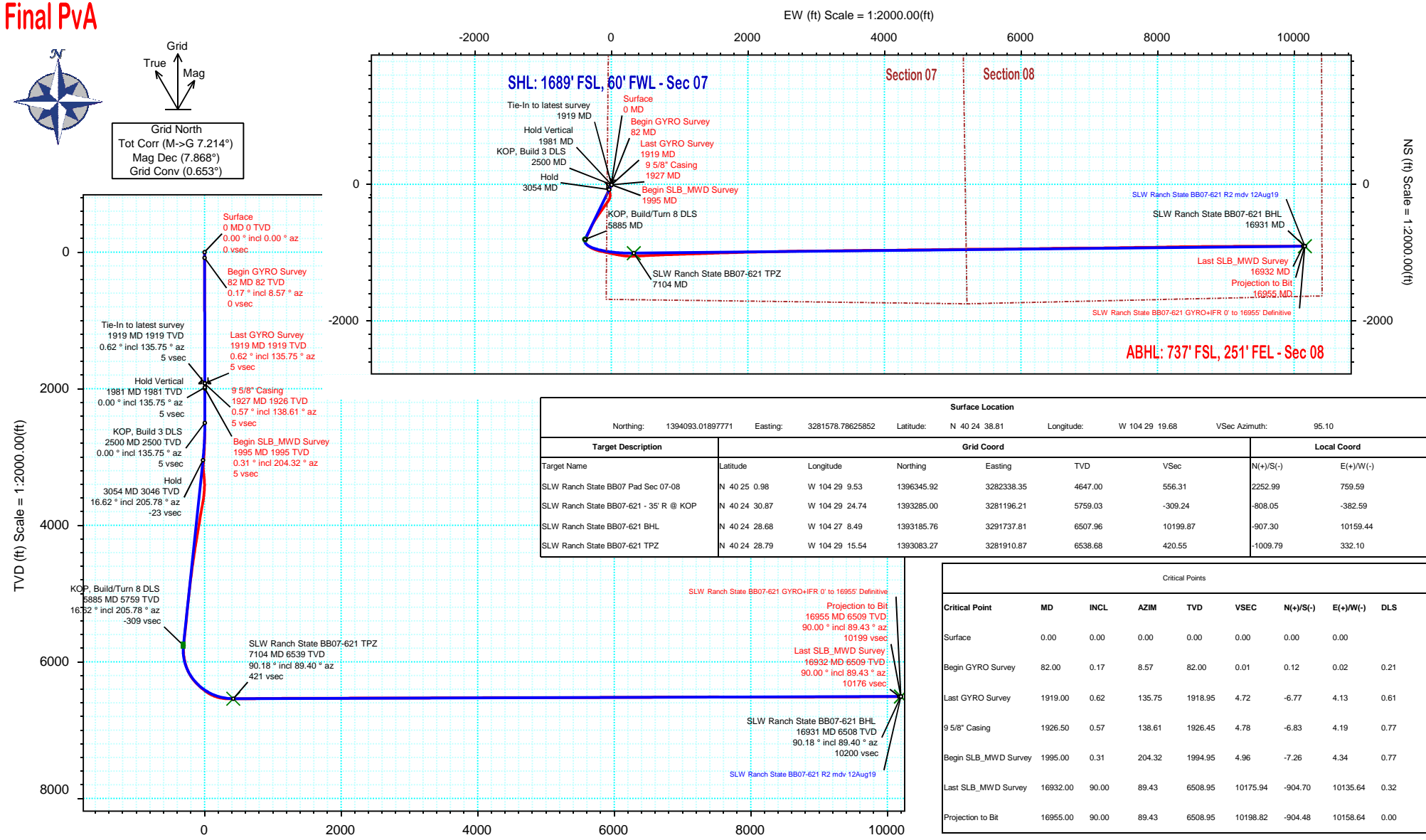


<b>Borehole:</b> Original Hole	<b>Well:</b> SLW Ranch State BB07-621	<b>Field:</b> CO, Weld County (NAD 83 NZ)	<b>Structure:</b> Noble 07-05N-63W (SLW Ranch State BB07 Pad South)
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<b>Gravity &amp; Magnetic Parameters</b>		<b>Surface Location</b> NAD83 Colorado State Plane, Northern Zone, US Feet			<b>Miscellaneous</b>		
Model: HDGM 2019	Dip: 66.861°	Date: 12-Aug-2019	Lat: N 40 24 38.81	Northing: 1394093.02ftUS	Grid Conv: 0.6534°	Slot: SLW Ranch State BB07-621	TVD Ref: KB 30ft(4647ft above MSL)
MagDec: 7.868°	FS: 52105.609nT	Gravity FS: 999.054mgn (9.80665 Based)	Lon: W 104 29 19.68	Easting: 3281578.79ftUS	Scale Fact: 0.99996074	Plan: SLW Ranch State BB07-621 GYRO+IFR 0' to 16955' Definitive	



Target Description		Grid Coord		Local Coord				
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
SLW Ranch State BB07 Pad Sec 07-08	N 40 25 0.98	W 104 29 9.53	1396345.92	3282338.35	4647.00	556.31	2252.99	759.59
SLW Ranch State BB07-621 - 35' R @ KOP	N 40 24 30.87	W 104 29 24.74	1393285.00	3281196.21	5759.03	-309.24	-808.05	-382.59
SLW Ranch State BB07-621 BHL	N 40 24 28.68	W 104 27 8.49	1393185.76	3291737.81	6507.96	10199.87	-907.30	10159.44
SLW Ranch State BB07-621 TPZ	N 40 24 28.79	W 104 29 15.54	1393083.27	3281910.87	6538.68	420.55	-1009.79	332.10

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin GYRO Survey	82.00	0.17	8.57	82.00	0.01	0.12	0.02	0.21
Last GYRO Survey	1919.00	0.62	135.75	1918.95	4.72	-6.77	4.13	0.61
9 5/8" Casing	1926.50	0.57	138.61	1926.45	4.78	-6.83	4.19	0.77
Begin SLB_MWD Survey	1995.00	0.31	204.32	1994.95	4.96	-7.26	4.34	0.77
Last SLB_MWD Survey	16932.00	90.00	89.43	6508.95	10175.94	-904.70	10135.64	0.32
Projection to Bit	16955.00	90.00	89.43	6508.95	10198.82	-904.48	10158.64	0.00

Vertical Section (ft) Azim = 95.10° Scale = 1:2000.00(ft) Origin = 0N/-S, 0E/-W

# SLW Ranch State BB07-621 GYRO+IFR 0' to 16955' Definitive Survey

## Geodetic Report

(Def Survey)

