

Noble Energy

CO, Weld County (NAD 83 NZ)
Sec 1 Twn 9 N Rng 58 W
Mecklenburg State LD01-72-1AHN Original Hole
05-123-39695
H&P 326



A Schlumberger Company

Final Survey Report

3-Nov-2014

Well Coordinates:	NAD83 CO State Plane, N Zone, US Feet
	N 40° 46' 27.37200" W 103° 48' 24.84000"
	1529389.05 usFt 3468913.98 usFt
Ground Level:	4652.00 ft MSL
TVD Reference:	KB 30ft @ 4682.00 ft MSL
Local Coordinate Origin:	Mecklenburg State LD01-72-1AHN well head
Vertical Section Azimuth:	2.660 ° (Grid North)
North Reference:	Grid North

DOX Version: 2.8

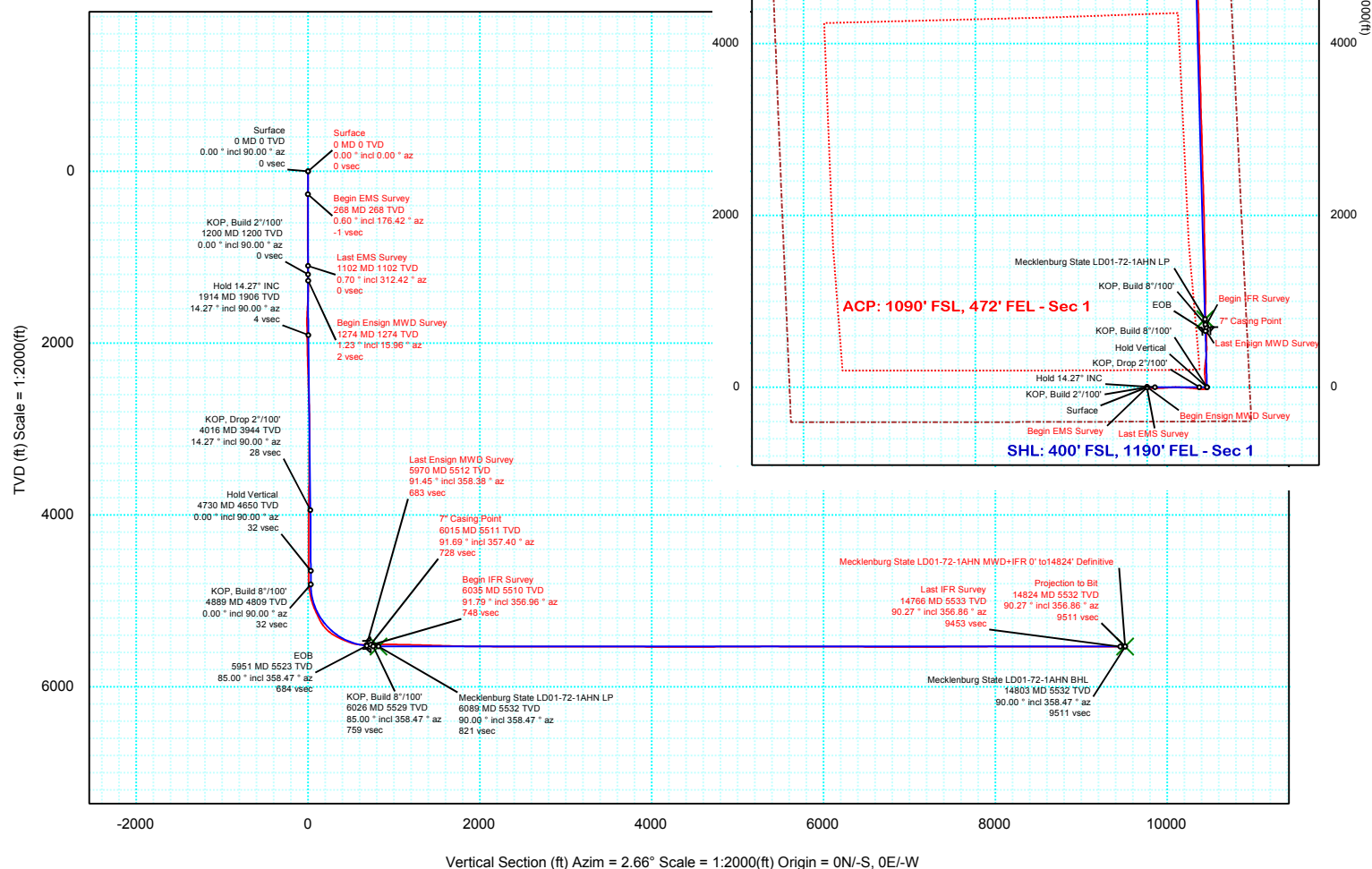
Borehole: Original Hole	Well: Mecklenburg State LD01-72-1AHN	Field: CO, Weld County (NAD 83 NZ)	Structure: Noble 01-09N-58W (Mecklenburg State LD01 Pad) - H&P 326
Gravity & Magnetic Parameters Model: BGGM 2014 Dip: 67.375° Date: 03-Nov-2014 MagDec: 8° FS: 52955.715nT Gravity FS: 999.109mgm (9.80665 Based)		Surface Location NAD83 Colorado State Plane, Northern Zone, US Feet Lat: N 40 46 27.37 Northing: 1529390.48ftU Grid Conv: 1.0941° Lon: W 103 48 23.87 Easting: 3468988.74ftU Scale Fact: 0.99999854	
		Miscellaneous Mecklenburg Slot: State LD01-72-1AHN TVD Ref: KB 30ft(4682ft above MSL) Plan: Mecklenburg State LD01-72-1AHN MWD+IFR 0' to 14824' Definitive	

PvA



Grid North
Tot Corr (M->G 6.906°)
Mag Dec (8.000°)
Grid Conv (1.094°)

EW (ft) Scale = 1:2000(ft)





Mecklenburg State LD01-72-1AHN MWD+IFR 0' to 14824' Definitive Survey
Geodetic Report
(Def Survey)



Report Date: November 03, 2014 - 11:02 AM
Client: Noble Energy
Field: CO, Weld County (NAD 83 NZ)
Structure / Slot: Noble 01-09N-58W (Mecklenburg State LD01 Pad) - H&P 326 / Mecklenburg State LD01-72-1AHN
Well: Mecklenburg State LD01-72-1AHN
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Mecklenburg State LD01-72-1AHN MWD+IFR 0' to 14824' Definitive
Survey Date: November 03, 2014
Tort / AHD / DDI / ERD Ratio: 242.453 ° / 10230.485 ft / 6.822 / 1.848
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 46' 27.37200", W 103° 48' 23.86800"
Location Grid N/E Y/X: N 1529390.476 ftUS, E 3468988.744 ftUS
CRS Grid Convergence Angle: 1.0941 °
Grid Scale Factor: 0.99999854
Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 2.660 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 30ft
TVD Reference Elevation: 4682.000 ft above MSL
