

Noble Energy

CO, Weld County (NAD 83 NZ)
Sec 4 Twn 6 N Rng 63 W
NCLP AA06-65-1AHNC Original Hole
05-123-39026
H&P 277



A Schlumberger Company

Final Survey Report

29-Oct-2014

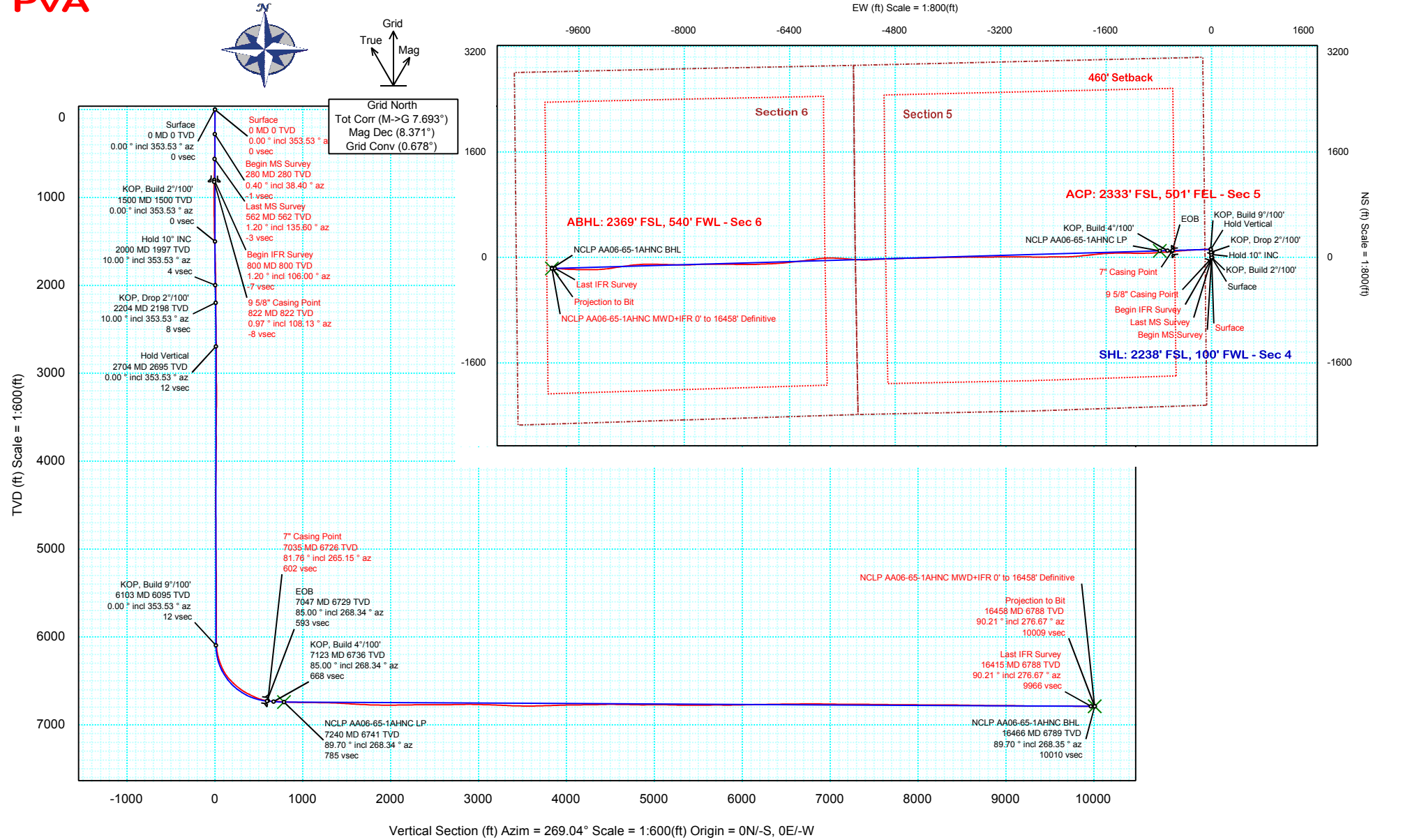
Well Coordinates:	NAD83 CO State Plane, N Zone, US Feet
	N 40° 30' 52.81200" W 104° 27' 3.09600"
	1432020.39 usFt 3291695.78 usFt
Ground Level:	4711.00 ft MSL
TVD Reference:	KB 24ft @ 4735.00 ft MSL
Local Coordinate Origin:	NCLP AA06-65-1AHNC well head
Vertical Section Azimuth:	269.040 ° (Grid North)
North Reference:	Grid North

DOX Version: 2.8

Borehole: Original Hole	Well: NCLP AA06-65-1AHNC	Field: CO, Weld County (NAD 83 NZ)	Structure: 04-06N-63W (NCLP AA06 64-65 Pad) - H&P 277
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Gravity & Magnetic Parameters		Surface Location NAD83 Colorado State Plane, Northern Zone, US Feet			Miscellaneous	
Model: BGGM 2014	Dip: 67.081°	Date: 09-Jul-2014	Lat: N 40 30 52.81	Northing: 1432060.456ftUS	Grid Conv: 0.6779°	Slot: NCLP AA06-65-1AHNC
MagDec: 8.371°	FS: 52802.918mT	Gravity FS: 999.066mgn (9.80665 Based)	Lon: W 104 27 3.10	Easting: 3291695.302ftUS	Scale Fact: 0.99996743	TVD Ref: KB 24ft(4735ft above MSL)
					Plan: NCLP AA06-65-1AHNC MWD+IFR 0' to 16458' Definitive	

PvA





NCLP AA06-65-1AHNC MWD+IFR 0' to 16458' Definitive Survey Geodetic Report (Def Survey)



Report Date: August 07, 2014 - 02:34 PM
Client: Noble Energy
Field: CO, Weld County (NAD 83 NZ)
Structure / Slot: Noble 04-06N-63W (NCLP AA06 64-65 Pad) - H&P 277 / NCLP AA06-65-1AHNC
Well: NCLP AA06-65-1AHNC
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: NCLP AA06-65-1AHNC MWD+IFR 0' to 16458' Definitive
Survey Date: July 09, 2014
Tort / AHD / DDI / ERD Ratio: 281.485 ° / 10185.279 ft / 6.842 / 1.500
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 30' 52.81200", W 104° 27' 3.09600"
Location Grid N/E Y/X: N 1432060.456 ftUS, E 3291695.302 ftUS
CRS Grid Convergence Angle: 0.6779 °
Grid Scale Factor: 0.99996743
Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 269.040 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 24ft
TVD Reference Elevation: 4735.000 ft above MSL
Seabed / Ground Elevation: 4711.000 ft above MSL
Magnetic Declination: 8.371 °
Total Gravity Field Strength: 999.0660mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52802.918 nT
Magnetic Dip Angle: 67.081 °
Declination Date: July 09, 2014
Magnetic Declination Model: BGGM 2014
