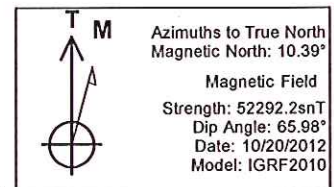
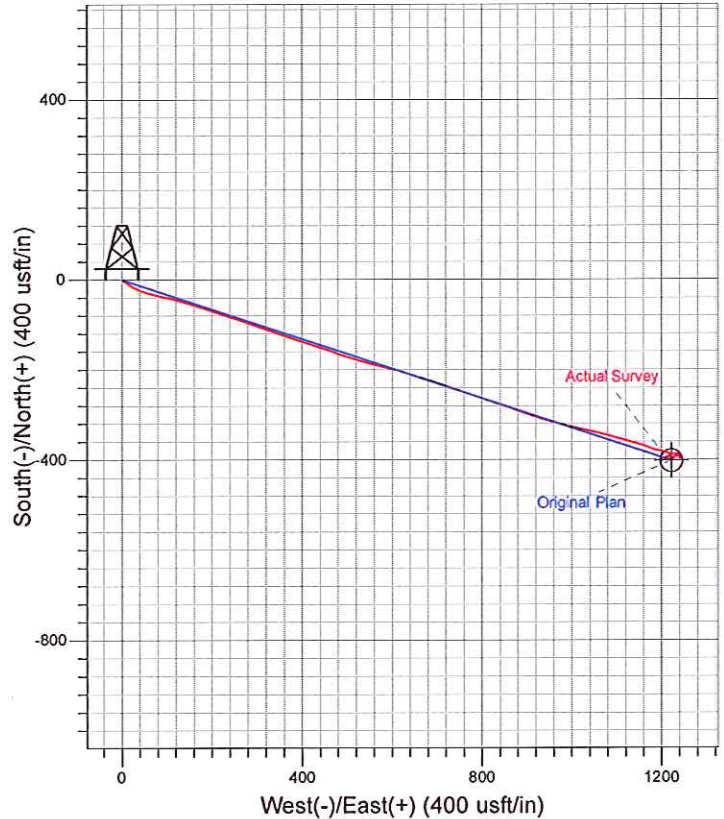
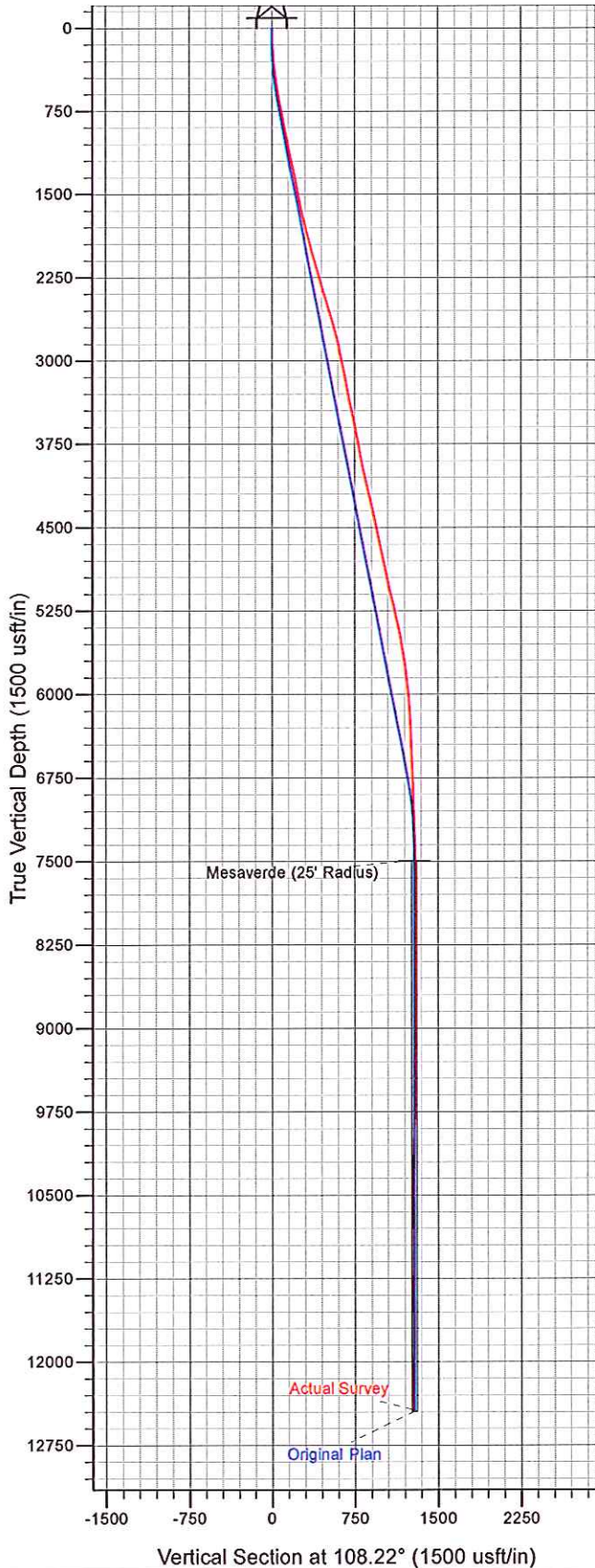




