

PathFinder Energy Services, Inc.

Survey Report

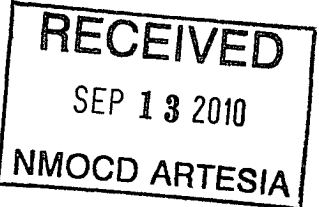
MURCHISON OIL & GAS, INC.
 PEQUENO MIKE BLU FEDERAL #2H
 EDDY COUNTY, NM
 Rig: PATTERSON 74
 PathFinder Office Supervisor: FRANCISCO SINISTERA
 PathFinder Field Engineers: JOHN OVERTON

DAVID BAKER
 RAFAEL DONARUMMA

Survey Calculations by RX5 V6.03A using Minimum Curvature

30-015-37059

Survey Horiz. Reference: WELLHEAD
 Ref Coordinates: LAT: 32.56.56.1628 N LON: 104.3.12.3716 W
 GRID Reference: NAD83 new mexico east Transverse Mercator
 Ref GRID Coord: X: 627196.8270 Y: 709071.5130
 North Aligned To: GRID NORTH
 Total Magnetic Correction: 7.82° EAST TO GRID
 Vertical Section Plane: 272.97
 Survey Vert. Reference: 21.50' Kelly Bushing To Ground
 Altitude: 3739.00' Ground To MSL



THE FOLLOWING ARE SCIENTIFIC GYRO SURVEYS

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
THE FOLLOWING ARE SCIENTIFIC GYRO SURVEYS									
0.00	0.00	0.00	0.00	0.00	-0.04	0.03 S	0.04 E	0.05@ 122.12	0.00
100.00	0.55	39.40	100.00	100.00	-0.33	0.34 N	0.35 E	0.49@ 45.25	0.55
200.00	0.42	104.58	200.00	100.00	-0.97	0.62 N	1.01 E	1.18@ 58.25	0.53
300.00	0.66	112.45	300.00	100.00	-1.87	0.31 N	1.89 E	1.92@ 80.69	0.25
400.00	0.68	121.19	399.99	100.00	-2.94	0.22 S	2.93 E	2.94@ 94.22	0.10
500.00	0.59	114.12	499.98	100.00	-3.94	0.73 S	3.91 E	3.98@ 100.63	0.12
600.00	0.59	123.45	599.98	100.00	-4.87	1.23 S	4.81 E	4.96@ 104.33	0.10
700.00	0.43	97.22	699.97	100.00	-5.69	1.56 S	5.61 E	5.82@ 105.53	0.28
800.00	0.59	60.36	799.97	100.00	-6.49	1.35 S	6.43 E	6.57@ 101.87	0.36
900.00	0.61	50.02	899.96	100.00	-7.32	0.76 S	7.29 E	7.33@ 95.92	0.11
1000.00	0.61	56.26	999.96	100.00	-8.13	0.12 S	8.14 E	8.14@ 90.83	0.07
1100.00	0.61	42.21	1099.95	100.00	-8.90	0.57 N	8.94 E	8.96@ 86.34	0.15
1200.00	0.44	49.30	1199.95	100.00	-9.51	1.22 N	9.59 E	9.66@ 82.77	0.18
1300.00	0.30	50.57	1299.95	100.00	-9.98	1.63 N	10.08 E	10.21@ 80.79	0.14
1400.00	0.36	54.86	1399.95	100.00	-10.42	1.98 N	10.54 E	10.72@ 79.36	0.06
1500.00	0.21	55.47	1499.94	100.00	-10.82	2.27 N	10.95 E	11.18@ 78.31	0.15
1600.00	0.21	52.86	1599.94	100.00	-11.10	2.48 N	11.24 E	11.51@ 77.56	0.01
1700.00	0.15	49.53	1699.94	100.00	-11.34	2.68 N	11.49 E	11.80@ 76.89	0.06
1800.00	0.19	28.27	1799.94	100.00	-11.50	2.91 N	11.67 E	12.02@ 76.01	0.07
1900.00	0.20	29.53	1899.94	100.00	-11.65	3.20 N	11.83 E	12.26@ 74.85	0.01
2000.00	0.20	35.95	1999.94	100.00	-11.82	3.50 N	12.02 E	12.52@ 73.78	0.02
2100.00	0.12	51.21	2099.94	100.00	-12.00	3.70 N	12.21 E	12.76@ 73.12	0.09
2200.00	0.23	22.82	2199.94	100.00	-12.14	3.96 N	12.36 E	12.98@ 72.26	0.14
2300.00	0.27	27.68	2299.94	100.00	-12.31	4.35 N	12.55 E	13.28@ 70.89	0.05
2400.00	0.25	29.49	2399.94	100.00	-12.51	4.75 N	12.77 E	13.62@ 69.61	0.02

