

Noble Energy

CO, Weld County (NAD 83 NZ)
Sec 10 Twn 2 N Rng 64 W
Oscar Y10-73HN Original Hole
05-123-37944
H&P 277



A Schlumberger Company

Final Survey Report

14-Oct-2014

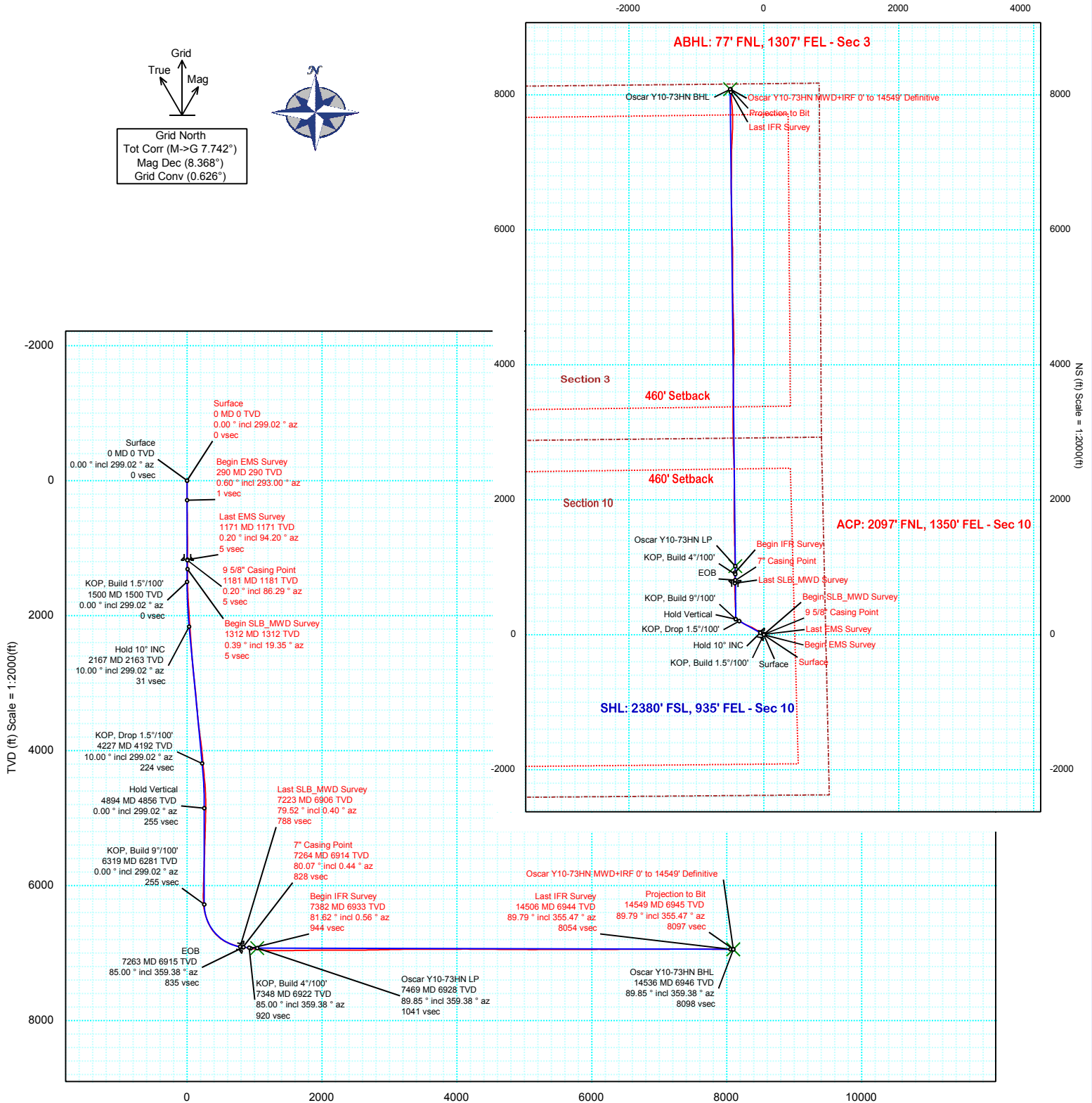
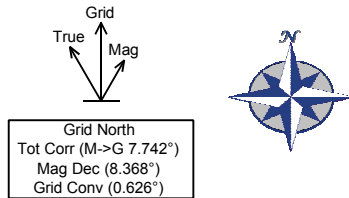
Well Coordinates:	NAD83 CO State Plane,N Zone, US Feet
	N 40° 9' 7.99200" W 104° 31' 51.27600"
	1299777.27 usFt 3270882.66 usFt
Ground Level:	4927.00 ft MSL
TVD Reference:	KB 24ft @ 4951.00 ft MSL
Local Coordinate Origin:	Oscar Y10-73HN well head
Vertical Section Azimuth:	356.466 ° (Grid North)
North Reference:	Grid North