**Report Date:** August 29, 2019 - 11:41 AM  
**Client:** Noble Energy  
**Field:** CO, Weld County (NAD 83 NZ)  
**Structure / Slot:** Noble 07-05N-63W (SLW Ranch State BB07 Pad South) / SLW Ranch State BB07-621  
**Well:** SLW Ranch State BB07-621  
**Borehole:** Original Hole  
**UWI / API#:** Unknown / 05-123-47406  
**Survey Name:** SLW Ranch State BB07-621 GYRO+IFR 0' to 16955' Definitive  
**Survey Date:** August 09, 2019  
**Tort / AHD / DDI / ERD Ratio:** 254.852 ° / 11558.121 ft / 6.883 / 1.767  
**Coordinate Reference System:** NAD83 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 40° 24' 38.80900", W 104° 29' 19.68000"  
**Location Grid N/E Y/X:** N 1394093.019 ftUS, E 3281578.786 ftUS  
**CRS Grid Convergence Angle:** 0.6534 °  
**Grid Scale Factor:** 0.99996074  
**Version / Patch:** 2.10.782.0

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 95.100 ° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** KB 30ft  
**TVD Reference Elevation:** 4647.000 ft above MSL  
**Seabed / Ground Elevation:** 4617.000 ft above MSL  
**Magnetic Declination:** 7.868 °  
**Total Gravity Field Strength:** 999.0540mg (9.80665 Based)  
**Gravity Model:** GARM  
**Total Magnetic Field Strength:** 52105.609 nT  
**Magnetic Dip Angle:** 66.861 °  
**Declination Date:** August 12, 2019  
**Magnetic Declination Model:** HDGM 2019  
**North Reference:** Grid North  
**Grid Convergence Used:** 0.6534 °  
**Total Corr Mag North->Grid North:** 7.2143 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	1394093.02	3281578.79	40.410780	-104.488800
Begin GYRO Survey	82.00	0.17	8.57	82.00	0.01	0.12	0.02	0.21	1394093.14	3281578.80	40.410780	-104.488800
	176.00	0.62	37.07	176.00	0.29	0.66	0.35	0.51	1394093.68	3281579.13	40.410782	-104.488799
	268.00	0.35	70.51	267.99	0.80	1.15	0.91	0.41	1394094.17	3281579.70	40.410783	-104.488797
	331.00	0.29	42.80	330.99	1.08	1.34	1.20	0.26	1394094.36	3281579.99	40.410784	-104.488796
	425.00	0.45	157.45	424.99	1.39	1.17	1.50	0.67	1394094.19	3281580.29	40.410783	-104.488795
	520.00	0.44	152.45	519.99	1.76	0.50	1.82	0.04	1394093.52	3281580.60	40.410781	-104.488793
	615.00	0.48	139.64	614.99	2.24	-0.12	2.24	0.12	1394092.89	3281581.03	40.410780	-104.488792
	710.00	0.09	75.03	709.99	2.60	-0.41	2.57	0.47	1394092.61	3281581.36	40.410779	-104.488791
	804.00	0.30	144.52	803.98	2.83	-0.59	2.79	0.30	1394092.43	3281581.57	40.410778	-104.488790
	899.00	0.35	133.66	898.98	3.22	-0.99	3.14	0.08	1394092.03	3281581.93	40.410777	-104.488789
	994.00	0.30	182.88	993.98	3.45	-1.44	3.34	0.29	1394091.58	3281582.12	40.410776	-104.488788
	1089.00	0.57	148.17	1088.98	3.75	-2.09	3.57	0.38	1394090.93	3281582.36	40.410774	-104.488787