Well Name: RGU 344-36-198  
 Surface Location: RGU 33-36-198 Pad  
 North American Datum 1983 , US State Plane 1983 . Colorado Central Zone  
 Ground Elevation: 6574.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1771046.50 2203532.10 39.91616 -108.33976 B4  
 WELL @ 6595.00usft (Original Well Elev)



## I General

### 1.1 Customer Information

Company	PICEANCE HL
Representative	Eric Kolstad
Address	1515 Arapahoe St., Suite 1000 Denver, CO 80202

### 1.2 Well Information

Well	RGU 344-36-198	Wellbore No.	
Well Name	FEDERAL RGU 344-36-198	Common Name	RGU 344-36-198
Project	RG 36-01S-098W	Site	RGU 33-36-198 Pad
Vertical Section Azimuth	108.20 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	10/22/2012	UWI	RGU 344-36-198
Active Datum	KB @6,595.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	10/22/2012	Ended	
Tool Name	MWD	Engineer	

#### 2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

#### 2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
10/22/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/22/2012	NORMAL	340.0	6.24	125.70	339.33	-10.79	15.02	17.64	1.84	1.84	0.00	125.70
	NORMAL	432.0	7.21	119.37	430.70	-16.54	24.11	28.07	1.33	1.05	-6.88	319.44
	NORMAL	524.0	8.71	109.18	521.81	-21.66	35.72	40.70	2.23	1.63	-11.08	311.63
	NORMAL	616.0	10.99	109.62	612.45	-26.90	50.57	56.44	2.48	2.48	0.48	2.1'
	NORMAL	708.0	11.43	105.31	702.69	-32.25	67.62	74.31	1.03	0.48	-4.68	295.58
	NORMAL	802.0	11.61	102.59	794.80	-36.77	85.83	93.02	0.61	0.19	-2.89	287.00
	NORMAL	897.0	11.96	101.18	887.80	-40.76	104.82	112.31	0.48	0.37	-1.48	319.86
	NORMAL	990.0	11.70	105.58	978.83	-45.16	123.36	131.29	1.01	-0.28	4.73	108.22
	NORMAL	1,084.0	11.96	106.81	1,070.83	-50.54	141.86	150.55	0.39	0.28	1.31	44.73
	NORMAL	1,178.0	12.22	106.10	1,162.74	-56.12	160.74	170.23	0.32	0.28	-0.76	329.88
	NORMAL	1,272.0	11.78	107.60	1,254.69	-61.78	179.45	189.76	0.57	-0.47	1.60	145.40
	NORMAL	1,366.0	10.92	111.32	1,346.85	-67.91	196.89	208.25	1.20	-0.91	3.96	141.4'
	NORMAL	1,461.0	10.55	108.04	1,440.19	-73.88	213.54	225.93	0.75	-0.39	-3.45	237.20
	NORMAL	1,556.0	10.73	108.56	1,533.56	-79.39	230.19	243.47	0.21	0.19	0.55	28.33
10/23/2012	NORMAL	1,650.0	12.49	108.21	1,625.63	-85.35	248.15	262.39	1.87	1.87	-0.37	357.54
	NORMAL	1,744.0	13.37	108.39	1,717.25	-91.95	268.11	283.42	0.94	0.94	0.19	2.7'
	NORMAL	1,838.0	14.23	108.44	1,808.53	-99.04	289.39	305.84	0.91	0.91	0.05	0.82
	NORMAL	2,026.0	15.72	110.36	1,990.14	-115.21	335.19	354.40	0.84	0.79	1.02	19.35
	NORMAL	2,121.0	15.62	108.30	2,081.61	-123.70	359.40	380.05	0.60	-0.11	-2.17	258.82

