





## FRU 197-31C5 R1 Geodetic Proposal

Report Date: October 1, 2009	Survey / DLS Computation Method: Minimum Curvature / Lubinski
Client: ExxonMobil	Vertical Section Azimuth: 195.230°
Field: CO, Rio Blanco County (NAD 27 NZ) ExxonMobil 2008	Vertical Section Origin: N 0.000 ft, E 0.000 ft
Structure / Slot: ExxonMobil 31-1S-97W (FRU 197-31C Pad) / FRU 197-31C05	TVD Reference Datum:
Well: FRU 197-31C05	TVD Reference Elevation: 6562.0 ft relative to MSL
Borehole: Original Hole (Est RKB)	Sea Bed / Ground Level Elevation: 6562.000 ft relative to MSL
UWVAPI#:	Magnetic Declination: 10.774°
Survey Name / Date: FRU 197-31C5 R1 ivs 1-Oct-09 / October 1, 2009	Total Field Strength: 52623.942 nT
Tort / AHD / DDI / ERD ratio: 29.006° / 1073.73 ft / 4.498 / 0.085	Magnetic Dip: 66.109°
Grid Coordinate System: NAD27 Colorado State Planes, Northern Zone, US Feet	Declination Date: October 01, 2009
Location Lat/Long: N 39 55 33.207, W 108 19 31.378	Magnetic Declination Model: BGGM 2008
Location Grid N/E Y/X: N 228470.000 ftUS, E 1207712.000 ftUS	North Reference: Grid North
Grid Convergence Angle: -1.82557437°	Total Corr Mag North -> Grid North: +12.600°
Grid Scale Factor: 0.99997283	Local Coordinates Referenced To: Well Head

