

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 333-8	Wellbore No.	
Well Name	KP 333-8	Common Name	KP 333-8
Project	KP 08-06S-91W	Site	KP 24-8 Pad
Vertical Section Azimuth	27.89 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	12/18/2011	UWI	KP 333-8
Active Datum	KB @6,552.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	12/18/2011	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 (°)
12/18/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/18/2011	NORMAL	104.0	1.32	11.87	103.99	1.17	0.25	1.15	1.27	1.27	0.00	11.87
	NORMAL	135.0	2.29	26.98	134.98	2.07	0.60	2.11	3.46	3.13	48.74	33.82
12/19/2011	NORMAL	166.0	3.87	32.43	165.93	3.51	1.44	3.78	5.18	5.10	17.58	13.23
	NORMAL	196.0	4.57	33.05	195.85	5.37	2.64	5.98	2.34	2.33	2.07	4.04
	NORMAL	227.0	4.31	37.88	226.76	7.32	4.03	8.35	1.47	-0.84	15.58	127.20
	NORMAL	257.0	4.93	30.94	256.66	9.32	5.38	10.75	2.78	2.07	-23.13	314.47
	NORMAL	287.0	6.25	27.77	286.51	11.87	6.81	13.67	4.52	4.40	-10.57	345.25
	NORMAL	318.0	7.74	25.58	317.28	15.24	8.49	17.44	4.88	4.81	-7.06	348.76
	NORMAL	348.0	8.97	28.74	346.96	19.11	10.49	21.80	4.37	4.10	10.53	22.04
	NORMAL	379.0	10.47	29.18	377.52	23.69	13.03	27.03	4.84	4.84	1.42	3.05
	NORMAL	410.0	12.23	27.60	407.91	29.06	15.92	33.13	5.76	5.68	-5.10	349.21
	NORMAL	440.0	12.93	26.54	437.19	34.88	18.89	39.67	2.46	2.33	-3.53	341.23
	NORMAL	482.0	14.60	25.39	477.98	43.87	23.26	49.65	4.03	3.98	-2.74	350.14
	NORMAL	512.0	15.74	26.36	506.94	50.93	26.69	57.50	3.89	3.80	3.23	13.02
	NORMAL	543.0	17.23	27.77	536.66	58.76	30.70	66.29	4.98	4.81	4.55	15.71
	NORMAL	575.0	18.38	28.12	567.13	67.40	35.28	76.08	3.61	3.59	1.09	5.48
	NORMAL	606.0	19.52	28.21	596.45	76.28	40.03	86.15	3.68	3.68	0.29	1.51
	NORMAL	636.0	20.75	27.15	624.61	85.42	44.83	96.47	4.28	4.10	-3.53	342.98
	NORMAL	667.0	21.52	25.08	653.53	95.46	49.74	107.64	3.46	2.48	-6.68	314.92
