

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	SP 342-14	Wellbore No.	
Well Name	SP 342-14	Common Name	SP 342-14
Project	PA 14-07S-095W	Site	SP 32-14 Pad
Vertical Section Azimuth	65.66 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	12/4/2011	UWI	SP 342-14
Active Datum	KB @7,663.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SDI
Date Started	12/4/2011	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 (°)
12/4/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/4/2011	NORMAL	74.0	0.35	338.73	74.00	0.21	-0.08	0.01	0.47	0.47	0.00	338.73
	NORMAL	167.0	2.02	41.66	166.98	1.70	0.90	1.52	2.03	1.80	67.67	72.43
	NORMAL	257.0	4.57	66.45	256.83	4.32	5.25	6.56	3.18	2.83	27.54	41.96
	NORMAL	348.0	6.86	67.68	347.37	7.83	13.60	15.62	2.52	2.52	1.35	3.67
12/5/2011	NORMAL	424.0	8.80	68.71	422.66	11.67	23.22	25.96	2.56	2.55	1.36	4.65
	NORMAL	515.0	11.20	68.91	512.27	17.37	37.95	41.74	2.64	2.64	0.22	0.93
	NORMAL	607.0	12.72	67.89	602.27	24.40	55.67	60.78	1.67	1.65	-1.11	351.58
	NORMAL	698.0	15.52	65.58	690.51	33.21	76.04	82.97	3.14	3.08	-2.54	347.50
	NORMAL	790.0	17.70	64.85	778.67	44.24	99.91	109.26	2.38	2.37	-0.79	354.18
	NORMAL	880.0	18.85	65.41	864.12	56.11	125.52	137.48	1.29	1.28	0.62	8.95
	NORMAL	971.0	19.89	63.75	949.97	69.07	152.77	167.66	1.29	1.14	-1.82	331.32
	NORMAL	1,063.0	19.19	66.83	1,036.68	81.94	180.71	198.42	1.35	-0.76	3.35	125.64
	NORMAL	1,157.0	18.64	65.12	1,125.60	94.34	208.54	228.89	0.83	-0.59	-1.82	224.42
	NORMAL	1,252.0	20.26	65.56	1,215.18	107.53	237.29	260.52	1.71	1.71	0.46	5.38
	NORMAL	1,346.0	20.43	65.25	1,303.31	121.14	267.00	293.20	0.21	0.18	-0.33	327.48
	NORMAL	1,441.0	20.77	66.13	1,392.24	134.89	297.46	326.62	0.48	0.36	0.93	42.74
	NORMAL	1,535.0	20.54	65.64	1,480.20	148.44	327.73	359.78	0.31	-0.24	-0.52	216.70
12/6/2011	NORMAL	1,630.0	19.19	66.00	1,569.54	161.67	357.18	392.06	1.43	-1.42	0.38	174.99
