

WELL	<b>Nichols 19-9H2</b>	FIELD	<b>CO, Mesa Co. (NAD83UTM13)</b>	STRUCTURE	<b>Encana 31-09S-95W (PL31SE)</b>
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Magnetic Parameters	Dip: 65.499°	Date: November 01, 2011	Surface Location	NAD83 UTM Zone 13N, US Feet	Miscellaneous	TVD Ref: RKB(5937ft above MSL)
Model: BQGM 2011	Mag Dec: 10.295°	FS: 52027.2mT	Lat: N 39 13 42.765	14260173.06 #US	Slut: Nichols 19-9H2	Srvy Date: November 01, 2011
			Lon: W 108 1 41.020	Nothing: 782859.01 #US	Plan: R2 ors 01-Dec-11	
				Grid Conv: -1.91607546°		
				Scale Fact: 1.00044132		

## Surface Location

Northing: 14260173.06 Easting: 782859.01

Target Description	Major Axis	N(+)S(-)	Grid Coord	TVD	VSec	Local Coord
Target Name	Shape		E(+)W(-)			N(+)S(-) E(+)W(-)
Nichols 19-9H2 TD	Point	0.00	39.26	-108.03	8258.00	11631.47 11591.18 967.27

## Quality Control

Date Drawn: December 01, 2011 04:07:19 PM

Drawn by: Oswaldo Salazar

Checked by:

Client OK:

# Proposal

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)S(-)	E(+)W(-)	DLS
Nichols 19-9H2 SHL	0.00	0.00	33.11	0.00	0.00	0.00	0.00	0.00
KOP, Build 1 DLS	400.00	0.00	33.11	400.00	0.00	0.00	0.00	0.00
Hold	1277.91	8.78	33.11	1274.48	59.08	56.23	36.67	1.00
Ohio Creek (Top Kmv)	1352.30	8.78	33.11	1348.00	69.07	65.74	42.87	0.00
Williams Fork Fm	1671.04	8.78	33.11	1663.00	111.89	106.48	69.45	0.00
Top Gas	3249.53	8.78	33.11	3223.00	323.93	308.28	201.06	0.00
Coal Ridge (Paludal)	3870.81	8.78	33.11	3837.00	407.38	387.70	252.86	0.00
Rollins Ss (Iles Fm)	4153.12	8.78	33.11	4116.00	445.31	423.79	276.39	0.00
Cozzette Ss	4442.51	8.78	33.11	4402.00	484.18	460.79	300.52	0.00
Corcoran Ss	4625.65	8.78	33.11	4583.00	508.78	484.20	315.79	0.00
Buck Tongue	5340.02	8.78	33.11	5289.00	604.74	575.52	375.35	0.00
Castlegate	5875.29	8.78	33.11	5818.00	676.65	643.95	419.98	0.00
Mancos B	6138.38	8.78	33.11	6078.00	711.99	677.58	441.92	0.00
Blue Gate	6197.06	8.78	33.11	6136.00	719.87	685.09	446.81	0.00
Prairie Canyon	6497.58	8.78	33.11	6433.00	760.24	723.50	471.87	0.00
KOP, Build&Turn 7 DLS	7273.72	8.78	33.11	7200.04	864.50	822.73	536.58	0.00
Niobrara Fm	7493.68	23.32	12.56	7411.00	922.76	879.63	555.33	7.00
Horizontal Target	8268.46	77.17	2.89	7889.00	1495.66	1449.79	611.98	7.00
Landing Point	8423.69	88.00	2.00	7909.01	1649.24	1603.36	618.52	7.00
Nio. Laminated Sstst	9569.70	88.00	2.00	7949.00	2793.21	2747.97	658.49	0.00
Nichols 19-9H2 TD	18423.69	88.00	2.00	8258.00	11631.47	11591.18	967.30	0.00

