

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	KP 423-8	Wellbore No.	
Well Name	KP 423-8	Common Name	KP 423-8
Project	KP 08-06S-91W	Site	KP 24-8 Pad
Vertical Section Azimuth	347.83 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	4/6/2012	UWI	KP 423-8
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	4/6/2012	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 (°)
4/6/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/6/2012	NORMAL	105.0	0.26	309.29	105.00	0.15	-0.18	0.19	0.25	0.25	0.00	309.29
	NORMAL	135.0	1.14	336.36	135.00	0.47	-0.36	0.53	3.05	2.93	90.23	34.49
	NORMAL	165.0	1.23	339.52	164.99	1.04	-0.59	1.14	0.37	0.30	10.53	37.57
	NORMAL	196.0	3.17	336.18	195.97	2.14	-1.05	2.31	6.27	6.26	-10.77	354.55
	NORMAL	226.0	4.66	337.32	225.90	4.02	-1.86	4.32	4.97	4.97	3.80	3.56
	NORMAL	257.0	5.10	328.10	256.78	6.35	-3.07	6.86	2.90	1.42	-29.74	294.65
	NORMAL	287.0	6.77	325.99	286.62	8.95	-4.76	9.75	5.61	5.57	-7.03	351.51
	NORMAL	317.0	6.95	326.78	316.41	11.94	-6.75	13.09	0.68	0.60	2.63	28.06
4/7/2012	NORMAL	347.0	8.09	327.13	346.15	15.23	-8.89	16.76	3.80	3.80	1.17	2.47
	NORMAL	378.0	9.15	329.68	376.80	19.19	-11.32	21.14	3.63	3.42	8.23	21.09
	NORMAL	408.0	10.29	329.41	406.37	23.55	-13.88	25.95	3.80	3.80	-0.90	357.58
	NORMAL	438.0	10.82	331.44	435.86	28.33	-16.59	31.19	2.16	1.77	6.77	36.05
	NORMAL	530.0	13.64	333.57	525.76	45.63	-25.55	50.00	3.10	3.07	2.32	10.13
	NORMAL	601.0	17.16	338.73	594.21	62.90	-33.08	68.46	5.32	4.96	7.27	23.77
	NORMAL	692.0	20.31	341.67	680.38	90.41	-42.92	97.42	3.61	3.46	3.23	18.09
	NORMAL	783.0	23.65	343.08	764.75	122.87	-53.20	131.32	3.72	3.67	1.55	9.63
	NORMAL	874.0	26.81	341.97	847.06	159.86	-64.87	169.94	3.51	3.47	-1.22	350.98
	NORMAL	964.0	28.40	345.10	926.81	199.84	-76.66	211.51	2.39	1.77	3.48	43.77
	NORMAL	1,059.0	29.81	351.15	1,009.84	245.02	-86.10	257.67	3.43	1.48	6.37	67.06
	NORMAL	1,153.0	31.39	350.83	1,090.74	292.28	-93.60	305.44	1.69	1.68	-0.34	353.98

## 2.1.2 Survey Stations (Continued)

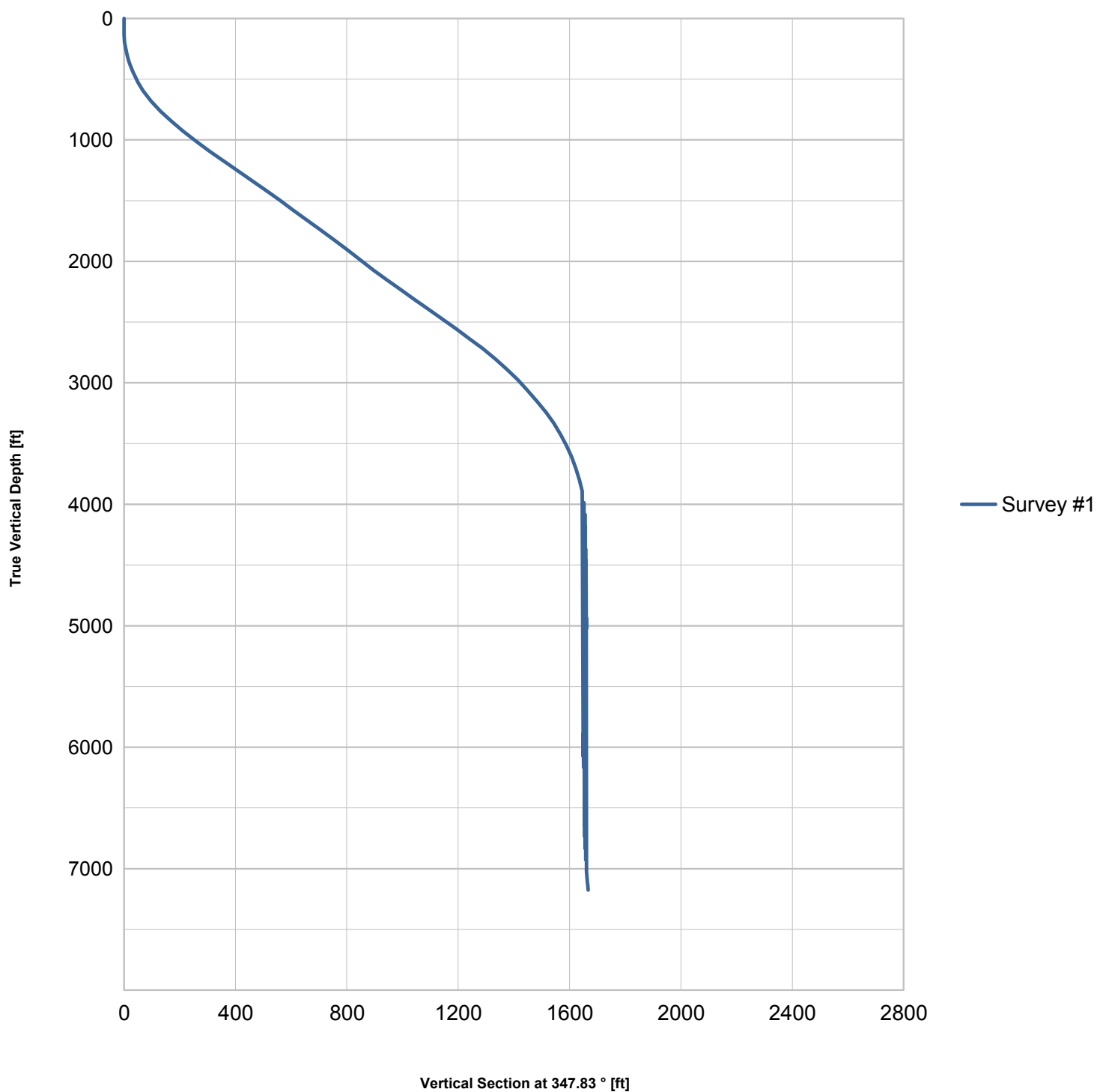