Seabed / Ground Elevation: 4652.000 ft above MSL
Magnetic Declination: 8.000 °
Total Gravity Field Strength: 999.1089mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52955.715 nT
Magnetic Dip Angle: 67.375 °
Declination Date: November 03, 2014
Magnetic Declination Model: BGGM 2014
North Reference: Grid North
Grid Convergence Used: 1.0941 °
Total Corr Mag North->Grid North: 6.9057 °
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	0.00	0.00	0.00	0.00	0.00	N/A	1529390.48	3468988.74	N 40 46 27.37	W 103 48 23.87
Begin EMS Survey	268.00	0.60	176.42	268.00	-1.39	-1.40	0.09	0.22	1529389.08	3468988.83	N 40 46 27.36	W 103 48 23.87
	545.00	0.20	50.52	544.99	-2.51	-2.54	0.55	0.27	1529387.94	3468989.30	N 40 46 27.35	W 103 48 23.86
	824.00	0.60	290.20	823.99	-1.75	-1.73	-0.44	0.26	1529388.75	3468988.30	N 40 46 27.36	W 103 48 23.87
Last EMS Survey	1102.00	0.70	312.42	1101.97	-0.22	-0.08	-3.06	0.10	1529390.40	3468985.68	N 40 46 27.37	W 103 48 23.91
Begin Ensign MWD Survey	1274.00	1.23	15.96	1273.95	2.25	2.41	-3.33	0.65	1529392.88	3468985.41	N 40 46 27.40	W 103 48 23.91
	1304.00	1.93	70.63	1303.94	2.75	2.88	-2.77	5.26	1529393.36	3468985.98	N 40 46 27.40	W 103 48 23.90
	1397.00	5.01	106.66	1396.76	2.36	2.24	2.60	3.90	1529392.71	3468991.35	N 40 46 27.39	W 103 48 23.83
	1490.00	7.30	108.07	1489.22	-0.20	-0.76	12.11	2.47	1529389.72	3469000.86	N 40 46 27.36	W 103 48 23.71
	1582.00	9.23	119.85	1580.27	-5.12	-6.25	24.07	2.78	1529384.23	3469012.81	N 40 46 27.31	W 103 48 23.56
	1675.00	11.34	103.50	1671.79	-10.25	-12.09	39.43	3.85	1529378.38	3469028.18	N 40 46 27.25	W 103 48 23.36
	1767.00	13.28	90.67	1761.69	-11.59	-14.33	58.80	3.63	1529376.15	3469047.55	N 40 46 27.22	W 103 48 23.11
	1859.00	13.37	88.21	1851.21	-10.39	-14.12	80.00	0.62	1529376.35	3469068.74	N 40 46 27.22	W 103 48 22.83
	1952.00	13.37	88.03	1941.69	-8.69	-13.42	101.49	0.04	1529377.06	3469090.24	N 40 46 27.22	W 103 48 22.55
	2045.00	13.37	88.03	2032.17	-6.96	-12.68	122.99	0.00	1529377.80	3469111.73	N 40 46 27.22	W 103 48 22.27
	2138.00	12.93	86.80	2122.73	-5.03	-11.73	144.12	0.56	1529378.75	3469132.86	N 40 46 27.23	W 103 48 22.00
	2231.00	14.51	86.80	2213.07	-2.77	-10.50	166.14	1.70	1529379.98	3469154.89	N 40 46 27.24	W 103 48 21.71
	2325.00	14.42	86.62	2304.09	-0.34	-9.15	189.58	0.11	1529381.33	3469178.33	N 40 46 27.25	W 103 48 21.41
