

OXY USA PERMIAN
Deviation Summary Report

30-025-39253

Well: BELL LAKE 32 *M-5-245-34e, 1150/s or 990/W*
Wellbore: ST 1/01 Spud Date/Time: 11/28/2008
Project: BELL LAKE, SOUTH Site: BELL LAKE #25 (MORROW B 24677)
Vertical Section Azimuth: 2.84 (°) VS Origin N/S: 0.0 (ft) VS Origin EW: 0.0 (ft) North Reference: True
Active Datum: ORIGINAL KB @ 3,621.10ft (H&P 372 = 25' KB) Primary Location Desc.: BELL LAKE 32
Survey Name: ST1 Company: DRILL RIG
Start Date: 12/19/2008 End Date: Label Not Found: INC Engineer:

Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	EW (ft)
5,649.0	95.0	56.90	5,647.5	61.9	95.0

Survey Stations

Date	Ion Type C	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	EW (ft)	V. Sec (ft)	DLS (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
12/19/2008	Tie On	5,649.0	2.30	56.90	5,647.5	61.9	95.0	66.5	0.00	0.00		0.00
	NORMAL	5,747.0	2.30	55.50	5,745.4	64.1	98.2	68.9	0.06	0.00		-90.70
	NORMAL	5,838.0	2.30	55.50	5,836.3	66.2	101.2	71.1	0.00	0.00		0.00
	NORMAL	6,025.0	2.20	58.60	6,023.2	70.2	107.4	75.4	0.08	-0.05		130.95
	NORMAL	6,118.0	1.90	60.40	6,116.1	71.9	110.3	77.2	0.33	-0.32		168.78
	NORMAL	6,214.0	1.90	59.00	6,212.1	73.5	113.0	79.0	0.05	0.00		-90.70
	NORMAL	6,240.0	1.90	59.70	6,238.1	73.9	113.8	79.4	0.09	0.00		90.35
12/20/2008	NORMAL	6,265.0	1.60	55.10	6,263.0	74.3	114.4	79.9	1.32	-1.20		-157.20
12/20/2008	NORMAL	6,311.0	0.90	49.10	6,309.0	74.9	115.2	80.5	1.55	-1.52		-172.40
	NORMAL	6,345.0	0.40	47.00	6,343.0	75.2	115.5	80.8	1.47	-1.47		-178.32
	NORMAL	6,405.0	0.20	347.00	6,403.0	75.4	115.6	81.0	0.58	-0.33		-150.00
	NORMAL	6,465.0	0.20	348.00	6,463.0	75.6	115.6	81.3	0.01	0.00		90.50
12/23/2008	NORMAL	6,821.0	2.00	0.00	6,819.0	82.4	115.4	88.1	0.51	0.51		13.32
12/24/2008	NORMAL	7,116.0	1.00	0.00	7,113.8	90.2	115.4	95.8	0.34	-0.34		180.00
12/29/2008	NORMAL	7,544.0	1.50	0.00	7,541.7	99.5	115.4	105.1	0.12	0.12		0.00
12/30/2008	NORMAL	7,891.0	1.50	0.00	7,888.6	108.6	115.4	114.2	0.00	0.00		0.00
12/31/2008	NORMAL	8,168.0	1.50	0.00	8,165.5	115.8	115.4	121.4	0.00	0.00		0.00
1/8/2009	NORMAL	8,600.0	2.00	0.00	8,597.3	129.0	115.4	134.6	0.12	0.12		0.00
1/10/2009	NORMAL	9,181.0	3.00	0.00	9,177.8	154.4	115.4	159.9	0.17	0.17		0.00
1/12/2009	NORMAL	9,701.0	0.84	0.00	9,697.4	171.8	115.4	177.3	0.42	-0.42		180.00
1/15/2009	NORMAL	10,221.0	2.00	0.00	10,217.3	184.7	115.4	190.2	0.22	0.22		0.00
1/26/2009	NORMAL	11,744.0	2.50	0.00	11,738.9	249.8	115.4	255.2	0.00	0.00		0.00
1/27/2009	NORMAL	10,529.0	2.50	0.00	10,525.0	196.8	115.4	202.2	0.16	0.16		0.00
	NORMAL	11,176.0	2.50	0.00	11,171.4	225.0	115.4	230.4	0.00	0.00		0.00
	NORMAL	11,365.0	2.50	0.00	11,360.2	233.2	115.4	238.7	0.00	0.00		0.00
	NORMAL	11,744.0	2.50	0.00	11,738.9	249.8	115.4	255.2	0.00	0.00		0.00
1/29/2009	NORMAL	12,023.0	2.00	0.00	12,017.7	260.7	115.4	266.1	0.18	-0.18		180.00
	NORMAL	12,215.0	2.50	0.00	12,209.5	268.3	115.4	273.6	0.26	0.26		0.00
2/2/2009	NORMAL	12,451.0	3.00	0.00	12,445.2	279.6	115.4	285.0	0.21	0.21		0.00
2/4/2009	NORMAL	12,685.0	2.50	0.00	12,679.0	290.8	115.4	296.2	0.21	-0.21		180.00
2/20/2009	NORMAL	13,105.0	3.50	0.00	13,098.4	312.8	115.4	318.1	0.24	0.24		0.00
2/22/2009	NORMAL	13,346.0	3.00	0.00	13,339.0	326.4	115.4	331.8	0.21	-0.21		180.00
3/18/2009	PROJECT	13,810.0	3.00	0.00	13,802.4	350.7	115.4	356.0	0.00	0.00		0.00

