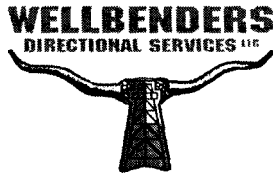


DEC 06 2017

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Survey Report

Service Company: WellBenders Directional

Location: Eddy County

Well: Goodman 22-4H

Rig: Silver Oak #1

API or UWI: 30.015-44382

Job Number: WTXDG 2017-1106

State: New Mexico

Operating Company: Percussion Petroleum LLC

County: Eddy

Magnetic Declination: 0.00

Country: United States

Proposed Azimuth: 89.88

Comment

North Reference: GRID

Latitude: 32.64524

Longitude: -104.473538

Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
0.00	0.00	0.00	0.00	0.00	0.00

Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
94.84	0.98	153.75	94.84	-0.73	0.36	153.75	0.81	0.36	1.03
186.99	1.00	135.91	186.97	-2.01	1.27	147.80	2.38	1.26	0.33
274.73	1.30	135.51	274.69	-3.27	2.50	142.65	4.12	2.49	0.34
365.03	1.16	133.13	364.97	-4.63	3.88	140.01	6.04	3.87	0.17
458.92	1.32	134.04	458.84	-6.03	5.35	138.40	8.06	5.34	0.17
552.64	1.37	135.04	552.54	-7.57	6.92	137.57	10.26	6.90	0.06
645.64	1.44	136.38	645.51	-9.20	8.51	137.24	12.54	8.49	0.08
739.65	1.52	132.69	739.49	-10.91	10.24	136.79	14.96	10.22	0.13
833.43	1.56	132.60	833.23	-12.61	12.10	136.19	17.48	12.07	0.04
926.75	1.73	133.48	926.51	-14.44	14.05	135.78	20.15	14.02	0.18
1021.15	1.85	133.06	1020.87	-16.46	16.20	135.46	23.10	16.17	0.13
1115.01	1.95	134.27	1114.68	-18.61	18.45	135.25	26.21	18.41	0.11
1199.02	1.97	133.85	1198.64	-20.61	20.52	135.13	29.08	20.47	0.03
1251.00	2.30	134.50	1250.58	-21.96	21.91	135.07	31.02	21.86	0.64
1345.00	2.30	136.60	1344.51	-24.65	24.55	135.12	34.79	24.50	0.09
1438.00	2.20	145.50	1437.43	-27.48	26.84	135.67	38.41	26.78	0.39

