

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	KP 341-28	Wellbore No.	
Well Name	KP 341-28	Common Name	KP 341-28
Project	KP 28-06S-091W	Site	KP 41-28 Pad
Vertical Section Azimuth	230.59 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	10/26/2011	UWI	KP 341-28
Active Datum	KB @7,079.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	10/26/2011	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 (°)
10/26/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/26/2011	NORMAL	71.0	0.00	0.00	71.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NORMAL	162.0	2.64	215.16	161.97	-1.71	-1.21	2.02	2.90	2.90	0.00	215.16
	NORMAL	253.0	4.13	231.68	252.81	-5.46	-4.99	7.32	1.94	1.64	18.15	41.64
	NORMAL	344.0	3.52	233.96	343.61	-9.13	-9.82	13.38	0.69	-0.67	2.51	167.14
	NORMAL	435.0	2.86	230.09	434.46	-12.23	-13.82	18.44	0.76	-0.73	-4.25	196.15
	NORMAL	526.0	3.25	226.85	525.33	-15.46	-17.44	23.29	0.47	0.43	-3.56	334.50
	NORMAL	616.0	4.04	227.49	615.15	-19.34	-21.64	29.00	0.88	0.88	0.71	3.27
	NORMAL	707.0	3.96	229.92	705.93	-23.53	-26.40	35.34	0.21	-0.09	2.67	116.47
	NORMAL	798.0	2.99	237.83	796.76	-26.82	-30.82	40.84	1.19	-1.07	8.69	157.61
	NORMAL	890.0	2.89	241.39	888.64	-29.21	-34.88	45.50	0.23	-0.11	3.87	120.48
	NORMAL	980.0	3.61	231.59	978.50	-32.05	-39.10	50.56	1.01	0.80	-10.89	317.38
	NORMAL	1,075.0	4.57	227.73	1,073.25	-36.46	-44.24	57.33	1.05	1.01	-4.06	342.07
	NORMAL	1,167.0	3.78	225.79	1,165.01	-41.04	-49.13	64.01	0.87	-0.86	-2.11	189.17
10/27/2011	NORMAL	1,262.0	2.64	224.48	1,259.86	-44.78	-52.90	69.31	1.20	-1.20	-1.38	183.03
	NORMAL	1,305.0	2.99	226.06	1,302.81	-46.27	-54.41	71.41	0.83	0.81	3.67	13.29
10/28/2011	NORMAL	1,407.0	3.14	228.49	1,404.66	-49.96	-58.41	76.85	0.19	0.15	2.38	42.12
	NORMAL	1,438.0	3.06	228.53	1,435.62	-51.08	-59.67	78.53	0.26	-0.26	0.13	178.47
	NORMAL	1,533.0	3.08	229.12	1,530.48	-54.42	-63.50	83.61	0.04	0.02	0.62	57.96
	NORMAL	1,627.0	2.96	230.31	1,624.35	-57.63	-67.28	88.56	0.14	-0.13	1.27	153.01
	NORMAL	1,721.0	3.05	231.08	1,718.22	-60.75	-71.09	93.49	0.10	0.10	0.82	24.54