	2418.00	14.51	86.10	2394.15	2.21	-7.67	212.77	0.17	1529382.80	3469201.51	N 40 46 27.26	W 103 48 21.10
	2511.00	14.42	85.92	2484.20	4.90	-6.06	235.94	0.11	1529384.42	3469224.68	N 40 46 27.27	W 103 48 20.80
	2603.00	14.51	85.75	2573.28	7.63	-4.39	258.86	0.11	1529386.09	3469247.60	N 40 46 27.28	W 103 48 20.51
	2696.00	14.25	85.22	2663.37	10.51	-2.57	281.89	0.31	1529387.91	3469270.63	N 40 46 27.29	W 103 48 20.21
	2790.00	13.98	83.81	2754.53	13.76	-0.38	304.70	0.47	1529390.09	3469293.45	N 40 46 27.31	W 103 48 19.91
	2885.00	12.66	89.61	2846.98	16.08	0.93	326.52	1.98	1529391.40	3469315.27	N 40 46 27.32	W 103 48 19.62
	2980.00	12.84	93.13	2939.64	16.55	0.42	347.47	0.84	1529390.90	3469336.22	N 40 46 27.31	W 103 48 19.35
	3074.00	14.33	94.53	3031.00	16.08	-1.07	369.50	1.62	1529389.41	3469358.24	N 40 46 27.29	W 103 48 19.07
	3169.00	14.51	93.13	3123.01	15.60	-2.65	393.10	0.41	1529387.83	3469381.85	N 40 46 27.27	W 103 48 18.76
	3263.00	14.60	93.66	3213.99	15.30	-4.05	416.69	0.17	1529386.43	3469405.43	N 40 46 27.25	W 103 48 18.45
	3358.00	14.95	93.83	3305.85	14.84	-5.63	440.86	0.37	1529384.85	3469429.60	N 40 46 27.23	W 103 48 18.14
	3452.00	15.48	93.48	3396.56	14.41	-7.20	465.48	0.57	1529383.28	3469454.22	N 40 46 27.21	W 103 48 17.82
	3547.00	14.77	93.48	3488.27	14.06	-8.70	490.22	0.75	1529381.77	3469478.97	N 40 46 27.19	W 103 48 17.50
	3642.00	13.72	95.06	3580.34	13.41	-10.43	513.53	1.18	1529380.04	3469502.28	N 40 46 27.17	W 103 48 17.20
	3736.00	11.61	97.70	3672.05	12.11	-12.68	534.01	2.33	1529377.79	3469522.75	N 40 46 27.15	W 103 48 16.93
	3830.00	10.73	97.00	3764.27	10.62	-15.02	552.07	0.95	1529375.46	3469540.81	N 40 46 27.12	W 103 48 16.70
	3925.00	10.29	96.12	3857.68	9.44	-17.00	569.29	0.49	1529373.48	3469558.03	N 40 46 27.10	W 103 48 16.47
	4020.00	9.76	96.47	3951.23	8.39	-18.81	585.72	0.56	1529371.66	3469574.47	N 40 46 27.08	W 103 48 16.26
	4114.00	9.67	96.12	4043.88	7.38	-20.55	601.49	0.11	1529369.92	3469590.23	N 40 46 27.06	W 103 48 16.06
	4208.00	8.53	95.06	4136.69	6.62	-22.01	616.28	1.23	1529368.47	3469605.03	N 40 46 27.04	W 103 48 15.86
	4302.00	7.65	90.67	4229.76	6.54	-22.70	629.49	1.14	1529367.78	3469618.23	N 40 46 27.03	W 103 48 15.69
	4397.00	7.03	92.78	4323.98	6.75	-23.05	641.61	0.71	1529367.42	3469630.36	N 40 46 27.02	W 103 48 15.54
