

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	SG 414-22	Wellbore No.	OH
Wellbore Legal Name	SG 414-22	Common Wellbore Name	SG 414-22
Project	SG 22-07S-096W	Site	SG 24-22 Pad
Vertical Section Azimuth	252.28 (°)	North reference	
Origin N/S		Origin E/W	
Spud date	3/28/2014	UWI	SG 414-22
Active datum	KB @5,272.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SCIENTIFIC
Date Started	3/22/2014	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 (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
3/22/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/28/2014	NORMAL	338.0	9.06	272.40	336.59	1.12	-26.64	25.04	2.68	2.68	0.00	272.40
	NORMAL	429.0	11.38	261.81	426.15	0.14	-42.69	40.63	3.27	2.55	-11.64	315.70
	NORMAL	520.0	13.79	254.75	514.96	-3.99	-62.05	60.32	3.14	2.65	-7.76	323.97
	NORMAL	610.0	16.80	251.15	601.77	-11.02	-84.71	84.05	3.51	3.34	-4.00	340.75
	NORMAL	700.0	20.29	246.83	687.09	-21.37	-111.37	112.59	4.16	3.88	-4.80	336.45
	NORMAL	792.0	22.24	246.15	772.82	-34.68	-141.97	145.79	2.14	2.12	-0.74	352.47
	NORMAL	884.0	24.46	250.19	857.28	-48.18	-175.82	182.14	2.97	2.41	4.39	37.67
	NORMAL	975.0	26.89	252.72	939.29	-60.68	-213.20	221.55	2.93	2.67	2.78	25.43
	NORMAL	1,070.0	30.20	253.17	1,022.73	-73.98	-256.59	266.94	3.49	3.48	0.47	3.92
	NORMAL	1,164.0	32.77	252.77	1,102.89	-88.37	-303.53	316.02	2.74	2.73	-0.43	355.18
3/29/2014	NORMAL	1,252.0	34.55	251.14	1,176.13	-103.49	-349.89	364.79	2.27	2.02	-1.85	332.41
	NORMAL	1,346.0	33.73	249.71	1,253.94	-121.16	-399.60	417.51	1.22	-0.87	-1.52	223.79
	NORMAL	1,441.0	32.38	251.84	1,333.56	-138.23	-448.51	469.31	1.87	-1.42	2.24	140.17
	NORMAL	1,535.0	31.35	253.38	1,413.39	-153.07	-495.86	518.92	1.40	-1.10	1.64	142.37
	NORMAL	1,630.0	32.77	252.86	1,493.90	-167.72	-544.11	569.34	1.52	1.49	-0.55	348.78
	NORMAL	1,724.0	34.42	254.57	1,572.20	-182.28	-594.04	621.33	2.02	1.76	1.82	30.55
	NORMAL	1,818.0	35.73	253.62	1,649.13	-197.09	-645.98	675.32	1.51	1.39	-1.01	336.99
	NORMAL	1,913.0	35.64	252.65	1,726.29	-213.17	-699.01	730.73	0.60	-0.09	-1.02	260.57
	NORMAL	2,007.0	34.83	251.89	1,803.07	-229.68	-750.67	784.96	0.98	-0.86	-0.81	208.12
	NORMAL	2,101.0	34.72	251.19	1,880.28	-246.66	-801.52	838.57	0.44	-0.12	-0.74	254.31

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (")	Azi. (")	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS ("/100usft)	Buil'd Rate ("/100usft)	Turn ("/100usft)	Tface (")
3/29/2014	NORMAL	2,196.0	32.71	253.38	1,959.30	-262.72	-851.73	891.29	2.47	-2.12	2.31	149.74
	NORMAL	2,290.0	29.82	253.06	2,039.65	-276.80	-898.44	940.06	3.08	-3.07	-0.34	183.15
	NORMAL	2,384.0	27.43	252.73	2,122.15	-290.04	-941.48	985.09	2.55	-2.54	-0.35	183.64
	NORMAL	2,479.0	25.69	254.40	2,207.12	-302.08	-982.21	1,027.55	1.99	-1.83	1.76	157.52
	NORMAL	2,573.0	23.93	252.72	2,292.44	-313.22	-1,020.04	1,066.98	2.02	-1.87	-1.79	201.07