North Reference: Grid North
Grid Convergence Used: 0.6779 °
Total Corr Mag North->Grid North: 7.6932 °
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 (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	353.53	0.00	0.00	0.00	0.00	N/A	1432060.46	3291695.30	N 40 30 52.81 W 104 27 3.10	
Begin MS Survey	280.00	0.40	38.40	280.00	-0.62	0.77	0.61	0.14	1432061.22	3291695.91	N 40 30 52.82 W 104 27 3.09	
Last MS Survey	562.00	1.20	135.60	561.98	-3.27	-0.57	3.28	0.47	1432059.88	3291698.59	N 40 30 52.81 W 104 27 3.05	
Begin IFR Survey	800.00	1.20	106.00	799.93	-7.37	-3.04	7.42	0.26	1432057.42	3291702.73	N 40 30 52.78 W 104 27 3.00	
9 5/8" Casing Point	822.00	0.97	108.13	821.92	-7.77	-3.16	7.82	1.05	1432057.29	3291703.13	N 40 30 52.78 W 104 27 3.00	
	868.00	0.51	118.68	867.92	-8.32	-3.38	8.37	1.05	1432057.07	3291703.68	N 40 30 52.78 W 104 27 2.99	
	930.00	1.55	3.71	929.91	-8.62	-2.68	8.67	2.94	1432057.78	3291703.97	N 40 30 52.78 W 104 27 2.98	
	1025.00	3.61	357.70	1024.81	-8.66	1.59	8.63	2.18	1432062.05	3291703.94	N 40 30 52.83 W 104 27 2.98	
	1119.00	4.97	358.10	1118.54	-8.52	8.62	8.38	1.45	1432069.08	3291703.68	N 40 30 52.90 W 104 27 2.99	
	1212.00	6.28	353.80	1211.09	-7.99	17.70	7.70	1.48	1432078.16	3291703.00	N 40 30 52.99 W 104 27 2.99	
	1306.00	7.95	355.40	1304.37	-7.11	29.30	6.62	1.79	1432089.75	3291701.92	N 40 30 53.10 W 104 27 3.01	
	1400.00	9.59	350.54	1397.27	-5.54	43.50	4.81	1.91	1432103.95	3291700.11	N 40 30 53.24 W 104 27 3.03	
	1493.00	9.63	348.47	1488.96	-2.97	58.76	1.98	0.37	1432119.22	3291697.29	N 40 30 53.39 W 104 27 3.06	
	1588.00	9.65	348.25	1582.62	-0.02	74.34	-1.23	0.04	1432134.80	3291694.08	N 40 30 53.55 W 104 27 3.10	
	1682.00	7.58	344.92	1675.55	2.97	88.05	-4.44	2.26	1432148.50	3291690.86	N 40 30 53.68 W 104 27 3.14	
	1777.00	5.91	345.35	1769.89	5.66	98.83	-7.31	1.76	1432159.28	3291687.99	N 40 30 53.79 W 104 27 3.18	
	1872.00	4.30	346.83	1864.51	7.57	107.03	-9.36	1.70	1432167.48	3291685.94	N 40 30 53.87 W 104 27 3.20	
	1966.00	4.18	347.20	1958.26	9.01	113.80	-10.92	0.13	1432174.25	3291684.38	N 40 30 53.94 W 104 27 3.22	
	2061.00	2.41	337.70	2053.10	10.45	119.03	-12.45	1.94	1432179.48	3291682.86	N 40 30 53.99 W 104 27 3.24	
	2155.00	1.49	11.60	2147.04	10.91	122.05	-12.95	1.53	1432182.50	3291682.35	N 40 30 54.02 W 104 27 3.24	
	2250.00	0.68	316.47	2242.03	11.02	123.67	-13.09	1.30	1432184.12	3291682.21	N 40 30 54.04 W 104 27 3.25	