OXY USA PERMIAN

Deviation Summary Report

Well: BELL LAKE 32						
Wellbore: ORIG HOLE/00				Spud Date/Time: 11/28/2008		
Project: BELL LAKE, SOUTH			Site: BELL LAKE #25 (MORROW B 24677)			
Vertical Section Azimuth: 2.90 (°)		VS Origin N/S: 0.0 (ft)		VS Origin E/W: 0.0 (ft)		
				North Reference: True		
Active Datum: ORIGINAL KB @3,621.10ft (H&P 372 = 25' KB)			Primary Location Desc.: BELL LAKE 32			
Survey Name:		Survey #1		Company: SCIENTIFIC DRILLING INTERNATIONAL		
Start Date: 11/27/2008		End Date:		Label Not Found: INC		
				Engineer:		

Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	4.0	0.00	0.0	154.0	4.0

Survey Stations

Date	Ion Type C	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
11/27/2008	Tie On	0.0	0.00	0.00	0.0	154.0	4.0	154.0	0.00	0.00		0.00
11/28/2008	NORMAL	168.0	0.50	0.00	168.0	154.7	4.0	154.7	0.30	0.30		0.00
	NORMAL	386.0	1.22	0.00	386.0	158.0	4.0	158.0	0.33	0.33		0.00
11/29/2008	NORMAL	633.0	1.47	0.00	632.9	163.8	4.0	163.8	0.10	0.10		0.00
	NORMAL	820.0	0.57	0.00	819.9	167.1	4.0	167.1	0.48	-0.48		180.00
11/30/2008	NORMAL	1,005.0	1.62	0.00	1,004.8	170.6	4.0	170.6	0.57	0.57		0.00
12/2/2008	NORMAL	1,265.0	1.16	0.00	1,264.8	176.9	4.0	176.9	0.18	-0.18		180.00
12/6/2008	NORMAL	1,537.0	1.50	0.00	1,536.7	183.3	4.0	183.2	0.12	0.12		0.00
	NORMAL	1,792.0	1.00	0.00	1,791.6	188.8	4.0	188.8	0.20	-0.20		180.00
	NORMAL	2,072.0	1.50	0.00	2,071.6	194.9	4.0	194.9	0.18	0.18		0.00
12/7/2008	NORMAL	2,260.0	1.50	0.00	2,259.5	199.8	4.0	199.8	0.00	0.00		0.00
	NORMAL	2,577.0	2.00	0.00	2,576.3	209.5	4.0	209.5	0.16	0.16		0.00
	NORMAL	2,880.0	2.00	0.00	2,879.2	220.1	4.0	220.0	0.00	0.00		0.00
	NORMAL	3,050.0	1.50	0.00	3,049.1	225.3	4.0	225.2	0.29	-0.29		180.00
	NORMAL	3,202.0	2.00	0.00	3,201.0	229.9	4.0	229.8	0.33	0.33		0.00
12/8/2008	NORMAL	3,302.0	2.00	0.00	3,300.9	233.4	4.0	233.3	0.00	0.00		0.00
	NORMAL	3,618.0	1.50	0.00	3,616.8	243.1	4.0	243.0	0.16	-0.16		180.00
	NORMAL	3,901.0	2.00	0.00	3,899.7	251.7	4.0	251.6	0.18	0.18		0.00
12/9/2008	NORMAL	4,274.0	1.50	0.00	4,272.5	263.1	4.0	263.0	0.13	-0.13		180.00
	NORMAL	4,539.0	2.00	0.00	4,537.4	271.2	4.0	271.1	0.19	0.19		0.00
	NORMAL	4,728.0	2.00	0.00	4,726.2	277.8	4.0	277.6	0.00	0.00		0.00
12/10/2008	NORMAL	4,885.0	2.50	0.00	4,883.1	284.0	4.0	283.8	0.32	0.32		0.00
12/11/2008	NORMAL	5,130.0	2.50	0.00	5,127.9	294.6	4.0	294.5	0.00	0.00		0.00