3/30/2014	NORMAL	2,668.0	22.26	250.89	2,379.83	-324.83	-1,055.44	1,104.24	1.91	-1.76	-1.93	202.42
	NORMAL	2,762.0	20.26	251.03	2,467.43	-335.95	-1,087.66	1,138.31	2.13	-2.13	0.15	178.61
	NORMAL	2,856.0	17.93	250.63	2,556.25	-346.05	-1,116.71	1,169.05	2.48	-2.48	-0.43	183.03
	NORMAL	2,950.0	15.80	251.20	2,646.20	-354.97	-1,142.47	1,198.31	2.27	-2.27	0.61	175.83
	NORMAL	3,045.0	14.03	255.83	2,738.00	-361.96	-1,165.88	1,220.74	2.24	-1.86	4.87	148.27
	NORMAL	3,139.0	13.79	254.02	2,829.24	-367.83	-1,187.70	1,243.31	0.53	-0.26	-1.93	240.24
	NORMAL	3,233.0	13.01	256.17	2,920.68	-373.44	-1,208.75	1,265.06	0.98	-0.83	2.29	148.47
	NORMAL	3,327.0	11.10	253.93	3,012.61	-378.48	-1,227.72	1,284.66	2.09	-2.03	-2.38	192.67
	NORMAL	3,421.0	10.09	252.75	3,105.00	-383.43	-1,244.28	1,301.94	1.10	-1.07	-1.26	191.54
	NORMAL	3,515.0	8.33	251.23	3,197.79	-388.06	-1,258.59	1,316.99	1.89	-1.87	-1.62	187.12
	NORMAL	3,609.0	6.98	255.32	3,290.95	-391.70	-1,270.56	1,329.50	1.55	-1.44	4.35	160.04
	NORMAL	3,703.0	6.05	261.62	3,384.34	-393.87	-1,280.99	1,340.09	1.25	-0.99	6.70	145.55
	NORMAL	3,798.0	4.13	264.32	3,478.96	-394.93	-1,289.35	1,348.38	2.04	-2.02	2.84	174.23
	NORMAL	3,892.0	3.51	269.04	3,572.75	-395.32	-1,295.59	1,354.44	0.74	-0.66	5.02	155.45
	NORMAL	3,986.0	2.00	285.17	3,666.64	-394.94	-1,300.05	1,358.58	1.79	-1.61	17.16	160.72
NORMAL	4,080.0	0.16	130.85	3,760.63	-394.59	-1,301.54	1,359.89	2.28	-1.96	-164.17	181.85	
NORMAL	4,174.0	0.39	146.16	3,854.63	-394.94	-1,301.26	1,359.73	0.25	0.24	16.29	25.47	
NORMAL	4,269.0	0.52	164.08	3,949.62	-395.63	-1,300.96	1,359.65	0.20	0.14	18.86	56.78	
NORMAL	4,363.0	0.50	167.57	4,043.62	-396.44	-1,300.75	1,359.70	0.04	-0.02	3.71	124.51	
NORMAL	4,457.0	0.55	171.54	4,137.61	-397.29	-1,300.60	1,359.81	0.07	0.05	4.22	38.03	
NORMAL	4,552.0	0.51	159.25	4,232.61	-398.13	-1,300.38	1,359.86	0.13	-0.04	-12.94	244.54	
NORMAL	4,646.0	0.50	142.64	4,326.61	-398.85	-1,299.99	1,359.70	0.16	-0.01	-17.67	257.82	
3/31/2014	NORMAL	4,740.0	0.53	115.00	4,420.60	-399.36	-1,299.34	1,359.25	0.26	0.03	-29.40	262.93
	NORMAL	4,835.0	0.60	94.60	4,515.60	-399.58	-1,298.45	1,358.46	0.22	0.07	-21.47	278.80
	NORMAL	4,928.0	0.32	41.90	4,608.60	-399.43	-1,297.79	1,357.79	0.52	-0.30	-56.67	212.08
	NORMAL	5,023.0	0.14	335.82	4,703.60	-399.13	-1,297.66	1,357.57	0.31	-0.19	-69.56	205.93
	NORMAL	5,117.0	0.34	59.37	4,797.59	-398.88	-1,297.47	1,357.32	0.38	0.21	88.88	106.77
	NORMAL	5,211.0	0.54	96.16	4,891.59	-398.79	-1,296.79	1,356.64	0.36	0.21	39.14	74.05
	NORMAL	5,306.0	0.78	130.34	4,986.59	-399.25	-1,295.85	1,355.89	0.47	0.25	35.98	76.49
	NORMAL	5,400.0	1.66	183.93	5,080.57	-401.02	-1,295.45	1,356.05	1.44	0.94	57.01	81.26
	NORMAL	5,494.0	1.86	194.18	5,174.52	-403.86	-1,295.92	1,357.36	0.40	0.21	10.90	62.76
	NORMAL	5,570.0	2.01	193.51	5,250.48	-406.35	-1,296.54	1,358.70	0.20	0.20	-0.88	351.09
NORMAL	5,625.0	2.01	193.51	5,305.45	-408.23	-1,296.99	1,359.70	0.00	0.00	0.00	0.00	