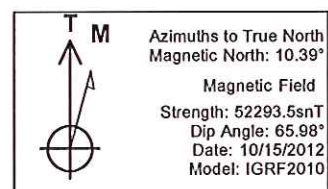
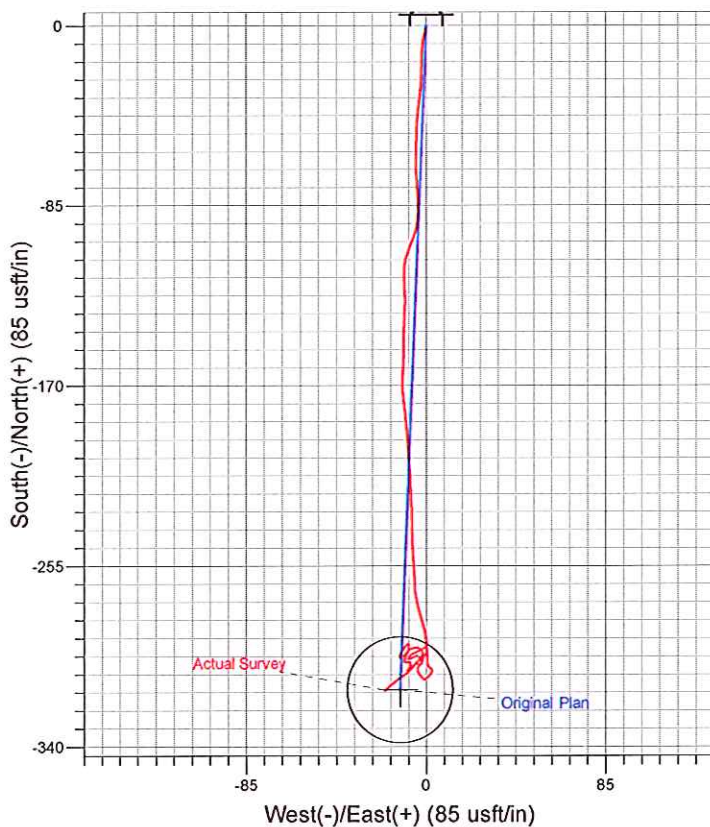
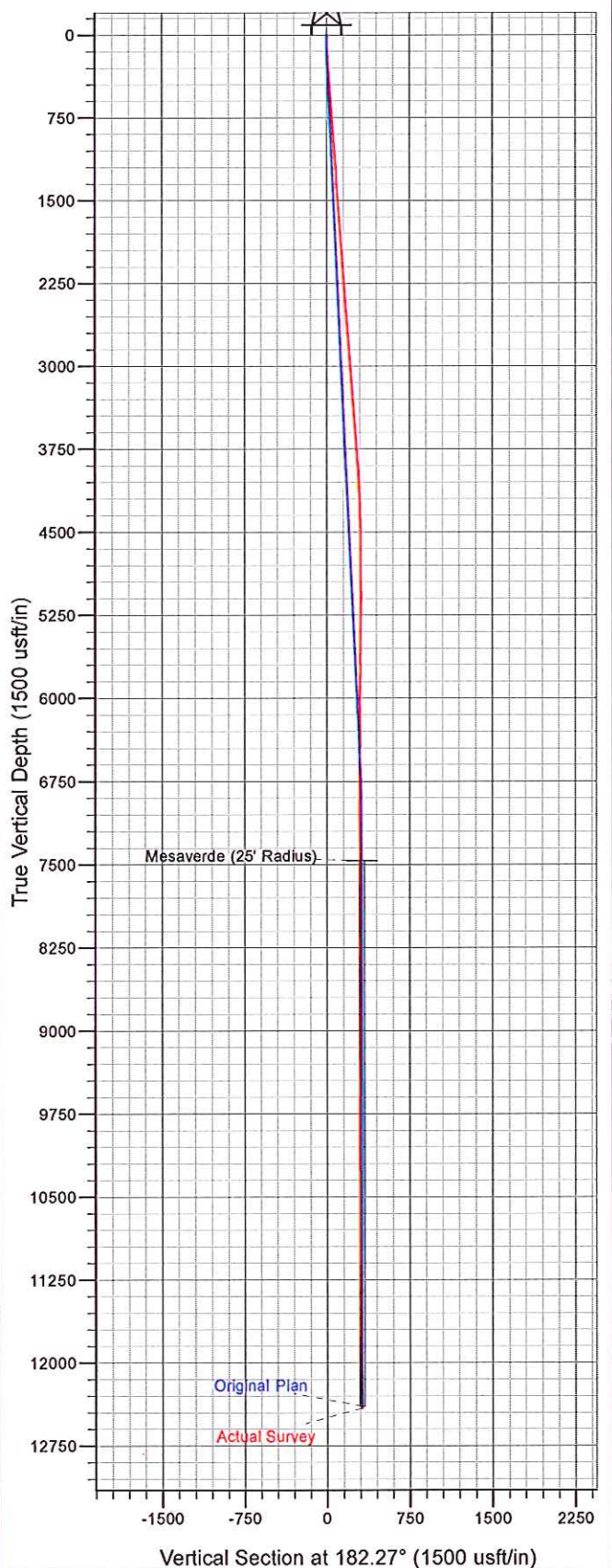




Well Name: RGU 34-36-198  
 Surface Location: RGU 33-36-198 Pad  
 North American Datum 1983 , US State Plane 1983. Colorado Central Zone  
 Ground Elevation: 6574.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1771036.60 2203511.90 39.91613 -108.33983 B7  
 WELL @ 6595.00usft (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 34-36-198	Wellbore No.	
Well Name	FEDERAL RGU 34-36-198	Common Name	RGU 34-36-198
Project	RG 36-01S-098W	Site	RGU 33-36-198 Pad
Vertical Section Azimuth	182.27 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	10/17/2012	UWI	RGU 34-36-198
Active Datum	KB @6,595.0ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC DRILLING
Date Started	10/18/2012	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 (°)
10/18/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/18/2012	NORMAL	249.0	3.23	192.90	248.87	-6.84	-1.57	6.90	1.30	1.30	0.00	192.90
	NORMAL	341.0	3.90	182.19	340.69	-12.49	-2.26	12.57	1.02	0.73	-11.64	309.74
	NORMAL	433.0	5.01	179.40	432.41	-19.64	-2.34	19.71	1.23	1.21	-3.03	347.56
	NORMAL	525.0	3.90	185.38	524.13	-26.77	-2.59	26.85	1.31	-1.21	6.50	160.25
	NORMAL	617.0	4.06	185.80	615.91	-33.12	-3.22	33.22	0.18	0.17	0.46	10.54
	NORMAL	709.0	4.57	187.40	707.65	-40.00	-4.02	40.13	0.57	0.55	1.74	14.08
	NORMAL	804.0	4.47	181.62	802.35	-47.45	-4.61	47.60	0.49	-0.11	-6.08	254.75
	NORMAL	898.0	4.48	182.39	896.07	-54.78	-4.87	54.93	0.06	0.01	0.82	80.93
	NORMAL	992.0	3.78	178.70	989.82	-61.55	-4.95	61.70	0.80	-0.74	-3.93	198.96
	NORMAL	1,086.0	3.96	177.38	1,083.61	-67.89	-4.73	68.02	0.21	0.19	-1.40	333.0'