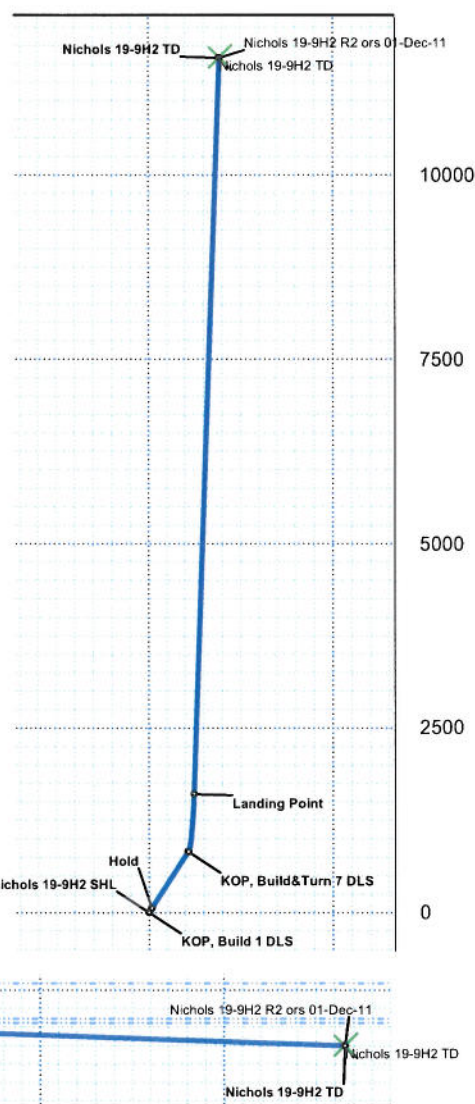


Grid North  
Tot Corr (M->G 12.2115°)  
Mag Dec (10.295°)  
Grid Conv (-1.91607546°)

## Rev2

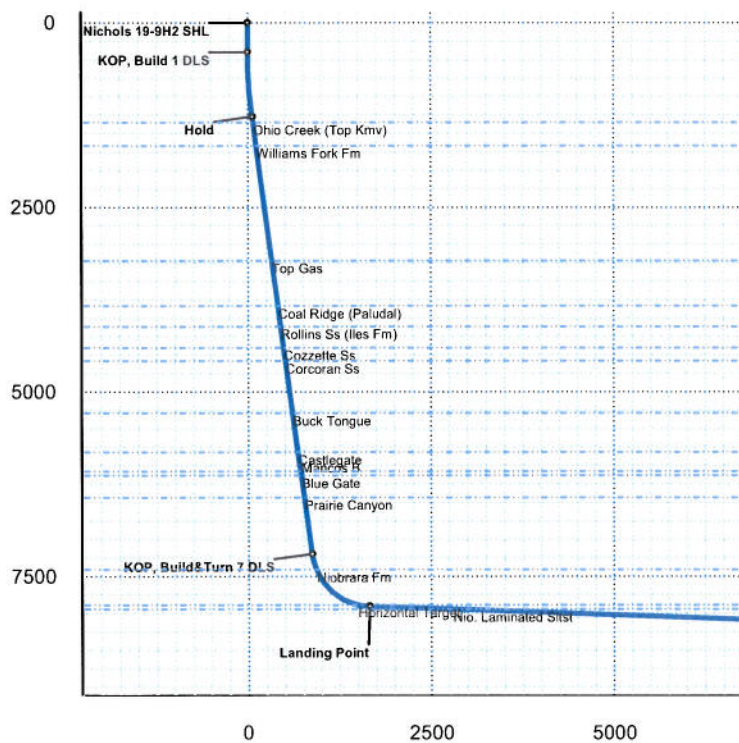


<<< W Scale = 1(in):2500(ft) E >>>  
0 2500



<<< S Scale = 1(in):2500(ft) N >>>

TVD Scale = 1(in):2500(ft)





## Nichols 19-9H2 R2 ors 01-Dec-11 Proposal Report

(Def Plan)

Report Date: December 01, 2011 - 04:15 PM  
 Client: EnCana Oil & Gas (USA) Inc.  
 Field: CO, Mesa County (NAD 83 UTM 13) EnCana 2010  
 Structure / Slot: Encana 31-09S-95W (PL31SE Pad) / Nichols 19-9H2  
 Well: Nichols 19-9H2  
 Borehole: Original Hole  
 UWI / API#: Unknown / Unknown  
 Survey Name: Nichols 19-9H2 R2 ors 01-Dec-11  
 Survey Date: November 01, 2011  
 Tort / AHD / DDI / ERD Ratio: 89.277 ° / 11763.439 ft / 6.370 / 1.424  
 Coordinate Reference System: NAD83 UTM Zone 13N, US Feet  
 Location Lat / Long: N 39° 13' 42.76560", W 108° 1' 41.01962"  
 Location Grid N/E Y/X: N 14260173.061 ftUS, E 782859.012 ftUS  
 CRS Grid Convergence Angle: -1.91607546 °  
 Grid Scale Factor: 1.00044132