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
10/23/2012	NORMAL	2,310.0	17.06	109.22	2,262.97	-140.82	409.74	433.22	0.77	0.76	0.49	10.63
	NORMAL	2,404.0	16.27	107.68	2,353.03	-149.36	435.30	460.17	0.96	-0.84	-1.64	208.47
	NORMAL	2,499.0	16.53	108.42	2,444.16	-157.67	460.80	487.00	0.35	0.27	0.78	39.14
	NORMAL	2,594.0	17.31	109.27	2,535.05	-166.60	486.97	514.64	0.86	0.82	0.89	18.00
	NORMAL	2,688.0	16.80	107.16	2,624.92	-175.23	513.15	542.21	0.85	-0.54	-2.24	229.50
	NORMAL	2,782.0	15.74	104.87	2,715.15	-182.51	538.45	568.52	1.32	-1.13	-2.44	210.09
	NORMAL	2,877.0	13.90	103.97	2,806.99	-188.57	561.98	592.76	1.95	-1.94	-0.95	186.70
	NORMAL	2,971.0	12.22	103.55	2,898.55	-193.63	582.61	613.94	1.79	-1.79	-0.45	183.03
	NORMAL	3,065.0	10.90	106.63	2,990.64	-198.50	600.80	632.74	1.55	-1.40	3.28	156.44
	NORMAL	3,157.0	10.55	107.25	3,081.04	-203.49	617.18	649.86	0.40	-0.38	0.67	162.06
	NORMAL	3,251.0	10.99	106.81	3,173.38	-208.63	633.97	667.42	0.48	0.47	-0.47	349.20
	NORMAL	3,346.0	11.08	107.74	3,266.62	-214.03	651.34	685.60	0.21	0.09	0.98	63.64
	NORMAL	3,441.0	11.43	107.60	3,359.80	-219.66	669.00	704.14	0.37	0.37	-0.15	355.47
	NORMAL	3,535.0	11.95	107.65	3,451.85	-225.43	687.15	723.19	0.55	0.55	0.05	1.14
	NORMAL	3,617.0	12.40	107.07	3,532.00	-230.58	703.66	740.48	0.57	0.55	-0.71	344.51
11/22/2012	NORMAL	3,722.0	11.23	110.07	3,634.78	-237.40	724.04	761.97	1.26	-1.11	2.86	153.76
	NORMAL	3,816.0	11.08	110.92	3,727.00	-243.77	741.08	780.14	0.24	-0.16	0.90	132.79
	NORMAL	3,910.0	10.99	108.88	3,819.26	-249.89	757.99	798.12	0.43	-0.10	-2.17	256.02
	NORMAL	4,004.0	10.64	106.01	3,911.59	-255.19	774.81	815.75	0.68	-0.37	-3.05	235.58
	NORMAL	4,098.0	11.97	109.63	4,003.77	-260.85	792.33	834.17	1.60	1.41	3.85	29.87
	NORMAL	4,193.0	13.54	108.83	4,096.42	-267.75	812.14	855.14	1.66	1.65	-0.84	353.19
	NORMAL	4,288.0	12.40	107.68	4,189.00	-274.44	832.38	876.46	1.23	-1.20	-1.21	192.20
	NORMAL	4,381.0	13.45	108.21	4,279.64	-280.85	852.17	897.26	1.14	1.13	0.57	6.70
	NORMAL	4,476.0	13.45	110.15	4,372.03	-288.11	873.04	919.35	0.47	0.00	2.04	90.94
	NORMAL	4,570.0	12.13	109.44	4,463.70	-295.17	892.62	940.15	1.41	-1.40	-0.76	186.44
	NORMAL	4,664.0	11.15	110.85	4,555.77	-301.69	910.42	959.11	1.09	-1.04	1.50	164.50
	NORMAL	4,759.0	12.09	105.62	4,648.82	-307.64	928.59	978.22	1.49	0.99	-5.51	309.16
	NORMAL	4,853.0	11.96	106.45	4,740.76	-313.04	947.41	997.79	0.23	-0.14	0.88	127.34
11/23/2012	NORMAL	4,948.0	11.87	104.17	4,833.71	-318.22	966.33	1,017.38	0.50	-0.09	-2.40	258.06