DOX Version: 2.8

Borehole: Original Hole	Well: Oscar Y10-73HN	Field: CO, Weld County (NAD 83 NZ)	Structure: 10-2N-64W (Oscar Y10-73HN Pad) - H&P 277
Gravity & Magnetic Parameters Model: BGGM 2014 Dip: 66.768° Date: 01-Oct-2014 MagDec: 8.368° FS: 52569.389nT Gravity FS: 999.008mgn (9.80665 Based)		Surface Location NAD83 Colorado State Plane, Northern Zone, US Feet Lat: N 40 9 7.99 Northing: 1299775.62ftU Grid Conv: 0.6258° Lon: W 104 31 53.22 Easting: 3270731.72ftU Scale Fact: 0.99995832	
		Miscellaneous Slot: Oscar Y10-73HN TVD Ref: KB 24ft(4951ft above MSL) Plan: Oscar Y10-73HN MWD+IRF 0' to 14549' Definitive	

PvA

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



Vertical Section (ft) Azim = 356.47° Scale = 1:2000(ft) Origin = 0N/-S, 0E/-W



Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive Survey Geodetic Report

(Def Survey)

Report Date: October 15, 2014 - 08:26 AM
Client: Noble Energy
Field: CO, Weld County (NAD 83 NZ)
Structure / Slot: Noble 10-2N-64W (Oscar Y10-73HN Pad) - H&P 277 / Oscar Y10-73HN
Well: Oscar Y10-73HN
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive
Survey Date: October 01, 2014
Tort / AHD / DDI / ERD Ratio: 183.995 ° / 8418.240 ft / 6.510 / 1.209
Coordinate Reference System: NAD83 Colorado State Plane, Northern Zone, US Feet
Location Lat / Long: N 40° 9' 7.99200", W 104° 31' 53.22000"
Location Grid N/E Y/X: N 1299775.620 ftUS, E 3270731.722 ftUS
CRS Grid Convergence Angle: 0.6258 °
Grid Scale Factor: 0.99995832
Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 356.466 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 24ft
TVD Reference Elevation: 4951.000 ft above MSL
Seabed / Ground Elevation: 4927.000 ft above MSL
Magnetic Declination: 8.368 °
Total Gravity Field Strength: 999.0080mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 52569.389 nT
Magnetic Dip Angle: 66.768 °
Declination Date: October 01, 2014
Magnetic Declination Model: BGGM 2014
North Reference: Grid North
Grid Convergence Used: 0.6258 °
Total Corr Mag North->Grid North: 7.7419 °
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	299.02	0.00	0.00	0.00	0.00	N/A	1299775.62	3270731.72	N 40 9 7.99 W 104 31 53.22	
Begin EMS	290.00	0.60	293.00	289.99	0.68	0.59	-1.40	0.21	1299776.21	3270730.32	N 40 9 8.00 W 104 31 53.24	
Survey	570.00	0.80	16.60	569.98	3.17	3.04	-2.19	0.34	1299778.66	3270729.53	N 40 9 8.02 W 104 31 53.25	