Comments	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Sub-Sea TVD (ft)	TVD (ft)	Vertical Section (ft)	NS (ft)	EW (ft)	DLS (deg/100 ft)	Northing (ftUS)	Easting (ftUS)	Latitude	Longitude
Tie-In / Surface	0.00	0.00	195.23	-6562.00	0.00	0.00	0.00	0.00	0.00	228470.00	1207712.00	N 39 55 33.207	W 108 19 31.378
	100.00	0.00	195.23	-6462.00	100.00	0.00	0.00	0.00	0.00	228470.00	1207712.00	N 39 55 33.207	W 108 19 31.378
	200.00	0.00	195.23	-6362.00	200.00	0.00	0.00	0.00	0.00	228470.00	1207712.00	N 39 55 33.207	W 108 19 31.378
	300.00	0.00	195.23	-6262.00	300.00	0.00	0.00	0.00	0.00	228470.00	1207712.00	N 39 55 33.207	W 108 19 31.378
	400.00	0.00	195.23	-6162.00	400.00	0.00	0.00	0.00	0.00	228470.00	1207712.00	N 39 55 33.207	W 108 19 31.378
KOP Build 2" DLS	500.00	0.00	195.23	-6062.00	500.00	0.00	0.00	0.00	0.00	228470.00	1207712.00	N 39 55 33.207	W 108 19 31.378
	600.00	2.00	195.23	-5962.02	599.98	1.75	-1.68	-0.46	2.00	228468.32	1207711.54	N 39 55 33.190	W 108 19 31.383
	700.00	4.00	195.23	-5862.16	699.84	6.98	-6.73	-1.83	2.00	228463.27	1207710.17	N 39 55 33.140	W 108 19 31.399
	800.00	6.00	195.23	-5762.55	799.45	15.69	-15.14	-4.12	2.00	228454.86	1207707.88	N 39 55 33.056	W 108 19 31.425
	900.00	8.00	195.23	-5663.30	898.70	27.88	-26.90	-7.32	2.00	228443.10	1207704.68	N 39 55 32.939	W 108 19 31.461
Begin Target 14.5° A-groove	1000.00	10.00	195.23	-5564.53	997.47	43.52	-41.99	-11.43	2.00	228428.01	1207700.57	N 39 55 32.788	W 108 19 31.508
	1100.00	12.00	195.23	-5466.38	1095.62	62.60	-60.40	-16.44	2.00	228409.60	1207695.56	N 39 55 32.605	W 108 19 31.564
	1200.00	14.00	195.23	-5368.94	1193.06	85.10	-82.11	-22.35	2.00	228387.89	1207689.65	N 39 55 32.389	W 108 19 31.631
	1225.14	14.50	195.23	-5344.58	1217.42	91.28	-88.08	-23.98	2.00	228381.92	1207688.03	N 39 55 32.329	W 108 19 31.650
	1250.53	14.50	195.23	-5320.00	1242.00	97.64	-94.22	-25.65	0.00	228375.79	1207686.36	N 39 55 32.268	W 108 19 31.669
B-groove	1300.00	14.50	195.23	-5272.10	1289.90	110.03	-106.17	-28.90	0.00	228363.83	1207683.10	N 39 55 32.149	W 108 19 31.705
	1400.00	14.50	195.23	-5175.29	1386.71	135.07	-130.33	-35.48	0.00	228339.67	1207676.52	N 39 55 31.908	W 108 19 31.780
	1436.45	14.50	195.23	-5140.00	1422.00	144.20	-139.14	-37.87	0.00	228330.86	1207674.13	N 39 55 31.820	W 108 19 31.807
	1500.00	14.50	195.23	-5078.48	1483.52	160.12	-154.50	-42.05	0.00	228315.51	1207669.95	N 39 55 31.667	W 108 19 31.854
	1600.00	14.50	195.23	-4981.66	1580.34	185.16	-178.66	-48.63	0.00	228291.35	1207663.37	N 39 55 31.427	W 108 19 31.929
Wasatch A	1700.00	14.50	195.23	-4884.85	1677.15	210.20	-202.82	-55.21	0.00	228267.18	1207656.79	N 39 55 31.186	W 108 19 32.003
	1800.00	14.50	195.23	-4788.04	1773.96	235.25	-226.99	-61.79	0.00	228243.02	1207650.22	N 39 55 30.945	W 108 19 32.078
	1900.00	14.50	195.23	-4691.22	1870.78	260.29	-251.15	-68.36	0.00	228218.86	1207643.64	N 39 55 30.704	W 108 19 32.152
