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AUG 12 2019



Survey Report

DISTRICT 7 - ARTESIA O.C.D.

Service Company: Wellbenders

Location:

Well: Huber Fed 12H

Rig: Akita 20

API or UWI: 30-015-44710

Job Number: NMDG2019-1115

State: NM

Operating Company: Percussion Petroleum

County: Eddy

Magnetic Declination: 7.32

Country: USA

Proposed Azimuth: 180.15

Comment

North Reference: GRID

Latitude: -104.47349

Longitude: 32.610978

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
136.00	0.18	158.84	136.00	-0.20	0.08	158.84	0.21	0.20	0.13
228.00	0.31	155.76	228.00	-0.56	0.23	157.58	0.61	0.56	0.14
319.00	1.27	349.21	318.99	0.21	0.14	35.00	0.25	-0.21	1.73
412.00	3.08	351.50	411.92	3.69	-0.42	353.53	3.71	-3.69	1.95
503.00	5.71	1.87	502.65	10.63	-0.63	356.60	10.65	-10.63	3.01
592.00	8.62	357.65	590.94	21.72	-0.76	357.99	21.74	-21.72	3.32
683.00	12.04	355.80	680.46	38.01	-1.74	357.38	38.05	-38.00	3.78
774.00	13.58	356.07	769.19	58.13	-3.16	356.88	58.22	-58.13	1.69
864.00	13.32	354.66	856.72	79.00	-4.85	356.48	79.15	-78.98	0.47
955.00	13.10	355.01	945.31	99.71	-6.73	356.14	99.94	-99.69	0.26
1047.00	13.10	354.57	1034.92	120.47	-8.62	355.91	120.78	-120.45	0.11
1137.00	12.88	354.57	1122.61	140.61	-10.53	355.72	141.01	-140.59	0.24
1224.00	12.97	354.40	1207.41	159.98	-12.40	355.57	160.46	-159.95	0.11
1364.00	12.66	355.89	1343.92	190.92	-15.04	355.50	191.51	-190.88	0.32
1459.00	12.40	351.58	1436.66	211.40	-17.28	355.33	212.10	-211.35	1.02
1553.00	11.82	348.42	1528.57	230.81	-20.69	354.88	231.74	-230.76	0.94

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
1648.00	11.47	347.19	1621.62	249.55	-24.73	354.34	250.78	-249.49	0.45
1742.00	8.48	346.31	1714.18	265.40	-28.45	353.88	266.92	-265.33	3.18
1837.00	5.54	339.02	1808.47	276.49	-31.75	353.45	278.31	-276.41	3.23
1884.00	4.79	333.04	1855.28	280.36	-33.45	353.20	282.35	-280.27	1.96
1931.00	2.86	301.84	1902.17	282.73	-35.34	352.88	284.93	-282.64	5.90
1978.00	3.78	273.71	1949.10	283.45	-37.88	352.39	285.97	-283.35	3.92
2023.00	4.97	245.24	1993.97	282.73	-41.13	351.72	285.70	-282.62	5.42
2070.00	7.65	218.34	2040.69	279.42	-44.92	350.87	283.01	-279.30	8.34
2115.00	10.73	209.29	2085.11	273.42	-48.83	349.87	277.74	-273.29	7.54
2162.00	13.54	208.59	2131.06	264.77	-53.60	348.56	270.14	-264.63	5.99
2207.00	17.05	205.95	2174.45	254.21	-59.01	346.93	260.97	-254.05	7.95
2254.00	18.90	200.24	2219.16	240.87	-64.66	344.97	249.39	-240.70	5.43
2299.00	21.85	198.04	2261.34	226.06	-69.78	342.85	236.59	-225.88	6.77
2346.00	25.05	193.56	2304.46	208.07	-74.82	340.22	221.11	-207.87	7.79
2391.00	28.09	190.22	2344.70	188.37	-78.94	337.26	204.24	-188.17	7.52
2438.00	31.65	188.19	2385.45	165.27	-82.66	333.43	184.79	-165.05	7.87
2479.00	35.03	186.88	2419.70	142.94	-85.60	329.08	166.61	-142.71	8.43
2526.00	38.73	184.24	2457.29	114.87	-88.30	322.45	144.89	-114.64	8.56
2570.00	41.76	181.87	2490.88	86.49	-89.80	313.92	124.68	-86.25	7.71
2617.00	44.35	178.88	2525.22	54.41	-89.99	301.16	105.16	-54.18	7.02
2661.00	47.91	178.09	2555.71	22.71	-89.14	284.29	91.99	-22.48	8.19
2708.00	51.52	178.26	2586.09	-13.12	-88.00	261.52	88.98	13.35	7.69
2752.00	54.02	178.70	2612.71	-48.14	-87.08	241.07	99.50	48.37	5.74
2799.00	57.05	178.70	2639.31	-86.87	-86.20	224.78	122.38	87.10	6.45
2842.00	58.95	178.53	2662.09	-123.33	-85.32	214.68	149.96	123.55	4.43
2889.00	60.22	178.35	2685.89	-163.84	-84.21	207.20	184.22	164.06	2.72
2934.00	60.84	178.09	2708.02	-203.00	-82.99	202.24	219.31	203.22	1.47
2981.00	61.32	178.44	2730.75	-244.12	-81.75	198.51	257.45	244.33	1.21
3024.00	62.07	178.44	2751.14	-281.97	-80.72	195.97	293.29	282.18	1.74
3071.00	62.15	176.94	2773.13	-323.47	-79.04	193.73	332.99	323.68	2.83
3116.00	61.71	175.71	2794.30	-363.09	-76.50	191.90	371.07	363.29	2.60
3163.00	62.29	175.54	2816.37	-404.47	-73.33	190.28	411.07	404.66	1.27
3211.00	66.29	176.77	2837.19	-447.61	-70.44	188.94	453.12	447.80	8.65
3258.00	70.86	177.91	2854.35	-491.31	-68.42	187.93	496.05	491.48	9.98
3305.00	73.19	178.35	2868.86	-535.99	-66.96	187.12	540.15	536.16	5.04
3352.00	73.67	178.44	2882.26	-581.02	-65.70	186.45	584.72	581.19	1.04
3400.00	78.20	178.35	2893.92	-627.55	-64.40	185.86	630.84	627.71	9.44