	NORMAL	5,042.0	12.13	106.28	4,925.66	-323.36	985.18	1,036.89	0.54	0.28	2.24	60.38
	NORMAL	5,136.0	13.45	102.41	5,017.33	-328.48	1,005.34	1,057.64	1.67	1.40	-4.12	325.12
	NORMAL	5,231.0	14.07	101.53	5,109.60	-333.16	1,027.44	1,080.10	0.69	0.65	-0.93	340.92
	NORMAL	5,325.0	13.63	104.35	5,200.87	-338.19	1,049.37	1,102.50	0.86	-0.47	3.00	124.46
	NORMAL	5,418.0	12.66	104.43	5,291.43	-343.44	1,069.85	1,123.60	1.04	-1.04	0.09	178.96
	NORMAL	5,513.0	11.96	103.73	5,384.24	-348.38	1,089.50	1,143.80	0.75	-0.74	-0.74	191.69
	NORMAL	5,607.0	10.64	109.35	5,476.42	-353.56	1,107.15	1,162.19	1.83	-1.40	5.98	142.90
	NORMAL	5,701.0	9.41	104.78	5,568.99	-358.40	1,122.77	1,178.54	1.56	-1.31	-4.86	210.66
	NORMAL	5,796.0	9.15	105.58	5,662.74	-362.41	1,137.55	1,193.84	0.31	-0.27	0.84	154.00
	NORMAL	5,890.0	8.27	106.54	5,755.66	-366.34	1,151.23	1,208.06	0.95	-0.94	1.02	171.09
	NORMAL	5,985.0	6.95	111.46	5,849.82	-370.39	1,163.13	1,220.63	1.55	-1.39	5.18	156.15
	NORMAL	6,079.0	5.72	109.35	5,943.25	-374.02	1,172.85	1,230.99	1.33	-1.31	-2.24	189.67
	NORMAL	6,174.0	4.54	105.49	6,037.86	-376.59	1,180.94	1,239.48	1.29	-1.24	-4.06	194.39
	NORMAL	6,266.0	3.61	111.73	6,129.63	-378.64	1,187.14	1,246.01	1.12	-1.01	6.78	157.60
	NORMAL	6,360.0	2.73	108.92	6,223.49	-380.46	1,192.00	1,251.20	0.95	-0.94	-2.99	188.61
	NORMAL	6,455.0	3.17	91.43	6,318.36	-381.26	1,196.77	1,255.98	1.05	0.46	-18.41	287.14
	NORMAL	6,549.0	2.53	111.96	6,412.25	-382.10	1,201.29	1,260.54	1.27	-0.68	21.84	132.06
	NORMAL	6,644.0	2.20	113.40	6,507.17	-383.61	1,204.91	1,264.44	0.35	-0.35	1.52	170.51
	NORMAL	6,739.0	1.93	104.87	6,602.10	-384.74	1,208.13	1,267.86	0.43	-0.28	-8.98	224.49
	NORMAL	6,833.0	2.29	97.58	6,696.04	-385.40	1,211.52	1,271.28	0.48	0.38	-7.76	319.61
	NORMAL	6,928.0	2.44	97.28	6,790.96	-385.90	1,215.41	1,275.13	0.16	0.16	-0.32	355.13
	NORMAL	7,022.0	2.12	105.83	6,884.89	-386.63	1,219.07	1,278.84	0.50	-0.34	9.10	137.47
	NORMAL	7,116.0	1.85	108.56	6,978.83	-387.59	1,222.18	1,282.09	0.30	-0.29	2.90	162.06
11/24/2012	NORMAL	7,210.0	2.20	106.10	7,072.77	-388.57	1,225.35	1,285.41	0.38	0.37	-2.62	344.82
	NORMAL	7,305.0	2.02	80.66	7,167.71	-388.81	1,228.75	1,288.72	1.00	-0.19	-26.78	246.59
	NORMAL	7,399.0	1.76	75.87	7,261.66	-388.19	1,231.79	1,291.41	0.32	-0.28	-5.10	208.90
	NORMAL	7,493.0	1.67	80.09	7,355.61	-387.60	1,234.54	1,293.83	0.16	-0.10	4.49	127.57
	NORMAL	7,588.0	1.41	96.08	7,450.58	-387.48	1,237.06	1,296.20	0.53	-0.27	16.83	129.00