2.1.2 Survey Stations (Continued)

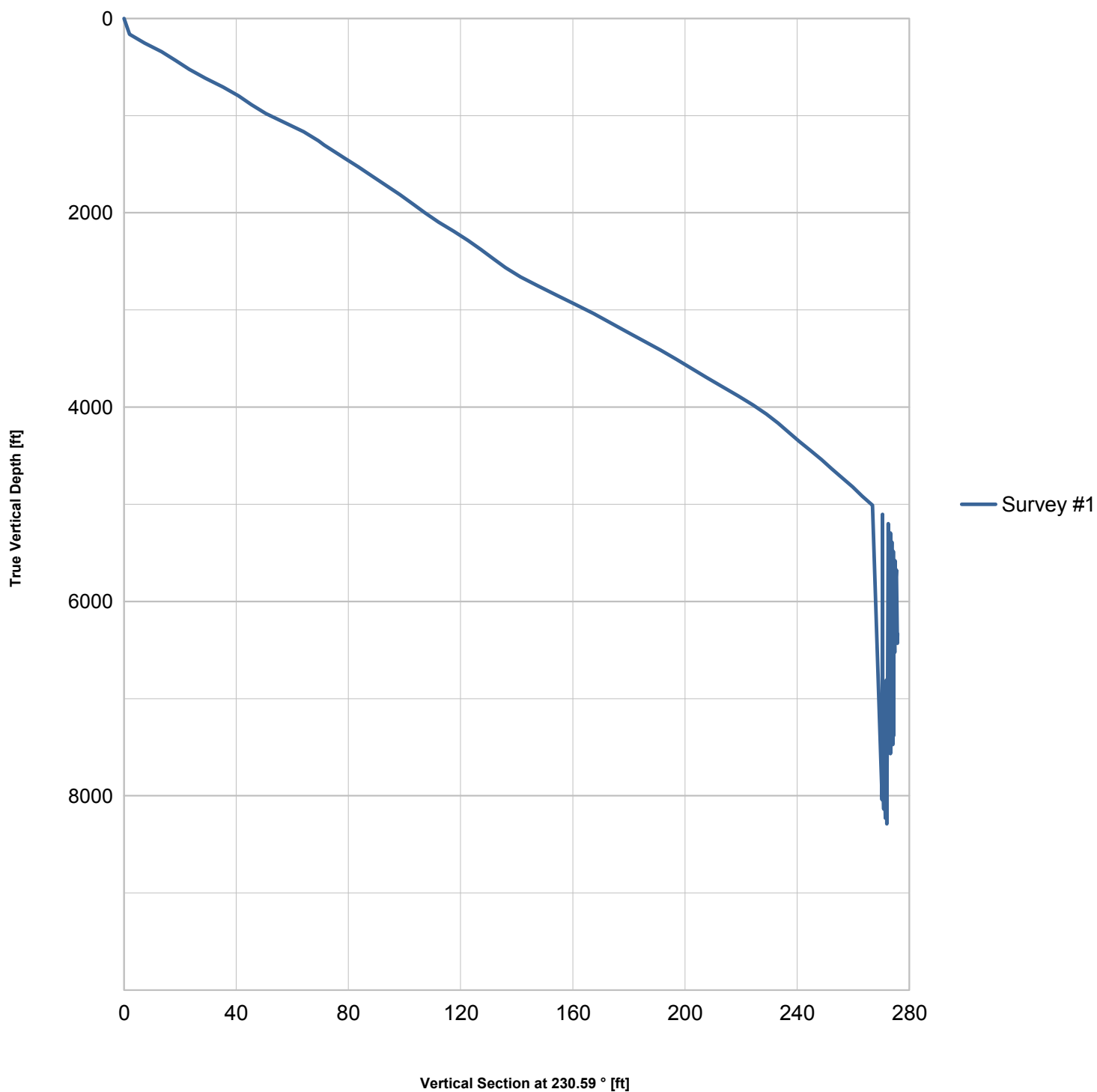
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
10/28/2011	NORMAL	1,816.0	2.81	225.52	1,813.10	-63.97	-74.72	98.34	0.39	-0.25	-5.85	227.07
	NORMAL	1,910.0	2.80	227.30	1,906.98	-67.14	-78.05	102.93	0.09	-0.01	1.89	97.44
	NORMAL	2,005.0	2.55	230.53	2,001.88	-70.06	-81.39	107.36	0.31	-0.26	3.40	150.52
	NORMAL	2,100.0	3.34	232.72	2,096.75	-73.08	-85.22	112.24	0.84	0.83	2.31	9.20
10/29/2011	NORMAL	2,194.0	3.24	235.78	2,190.60	-76.23	-89.59	117.62	0.21	-0.11	3.26	121.18
	NORMAL	2,288.0	2.90	236.43	2,284.46	-79.04	-93.77	122.63	0.36	-0.36	0.69	174.48
	NORMAL	2,381.0	2.77	231.88	2,377.35	-81.73	-97.50	127.22	0.28	-0.14	-4.89	237.73
	NORMAL	2,475.0	2.52	229.97	2,471.25	-84.46	-100.87	131.55	0.28	-0.27	-2.03	198.47
	NORMAL	2,569.0	2.89	232.32	2,565.14	-87.23	-104.33	135.99	0.41	0.39	2.50	17.86
	NORMAL	2,664.0	3.64	230.50	2,659.99	-90.62	-108.55	141.40	0.80	0.79	-1.92	351.22
	NORMAL	2,758.0	4.05	231.36	2,753.78	-94.59	-113.44	147.70	0.44	0.44	0.91	8.44
	NORMAL	2,853.0	3.96	225.27	2,848.55	-98.99	-118.40	154.32	0.46	-0.09	-6.41	255.03
	NORMAL	2,948.0	3.96	225.44	2,943.32	-103.60	-123.06	160.85	0.01	0.00	0.18	90.08
	NORMAL	3,042.0	4.01	220.35	3,037.09	-108.38	-127.50	167.32	0.38	0.05	-5.41	275.50
	NORMAL	3,136.0	3.52	231.07	3,130.89	-112.70	-131.88	173.44	0.91	-0.52	11.40	130.11
	NORMAL	3,230.0	3.65	234.04	3,224.71	-116.27	-136.54	179.31	0.24	0.14	3.16	56.50
	NORMAL	3,324.0	3.65	232.22	3,318.52	-119.86	-141.33	185.29	0.12	0.00	-1.94	269.09
	NORMAL	3,418.0	3.64	231.34	3,412.33	-123.56	-146.03	191.27	0.06	-0.01	-0.94	259.43
	NORMAL	3,513.0	3.19	233.81	3,507.16	-127.00	-150.51	196.92	0.50	-0.47	2.60	163.12
	NORMAL	3,608.0	3.31	237.33	3,602.00	-130.04	-154.96	202.28	0.25	0.13	3.71	60.75
	NORMAL	3,702.0	3.34	233.09	3,695.85	-133.15	-159.43	207.71	0.26	0.03	-4.51	274.84
	NORMAL	3,796.0	3.38	234.84	3,789.68	-136.39	-163.88	213.21	0.12	0.04	1.86	69.57
	NORMAL	3,890.0	3.61	240.38	3,883.51	-139.45	-168.72	218.89	0.43	0.24	5.89	58.53
	NORMAL	3,984.0	2.99	232.82	3,977.35	-142.40	-173.25	224.26	0.80	-0.66	-8.04	211.33
10/30/2011	NORMAL	4,078.0	2.81	221.31	4,071.23	-145.61	-176.72	228.98	0.65	-0.19	-12.24	247.13
	NORMAL	4,172.0	2.37	222.54	4,165.14	-148.77	-179.56	233.18	0.47	-0.47	1.31	173.41
	NORMAL	4,266.0	2.54	204.10	4,259.05	-152.11	-181.72	236.97	0.86	0.18	-19.62	272.83
	NORMAL	4,360.0	2.55	204.79	4,352.96	-155.90	-183.45	240.72	0.03	0.01	0.73	72.27