	NORMAL	1,724.0	19.28	65.65	1,658.29	174.35	385.43	423.03	0.16	0.10	-0.37	307.81
	NORMAL	1,819.0	20.51	65.99	1,747.62	187.59	414.92	455.35	1.30	1.29	0.36	5.53

2.1.2 Survey Stations (Continued)

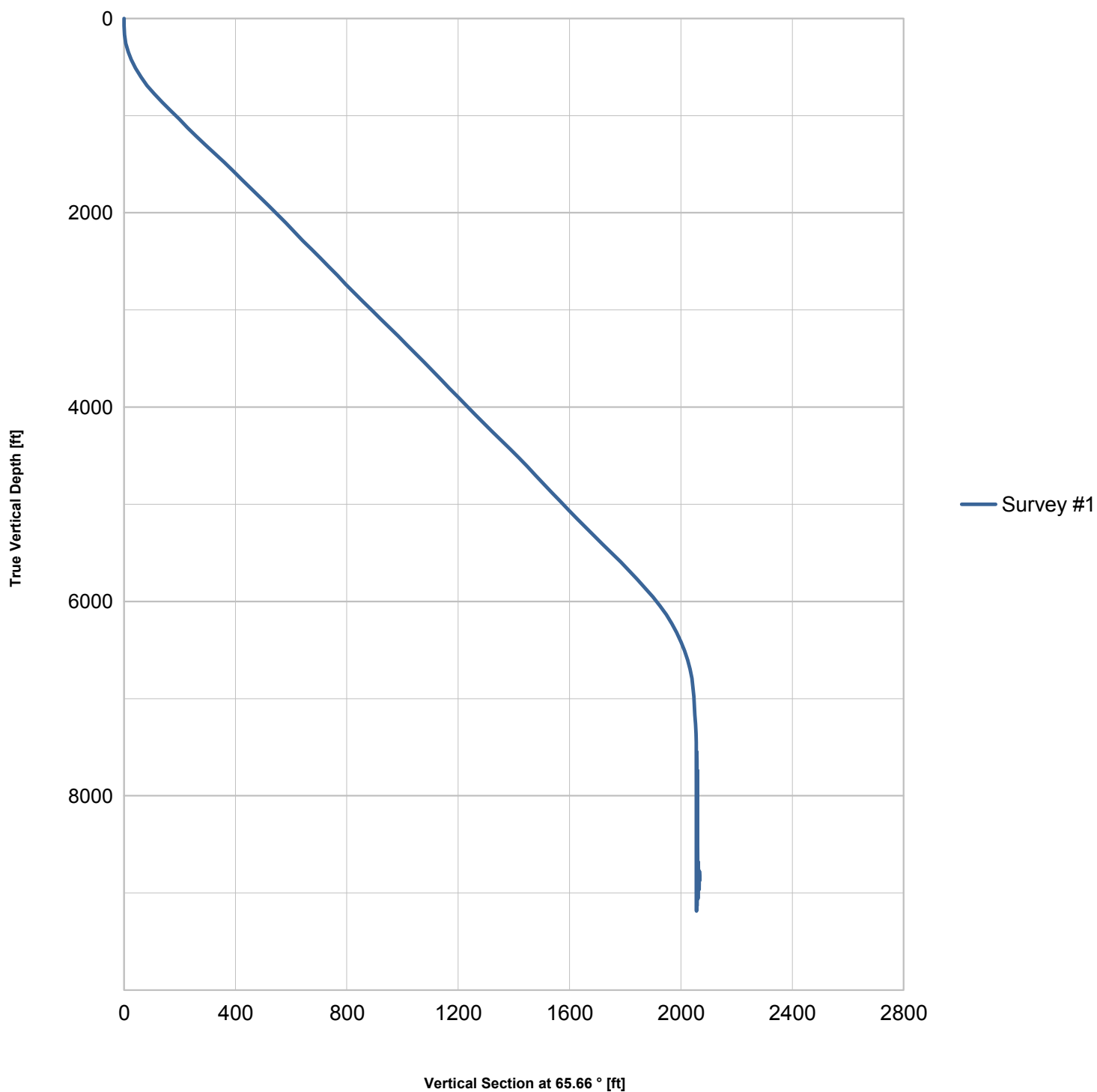
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/6/2011	NORMAL	1,913.0	19.45	67.91	1,835.96	200.17	444.46	487.46	1.33	-1.13	2.04	149.15
12/7/2011	NORMAL	2,008.0	19.36	67.30	1,925.57	212.20	473.65	519.00	0.23	-0.09	-0.64	245.77
	NORMAL	2,102.0	19.42	64.62	2,014.24	224.91	502.14	550.20	0.95	0.06	-2.85	272.59
	NORMAL	2,197.0	18.94	63.44	2,103.96	238.57	530.20	581.40	0.65	-0.51	-1.24	218.37
	NORMAL	2,291.0	18.03	62.23	2,193.11	252.17	556.72	611.17	1.05	-0.97	-1.29	202.29
	NORMAL	2,386.0	18.77	61.45	2,283.26	266.33	583.15	641.09	0.82	0.78	-0.82	341.23
	NORMAL	2,399.0	18.88	61.71	2,295.56	268.32	586.84	645.27	1.06	0.85	2.00	37.46
12/9/2011	NORMAL	2,486.0	19.87	62.21	2,377.63	281.89	612.32	674.07	1.15	1.14	0.57	9.75
	NORMAL	2,581.0	19.17	59.40	2,467.17	297.36	640.03	705.69	1.23	-0.74	-2.96	231.98
	NORMAL	2,675.0	19.08	64.67	2,555.99	311.79	667.20	736.40	1.84	-0.10	5.61	95.47
	NORMAL	2,770.0	18.53	67.11	2,645.92	324.30	695.14	767.01	1.01	-0.58	2.57	126.11
	NORMAL	2,864.0	17.97	66.44	2,735.19	335.91	722.19	796.45	0.64	-0.60	-0.71	200.22
	NORMAL	2,959.0	19.49	66.62	2,825.16	348.05	750.17	826.95	1.60	1.60	0.19	2.26
	NORMAL	3,053.0	19.58	66.20	2,913.75	360.63	778.98	858.38	0.18	0.10	-0.45	302.46
	NORMAL	3,148.0	19.90	65.02	3,003.17	373.88	808.20	890.46	0.54	0.34	-1.24	308.21
	NORMAL	3,242.0	19.30	65.85	3,091.72	387.00	836.88	921.99	0.70	-0.64	0.88	155.50
	NORMAL	3,337.0	19.43	65.99	3,181.35	399.85	865.64	953.49	0.15	0.14	0.15	19.72
	NORMAL	3,431.0	19.62	65.27	3,269.94	412.81	894.25	984.91	0.33	0.20	-0.77	307.95
	NORMAL	3,526.0	18.83	66.94	3,359.64	425.49	922.85	1,016.18	1.01	-0.83	1.76	145.95