	NORMAL	1,180.0	4.75	177.03	1,177.34	-75.02	-4.38	75.13	0.84	0.84	-0.37	357.90
	NORMAL	1,273.0	3.43	174.75	1,270.10	-81.63	-3.93	81.72	1.43	-1.42	-2.45	185.88
	NORMAL	1,367.0	3.43	182.39	1,363.93	-87.24	-3.79	87.32	0.49	0.00	8.13	93.8'
	NORMAL	1,462.0	3.61	188.28	1,458.75	-93.04	-4.34	93.14	0.42	0.19	6.20	66.50
	NORMAL	1,556.0	4.57	197.95	1,552.51	-99.53	-5.92	99.69	1.25	1.02	10.29	40.58
	NORMAL	1,650.0	4.75	204.89	1,646.20	-106.63	-8.71	106.89	0.63	0.19	7.38	75.77
	NORMAL	1,744.0	4.84	182.30	1,739.88	-114.12	-10.50	114.45	2.00	0.10	-24.03	261.44
	NORMAL	1,838.0	4.04	174.31	1,833.60	-121.38	-10.34	121.69	1.07	-0.85	-8.50	213.77
	NORMAL	1,932.0	4.37	181.74	1,927.35	-128.25	-10.12	128.55	0.68	0.35	7.90	62.54

## 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 (°)
10/18/2012	NORMAL	2,026.0	4.04	182.30	2,021.09	-135.14	-10.36	135.44	0.35	-0.35	0.60	173.19
10/19/2012	NORMAL	2,121.0	4.57	182.39	2,115.83	-142.27	-10.65	142.58	0.56	0.56	0.09	0.78
	NORMAL	2,216.0	4.40	178.26	2,210.53	-149.69	-10.70	150.00	0.38	-0.18	-4.35	240.19
	NORMAL	2,310.0	4.75	182.22	2,304.24	-157.18	-10.74	157.48	0.50	0.37	4.21	44.05
	NORMAL	2,404.0	5.01	185.20	2,397.89	-165.16	-11.26	165.48	0.39	0.28	3.17	45.77
	NORMAL	2,499.0	4.40	172.46	2,492.58	-172.90	-11.16	173.21	1.27	-0.64	-13.41	233.48
	NORMAL	2,594.0	4.48	173.95	2,587.29	-180.21	-10.29	180.47	0.15	0.08	1.57	56.00
	NORMAL	2,688.0	4.52	173.80	2,681.00	-187.54	-9.50	187.77	0.04	0.04	-0.16	343.53
	NORMAL	2,782.0	4.47	175.01	2,774.71	-194.87	-8.78	195.06	0.11	-0.05	1.29	118.40
	NORMAL	2,877.0	4.57	175.80	2,869.42	-202.33	-8.18	202.50	0.12	0.11	0.83	32.30
	NORMAL	2,971.0	4.74	176.56	2,963.11	-209.94	-7.68	210.08	0.19	0.18	0.81	20.32
	NORMAL	3,065.0	4.75	177.12	3,056.78	-217.71	-7.25	217.82	0.05	0.01	0.60	78.10