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MURCHISON OIL & GAS, INC.
PEQUENO MIKE BLU FEDERAL #2H
EDDY COUNTY, NM
RIG:PATTERSON 74

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular (ft)	TOTAL Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
2500.00	0.47	339.43	2499.94	100.00	-12.44	5.32 N	12.73 E	13.80@ 67.32	0.36
2600.00	0.39	356.33	2599.93	100.00	-12.24	6.04 N	12.57 E	13.94@ 64.31	0.15
2700.00	0.50	328.84	2699.93	100.00	-11.95	6.76 N	12.32 E	14.05@ 61.25	0.24
2800.00	0.26	9.75	2799.93	100.00	-11.73	7.35 N	12.13 E	14.19@ 58.77	0.35
2900.00	0.19	13.56	2899.93	100.00	-11.79	7.74 N	12.21 E	14.46@ 57.63	0.07
3000.00	0.27	5.29	2999.93	100.00	-11.83	8.14 N	12.27 E	14.72@ 56.45	0.09
3100.00	0.27	359.77	3099.93	100.00	-11.83	8.61 N	12.29 E	15.00@ 55.00	0.03
3200.00	0.34	357.65	3199.92	100.00	-11.79	9.14 N	12.28 E	15.30@ 53.34	0.07
3300.00	0.36	341.63	3299.92	100.00	-11.65	9.73 N	12.17 E	15.58@ 51.34	0.10
3400.00	0.41	340.16	3399.92	100.00	-11.39	10.37 N	11.95 E	15.82@ 49.05	0.05
3500.00	0.22	4.66	3499.92	100.00	-11.26	10.89 N	11.84 E	16.09@ 47.38	0.23
3600.00	0.24	356.19	3599.92	100.00	-11.24	11.30 N	11.84 E	16.36@ 46.35	0.04
3700.00	0.23	6.58	3699.92	100.00	-11.23	11.70 N	11.85 E	16.66@ 45.36	0.04
3800.00	0.18	10.61	3799.92	100.00	-11.26	12.06 N	11.90 E	16.94@ 44.63	0.05
3900.00	0.31	300.03	3899.92	100.00	-11.04	12.35 N	11.70 E	17.01@ 43.45	0.30
4000.00	0.36	292.02	3999.91	100.00	-10.50	12.60 N	11.17 E	16.84@ 41.56	0.07
4100.00	0.35	251.87	4099.91	100.00	-9.92	12.62 N	10.59 E	16.48@ 39.99	0.24
4200.00	0.30	299.43	4199.91	100.00	-9.40	12.66 N	10.07 E	16.17@ 38.51	0.27
4300.00	0.30	331.24	4299.91	100.00	-9.03	13.01 N	9.72 E	16.24@ 36.75	0.16
4400.00	0.25	312.33	4399.91	100.00	-8.72	13.39 N	9.43 E	16.38@ 35.15	0.10
4500.00	0.33	294.30	4499.91	100.00	-8.29	13.66 N	9.01 E	16.36@ 33.40	0.12
4600.00	0.37	314.40	4599.91	100.00	-7.78	14.00 N	8.51 E	16.39@ 31.30	0.13
4700.00	0.29	321.61	4699.90	100.00	-7.37	14.43 N	8.13 E	16.56@ 29.39	0.09
4800.00	0.37	320.23	4799.90	100.00	-6.98	14.87 N	7.76 E	16.78@ 27.56	0.08
4900.00	0.24	6.92	4899.90	100.00	-6.78	15.33 N	7.58 E	17.10@ 26.31	0.27
5000.00	0.16	15.19	4999.90	100.00	-6.82	15.67 N	7.64 E	17.43@ 26.00	0.09
5100.00	0.21	10.82	5099.90	100.00	-6.87	15.99 N	7.71 E	17.75@ 25.76	0.05
5200.00	0.19	22.73	5199.90	100.00	-6.96	16.32 N	7.81 E	18.09@ 25.58	0.05