	NORMAL	4,453.0	2.86	211.08	4,445.86	-159.77	-185.51	244.77	0.46	0.33	6.76	46.93
	NORMAL	4,548.0	2.11	219.99	4,540.77	-163.14	-187.86	248.72	0.89	-0.79	9.38	157.15
	NORMAL	4,642.0	2.29	223.16	4,634.70	-165.84	-190.26	252.28	0.23	0.19	3.37	35.65
	NORMAL	4,736.0	2.36	224.88	4,728.62	-168.58	-192.91	256.07	0.11	0.07	1.83	45.77
	NORMAL	4,829.0	2.20	219.47	4,821.55	-171.31	-195.39	259.73	0.29	-0.17	-5.82	230.69
	NORMAL	4,923.0	2.00	230.37	4,915.48	-173.75	-197.81	263.14	0.47	-0.21	11.60	121.98
10/31/2011	NORMAL	5,018.0	2.48	229.51	5,010.41	-176.14	-200.64	266.85	0.51	0.51	-0.91	355.56
	NORMAL	5,112.0	1.95	219.76	5,104.34	-178.69	-203.21	270.45	0.69	-0.56	-10.37	210.61
	NORMAL	5,208.0	0.97	169.63	5,200.31	-180.75	-204.11	272.45	1.59	-1.02	-52.22	209.28
	NORMAL	5,302.0	1.16	163.43	5,294.30	-182.44	-203.70	273.21	0.24	0.20	-6.60	325.64
	NORMAL	5,397.0	0.26	185.28	5,389.29	-183.58	-203.44	273.73	0.97	-0.95	23.00	173.99
	NORMAL	5,493.0	0.50	259.66	5,485.29	-183.87	-203.88	274.25	0.52	0.25	77.48	104.59
	NORMAL	5,588.0	0.78	298.25	5,580.28	-183.64	-204.85	274.86	0.52	0.29	40.62	77.30
	NORMAL	5,683.0	0.53	284.06	5,675.27	-183.23	-205.85	275.37	0.31	-0.26	-14.94	206.02
	NORMAL	5,777.0	0.61	74.81	5,769.27	-182.99	-205.79	275.17	1.17	0.09	160.37	164.33
	NORMAL	5,873.0	0.44	86.57	5,865.27	-182.83	-204.93	274.41	0.21	-0.18	12.25	153.42
11/1/2011	NORMAL	5,968.0	0.07	343.63	5,960.27	-182.76	-204.58	274.09	0.49	-0.39	-108.36	188.52
	NORMAL	6,061.0	0.26	297.51	6,053.27	-182.60	-204.78	274.15	0.23	0.20	-49.59	300.46
	NORMAL	6,156.0	0.17	227.25	6,148.27	-182.60	-205.08	274.37	0.27	-0.09	-73.96	218.30
	NORMAL	6,250.0	0.62	248.03	6,242.26	-182.89	-205.65	275.00	0.49	0.48	22.11	28.23
	NORMAL	6,343.0	0.44	258.14	6,335.26	-183.15	-206.47	275.79	0.22	-0.19	10.87	157.54
	NORMAL	6,438.0	0.82	103.38	6,430.26	-183.38	-206.16	275.71	1.30	0.40	-162.91	196.48
	NORMAL	6,532.0	0.79	82.00	6,524.25	-183.44	-204.87	274.75	0.32	-0.03	-22.74	253.67
	NORMAL	6,627.0	0.55	62.45	6,619.24	-183.14	-203.81	273.74	0.35	-0.25	-20.58	214.11
	NORMAL	6,723.0	0.70	69.26	6,715.24	-182.72	-202.86	272.74	0.17	0.16	7.09	29.78
	NORMAL	6,817.0	0.65	4.96	6,809.23	-181.99	-202.27	271.82	0.77	-0.05	-68.40	234.48
11/2/2011	NORMAL	6,912.0	0.78	154.62	6,904.23	-182.03	-201.95	271.60	1.45	0.14	157.54	163.42
	NORMAL	7,006.0	0.79	189.58	6,998.22	-183.25	-201.78	272.24	0.50	0.01	37.19	106.32
	NORMAL	7,102.0	0.52	223.69	7,094.21	-184.22	-202.19	273.17	0.48	-0.28	35.53	140.95