	NORMAL	3,157.0	4.03	177.56	3,148.51	-224.74	-6.92	224.84	0.78	-0.78	0.48	177.54
	NORMAL	3,251.0	4.13	178.96	3,242.28	-231.43	-6.72	231.51	0.15	0.11	1.49	45.59
	NORMAL	3,346.0	4.20	179.02	3,337.03	-238.33	-6.60	238.40	0.07	0.07	0.06	3.59
	NORMAL	3,441.0	4.34	178.03	3,431.76	-245.40	-6.41	245.46	0.17	0.15	-1.04	331.74
	NORMAL	3,535.0	4.54	176.30	3,525.48	-252.66	-6.05	252.70	0.26	0.21	-1.84	325.33
	NORMAL	3,587.0	4.57	173.87	3,577.32	-256.78	-5.70	256.80	0.38	0.06	-4.67	277.62
12/13/2012	NORMAL	3,661.0	4.22	179.84	3,651.10	-262.43	-5.37	262.44	0.78	-0.47	8.07	130.37
	NORMAL	3,724.0	3.75	175.14	3,713.95	-266.80	-5.19	266.80	0.91	-0.75	-7.46	212.47
	NORMAL	3,817.0	4.52	166.01	3,806.70	-273.39	-4.05	273.33	1.09	0.83	-9.82	314.86
	NORMAL	3,912.0	3.69	163.58	3,901.46	-279.95	-2.28	279.82	0.89	-0.87	-2.56	190.63
12/14/2012	NORMAL	4,006.0	3.01	164.14	3,995.30	-285.23	-0.75	285.03	0.72	-0.72	0.60	177.52
	NORMAL	4,101.0	3.43	175.27	4,090.15	-290.46	0.16	290.23	0.79	0.44	11.72	61.75
	NORMAL	4,195.0	3.08	178.44	4,184.00	-295.79	0.47	295.54	0.42	-0.37	3.37	154.36
	NORMAL	4,289.0	1.67	186.84	4,277.91	-299.67	0.37	299.42	1.54	-1.50	8.94	170.30
	NORMAL	4,384.0	0.88	133.00	4,372.89	-301.54	0.74	301.28	1.42	-0.83	-56.67	211.69
	NORMAL	4,478.0	0.97	158.57	4,466.88	-302.78	1.56	302.48	0.45	0.10	27.20	90.68
	NORMAL	4,573.0	0.53	28.76	4,561.88	-303.14	2.06	302.82	1.44	-0.46	-136.64	197.27
	NORMAL	4,667.0	0.62	160.77	4,655.87	-303.24	2.44	302.90	1.12	0.10	140.44	154.0'
	NORMAL	4,760.0	0.35	148.91	4,748.87	-303.96	2.75	303.61	0.31	-0.29	-12.75	194.53
	NORMAL	4,855.0	1.14	218.95	4,843.86	-304.94	2.31	304.61	1.13	0.83	73.73	87.9'
	NORMAL	4,949.0	2.11	212.54	4,937.82	-307.13	0.79	306.85	1.05	1.03	-6.82	346.17