	NORMAL	5,413.0	1.00	0.00	5,410.8	303.3	4.0	303.1	0.53	-0.53		180.00
	NORMAL	5,686.0	3.50	0.00	5,683.6	309.5	8.6	309.5	7.99	3.24		-97.51
	NORMAL	5,780.0	2.50	0.00	5,777.5	313.1	10.1	313.2	6.79	0.61		-113.20
12/12/2008	NORMAL	5,980.0	2.00	0.00	5,977.4	321.0	10.1	321.1	0.25	-0.25		180.00
	NORMAL	6,063.0	1.00	0.00	6,060.3	322.9	11.5	323.1	4.96	-3.16		-153.05
12/18/2008	NORMAL	5,649.0	2.30	56.90	5,646.7	307.9	7.9	307.9	0.82	0.55		82.42
	NORMAL	5,747.0	2.30	55.50	5,744.6	312.0	9.6	312.1	4.76	-1.97		139.20
	NORMAL	6,025.0	2.20	58.60	6,022.3	322.2	10.8	322.3	4.58	0.44		114.43
	NORMAL	6,118.0	1.90	60.40	6,115.3	323.9	12.3	324.1	3.01	1.64		92.12
	NORMAL	6,214.0	1.90	59.00	6,211.3	325.5	15.0	325.8	0.05	0.00		-90.70
	NORMAL	6,240.0	1.90	59.70	6,237.3	325.9	15.8	326.3	0.00	0.00		0.00
12/20/2008	NORMAL	6,214.0	1.90	59.00	6,211.3	325.5	15.0	325.8	0.00	0.00		0.00
	NORMAL	6,240.0	1.90	59.70	6,237.3	325.9	15.8	326.3	0.09	0.00		90.35
	NORMAL	6,265.0	1.60	55.10	6,262.2	326.3	16.4	326.7	1.32	-1.20		-157.20
	NORMAL	6,311.0	0.90	49.10	6,308.2	326.9	17.2	327.4	1.55	-1.52		-172.40
	NORMAL	6,345.0	0.40	47.00	6,342.2	327.2	17.5	327.6	1.47	-1.47		-178.32
1/22/2009	NORMAL	10,529.0	2.50	0.00	10,524.7	428.4	28.2	429.3	0.05	0.05		-54.48

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Wellbore:ORIG HOLE/00									Spud Date/Time: 11/28/2008			
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Active Datum: ORIGINAL KB @3,621.10ft (H&P 372 = 25' KB)						Primary Location Desc.:BELL LAKE 32						
Survey Name: Survey #1			Company: SCIENTIFIC DRILLING INTERNATIONAL									
Start Date: 11/27/2008			End Date:			Label Not Found: INC			Engineer:			
Tie On Point												
MD (ft)		Inc. (°)		Azi (°)		TVD (ft)		N/S (ft)		E/W (ft)		
0.0		4.0		0.00		0.0		154.0		4.0		
Survey Stations												
Date	Ion Type C	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
1/23/2009	NORMAL	10,981.0	3.00	0.00	10,976.2	450.1	28.2	450.9	0.11	0.11		0.00
	NORMAL	11,098.0	3.00	0.00	11,093.0	456.2	28.2	457.0	0.00	0.00		0.00
	NORMAL	11,176.0	2.50	0.00	11,170.9	459.9	28.2	460.8	0.64	-0.64		180.00
1/24/2009	NORMAL	11,365.0	2.50	0.00	11,359.8	468.2	28.2	469.0	0.00	0.00		0.00
1/25/2009	NORMAL	11,744.0	2.50	0.00	11,738.4	484.7	28.2	485.5	0.00	0.00		0.00
2/20/2009	NORMAL	13,105.0	3.50	0.00	13,097.5	555.9	28.2	556.7	0.07	0.07		0.00