	NORMAL	697.0	22.69	24.60	681.32	105.71	54.49	118.92	3.95	3.90	-1.60	351.00

2.1.2 Survey Stations (Continued)

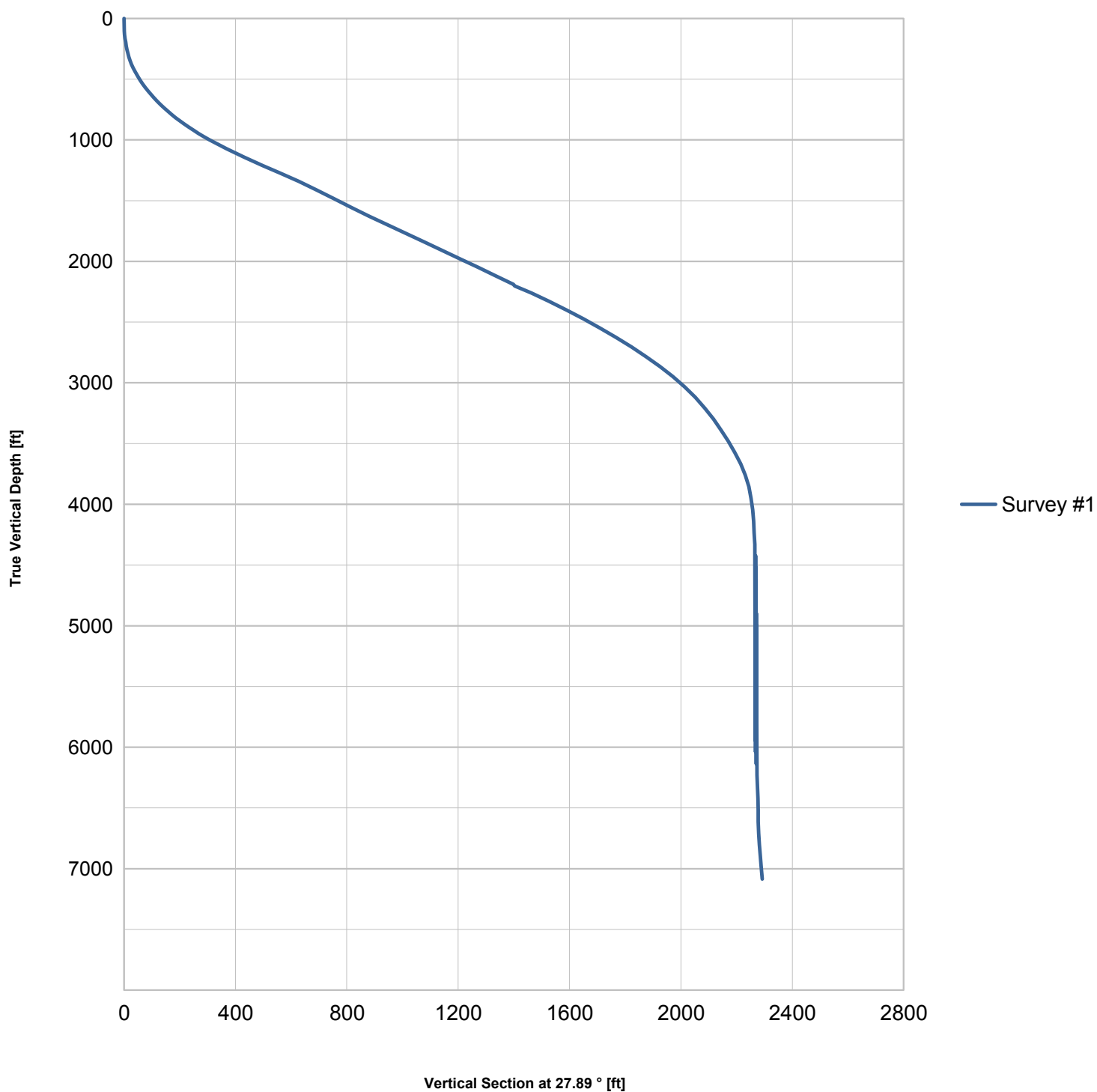
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/19/2011	NORMAL	728.0	24.09	24.16	709.78	116.92	59.56	131.20	4.55	4.52	-1.42	352.69
	NORMAL	758.0	25.59	25.13	737.00	128.37	64.82	143.78	5.18	5.00	3.23	15.64
	NORMAL	788.0	26.60	26.73	763.94	140.23	70.59	156.97	4.10	3.37	5.33	35.59
	NORMAL	819.0	27.87	28.03	791.50	152.83	77.12	171.15	4.52	4.10	4.19	25.68
	NORMAL	850.0	29.19	27.77	818.74	165.91	84.05	185.96	4.28	4.26	-0.84	354.51
	NORMAL	880.0	30.61	27.38	844.75	179.17	90.97	200.91	4.78	4.73	-1.30	352.03
	NORMAL	910.0	32.10	27.50	870.36	193.02	98.16	216.52	4.97	4.97	0.40	2.45
	NORMAL	940.0	33.15	28.12	895.63	207.33	105.71	232.69	3.67	3.50	2.07	17.92
	NORMAL	971.0	34.21	28.21	921.43	222.48	113.83	249.89	3.42	3.42	0.29	2.73
	NORMAL	1,003.0	35.44	28.03	947.69	238.60	122.44	268.16	3.86	3.84	-0.56	355.15
	NORMAL	1,035.0	36.93	27.68	973.52	255.30	131.26	287.05	4.70	4.66	-1.09	351.96
	NORMAL	1,067.0	37.94	27.52	998.93	272.54	140.28	306.50	3.17	3.16	-0.50	354.44
	NORMAL	1,162.0	41.94	27.06	1,071.75	326.74	168.22	367.47	4.22	4.21	-0.48	355.60
	NORMAL	1,258.0	43.44	28.47	1,142.32	384.32	198.55	432.56	1.85	1.56	1.47	33.03
	NORMAL	1,353.0	44.14	27.15	1,210.90	442.47	229.22	498.30	1.21	0.74	-1.39	306.99
12/20/2011	NORMAL	1,441.0	45.50	26.30	1,273.32	497.87	257.11	560.31	1.69	1.55	-0.97	335.92
	NORMAL	1,537.0	43.90	26.50	1,341.55	558.36	287.13	627.81	1.67	-1.67	0.21	175.05
	NORMAL	1,632.0	40.80	26.80	1,411.75	615.55	315.83	691.79	3.27	-3.26	0.32	176.38
	NORMAL	1,727.0	40.10	27.70	1,484.04	670.34	344.04	753.42	0.96	-0.74	0.95	140.51
12/21/2011	NORMAL	1,823.0	41.10	28.10	1,556.93	725.55	373.28	815.89	1.08	1.04	0.42	14.74
	NORMAL	1,919.0	42.70	27.50	1,628.38	782.27	403.17	880.00	1.72	1.67	-0.63	345.72
