

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 534-8	Wellbore No.	
Well Name	KP 534-8	Common Name	KP 534-8
Project	KP 08-06S-91W	Site	KP 24-8 Pad
Vertical Section Azimuth	87.61 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	12/10/2011	UWI	KP 534-8
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	12/10/2011	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 (°)
12/10/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/10/2011	NORMAL	104.0	1.23	113.03	103.99	-0.44	1.03	1.01	1.18	1.18	0.00	113.03
	NORMAL	135.0	1.76	97.38	134.98	-0.63	1.81	1.78	2.14	1.71	-50.48	314.39
	NORMAL	166.0	2.64	86.92	165.96	-0.65	2.99	2.96	3.11	2.84	-33.74	330.19
	NORMAL	196.0	3.52	91.67	195.91	-0.64	4.60	4.57	3.05	2.93	15.83	18.55
	NORMAL	227.0	4.05	98.44	226.85	-0.83	6.64	6.59	2.23	1.71	21.84	43.55
	NORMAL	257.0	4.31	95.27	256.77	-1.09	8.81	8.75	1.16	0.87	-10.57	316.78
	NORMAL	287.0	4.93	93.96	286.67	-1.28	11.21	11.15	2.10	2.07	-4.37	349.69
	NORMAL	318.0	5.45	92.29	317.54	-1.43	14.01	13.94	1.75	1.68	-5.39	342.97
	NORMAL	348.0	5.81	91.05	347.40	-1.52	16.96	16.88	1.27	1.20	-4.13	340.71
	NORMAL	379.0	6.60	84.90	378.22	-1.39	20.30	20.22	3.33	2.55	-19.84	316.84
	NORMAL	410.0	7.30	85.25	408.99	-1.07	24.04	23.97	2.26	2.26	1.13	3.64
	NORMAL	440.0	8.27	86.22	438.71	-0.76	28.09	28.03	3.26	3.23	3.23	8.19
	NORMAL	484.0	10.30	85.40	482.13	-0.24	35.17	35.13	4.62	4.61	-1.86	355.87
	NORMAL	514.0	11.30	86.30	511.60	0.16	40.77	40.75	3.38	3.33	3.00	10.01
	NORMAL	545.0	12.90	85.50	541.91	0.63	47.26	47.24	5.19	5.16	-2.58	353.63
	NORMAL	577.0	14.00	86.10	573.03	1.18	54.68	54.68	3.47	3.44	1.88	7.52
	NORMAL	607.0	14.70	88.20	602.10	1.54	62.10	62.11	2.91	2.33	7.00	37.65
	NORMAL	638.0	15.80	87.70	632.01	1.83	70.25	70.27	3.57	3.55	-1.61	352.94
	NORMAL	668.0	16.40	87.30	660.83	2.20	78.56	78.59	2.03	2.00	-1.33	349.33
	NORMAL	699.0	16.40	87.20	690.57	2.62	87.31	87.34	0.09	0.00	-0.32	269.95

2.1.2 Survey Stations (Continued)

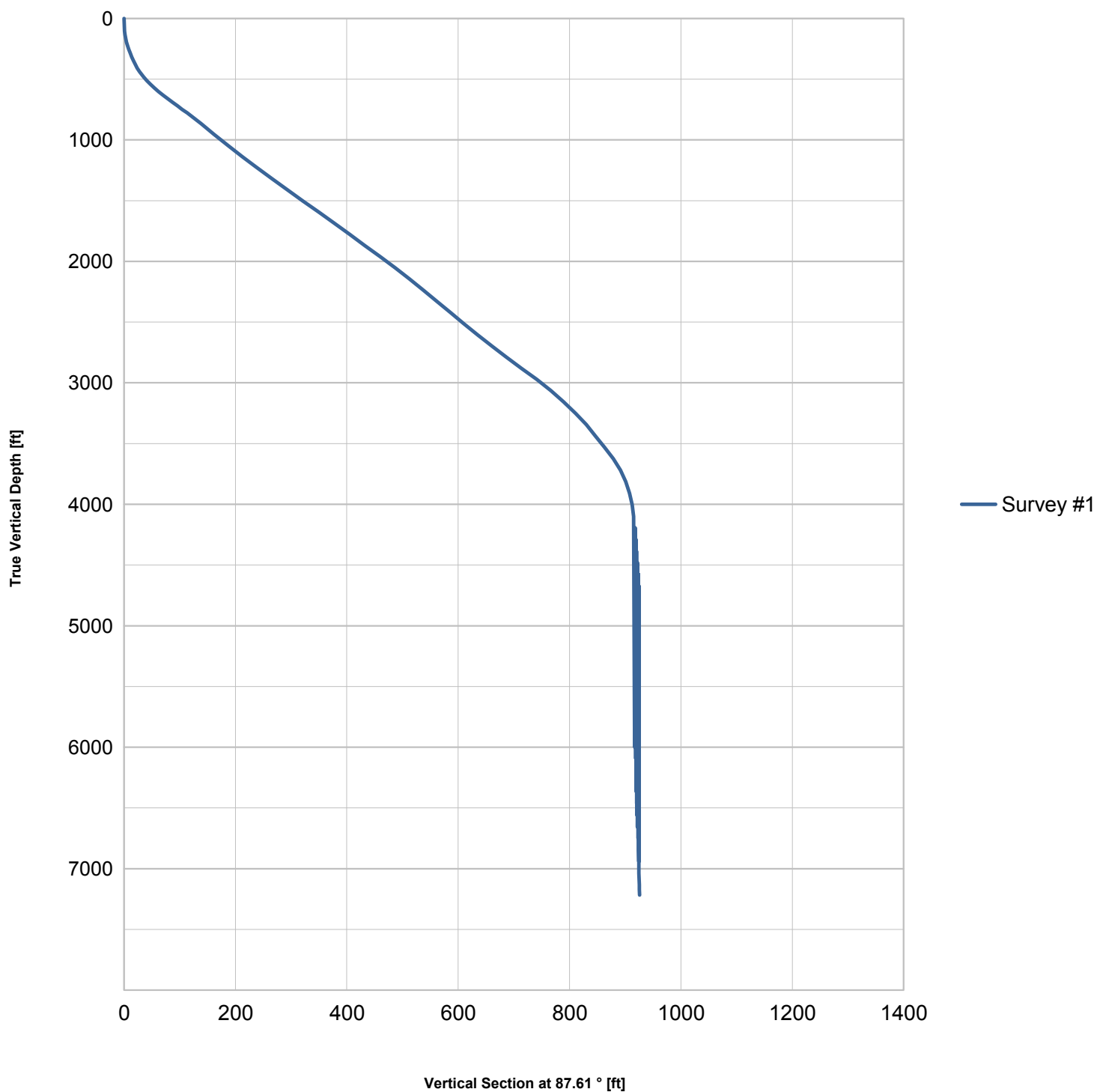
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