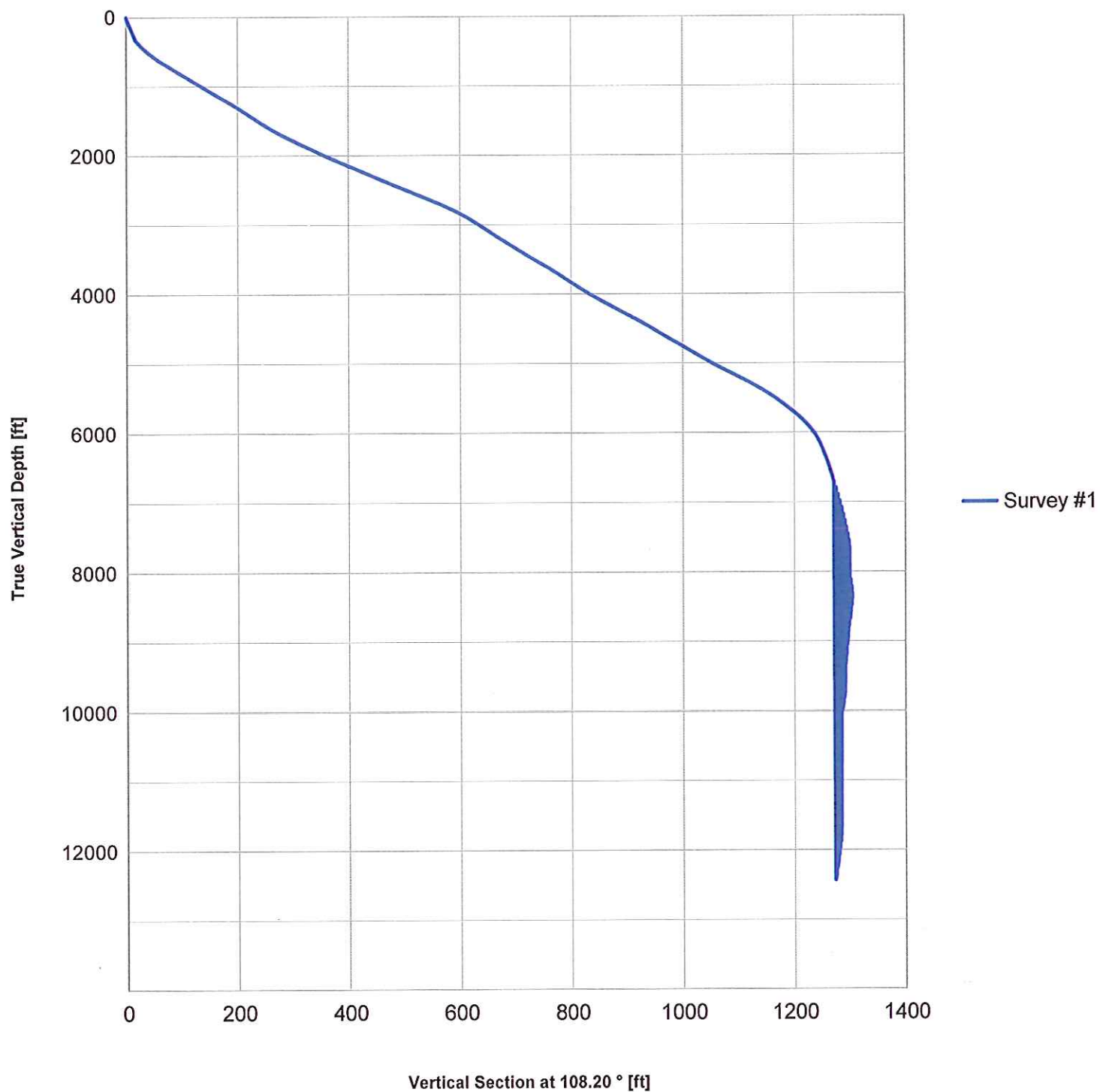
## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
11/24/2012	NORMAL	7,682.0	1.41	135.81	7,544.55	-388.43	1,239.02	1,298.35	1.02	0.00	42.27	109.86
	NORMAL	7,777.0	0.70	210.78	7,639.54	-389.77	1,239.54	1,299.26	1.48	-0.75	78.92	151.17
	NORMAL	7,871.0	0.79	236.36	7,733.53	-390.62	1,238.70	1,298.74	0.36	0.10	27.21	87.89
	NORMAL	7,965.0	1.06	225.37	7,827.52	-391.59	1,237.54	1,297.94	0.34	0.29	-11.69	321.12
	NORMAL	8,060.0	0.70	77.24	7,922.52	-392.08	1,237.48	1,298.04	1.78	-0.38	-155.93	192.59
	NORMAL	8,154.0	1.24	94.71	8,016.50	-392.04	1,239.06	1,299.52	0.65	0.57	18.59	37.63
	NORMAL	8,249.0	1.14	109.44	8,111.48	-392.44	1,240.97	1,301.46	0.34	-0.11	15.51	115.37
	NORMAL	8,343.0	1.09	136.76	8,205.47	-393.40	1,242.47	1,303.18	0.56	-0.05	29.06	108.93
	NORMAL	8,438.0	0.62	192.76	8,300.46	-394.56	1,242.97	1,304.03	0.95	-0.49	58.95	145.33
	NORMAL	8,533.0	1.15	213.99	8,395.44	-395.85	1,242.33	1,303.81	0.65	0.56	22.35	42.66
	NORMAL	8,626.0	1.17	262.66	8,488.43	-396.75	1,240.86	1,302.70	1.03	0.02	52.33	113.24
	NORMAL	8,720.0	1.06	332.43	8,582.41	-396.10	1,239.51	1,301.22	1.36	-0.12	74.22	128.93
11/25/2012	NORMAL	8,815.0	0.79	320.91	8,677.40	-394.81	1,238.69	1,300.03	0.34	-0.28	-12.13	208.89
	NORMAL	8,909.0	1.41	288.30	8,771.38	-393.95	1,237.18	1,298.33	0.91	0.66	-34.69	297.63
	NORMAL	9,003.0	0.67	307.66	8,865.37	-393.25	1,235.65	1,296.66	0.86	-0.79	20.60	164.06
	NORMAL	9,099.0	0.70	339.63	8,961.36	-392.35	1,235.00	1,295.76	0.39	0.03	33.30	101.6°
	NORMAL	9,193.0	0.77	270.98	9,055.36	-391.80	1,234.17	1,294.80	0.88	0.07	-73.03	239.67