	NORMAL	2,014.0	43.70	30.40	1,697.64	839.15	434.66	945.00	2.34	1.05	3.05	64.33
	NORMAL	2,110.0	42.70	30.40	1,767.62	895.83	467.91	1,010.66	1.04	-1.04	0.00	180.00
	NORMAL	2,205.0	43.50	30.20	1,836.99	951.88	500.66	1,075.51	0.85	0.84	-0.21	350.23
	NORMAL	2,301.0	42.50	30.20	1,907.20	1,008.46	533.59	1,140.93	1.04	-1.04	0.00	180.00
	NORMAL	2,397.0	43.10	28.50	1,977.64	1,065.31	565.56	1,206.13	1.36	0.63	-1.77	296.82
	NORMAL	2,492.0	42.40	27.70	2,047.40	1,122.20	595.93	1,270.61	0.93	-0.74	-0.84	217.51
	NORMAL	2,587.0	41.30	28.60	2,118.16	1,178.08	625.83	1,333.99	1.32	-1.16	0.95	151.71
	NORMAL	2,683.0	42.40	27.50	2,189.67	1,234.61	655.94	1,398.04	1.38	1.15	-1.15	325.88
	NORMAL	2,778.0	43.00	26.80	2,259.49	1,291.93	685.34	1,462.46	0.81	0.63	-0.74	321.39
	NORMAL	2,872.0	42.60	26.70	2,328.46	1,348.97	714.08	1,526.31	0.43	-0.43	-0.11	189.60
	NORMAL	2,968.0	40.20	28.10	2,400.47	1,405.33	743.28	1,589.79	2.68	-2.50	1.46	159.43
	NORMAL	3,063.0	39.00	28.40	2,473.66	1,458.67	771.94	1,650.34	1.28	-1.26	0.32	171.06
	NORMAL	3,159.0	36.60	29.50	2,549.51	1,510.16	800.40	1,709.16	2.60	-2.50	1.15	164.74
	NORMAL	3,255.0	36.80	30.90	2,626.49	1,559.74	829.26	1,766.48	0.90	0.21	1.46	77.12
12/22/2011	NORMAL	3,351.0	34.20	27.50	2,704.64	1,608.36	856.49	1,822.19	3.40	-2.71	-3.54	215.84
	NORMAL	3,446.0	32.90	26.80	2,783.81	1,655.07	880.46	1,874.69	1.43	-1.37	-0.74	196.28
	NORMAL	3,541.0	30.90	27.70	2,864.46	1,699.71	903.43	1,924.88	2.16	-2.11	0.95	167.00
	NORMAL	3,636.0	27.30	27.70	2,947.46	1,740.61	924.90	1,971.08	3.79	-3.79	0.00	180.00
	NORMAL	3,731.0	25.40	27.90	3,032.58	1,777.91	944.57	2,013.24	2.00	-2.00	0.21	177.41
	NORMAL	3,826.0	22.40	29.60	3,119.43	1,811.66	963.05	2,051.72	3.24	-3.16	1.79	167.85
	NORMAL	3,922.0	19.60	29.60	3,209.04	1,841.57	980.04	2,086.10	2.92	-2.92	0.00	180.00
	NORMAL	4,017.0	17.80	28.60	3,299.02	1,868.17	994.86	2,116.55	1.92	-1.89	-1.05	189.63