	4491.00	6.24	95.59	4417.35	6.48	-23.83	652.44	0.91	1529366.65	3469641.19	N 40 46 27.01	W 103 48 15.40
	4585.00	5.10	93.48	4510.89	6.16	-24.58	661.70	1.23	1529365.90	3469650.44	N 40 46 27.00	W 103 48 15.28
	4680.00	4.13	91.72	4605.58	6.15	-24.94	669.33	1.03	1529365.54	3469658.08	N 40 46 27.00	W 103 48 15.18
	4774.00	3.17	91.72	4699.39	6.25	-25.12	675.32	1.02	1529365.36	3469664.06	N 40 46 27.00	W 103 48 15.10
	4869.00	4.13	53.93	4794.21	8.43	-23.18	680.71	2.66	1529367.29	3469669.45	N 40 46 27.01	W 103 48 15.03
	4964.00	10.11	353.64	4888.53	18.83	-12.86	682.55	9.28	1529377.61	3469671.29	N 40 46 27.12	W 103 48 15.00
	5058.00	13.89	355.75	4980.46	38.18	6.60	680.80	4.05	1529397.07	3469669.54	N 40 46 27.31	W 103 48 15.02
	5153.00	21.90	359.96	5070.80	67.25	35.73	679.94	8.54	1529426.21	3469668.68	N 40 46 27.60	W 103 48 15.02
	5248.00	24.89	354.69	5157.98	104.76	73.37	678.08	3.84	1529463.84	3469666.82	N 40 46 27.97	W 103 48 15.04
	5342.00	30.16	352.41	5241.32	147.62	116.50	673.13	5.72	1529506.98	3469661.87	N 40 46 28.40	W 103 48 15.09
	5436.00	41.24	358.56	5317.56	201.94	171.07	669.22	12.38	1529561.55	3469657.96	N 40 46 28.94	W 103 48 15.13
	5531.00	55.13	5.24	5380.78	272.50	241.57	672.00	15.52	1529632.05	3469660.75	N 40 46 29.63	W 103 48 15.08
	5625.00	64.98	8.93	5427.66	353.58	322.26	682.16	11.01	1529712.74	3469670.91	N 40 46 30.43	W 103 48 14.92
	5719.00	66.83	2.07	5466.07	439.21	407.61	690.34	6.95	1529798.09	3469679.09	N 40 46 31.27	W 103 48 14.80
	5814.00	74.57	358.21	5497.46	528.69	497.18	690.49	9.00	1529887.66	3469679.23	N 40 46 32.15	W 103 48 14.77
	5909.00	88.11	359.09	5511.73	622.16	590.86	688.30	14.28	1529981.33	3469677.04	N 40 46 33.08	W 103 48 14.78
Last Ensign MWD Survey	5970.00	91.45	358.38	5511.96	683.01	651.83	686.95	5.60	1530042.31	3469675.69	N 40 46 33.68	W 103 48 14.78
7" Casing Point	6015.00	91.69	357.40	5510.73	727.84	696.78	685.29	2.25	1530087.26	3469674.04	N 40 46 34.13	W 103 48 14.79
Begin IFR Survey	6035.00	91.79	356.96	5510.12	747.74	716.75	684.31	2.25	1530107.22	3469673.05	N 40 46 34.32	W 103 48 14.80
	6130.00	90.72	356.64	5508.04	842.22	811.58	679.01	1.18	1530202.05	3469667.75	N 40 46 35.26	W 103 48 14.84
	6223.00	89.90	0.22	5507.54	934.94	904.53	676.46	3.95	1530295.00	3469665.20	N 40 46 36.18	W 103 48 14.85
	6317.00	88.73	2.45	5508.66	1028.91	998.49	678.65	2.68	1530388.96	3469667.39	N 40 46 37.11	W 103 48 14.80