	1184.00	0.42	153.80	1183.98	4.21	-2.81	3.98	0.17	1394090.21	3281582.76	40.410772	-104.488786
	1278.00	0.59	201.15	1277.97	4.26	-3.57	3.95	0.46	1394089.45	3281582.74	40.410770	-104.488786
	1373.00	0.38	180.77	1372.97	4.14	-4.34	3.77	0.28	1394088.68	3281582.56	40.410768	-104.488787
	1468.00	0.43	219.63	1467.97	3.97	-4.93	3.54	0.29	1394088.09	3281582.33	40.410766	-104.488787
	1563.00	0.30	311.07	1562.97	3.56	-5.04	3.13	0.56	1394087.98	3281581.91	40.410766	-104.488789
	1657.00	0.11	353.04	1656.96	3.34	-4.79	2.93	0.24	1394088.23	3281581.72	40.410767	-104.488790
	1752.00	0.40	141.64	1751.96	3.55	-4.96	3.13	0.52	1394088.06	3281581.91	40.410766	-104.488789
	1847.00	0.95	157.50	1846.96	4.15	-5.94	3.63	0.61	1394087.08	3281582.42	40.410764	-104.488787
Last GYRO Survey	1919.00	0.62	135.75	1918.95	4.72	-6.77	4.13	0.61	1394086.25	3281582.92	40.410761	-104.488785
9 5/8" Casing	1926.50	0.57	138.61	1926.45	4.78	-6.83	4.19	0.77	1394086.19	3281582.97	40.410761	-104.488785
Begin SLB_MWD Survey	1995.00	0.31	204.32	1994.95	4.96	-7.26	4.34	0.77	1394085.76	3281583.12	40.410760	-104.488785
	2094.00	0.42	317.94	2093.95	4.61	-7.23	3.98	0.62	1394085.79	3281582.77	40.410760	-104.488786
	2189.00	0.35	94.21	2188.95	4.64	-6.99	4.04	0.75	1394086.03	3281582.82	40.410761	-104.488786
	2284.00	0.46	323.92	2283.95	4.68	-6.71	4.10	0.78	1394086.31	3281582.89	40.410761	-104.488786
	2379.00	0.29	213.28	2378.94	4.32	-6.80	3.75	0.66	1394086.42	3281582.53	40.410762	-104.488787
	2473.00	0.40	107.99	2472.94	4.53	-6.90	3.93	0.59	1394086.12	3281582.71	40.410761	-104.488786
	2568.00	2.05	187.09	2567.92	4.79	-8.69	4.03	2.12	1394084.33	3281582.82	40.410756	-104.488786
	2663.00	4.71	201.87	2662.75	3.61	-14.00	2.37	2.92	1394079.02	3281581.16	40.410742	-104.488792
	2757.00	7.01	196.41	2756.25	1.37	-23.08	-0.69	2.51	1394069.94	3281578.10	40.410717	-104.488803
	2852.00	8.61	196.95	2850.37	-1.23	-35.44	-4.40	1.69	1394057.58	3281574.39	40.410683	-104.488817
	2947.00	10.91	201.73	2943.99	-5.26	-50.60	-9.80	2.56	1394042.42	3281568.99	40.410641	-104.488837
	3042.00	13.65	207.24	3036.81	-12.06	-68.92	-18.26	3.13	1394024.10	3281560.52	40.410591	-104.488868
	3137.00	14.92	193.79	3128.90	-18.14	-90.77	-26.31	3.73	1394002.25	3281552.48	40.410532	-104.488898
	3231.00	14.64	156.04	3219.99	-14.19	-113.43	-24.37	10.08	1393979.59	3281554.42	40.410469	-104.488922