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
4/7/2012	NORMAL	1,248.0	32.78	348.49	1,171.23	341.91	-102.67	355.87	1.96	1.46	-2.46	317.20
	NORMAL	1,310.0	32.32	349.93	1,223.50	374.67	-108.92	389.21	1.45	-0.74	2.32	121.30
4/8/2012	NORMAL	1,437.0	31.92	349.85	1,331.06	441.15	-120.77	456.70	0.32	-0.31	-0.06	186.04
	NORMAL	1,533.0	32.36	348.44	1,412.35	491.30	-130.39	507.75	0.91	0.46	-1.47	299.80
	NORMAL	1,628.0	30.60	348.97	1,493.36	539.95	-140.11	557.35	1.88	-1.85	0.56	171.29
	NORMAL	1,723.0	30.86	348.44	1,575.02	587.55	-149.62	605.89	0.40	0.27	-0.56	313.60
	NORMAL	1,819.0	30.95	347.74	1,657.39	635.80	-159.80	655.20	0.39	0.09	-0.73	283.75
	NORMAL	1,915.0	31.30	346.86	1,739.57	684.20	-170.71	704.82	0.60	0.36	-0.92	307.20
	NORMAL	2,010.0	30.25	349.32	1,821.20	731.75	-180.76	753.41	1.73	-1.11	2.59	130.89
4/9/2012	NORMAL	2,106.0	29.55	349.52	1,904.42	778.79	-189.54	801.25	0.74	-0.73	0.21	171.98
	NORMAL	2,201.0	28.93	349.14	1,987.31	824.40	-198.13	847.64	0.68	-0.65	-0.40	196.50
	NORMAL	2,297.0	30.51	349.14	2,070.68	871.14	-207.10	895.22	1.65	1.65	0.00	0.00
	NORMAL	2,393.0	31.83	350.22	2,152.82	920.02	-215.99	944.88	1.49	1.38	1.13	23.41
	NORMAL	2,488.0	31.22	350.72	2,233.80	969.00	-224.22	994.49	0.70	-0.64	0.53	157.01
	NORMAL	2,583.0	31.66	350.55	2,314.85	1,017.90	-232.28	1,043.99	0.47	0.46	-0.18	348.53
	NORMAL	2,673.0	31.92	350.20	2,391.35	1,064.64	-240.21	1,091.35	0.35	0.29	-0.39	324.51
	NORMAL	2,768.0	32.01	350.55	2,471.95	1,114.23	-248.62	1,141.60	0.22	0.09	0.37	64.24
	NORMAL	2,863.0	30.78	347.74	2,553.04	1,162.82	-257.91	1,191.06	2.01	-1.29	-2.96	228.77
	NORMAL	2,958.0	30.69	347.94	2,634.70	1,210.28	-268.14	1,239.61	0.14	-0.09	0.21	131.45
	NORMAL	3,053.0	29.37	346.68	2,716.94	1,256.66	-278.57	1,287.15	1.54	-1.39	-1.33	204.99
	NORMAL	3,148.0	27.08	347.91	2,800.64	1,300.48	-288.47	1,332.07	2.49	-2.41	1.29	166.29
	NORMAL	3,244.0	25.50	347.21	2,886.71	1,342.00	-297.62	1,374.59	1.68	-1.65	-0.73	190.79
	NORMAL	3,339.0	22.77	346.15	2,973.40	1,379.80	-306.55	1,413.42	2.91	-2.87	-1.12	188.54
	NORMAL	3,434.0	21.02	345.98	3,061.54	1,414.18	-315.08	1,448.83	1.84	-1.84	-0.18	182.00