	919.00	0.30	100.10	918.97	5.24	5.21	-0.59	0.24	1299780.83	3270731.13	N 40 9 8.04 W 104 31 53.23	
Last EMS	1171.00	0.20	94.20	1170.96	5.03	5.07	0.49	0.04	1299780.69	3270732.22	N 40 9 8.04 W 104 31 53.21	
Survey	1181.00	0.19	86.29	1180.96	5.02	5.07	0.53	0.28	1299780.69	3270732.25	N 40 9 8.04 W 104 31 53.21	
9 5/8" Casing												
Point												
Begin												
SLB_MWD	1312.00	0.39	19.35	1311.96	5.44	5.50	0.90	0.28	1299781.12	3270732.62	N 40 9 8.05 W 104 31 53.21	
Survey	1407.00	0.48	351.90	1406.96	6.13	6.20	0.95	0.24	1299781.82	3270732.67	N 40 9 8.05 W 104 31 53.21	
	1501.00	0.51	325.46	1500.96	6.88	6.94	0.66	0.24	1299782.56	3270732.38	N 40 9 8.06 W 104 31 53.21	
	1595.00	2.89	320.60	1594.91	9.16	9.11	-1.08	2.54	1299784.73	3270730.64	N 40 9 8.08 W 104 31 53.23	
	1689.00	3.01	315.32	1688.78	12.94	12.70	-4.32	0.32	1299788.32	3270727.40	N 40 9 8.12 W 104 31 53.27	
	1784.00	4.83	308.79	1783.56	17.51	16.98	-9.19	1.96	1299792.60	3270722.53	N 40 9 8.16 W 104 31 53.34	
	1879.00	5.30	306.41	1878.19	23.02	22.09	-15.84	0.54	1299797.71	3270715.88	N 40 9 8.21 W 104 31 53.42	
	1974.00	5.44	306.40	1972.77	28.73	27.36	-22.99	0.15	1299802.98	3270708.73	N 40 9 8.26 W 104 31 53.51	
	2068.00	8.06	297.42	2066.11	34.98	33.04	-32.43	2.99	1299808.66	3270699.29	N 40 9 8.32 W 104 31 53.63	
	2162.00	8.18	295.69	2159.17	41.63	38.97	-44.30	0.29	1299814.59	3270687.42	N 40 9 8.38 W 104 31 53.79	
	2256.00	8.16	295.08	2252.22	48.09	44.70	-56.37	0.09	1299820.32	3270675.36	N 40 9 8.44 W 104 31 53.94	
	2351.00	8.30	294.89	2346.24	54.58	50.44	-68.69	0.16	1299826.06	3270663.04	N 40 9 8.50 W 104 31 54.10	
	2445.00	8.59	293.92	2439.22	61.04	56.14	-81.26	0.34	1299831.76	3270650.47	N 40 9 8.56 W 104 31 54.26	
	2539.00	8.69	291.68	2532.16	67.30	61.61	-94.27	0.37	1299837.23	3270637.46	N 40 9 8.61 W 104 31 54.43	
	2634.00	8.96	303.19	2626.04	74.78	68.31	-107.13	1.88	1299843.93	3270624.60	N 40 9 8.68 W 104 31 54.59	
	2728.00	8.68	300.69	2718.93	83.15	75.94	-119.35	0.51	1299851.56	3270612.37	N 40 9 8.76 W 104 31 54.75	
	2823.00	8.55	301.29	2812.86	91.22	83.27	-131.55	0.16	1299858.88	3270600.17	N 40 9 8.83 W 104 31 54.90	
	2918.00	11.01	300.60	2906.47	100.34	91.55	-145.40	2.59	1299867.17	3270586.33	N 40 9 8.91 W 104 31 55.08	
	3013.00	11.30	301.05	2999.67	110.71	100.97	-161.18	0.32	1299876.59	3270570.55	N 40 9 9.01 W 104 31 55.28	
	3108.00	11.80	294.75	3092.75	120.60	109.84	-177.97	1.43	1299885.45	3270553.76	N 40 9 9.10 W 104 31 55.50	