	3326.00	17.81	169.08	3311.23	-4.34	-138.68	-16.74	5.06	1393954.34	3281562.05	40.410400	-104.488966
	3421.00	18.80	184.63	3401.47	-0.20	-168.22	-15.22	5.23	1393924.80	3281563.57	40.410319	-104.488962
	3516.00	19.05	195.33	3491.37	-2.83	-198.44	-20.55	3.66	1393894.58	3281558.23	40.410236	-104.488982
	3610.00	18.93	206.89	3580.28	-11.22	-226.85	-31.51	4.00	1393866.18	3281547.28	40.410158	-104.488922
	3705.00	18.90	217.65	3670.18	-25.22	-252.78	-47.88	3.67	1393840.25	3281530.91	40.410088	-104.488982
	3800.00	18.97	217.47	3760.04	-41.77	-277.22	-66.67	0.10	1393815.81	3281512.11	40.410021	-104.489051
	3894.00	18.81	214.48	3848.98	-57.38	-301.84	-84.55	1.04	1393791.20	3281494.24	40.409954	-104.489116
	3989.00	18.75	214.37	3938.92	-72.36	-327.06	-101.84	0.07	1393765.97	3281476.95	40.409885	-104.489179
	4084.00	18.61	214.00	4028.92	-87.15	-352.23	-118.93	0.19	1393740.80	3281459.86	40.409817	-104.489241
	4179.00	18.44	215.35	4118.99	-102.05	-377.06	-136.10	0.49	1393715.98	3281442.69	40.409749	-104.489304
	4273.00	18.89	215.06	4208.05	-117.14	-401.64	-153.45	0.49	1393691.40	3281425.35	40.409682	-104.489367
	4368.00	17.78	216.62	4298.23	-132.40	-425.87	-170.93	1.28	1393667.17	3281407.86	40.409616	-104.489431
	4463.00	16.98	213.58	4388.89	-146.60	-449.07	-187.26	1.27	1393643.97	3281391.54	40.409553	-104.489491
	4557.00	16.96	214.74	4478.80	-159.92	-471.77	-202.66	0.36	1393621.27	3281376.13	40.409491	-104.489547
	4652.00	16.46	212.82	4569.79	-173.04	-494.46	-217.85	0.78	1393598.57	3281360.94	40.409430	-104.489602
	4746.00	16.57	209.47	4659.91	-184.76	-517.33	-231.67	1.02	1393575.71	3281347.13	40.409367	-104.489653
	4841.00	16.81	212.66	4750.91	-196.71	-540.69	-245.74	1.00	1393552.36	3281333.05	40.409304	-104.489705
	4936.00	16.71	210.86	4841.87	-209.00	-563.97	-260.16	0.56	1393529.07	3281318.63	40.409240	-104.489757
	5031.00	16.69	206.87	4932.87	-219.99	-587.87	-273.33	1.21	1393505.18	3281305.46	40.409175	-104.489806
	5125.00	16.59	205.85	5022.93	-229.75	-611.99	-285.29	0.33	1393481.06	3281293.51	40.409109	-104.489849
	5220.00	16.16	202.97	5114.08	-238.62	-636.36	-296.36	0.97	1393456.68	3281282.44	40.409043	-104.489890
	5315.00	16.39	207.12	5205.28	-247.70	-660.47	-307.63	1.25	1393432.58	3281271.17	40.408977	-104.489932
	5409.00	16.06	204.93	5295.54	-257.08	-684.06	-319.15	0.74	1393408.99	3281259.64	40.408912	-104.489974
	5504.00	16.33	205.16	5386.77	-266.12	-708.07	-330.37	0.29	1393384.98	3281248.43	40.408847	-104.490015