	NORMAL	3,620.0	19.13	67.34	3,448.53	437.37	951.02	1,046.75	0.35	0.32	0.43	23.63
	NORMAL	3,715.0	18.91	66.34	3,538.35	449.54	979.48	1,077.70	0.41	-0.23	-1.05	235.51
	NORMAL	3,809.0	19.06	64.37	3,627.23	462.29	1,007.27	1,108.27	0.70	0.16	-2.10	282.24
	NORMAL	3,904.0	18.55	68.63	3,717.17	474.51	1,035.33	1,138.88	1.54	-0.54	4.48	112.38
	NORMAL	3,999.0	18.64	68.37	3,807.21	485.61	1,063.52	1,169.13	0.13	0.09	-0.27	317.23
	NORMAL	4,093.0	19.05	68.48	3,896.17	496.78	1,091.75	1,199.46	0.44	0.44	0.12	5.00
	NORMAL	4,188.0	18.73	65.47	3,986.05	508.80	1,120.05	1,230.20	1.08	-0.34	-3.17	250.40
	NORMAL	4,282.0	19.17	64.06	4,074.96	521.81	1,147.66	1,260.72	0.68	0.47	-1.50	313.19
	NORMAL	4,376.0	19.43	62.65	4,163.68	535.75	1,175.43	1,291.76	0.57	0.28	-1.50	298.49
	NORMAL	4,470.0	19.43	65.64	4,252.33	549.38	1,203.56	1,323.01	1.06	0.00	3.18	91.41
	NORMAL	4,565.0	19.52	64.85	4,341.89	562.64	1,232.32	1,354.68	0.29	0.09	-0.83	288.49
	NORMAL	4,659.0	19.43	64.67	4,430.51	576.01	1,260.66	1,386.01	0.12	-0.10	-0.19	213.61
12/11/2011	NORMAL	4,754.0	19.87	65.03	4,519.98	589.58	1,289.58	1,417.96	0.48	0.46	0.38	15.55
	NORMAL	4,848.0	17.94	66.08	4,608.91	602.20	1,317.30	1,448.41	2.08	-2.05	1.12	170.50
	NORMAL	4,943.0	17.67	65.29	4,699.36	614.16	1,343.77	1,477.46	0.38	-0.28	-0.83	221.44
	NORMAL	5,037.0	18.56	66.83	4,788.70	626.01	1,370.49	1,506.68	1.08	0.95	1.64	29.01
	NORMAL	5,132.0	18.54	66.73	4,878.76	637.92	1,398.26	1,536.90	0.04	-0.02	-0.11	237.80
	NORMAL	5,226.0	18.63	66.91	4,967.86	649.71	1,425.80	1,566.85	0.11	0.10	0.19	32.60
	NORMAL	5,321.0	18.20	66.87	5,057.99	661.49	1,453.40	1,596.85	0.45	-0.45	-0.04	181.66
	NORMAL	5,415.0	18.82	65.03	5,147.13	673.66	1,480.65	1,626.69	0.91	0.66	-1.96	315.83
	NORMAL	5,510.0	19.35	65.20	5,236.91	686.73	1,508.83	1,657.75	0.56	0.56	0.18	6.07
	NORMAL	5,604.0	19.32	65.31	5,325.61	699.76	1,537.09	1,688.87	0.05	-0.03	0.12	129.53