	2345.00	0.83	333.58	2337.02	11.70	124.69	-13.79	0.28	1432185.15	3291681.52	N 40 30 54.05 W 104 27 3.26	
	2440.00	0.48	294.45	2432.01	12.35	125.48	-14.45	0.58	1432185.93	3291680.85	N 40 30 54.05 W 104 27 3.26	
	2534.00	0.89	288.38	2526.01	13.39	125.87	-15.51	0.44	1432186.32	3291679.80	N 40 30 54.06 W 104 27 3.28	
	2629.00	0.80	295.28	2621.00	14.69	126.38	-16.80	0.14	1432186.84	3291678.50	N 40 30 54.06 W 104 27 3.29	
	2723.00	1.22	307.23	2714.98	16.06	127.27	-18.20	0.50	1432187.72	3291677.11	N 40 30 54.07 W 104 27 3.31	
	2818.00	0.83	187.58	2809.97	16.96	127.20	-19.09	1.88	1432187.65	3291676.21	N 40 30 54.07 W 104 27 3.32	
	2912.00	0.61	187.73	2903.97	17.13	126.03	-19.25	0.23	1432186.48	3291676.05	N 40 30 54.06 W 104 27 3.33	
	3006.00	0.54	170.97	2997.96	17.15	125.10	-19.25	0.19	1432185.55	3291676.06	N 40 30 54.05 W 104 27 3.33	
	3101.00	0.41	211.00	3092.96	17.27	124.36	-19.35	0.37	1432184.81	3291675.95	N 40 30 54.04 W 104 27 3.33	
	3196.00	0.31	236.68	3187.96	17.66	123.93	-19.74	0.20	1432184.38	3291675.56	N 40 30 54.04 W 104 27 3.33	
	3291.00	0.10	185.68	3282.96	17.89	123.71	-19.96	0.27	1432184.16	3291675.34	N 40 30 54.04 W 104 27 3.34	
	3385.00	0.40	49.95	3376.96	17.64	123.84	-19.72	0.51	1432184.29	3291675.58	N 40 30 54.04 W 104 27 3.33	
	3480.00	0.72	69.74	3471.95	16.82	124.26	-18.91	0.39	1432184.71	3291676.40	N 40 30 54.04 W 104 27 3.32	
	3575.00	1.14	106.22	3566.94	15.36	124.20	-17.44	0.74	1432184.65	3291677.86	N 40 30 54.04 W 104 27 3.30	
	3669.00	0.76	199.81	3660.93	14.68	123.35	-16.75	1.50	1432183.80	3291678.55	N 40 30 54.03 W 104 27 3.29	
	3764.00	1.04	183.16	3755.92	14.97	121.90	-17.01	0.40	1432182.35	3291678.29	N 40 30 54.02 W 104 27 3.30	
	3858.00	0.18	44.15	3849.91	14.93	121.15	-16.96	1.26	1432181.60	3291678.35	N 40 30 54.01 W 104 27 3.30	
	3953.00	0.59	26.75	3944.91	14.59	121.70	-16.63	0.44	1432182.15	3291678.67	N 40 30 54.02 W 104 27 3.29	
	4048.00	0.86	53.94	4039.90	13.78	122.55	-15.84	0.45	1432183.00	3291679.47	N 40 30 54.02 W 104 27 3.28	
	4142.00	1.28	54.19	4133.89	12.34	123.58	-14.42	0.45	1432184.03	3291680.89	N 40 30 54.03 W 104 27 3.26	
	4237.00	0.91	121.14	4228.87	10.83	123.81	-12.91	1.31	1432184.26	3291682.39	N 40 30 54.04 W 104 27 3.24	
	4332.00	1.21	85.67	4323.86	9.19	123.50	-11.26	0.74	1432183.95	3291684.04	N 40 30 54.03 W 104 27 3.22	
	4426.00	0.25	237.62	4417.85	8.38	123.46	-10.45	1.53	1432183.91	3291684.86	N 40 30 54.03 W 104 27 3.21	