	5598.00	15.86	204.94	5477.08	-275.01	-731.67	-341.41	0.50	1393361.38	3281237.39	40.408782	-104.490056
	5693.00	16.13	206.18	5568.40	-284.16	-755.29	-352.70	0.46	1393337.76	3281226.10	40.408718	-104.490097
	5788.00	16.51	205.48	5659.58	-293.61	-779.32	-364.33	0.45	1393313.74	3281214.47	40.408652	-104.490140
	5883.00	16.48	206.59	5750.67	-303.25	-803.55	-376.17	0.33	1393289.50	3281202.63	40.408586	-104.490184
	5977.00	17.69	181.73	5840.64	-307.30	-829.78	-382.58	7.82	1393263.27	3281196.22	40.408514	-104.490208
	6072.00	16.61	155.66	5931.54	-299.77	-856.62	-377.41	8.10	1393236.43	3281201.39	40.408441	-104.490

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	6829.00	67.30	101.90	6497.83	133.47	-1023.08	42.70	9.81	1393069.98	3281621.48	40.407971	-104.488689
	6923.00	77.37	99.89	6526.32	222.47	-1039.95	130.54	10.90	1393053.12	3281709.32	40.407922	-104.488374
	7018.00	87.07	94.70	6539.17	316.38	-1051.83	223.77	11.55	1393041.23	3281802.54	40.407886	-104.488040
	7113.00	90.22	87.79	6541.42	411.07	-1053.89	318.65	7.99	1393039.17	3281897.42	40.407877	-104.487699
	7208.00	90.48	87.66	6540.84	505.28	-1050.12	413.57	0.31	1393042.94	3281992.34	40.407885	-104.487358
	7302.00	90.22	87.03	6540.27	598.42	-1045.76	507.47	0.73	1393047.30	3282086.23	40.407894	-104.487021
	7397.00	90.89	87.96	6539.35	692.58	-1041.61	602.37	1.21	1393051.45	3282181.13	40.407902	-104.486680
	7492.00	91.37	86.54	6537.47	786.67	-1037.06	692.24	1.58	1393056.01	3282276.00	40.407912	-104.486339
	7587.00	90.30	88.29	6536.09	880.80	-1032.77	792.13	2.16	1393060.29	3282370.88	40.407921	-104.485998
	7681.00	90.34	88.40	6535.56	974.15	-1030.06	886.09	0.12	1393063.00	3282464.84	40.407925	-104.485661
	7776.00	90.27	87.57	6535.06	1068.41	-1026.72	981.03	0.88	1393066.34	3282559.77	40.407931	-104.485320
	7871.00	90.52	88.84	6534.40	1162.72	-1023.74	1075.98	1.36	1393069.32	3282654.72	40.407936	-104.484979
	7966.00	90.01	88.41	6533.96	1257.11	-1021.46	1170.95	0.70	1393071.60	3282749.68	40.407940	-104.484637
	8060.00	90.12	88.07	6533.86	1350.44	-1018.57	1264.90	0.38	1393074.49	3282843.64	40.407945	-104.484300
	8155.00	89.89	87.50	6533.85	1444.67	-1014.90	1359.83	0.65	1393078.16	3282938.56	40.407952	-104.483959
	8250.00	89.97	88.27	6533.96	1538.91	-1011.40	1454.76	0.81	1393081.66	3283033.49	40.407958	-104.483618