	NORMAL	5,699.0	19.61	65.55	5,415.18	712.92	1,565.88	1,720.53	0.32	0.31	0.25	15.53
	NORMAL	5,793.0	19.27	65.84	5,503.82	725.80	1,594.39	1,751.81	0.38	-0.36	0.31	164.29
	NORMAL	5,888.0	19.61	66.08	5,593.40	738.68	1,623.27	1,783.43	0.37	0.36	0.25	13.33
	NORMAL	5,982.0	18.11	65.90	5,682.35	751.04	1,651.03	1,813.82	1.60	-1.60	-0.19	182.14
	NORMAL	6,077.0	17.76	66.43	5,772.74	762.86	1,677.78	1,843.07	0.41	-0.37	0.56	155.25
	NORMAL	6,171.0	17.90	65.06	5,862.22	774.69	1,704.02	1,871.85	0.47	0.15	-1.46	287.80
	NORMAL	6,266.0	16.18	65.56	5,953.05	786.32	1,729.31	1,899.69	1.82	-1.81	0.53	175.37
	NORMAL	6,361.0	14.80	64.66	6,044.60	796.99	1,752.33	1,925.06	1.47	-1.45	-0.95	189.45
	NORMAL	6,455.0	13.10	65.29	6,135.82	806.58	1,772.86	1,947.71	1.82	-1.81	0.67	175.20
	NORMAL	6,550.0	11.12	66.53	6,228.70	814.73	1,791.05	1,967.64	2.10	-2.08	1.31	173.12
	NORMAL	6,644.0	9.85	69.75	6,321.13	821.13	1,806.90	1,984.73	1.49	-1.35	3.43	156.81
12/12/2011	NORMAL	6,739.0	8.65	70.26	6,414.89	826.35	1,821.25	1,999.95	1.27	-1.26	0.54	176.34
	NORMAL	6,833.0	7.83	63.80	6,507.92	831.57	1,833.65	2,013.40	1.31	-0.87	-6.87	225.30
	NORMAL	6,928.0	5.72	61.86	6,602.26	836.66	1,843.63	2,024.59	2.23	-2.22	-2.04	185.23
	NORMAL	7,022.0	4.66	63.18	6,695.87	840.59	1,851.17	2,033.08	1.13	-1.13	1.40	174.23
12/13/2011	NORMAL	7,117.0	3.08	68.81	6,790.65	843.25	1,857.00	2,039.48	1.71	-1.66	5.93	169.28

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 (°)
12/13/2011	NORMAL	7,211.0	1.72	57.33	6,884.57	844.93	1,860.54	2,043.40	1.53	-1.45	-12.21	193.79
	NORMAL	7,306.0	1.59	51.66	6,979.53	846.51	1,862.77	2,046.09	0.22	-0.14	-5.97	228.74
	NORMAL	7,400.0	1.23	58.17	7,073.50	847.85	1,864.65	2,048.36	0.42	-0.38	6.93	159.24
	NORMAL	7,495.0	1.33	59.56	7,168.47	848.95	1,866.47	2,050.46	0.11	0.11	1.46	17.95
	NORMAL	7,589.0	1.23	64.15	7,262.45	849.94	1,868.32	2,052.56	0.15	-0.11	4.88	136.56