	4521.00	0.53	226.41	4512.85	8.88	123.05	-10.94	0.30	1432183.50	3291684.36	N 40 30 54.03 W 104 27 3.22	
	4616.00	0.45	247.65	4607.85	9.55	122.60	-11.60	0.21	1432183.06	3291683.70	N 40 30 54.02 W 104 27 3.23	
	4710.00	0.26	273.49	4701.85	10.10	122.48	-12.16	0.26	1432182.93	3291683.14	N 40 30 54.02 W 104 27 3.23	
	4805.00	0.28	280.90	4796.84	10.55	122.53	-12.60	0.04	1432182.99	3291682.70	N 40 30 54.02 W 104 27 3.24	
	4900.00	0.50	305.89	4891.84	11.11	122.82	-13.16	0.29	1432183.27	3291682.14	N 40 30 54.03 W 104 27 3.25	
	4995.00	0.78	308.04	4986.84	11.94	123.46	-14.01	0.30	1432183.91	3291681.29	N 40 30 54.03 W 104 27 3.26	
	5090.00	0.77	299.45	5081.83	12.99	124.17	-15.07	0.12	1432184.63	3291680.23	N 40 30 54.04 W 104 27 3.27	
	5184.00	0.85	301.39	5175.82	14.13	124.85	-16.22	0.09	1432185.30	3291679.08	N 40 30 54.05 W 104 27 3.29	
	5279.00	0.97	305.36	5270.81	15.37	125.68	-17.48	0.14	1432186.13	3291677.83	N 40 30 54.06 W 104 27 3.30	
	5374.00	0.54	37.34	5365.80	15.74	126.50	-17.86	1.19	1432186.95	3291677.44	N 40 30 54.06 W 104 27 3.31	
	5468.00	0.22	90.87	5459.80	15.29	126.85	-17.41	0.47	1432187.30	3291677.89	N 40 30 54.07 W 104 27 3.30	
	5563.00	0.32	288.46	5554.80	15.35	126.93	-17.48	0.56	1432187.38	3291677.82	N 40 30 54.07 W 104 27 3.30	
	5658.00	0.19	28.04	5649.80	15.53	127.16	-17.66	0.42	1432187.61	3291677.64	N 40 30 54.07 W 104 27 3.31	
	5753.00	0.24	2.52	5744.80	15.44	127.49	-17.58	0.11	1432187.95	3291677.73	N 40 30 54.07 W 104 27 3.30	
	5847.00	0.48	258.40	5838.80	15.81	127.61	-17.95	0.62	1432188.06	3291677.35	N 40 30 54.07 W 104 27 3.31	
	5941.00	0.54	326.81	5932.79	16.44	127.90	-18.58	0.61	1432188.35	3291676.72	N 40 30 54.08 W 104 27 3.32	
	6036.00	0.56	314.41	6027.79	17.00	128.60	-19.16	0.13	1432189.05	3291676.14	N 40 30 54.08 W 104 27 3.32	
	6050.00	0.45	326.97	6041.79	17.08	128.70	-19.24	1.11	1432189.15	3291676.07	N 40 30 54.09 W 104 27 3.33	
	6130.00	3.38	250.20	6121.74	19.48	128.16	-21.63	4.13	1432188.61	3291673.67	N 40 30 54.08 W 104 27 3.36	
	6175.00	9.47	252.92	6166.44	24.30	126.62	-26.42	13.55	1432187.07	3291668.88	N 40 30 54.07 W 104 27 3.42	
	6225.00	14.81	260.79	6215.30	34.58	124.39	-36.67	11.16	1432184.84	3291658.64	N 40 30 54.05 W 104 27 3.55	
	6319.00	20.32	272.28	6304.91	62.79	123.11	-64.86	6.90	1432183.57	3291630.44	N 40 30 54.04 W 104 27 3.92	
	6414.00	28.37	266.00	6391.41	101.87	122.19	-103.93	8.89	1432182.65	3291591.37	N 40 30 54.03 W 104 27 4.42	