	8344.00	90.23	87.26	6533.80	1632.14	-1007.73	1548.69	1.11	1393085.33	3283127.41	40.407965	-104.483281
	8439.00	90.22	89.12	6533.43	1726.45	-1004.73	1643.64	1.96	1393088.33	3283222.36	40.407971	-104.482940
	8534.00	90.29	88.24	6533.00	1820.85	-1002.54	1738.61	0.93	1393090.52	3283317.33	40.407974	-104.482598
	8628.00	90.47	88.63	6532.38	1914.21	-999.98	1832.58	0.46	1393093.09	3283411.29	40.407978	-104.482261
	8723.00	90.11	88.09	6531.90	2008.55	-997.26	1927.53	0.68	1393095.80	3283506.24	40.407982	-104.481920
	8818.00	90.48	89.18	6531.41	2102.95	-994.99	2022.50	1.21	1393098.07	3283601.21	40.407985	-104.481579
	8912.00	90.12	89.14	6530.92	2196.44	-993.62	2116.49	0.39	1393099.44	3283695.19	40.407986	-104.481241
	9007.00	90.37	88.66	6530.51	2290.88	-991.79	2211.47	0.57	1393101.27	3283790.17	40.407988	-104.480900
	9196.00	89.53	88.76	6530.68	2478.71	-987.54	2400.42	0.45	1393105.52	3283879.11	40.407994	-104.480522
	9291.00	90.03	88.36	6531.04	2573.09	-985.15	2495.39	0.67	1393107.91	3284074.08	40.407998	-104.479880
	9386.00	90.46	88.39	6530.64	2667.43	-982.46	2590.35	0.45	1393110.60	3284169.03	40.408002	-104.479539
	9480.00	90.08	88.96	6530.19	2760.84	-980.28	2684.33	0.73	1393112.78	3284263.00	40.408005	-104.479202
	9575.00	90.46	90.33	6529.74	2855.41	-979.89	2779.32	1.50	1393113.37	3284357.99	40.408004	-104.478861
	9670.00	90.22	89.89	6529.18	2950.05	-979.88	2874.32	0.53	1393113.18	3284452.99	40.408000	-104.478520
	9765.00	90.02	89.29	6528.98	3044.61	-979.20	2969.32	0.67	1393113.86	3284547.94	40.407999	-104.478179
	9859.00	90.26	88.79	6528.75	3138.08	-977.62	3063.30	0.59	1393115.44	3284641.96	40.408000	-104.477841
	9954.00	90.06	89.85	6528.49	3232.60	-976.49	3158.29	1.14	1393116.57	3284736.95	40.408000	-104.477500
	10049.00	90.54	90.03	6527.99	3327.21	-976.39	3253.29	0.54	1393116.67	3284831.94	40.407998	-104.477159
	10144.00	90.69	88.05	6526.97	3421.67	-974.80	3348.27	2.09	1393118.26	3284926.92	40.407999	-104.476818
	10238.00	89.92	89.00	6526.47	3515.05	-972.38	3442.24	1.30	1393120.68	3285020.88	40.408003	-104.476480
	10333.00	90.15	89.61	6526.41	3609.56	-971.23	3537.23	0.69	1393121.83	3285115.87	40.408003	-104.476139
	10428.00	90.58	89.23	6525.81	3704.09	-970.27	3632.22	0.60	1393122.79	3285210.86	40.408002	-104.475798
	10523.00	89.95	89.80	6525.37	3798.64	-969.46	3727.22	0.89	1393123.59	3285305.85	40.408002	-104.475457