	2000.00	14.50	195.23	-4594.41	1967.59	285.33	-275.31	-74.94	0.00	228194.69	1207637.06	N 39 55 30.464	W 108 19 32.227
	2100.00	14.50	195.23	-4497.60	2064.40	310.37	-299.48	-81.52	0.00	228170.53	1207630.48	N 39 55 30.223	W 108 19 32.301
	2200.00	14.50	195.23	-4400.78	2161.22	335.42	-323.64	-88.10	0.00	228146.37	1207623.91	N 39 55 29.982	W 108 19 32.376
	2300.00	14.50	195.23	-4303.97	2258.03	360.46	-347.80	-94.67	0.00	228122.21	1207617.33	N 39 55 29.741	W 108 19 32.450
	2400.00	14.50	195.23	-4207.15	2354.85	385.50	-371.97	-101.25	0.00	228098.04	1207610.75	N 39 55 29.501	W 108 19 32.525
	2500.00	14.50	195.23	-4110.34	2451.66	410.54	-396.13	-107.83	0.00	228073.88	1207604.18	N 39 55 29.260	W 108 19 32.599
	2600.00	14.50	195.23	-4013.53	2548.47	435.59	-420.29	-114.40	0.00	228049.72	1207597.60	N 39 55 29.019	W 108 19 32.674
	2700.00	14.50	195.23	-3916.71	2645.29	460.63	-444.46	-120.98	0.00	228025.55	1207591.02	N 39 55 28.778	W 108 19 32.748
	2800.00	14.50	195.23	-3819.90	2742.10	485.67	-468.62	-127.56	0.00	228001.39	1207584.44	N 39 55 28.538	W 108 19 32.823
	2900.00	14.50	195.23	-3723.09	2838.91	510.71	-492.79	-134.14	0.00	227977.23	1207577.87	N 39 55 28.297	W 108 19 32.897
	2975.49	14.50	195.23	-3650.00	2912.00	529.62	-511.03	-139.10	0.00	227958.99	1207572.90	N 39 55 28.115	W 108 19 32.954
	3000.00	14.50	195.23	-3626.27	2935.73	535.76	-516.95	-140.71	0.00	227953.07	1207571.29	N 39 55 28.056	W 108 19 32.972
	3100.00	14.50	195.23	-3529.46	3032.54	560.80	-541.11	-147.29	0.00	227928.90	1207564.71	N 39 55 27.815	W 108 19 33.046
	3200.00	14.50	195.23	-3432.65	3129.35	585.84	-565.28	-153.87	0.00	227904.74	1207558.14	N 39 55 27.575	W 108 19 33.121
	3300.00	14.50	195.23	-3335.83	3226.17	610.89	-589.44	-160.45	0.00	227880.58	1207551.56	N 39 55 27.334	W 108 19 33.195
	3400.00	14.50	195.23	-3239.02	3322.98	635.93	-613.60	-167.02	0.00	227856.42	1207544.98	N 39 55 27.093	W 108 19 33.270
	3500.00	14.50	195.23	-3142.21	3419.79	660.97	-637.77	-173.60	0.00	227832.25	1207538.40	N 39 55 26.853	W 108 19 33.344
	3600.00	14.50	195.23	-3045.39	3516.61	686.01	-661.93	-180.18	0.00	227808.09	1207531.83	N 39 55 26.612	W 108 19 33.419
	3700.00	14.50	195.23	-2948.58	3613.42	711.06	-686.09	-186.76	0.00	227783.93	1207525.25	N 39 55 26.371	W 108 19 33.493
	3800.00	14.50	195.23	-2851.77	3710.23	736.10	-710.26	-193.33	0.00	227759.76	1207518.67	N 39 55 26.130	W 108 19 33.568
	3900.00	14.50	195.23	-2754.95	3807.05	761.14	-734.42	-199.91	0.00	227735.60	1207512.10	N 39 55 25.890	W 108 19 33.642
	4000.00	14.50	195.23	-2658.14	3903.86	786.18	-758.58	-206.49	0.00	227711.44	1207505.52	N 39 55 25.649	W 108 19 33.717
Wasatch C	4008.41	14.50	195.23	-2650.00	3912.00	788.29	-760.61	-207.04	0.00	227709.41	1207504.97	N 39 55 25.629	W 108 19 33.723
10-3/4" Casing Point	4060.05	14.50	195.23	-2600.00	3962.00	801.22	-773.09	-210.44	0.00	227696.93	1207501.57	N 39 55 25.504	W 108 19 33.762