	NORMAL	7,684.0	0.93	37.81	7,357.43	851.00	1,869.71	2,054.26	0.60	-0.32	-27.73	226.14
	NORMAL	7,778.0	0.69	36.87	7,451.43	852.05	1,870.52	2,055.43	0.26	-0.26	-1.00	182.70
	NORMAL	7,873.0	0.79	32.86	7,546.42	853.06	1,871.21	2,056.48	0.12	0.11	-4.22	330.61
	NORMAL	7,967.0	0.56	35.24	7,640.41	853.98	1,871.83	2,057.42	0.25	-0.24	2.53	174.24
	NORMAL	8,062.0	0.53	65.76	7,735.41	854.54	1,872.50	2,058.26	0.30	-0.03	32.13	111.02
	NORMAL	8,156.0	0.27	142.54	7,829.40	854.54	1,873.03	2,058.75	0.57	-0.28	81.68	150.69
	NORMAL	8,251.0	0.79	146.93	7,924.40	853.82	1,873.52	2,058.90	0.55	0.55	4.62	6.66
	NORMAL	8,345.0	0.09	281.94	8,018.40	853.29	1,873.80	2,058.94	0.91	-0.74	143.63	175.74
12/14/2011	NORMAL	8,440.0	0.62	119.25	8,113.40	853.05	1,874.18	2,059.18	0.74	0.56	-171.25	195.14
	NORMAL	8,534.0	0.70	126.81	8,207.39	852.46	1,875.08	2,059.76	0.13	0.09	8.04	51.25
	NORMAL	8,629.0	0.88	171.20	8,302.38	851.39	1,875.66	2,059.84	0.65	0.19	46.73	96.59
	NORMAL	8,724.0	1.36	175.25	8,397.36	849.55	1,875.86	2,059.27	0.51	0.51	4.26	11.39
	NORMAL	8,818.0	0.99	242.51	8,491.35	848.06	1,875.24	2,058.09	1.42	-0.39	71.55	136.94
	NORMAL	8,913.0	1.30	40.04	8,586.34	848.51	1,875.20	2,058.24	2.37	0.33	165.82	167.22
	NORMAL	9,007.0	3.08	53.60	8,680.27	850.82	1,877.92	2,061.67	1.96	1.89	14.43	23.08
	NORMAL	9,102.0	2.80	38.22	8,775.14	854.16	1,881.41	2,066.22	0.88	-0.29	-16.19	242.89
	NORMAL	9,196.0	1.04	309.54	8,869.10	856.51	1,882.17	2,067.89	3.15	-1.87	-94.34	200.54
12/15/2011	NORMAL	9,291.0	2.30	252.87	8,964.06	856.49	1,879.69	2,065.62	2.04	1.33	-59.65	276.65
	NORMAL	9,385.0	2.71	263.17	9,057.97	855.67	1,875.68	2,061.63	0.65	0.44	10.96	52.90
	NORMAL	9,461.0	2.81	262.78	9,133.89	855.23	1,872.05	2,058.13	0.13	0.13	-0.51	349.17
	NORMAL	9,513.0	2.81	262.78	9,185.82	854.91	1,869.52	2,055.70	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