	10617.00	89.85	89.73	6525.53	3892.23	-969.08	3821.21	0.13	1393123.98	3285399.84	40.408000	-104.475119
	10713.00	90.50	89.90	6525.24	3987.82	-968.77	3917.21	0.70	1393124.29	3285495.84	40.407998	-104.474775
	10807.00	90.18	90.20	6524.68	4081.46	-968.85	4011.21	0.47	1393124.21	3285589.83	40.407994	-104.474437
	10902.00	90.02	88.87	6524.51	4176.01	-968.08	4106.21	1.41	1393124.98	3285684.82	40.407993	-104.474096
	10997.00	90.25	88.71	6524.29	4270.43	-967.07	4201.18	0.29	1393126.98	3285779.80	40.407996	-104.473755
	11092.00	89.98	88.76	6524.10	4364.84	-963.98	4296.16	0.29	1393129.08	3285874.77	40.407999	-104.473414
	11187.00	89.67	89.84	6524.39	4459.36	-962.82	4391.15	1.18	1393130.24	3285969.76	40.407999	-104.473073
	11282.00	89.96	89.96	6524.70	4553.96	-962.65	4486.15	0.33	1393130.41	3286064.75	40.407996	-104.472732
	11377.00	90.38	89.04	6524.41	4648.51	-961.82	4581.15	1.06	1393131.24	3286159.74	40.407996	-104.472390
	11472.00	90.31	88.86	6523.84	4742.96	-960.08	4676.13	0.20	1393132.98	3286254.72	40.407997	-104.472049
	11566.00	89.97	89.32	6523.61	4836.44	-958.59	4770.12	0.61	1393134.47	3286348.70	40.407998	-104.471712
	11661.00	89.92	89.70	6523.70	4930.99	-957.78	4865.11	0.40	1393135.28	3286443.70	40.407998	-104.471371
	11756.00	90.30	88.73	6523.52	5025.49	-956.47	4960.10	1.10	1393136.58	3286538.68	40.407998	-104.471030
	11850.00	90.04	90.16	6523.24	5119.03	-955.56	5054.09	1.55	1393137.49	3286632.67	40.407998	-104.470692
	11945.00	90.18	88.17	6523.06	5213.51	-954.18	5149.08	2.10	1393138.88	3286727.65	40.407998	-104.470351
	12040.00	90.24	89.95	6522.71	5307.98	-952.62	5244.06	1.87	1393140.44	3286822.63	40.408000	-104.470010
	12135.00	90.27	90.02	6522.29	5402.60	-952.60	5339.06	0.08	1393140.46	3286917.63	40.407997	-104.469669
	12229.00	90.23	89.89	6521.88	5496.22	-952.52	5433.06	0.14	1393140.54	3287011.62	40.407994	-104.469331
	12324.00	90.12	89.22	6521.59	5590.78	-951.78	5528.06	0.71	1393141.27	3287106.61	40.407993	-104.468990
	12419.00	89.75	89.32	6521.70	5685.29	-950.57	5623.05	0.40	1393142.48	3287201.60	40.407993	-104.468649
	12514.00	90.56	90.07	6521.44	5779.86	-950.07	5718.04	1.16	1393142.99	3287296.59	40.407992	-104.468308
	12609.00	90.19	88.85	6520.82	5874.40	-949.17	5813.04	1.34	1393143.89	3287391.58	40.407991	-104.467967
	12703.00	90.34	88.76	6520.38	5967.83	-947.21	5907.01	0.19	1393145.85	3287485.56	40.407993	-104.467629