	3202.00	11.82	294.04	3184.76	129.61	117.78	-195.50	0.16	1299893.40	3270536.23	N 40 9 9.18 W 104 31 55.72	
	3297.00	11.76	292.89	3277.76	138.42	125.51	-213.30	0.25	1299901.13	3270518.43	N 40 9 9.26 W 104 31 55.95	
	3392.00	11.29	291.50	3370.84	146.66	136.68	-230.87	0.57	1299908.30	3270500.86	N 40 9 9.33 W 104 31 56.17	
	3486.00	11.63	291.59	3462.97	154.58	139.54	-248.25	0.36	1299915.16	3270483.48	N 40 9 9.40 W 104 31 56.40	
	3581.00	12.70	295.78	3555.83	163.76	147.61	-266.56	1.46	1299923.23	3270465.17	N 40 9 9.48 W 104 31 56.63	
	3675.00	12.59	301.21	3647.56	174.66	157.42	-284.63	1.27	1299933.03	3270447.11	N 40 9 9.58 W 104 31 56.86	
	3770.00	12.43	301.57	3740.30	186.44	168.13	-302.19	0.19	1299943.74	3270429.55	N 40 9 9.69 W 104 31 57.09	
	3865.00	12.22	303.27	3833.11	198.34	179.00	-319.31	0.44	1299954.61	3270412.43	N 40 9 9.80 W 104 31 57.31	
	3959.00	11.47	303.81	3925.11	209.97	189.66	-335.39	0.80	1299965.27	3270396.35	N 40 9 9.90 W 104 31 57.51	
	4054.00	11.46	295.00	4018.22	220.21	198.91	-351.79	1.84	1299974.52	3270379.95	N 40 9 10.00 W 104 31 57.72	
	4149.00	10.28	296.98	4111.52	229.02	206.74	-367.90	1.30	1299982.35	3270363.84	N 40 9 10.07 W 104 31 57.93	
	4243.00	7.64	308.35	4204.37	237.45	214.42	-380.27	3.37	1299990.03	3270351.46	N 40 9 10.15 W 104 31 58.09	
	4338.00	7.70	310.14	4298.52	246.06	222.44	-390.09	0.26	1299998.05	3270341.65	N 40 9 10.23 W 104 31 58.21	
	4433.00	8.13	309.52	4392.62	255.04	230.82	-400.14	0.46	1300006.43	3270331.60	N 40 9 10.32 W 104 31 58.34	
	4528.00	7.20	306.36	4486.77	263.44	238.62	-410.11	1.08	1300014.23	3270321.63	N 40 9 10.39 W 104 31 58.47	
	4622.00	4.93	306.35	4580.24	269.81	244.50	-418.10	2.41	1300020.11	3270313.64	N 40 9 10.45 W 104 31 58.57	
	4717.00	3.62	302.62	4674.97	274.19	248.54	-423.91	1.41	1300024.15	3270307.83	N 40 9 10.49 W 104 31 58.64	
	4811.00	1.77	277.91	4768.86	276.23	250.34	-427.85	2.28	1300025.95	3270303.89	N 40 9 10.51 W 104 31 58.69	
	4906.00	0.75	181.76	4863.85	275.90	249.92	-429.33	2.11	1300025.53	3270302.41	N 40 9 10.51 W 104 31 58.71	
	5001.00	1.72	129.36	4958.83	274.31	248.39	-428.25	1.46	1300024.00	3270303.49	N 40 9 10.49 W 104 31 58.70	
	5096.00	1.82	132.03	5053.78	272.27	246.48	-426.03	0.14	1300022.09	3270305.71	N 40 9 10.47 W 104 31 58.67	
	5191.00	2.12	133.75	5148.73	269.90	244.26	-423.64	0.32	1300019.87	3270308.10	N 40 9 10.45 W 104 31 58.64	