KOP Drop 2° DLS	4100.00	14.50	195.23	-2561.32	4000.68	811.23	-782.75	-213.06	0.00	227687.28	1207498.94	N 39 55 25.408	W 108 19 33.791
	4200.00	14.50	195.23	-2464.51	4097.49	836.27	-806.91	-219.64	0.00	227663.11	1207492.36	N 39 55 25.167	W 108 19 33.866
	4300.00	14.50	195.23	-2367.70	4194.30	861.31	-831.07	-226.22	0.00	227638.95	1207485.79	N 39 55 24.927	W 108 19 33.940
	4400.00	14.50	195.23	-2270.88	4291.12	886.35	-855.24	-232.80	0.00	227614.79	1207479.21	N 39 55 24.686	W 108 19 34.015
	4500.00	14.50	195.23	-2174.07	4387.93	911.40	-879.40	-239.37	0.00	227590.62	1207472.63	N 39 55 24.445	W 108 19 34.089
	4600.00	14.50	195.23	-2077.26	4484.74	936.44	-903.56	-245.95	0.00	227566.46	1207466.06	N 39 55 24.204	W 108 19 34.164
	4700.00	14.50	195.23	-1980.44	4581.56	961.48	-927.73	-252.53	0.00	227542.30	1207459.48	N 39 55 23.964	W 108 19 34.238
	4783.69	14.50	195.23	-1899.42	4662.58	982.44	-947.95	-258.03	0.00	227522.08	1207453.97	N 39 55 23.762	W 108 19 34.301
	4800.00	14.18	195.23	-1883.62	4678.38	986.48	-951.85	-259.09	2.00	227518.18	1207452.91	N 39 55 23.723	W 108 19 34.313
	4900.00	12.18	195.23	-1786.26	4775.74	1009.27	-973.84	-265.08	2.00	227496.19	1207446.93	N 39 55 23.504	W 108 19 34.381
Vertical Point	5000.00	10.18	195.23	-1688.16	4873.84	1028.66	-992.54	-270.17	2.00	227477.49	1207441.84	N 39 55 23.318	W 108 19 34.438
	5100.00	8.18	195.23	-1589.44	4972.56	1044.60	-1007.93	-274.36	2.00	227462.10	1207437.65	N 39 55 23.164	W 108 19 34.486
	5200.00	6.18	195.23	-1490.23	5071.77	1057.10	-1019.98	-277.64	2.00	227450.05	1207434.37	N 39 55 23.044	W 108 19 34.523
	5300.00	4.18	195.23	-1390.64	5171.36	1066.12	-1028.69	-280.01	2.00	227441.34	1207432.00	N 39 55 22.958	W 108 19 34.550
	5400.00	2.18	195.23	-1290.80	5271.20	1071.66	-1034.04	-281.47	2.00	227435.99	1207430.54	N 39 55 22.904	W 108 19 34.566
	5500.00	0.18	195.23	-1190.83	5371.17	1073.71	-1036.02	-282.00	2.00	227434.01	1207430.00	N 39 55 22.885	W 108 19 34.572
	5508.83	0.00	195.23	-1182.00	5380.00	1073.73	-1036.03	-282.01	2.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	5600.00	0.00	195.23	-1090.83	5471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	5700.00	0.00	195.23	-990.83	5571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	5740.83	0.00	195.23	-950.00	5612.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Wasatch G	5800.00	0.00	195.23	-890.83	5671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	5900.00	0.00	195.23	-790.83	5771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6000.00	0.00	195.23	-690.83	5871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6100.00	0.00	195.23	-590.83	5971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6200.00	0.00	195.23	-490.83	6071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6300.00	0.00	195.23	-390.83	6171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6400.00	0.00	195.23	-290.83	6271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6500.00	0.00	195.23	-190.83	6371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6600.00	0.00	195.23	-90.83	6471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6700.00	0.00	195.23	9.17	6571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Ohio Creek (WF900)	6800.00	0.00	195.23	109.17	6671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	6900.00	0.00	195.23	209.17	6771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7000.00	0.00	195.23	309.17	6871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7100.00	0.00	195.23	409.17	6971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7200.00	0.00	195.23	509.17	7071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7300.00	0.00	195.23	609.17	7171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7400.00	0.00	195.23	709.17	7271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7500.00	0.00	195.23	809.17	7371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7510.83	0.00	195.23	820.00	7382.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7600.00	0.00	195.23	909.17	7471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
WF 700	7700.00	0.00	195.23	1009.17	7571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7800.00	0.00	195.23	1109.17	7671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	7900.00	0.00	195.23	1209.17	7771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8000.00	0.00	195.23	1309.17	7871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8100.00	0.00	195.23	1409.17	7971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8200.00	0.00	195.23	1509.17	8071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8210.83	0.00	195.23	1520.00	8082.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8300.00	0.00	195.23	1609.17	8171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8400.00	0.00	195.23	1709.17	8271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8500.00	0.00	195.23	1809.17	8371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
7" Casing Point	8570.83	0.00	195.23	1880.00	8442.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8600.00	0.00	195.23	1909.17	8471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8700.00	0.00	195.23	2009.17	8571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8720.83	0.00	195.23	2030.00	8592.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8800.00	0.00	195.23	2109.17	8671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	8900.00	0.00	195.23	2209.17	8771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9000.00	0.00	195.23	2309.17	8871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9100.00	0.00	195.23	2409.17	8971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9140.83	0.00	195.23	2450.00	9012.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9200.00	0.00	195.23	2509.17	9071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
WF 400	9300.00	0.00	195.23	2609.17	9171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9400.00	0.00	195.23	2709.17	9271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9500.00	0.00	195.23	2809.17	9371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9600.00	0.00	195.23	2909.17	9471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9700.00	0.00	195.23	3009.17	9571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9800.00	0.00	195.23	3109.17	9671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	9900.00	0.00	195.23	3209.17	9771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10000.00	0.00	195.23	3309.17	9871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34