12/10/2011	NORMAL	730.0	16.50	86.80	720.30	3.08	96.07	96.12	0.49	0.32	-1.29	311.25
12/11/2011	NORMAL	760.0	16.60	86.40	749.06	3.58	104.60	104.66	0.51	0.33	-1.33	311.08
	NORMAL	790.0	16.80	86.40	777.79	4.13	113.21	113.28	0.67	0.67	0.00	0.00
	NORMAL	882.0	14.70	90.80	866.33	4.80	138.15	138.23	2.62	-2.28	4.78	152.48
	NORMAL	973.0	14.90	89.60	954.32	4.72	161.40	161.45	0.40	0.22	-1.32	302.54
	NORMAL	1,069.0	15.70	85.40	1,046.92	5.85	186.69	186.77	1.42	0.83	-4.38	303.79
	NORMAL	1,164.0	16.10	85.50	1,138.28	7.91	212.63	212.78	0.42	0.42	0.11	3.97
	NORMAL	1,250.0	16.20	83.10	1,220.89	10.29	236.43	236.65	0.78	0.12	-2.79	277.37
12/12/2011	NORMAL	1,354.0	16.70	83.60	1,320.63	13.70	265.68	266.02	0.50	0.48	0.48	16.05
	NORMAL	1,450.0	16.90	88.50	1,412.54	15.60	293.34	293.73	1.49	0.21	5.10	84.31
	NORMAL	1,546.0	17.20	89.10	1,504.32	16.19	321.48	321.87	0.36	0.31	0.63	30.67
	NORMAL	1,641.0	17.10	91.90	1,595.10	15.94	349.48	349.84	0.88	-0.11	2.95	98.24
	NORMAL	1,736.0	17.10	89.60	1,685.90	15.58	377.41	377.73	0.71	0.00	-2.42	268.90
	NORMAL	1,832.0	16.40	87.70	1,777.82	16.22	405.07	405.39	0.93	-0.73	-1.98	217.13
	NORMAL	1,928.0	16.50	87.80	1,869.89	17.29	432.23	432.57	0.11	0.10	0.10	15.86
	NORMAL	2,023.0	17.00	87.60	1,960.86	18.39	459.59	459.95	0.53	0.53	-0.21	353.33
	NORMAL	2,119.0	15.80	88.40	2,052.96	19.34	486.67	487.06	1.27	-1.25	0.83	169.72
	NORMAL	2,214.0	14.90	87.10	2,144.57	20.32	511.80	512.20	1.01	-0.95	-1.37	200.30
	NORMAL	2,310.0	15.40	86.80	2,237.23	21.66	536.85	537.29	0.53	0.52	-0.31	350.94
	NORMAL	2,406.0	14.80	86.60	2,329.91	23.09	561.82	562.29	0.63	-0.63	-0.21	184.87
	NORMAL	2,501.0	14.60	86.80	2,421.81	24.48	585.89	586.40	0.22	-0.21	0.21	165.86
	NORMAL	2,596.0	14.40	86.10	2,513.78	25.95	609.63	610.18	0.28	-0.21	-0.74	220.89
	NORMAL	2,692.0	15.70	87.50	2,606.48	27.33	634.51	635.10	1.41	1.35	1.46	16.30
	NORMAL	2,787.0	15.80	86.80	2,697.92	28.62	660.27	660.89	0.23	0.11	-0.74	297.42
	NORMAL	2,881.0	16.20	92.90	2,788.28	28.67	686.14	686.74	1.84	0.43	6.49	79.56