	NORMAL	5,044.0	1.31	280.81	5,032.79	-308.40	-1.22	308.20	2.14	-0.84	71.86	143.16
	NORMAL	5,137.0	1.95	341.39	5,125.76	-306.70	-2.77	306.57	1.87	0.69	65.14	101.70
	NORMAL	5,231.0	1.39	313.44	5,219.72	-304.40	-4.11	304.32	1.03	-0.60	-29.73	222.06
	NORMAL	5,325.0	1.76	39.39	5,313.69	-302.50	-4.02	302.42	2.30	0.39	91.44	125.78
	NORMAL	5,419.0	1.23	37.11	5,407.66	-300.58	-2.49	300.44	0.57	-0.56	-2.43	185.27
	NORMAL	5,513.0	0.09	252.88	5,501.66	-299.80	-1.95	299.64	1.39	-1.21	-153.44	182.3'
	NORMAL	5,606.0	0.26	217.81	5,594.66	-299.98	-2.15	299.83	0.21	0.18	-37.71	309.42
	NORMAL	5,700.0	0.70	190.30	5,688.65	-300.72	-2.39	300.58	0.52	0.47	-29.27	318.14
	NORMAL	5,794.0	1.35	2.81	5,782.65	-300.18	-2.44	300.04	2.18	0.69	183.52	175.07
	NORMAL	5,889.0	0.97	328.73	5,877.63	-298.37	-2.80	298.25	0.81	-0.40	-35.87	224.84
	NORMAL	5,983.0	1.06	291.20	5,971.61	-297.38	-4.02	297.30	0.70	0.10	-39.93	258.67
	NORMAL	6,078.0	1.23	235.13	6,066.60	-297.64	-5.68	297.63	1.14	0.18	-59.02	249.9'
	NORMAL	6,171.0	1.58	249.89	6,159.57	-298.65	-7.70	298.72	0.54	0.38	15.87	53.50
	NORMAL	6,266.0	0.51	352.91	6,254.56	-298.68	-8.98	298.81	1.86	-1.13	108.44	163.66
	NORMAL	6,360.0	1.23	45.81	6,348.55	-297.57	-8.31	297.66	1.07	0.77	56.28	76.69
	NORMAL	6,454.0	0.53	43.44	6,442.53	-296.55	-7.29	296.60	0.75	-0.74	-2.52	181.79
	NORMAL	6,548.0	0.17	181.70	6,536.53	-296.37	-6.99	296.41	0.71	-0.38	147.09	170.22
	NORMAL	6,643.0	1.73	61.47	6,631.52	-295.83	-5.74	295.82	1.92	1.64	-126.56	235.15
	NORMAL	6,737.0	1.55	67.18	6,725.48	-294.66	-3.32	294.56	0.26	-0.19	6.07	140.59
	NORMAL	6,831.0	0.88	56.36	6,819.46	-293.76	-1.55	293.59	0.75	-0.71	-11.51	193.55
	NORMAL	6,926.0	0.69	51.54	6,914.45	-293.00	-0.49	292.79	0.21	-0.20	-5.07	196.77