	6509.00	41.31	266.06	6469.21	155.95	118.45	-157.96	13.62	1432178.90	3291537.35	N 40 30 54.00 W 104 27 5.12	
	6604.00	47.07	267.74	6537.31	222.10	114.92	-224.05	6.19	1432175.37	3291471.26	N 40 30 53.97 W 104 27 5.98	
	6698.00	54.47	267.48	6596.71	294.84	111.88	-296.75	7.88	1432172.33	3291398.56	N 40 30 53.95 W 104 27 6.92	
	6793.00	62.85	265.17	6646.08	375.80	106.61	-377.64	9.06	1432167.06	3291317.68	N 40 30 53.91 W 104 27 7.97	
	6888.00	65.84	265.30	6687								

Comments	MD (ft)	Incl (°)	Azim (°)	Grid (ft)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7192.00	86.46	266.14	6738.17	758.35	75.21	-759.72	1.14	1432135.67	3290935.61	N 40 30 53.64 W	104 27 12.92	
	7287.00	88.11	266.61	6742.67	853.14	69.21	-854.42	1.81	1432129.67	3290840.91	N 40 30 53.60 W	104 27 14.15	
	7382.00	89.42	268.12	6744.72	948.07	64.85	-949.29	2.10	1432125.30	3290746.04	N 40 30 53.56 W	104 27 15.38	
	7477.00	89.21	269.42	6745.85	1043.06	62.81	-1044.26	1.39	1432123.26	3290651.08	N 40 30 53.55 W	104 27 16.61	
	7571.00	89.38	270.67	6747.01	1137.04	62.88	-1138.25	1.34	1432123.34	3290557.09	N 40 30 53.57 W	104 27 17.82	
	7666.00	89.11	270.68	6748.26	1231.99	64.00	-1233.24	0.28	1432124.46	3290462.11	N 40 30 53.59 W	104 27 19.05	
	7761.00	88.45	270.61	6750.28	1326.93	65.07	-1328.21	0.70	1432125.53	3290367.14	N 40 30 53.61 W	104 27 20.28	
	7855.00	87.35	269.20	6753.73	1420.85	64.92	-1422.14	1.90	1432125.37	3290273.21	N 40 30 53.62 W	104 27 21.50	
	7950.00	85.67	267.85	6759.51	1515.67	62.48	-1516.93	2.27	1432122.93	3290178.43	N 40 30 53.61 W	104 27 22.73	
	8044.00	87.32	266.84	6765.26	1609.45	58.13	-1610.65	2.06	1432118.58	3290084.71	N 40 30 53.57 W	104 27 23.94	
	8139.00	87.18	264.35	6769.82	1704.16	50.84	-1705.25	2.62	1432111.30	3289990.11	N 40 30 53.51 W	104 27 25.17	
	8234.00	88.42	264.28	6773.46	1798.76	41.44	-1799.71	1.31	1432101.89	3289895.65	N 40 30 53.43 W	104 27 26.39	
	8328.00	89.18	263.76	6775.43	1892.38	31.65	-1893.18	0.98	1432092.10	3289802.19	N 40 30 53.35 W	104 27 27.60	
	8423.00	90.41	264.23	6775.77	1987.01	21.71	-1987.65	1.39	1432082.16	3289707.72	N 40 30 53.26 W	104 27 28.83	
	8518.00	90.58	265.88	6774.95	2081.78	13.52	-2082.29	1.75	1432073.98	3289613.08	N 40 30 53.15 W	104 27 30.05	
	8613.00	90.76	268.61	6773.84	2176.71	8.96	-2177.17	2.88	1432069.41	3289518.11	N 40 30 53.15 W	104 27 31.28	
	8707.00	90.96	269.81	6772.43	2270.70	7.66	-2271.15	1.29	1432068.12	3289424.23	N 40 30 53.15 W	104 27 32.50	