Survey / DLS Computation: Minimum Curvature / Lubinski  
 Vertical Section Azimuth: 4.770 ° (Grid North)  
 Vertical Section Origin: 0.000 ft, 0.000 ft  
 TVD Reference Datum: RKB  
 TVD Reference Elevation: 5937.000 ft above MSL  
 Seabed / Ground Elevation: 5915.000 ft above MSL  
 Magnetic Declination: 10.295 °  
 Total Field Strength: 52027.192 nT  
 Magnetic Dip Angle: 65.499 °  
 Declination Date: November 01, 2011  
 Magnetic Declination Model: BGGM 2011  
 North Reference: Grid North  
 Grid Convergence Used: -1.916 °  
 Total Corr Mag North->Grid North: 12.212 °  
 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 ° ' ")
Nichols 19-9H2 SHL	0.00	0.00	33.11	0.00	0.00	0.00	0.00	N/A	14260173.06	782859.01	N 39 13 42.77	W 108 1 41.02
	100.00	0.00	33.11	100.00	0.00	0.00	0.00	0.00	14260173.06	782859.01	N 39 13 42.77	W 108 1 41.02
	200.00	0.00	33.11	200.00	0.00	0.00	0.00	0.00	14260173.06	782859.01	N 39 13 42.77	W 108 1 41.02
	300.00	0.00	33.11	300.00	0.00	0.00	0.00	0.00	14260173.06	782859.01	N 39 13 42.77	W 108 1 41.02
KOP, Build 1 DLS	400.00	0.00	33.11	400.00	0.00	0.00	0.00	0.00	14260173.06	782859.01	N 39 13 42.77	W 108 1 41.02
	500.00	1.00	33.11	499.99	0.77	0.73	0.48	1.00	14260173.79	782859.49	N 39 13 42.77	W 108 1 41.01
	600.00	2.00	33.11	599.96	3.07	2.92	1.91	1.00	14260175.99	782860.92	N 39 13 42.80	W 108 1 41.00
	700.00	3.00	33.11	699.86	6.91	6.58	4.29	1.00	14260179.64	782863.30	N 39 13 42.83	W 108 1 40.97
	800.00	4.00	33.11	799.68	12.28	11.69	7.62	1.00	14260184.76	782866.64	N 39 13 42.88	W 108 1 40.93
	900.00	5.00	33.11	899.37	19.19	18.26	11.91	1.00	14260191.33	782870.93	N 39 13 42.95	W 108 1 40.88
	1000.00	6.00	33.11	998.90	27.62	26.29	17.15	1.00	14260199.36	782876.17	N 39 13 43.03	W 108 1 40.81
	1100.00	7.00	33.11	1098.26	37.59	35.77	23.33	1.00	14260208.85	782882.35	N 39 13 43.13	W 108 1 40.74
	1200.00	8.00	33.11	1197.40	49.08	46.70	30.46	1.00	14260219.79	782889.49	N 39 13 43.24	W 108 1 40.65
Hold	1277.91	8.78	33.11	1274.48	59.08	56.23	36.67	1.00	14260229.31	782895.70	N 39 13 43.33	W 108 1 40.58
	1300.00	8.78	33.11	1296.31	62.05	59.05	38.51	0.00	14260232.14	782897.54	N 39 13 43.36	W 108 1 40.56
Ohio Creek (Top Krmv)	1352.30	8.78	33.11	1348.00	69.07	65.74	42.87	0.00	14260238.83	782901.90	N 39 13 43.43	W 108 1 40.50
	1400.00	8.78	33.11	1395.14	75.48	71.83	46.85	0.00	14260244.93	782905.88	N 39 13 43.49	W 108 1 40.46
	1500.00	8.78	33.11	1493.97	88.91	84.62	55.19	0.00	14260257.72	782914.22	N 39 13 43.62	W 108 1 40.35
	1600.00	8.78	33.11	1592.80	102.35	97.40	63.52	0.00	14260270.51	782922.56	N 39 13 43.75	W 108 1 40.25
Williams Fork Frn	1671.04	8.78	33.11	1663.00	111.89	106.48	69.45	0.00	14260279.59	782928.49	N 39 13 43.84	W 108 1 40.18
	1700.00	8.78	33.11	1691.62	115.78	110.19	71.86	0.00	14260283.29	782930.91	N 39 13 43.88	W 108 1 40.15
	1800.00	8.78	33.11	1790.45	129.21	122.97	80.20	0.00	14260296.08	782939.25	N 39 13 44.01	W 108 1 40.05
	1900.00	8.78	33.11	1889.28	142.65	135.75	88.54	0.00	14260308.87	782947.59	N 39 13 44.14	W 108 1 39.95
	2000.00	8.78	33.11	1988.11	156.08	148.54	96.88	0.00	14260321.66	782955.93	N 39 13 44.26	W 108 1 39.85
	2100.00	8.78	33.11	2086.94	169.51	161.32	105.21	0.00	14260334.45	782964.27	N 39 13 44.39	W 108 1 39.75
	2200.00	8.78	33.11	2185.77	182.94	174.10	113.55	0.00	14260347.24	782972.61	N 39 13 44.52	W 108 1 39.65
	2300.00	8.78	33.11	2284.59	196.38	186.89	121.89	0.00	14260360.03	782980.95	N 39 13 44.65	W 108 1 39.55
	2400.00	8.78	33.11	2383.42	209.81	199.67	130.23	0.00	14260372.82	782989.29	N 39 13 44.78	W 108 1 39.45
	2500.00	8.78	33.11	2482.25	223.24	212.46	138.56	0.00	14260385.61	782997.64	N 39 13 44.91	W 108 1 39.35
	2600.00	8.78	33.11	2581.08	236.68	225.24	146.90	0.00	14260398.40	783005.98	N 39 13 45.04	W 108 1 39.25
	2700.00	8.78	33.11	2679.91	250.11	238.02	155.24	0.00	14260411.19	783014.32	N 39 13 45.17	W 108 1 39.15
	2800.00	8.78	33.11	2778.74	263.54	250.81	163.58	0.00	14260423.98	783022.66	N 39 13 45.30	W 108 1 39.05
