

**BURTON FLAT DEEP UNIT 57H****WEST UNRESTRICTED****Directional Survey**

District	County	Field Name		Project Group	State/Province		
PERMIAN BASIN	EDDY	BURTON FLAT		DELAWARE BASIN	NM		
Surface Legal Location	API/UWI	Latitude (°)	Longitude (°)	Ground Elev...	KB - GL (ft)	Orig KB Elev (ft)	Tubing Head Elevation (ft)
SEC2 T21S R27E	3001540829	32° 30' 23.782" N	104° 10' 7.587" W	3,213.90	25.00	3,238.90	

Wellbores

Wellbore Name OH	Parent Wellbore OH	Kick Off Depth (ftKB)	Vertical Section Direction (°) 273.04
Actual Deviation Survey	Definitive?	Proposed?	Proposed Deviation Survey

Deviation Survey

Date		Description			
MD Tie In (ftKB)	TVD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NSTie In (ft)	EW Tie In (ft)

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
Wellbore Name ST01			Parent Wellbore OH			Kick Off Depth (ftKB) 6,233.0			Vertical Section Direction (°) 273.04	
Actual Deviation Survey MWD, Proposed? No				Definitive? Yes		Proposed? No		Proposed Deviation Survey		

Deviation Survey

Date 9/7/2013		Description MWD			
MD Tie In (ftKB) 6,230.00	TVD Tie In (ftKB) 6,229.14	Inclination Tie In (°) 1.06	Azimuth Tie In (°) 207.68	NSTie In (ft) -22.41	EW Tie In (ft) -14.90

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
9/7/2013	6,230.00	1.06	207.68	6,229.14	13.69	-22.41	-14.90	0.00	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,249.00	6.95	233.17	6,248.09	14.65	-23.26	-15.90	31.63	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,280.00	10.20	257.25	6,278.74	18.73	-24.99	-20.08	15.41	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,312.00	13.98	262.35	6,310.03	25.26	-26.13	-26.68	12.26	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,343.00	18.11	261.64	6,339.82	33.66	-27.33	-35.16	13.34	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,375.00	22.69	262.17	6,369.80	44.61	-28.89	-46.20	14.32	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,406.00	27.08	263.58	6,397.92	57.44	-30.50	-59.14	14.29	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,438.00	31.22	265.86	6,425.86	72.86	-31.91	-74.66	13.39	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,469.00	35.44	268.32	6,451.75	89.80	-32.75	-91.67	14.29	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,500.00	39.22	270.26	6,476.40	108.55	-32.97	-110.46	12.77	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,532.00	43.18	272.02	6,500.47	129.62	-32.54	-131.53	12.89	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,563.00	46.43	273.60	6,522.47	151.46	-31.46	-153.34	11.08	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,595.00	49.51	274.83	6,543.89	175.22	-29.71	-177.04	10.04	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,626.00	52.94	276.06	6,563.30	199.36	-27.41	-201.10	11.49	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,658.00	55.22	277.64	6,582.07	225.21	-24.31	-226.82	8.17	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,689.00	59.27	277.46	6,598.84	251.20	-20.89	-252.66	13.07	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,721.00	63.66	277.64	6,614.13	279.22	-17.20	-280.52	13.73	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,752.00	68.15	277.46	6,626.78	307.42	-13.48	-308.57	14.49	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,784.00	72.98	277.29	6,637.42	337.50	-9.61	-338.49	15.10	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,816.00	77.47	277.11	6,645.58	368.35	-5.73	-369.18	14.04	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,847.00	82.22	277.11	6,651.04	398.78	-1.96	-399.45	15.32	MWD	LEAM DRILLING SYSTEMS
9/7/2013	6,930.00	90.04	275.18	6,656.64	481.41	6.90	-481.72	9.70	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,025.00	92.77	274.30	6,654.31	576.32	14.74	-576.35	3.02	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,119.00	94.18	274.30	6,648.62	670.13	21.78	-669.91	1.50	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,214.00	94.79	274.30	6,641.19	764.81	28.88	-764.36	0.64	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,308.00	93.12	273.95	6,634.70	858.57	35.62	-857.89	1.82	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,402.00	91.54	272.72	6,630.88	952.48	41.09	-951.65	2.13	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,497.00	92.51	272.37	6,627.53	1,047.42	45.30	-1,046.49	1.09	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,591.00	93.65	271.84	6,622.48	1,141.27	48.75	-1,140.29	1.34	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,686.00	91.45	271.84	6,618.25	1,236.15	51.80	-1,235.14	2.32	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,781.00	92.59	271.49	6,614.90	1,331.06	54.56	-1,330.04	1.26	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,876.00	91.98	271.84	6,611.11	1,425.96	57.31	-1,424.92	0.74	MWD	LEAM DRILLING SYSTEMS
9/7/2013	7,970.00	91.10	273.60	6,608.59	1,519.92	61.77	-1,518.78	2.09	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,065.00	92.07	274.12	6,605.96	1,614.87	68.17	-1,613.53	1.16	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,159.00	90.84	274.65	6,603.57	1,708.81	75.35	-1,707.22	1.42	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,254.00	91.36	275.00	6,601.75	1,803.75	83.34	-1,801.86	0.66	MWD	LEAM DRILLING SYSTEMS