	NORMAL	4,112.0	16.60	26.30	3,389.78	1,893.09	1,007.82	2,144.64	1.45	-1.26	-2.42	208.45
	NORMAL	4,207.0	14.90	25.90	3,481.21	1,916.24	1,019.17	2,170.41	1.79	-1.79	-0.42	183.46
	NORMAL	4,302.0	13.40	30.70	3,573.32	1,936.70	1,030.13	2,193.61	2.00	-1.58	5.05	144.28
	NORMAL	4,398.0	11.70	28.60	3,667.03	1,954.81	1,040.47	2,214.46	1.83	-1.77	-2.19	194.00
	NORMAL	4,493.0	9.00	28.20	3,760.47	1,969.82	1,048.59	2,231.52	2.84	-2.84	-0.42	181.33
	NORMAL	4,588.0	5.70	26.70	3,854.68	1,980.59	1,054.22	2,243.68	3.48	-3.47	-1.58	182.58
	NORMAL	4,684.0	4.20	30.70	3,950.32	1,987.87	1,058.16	2,251.95	1.60	-1.56	4.17	169.03
	NORMAL	4,779.0	2.70	30.70	4,045.14	1,992.78	1,061.08	2,257.66	1.58	-1.58	0.00	180.00
	NORMAL	4,874.0	1.40	17.30	4,140.08	1,995.82	1,062.57	2,261.04	1.45	-1.37	-14.11	193.63
	NORMAL	4,969.0	1.40	16.50	4,235.05	1,998.04	1,063.24	2,263.32	0.02	0.00	-0.84	269.60
	NORMAL	5,064.0	1.80	26.80	4,330.02	2,000.48	1,064.25	2,265.95	0.52	0.42	10.84	40.94
	NORMAL	5,159.0	1.00	7.70	4,424.99	2,002.63	1,065.03	2,268.22	0.96	-0.84	-20.11	200.94
	NORMAL	5,254.0	0.60	303.90	4,519.98	2,003.73	1,064.73	2,269.05	0.96	-0.42	-67.16	216.22
	NORMAL	5,349.0	1.00	339.90	4,614.97	2,004.79	1,064.03	2,269.65	0.66	0.42	37.89	70.42

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 (°)
12/22/2011	NORMAL	5,444.0	0.80	267.10	4,709.96	2,005.53	1,063.08	2,269.87	1.14	-0.21	-76.63	225.03
	NORMAL	5,539.0	0.60	309.30	4,804.95	2,005.81	1,062.03	2,269.63	0.57	-0.21	44.42	131.41
12/23/2011	NORMAL	2,698.0	0.90	50.40	2,203.31	1,239.38	658.48	1,403.44	277.15	-276.67	152.67	179.47
	NORMAL	5,632.0	1.10	344.30	4,897.94	2,006.98	1,061.42	2,270.37	0.75	0.54	37.63	64.49
	NORMAL	5,728.0	1.10	302.10	4,993.93	2,008.36	1,060.39	2,271.11	0.82	0.00	-43.96	248.90
	NORMAL	5,823.0	1.10	200.50	5,088.92	2,007.99	1,059.29	2,270.27	1.79	0.00	-106.95	219.21