	2900.00	8.78	33.11	2877.56	276.98	263.59	171.91	0.00	14260436.77	783031.00	N 39 13 45.43	W 108 1 38.95
	3000.00	8.78	33.11	2976.39	290.41	276.38	180.25	0.00	14260449.56	783039.34	N 39 13 45.56	W 108 1 38.85
	3100.00	8.78	33.11	3075.22	303.84	289.16	188.59	0.00	14260462.35	783047.68	N 39 13 45.68	W 108 1 38.75
Top Gas	3200.00	8.78	33.11	3174.05	317.28	301.94	196.93	0.00	14260475.14	783056.02	N 39 13 45.81	W 108 1 38.65
	3249.53	8.78	33.11	3223.00	323.93	308.28	201.06	0.00	14260481.47	783060.16	N 39 13 45.88	W 108 1 38.60
	3300.00	8.78	33.11	3272.88	330.71	314.73	205.26	0.00	14260487.93	783064.37	N 39 13 45.94	W 108 1 38.55
	3400.00	8.78	33.11	3371.71	344.14	327.51	213.60	0.00	14260500.72	783072.71	N 39 13 46.07	W 108 1 38.45
	3500.00	8.78	33.11	3470.54	357.57	340.30	221.94	0.00	14260513.51	783081.05	N 39 13 46.20	W 108 1 38.35
	3600.00	8.78	33.11	3569.36	371.01	353.08	230.28	0.00	14260526.30	783089.39	N 39 13 46.33	W 108 1 38.24
	3700.00	8.78	33.11	3668.19	384.44	365.86	238.61	0.00	14260539.09	783097.73	N 39 13 46.46	W 108 1 38.14
	3800.00	8.78	33.11	3767.02	397.87	378.65	246.95	0.00	14260551.88	783106.07	N 39 13 46.59	W 108 1 38.04
Coal Ridge (Paludal)	3870.81	8.78	33.11	3837.00	407.38	387.70	252.86	0.00	14260560.93	783111.98	N 39 13 46.68	W 108 1 37.97
	3900.00	8.78	33.11	3865.85	411.31	391.43	255.29	0.00	14260564.66	783114.41	N 39 13 46.72	W 108 1 37.94
	4000.00	8.78	33.11	3964.68	424.74	404.22	263.63	0.00	14260577.45	783122.75	N 39 13 46.85	W 108 1 37.84
	4100.00	8.78	33.11	4063.51	438.17	417.00	271.96	0.00	14260590.24	783131.10	N 39 13 46.97	W 108 1 37.74
Rollins Ss (lles Frn)	4153.12	8.78	33.11	4116.00	445.31	423.79	276.39	0.00	14260597.04	783135.53	N 39 13 47.04	W 108 1 37.69
	4200.00	8.78	33.11	4162.33	451.61	429.78	280.30	0.00	14260603.03	783139.44	N 39 13 47.10	W 108 1 37.64
	4300.00	8.78	33.11	4261.16	465.04	442.57	288.64	0.00	14260615.82	783147.78	N 39 13 47.23	W 108 1 37.54
	4400.00	8.78	33.11	4359.99	478.47	455.35	296.98	0.00	14260628.61	783156.12	N 39 13 47.36	W 108 1 37.44
Cozzette Ss	4442.51	8.78	33.11	4402.00	484.18	460.79	300.52	0.00	14260634.05	783159.67	N 39 13 47.42	W 108 1 37.40
	4500.00	8.78	33.11	4458.82	491.90	468.14	305.32	0.00	14260641.40	783164.46	N 39 13 47.49	W 108 1 37.34
	4600.00	8.78	33.11	4557.65	505.34	480.92	313.65	0.00	14260654.19	783172.80	N 39 13 47.62	W 108 1 37.24
Corcoran Ss	4625.65	8.78	33.11	4583.00	508.78	484.20	315.79	0.00	14260657.47	783174.94	N 39 13 47.65	W 108 1 37.21
	4700.00	8.78	33.11	4656.48	518.77	493.70	321.99	0.00	14260666.98	783181.14	N 39 13 47.75	W 108 1 37.14
	4800.00	8.78	33.11	4755.30	532.20	506.49	330.33	0.00	14260679.77	783189.48	N 39 13 47.88	W 108 1 37.04
	4900.00	8.78	33.11	4854.13	545.64	519.27	338.67	0.00	14260692.56	783197.83	N 39 13 48.01	W 108 1 36.94
	5000.00	8.78	33.11	4952.96	559.07	532.05	347.00	0.00	14260705.35	783206.17	N 39 13 48.14	W 108 1 36.84
	5100.00	8.78	33.11	5051.79	572.50	544.84	355.34	0.00	14260718.14	783214.51	N 39 13 48.26	W 108 1 36.74
	5200.00	8.78	33.11	5150.62	585.94	557.62	363.68	0.00	14260730.93	783222.85	N 39 13 48.39	W 108 1 36.64
	5300.00	8.78	33.11	5249.45	599.37	570.41	372.02	0.00	14260743.72	783231.19	N 39 13 48.52	W 108 1 36.54
Buck Tonque	5340.02	8.78	33.11	5289.00	604.74	575.52	375.35	0.00	14260748.84	783234.53	N 39 13 48.57	W 108 1 36.50
	5400.00	8.78	33.11	5348.28	612.80	583.19	380.35	0.00	14260756.51	783239.53	N 39 13 48.65	W 108 1 36.44
	5500.00	8.78	33.11	5447.10	626.23	595.97	388.69	0.00	14260769.30	783247.87	N 39 13 48.78	W 108 1 36.34
	5600.00	8.78	33.11	5545.93	639.67	608.76	397.03	0.00	14260782.09	783256.22	N 39 13 48.91	W 108 1 36.24
	5700.00	8.78	33.11	5644.76	653.10	621.54	405.37	0.00	14260794.88	783264.56	N 39 13 49.04	W 108 1 36.14
	5800.00	8.78	33.11	5743.59	666.53	634.33	413.70	0.00	14260807.67	783272.90	N 39 13 49.17	W 108 1 36.03
Castlegate	5875.29	8.78	33.11	5818.00	676.65	643.95	419.98	0.00	14260817.30	783279.18	N 39 13 49.27	W 108 1 35.96
	5900.00	8.78	33.11	5842.42	679.97	647.11						