	NORMAL	9,287.0	0.70	251.47	9,149.35	-391.98	1,232.99	1,293.74	0.27	-0.07	-20.76	244.76
	NORMAL	9,382.0	0.97	252.09	9,244.34	-392.41	1,231.68	1,292.62	0.28	0.28	0.65	2.23
	NORMAL	9,477.0	0.53	252.97	9,339.33	-392.78	1,230.49	1,291.61	0.46	-0.46	0.93	178.94
	NORMAL	9,572.0	0.26	246.46	9,434.33	-393.00	1,229.88	1,291.10	0.29	-0.28	-6.85	186.19
	NORMAL	9,666.0	0.44	190.83	9,528.33	-393.44	1,229.61	1,290.98	0.39	0.19	-59.18	268.17
	NORMAL	9,760.0	0.67	209.42	9,622.32	-394.27	1,229.27	1,290.92	0.31	0.24	19.78	47.60
	NORMAL	9,854.0	0.53	231.35	9,716.32	-395.02	1,228.67	1,290.58	0.28	-0.15	23.33	132.02
11/26/2012	NORMAL	9,949.0	0.88	277.23	9,811.31	-395.20	1,227.60	1,289.62	0.67	0.37	48.29	82.55
	NORMAL	10,043.0	1.64	246.77	9,905.29	-395.64	1,225.65	1,287.90	1.05	0.81	-32.40	302.70
	NORMAL	10,134.0	2.11	244.09	9,996.24	-396.89	1,222.94	1,285.72	0.53	0.52	-2.95	348.09
	NORMAL	10,228.0	2.64	242.07	10,090.16	-398.66	1,219.47	1,282.98	0.57	0.56	-2.15	350.0°
11/27/2012	NORMAL	10,332.0	0.79	286.54	10,194.11	-399.58	1,216.67	1,280.60	2.07	-1.78	42.76	165.07
	NORMAL	10,416.0	1.85	27.18	10,278.09	-398.21	1,216.73	1,280.24	2.55	1.26	119.81	121.86
	NORMAL	10,511.0	1.41	22.87	10,373.05	-395.77	1,217.89	1,280.57	0.48	-0.46	-4.54	193.42
	NORMAL	10,605.0	0.79	357.65	10,467.04	-394.05	1,218.31	1,280.44	0.82	-0.66	-26.83	205.83
	NORMAL	10,699.0	1.06	47.39	10,561.03	-392.82	1,218.93	1,280.64	0.87	0.29	52.91	97.39
	NORMAL	10,794.0	0.70	66.99	10,656.02	-391.99	1,220.11	1,281.50	0.49	-0.38	20.63	149.62
	NORMAL	10,888.0	0.26	75.34	10,750.01	-391.72	1,220.84	1,282.11	0.47	-0.47	8.88	175.13
	NORMAL	10,982.0	0.53	165.60	10,844.01	-392.08	1,221.16	1,282.52	0.63	0.29	96.02	116.34