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 (°)
11/2/2011	NORMAL	7,197.0	0.53	257.45	7,189.21	-184.63	-202.92	273.99	0.32	0.01	35.54	105.08
	NORMAL	7,292.0	0.26	319.84	7,284.21	-184.56	-203.49	274.39	0.49	-0.28	65.67	150.64
	NORMAL	7,387.0	0.62	321.77	7,379.20	-183.99	-203.95	274.38	0.38	0.38	2.03	3.32
	NORMAL	7,480.0	0.88	344.09	7,472.20	-182.91	-204.45	274.09	0.42	0.28	24.00	59.86
	NORMAL	7,575.0	0.97	5.63	7,567.18	-181.40	-204.57	273.23	0.38	0.09	22.67	86.42
11/3/2011	NORMAL	7,668.0	1.14	1.23	7,660.17	-179.70	-204.48	272.07	0.20	0.18	-4.73	332.31
	NORMAL	7,763.0	1.14	344.80	7,755.15	-177.84	-204.71	271.06	0.34	0.00	-17.29	261.79
	NORMAL	7,858.0	1.23	328.03	7,850.13	-176.06	-205.49	270.54	0.38	0.09	-17.65	276.06
	NORMAL	7,953.0	1.82	329.65	7,945.10	-173.90	-206.79	270.17	0.62	0.62	1.71	4.99
	NORMAL	8,049.0	1.76	307.00	8,041.05	-171.69	-208.74	270.28	0.73	-0.06	-23.59	253.90
	NORMAL	8,144.0	1.82	311.14	8,136.00	-169.82	-211.04	270.87	0.15	0.06	4.36	67.19
	NORMAL	8,237.0	2.01	307.92	8,228.95	-167.85	-213.44	271.47	0.23	0.20	-3.46	328.86
	NORMAL	8,297.0	2.13	305.84	8,288.91	-166.55	-215.18	271.99	0.24	0.20	-3.47	326.91

3 Charts

3.1 Vertical Section View



3.2 Plan View