	6411.00	89.21	359.11	5510.35	1122.83	1092.45	679.93	3.59	1530482.92	3469668.67	N 40 46 38.04	W 103 48 14.76
	6506.00	88.18	359.22	5512.52	1217.62	1187.41	678.54	1.09	1530577.88	3469667.29	N 40 46 38.97	W 103 48 14.76
	6599.00	88.31	357.92	5515.37	1310.34	1280.34	676.22	1.40	1530670.81	3469664.97	N 40 46 39.89	W 103 48 14.76
	6694.00	88.45	359.24	5518.05	1405.06	1375.27	673.87	1.40	1530765.74	3469662.61	N 40 46 40.83	W 103 48 14.77
	6787.00	88.45	357.71	5520.57	1497.78	1468.20	671.40	1.64	1530858.67	3469660.14	N 40 46 41.75	W 103 48 14.78
	6881.00	88.49	359.00	5523.08	1591.47	1562.12	668.70	1.37	1530952.59	3469657.44	N 40 46 42.68	W 103 48 14.79
	6977.00	88.42	359.29	5525.67	1687.26	1658.08	667.27	0.31	1531048.55	3469656.01	N 40 46 43.63	W 103 48 14.78
	7071.00	88.73	358.19	5528.00	1781.01	1752.03	665.20	1.22	1531142.50	3469653.94	N 40 46 44.55	W 103 48 14.79
	7165.00	88.90	359.70	5529.95	1874.79	1845.99	663.47	1.62	1531236.46	3469652.21	N 40 46 45.48	

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 ° ' ")
	7353.00	89.69	358.73	5532.01	2062.38	2033.94	660.08	0.26	1531424.41	3469648.83	N 40 46 47.34 W	103 48 14.78
	7447.00	89.90	358.05	5532.34	2156.12	2127.90	657.44	0.76	1531518.37	3469646.18	N 40 46 48.27 W	103 48 14.80
	7541.00	89.83	358.29	5532.57	2249.83	2221.85	654.44	0.27	1531612.32	3469643.18	N 40 46 49.20 W	103 48 14.81
	7635.00	89.86	358.52	5532.82	2343.57	2315.82	651.82	0.25	1531706.28	3469640.57	N 40 46 50.13 W	103 48 14.82
	7729.00	89.97	357.49	5532.96	2437.26	2409.76	648.55	1.10	1531800.23	3469637.29	N 40 46 51.06 W	103 48 14.84
	7823.00	89.86	357.49	5533.10	2530.88	2503.67	644.44	0.12	1531894.14	3469633.18	N 40 46 51.98 W	103 48 14.87
	7917.00	90.58	0.17	5532.74	2624.66	2597.64	642.52	2.95	1531988.11	3469631.26	N 40 46 52.91 W	103 48 14.87
	8011.00	89.76	358.52	5532.46	2718.50	2691.63	641.44	1.96	1532082.09	3469630.18	N 40 46 53.84 W	103 48 14.86
	8105.00	89.93	357.82	5532.71	2812.21	2785.58	638.44	0.77	1532176.05	3469627.18	N 40 46 54.77 W	103 48 14.88
	8199.00	89.90	358.73	5532.85	2905.93	2879.54	635.61	0.97	1532270.00	3469624.35	N 40 46 55.70 W	103 48 14.89
	8293.00	89.73	358.49	5533.16	2999.70	2973.51	633.33	0.31	1532363.97	3469622.07	N 40 46 56.63 W	103 48 14.90