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
3448.00	82.64	178.70	2901.91	-674.85	-63.18	185.35	677.80	675.01	9.28
3494.00	84.26	178.70	2907.15	-720.54	-62.14	184.93	723.21	720.70	3.52
3541.00	88.62	178.44	2910.07	-767.42	-60.97	184.54	769.84	767.58	9.29
3589.00	89.36	178.26	2910.92	-815.39	-59.59	184.18	817.57	815.54	1.59
3683.00	91.56	178.44	2910.16	-909.34	-56.88	183.58	911.12	909.49	2.35
3778.00	89.92	178.88	2908.94	-1004.31	-54.66	183.12	1005.79	1004.45	1.79
3873.00	90.46	179.32	2908.62	-1099.29	-53.17	182.77	1100.58	1099.43	0.73
3967.00	91.16	179.14	2907.29	-1193.27	-51.91	182.49	1194.40	1193.41	0.77
4038.00	90.29	179.85	2906.39	-1264.27	-51.28	182.32	1265.31	1264.40	1.58
4132.00	89.85	179.49	2906.28	-1358.26	-50.74	182.14	1359.21	1358.39	0.60
4226.00	90.55	179.85	2905.95	-1452.26	-50.20	181.98	1453.13	1452.39	0.84
4321.00	89.67	180.64	2905.77	-1547.26	-50.60	181.87	1548.09	1547.38	1.24
4416.00	89.89	181.34	2906.13	-1642.24	-52.25	181.82	1643.07	1642.37	0.77
4510.00	91.08	181.87	2905.34	-1736.20	-54.88	181.81	1737.07	1736.34	1.39
4606.00	89.19	181.52	2905.11	-1832.15	-57.72	181.80	1833.06	1832.30	2.00
4700.00	88.00	181.52	2907.42	-1926.09	-60.21	181.79	1927.03	1926.24	1.27
4793.00	88.75	181.43	2910.05	-2019.02	-62.60	181.78	2019.99	2019.18	0.81
4887.00	89.76	181.52	2911.28	-2112.98	-65.02	181.76	2113.98	2113.14	1.08
4982.00	88.84	180.28	2912.44	-2207.96	-66.52	181.73	2208.96	2208.13	1.63
5077.00	88.92	179.58	2914.29	-2302.94	-66.40	181.65	2303.90	2303.11	0.74
5172.00	88.44	179.58	2916.48	-2397.91	-65.70	181.57	2398.81	2398.08	0.51
5266.00	88.40	180.28	2919.07	-2491.88	-65.59	181.51	2492.74	2492.04	0.75
5361.00	88.70	179.93	2921.48	-2586.85	-65.76	181.46	2587.68	2587.01	0.49
5456.00	89.98	179.93	2922.57	-2681.84	-65.65	181.40	2682.64	2682.00	1.35
5551.00	91.21	180.55	2921.59	-2776.83	-66.04	181.36	2777.61	2776.99	1.45
5645.00	90.99	180.72	2919.78	-2870.81	-67.09	181.34	2871.59	2870.97	0.30
5740.00	89.98	180.02	2918.98	-2965.80	-67.70	181.31	2966.57	2965.97	1.29
5835.00	90.55	179.41	2918.54	-3060.80	-67.23	181.26	3061.53	3060.96	0.88
5929.00	91.03	180.28	2917.24	-3154.78	-66.97	181.22	3155.50	3154.95	1.06
6024.00	91.03	180.46	2915.53	-3249.77	-67.59	181.19	3250.47	3249.93	0.19
6119.00	90.86	180.02	2913.97	-3344.75	-67.98	181.16	3345.44	3344.92	0.50
6214.00	90.46	179.85	2912.87	-3439.75	-67.88	181.13	3440.42	3439.91	0.46
6306.00	90.51	179.76	2912.09	-3531.74	-67.56	181.10	3532.39	3531.91	0.11
6398.00	90.77	180.02	2911.07	-3623.74	-67.39	181.07	3624.36	3623.90	0.40
6489.00	90.24	180.02	2910.26	-3714.73	-67.42	181.04	3715.34	3714.90	0.58
6582.00	89.76	180.11	2910.26	-3807.73	-67.52	181.02	3808.33	3807.90	0.53
6673.00	90.33	180.20	2910.19	-3898.73	-67.77	181.00	3899.32	3898.90	0.63