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
1532.00	2.10	147.40	1531.37	-30.42	28.79	136.57	41.88	28.73	0.13
1625.00	2.10	150.50	1624.30	-33.34	30.55	137.50	45.21	30.48	0.12
1718.00	2.50	148.80	1717.23	-36.55	32.44	138.41	48.87	32.36	0.44
1812.00	2.20	153.10	1811.15	-39.92	34.32	139.32	52.64	34.23	0.37
1906.00	2.40	159.00	1905.08	-43.36	35.84	140.43	56.25	35.75	0.33
2000.00	2.50	159.80	1998.99	-47.12	37.25	141.67	60.07	37.15	0.11
2094.00	4.30	117.10	2092.83	-50.65	41.10	140.95	65.23	40.99	3.18
2139.00	9.10	94.00	2137.52	-51.67	46.15	138.23	69.28	46.04	12.03
2187.00	12.40	78.60	2184.68	-50.92	54.99	132.80	74.95	54.89	9.06
2232.00	16.90	74.50	2228.21	-48.21	66.04	126.13	81.77	65.94	10.26
2281.00	22.40	78.00	2274.34	-44.37	82.05	118.40	93.27	81.95	11.47
2326.00	27.90	80.30	2315.06	-40.81	100.83	112.03	108.77	100.74	12.41
2374.00	30.20	81.90	2357.02	-37.21	123.85	106.72	129.32	123.77	5.06
2419.00	33.40	82.90	2395.26	-34.09	147.35	103.02	151.25	147.28	7.21
2468.00	37.20	85.00	2435.24	-31.13	175.51	100.06	178.24	175.44	8.14
2513.00	41.30	86.80	2470.08	-29.11	203.90	98.13	205.96	203.84	9.46
2562.00	46.30	87.50	2505.44	-27.43	237.76	96.58	239.34	237.70	10.25
2607.00	50.40	88.70	2535.34	-26.33	271.36	95.54	272.63	271.30	9.33
2655.00	54.60	89.30	2564.55	-25.67	309.42	94.74	310.49	309.37	8.81
2700.00	58.00	90.70	2589.52	-25.68	346.85	94.23	347.80	346.80	7.99
2749.00	61.50	91.50	2614.20	-26.50	389.17	93.90	390.07	389.11	7.28
2794.00	65.20	91.80	2634.38	-27.66	429.36	93.69	430.25	429.30	8.24
2843.00	69.10	92.30	2653.40	-29.28	474.48	93.53	475.38	474.42	8.01
2888.00	73.10	92.60	2667.98	-31.10	517.01	93.44	517.94	516.94	8.91
2936.00	77.40	92.30	2680.20	-33.08	563.37	93.36	564.34	563.30	8.98
2981.00	81.70	91.90	2688.36	-34.70	607.58	93.27	608.57	607.51	9.60
3029.00	85.90	92.40	2693.54	-36.49	655.26	93.19	656.27	655.18	8.81
3074.00	88.70	93.00	2695.66	-38.61	700.16	93.16	701.22	700.07	6.36
3123.00	90.90	94.30	2695.83	-41.73	749.05	93.19	750.21	748.96	5.21
3215.00	91.40	94.50	2693.98	-48.78	840.76	93.32	842.18	840.66	0.59
3308.00	89.90	93.80	2692.93	-55.51	933.51	93.40	935.16	933.39	1.78
3402.00	87.10	91.60	2695.39	-59.94	1027.36	93.34	1029.10	1027.23	3.79
3496.00	86.30	90.50	2700.80	-61.66	1121.18	93.15	1122.88	1121.05	1.45
3590.00	85.20	89.60	2707.77	-61.74	1214.92	92.91	1216.49	1214.79	1.51
3683.00	86.70	90.00	2714.33	-61.42	1307.69	92.69	1309.13	1307.55	1.67
3776.00	85.40	89.30	2720.74	-60.85	1400.46	92.49	1401.78	1400.33	1.59
3869.00	86.20	89.00	2727.55	-59.48	1493.20	92.28	1494.38	1493.07	0.92