	NORMAL	2,977.0	16.80	91.30	2,880.33	27.67	713.39	713.92	0.78	0.63	-1.67	322.09
	NORMAL	3,073.0	16.40	89.90	2,972.33	27.38	740.81	741.31	0.59	-0.42	-1.46	224.33
	NORMAL	3,168.0	14.40	89.10	3,063.91	27.59	766.04	766.52	2.12	-2.11	-0.84	185.68
	NORMAL	3,264.0	13.10	89.20	3,157.16	27.93	788.85	789.33	1.35	-1.35	0.10	179.00
	NORMAL	3,360.0	12.70	90.80	3,250.74	27.94	810.28	810.74	0.56	-0.42	1.67	139.01
	NORMAL	3,455.0	10.70	90.50	3,343.76	27.71	829.54	829.98	2.11	-2.11	-0.32	181.60
	NORMAL	3,550.0	9.30	89.20	3,437.31	27.74	846.04	846.46	1.49	-1.47	-1.37	188.52
12/13/2011	NORMAL	3,645.0	10.30	86.80	3,530.93	28.32	862.19	862.63	1.14	1.05	-2.53	336.59
	NORMAL	3,740.0	9.10	89.40	3,624.57	28.88	878.19	878.63	1.34	-1.26	2.74	161.22
	NORMAL	3,835.0	6.50	92.00	3,718.68	28.77	891.07	891.50	2.76	-2.74	2.74	173.56
	NORMAL	3,931.0	4.80	89.10	3,814.21	28.64	900.52	900.93	1.80	-1.77	-3.02	188.09
	NORMAL	4,026.0	3.70	95.40	3,908.95	28.42	907.55	907.94	1.26	-1.16	6.63	160.12
	NORMAL	4,121.0	1.80	86.30	4,003.83	28.22	912.09	912.47	2.05	-2.00	-9.58	188.42
	NORMAL	4,217.0	1.60	70.80	4,099.79	28.76	914.86	915.26	0.52	-0.21	-16.15	238.88
	NORMAL	4,312.0	1.70	95.90	4,194.75	29.05	917.51	917.93	0.76	0.11	26.42	94.79
	NORMAL	4,407.0	0.90	156.70	4,289.73	28.22	919.21	919.59	1.56	-0.84	64.00	148.07
	NORMAL	4,502.0	0.90	133.20	4,384.72	27.03	920.05	920.38	0.39	0.00	-24.74	258.25
	NORMAL	4,597.0	1.10	97.70	4,479.71	26.39	921.50	921.80	0.67	0.21	-37.37	269.60
	NORMAL	4,693.0	1.20	80.60	4,575.69	26.43	923.40	923.70	0.37	0.10	-17.81	277.58
	NORMAL	4,789.0	0.60	326.70	4,671.68	27.02	924.12	924.44	1.61	-0.63	-118.65	200.82
	NORMAL	4,883.0	1.10	331.60	4,765.67	28.22	923.42	923.79	0.54	0.53	5.21	10.73
	NORMAL	4,978.0	1.20	1.20	4,860.65	30.02	923.01	923.45	0.63	0.11	31.16	95.45
	NORMAL	5,073.0	1.60	14.90	4,955.62	32.30	923.37	923.91	0.55	0.42	14.42	46.91
	NORMAL	5,168.0	1.10	332.50	5,050.60	34.39	923.29	923.92	1.14	-0.53	-44.63	223.28
	NORMAL	5,263.0	1.10	261.30	5,145.59	35.06	921.97	922.63	1.35	0.00	-74.95	234.41