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EDDY COUNTY, NM
RIG:PATTERSON 74

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist (ft)	Dir (deg)	DLS (dg/100ft)
5300.00	0.18	23.20	5299.90	100.00	-7.07	16.62 N	18.41@	25.53	0.01
5400.00	0.23	10.74	5399.90	100.00	-7.15	16.96 N	18.77@	25.36	0.07
5500.00	0.21	6.22	5499.90	100.00	-7.19	17.34 N	19.13@	25.03	0.03
5600.00	0.29	328.24	5599.90	100.00	-7.05	17.73 N	19.45@	24.23	0.18
5700.00	0.27	325.40	5699.90	100.00	-6.76	18.14 N	19.71@	23.03	0.02
5800.00	0.23	314.31	5799.89	100.00	-6.47	18.48 N	19.92@	21.92	0.06
5900.00	0.14	111.36	5899.89	100.00	-6.43	18.57 N	20.00@	21.74	0.36
6000.00	0.34	108.39	5999.89	100.00	-6.84	18.43 N	20.02@	22.94	0.20
6100.00	0.41	110.23	6099.89	100.00	-7.46	18.22 N	20.07@	24.80	0.07
6200.00	0.46	108.12	6199.89	100.00	-8.19	17.97 N	20.16@	26.95	0.05
6300.00	0.33	119.54	6299.89	100.00	-8.84	17.70 N	20.22@	28.89	0.15
6400.00	0.44	122.45	6399.88	100.00	-9.43	17.35 N	20.20@	30.80	0.11
6500.00	0.34	93.08	6499.88	100.00	-10.06	17.13 N	20.34@	32.62	0.22
** TIE INTO SCIENTIFIC GYRO SURVEY @ 6600' MD									
6600.00	0.40	314.33	6599.88	100.00	-10.10	17.36 N	20.56@	32.38	0.69
THE FOLLOWING ARE PATHFINDER SURVEYS									
6625.00	0.97	79.25	6624.88	25.00	-10.24	17.46 N	20.72@	32.57	4.97
6657.00	0.62	280.35	6656.88	32.00	-10.33	17.54 N	20.84@	32.68	4.89
6688.00	4.66	273.06	6687.84	31.00	-8.90	17.64 N	20.19@	29.13	13.05
6720.00	8.27	277.67	6719.63	32.00	-5.31	18.02 N	19.07@	19.13	11.39
6752.00	12.22	275.55	6751.11	32.00	0.37	18.65 N	18.66@	1.83	12.40
6784.00	16.00	275.09	6782.14	32.00	8.17	19.37 N	20.66@	339.68	11.82
6816.00	19.87	275.45	6812.58	32.00	18.01	20.28 N	26.45@	320.06	12.10
6847.00	24.09	275.70	6841.32	31.00	29.60	21.41 N	35.67@	306.89	13.62
6879.00	27.70	273.81	6870.11	32.00	43.56	22.55 N	48.07@	297.98	11.57
6911.00	30.60	271.54	6898.05	32.00	59.15	23.26 N	62.51@	291.85	9.70
6943.00	34.56	270.25	6925.01	32.00	76.36	23.52 N	78.83@	287.36	12.56
6975.00	38.34	269.83	6950.74	32.00	95.34	23.53 N	97.14@	284.02	11.84
7006.00	43.26	269.31	6974.20	31.00	115.56	23.38 N	116.86@	281.54	15.91