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
3962.00	85.70	88.70	2734.12	-57.62	1585.95	92.08	1587.00	1585.82	0.63
4056.00	86.20	88.70	2740.76	-55.49	1679.69	91.89	1680.61	1679.57	0.53
4150.00	86.90	89.20	2746.42	-53.77	1773.50	91.74	1774.32	1773.39	0.91
4243.00	87.90	89.00	2750.63	-52.31	1866.39	91.61	1867.13	1866.28	1.10
4271.00	88.20	89.00	2751.59	-51.82	1894.37	91.57	1895.08	1894.26	1.07
4365.00	87.00	89.00	2755.52	-50.18	1988.28	91.45	1988.91	1988.17	1.28
4459.00	87.70	88.80	2759.87	-48.38	2082.16	91.33	2082.72	2082.05	0.77
4552.00	88.70	88.70	2762.79	-46.35	2175.09	91.22	2175.58	2174.99	1.08
4647.00	87.50	88.80	2765.94	-44.28	2270.01	91.12	2270.44	2269.91	1.27
4742.00	88.20	89.70	2769.50	-43.04	2364.93	91.04	2365.33	2364.84	1.20
4835.00	86.60	88.80	2773.72	-41.82	2457.83	90.97	2458.18	2457.73	1.97
4929.00	87.20	88.50	2778.81	-39.61	2551.66	90.89	2551.97	2551.57	0.71
5022.00	88.10	88.50	2782.62	-37.18	2644.55	90.81	2644.81	2644.47	0.97
5116.00	88.90	88.80	2785.08	-34.96	2738.49	90.73	2738.72	2738.41	0.91
5209.00	88.00	88.70	2787.60	-32.94	2831.44	90.67	2831.63	2831.36	0.97
5303.00	88.50	88.90	2790.47	-30.97	2925.37	90.61	2925.53	2925.30	0.57
5397.00	89.30	88.70	2792.27	-29.00	3019.33	90.55	3019.47	3019.26	0.88
5491.00	87.70	88.90	2794.73	-27.03	3113.28	90.50	3113.39	3113.21	1.72
5585.00	88.40	89.30	2797.93	-25.56	3207.21	90.46	3207.31	3207.15	0.86
5677.00	89.30	89.60	2799.78	-24.67	3299.19	90.43	3299.28	3299.13	1.03
5772.00	88.10	89.50	2801.93	-23.93	3394.16	90.40	3394.24	3394.10	1.27
5867.00	88.90	89.70	2804.42	-23.27	3489.12	90.38	3489.20	3489.06	0.87
5960.00	87.90	90.10	2807.02	-23.10	3582.08	90.37	3582.16	3582.03	1.16
6054.00	88.60	90.10	2809.89	-23.27	3676.04	90.36	3676.11	3675.98	0.74
6148.00	89.80	90.10	2811.20	-23.43	3770.03	90.36	3770.10	3769.97	1.28
6242.00	87.60	90.00	2813.33	-23.51	3864.00	90.35	3864.07	3863.94	2.34
6335.00	87.90	90.10	2816.98	-23.59	3956.93	90.34	3957.00	3956.87	0.34
6431.00	88.90	90.20	2819.66	-23.85	4052.89	90.34	4052.96	4052.83	1.05
6525.00	89.80	90.40	2820.73	-24.34	4146.88	90.34	4146.95	4146.82	0.98
6618.00	88.10	90.10	2822.43	-24.74	4239.86	90.33	4239.93	4239.80	1.86
6711.00	88.20	90.10	2825.44	-24.91	4332.81	90.33	4332.88	4332.75	0.11
6805.00	89.20	90.10	2827.57	-25.07	4426.78	90.32	4426.85	4426.72	1.06
6898.00	87.60	90.10	2830.16	-25.23	4519.74	90.32	4519.81	4519.68	1.72
6992.00	88.10	89.60	2833.69	-24.99	4613.68	90.31	4613.74	4613.61	0.75
7086.00	89.10	89.90	2835.99	-24.58	4707.65	90.30	4707.71	4707.59	1.11
7181.00	90.10	89.90	2836.65	-24.41	4802.64	90.29	4802.71	4802.58	1.05
7276.00	88.40	89.70	2837.89	-24.08	4897.63	90.28	4897.69	4897.57	1.80

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
7369.00	88.70	89.40	2840.25	-23.35	4990.60	90.27	4990.65	4990.54	0.46
7464.00	89.70	89.50	2841.57	-22.44	5085.58	90.25	5085.63	5085.53	1.06
7557.00	87.80	89.60	2843.60	-21.71	5178.55	90.24	5178.60	5178.50	2.05
7651.00	88.10	89.70	2846.97	-21.13	5272.49	90.23	5272.53	5272.44	0.34
7746.00	88.80	89.60	2849.53	-20.55	5367.45	90.22	5367.49	5367.40	0.74
7839.00	88.00	89.40	2852.13	-19.74	5460.41	90.21	5460.45	5460.36	0.89
7956.00	88.60	89.60	2855.60	-18.72	5577.36	90.19	5577.39	5577.31	0.54

Projected Survey

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8033.00	88.60	89.60	2857.48	-18.18	5654.33	90.18	5654.36	5654.28	0.00