BURTON FLAT DEEP UNIT 57H

WEST UNRESTRICTED

Directional Survey

District	County	Field Name	Project Group	State/Province			
PERMIAN BASIN	EDDY	BURTON FLAT	DELAWARE BASIN	NM			
Surface Legal Location	API/UWI	Latitude (°)	Longitude (°)	Ground Elev...	KB - GL (ft)	Orig KB Elev (ft)	Tubing Head Elevation (ft)
SEC2 T21S R27E	3001540829	32° 30' 23.782" N	104° 10' 7.587" W	3,213.90	25.00	3,238.90	

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
9/7/2013	8,347.00	92.15	275.18	6,598.90	1,896.64	91.59	-1,894.45	0.87	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,442.00	93.12	275.53	6,594.53	1,991.47	100.44	-1,988.94	1.09	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,536.00	93.21	273.60	6,589.34	2,085.28	107.91	-2,082.49	2.05	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,630.00	94.53	273.95	6,583.00	2,179.06	114.09	-2,176.07	1.45	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,725.00	93.47	274.12	6,576.37	2,273.81	120.76	-2,270.60	1.13	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,820.00	94.09	274.30	6,570.11	2,368.59	127.72	-2,365.14	0.68	MWD	LEAM DRILLING SYSTEMS
9/7/2013	8,914.00	92.68	273.95	6,564.56	2,462.40	134.46	-2,458.73	1.55	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,009.00	93.65	273.77	6,559.31	2,557.25	140.85	-2,553.37	1.04	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,104.00	91.10	273.77	6,555.38	2,652.15	147.09	-2,648.08	2.68	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,199.00	91.54	273.95	6,553.19	2,747.11	153.48	-2,742.83	0.50	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,293.00	92.42	273.95	6,549.94	2,841.05	159.96	-2,836.55	0.94	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,388.00	93.12	273.60	6,545.35	2,935.93	166.20	-2,931.24	0.82	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,483.00	94.18	273.77	6,539.30	3,030.73	172.30	-3,025.85	1.13	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,577.00	93.83	273.95	6,532.74	3,124.49	178.61	-3,119.40	0.42	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,671.00	91.89	273.42	6,528.05	3,218.36	184.64	-3,213.09	2.14	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,766.00	89.60	277.02	6,526.81	3,313.26	193.28	-3,307.66	4.49	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,861.00	90.92	272.19	6,526.38	3,408.19	200.91	-3,402.33	5.27	MWD	LEAM DRILLING SYSTEMS
9/7/2013	9,955.00	91.10	271.66	6,524.72	3,502.16	204.07	-3,496.26	0.60	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,049.00	88.55	272.02	6,525.01	3,596.13	207.08	-3,590.20	2.74	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,143.00	89.16	271.84	6,526.89	3,690.09	210.25	-3,684.13	0.68	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,237.00	89.69	272.02	6,527.83	3,784.07	213.41	-3,778.07	0.60	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,332.00	90.40	271.84	6,527.76	3,879.05	216.61	-3,873.02	0.77	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,427.00	90.84	270.96	6,526.73	3,974.01	218.93	-3,967.98	1.04	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,521.00	91.71	271.31	6,524.64	4,067.93	220.80	-4,061.94	1.00	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,616.00	91.80	270.61	6,521.73	4,162.82	222.39	-4,156.88	0.74	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,711.00	92.15	272.54	6,518.45	4,257.73	225.00	-4,251.78	2.06	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,806.00	92.68	272.89	6,514.45	4,352.65	229.49	-4,346.59	0.67	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,900.00	92.51	273.60	6,510.19	4,446.55	234.81	-4,440.34	0.78	MWD	LEAM DRILLING SYSTEMS
9/7/2013	10,994.00	91.45	273.60	6,506.95	4,540.49	240.71	-4,534.10	1.13	MWD	LEAM DRILLING SYSTEMS
9/7/2013	11,089.00	89.43	273.42	6,506.22	4,635.47	246.52	-4,628.91	2.13	MWD	LEAM DRILLING SYSTEMS
9/7/2013	11,183.00	89.16	272.89	6,507.37	4,729.47	251.69	-4,722.76	0.63	MWD	LEAM DRILLING SYSTEMS
9/7/2013	11,278.00	90.92	273.07	6,507.31	4,824.46	256.63	-4,817.63	1.86	MWD	LEAM DRILLING SYSTEMS
9/7/2013	11,372.00	92.24	273.25	6,504.72	4,918.43	261.81	-4,911.45	1.42	MWD	LEAM DRILLING SYSTEMS
9/7/2013	11,422.00	92.77	273.25	6,502.53	4,968.38	264.64	-4,961.32	1.06	MWD	LEAM DRILLING SYSTEMS
9/7/2013	11,485.00	92.77	273.25	6,499.49	5,031.30	268.21	-5,024.15	0.00	BIT	LEAM DRILLING SYSTEMS