12/15/2012	NORMAL	7,020.0	1.06	167.80	7,008.44	-293.50	0.14	293.26	1.59	0.39	123.68	140.64
	NORMAL	7,115.0	1.23	200.59	7,103.43	-295.31	-0.04	295.08	0.70	0.18	34.52	92.23
	NORMAL	7,210.0	1.39	208.16	7,198.40	-297.28	-0.94	297.09	0.25	0.17	7.97	51.07

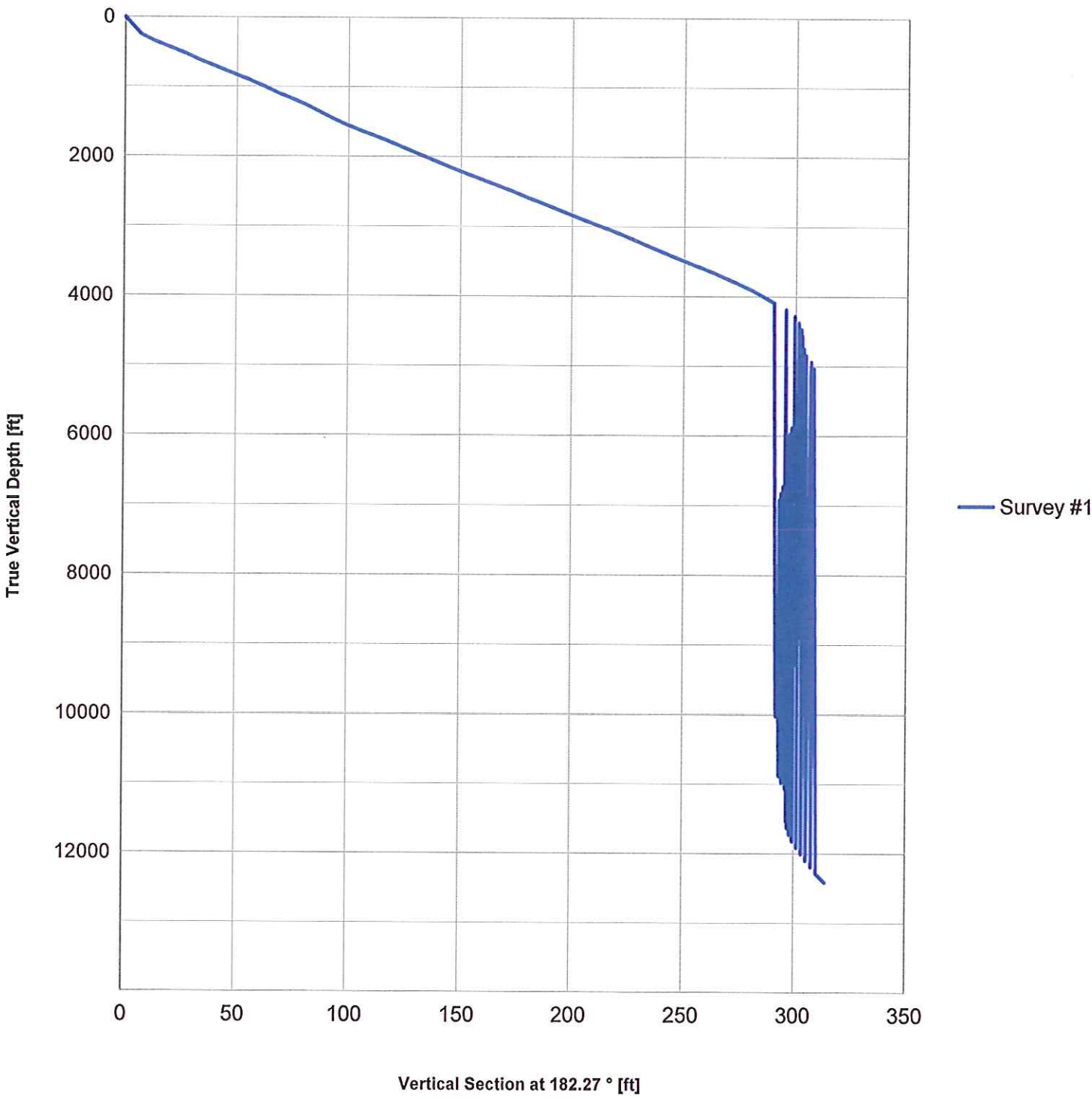
## 2.1.2 Survey Stations (Continued)

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 (°)
12/15/2012	NORMAL	7,304.0	0.26	215.53	7,292.39	-298.46	-1.60	298.29	1.20	-1.20	7.84	178.31
	NORMAL	7,398.0	0.35	172.28	7,386.39	-298.92	-1.69	298.75	0.26	0.10	-46.01	268.79
	NORMAL	7,493.0	0.35	194.78	7,481.39	-299.49	-1.72	299.32	0.14	0.00	23.68	101.25
	NORMAL	7,587.0	0.26	215.00	7,575.39	-299.94	-1.92	299.78	0.15	-0.10	21.51	139.72
	NORMAL	7,681.0	0.70	189.95	7,669.38	-300.68	-2.14	300.53	0.51	0.47	-26.65	321.62
	NORMAL	7,776.0	0.70	264.66	7,764.38	-301.31	-2.82	301.18	0.89	0.00	78.64	127.35
	NORMAL	7,870.0	0.44	260.26	7,858.37	-301.42	-3.74	301.33	0.28	-0.28	-4.68	187.36
	NORMAL	7,964.0	0.53	320.47	7,952.37	-301.15	-4.38	301.08	0.52	0.10	64.05	111.01
	NORMAL	8,059.0	0.33	318.96	8,047.37	-300.60	-4.84	300.56	0.21	-0.21	-1.59	182.49
	NORMAL	8,153.0	0.09	342.44	8,141.37	-300.33	-5.04	300.29	0.27	-0.26	24.98	171.75
	NORMAL	8,248.0	0.35	216.05	8,236.37	-300.49	-5.23	300.46	0.43	0.27	-133.04	223.43
	NORMAL	8,342.0	0.61	209.15	8,330.36	-301.16	-5.64	301.15	0.28	0.28	-7.34	344.00
	NORMAL	8,437.0	1.58	229.33	8,425.34	-302.46	-6.88	302.49	1.08	1.02	21.24	31.98
	NORMAL	8,531.0	1.13	245.82	8,519.32	-303.68	-8.71	303.79	0.63	-0.48	17.54	147.14
	NORMAL	8,625.0	0.53	112.87	8,613.31	-304.23	-9.16	304.35	1.64	-0.64	-141.44	194.58
	NORMAL	8,720.0	1.32	20.15	8,708.30	-303.37	-8.37	303.47	1.52	0.83	-97.60	245.80