	5285.00	2.04	143.18	5242.66	267.23	241.72	-421.39	0.37	1300017.33	3270310.35	N 40 9 10.43 W 104 31 58.61	
	5380.00	2.01	145.25	5337.60	264.39	239.00	-419.43	0.08	1300014.61	3270312.31	N 40 9 10.40 W 104 31 58.59	
	5475.00	1.97	141.58	5432.55	261.63	236.35	-417.46	0.14	1300011.96	3270314.28	N 40 9 10.37 W 104 31 58.56	
	5569.00	2.26	144.09	5526.48	258.74	233.59	-415.37	0.32	1300009.20	3270316.37	N 40 9 10.34 W 104 31 58.54	
	5664.00	2.37	147.05	5621.41	255.45	230.42	-413.21	0.18	1300006.03	3270318.53	N 40 9 10.31 W 104 31 58.51	
	5758.00	1.60	185.77	5715.35	252.46	227.48	-412.28	1.60	1300003.09	3270319.46	N 40 9 10.28 W 104 31 58.50	
	5853.00	1.81	195.50	5810.31	249.73	224.71	-412.81	0.38	1300000.33	3270318.93	N 40 9 10.26 W 104 31 58.50	
	5948.00	1.98	196.80	5905.26	246.78	221.70	-413.69	0.18	1299997.31	3270318.05	N 40 9 10.23 W 104 31 58.52	
	6043.00	2.03	207.23	6000.20	243.80	218.64	-414.93	0.39	1299994.25	3270316.81	N 40 9 10.20 W 104 31 58.53	
	6137.00	1.12	227.99	6094.17	241.80	216.55	-416.37	1.13	1299992.16	3270315.37	N 40 9 10.18 W 104 31 58.55	
	6234.00	0.84	304.74	6191.15	241.65	216.32	-417.66	1.27	1299991.93	3270314.08	N 40 9 10.17 W 104 31 58.57	
	6329.00	3.92	356.82	6286.07	245.33	219.96	-418.41	3.66	1299995.57	3270313.33	N 40 9 10.21 W 104 31 58.58	
	6423.00	12.50	359.51	6379.02	258.73	233.37	-418.67	9.13	1300008.98	3270313.07	N 40 9 10.34 W 104 31 58.58	
	6518.00	17.40	1.98	6470.77	283.16	257.87	-418.27	5.20	1300033.48	3270313.47	N 40 9 10.59 W 104 31 58.57	
	6613.00	24.97	4.53	6559.29	317.21	292.11	-416.19	8.03	1300067.72	3270315.55	N 40 9 10.92 W 104 31 58.54	
	6707.00	32.92	357.49	6641.50	362.48	337.50	-415.75	9.19	1300113.10	3270315.99	N 40 9 11.37 W 104 31 58.53	
	6802.00	42.64	355.71	6716.50	420.61	395.52	-419.29	10.29	1300171.12	3270312.45	N 40 9 11.95 W 104 31 58.56	
	6897.00	52.01	358.78	6780.83	490.35	465.19	-422.51	10.14	1300240.79	3270309.23	N 40 9 12.63 W 104 31 58.60	
	6991.00	62.78	358.06	6831.40	569.37	544.23	-424.71	11.48	1300319.83	3270307.03	N 40 9 13.42 W 104 31 58.61	
	7086.00	69.74	358.65	6869.63	656.23	631.10	-427.19	7.34	1300406.69	3270304.55	N 40 9 14.27 W 104 31 58.63	
	7181.00	76.01	359.67	6897.59	746.87	721.83	-428.51	6.68	1300497.42	3270303.23	N 40 9 15.17 W 104 31 58.64	
Last SLB_MWD												
Survey	7223.00	79.52	0.40	6906.49	787.83	762.87	-428.48	8.54	1300538.46	3270303.26	N 40 9 15.58 W 104 31 58.63	
7" Casing Point	7264.00	80.06	0.									