	NORMAL	11,076.0	0.53	208.14	10,938.01	-392.89	1,221.06	1,282.68	0.41	0.00	45.26	111.27
	NORMAL	11,171.0	0.53	334.71	11,033.00	-392.88	1,220.66	1,282.31	1.00	0.00	133.23	153.28
	NORMAL	11,265.0	0.88	354.13	11,127.00	-391.77	1,220.40	1,281.71	0.45	0.37	20.66	44.29
	NORMAL	11,359.0	0.88	289.71	11,220.99	-390.81	1,219.65	1,280.70	1.00	0.00	-68.53	237.79
	NORMAL	11,453.0	1.41	44.76	11,314.98	-389.74	1,219.79	1,280.49	2.08	0.56	122.39	139.14
	NORMAL	11,547.0	1.58	59.96	11,408.95	-388.27	1,221.72	1,281.87	0.46	0.18	16.17	74.52
	NORMAL	11,641.0	0.62	66.11	11,502.93	-387.42	1,223.31	1,283.11	1.03	-1.02	6.54	176.06
	NORMAL	11,736.0	0.62	209.29	11,597.93	-387.66	1,223.53	1,283.39	1.24	0.00	150.72	161.59
11/28/2012	NORMAL	11,830.0	0.62	181.07	11,691.92	-388.61	1,223.27	1,283.45	0.32	0.00	-30.02	255.89
	NORMAL	11,924.0	0.26	280.04	11,785.92	-389.08	1,223.05	1,283.39	0.75	-0.38	105.29	158.75
	NORMAL	12,018.0	0.70	255.60	11,879.91	-389.19	1,222.28	1,282.69	0.51	0.47	-26.00	322.46
	NORMAL	12,112.0	1.32	254.64	11,973.90	-389.61	1,220.68	1,281.30	0.66	0.66	-1.02	357.96
	NORMAL	12,207.0	1.41	249.45	12,068.87	-390.32	1,218.53	1,279.48	0.16	0.09	-5.46	303.44
	NORMAL	12,301.0	1.32	248.05	12,162.85	-391.13	1,216.45	1,277.75	0.10	-0.10	-1.49	199.63
	NORMAL	12,395.0	1.49	235.39	12,256.82	-392.22	1,214.44	1,276.19	0.38	0.18	-13.47	292.28
	NORMAL	12,506.0	1.76	235.92	12,367.77	-394.00	1,211.84	1,274.27	0.24	0.24	0.48	3.45
	NORMAL	12,568.0	1.76	235.92	12,429.74	-395.07	1,210.26	1,273.11	0.00	0.00	0.00	0.00



### 3 Charts

#### 3.1 Vertical Section View



3.2 Plan View