	NORMAL	8,814.0	0.79	26.30	8,802.29	-301.77	-7.71	301.84	0.58	-0.56	6.54	171.00
12/16/2012	NORMAL	8,908.0	0.26	122.89	8,896.28	-301.31	-7.25	301.36	0.91	-0.56	102.76	162.5'
	NORMAL	9,002.0	0.35	351.32	8,990.28	-301.14	-7.11	301.19	0.59	0.10	-139.97	208.0'
	NORMAL	9,096.0	0.53	321.43	9,084.28	-300.52	-7.43	300.58	0.30	0.19	-31.80	292.52
	NORMAL	9,191.0	1.32	255.96	9,179.27	-300.44	-8.76	300.55	1.26	0.83	-68.92	270.86
	NORMAL	9,285.0	0.88	309.75	9,273.25	-300.24	-10.37	300.42	1.14	-0.47	57.22	138.4'
	NORMAL	9,379.0	1.58	25.07	9,367.24	-298.61	-10.37	298.78	1.70	0.74	80.13	107.4'
	NORMAL	9,474.0	1.16	27.34	9,462.21	-296.56	-9.38	296.70	0.45	-0.44	2.39	173.77
	NORMAL	9,568.0	0.79	14.17	9,556.20	-295.09	-8.78	295.21	0.46	-0.39	-14.01	204.73
	NORMAL	9,662.0	0.88	359.67	9,650.19	-293.74	-8.63	293.85	0.24	0.10	-15.43	285.7'
	NORMAL	9,756.0	0.53	32.36	9,744.18	-292.65	-8.40	292.75	0.55	-0.37	34.78	146.59
	NORMAL	9,850.0	0.35	342.00	9,838.18	-292.01	-8.25	292.11	0.43	-0.19	-53.57	221.3'
	NORMAL	9,945.0	0.26	318.53	9,933.17	-291.57	-8.49	291.68	0.16	-0.09	-24.71	222.88
	NORMAL	10,039.0	0.62	235.65	10,027.17	-291.70	-9.05	291.83	0.68	0.38	-88.17	253.42
12/17/2012	NORMAL	10,134.0	1.20	218.73	10,122.16	-292.77	-10.09	292.94	0.67	0.61	-17.81	326.52
	NORMAL	10,228.0	1.81	211.72	10,216.13	-294.80	-11.49	295.02	0.68	0.65	-7.46	339.68
12/18/2012	NORMAL	10,326.0	1.06	191.62	10,314.10	-297.00	-12.49	297.26	0.91	-0.77	-20.51	204.09
	NORMAL	10,420.0	0.53	154.79	10,408.09	-298.25	-12.48	298.51	0.76	-0.56	-39.18	206.55
	NORMAL	10,514.0	1.76	46.07	10,502.07	-297.64	-11.25	297.85	2.12	1.31	-115.66	236.7'
	NORMAL	10,609.0	1.14	32.54	10,597.04	-295.83	-9.69	295.98	0.74	-0.65	-14.24	202.26