	8802.00	90.27	269.80	6771.41	2365.69	7.34	-2366.14	0.73	1432067.79	3289329.24	N 40 30 53.16 W	104 27 33.73	
	8897.00	89.31	268.57	6771.76	2460.68	5.99	-2461.13	1.64	1432066.44	3289234.26	N 40 30 53.16 W	104 27 34.96	
	8992.00	90.03	269.35	6772.31	2555.68	4.26	-2556.11	1.12	1432064.72	3289139.28	N 40 30 53.15 W	104 27 36.19	
	9086.00	91.51	271.31	6771.04	2649.64	4.80	-2650.09	2.61	1432065.26	3289045.30	N 40 30 53.17 W	104 27 37.40	
	9181.00	90.48	270.05	6769.39	2744.58	5.93	-2745.07	1.71	1432066.39	3288950.33	N 40 30 53.17 W	104 27 38.63	
	9276.00	91.65	271.77	6767.63	2839.51	7.44	-2840.03	2.19	1432067.89	3288855.37	N 40 30 53.22 W	104 27 39.86	
	9371.00	88.25	269.68	6767.71	2934.45	8.64	-2935.01	4.20	1432069.10	3288760.40	N 40 30 53.24 W	104 27 41.09	
	9465.00	89.28	270.17	6769.74	3028.42	8.52	-3028.98	1.21	1432068.97	3288666.42	N 40 30 53.25 W	104 27 42.31	
	9560.00	88.11	269.26	6771.90	3123.38	8.04	-3123.96	1.56	1432068.50	3288571.46	N 40 30 53.25 W	104 27 43.54	
	9655.00	87.70	269.48	6775.37	3218.32	7.00	-3218.89	0.49	1432067.46	3288476.53	N 40 30 53.26 W	104 27 44.77	
	9750.00	87.08	268.94	6779.70	3313.22	5.69	-3313.78	0.87	1432066.15	3288381.64	N 40 30 53.25 W	104 27 46.00	
	9844.00	88.32	269.45	6783.47	3407.14	4.37	-3407.69	1.43	1432064.83	3288287.73	N 40 30 53.25 W	104 27 47.21	
	9939.00	89.31	270.09	6785.44	3502.11	3.99	-3502.67	1.24	1432064.45	3288192.76	N 40 30 53.26 W	104 27 48.44	
	10034.00	90.52	269.75	6785.58	3597.10	3.86	-3597.67	1.32	1432064.31	3288097.76	N 40 30 53.27 W	104 27 49.67	
	10129.00	91.51	269.92	6783.89	3692.07	3.59	-3692.65	1.06	1432064.04	3288002.78	N 40 30 53.28 W	104 27 50.90	
	10224.00	91.86	269.25	6781.10	3787.02	2.90	-3787.60	0.80	1432063.35	3287907.83	N 40 30 53.28 W	104 27 52.13	
	10318.00	91.48	269.02	6778.36	3880.98	1.48	-3881.55	0.47	1432061.93	3287813.88	N 40 30 53.28 W	104 27 53.35	
	10412.00	91.65	269.10	6775.79	3974.95	-0.06	-3975.51	0.20	1432060.39	3287719.93	N 40 30 53.27 W	104 27 54.56	
	10507.00	90.82	268.46	6773.75	4069.92	-2.08	-4070.46	1.10	1432058.37	3287624.98	N 40 30 53.26 W	104 27 55.79	
	10601.00	90.69	268.89	6772.51	4163.91	-4.26	-4164.43	0.48	1432056.20	3287531.02	N 40 30 53.25 W	104 27 57.01	
	10695.00	90.79	268.33	6771.29	4257.90	-6.54	-4258.39	0.61	1432053.92	3287437.06	N 40 30 53.24 W	104 27 58.23	
	10790.00	90.65	268.40	6770.10	4352.89	-9.25	-4353.35	0.16	1432051.21	3287342.11	N 40 30 53.23 W	104 27 59.46	