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7038.00	46.43	269.12	6996.89	32.00	138.07	23.07 N	137.06 W	138.99@ 279.55	9.91
7070.00	48.98	268.97	7018.42	32.00	161.69	22.67 N	160.73 W	162.32@ 278.03	7.98
7102.00	51.62	269.72	7038.86	32.00	186.25	22.39 N	185.34 W	186.69@ 276.89	8.45
7133.00	55.57	270.86	7057.26	31.00	211.17	22.53 N	210.29 W	211.49@ 276.11	13.08
7165.00	59.71	271.78	7074.38	32.00	238.19	23.15 N	237.30 W	238.43@ 275.57	13.16
7196.00	62.61	271.97	7089.33	31.00	265.33	24.04 N	264.44 W	265.53@ 275.19	9.37
7228.00	64.72	272.07	7103.53	32.00	294.01	25.05 N	293.10 W	294.17@ 274.89	6.60
7260.00	68.85	271.62	7116.14	32.00	323.40	26.00 N	322.49 W	323.53@ 274.61	12.97
7292.00	71.84	270.86	7126.90	32.00	353.52	26.65 N	352.61 W	353.62@ 274.32	9.61
7323.00	72.19	270.64	7136.47	31.00	382.98	27.03 N	382.10 W	383.05@ 274.05	1.32
7355.00	72.28	270.27	7146.24	32.00	413.43	27.28 N	412.57 W	413.47@ 273.78	1.14
7387.00	72.46	270.41	7155.93	32.00	443.89	27.46 N	443.07 W	443.92@ 273.55	0.70
7419.00	72.55	270.50	7165.55	32.00	474.38	27.70 N	473.58 W	474.39@ 273.35	0.39
7450.00	72.55	270.61	7174.84	31.00	503.93	27.99 N	503.16 W	503.93@ 273.18	0.34
7481.00	72.63	270.56	7184.12	31.00	533.48	28.29 N	532.73 W	533.48@ 273.04	0.30
7513.00	72.46	270.38	7193.72	32.00	563.98	28.54 N	563.26 W	563.98@ 272.90	0.75
7545.00	72.37	270.46	7203.39	32.00	594.46	28.76 N	593.76 W	594.46@ 272.77	0.37
7577.00	74.74	271.01	7212.44	32.00	625.12	29.16 N	624.45 W	625.13@ 272.67	7.59
7608.00	78.61	271.36	7219.59	31.00	655.27	29.78 N	654.60 W	655.28@ 272.60	12.53
7639.00	81.87	271.70	7224.84	31.00	685.80	30.60 N	685.14 W	685.82@ 272.56	10.57
7671.00	83.01	272.16	7229.05	32.00	717.52	31.67 N	716.84 W	717.54@ 272.53	3.84
7702.00	85.07	271.61	7232.27	31.00	748.35	32.68 N	747.66 W	748.37@ 272.50	6.88
7734.00	88.88	272.33	7233.96	32.00	780.29	33.78 N	779.59 W	780.32@ 272.48	12.12
7766.00	89.83	272.26	7234.32	32.00	812.28	35.06 N	811.56 W	812.32@ 272.47	2.98
7798.00	90.17	272.05	7234.32	32.00	844.28	36.26 N	843.54 W	844.32@ 272.46	1.25
7829.00	90.56	271.93	7234.12	31.00	875.28	37.34 N	874.52 W	875.31@ 272.44	1.32
7860.00	89.33	271.95	7234.15	31.00	906.27	38.39 N	905.50 W	906.31@ 272.43	3.97
7892.00	88.49	272.45	7234.76	32.00	938.26	39.62 N	937.47 W	938.31@ 272.42	3.05