	NORMAL	10,703.0	0.70	51.00	10,691.03	-294.68	-8.74	294.80	0.56	-0.47	19.64	155.03
	NORMAL	10,797.0	1.93	66.82	10,785.00	-293.70	-6.84	293.74	1.35	1.31	16.83	24.45
	NORMAL	10,892.0	1.58	98.63	10,879.96	-293.26	-4.08	293.19	1.07	-0.37	33.48	125.19
	NORMAL	10,985.0	1.58	147.76	10,972.93	-294.54	-2.12	294.39	1.41	0.00	52.83	114.56
	NORMAL	11,078.0	0.79	196.10	11,065.91	-296.24	-1.62	296.07	1.30	-0.85	51.98	150.77
	NORMAL	11,172.0	0.79	208.67	11,159.90	-297.43	-2.11	297.28	0.18	0.00	13.37	96.28
	NORMAL	11,266.0	0.56	60.93	11,253.90	-297.78	-2.02	297.62	1.38	-0.24	-157.17	193.3'
	NORMAL	11,361.0	0.26	20.06	11,348.90	-297.35	-1.54	297.18	0.42	-0.32	-43.02	205.09
12/19/2012	NORMAL	11,455.0	0.26	336.67	11,442.90	-296.95	-1.55	296.78	0.20	0.00	-46.16	248.3'
	NORMAL	11,550.0	0.35	280.74	11,537.90	-296.70	-1.92	296.54	0.31	0.09	-58.87	257.57
	NORMAL	11,644.0	0.79	219.48	11,631.89	-297.15	-2.61	297.02	0.74	0.47	-65.17	272.47
	NORMAL	11,738.0	0.59	205.47	11,725.88	-298.08	-3.23	297.98	0.28	-0.21	-14.90	213.29
	NORMAL	11,832.0	1.14	207.79	11,819.87	-299.35	-3.88	299.27	0.59	0.59	2.47	4.80
	NORMAL	11,926.0	1.58	218.52	11,913.85	-301.19	-5.12	301.16	0.54	0.47	11.41	35.50
	NORMAL	12,019.0	1.73	227.24	12,006.81	-303.15	-6.95	303.18	0.31	0.16	9.38	63.63
	NORMAL	12,112.0	2.11	227.92	12,099.76	-305.25	-9.25	305.37	0.41	0.41	0.73	3.77
	NORMAL	12,206.0	2.20	234.77	12,193.69	-307.45	-12.01	307.68	0.29	0.10	7.29	74.18
12/20/2012	NORMAL	12,299.0	2.55	234.69	12,286.61	-309.67	-15.16	310.03	0.38	0.38	-0.09	359.42
	NORMAL	12,361.0	2.81	229.33	12,348.54	-311.46	-17.44	311.91	0.58	0.42	-8.65	313.35
	NORMAL	12,421.0	2.81	229.33	12,408.47	-313.38	-19.67	313.91	0.00	0.00	0.00	0.00



3 Charts

3.1 Vertical Section View



3.2 Plan View