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 ° ' ")
Begin IFR Survey	7382.00	81.62	0.56	6932.54	944.29	919.71	-427.16	1.32	1300695.29	3270304.58	N 40 9 17.13 W	104 31 58.59
	7477.00	81.97	0.40	6946.09	1038.08	1013.73	-426.38	0.40	1300789.31	3270305.37	N 40 9 18.06 W	104 31 58.57
	7571.00	84.91	359.04	6956.83	1131.31	1107.10	-426.83	3.44	1300882.68	3270304.91	N 40 9 18.98 W	104 31 58.56
	7666.00	87.04	358.78	6963.50	1225.98	1201.85	-428.64	2.26	1300977.41	3270303.10	N 40 9 19.91 W	104 31 58.57
	7761.00	90.62	359.35	6965.44	1320.85	1296.80	-430.19	3.82	1301072.36	3270301.55	N 40 9 20.85 W	104 31 58.58
	7856.00	90.17	358.71	6964.78	1415.75	1391.78	-431.80	0.82	1301167.34	3270299.95	N 40 9 21.79 W	104 31 58.58
	7950.00	90.58	359.04	6964.17	1509.66	1485.76	-433.64	0.56	1301261.32	3270298.10	N 40 9 22.72 W	104 31 58.60
	8045.00	90.89	358.92	6962.95	1604.56	1580.74	-435.33	0.35	1301356.29	3270296.41	N 40 9 23.66 W	104 31 58.60
	8140.00	91.10	358.88	6961.30	1699.46	1675.71	-437.16	0.23	1301451.25	3270294.59	N 40 9 24.60 W	104 31 58.61
	8234.00	90.65	359.42	6959.87	1793.35	1769.68	-438.55	0.75	1301545.23	3270293.19	N 40 9 25.53 W	104 31 58.62
	8329.00	90.58	359.71	6958.85	1888.21	1864.68	-439.27	0.31	1301640.22	3270292.47	N 40 9 26.47 W	104 31 58.61
	8423.00	90.41	0.14	6958.03	1982.03	1958.67	-439.39	0.49	1301734.21	3270292.35	N 40 9 27.39 W	104 31 58.60
	8517.00	90.17	0.52	6957.56	2075.82	2052.67	-438.85	0.48	1301828.20	3270292.89	N 40 9 28.32 W	104 31 58.58
	8611.00	89.76	1.15	6957.62	2169.54	2146.66	-437.48	0.80	1301922.19	3270294.26	N 40 9 29.25 W	104 31 58.55
	8706.00	89.55	359.98	6958.19	2264.30	2241.65	-436.55	1.25	1302017.17	3270295.20	N 40 9 30.19 W	104 31 58.53
	8801.00	89.59	359.28	6958.90	2359.15	2336.65	-437.16	0.74	1302112.16	3270294.58	N 40 9 31.13 W	104 31 58.52
	8895.00	90.41	358.50	6958.90	2453.06	2430.63	-438.98	1.20	1302206.14	3270292.76	N 40 9 32.06 W	104 31 58.53
	8990.00	90.62	358.45	6958.05	2548.00	2525.59	-441.51	0.23	1302301.10	3270290.23	N 40 9 33.00 W	104 31 58.55
	9083.00	90.96	358.01	6956.76	2640.95	2618.54	-444.38	0.60	1302394.04	3270287.36	N 40 9 33.91 W	104 31 58.57
	9178.00	90.96	358.05	6955.17	2735.90	2713.47	-447.64	0.04	1302488.97	3270284.10	N 40 9 34.85 W	104 31 58.60
	9273.00	91.62	358.51	6953.03	2830.82	2808.40	-450.49	0.85	1302583.90	3270281.25	N 40 9 35.79 W	104 31 58.63
	9367.00	91.03	358.99	6950.86	2924.72	2902.35	-452.54	0.81	1302677.84	3270279.20	N 40 9 36.72 W	104 31 58.64
	9460.00	90.76	359.34	6949.40	3017.61	2995.33	-453.90	0.48	1302770.82	3270277.84	N 40 9 37.64 W	104 31 58.64
	9555.00	91.03	359.49	6947.92	3112.47	3090.31	-454.87	0.33	1302865.80	3270276.88	N 40 9 38.58 W	104 31 58.64
	9649.00	90.96	359.65	6946.29	3206.32	3184.30	-455.57	0.19	1302959.78	3270276.17	N 40 9 39.51 W	104 31 58.64