	12798.00	89.76	89.46	6520.30	6062.31	-945.74	6002.00	0.96	1393147.32	3287580.54	40.407994	-104.467288
	12893.00	90.46	89.16	6520.12	6156.83	-944.59	6096.99	0.80	1393148.47	3287675.53	40.407994	-104.466947
	12988.00	90.28	90.04	6519.50	6251.39	-943.93	6191.99	0.95	1393149.13	3287770.52	40.407993	-104.466606
	13083.00	90.15	88.93	6519.15	6345.93	-943.08	6286.98	1.18	1393149.98	3287865.51	40.407993	-104.466265
	13177.00	90.38	89.03	6518.71	6439.39	-941.40	6380.97	0.27	1393151.66	3287959.49	40.407994	-104.465927
	13272.00	90.23	89.12	6518.21	6533.86	-939.87	6475.95	0.18	1393153.19	3288054.47	40.407995	-104.465586
	13367.00	90.19	89.34	6517.86	6628.37	-938.59	6570.94	0.24	1393154.47	3288149.46	40.407996	-104.465245
	13462.00	90.42	88.96	6517.35	6722.85	-937.18	6665.93	0.47	1393155.87	3288244.44	40.407997	-104.464904
	13556.00	89.92	89.58	6517.07	6816.36	-935.99	6759.92	0.85	1393157.07	3288338.43	40.407997	-104.464566
	13651.00	90.33	90.18	6516.87	6910.97	-935.79	6854.92	0.76	1393157.27	3288433.43	40.407994	-104.464225
	13746.00	90.34	89.62	6516.31	7005.58	-935.62	6949.92	0.59	1393157.44	3288528.42	40.407992	-104.463884
	13840.00	90.31	90.32	6515.78	7099.20	-935.57	7043.92	0.75	1393157.49	3288622.41	40.407989	-104.463547
	13935.00	90.35	88.89	6515.23	7193.76	-934.92	7138.91	1.51	1393158.14	3288717.40	40.407988	-104.463206
	14030.00	89.93	88.75	6515.00	7288.19	-932.96	7233.89	0.47	1393160.10	3288812.38	40.407990	-104.462864
	14125.00	90.52	89.97	6514.63	7382.71	-931.90	7328.88	1.43	1393161.16	3288907.37	40.407990	-104.462523
	14219.00	89.77	88.40	6514.39	7476.20	-930.56	7422.87	1.85	1393162.50	3289001.35		

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Projection to Bit	16955.00	90.00	89.43	6508.95	10198.82	-904.48	10158.64	0.00	1393188.58	3291737.00	40.407974	-104.452362

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	30.000	1/98.425	13.500	9.625	NAL_NSG+MSHOT-Depth Only	Original Hole / SLW Ranch State BB07-621 GYRO+IFR 0' to 16955' Definitive
	1	30.000	30.000	Act Stns	13.500	9.625	NAL_NSG+MSHOT-Depth Only	Original Hole / SLW Ranch State BB07-621 GYRO+IFR 0' to 16955' Definitive
	1	30.000	1926.500	Act Stns	13.500	9.625	NAL_NSG+MSHOT	Original Hole / SLW Ranch State BB07-621 GYRO+IFR 0' to 16955'
	1	1926.500	16955.000	Act Stns	8.500	5.500	NAL_MWD_IFR1+MS	Original Hole / SLW Ranch State BB07-621 GYRO+IFR 0' to 16955'