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 ° ' ")
Prairie Canyon	6497.58	8.78	33.11	6433.00	760.24	723.50	471.87	0.00	14260996.88	783331.09	N 39 13 50.07	W 108 1 35.33
	6500.00	8.78	33.11	6435.39	760.56	723.81	472.07	0.00	14260997.19	783331.29	N 39 13 50.07	W 108 1 35.33
	6600.00	8.78	33.11	6534.22	774.00	736.60	480.41	0.00	14260909.98	783339.63	N 39 13 50.20	W 108 1 35.23
	6700.00	8.78	33.11	6633.04	787.43	749.38	488.74	0.00	14260922.77	783347.97	N 39 13 50.33	W 108 1 35.13
	6800.00	8.78	33.11	6731.87	800.86	762.17	497.08	0.00	14260935.56	783356.31	N 39 13 50.46	W 108 1 35.03
	6900.00	8.78	33.11	6830.70	814.30	774.95	505.42	0.00	14260948.35	783364.65	N 39 13 50.59	W 108 1 34.93
	7000.00	8.78	33.11	6929.53	827.73	787.73	513.76	0.00	14260961.14	783372.99	N 39 13 50.72	W 108 1 34.83
	7100.00	8.78	33.11	7028.36	841.16	800.52	522.09	0.00	14260973.93	783381.33	N 39 13 50.85	W 108 1 34.73
	7200.00	8.78	33.11	7127.19	854.60	813.30	530.43	0.00	14260986.72	783389.68	N 39 13 50.97	W 108 1 34.63
KOP, Build&Turn 7 DLS	7273.72	8.78	33.11	7200.04	864.50	822.73	536.58	0.00	14260996.15	783395.82	N 39 13 51.07	W 108 1 34.55
	7300.00	10.39	27.77	7225.96	868.45	826.50	538.78	7.00	14260999.93	783398.03	N 39 13 51.11	W 108 1 34.53
	7400.00	16.95	17.09	7323.08	891.01	848.44	547.27	7.00	14261021.88	783406.52	N 39 13 51.33	W 108 1 34.43
Niobrara Fm	7493.69	23.32	12.56	7411.00	922.76	879.63	555.33	7.00	14261053.08	783414.58	N 39 13 51.64	W 108 1 34.34
	7500.00	23.76	12.33	7416.79	925.26	882.09	555.87	7.00	14261055.54	783415.13	N 39 13 51.66	W 108 1 34.33
	7600.00	30.65	9.62	7505.68	970.68	926.96	564.44	7.00	14261100.42	783423.70	N 39 13 52.11	W 108 1 34.24
	7700.00	37.57	7.82	7588.43	1026.60	982.36	572.86	7.00	14261155.85	783432.12	N 39 13 52.66	W 108 1 34.16
	7800.00	44.52	6.52	7663.80	1092.17	1047.48	580.99	7.00	14261221.00	783440.26	N 39 13 53.30	W 108 1 34.09
	7900.00	51.48	5.50	7730.67	1166.42	1121.34	588.73	7.00	14261294.90	783448.00	N 39 13 54.04	W 108 1 34.02
	8000.00	58.45	4.66	7788.05	1248.25	1202.85	595.95	7.00	14261376.44	783455.22	N 39 13 54.84	W 108 1 33.96
	8100.00	65.42	3.94	7835.07	1336.43	1290.79	602.55	7.00	14261464.42	783461.82	N 39 13 55.72	W 108 1 33.91
	8200.00	72.39	3.30	7871.03	1429.65	1383.85	608.42	7.00	14261557.52	783467.70	N 39 13 56.64	W 108 1 33.88
Horizontal Target	8268.46	77.17	2.89	7889.00	1495.66	1449.79	611.98	7.00	14261623.49	783471.26	N 39 13 57.29	W 108 1 33.86
	8300.00	79.37	2.70	7895.41	1526.52	1480.63	613.48	7.00	14261654.35	783472.76	N 39 13 57.59	W 108 1 33.86
	8400.00	86.35	2.13	7907.84	1625.60	1579.71	617.66	7.00	14261753.46	783476.95	N 39 13 58.57	W 108 1 33.85
Landing Point	8423.69	88.00	2.00	7909.01	1649.24	1603.36	618.52	7.00	14261777.12	783477.80	N 39 13 58.81	W 108 1 33.84