	9744.00	90.72	359.88	6944.89	3301.15	3279.28	-455.96	0.35	1303054.76	3270275.78	N 40 9 40.45 W	104 31 58.63
	9838.00	90.10	0.55	6944.22	3394.95	3373.28	-455.61	0.97	1303148.75	3270276.13	N 40 9 41.37 W	104 31 58.61
	9933.00	90.31	1.35	6943.88	3489.66	3468.27	-454.03	0.87	1303243.73	3270277.71	N 40 9 42.31 W	104 31 58.58
	10028.00	89.83	0.84	6943.77	3584.35	3563.25	-452.22	0.74	1303338.71	3270279.52	N 40 9 43.25 W	104 31 58.54
	10122.00	89.79	0.50	6944.08	3678.09	3657.24	-451.12	0.36	1303432.70	3270280.62	N 40 9 44.18 W	104 31 58.52
	10217.00	89.93	0.61	6944.31	3772.85	3752.24	-450.20	0.19	1303527.69	3270281.54	N 40 9 45.12 W	104 31 58.49
	10406.00	90.48	1.08	6943.63	3961.30	3941.21	-447.41	0.38	1303716.66	3270284.33	N 40 9 46.99 W	104 31 58.43
	10501.00	90.21	1.47	6943.06	4055.96	4036.19	-445.30	0.50	1303811.63	3270286.44	N 40 9 47.92 W	104 31 58.39
	10595.00	89.93	0.39	6942.95	4149.67	4130.17	-443.77	1.19	1303905.61	3270287.97	N 40 9 48.85 W	104 31 58.35
	10785.00	89.42	359.29	6944.02	4339.34	4320.17	-444.30	0.64	1304095.60	3270287.44	N 40 9 50.73 W	104 31 58.33
	10879.00	89.48	359.35	6944.93	4433.22	4414.15	-445.42	0.09	1304189.58	3270286.32	N 40 9 51.66 W	104 31 58.34
	11068.00	89.62	358.85	6946.41	4622.01	4603.12	-448.39	0.27	1304378.54	3270283.35	N 40 9 53.53 W	104 31 58.35
	11163.00	89.18	358.23	6947.41	4716.94	4698.09	-450.81	0.80	1304473.50	3270280.93	N 40 9 54.46 W	104 31 58.37
	11352.00	89.93	358.27	6948.87	4905.84	4886.99	-456.58	0.40	1304662.40	3270275.16	N 40 9 56.33 W	104 31 58.41
	11447.00	89.55	358.73	6949.30	5000.78	4981.96	-459.07	0.63	1304757.36	3270272.68	N 40 9 57.27 W	104 31 58.43
	11541.00	89.73	359.03	6949.90	5094.70	5075.94	-460.90	0.37	1304851.34	3270270.84	N 40 9 58.20 W	104 31 58.44
	11731.00	91.20	359.85	6948.35	5284.43	5265.92	-462.76	0.89	1305041.31	3270268.98	N 40 10 0.08 W	104 31 58.44
	11825.00	90.55	0.35	6946.92	5378.23	5359.91	-462.60	0.87	1305135.29	3270269.15	N 40 10 1.01 W	104 31 58.42
	11920.00	89.79	0.60	6946.64	5472.99	5454.90	-461.81	0.84	1305230.28	3270269.93	N 40 10 1.94 W	104 31 58.40
	12110.00	89.59	359.63	6947.66	5662.60	5644.90	-461.43	0.52	1305420.27	3270270.32	N 40 10 3.82 W	104 31 58.37
	12204.00	89.73	358.25	6948.22	5756.51	5738.87	-463.17	1.48	1305514.24	3270268.58	N 40 10 4.75 W	104 31 58.38
	12299.00	90.55	358.56	6947.99	5851.46	5833.84	-465.81	0.92	1305609.20	3270265.93	N 40 10 5.69 W	104 31 58.40
	12488.00	90.38	358.93	6946.46	6040.30	6022.79	-469.95	0.22	1305798.14	3270261.79	N 40 10 7.56 W	104 31 58.43
	12583.00	89.69	358.61	6946.40	6135.22	6117.76	-471.99	0.80	1305893.12	3270259.75	N 40 10 8.50 W	104 31 58.44
	12773.00	90.21	358.56	6946.56	6325.09	6307.70	-476.68	0.27	1306083.05	3270255.06	N 40 10 10.37 W	104 31 58.47