	8387.00	89.93	357.44	5533.43	3093.38	3067.45	629.99	1.14	1532457.91	3469618.73	N 40 46 57.56 W	103 48 14.92
	8482.00	89.86	358.09	5533.61	3188.03	3162.37	626.29	0.69	1532552.84	3469615.03	N 40 46 58.50 W	103 48 14.94
	8576.00	89.76	358.87	5533.92	3281.78	3256.34	623.79	0.84	1532646.80	3469612.54	N 40 46 59.42 W	103 48 14.95
	8670.00	89.86	359.24	5534.23	3375.59	3350.33	622.24	0.41	1532740.79	3469610.99	N 40 47 0.35 W	103 48 14.95
	8763.00	89.76	358.25	5534.54	3468.37	3443.30	620.21	1.07	1532833.77	3469608.95	N 40 47 1.27 W	103 48 14.95
	8857.00	89.93	358.01	5534.79	3562.08	3537.25	617.14	0.31	1532927.71	3469605.88	N 40 47 2.20 W	103 48 14.97
	8952.00	89.79	358.07	5535.03	3656.77	3632.19	613.89	0.16	1533022.66	3469602.63	N 40 47 3.14 W	103 48 14.99
	9047.00	90.00	358.50	5535.20	3751.49	3727.15	611.05	0.50	1533117.62	3469599.79	N 40 47 4.08 W	103 48 15.00
	9141.00	89.86	358.51	5535.32	3845.25	3821.12	608.59	0.15	1533211.58	3469597.34	N 40 47 5.01 W	103 48 15.01
	9236.00	89.62	358.30	5535.75	3939.98	3916.08	605.95	0.34	1533306.54	3469594.69	N 40 47 5.95 W	103 48 15.02
	9330.00	89.83	358.93	5536.20	4033.75	4010.05	603.68	0.71	1533400.52	3469592.42	N 40 47 6.87 W	103 48 15.03
	9425.00	89.83	358.46	5536.48	4128.52	4105.03	601.52	0.49	1533495.49	3469590.26	N 40 47 7.81 W	103 48 15.03
	9519.00	89.97	0.33	5536.64	4222.36	4199.02	600.52	1.99	1533589.48	3469589.26	N 40 47 8.74 W	103 48 15.02
	9613.00	89.76	358.57	5536.87	4316.21	4293.01	599.62	1.89	1533683.47	3469588.36	N 40 47 9.67 W	103 48 15.01
	9708.00	89.79	358.82	5537.24	4410.85	4387.93	595.80	1.84	1533778.39	3469584.54	N 40 47 10.61 W	103 48 15.03
	9802.00	89.97	358.00	5537.44	4504.45	4481.83	591.55	1.27	1533872.29	3469580.29	N 40 47 11.54 W	103 48 15.07
	9896.00	90.45	357.91	5537.09	4598.14	4575.77	588.20	0.52	1533966.23	3469576.94	N 40 47 12.47 W	103 48 15.09
	9990.00	90.55	358.91	5536.27	4691.87	4669.73	585.59	1.07	1534060.19	3469574.33	N 40 47 13.39 W	103 48 15.10
	10084.00	90.69	357.78	5535.25	4785.60	4763.68	582.88	1.21	1534154.14	3469571.62	N 40 47 14.32 W	103 48 15.11
	10178.00	90.21	359.28	5534.52	4879.35	4857.65	580.46	1.68	1534248.10	3469569.21	N 40 47 15.25 W	103 48 15.12
	10271.00	90.21	358.00	5534.17	4972.12	4950.62	578.26	1.38	1534341.08	3469567.00	N 40 47 16.17 W	103 48 15.12
	10365.00	90.24	358.23	5533.81	5065.82	5044.57	575.16	0.25	1534435.02	3469563.91	N 40 47 17.10 W	103 48 15.14