	10885.00	91.99	269.29	6767.91	4447.86	-11.16	-4448.30	1.69	1432049.29	3287247.16	N 40 30 53.22 W	104 28 0.69	
	10978.00	88.87	269.09	6767.21	4540.85	-12.48	-4541.27	3.36	1432047.98	3287154.19	N 40 30 53.22 W	104 28 1.89	
	11071.00	89.59	269.24	6768.46	4633.84	-13.83	-4634.26	0.79	1432046.62	3287061.21	N 40 30 53.21 W	104 28 3.10	
	11165.00	88.18	268.00	6770.29	4727.81	-16.10	-4728.21	2.00	1432044.36	3286967.26	N 40 30 53.20 W	104 28 4.31	
	11260.00	89.35	268.11	6772.34	4822.77	-19.32	-4823.13	1.24	1432041.14	3286873.34	N 40 30 53.18 W	104 28 5.54	
	11353.00	90.52	267.74	6772.45	4915.76	-22.69	-4916.06	1.32	1432037.77	3286779.41	N 40 30 53.16 W	104 28 6.75	
	11448.00	91.07	267.69	6771.13	5010.72	-26.47	-5010.98	0.58	1432033.98	3286684.50	N 40 30 53.13 W	104 28 7.97	
	11543.00	88.69	266.51	6771.33	5105.66	-31.28	-5105.85	2.80	1432029.18	3286589.63	N 40 30 53.09 W	104 28 9.20	
	11636.00	88.32	266.26	6773.75	5198.53	-37.14	-5198.63	0.48	1432023.32	3286496.85	N 40 30 53.05 W	104 28 10.41	
	11729.00	89.69	271.44	6775.37	5291.48	-39.01	-5291.57	5.76	1432021.45	3286403.92	N 40 30 53.04 W	104 28 11.61	
	11822.00	89.28	273.59	6776.20	5384.30	-34.93	-5384.47	2.35	1432025.53	3286311.02	N 40 30 53.09 W	104 28 12.81	
	11917.00	89.69	275.33	6777.06	5478.86	-27.54	-5479.17	1.88	1432032.92	3286216.32	N 40 30 53.17 W	104 28 14.04	
	12011.00	91.20	274.29	6776.33	5572.38	-19.66	-5572.83	1.95	1432040.80	3286122.66	N 40 30 53.26 W	104 28 15.25	
	12106.00	90.65	273.36	6774.79	5667.04	-13.32	-5667.61	1.14	1432047.14	3286027.99	N 40 30 53.34 W	104 28 16.47	
	12201.00	89.28	270.70	6774.85	5761.90	-9.96	-5762.54	3.15	1432050.50	3285932.86	N 40 30 53.38 W	104 28 17.70	
	12296.00	90.27	267.57	6775.23	5856.88	-11.39	-5857.51	3.46	1432049.07	3285837.99	N 40 30 53.38 W	104 28 18.93	
	12391.00	91.37	262.54	6773.87	5951.81	-19.57	-5952.12	5.42	1432040.88	3285743.39	N 40 30 53.31 W	104 28 20.16	
	12485.00	91.17	262.64	6771.78	6044.99	-31.69	-6045.31	0.24	1432028.76	3285650.20	N 40 30 53.20 W	104 28 21.37	
	12580.00	91.20	262.11	6769.82	6139.33	-44.30	-6139.45	0.56	1432016.16	3285556.06	N 40 30 53.08 W	104 28 22.59	
	12675.00	91.00	262.66	6767.99	6233.67	-56.88	-6233.59	0.62	1432003.57	3285461.92	N 40 30 52.97 W	104 28 23.81	
	12770.00	90.96	263.56	6766.37	6328.15	-68.28	-6327.89	0.95	1431992.18	3285367.63	N 40 30 52.97 W	104 28 25.03	
	12864.00	90.72	264.48	6764.99	6421.78	-78.07	-6421.37	1.01	1431982.39	3285274.15	N 40 30 52.78 W	104 28 26.24	