	NORMAL	5,358.0	0.90	269.80	5,240.57	34.92	920.32	920.97	0.26	-0.21	8.95	147.63
	NORMAL	5,453.0	0.60	319.90	5,335.56	35.30	919.25	919.92	0.73	-0.32	52.74	138.22
	NORMAL	5,548.0	0.60	356.90	5,430.56	36.17	918.90	919.61	0.40	0.00	38.95	108.50
	NORMAL	5,642.0	0.70	267.10	5,524.56	36.64	918.30	919.03	0.98	0.11	-95.53	229.52
	NORMAL	5,737.0	0.80	293.10	5,619.55	36.87	917.11	917.85	0.37	0.11	27.37	86.89
12/14/2011	NORMAL	5,832.0	1.10	188.20	5,714.54	36.22	916.37	917.09	1.60	0.32	-110.42	224.47
	NORMAL	5,927.0	0.80	179.20	5,809.53	34.66	916.25	916.90	0.35	-0.32	-9.47	201.99

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 (°)
12/14/2011	NORMAL	6,022.0	0.20	340.10	5,904.52	34.15	916.21	916.83	1.04	-0.63	169.37	176.21
	NORMAL	6,118.0	0.80	111.00	6,000.52	34.07	916.77	917.40	0.98	0.63	136.35	140.12
	NORMAL	6,211.0	1.20	95.70	6,093.51	33.74	918.35	918.96	0.51	0.43	-16.45	318.47
12/15/2011	NORMAL	6,298.0	1.20	170.80	6,180.49	32.75	919.40	919.97	1.68	0.00	86.32	127.54
	NORMAL	6,392.0	1.10	180.60	6,274.47	30.87	919.55	920.04	0.23	-0.11	10.43	121.79
	NORMAL	6,487.0	0.80	165.50	6,369.46	29.32	919.71	920.13	0.41	-0.32	-15.89	212.46
12/16/2011	NORMAL	6,582.0	0.70	160.90	6,464.45	28.13	920.06	920.44	0.12	-0.11	-4.84	208.77
	NORMAL	6,678.0	0.60	123.90	6,560.45	27.30	920.67	921.01	0.44	-0.10	-38.54	238.55
	NORMAL	6,774.0	0.50	95.60	6,656.44	26.97	921.51	921.83	0.30	-0.10	-29.48	236.02
	NORMAL	6,869.0	1.00	71.00	6,751.44	27.20	922.70	923.03	0.61	0.53	-25.89	314.51
12/17/2011	NORMAL	6,965.0	1.20	10.10	6,847.42	28.47	923.67	924.05	1.18	0.21	-63.44	248.35
	NORMAL	7,060.0	2.40	2.00	6,942.37	31.43	923.91	924.42	1.29	1.26	-8.53	343.96
	NORMAL	7,155.0	2.30	1.50	7,037.29	35.33	924.03	924.70	0.11	-0.11	-0.53	191.34
	NORMAL	7,251.0	2.60	7.30	7,133.20	39.41	924.36	925.20	0.41	0.31	6.04	42.49
	NORMAL	7,290.0	2.70	8.70	7,172.16	41.20	924.61	925.53	0.31	0.26	3.59	33.61
	NORMAL	7,335.0	2.70	8.70	7,217.11	43.29	924.93	925.93	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