	8500.00	88.00	2.00	7911.67	1725.41	1679.57	621.18	0.00	14261853.37	783480.46	N 39 13 59.56	W 108 1 33.84
	8600.00	88.00	2.00	7915.16	1825.23	1779.45	624.66	0.00	14261953.29	783483.95	N 39 14 0.55	W 108 1 33.84
	8700.00	88.00	2.00	7918.65	1925.06	1879.33	628.15	0.00	14262053.21	783487.44	N 39 14 1.54	W 108 1 33.84
	8800.00	88.00	2.00	7922.14	2024.88	1979.21	631.64	0.00	14262153.14	783490.93	N 39 14 2.53	W 108 1 33.84
	8900.00	88.00	2.00	7925.63	2124.70	2079.08	635.13	0.00	14262253.06	783494.42	N 39 14 3.51	W 108 1 33.84
	9000.00	88.00	2.00	7929.12	2224.52	2178.96	638.62	0.00	14262352.98	783497.91	N 39 14 4.50	W 108 1 33.83
	9100.00	88.00	2.00	7932.61	2324.34	2278.84	642.10	0.00	14262452.90	783501.40	N 39 14 5.49	W 108 1 33.83
	9200.00	88.00	2.00	7936.10	2424.17	2378.72	645.59	0.00	14262552.82	783504.89	N 39 14 6.48	W 108 1 33.83
	9300.00	88.00	2.00	7939.59	2523.99	2478.60	649.08	0.00	14262652.75	783508.38	N 39 14 7.46	W 108 1 33.83
	9400.00	88.00	2.00	7943.08	2623.81	2578.47	652.57	0.00	14262752.67	783511.87	N 39 14 8.45	W 108 1 33.83
	9500.00	88.00	2.00	7946.57	2723.63	2678.35	656.05	0.00	14262852.59	783515.35	N 39 14 9.44	W 108 1 33.82
Nio. Laminated Siltst	9569.70	88.00	2.00	7949.00	2793.21	2747.97	658.49	0.00	14262922.23	783517.79	N 39 14 10.13	W 108 1 33.82
	9600.00	88.00	2.00	7950.06	2823.46	2778.23	659.54	0.00	14262952.51	783518.84	N 39 14 10.43	W 108 1 33.82
	9700.00	88.00	2.00	7953.55	2923.28	2878.11	663.03	0.00	14263052.43	783522.33	N 39 14 11.41	W 108 1 33.82
	9800.00	88.00	2.00	7957.04	3023.10	2977.99	666.52	0.00	14263152.36	783525.82	N 39 14 12.40	W 108 1 33.82
	9900.00	88.00	2.00	7960.53	3122.92	3077.87	670.01	0.00	14263252.28	783529.31	N 39 14 13.39	W 108 1 33.82
	10000.00	88.00	2.00	7964.02	3222.75	3177.74	673.49	0.00	14263352.20	783532.80	N 39 14 14.38	W 108 1 33.82
	10100.00	88.00	2.00	7967.51	3322.57	3277.62	676.98	0.00	14263452.12	783536.29	N 39 14 15.37	W 108 1 33.81
	10200.00	88.00	2.00	7971.00	3422.39	3377.50	680.47	0.00	14263552.04	783539.78	N 39 14 16.35	W 108 1 33.81
	10300.00	88.00	2.00	7974.49	3522.21	3477.38	683.96	0.00	14263651.97	783543.27	N 39 14 17.34	W 108 1 33.81
	10400.00	88.00	2.00	7977.98	3622.03	3577.26	687.45	0.00	14263751.89	783546.76	N 39 14 18.33	W 108 1 33.81
	10500.00	88.00	2.00	7981.47	3721.86	3677.13	690.93	0.00	14263851.81	783550.25	N 39 14 19.32	W 108 1 33.81
	10600.00	88.00	2.00	7984.96	3821.68	3777.01	694.42	0.00	14263951.73	783553.74	N 39 14 20.30	W 108 1 33.80
	10700.00	88.00	2.00	7988.45	3921.50	3876.89	697.91	0.00	14264051.66	783557.23	N 39 14 21.29	W 108 1 33.80
	10800.00	88.00	2.00	7991.94	4021.32	3976.77	701.40	0.00	14264151.58	783560.72	N 39 14 22.28	W 108 1 33.80