	NORMAL	3,530.0	20.40	345.10	3,151.34	1,447.06	-323.56	1,482.75	0.72	-0.65	-0.92	206.24
	NORMAL	3,625.0	18.99	351.08	3,240.79	1,478.33	-330.21	1,514.72	2.59	-1.48	6.29	127.77
	NORMAL	3,720.0	16.09	351.25	3,331.36	1,506.62	-334.61	1,543.30	3.05	-3.05	0.18	179.07
	NORMAL	3,815.0	13.45	352.48	3,423.22	1,530.59	-338.06	1,567.46	2.80	-2.78	1.29	173.82
	NORMAL	3,910.0	12.49	352.48	3,515.79	1,551.73	-340.85	1,588.71	1.01	-1.01	0.00	180.00
	NORMAL	4,006.0	10.11	339.47	3,609.94	1,569.92	-345.17	1,607.40	3.62	-2.48	-13.55	220.71
	NORMAL	4,101.0	8.44	348.44	3,703.70	1,584.56	-349.49	1,622.62	2.32	-1.76	9.44	143.49
	NORMAL	4,196.0	7.21	346.34	3,797.81	1,597.18	-352.29	1,635.55	1.33	-1.29	-2.21	192.05
4/10/2012	NORMAL	4,291.0	4.66	340.00	3,892.30	1,606.60	-355.02	1,645.34	2.77	-2.68	-6.67	191.28
	NORMAL	4,386.0	3.25	339.83	3,987.07	1,612.76	-357.27	1,651.83	1.48	-1.48	-0.18	180.39
	NORMAL	4,481.0	0.44	11.29	4,082.01	1,615.64	-358.13	1,654.83	3.04	-2.96	33.12	175.43
	NORMAL	4,576.0	0.44	65.95	4,177.01	1,616.15	-357.72	1,655.24	0.43	0.00	57.54	117.33
	NORMAL	4,671.0	0.79	35.02	4,272.00	1,616.83	-357.01	1,655.76	0.50	0.37	-32.56	300.34
	NORMAL	4,765.0	1.49	340.35	4,365.99	1,618.51	-357.05	1,657.41	1.30	0.74	-58.16	273.38
	NORMAL	4,860.0	0.88	269.34	4,460.97	1,619.67	-358.20	1,658.78	1.54	-0.64	-74.75	214.66
	NORMAL	4,955.0	0.44	309.94	4,555.96	1,619.90	-359.21	1,659.22	0.65	-0.46	42.74	152.32
	NORMAL	5,049.0	0.79	211.33	4,649.96	1,619.57	-359.82	1,659.03	1.02	0.37	-104.90	234.45
	NORMAL	5,145.0	0.35	268.99	4,745.95	1,619.00	-360.46	1,658.61	0.70	-0.46	60.06	153.87
	NORMAL	5,238.0	0.62	344.40	4,838.95	1,619.48	-360.88	1,659.16	0.68	0.29	81.09	107.90
	NORMAL	5,332.0	0.70	315.74	4,932.95	1,620.38	-361.41	1,660.16	0.36	0.09	-30.49	269.02
	NORMAL	5,428.0	1.06	194.81	5,028.94	1,619.95	-362.05	1,659.86	1.61	0.38	-125.97	216.15
	NORMAL	5,524.0	0.79	163.87	5,124.93	1,618.45	-362.09	1,658.41	0.58	-0.28	-32.23	226.73
	NORMAL	5,618.0	1.93	94.96	5,218.90	1,617.69	-360.34	1,657.30	1.92	1.21	-73.31	266.97