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
6762.00	89.89	180.37	2910.02	-3987.73	-68.21	180.98	3988.31	3987.90	0.53
6853.00	89.85	180.64	2910.23	-4078.73	-69.01	180.97	4079.31	4078.89	0.30
6944.00	89.85	180.64	2910.47	-4169.72	-70.03	180.96	4170.31	4169.89	0.00
7034.00	90.07	180.72	2910.53	-4259.71	-71.10	180.96	4260.31	4259.89	0.26
7125.00	90.86	180.64	2909.79	-4350.70	-72.18	180.95	4351.30	4350.88	0.87
7216.00	90.46	180.64	2908.74	-4441.69	-73.20	180.94	4442.30	4441.87	0.44
7307.00	89.27	179.23	2908.96	-4532.69	-73.09	180.92	4533.28	4532.86	2.03
7399.00	89.01	179.23	2910.34	-4624.67	-71.86	180.89	4625.23	4624.84	0.28
7490.00	89.23	179.58	2911.74	-4715.65	-70.91	180.86	4716.19	4715.82	0.45
7581.00	89.14	178.44	2913.03	-4806.63	-69.34	180.83	4807.13	4806.79	1.26
7672.00	89.10	178.35	2914.43	-4897.58	-66.79	180.78	4898.04	4897.74	0.11
7762.00	88.53	179.14	2916.29	-4987.54	-64.82	180.74	4987.96	4987.69	1.08
7857.00	89.80	179.41	2917.67	-5082.52	-63.62	180.72	5082.92	5082.67	1.37
7952.00	91.78	179.93	2916.36	-5177.51	-63.07	180.70	5177.89	5177.65	2.15
8046.00	91.43	179.76	2913.73	-5271.47	-62.82	180.68	5271.84	5271.61	0.41
8140.00	91.08	180.02	2911.67	-5365.44	-62.64	180.67	5365.81	5365.59	0.46
8235.00	91.25	180.64	2909.74	-5460.42	-63.18	180.66	5460.79	5460.57	0.68
8329.00	90.99	180.72	2907.90	-5554.40	-64.30	180.66	5554.77	5554.55	0.29
8392.00	90.15	180.90	2907.28	-5617.39	-65.19	180.66	5617.77	5617.54	1.36

Projected Survey

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8450.00	90.15	180.90	2907.12	-5675.38	-66.10	180.67	5675.77	5675.53	0.00