	10100.00	0.00	195.23	3409.17	9971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10200.00	0.00	195.23	3509.17	10071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10300.00	0.00	195.23	3609.17	10171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10400.00	0.00	195.23	3709.17	10271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10500.00	0.00	195.23	3809.17	10371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
WF 200	10600.00	0.00	195.23	3909.17	10471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10700.00	0.00	195.23	4009.17	10571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10800.00	0.00	195.23	4109.17	10671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10900.00	0.00	195.23	4209.17	10771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	10940.83	0.00	195.23	4250.00	10812.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Cameo	11000.00	0.00	195.23	4309.17	10871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11100.00	0.00	195.23	4409.17	10971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11200.00	0.00	195.23	4509.17	11071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11230.83	0.00	195.23	4540.00	11102.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Rollins	11300.00	0.00	195.23	4609.17	11171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11400.00	0.00	195.23	4709.17	11271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11480.83	0.00	195.23	4790.00	11352.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Cozzette Coastal	11500.00	0.00	195.23	4809.17	11371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11600.00	0.00	195.23	4909.17	11471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11660.83	0.00	195.23	4970.00	11532.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Corcorran Coastal	11700.00	0.00	195.23	5009.17	11571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11800.00	0.00	195.23	5109.17	11671.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11900.00	0.00	195.23	5209.17	11771.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	11960.83	0.00	195.23	5270.00	11832.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12000.00	0.00	195.23	5309.17	11871.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
Corcorran Marine	12100.00	0.00	195.23	5409.17	11971.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12200.00	0.00	195.23	5509.17	12071.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12300.00	0.00	195.23	5609.17	12171.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12400.00	0.00	195.23	5709.17	12271.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12500.00	0.00	195.23	5809.17	12371.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
PBHL / TD	12510.83	0.00	195.23	5820.00	12382.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12600.00	0.00	195.23	5909.17	12471.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12700.00	0.00	195.23	6009.17	12571.17	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572
	12710.83	0.00	195.23	6020.00	12582.00	1073.73	-1036.03	-282.01	0.00	227434.00	1207430.00	N 39 55 22.884	W 108 19 34.572

**Survey Type:** Non-Def Proposal

**Survey Error Model:** SLB ISCWSA version 24 \*\*\* 3-D 95.00% Confidence 2.7955 sigma

**Surveying Prog:**

MD From ( ft )	MD To ( ft )	EOU Freq	Survey Tool Type
0.00	500.00	1/100.00	SLB_NSG+SSHOT
500.00	5508.83	1/100.00	SLB_MWD-STD
5508.83	12710.83	1/100.00	SLB_INC-ONLY

**Borehole -> Survey**

Original Hole (Est RKB) -> FRU 197-31C5 R1 ivs 1-Oct-09  
Original Hole (Est RKB) -> FRU 197-31C5 R1 ivs 1-Oct-09  
Original Hole (Est RKB) -> FRU 197-31C5 R1 ivs 1-Oct-09