	88.47	359.79	12,553.7	8,191.7	728.9	8,186.2	4.26	-2.49	-3.45
20,961.0	91.82	359.00	12,553.4	8,286.7	727.9	8,281.1	3.62	3.53	-0.83
21,056.0	90.71	359.05	12,551.3	8,381.7	726.2	8,376.1	1.17	-1.17	0.05
21,150.0	87.09	356.75	12,553.1	8,475.6	722.8	8,470.0	4.56	-3.85	-2.45
21,245.0	90.22	356.90	12,555.4	8,570.4	717.5	8,564.9	3.30	3.29	0.16
21,340.0	90.11	355.60	12,555.1	8,665.2	711.3	8,659.7	1.37	-0.12	-1.37
21,435.0	88.61	355.00	12,556.2	8,759.8	703.5	8,754.4	1.70	-1.58	-0.63
21,529.0	88.45	353.83	12,558.6	8,853.4	694.4	8,848.0	1.26	-0.17	-1.24



Intrepid Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #202H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3635.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3635.0usft (H&P 388)
Well:	Poseidon State Com #202H	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)
21,624.0	89.09	354.00	12,560.6	8,947.8	684.3	8,942.5	0.70	0.67	0.18
21,719.0	90.97	356.12	12,560.6	9,042.4	676.1	9,037.2	2.98	1.98	2.23
21,814.0	90.16	355.82	12,559.6	9,137.2	669.5	9,132.1	0.91	-0.85	-0.32
21,909.0	93.16	357.70	12,556.9	9,232.0	664.1	9,226.9	3.73	3.16	1.98
22,004.0	92.84	356.74	12,551.9	9,326.8	659.5	9,321.7	1.06	-0.34	-1.01
22,099.0	92.81	356.26	12,547.2	9,421.5	653.7	9,416.4	0.51	-0.03	-0.51
22,194.0	91.42	356.12	12,543.7	9,516.2	647.4	9,511.2	1.47	-1.46	-0.15
22,289.0	93.63	358.32	12,539.5	9,611.0	642.8	9,606.0	3.28	2.33	2.32
22,384.0	91.33	357.68	12,535.4	9,705.8	639.5	9,700.9	2.51	-2.42	-0.67
22,479.0	89.31	356.69	12,534.9	9,800.7	634.8	9,795.8	2.37	-2.13	-1.04
22,574.0	90.44	358.39	12,535.1	9,895.6	630.7	9,890.7	2.15	1.19	1.79
22,668.0	88.48	355.74	12,536.0	9,989.5	625.9	9,984.6	3.51	-2.09	-2.82
22,763.0	85.53	353.33	12,540.9	10,083.9	616.9	10,079.1	4.01	-3.11	-2.54
22,809.0	85.43	353.35	12,544.6	10,129.4	611.6	10,124.7	0.22	-0.22	0.04
LAST SVY									
22,812.3	85.43	353.35	12,544.8	10,132.7	611.2	10,127.9	0.00	0.00	0.00
LTP @ 22812.3'MD, 100'FNL & 1981.5'FWL									
22,880.0	85.43	353.35	12,550.2	10,199.7	603.4	10,195.0	0.00	0.00	0.00
Projection to TD @ 22880'MD, 32.9'FNL & 1974.2'FWL									

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 (Poseidon State - actual wellpath misses target center by 170.2usft at 12524.7usft MD (12397.9 TVD, -118.1 N, 687.1 E) - Point	0.00	0.00	12,535.0	-219.0	686.0	446,472.00	774,482.00	32° 13' 30.645 N	103° 34' 45.791 W
PBHL (Poseidon State - actual wellpath misses target center by 59.1usft at 22878.8usft MD (12550.1 TVD, 10198.5 N, 603.5 E) - Rectangle (sides W100.0 H10,421.0 D30.0)	0.20	359.58	12,570.0	10,203.4	659.0	456,894.37	774,455.00	32° 15' 13.778 N	103° 34' 45.253 W
LTP (Poseidon State - actual wellpath misses target center by 54.4usft at 22809.0usft MD (12544.6 TVD, 10129.5 N, 611.6 E) - Point	0.00	0.00	12,570.0	10,133.0	659.5	456,824.00	774,455.51	32° 15' 13.082 N	103° 34' 45.253 W



Intrepid
Survey Report



Company:	Tap Rock Resources, LLC	Local Co-ordinate Reference:	Well Poseidon State Com #202H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3635.0usft (H&P 388)
Site:	(Poseidon) Sec-9_T-24-E_R-33-E	MD Reference:	KB @ 3635.0usft (H&P 388)
Well:	Poseidon State Com #202H	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 (°)
1,271.1	1,271.0	Rustler Anhydrite			
1,803.1	1,803.0	Top Salt			
5,013.3	4,981.0	Base Salt			
5,261.3	5,228.0	Delaware Mountain Gp			
5,277.4	5,244.0	Lamar			
5,284.4	5,251.0	Bell Canyon			
5,304.4	5,271.0	Ramsey Sand			
6,217.7	6,175.0	Cherry Canyon			
7,745.0	7,687.0	Brushy Canyon			
9,188.5	9,130.0	Bone Spring Lime			
9,324.5	9,266.0	Upper Avalon			
9,648.6	9,590.0	Middle Avalon			
9,967.6	9,909.0	Lower Avalon			
10,214.7	10,156.0	1st Bone Spring Sand			
10,415.8	10,357.0	2nd Bone Spring Carb			
10,981.0	10,922.0	2nd Bone Spring Sand			
11,379.3	11,320.0	3rd Bone Spring Carb			
12,030.5	11,971.0	3rd Bone Spring Sand			
12,333.5	12,264.0	3rd BS W Sand			
12,431.4	12,340.0	Wolfcamp A X Sand			
12,674.6	12,464.0	Wolfcamp A Y Sand			

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,389.0	12,308.9	-219.4	678.5	FTP @ 12389'MD, 100'FSL & 1972.5'FWL
22,809.0	12,544.6	10,129.4	611.6	LAST SVY
22,812.3	12,544.8	10,132.7	611.2	LTP @ 22812.3'MD, 100'FNL & 1981.5'FWL
22,880.0	12,550.2	10,199.7	603.4	Projection to TD @ 22880'MD, 32.9'FNL & 1974.2'FWL

Checked By: _____ Approved By: _____ Date: _____