	12867.00	90.24	358.87	6946.19	6419.02	6401.68	-478.79	0.33	1306177.02	3270252.95	N 40 10 11.30 W	104 31 58.49
	12962.00	90.00	359.46	6946.00	6513.91	6496.67	-480.17	0.67	1306272.01	3270251.57	N 40 10 12.24 W	104 31 58.49
	13151.00	90.45	0.21	6945.25	6702.58	6685.66	-480.72	0.46	1306460.99	3270251.03	N 40 10 14.11 W	104 31 58.47
	13246.00	90.24	0.44	6944.68	6797.37	6780.66	-480.18	0.33	1306555.99	3270251.56	N 40 10 15.05 W	104 31 58.45
	13340.00	89.93	0.19	6944.54	6891.15	6874.66	-479.66	0.42	1306649.98	3270252.08	N 40 10 15.98 W	104 31 58.43
	13530.00	90.45	0.30	6943.91	7080.74	7064.66	-478.85	0.28	1306839.97	3270252.89	N 40 10 17.85 W	104 31 58.39
	13624.00	91.20	1.01	6942.56	7174.48	7158.64	-477.77	1.10	1306933.95	3270253.97	N 40 10 18.78 W	104 31 58.37
	13719.00	89.93	2.91	6941.62	7269.03	7253.57	-474.53	2.41	1307028.88	3270257.22	N 40 10 19.72 W	104 31 58.31
	13814.00	89.86	2.41	6941.80	7363.47	7348.47	-470.12	0.53	1307123.77	3270261.63	N 40 10 20.66 W	104 31 58.24
	13909.00	90.10	2.89	6941.83	7457.92	7443.37	-465.72	0.56	1307218.66	3270266.02	N 40 10 21.59 W	104 31 58.17
	14004.00	89.83	1.53	6941.89	7552.44	7538.29	-462.06	1.46	1307313.59	3270269.68	N 40 10 22.53 W	104 31 58.11
	14098.00	89.62	359.55	6942.34	7646.20	7632.28	-461.18	2.12	1307407.57	3270270.57	N 40 10 23.46 W	104 31 58.09
	14193.00	89.76	356.97	6942.85	7741.14	7727.23	-464.06	2.72	1307502.51	3270267.68	N 40 10 24.40 W	104 31 58.11
	14288.00	90.03	355.70	6943.03	7836.14	7822.03	-470.13	1.37	1307597.31	3270261.61	N 40 10 25.34 W	104 31 58.18
	14383.00	89.42	355.43	6943.48	7931.13	7916.75	-477.48	0.70	1307692.02	3270254.26	N 40 10 26.27 W	104 31 58.26
	14478.00	89.66	355.37	6944.25	8026.11	8011.44	-485.10	0.26	1307786.71	3270246.65	N 40 10 27.21 W	104 31 58.34
Last IFR Survey	14506.00	89.79	355.47	6944.38	8054.10	8039.35	-487.33	0.59	1307814.62	3270244.41	N 40 10 27.49 W	104 31 58.37
Projection to Bit	14549.00	89.79	355.47	6944.54	8097.09	8082.22	-490.73	0.00	1307857.48	3270241.01	N 40 10 27.91 W	104 31 58.40

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	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
Surface	1	0.000	24.000	Act Stns	13.250	9.625	SLB_EMS-STD-Depth Only	Original Hole / Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive
Surface	1	24.000	1171.000	Act Stns	13.250	9.625	SLB_EMS-STD	Original Hole / Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive
Intermediate	1	1171.000	7223.000	Act Stns	8.750	7.000	SLB_MWD-STD	Original Hole / Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive
* Lateral	1	7223.000	14506.000	Act Stns	6.125	4.500	SLB_MWD+IFR1+MS	Original Hole / Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive
Bit Projection	1	14506.000	14549.000	Act Stns	6.125	4.500	SLB_BLIND+TREND	Original Hole / Oscar Y10-73HN MWD+IFR 0' to 14549' Definitive

* SLB_MWD+IFR+MS =
MWD+IFR1+MS_WY