	NORMAL	5,918.0	0.50	197.50	5,183.91	2,006.74	1,058.85	2,268.96	0.63	-0.63	-3.16	182.49
	NORMAL	6,013.0	0.40	103.70	5,278.91	2,006.27	1,059.05	2,268.63	0.70	-0.11	-98.74	217.16
	NORMAL	6,109.0	0.60	66.00	5,374.90	2,006.39	1,059.83	2,269.11	0.39	0.21	-39.27	281.51
	NORMAL	6,202.0	0.30	101.90	5,467.90	2,006.54	1,060.52	2,269.56	0.43	-0.32	38.60	153.77
12/24/2011	NORMAL	6,298.0	0.90	50.40	5,563.90	2,006.97	1,061.34	2,270.32	0.78	0.63	-53.65	290.28
	NORMAL	6,392.0	1.80	160.30	5,657.88	2,006.05	1,062.41	2,270.01	2.41	0.96	116.91	131.78
	NORMAL	6,487.0	1.70	156.40	5,752.83	2,003.35	1,063.48	2,268.13	0.16	-0.11	-4.11	228.04
	NORMAL	6,582.0	1.30	130.70	5,847.80	2,001.36	1,064.86	2,267.01	0.81	-0.42	-27.05	226.84
	NORMAL	6,678.0	1.40	100.80	5,943.78	2,000.43	1,066.84	2,267.11	0.73	0.10	-31.15	262.95
	NORMAL	6,774.0	1.80	86.80	6,039.74	2,000.29	1,069.49	2,268.24	0.58	0.42	-14.58	308.52
12/25/2011	NORMAL	6,869.0	1.90	23.10	6,134.70	2,001.83	1,071.60	2,270.58	2.06	0.11	-67.05	240.65
	NORMAL	6,965.0	1.20	353.10	6,230.67	2,004.29	1,072.10	2,272.99	1.09	-0.73	-31.25	214.88
	NORMAL	7,060.0	1.70	15.40	6,325.64	2,006.63	1,072.36	2,275.18	0.78	0.53	23.47	59.97
	NORMAL	7,155.0	1.40	322.70	6,420.60	2,008.92	1,072.03	2,277.04	1.48	-0.32	-55.47	232.60
	NORMAL	7,251.0	0.10	226.90	6,516.60	2,009.79	1,071.26	2,277.46	1.47	-1.35	-99.79	184.04
	NORMAL	7,347.0	0.70	58.40	6,612.59	2,010.04	1,071.70	2,277.88	0.83	0.63	-175.52	190.07
	NORMAL	7,443.0	1.00	36.90	6,708.58	2,011.02	1,072.70	2,279.22	0.45	0.31	-22.40	302.16
	NORMAL	7,538.0	1.80	18.20	6,803.55	2,013.10	1,073.66	2,281.50	0.96	0.84	-19.68	320.70
	NORMAL	7,633.0	2.70	15.80	6,898.48	2,016.67	1,074.74	2,285.16	0.95	0.95	-2.53	352.82
12/27/2011	NORMAL	7,708.0	2.20	13.10	6,973.41	2,019.77	1,075.55	2,288.28	0.68	-0.67	-3.60	191.65
	NORMAL	7,820.0	2.20	13.10	7,085.33	2,023.96	1,076.52	2,292.44	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