4/11/2012	NORMAL	5,713.0	0.18	212.91	5,313.89	1,617.43	-358.82	1,656.72	2.13	-1.84	124.16	175.49
	NORMAL	5,806.0	0.26	306.25	5,406.89	1,617.43	-359.07	1,656.78	0.35	0.09	100.37	126.94
	NORMAL	5,901.0	1.06	72.11	5,501.88	1,617.83	-358.41	1,657.03	1.30	0.84	132.48	135.72
	NORMAL	5,996.0	1.58	167.38	5,596.86	1,616.82	-357.29	1,655.80	2.09	0.55	100.28	127.44
	NORMAL	6,091.0	1.49	144.36	5,691.83	1,614.54	-356.28	1,653.36	0.65	-0.09	-24.23	250.30
4/12/2012	NORMAL	6,186.0	1.41	141.19	5,786.80	1,612.62	-354.83	1,651.18	0.12	-0.08	-3.34	223.50
	NORMAL	6,286.0	1.06	123.79	5,886.78	1,611.15	-353.29	1,649.42	0.51	-0.35	-17.40	218.50
	NORMAL	6,377.0	0.97	94.79	5,977.76	1,610.62	-351.82	1,648.59	0.57	-0.10	-31.87	245.77
	NORMAL	6,472.0	1.14	7.07	6,072.75	1,611.49	-350.91	1,649.25	1.54	0.18	-92.34	230.94
	NORMAL	6,567.0	1.32	11.29	6,167.73	1,613.50	-350.58	1,651.14	0.21	0.19	4.44	28.83

### 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 (°)
4/12/2012	NORMAL	6,662.0	1.41	4.44	6,262.70	1,615.74	-350.27	1,653.27	0.20	0.09	-7.21	295.43
	NORMAL	6,758.0	0.44	295.35	6,358.69	1,617.07	-350.51	1,654.62	1.37	-1.01	-71.97	198.16
	NORMAL	6,853.0	1.06	231.54	6,453.69	1,616.68	-351.53	1,654.46	1.00	0.65	-67.17	271.68
	NORMAL	6,944.0	0.62	274.61	6,544.68	1,616.20	-352.68	1,654.23	0.81	-0.48	47.33	145.11
	NORMAL	7,043.0	1.32	258.61	6,643.66	1,616.02	-354.33	1,654.40	0.75	0.71	-16.16	330.72
	NORMAL	7,138.0	1.32	289.90	6,738.64	1,616.17	-356.43	1,654.99	0.75	0.00	32.94	105.64
	NORMAL	7,233.0	1.14	299.22	6,833.62	1,617.01	-358.29	1,656.20	0.28	-0.19	9.81	136.57
	NORMAL	7,328.0	1.49	349.14	6,928.59	1,618.68	-359.34	1,658.06	1.21	0.37	52.55	99.00
4/13/2012	NORMAL	7,423.0	2.11	4.61	7,023.55	1,621.64	-359.44	1,660.97	0.82	0.65	16.28	45.99
	NORMAL	7,518.0	2.81	9.18	7,118.46	1,625.68	-358.92	1,664.81	0.76	0.74	4.81	17.94
	NORMAL	7,530.0	2.99	12.87	7,130.44	1,626.27	-358.81	1,665.37	2.16	1.50	30.75	47.90
	NORMAL	7,575.0	2.99	12.87	7,175.38	1,628.56	-358.29	1,667.49	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



### 3.2 Plan View