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7923.00	88.43	272.35	7235.59	31.00	969.25	40.91 N 968.43 W	969.29@ 272.42	0.38
7955.00	89.55	272.49	7236.16	32.00	1001.24	42.26 N 1000.40 W	1001.29@ 272.42	3.53
7986.00	89.83	272.17	7236.33	31.00	1032.24	43.53 N 1031.37 W	1032.29@ 272.42	1.37
8018.00	90.00	271.51	7236.37	32.00	1064.23	44.55 N 1063.35 W	1064.29@ 272.40	2.13
8049.00	90.06	271.36	7236.36	31.00	1095.22	45.33 N 1094.34 W	1095.28@ 272.37	0.52
8081.00	89.89	271.53	7236.37	32.00	1127.21	46.14 N 1126.33 W	1127.28@ 272.35	0.75
8113.00	89.72	271.84	7236.48	32.00	1159.20	47.08 N 1158.32 W	1159.28@ 272.33	1.11
8145.00	89.78	271.92	7236.62	32.00	1191.20	48.13 N 1190.30 W	1191.27@ 272.32	0.31
8177.00	90.00	271.98	7236.68	32.00	1223.19	49.22 N 1222.28 W	1223.27@ 272.31	0.71
8208.00	90.34	271.74	7236.59	31.00	1254.19	50.22 N 1253.27 W	1254.27@ 272.29	1.34
8240.00	90.17	272.27	7236.45	32.00	1286.18	51.34 N 1285.25 W	1286.27@ 272.29	1.74
8272.00	90.28	272.59	7236.32	32.00	1318.18	52.70 N 1317.22 W	1318.27@ 272.29	1.06
8303.00	90.45	272.53	7236.12	31.00	1349.18	54.08 N 1348.19 W	1349.27@ 272.30	0.58
8335.00	90.00	273.02	7236.00	32.00	1381.18	55.63 N 1380.15 W	1381.27@ 272.31	2.08
8367.00	89.89	273.30	7236.03	32.00	1413.18	57.40 N 1412.10 W	1413.27@ 272.33	0.94
8399.00	90.22	273.43	7236.00	32.00	1445.18	59.27 N 1444.04 W	1445.26@ 272.35	1.11
8430.00	90.84	274.18	7235.71	31.00	1476.17	61.33 N 1474.97 W	1476.25@ 272.38	3.14
8462.00	90.84	274.89	7235.24	32.00	1508.15	63.86 N 1506.87 W	1508.22@ 272.43	2.22
8493.00	91.01	274.59	7234.74	31.00	1539.14	66.42 N 1537.76 W	1539.19@ 272.47	1.11
8525.00	90.62	274.59	7234.29	32.00	1571.12	68.98 N 1569.65 W	1571.17@ 272.52	1.22
8557.00	91.01	274.71	7233.83	32.00	1603.10	71.58 N 1601.55 W	1603.14@ 272.56	1.27
8588.00	91.23	274.99	7233.23	31.00	1634.08	74.20 N 1632.43 W	1634.11@ 272.60	1.15
8620.00	91.51	274.90	7232.46	32.00	1666.05	76.95 N 1664.30 W	1666.08@ 272.65	0.92
8652.00	91.79	275.05	7231.54	32.00	1698.02	79.73 N 1696.17 W	1698.04@ 272.69	0.99
8683.00	91.51	274.67	7230.65	31.00	1728.99	82.35 N 1727.04 W	1729.00@ 272.73	1.52
8715.00	91.23	274.41	7229.88	32.00	1760.97	84.89 N 1758.93 W	1760.98@ 272.76	1.19
8747.00	90.45	274.08	7229.41	32.00	1792.96	87.25 N 1790.84 W	1792.97@ 272.79	2.65
8778.00	90.73	273.86	7229.09	31.00	1823.95	89.40 N 1821.77 W	1823.96@ 272.81	1.15