	10900.00	88.00	2.00	7995.43	4121.15	4076.65	704.88	0.00	14264251.50	783564.21	N 39 14 23.27	W 108 1 33.80
	11000.00	88.00	2.00	7998.92	4220.97	4176.53	708.37	0.00	14264351.42	783567.70	N 39 14 24.26	W 108 1 33.80
	11100.00	88.00	2.00	8002.41	4320.79	4276.40	711.86	0.00	14264451.34	783571.18	N 39 14 25.24	W 108 1 33.79
	11200.00	88.00	2.00	8005.90	4420.61	4376.28	715.35	0.00	14264551.27	783574.67	N 39 14 26.23	W 108 1 33.79
	11300.00	88.00	2.00	8009.39	4520.43	4476.16	718.84	0.00	14264651.19	783578.16	N 39 14 27.22	W 108 1 33.79
	11400.00	88.00	2.00	8012.88	4620.26	4576.04	722.32	0.00	14264751.11	783581.65	N 39 14 28.21	W 108 1 33.79
	11500.00	88.00	2.00	8016.37	4720.08	4675.92	725.81	0.00	14264851.03	783585.14	N 39 14 29.19	W 108 1 33.79
	11600.00	88.00	2.00	8019.86	4819.90	4775.79	729.30	0.00	14264950.95	783588.63	N 39 14 30.18	W 108 1 33.79
	11700.00	88.00	2.00	8023.35	4919.72	4875.67	732.79	0.00	14265050.88	783592.12	N 39 14 31.17	W 108 1 33.78
	11800.00	88.00	2.00	8026.84	5019.55	4975.55	736.27	0.00	14265150.80	783595.61	N 39 14 32.16	W 108 1 33.78
	11900.00	88.00	2.00	8030.33	5119.37	5075.43	739.76	0.00	14265250.72	783599.10	N 39 14 33.15	W 108 1 33.78
	12000.00	88.00	2.00	8033.82	5219.19	5175.31	743.25	0.00	14265350.64	783602.59	N 39 14 34.13	W 108 1 33.78
	12100.00	88.00	2.00	8037.31	5319.01	5275.19	746.74	0.00	14265450.56	783606.08	N 39 14 35.12	W 108 1 33.78
	12200.00	88.00	2.00	8040.80	5418.84	5375.06	750.23	0.00	14265550.49	783609.57	N 39 14 36.11	W 108 1 33.77
	12300.00	88.00	2.00	8044.29	5518.66	5474.94	753.71	0.00	14265650.41	783613.06	N 39 14 37.10	W 108 1 33.77
	12400.00	88.00	2.00	8047.78	5618.48	5574.82	757.20	0.00	14265750.33	783616.55	N 39 14 38.08	W 108 1 33.77
	12500.00	88.00	2.00	8051.27	5718.30	5674.70	760.69	0.00	14265850.25	783620.04	N 39 14 39.07	W 108 1 33.77
	12600.00	88.00	2.00	8054.76	5818.12	5774.58	764.18	0.00	14265950.17	783623.52	N 39 14 40.06	W 108 1 33.77
	12700.00	88.00	2.00	8058.25	5917.95	5874.46	767.67	0.00	14266050.10	783627.01	N 39 14 41.05	W 108 1 33.76
	12800.00	88.00	2.00	8061.74	6017.77	5974.33	771.15	0.00	14266150.02	783630.50	N 39 14 42.04	W 108 1 33.76
	12900.00	88.00	2.00	8065.23	6117.59	6074.21	774.64	0.00	14266249.94	783633.99	N 39 14 43.02	W 108 1 33.76
	13000.00	88.00	2.00	8068.72	6217.41	6174.09	778.13	0.00	14266349.86	783637.48	N 39 14 44.01	W 108 1 33.76
	13100.00	88.00	2.00	8072.21	6317.24	6273.97	781.62	0.00	14266449.79	783640.97	N 39 14 45.00	W 108 1 33.76
	13200.00	88.00	2.00	8075.70	6417.06	6373.85	785.10	0.00	14266549.71	783644.46	N 39 14 45.99	W 108 1 33.76
	13300.00	88.00	2.00	8079.19	6516.88	6473.72	788.59	0.00	14266649.63	783647.95	N 39 14 46.97	W 108 1 33.75
	13400.00											