	10459.00	90.31	357.87	5533.35	5159.52	5138.51	571.97	0.39	1534528.97	3469560.71	N 40 47 18.03 W	103 48 15.16
	10552.00	90.83	358.45	5532.43	5252.23	5231.46	568.98	0.84	1534621.91	3469557.72	N 40 47 18.95 W	103 48 15.17
	10644.00	89.90	358.06	5531.84	5343.95	5323.41	566.18	1.10	1534713.87	3469554.92	N 40 47 19.86 W	103 48 15.19
	10735.00	89.76	358.18	5532.11	5434.66	5414.36	563.19	0.20	1534804.82	3469551.94	N 40 47 20.76 W	103 48 15.20
	10828.00	89.83	358.56	5532.45	5527.40	5507.32	560.55	0.42	1534897.78	3469549.29	N 40 47 21.67 W	103 48 15.21
	10921.00	89.90	357.25	5532.66	5620.08	5600.26	557.15	1.41	1534990.72	3469545.89	N 40 47 22.59 W	103 48 15.24
	11014.00	89.48	358.78	5533.17	5712.77	5693.20	553.93	1.71	1535083.65	3469542.67	N 40 47 23.51 W	103 48 15.25
	11107.00	89.93	358.44	5533.65	5805.54	5786.17	551.67	0.61	1535176.63	3469540.41	N 40 47 24.43 W	103 48 15.26
	11200.00	89.86	357.43	5533.82	5898.22	5879.11	548.32	1.09	1535269.56	3469537.06	N 40 47 25.35 W	103 48 15.28
	11293.00	89.83	358.72	5534.07	5990.92	5972.05	545.20	1.39	1535362.51	3469533.94	N 40 47 26.27 W	103 48 15.30
	11386.00	89.93	357.60	5534.26	6083.63	6065.00	542.21	1.21	1535455.46	3469530.95	N 40 47 27.19 W	103 48 15.31
	11480.00	89.83	359.24	5534.46	6177.37	6158.96	539.62	1.75	1535549.42	3469528.36	N 40 47 28.12 W	103 48 15.32
	11572.00	89.79	357.47	5534.77	6269.12	6250.92	536.98	1.92	1535641.38	3469525.72	N 40 47 29.02 W	103 48 15.34
	11664.00	89.69	359.17	5535.18	6360.84	6342.88	534.28	1.85	1535733.33	3469523.02	N 40 47 29.93 W	103 48 15.35
	11758.00	89.79	357.34	5535.61	6454.56	6436.83	531.42	1.95	1535827.28	3469520.16	N 40 47 30.86 W	103 48 15.36
	11849.00	89.90	358.08	5535.86	6545.22	6527.76	527.78	0.82	1535918.21	3469516.52	N 40 47 31.76 W	103 48 15.39
	11943.00	89.83	358.93	5536.08	6638.97	6621.72	525.33	0.91	1536012.18	3469514.07	N 40 47 32.69 W	103 48 15.40
	12036.00	89.97	358.27	5536.24	6731.73	6714.69	523.06	0.73	1536105.15	3469511.80	N 40 47 33.61 W	103 48 15.40
	12129.00	89.86	358.71	5536.38	6824.99	6807.66	520.61	0.49	1536198.11	3469509.35	N 40 47 34.53 W	103 48 15.41
	12222.00	90.00	358.97	5536.49	6917.28	6900.64	518.72	0.32	1536291.09	3469507.47	N 40 47 35.45 W	103 48 15.41
	12314.00	89.97	358.20	5536.52	7009.05	6992.61	516.45	0.84	1536383.07	3469505.19	N 40 47 36.36 W	103 48 15.42