	12959.00	90.69	265.39	6763.82	6516.53	-86.46	-6515.99	0.96	1431974.00	3285179.54	N 40 30 52.71 W	104 28 27.47	
	13054.00	90.62	266.78	6762.74	6611.39	-92.94	-6610.76	1.46	1431967.52	3285084.77	N 40 30 52.66 W	104 28 28.70	
	13149.00	90.10	267.61	6762.14	6706.34	-97.59	-6705.64	1.03	1431962.87	3284989.89	N 40 30 52.62 W	104 28 29.93	
	13244.00	90.38	267.98	6761.74	6801.31	-101.25	-6800.57	0.49	1431959.21	3284894.96	N 40 30 52.60 W	104 28 31.15	
	13338.00	89.24	267.42	6762.05	6895.29	-105.02	-6894.49	1.35	1431955.44	3284801.05	N 40 30 52.67 W	104 28 32.37	
	13432.00	89.00	268.83	6763.50	6989.26	-108.09	-6988.43	1.52	1431952.37	3284707.11	N 40 30 52.55 W	104 28 33.59	
	13527.00	89.11	269.78	6765.06	7084.25	-109.25	-7083.41	1.01	1431951.21	3284612.14	N 40 30 52.55 W	104 28 34.82	
	13622.00	90.72	272.21	6765.20	7179.18	-107.60	-7178.39	3.07	1431952.86	3284517.17	N 40 30 52.58 W	104 28 36.05	
	13716.00	89.35	271.28	6765.15	7273.07	-104.73	-7272.34	1.76	1431955.72	3284423.22	N 40 30 52.62 W	104 28 37.26	
	13811.00	89.28	270.75	6766.28	7368.01	-103.05	-7367.32	0.56	1431957.41	3284328.24	N 40 30 52.64 W	104 28 38.49	
	13905.00	89.31	269.40	6767.44	7461.98	-102.93	-7461.31	1.44	1431957.53	3284234.25	N 40 30 52.66 W	104 28 39.71	
	14000.00	89.00	269.05	6768.84	7556.97	-104.21	-7556.29	0.49	1431956.25	3284139.28	N 40 30 52.65 W	104 28 40.94	
	14094.00	89.73	270.26	6769.88	7650.96	-104.78	-7650.28	1.50	1431955.68	3284045.29	N 40 30 52.66 W	104 28 42.16	
	14189.00	89.31	268.84	6770.88	7745.95	-105.53	-7745.27	1.56	1431954.93	3283950.30	N 40 30 52.66 W	104 28 43.39	

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Survey Program:												
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey				
Vertical/Build	1	0.000	24.000	Act Stns	13.750	9.625	SLB_EMS-STD-Depth Only	Original Hole / NCLP AA06-65-1AHNC MWD+IFR 0' to 16458'				
Vertical/Build	1	24.000	562.000	Act Stns	13.750	9.625	SLB_EMS-STD	Original Hole / NCLP AA06-65-1AHNC MWD+IFR 0' to 16458'				
Vertical/Build	1	562.000	7035.000	Act Stns	8.750	7.000	SLB_MWD+IFR+DMAG	Original Hole / NCLP AA06-65-1AHNC MWD+IFR 0' to 16458'				
* Lateral	1	7035.000	16415.000	Act Stns	6.125	4.500	SLB_MWD+IFR+DMAG	Original Hole / NCLP AA06-65-1AHNC MWD+IFR 0' to 16458'				
Bit Projection	1	16415.000	16458.000	Act Stns	6.125	4.500	SLB_BLIND+TREND	Original Hole / NCLP AA06-65-1AHNC MWD+IFR 0' to 16458'				
							* SLB_MWD+IFR+DMAG = MWD+IFR1+MS_WY					