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 ° ' ")
	16600.00	88.00	2.00	8194.35	9811.02	9769.70	903.69	0.00	14269947.06	783763.10	N 39 15 19.57	W 108 1 33.69
	16700.00	88.00	2.00	8197.84	9910.84	9869.58	907.18	0.00	14270046.98	783766.59	N 39 15 20.56	W 108 1 33.69
	16800.00	88.00	2.00	8201.33	10010.66	9969.46	910.67	0.00	14270146.90	783770.08	N 39 15 21.55	W 108 1 33.69
	16900.00	88.00	2.00	8204.82	10110.48	10069.34	914.15	0.00	14270246.82	783773.57	N 39 15 22.53	W 108 1 33.69
	17000.00	88.00	2.00	8208.31	10210.30	10169.22	917.64	0.00	14270346.75	783777.06	N 39 15 23.52	W 108 1 33.68
	17100.00	88.00	2.00	8211.80	10310.13	10269.10	921.13	0.00	14270446.67	783780.55	N 39 15 24.51	W 108 1 33.68
	17200.00	88.00	2.00	8215.29	10409.95	10368.97	924.62	0.00	14270546.59	783784.04	N 39 15 25.50	W 108 1 33.68
	17300.00	88.00	2.00	8218.78	10509.77	10468.85	928.11	0.00	14270646.51	783787.52	N 39 15 26.48	W 108 1 33.68
	17400.00	88.00	2.00	8222.27	10609.59	10568.73	931.59	0.00	14270746.43	783791.01	N 39 15 27.47	W 108 1 33.68
	17500.00	88.00	2.00	8225.76	10709.42	10668.61	935.08	0.00	14270846.36	783794.50	N 39 15 28.46	W 108 1 33.67
	17600.00	88.00	2.00	8229.25	10809.24	10768.49	938.57	0.00	14270946.28	783797.99	N 39 15 29.45	W 108 1 33.67
	17700.00	88.00	2.00	8232.74	10909.06	10868.37	942.06	0.00	14271046.20	783801.48	N 39 15 30.44	W 108 1 33.67
	17800.00	88.00	2.00	8236.23	11008.88	10968.24	945.54	0.00	14271146.12	783804.97	N 39 15 31.42	W 108 1 33.67
	17900.00	88.00	2.00	8239.72	11108.71	11068.12	949.03	0.00	14271246.05	783808.46	N 39 15 32.41	W 108 1 33.67
	18000.00	88.00	2.00	8243.21	11208.53	11168.00	952.52	0.00	14271345.97	783811.95	N 39 15 33.40	W 108 1 33.67
	18100.00	88.00	2.00	8246.70	11308.35	11267.88	956.01	0.00	14271445.89	783815.44	N 39 15 34.39	W 108 1 33.66
	18200.00	88.00	2.00	8250.19	11408.17	11367.76	959.50	0.00	14271545.81	783818.93	N 39 15 35.37	W 108 1 33.66
	18300.00	88.00	2.00	8253.68	11507.99	11467.63	962.98	0.00	14271645.73	783822.42	N 39 15 36.36	W 108 1 33.66
	18400.00	88.00	2.00	8257.17	11607.82	11567.51	966.47	0.00	14271745.66	783825.91	N 39 15 37.35	W 108 1 33.66
Nichols 19-9H2 TD	18423.69	88.00	2.00	8258.00	11631.47	11591.18	967.30	0.00	14271769.33	783826.73	N 39 15 37.58	W 108 1 33.66

Survey Type: Def Plan

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

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	22.000	1/100.000	SLB_MWD-STD-Depth Only	Original Hole / Nichols 19-9H2 R2 ors 01-Dec-11
	22.000	18423.693	1/100.000	SLB_MWD-STD	Original Hole / Nichols 19-9H2 R2 ors 01-Dec-11