	12408.00	89.86	357.72	5536.65	7102.73	7086.55	513.11	0.52	1536477.01	3469501.85	N 40 47 37.28 W	103 48 15.44
	12502.00	89.90	357.04	5536.85	7196.33	7180.45	508.81	0.72	1536570.91	3469497.55	N 40 47 38.21 W	103 48 15.47
	12596.00	90.21	358.60	5536.76	7289.99	7274.38	505.23	1.69	1536664.83	3469493.98	N 40 47 39.14 W	103 48 15.49
	12690.00	90.52	357.40	5536.16	7383.68	7368.32	501.95	1.32	1536758.77	3469490.70	N 40 47 40.07 W	103 48 15.51
	12784.00	90.34	358.08	5535.46	7477.33	7462.25	498.25	0.75	1536852.70	3469486.99	N 40 47 41.00 W	103 48 15.54
	12878.00	90.38	359.18	5534.87	7571.09	7556.22	496.00	1.17	1536946.67	3469484.74	N 40 47 41.93 W	103 48 15.54
	12973.00	90.34	358.61	5534.27	7665.89	7651.20	494.17	0.60	1537041.65	3469482.91	N 40 47 42.87 W	103 48 15.54
	13067.00	90.41	359.16	5533.65	7759.68	7745.18	492.34	0.59	1537135.63	3469481.08	N 40 47 43.79 W	103 48 15.55
	13161.00	90.62	1.03	5532.81	7853.58	7839.17	492.49	2.00	1537229.62	3469481.24	N 40 47 44.72 W	103 48 15.52
	13255.00	90.03	358.72	5532.28	7947.46	7933.16	492.29	2.54	1537323.61	3469481.03	N 40 47 45.65 W	103 48 15.50
	13349.00	89.79	0.41	5532.42	8041.32	8027.15	491.58	1.82	1537417.60	3469480.32	N 40 47 46.58 W	103 48 15.48
	13443.00	90.07	0.14	5532.54	8135.24	8121.15	492.03	0.41	1537511.60	3469480.77	N 40 47 47.51 W	103 48 15.46
	13538.00	89.55	357.35	5532.85	8230.00	8216.12	489.95	2.99	1537606.57	3469478.69	N 40 47 48.45 W	103 48 15.46
	13632.00	89.79	358.43	5533.39	8323.67	8310.05	486.49	1.18	1537700.50	3469475.23	N 40 47 49.38 W	103 48 15.48
	13727.00	89.79	357.68	5533.74	8418.37	8405.00	483.26	0.79	1537795.44	3469472.00	N 40 47 50.31 W	103 48 15.50
	13821.00	89.83	356.75	5534.05	8511.94	8498.88	478.69	0.99	1537889.33	3469467.44	N 40 47 51.24 W	103 48 15.54
	13916.00	89.97	359.09	5534.22	8606.61	8593.81	475.25	2.47	1537984.26	3469463.99	N 40 47 52.18 W	103 48 15.56
	14010.00	89.90	357.44	5534.35	8700.33	8687.77	472.40	1.76	1538078.21	3469461.14	N 40 47 53.11 W	103 48 15.57
	14105.00	89.93	358.81	5534.47	8795.03	8782.71	469.29	1.44	1538173.16	3469458.03	N 40 47 54.05 W	103 48 15.59
	14200.00	89.79	358.48	5534.70	8889.80	8877.69	467.05	0.38	1538268.13	3469455.79	N 40 47 54.99 W	103 48 15.59
	14294.00	90.03	358.35	5534.85	8983.54	8971.65	464.45	0.29	1538362.10	3469453.		