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8809.00	91.17	273.85	7228.58	31.00	1854.94	91.48 N 1852.69 W	1854.95@ 272.83	1.42
8841.00	91.51	273.62	7227.83	32.00	1886.93	93.57 N 1884.61 W	1886.94@ 272.84	1.28
8872.00	91.68	273.56	7226.97	31.00	1917.92	95.51 N 1915.54 W	1917.92@ 272.85	0.58
8904.00	89.89	273.30	7226.53	32.00	1949.91	97.42 N 1947.48 W	1949.91@ 272.86	5.65
8936.00	89.16	273.17	7226.79	32.00	1981.91	99.23 N 1979.43 W	1981.91@ 272.87	2.32
8968.00	89.38	273.22	7227.20	32.00	2013.91	101.01 N 2011.37 W	2013.91@ 272.88	0.71
8999.00	89.66	273.14	7227.46	31.00	2044.91	102.73 N 2042.33 W	2044.91@ 272.88	0.94
9031.00	89.89	273.08	7227.59	32.00	2076.90	104.47 N 2074.28 W	2076.91@ 272.88	0.74
9063.00	90.34	273.05	7227.52	32.00	2108.90	106.18 N 2106.23 W	2108.91@ 272.89	1.41
9095.00	90.78	273.24	7227.21	32.00	2140.90	107.93 N 2138.18 W	2140.91@ 272.89	1.50
9126.00	90.06	273.84	7226.98	31.00	2171.90	109.85 N 2169.12 W	2171.90@ 272.90	3.02
9158.00	90.00	273.84	7226.97	32.00	2203.90	111.99 N 2201.05 W	2203.90@ 272.91	0.19
9190.00	89.78	274.05	7227.03	32.00	2235.89	114.19 N 2232.97 W	2235.89@ 272.93	0.95
9222.00	89.94	273.86	7227.11	32.00	2267.89	116.40 N 2264.90 W	2267.89@ 272.94	0.78
9253.00	88.94	273.82	7227.41	31.00	2298.88	118.48 N 2295.83 W	2298.88@ 272.95	3.23
9285.00	88.38	274.25	7228.16	32.00	2330.87	120.73 N 2327.74 W	2330.87@ 272.97	2.21
9317.00	88.60	274.16	7229.00	32.00	2362.85	123.07 N 2359.64 W	2362.85@ 272.99	0.74
9348.00	88.83	274.21	7229.70	31.00	2393.83	125.33 N 2390.55 W	2393.83@ 273.00	0.76
9379.00	88.94	274.06	7230.30	31.00	2424.82	127.57 N 2421.46 W	2424.82@ 273.02	0.60
9411.00	89.22	274.08	7230.81	32.00	2456.81	129.84 N 2453.38 W	2456.81@ 273.03	0.88
9443.00	89.16	273.87	7231.27	32.00	2488.80	132.06 N 2485.30 W	2488.81@ 273.04	0.68
9474.00	89.16	273.75	7231.72	31.00	2519.80	134.12 N 2516.23 W	2519.80@ 273.05	0.39
9506.00	89.89	273.89	7231.99	32.00	2551.79	136.25 N 2548.15 W	2551.79@ 273.06	2.32
9538.00	91.12	273.86	7231.70	32.00	2583.79	138.41 N 2580.08 W	2583.79@ 273.07	3.85
9569.00	92.29	273.50	7230.78	31.00	2614.77	140.40 N 2611.00 W	2614.77@ 273.08	3.95
9600.00	93.19	273.22	7229.30	31.00	2645.73	142.22 N 2641.91 W	2645.74@ 273.08	3.04
9632.00	93.64	272.71	7227.39	32.00	2677.68	143.87 N 2673.81 W	2677.68@ 273.08	2.12
9664.00	93.81	272.44	7225.31	32.00	2709.61	145.30 N 2705.71 W	2709.61@ 273.07	1.00

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MURCHISON OIL & GAS, INC.
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EDDY COUNTY, NM
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
9696.00	94.09	272.01	7223.11	32.00	2741.53	146.54 N 2737.61 W	2741.53@ 273.06	1.60
9727.00	94.42	271.78	7220.81	31.00	2772.44	147.56 N 2768.51 W	2772.44@ 273.05	1.30
9759.00	94.59	271.85	7218.30	32.00	2804.33	148.58 N 2800.40 W	2804.33@ 273.04	0.57
9791.00	94.71	271.92	7215.70	32.00	2836.22	149.62 N 2832.27 W	2836.22@ 273.02	0.43
9823.00	95.04	272.06	7212.98	32.00	2868.10	150.73 N 2864.14 W	2868.10@ 273.01	1.12
9855.00	95.26	271.96	7210.11	32.00	2899.97	151.85 N 2895.99 W	2899.97@ 273.00	0.75
9887.00	95.33	271.83	7207.16	32.00	2931.83	152.90 N 2927.84 W	2931.83@ 272.99	0.46
9919.00	95.71	271.91	7204.08	32.00	2963.67	153.94 N 2959.67 W	2963.67@ 272.98	1.21
9950.00	95.72	272.07	7200.99	31.00	2994.51	155.01 N 2990.50 W	2994.51@ 272.97	0.52
9982.00	95.04	272.05	7197.99	32.00	3026.37	156.16 N 3022.34 W	3026.37@ 272.96	2.13
10014.00	94.54	271.74	7195.32	32.00	3058.25	157.21 N 3054.21 W	3058.25@ 272.95	1.84
10046.00	94.20	271.59	7192.88	32.00	3090.15	158.14 N 3086.10 W	3090.15@ 272.93	1.16
10077.00	93.87	271.48	7190.70	31.00	3121.06	158.97 N 3117.01 W	3121.06@ 272.92	1.12
10108.00	93.36	271.63	7188.74	31.00	3151.99	159.81 N 3147.94 W	3151.99@ 272.91	1.71
10140.00	92.68	271.71	7187.06	32.00	3183.94	160.74 N 3179.88 W	3183.94@ 272.89	2.14
10172.00	92.03	272.06	7185.74	32.00	3215.90	161.79 N 3211.84 W	3215.91@ 272.88	2.31
10203.00	90.67	272.94	7185.01	31.00	3246.89	163.14 N 3242.80 W	3246.90@ 272.88	5.23
10235.00	89.61	273.27	7184.94	32.00	3278.89	164.88 N 3274.75 W	3278.90@ 272.88	3.47
10267.00	88.66	273.55	7185.42	32.00	3310.89	166.78 N 3306.69 W	3310.89@ 272.89	3.09
10305.00	88.11	274.09	7186.49	38.00	3348.87	169.31 N 3344.59 W	3348.87@ 272.90	2.03
10337.00	87.76	274.19	7187.64	32.00	3380.84	171.62 N 3376.48 W	3380.84@ 272.91	1.14
10369.00	87.32	273.86	7189.02	32.00	3412.81	173.86 N 3408.38 W	3412.81@ 272.92	1.72
10400.00	86.88	273.02	7190.58	31.00	3443.76	175.72 N 3439.28 W	3443.77@ 272.92	3.06
10432.00	85.82	272.54	7192.62	32.00	3475.70	177.27 N 3471.18 W	3475.70@ 272.92	3.63
10464.00	85.56	271.91	7195.03	32.00	3507.61	178.51 N 3503.06 W	3507.61@ 272.92	2.13
10496.00	86.09	271.88	7197.36	32.00	3539.51	179.56 N 3534.96 W	3539.52@ 272.91	1.66
10527.00	86.53	271.47	7199.35	31.00	3570.44	180.47 N 3565.88 W	3570.45@ 272.90	1.94
10559.00	86.70	271.74	7201.24	32.00	3602.38	181.36 N 3597.81 W	3602.38@ 272.89	1.00

PathFinder Energy Services, Inc.

Survey Report

MURCHISON OIL & GAS, INC.
PEQUENO MIKE BLU FEDERAL #2H
EDDY COUNTY, NM
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
10591.00	86.17	271.23	7203.23	32.00	3634.30	182.19 N	3629.74 W	3634.31@ 272.87	2.30
10622.00	86.00	271.42	7205.35	31.00	3665.22	182.91 N	3660.66 W	3665.23@ 272.86	0.82
10654.00	86.00	271.25	7207.58	32.00	3697.13	183.65 N	3692.57 W	3697.14@ 272.85	0.53
10686.00	86.26	271.67	7209.74	32.00	3729.04	184.46 N	3724.49 W	3729.06@ 272.84	1.54
10718.00	86.09	271.61	7211.87	32.00	3760.97	185.38 N	3756.41 W	3760.98@ 272.83	0.56
10749.00	85.47	271.11	7214.15	31.00	3791.87	186.11 N	3787.31 W	3791.88@ 272.81	2.57
10781.00	85.12	271.69	7216.78	32.00	3823.75	186.89 N	3819.20 W	3823.77@ 272.80	2.11
10813.00	85.47	271.92	7219.40	32.00	3855.63	187.89 N	3851.07 W	3855.65@ 272.79	1.31
10845.00	85.82	272.05	7221.83	32.00	3887.54	189.00 N	3882.96 W	3887.56@ 272.79	1.17
10876.00	86.44	272.27	7223.93	31.00	3918.46	190.16 N	3913.87 W	3918.48@ 272.78	2.12
10908.00	86.44	271.53	7225.91	32.00	3950.39	191.22 N	3945.79 W	3950.42@ 272.77	2.31
10940.00	85.91	271.18	7228.05	32.00	3982.31	191.98 N	3977.71 W	3982.34@ 272.76	1.98
10972.00	84.86	270.89	7230.62	32.00	4014.19	192.55 N	4009.60 W	4014.22@ 272.75	3.40
11003.00	84.59	271.26	7233.47	31.00	4045.04	193.13 N	4040.46 W	4045.07@ 272.74	1.47
11034.00	84.94	271.46	7236.30	31.00	4075.90	193.87 N	4071.32 W	4075.94@ 272.73	1.30
11065.00	86.70	272.49	7238.56	31.00	4106.81	194.93 N	4102.22 W	4106.85@ 272.72	6.57
11097.00	87.49	272.59	7240.18	32.00	4138.77	196.35 N	4134.15 W	4138.81@ 272.72	2.49
11129.00	88.37	272.36	7241.34	32.00	4170.75	197.73 N	4166.10 W	4170.79@ 272.72	2.84
11160.00	88.99	272.63	7242.05	31.00	4201.74	199.08 N	4197.06 W	4201.78@ 272.72	2.18
11192.00	89.78	272.50	7242.40	32.00	4233.73	200.51 N	4229.02 W	4233.78@ 272.71	2.50
11223.00	90.57	272.38	7242.30	31.00	4264.73	201.83 N	4260.00 W	4264.77@ 272.71	2.58
11255.00	90.75	272.32	7241.93	32.00	4296.73	203.14 N	4291.97 W	4296.77@ 272.71	0.59
11286.00	90.66	272.71	7241.55	31.00	4327.72	204.50 N	4322.93 W	4327.77@ 272.71	1.29
11318.00	90.92	272.62	7241.11	32.00	4359.72	205.99 N	4354.90 W	4359.77@ 272.71	0.86
11349.00	91.01	272.57	7240.59	31.00	4390.72	207.39 N	4385.86 W	4390.76@ 272.71	0.33
11381.00	90.75	272.89	7240.10	32.00	4422.71	208.92 N	4417.82 W	4422.76@ 272.71	1.29
11413.00	90.13	273.34	7239.85	32.00	4454.71	210.66 N	4449.77 W	4454.76@ 272.71	2.39
11445.00	89.08	273.88	7240.07	32.00	4486.71	212.67 N	4481.71 W	4486.75@ 272.72	3.69

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PEQUENO MIKE BLU FEDERAL #2H
EDDY COUNTY, NM
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist (ft) (deg)	DLS (dg/100ft)
11476.00	88.99	273.91	7240.59	31.00	4517.70	214.78 N 4512.63 W	4517.74@ 272.72	0.31
11508.00	89.08	274.03	7241.13	32.00	4549.69	216.99 N 4544.55 W	4549.73@ 272.73	0.47
11540.00	88.02	274.19	7241.94	32.00	4581.67	219.28 N 4576.46 W	4581.71@ 272.74	3.35
11572.00	87.05	274.39	7243.32	32.00	4613.63	221.68 N 4608.34 W	4613.67@ 272.75	3.09
11604.00	87.32	274.63	7244.89	32.00	4645.58	224.19 N 4640.20 W	4645.61@ 272.77	1.13
11636.00	88.20	274.62	7246.14	32.00	4677.55	226.77 N 4672.07 W	4677.57@ 272.78	2.75
11667.00	88.37	274.45	7247.07	31.00	4708.52	229.22 N 4702.96 W	4708.54@ 272.79	0.78
11699.00	88.64	274.39	7247.90	32.00	4740.50	231.68 N 4734.85 W	4740.52@ 272.80	0.86
11731.00	89.16	273.74	7248.52	32.00	4772.49	233.95 N 4766.77 W	4772.51@ 272.81	2.60
11763.00	89.78	273.56	7248.81	32.00	4804.48	235.99 N 4798.70 W	4804.50@ 272.82	2.02
11790.00	90.13	273.31	7248.84	27.00	4831.48	237.61 N 4825.65 W	4831.50@ 272.82	1.59
STRAIGHT-LINE PROJECTION TO BIT @ 11855' MD.								
11855.00	90.13	273.31	7248.69	65.00	4896.48	241.36 N 4890.54 W	4896.50@ 272.83	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.