



## **EOG Resources**

**Irion County, TX (NAD27 TC)**

**University 43-A #0803H**

**University 43-A #0803H**

**OH**

**Design: Actual**

## **Standard Survey Report**

**19 February, 2012**



<b>Company:</b>	EOG Resources	<b>Local Co-ordinate Reference:</b>	Site University 43-A #0803H
<b>Project:</b>	Irion County, TX (NAD27 TC)	<b>TVD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Site:</b>	University 43-A #0803H	<b>MD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Well:</b>	University 43-A #0803H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<b>Database:</b>	EDM 5000.1 Single User Db

<b>Project</b>	Irion County, TX (NAD27 TC)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Texas Central 4203		

<b>Site</b>	University 43-A #0803H			
<b>Site Position:</b>		<b>Northing:</b>	531,386.00 usft	<b>Latitude:</b> 31° 7' 28.200 N
<b>From:</b>	Map	<b>Easting:</b>	1,711,627.00 usft	<b>Longitude:</b> 101° 15' 17.891 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> -0.47 °

<b>Well</b>	University 43-A #0803H			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	531,386.00 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	1,711,627.00 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	usft
			<b>Ground Level:</b>	2,620.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	02/13/12	6.33	59.52	48,122

<b>Design</b>	Actual				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00		0.15

<b>Survey Program</b>	<b>Date</b>	02/19/12			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	680.00	MS Gyro (OH)	Keeper	Keeper Standard Rate Gyro	
897.00	14,465.00	MWD (OH)	MWD	MWD - Standard ISCWSA	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.75	110.57	100.00	-0.23	0.61	-0.23	0.75	0.75	0.00	
200.00	1.00	156.14	199.99	-1.26	1.58	-1.25	0.72	0.25	45.57	
300.00	1.00	170.40	299.97	-2.92	2.08	-2.91	0.25	0.00	14.26	
400.00	0.50	166.72	399.96	-4.20	2.32	-4.20	0.50	-0.50	-3.68	
500.00	0.50	105.03	499.96	-4.74	2.84	-4.73	0.51	0.00	-61.69	
600.00	0.75	102.35	599.95	-4.99	3.91	-4.98	0.25	0.25	-2.68	
680.00	0.75	133.75	679.95	-5.47	4.79	-5.45	0.51	0.00	39.25	
<b>Gyro Tie-in</b>										
897.00	0.70	148.74	896.93	-7.58	6.51	-7.56	0.09	-0.02	6.91	

<b>Company:</b>	EOG Resources	<b>Local Co-ordinate Reference:</b>	Site University 43-A #0803H
<b>Project:</b>	Irion County, TX (NAD27 TC)	<b>TVD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Site:</b>	University 43-A #0803H	<b>MD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Well:</b>	University 43-A #0803H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
1,082.00	0.62	121.94	1,081.92	-9.08	7.94	-9.06	0.17	-0.04	-14.49
1,268.00	0.62	112.53	1,267.91	-10.00	9.73	-9.97	0.05	0.00	-5.06
1,458.00	0.26	306.07	1,457.90	-10.14	10.33	-10.11	0.46	-0.19	-87.61
1,647.00	0.09	12.78	1,646.90	-9.74	10.02	-9.71	0.13	-0.09	35.30
1,836.00	0.00	340.70	1,835.90	-9.59	10.05	-9.57	0.05	-0.05	0.00
2,025.00	0.09	13.30	2,024.90	-9.45	10.08	-9.42	0.05	0.05	0.00
2,214.00	0.09	200.16	2,213.90	-9.44	10.07	-9.42	0.10	0.00	-91.61
2,404.00	0.18	38.00	2,403.90	-9.35	10.20	-9.32	0.14	0.05	-85.35
2,593.00	0.44	137.05	2,592.90	-9.65	10.87	-9.62	0.27	0.14	52.41
2,782.00	0.47	128.44	2,781.89	-10.66	11.98	-10.63	0.04	0.02	-4.56
2,972.00	1.06	122.99	2,971.88	-12.10	14.06	-12.06	0.31	0.31	-2.87
3,161.00	1.23	123.52	3,160.84	-14.17	17.22	-14.13	0.09	0.09	0.28
3,350.00	1.14	109.37	3,349.80	-15.92	20.68	-15.86	0.16	-0.05	-7.49
3,539.00	0.62	114.55	3,538.78	-16.96	23.39	-16.90	0.28	-0.28	2.74
3,728.00	0.35	298.51	3,727.77	-17.11	23.81	-17.05	0.51	-0.14	-93.14
3,917.00	0.62	305.98	3,916.77	-16.24	22.48	-16.18	0.15	0.14	3.95
4,106.00	0.53	321.36	4,105.76	-14.95	21.10	-14.90	0.09	-0.05	8.14
4,295.00	0.59	346.05	4,294.75	-13.33	20.32	-13.27	0.13	0.03	13.06
4,485.00	0.53	8.30	4,484.74	-11.51	20.21	-11.46	0.12	-0.03	11.71
4,674.00	0.53	12.16	4,673.73	-9.79	20.52	-9.73	0.02	0.00	2.04
4,863.00	0.35	5.57	4,862.73	-8.36	20.76	-8.31	0.10	-0.10	-3.49
5,053.00	0.26	329.80	5,052.72	-7.41	20.60	-7.36	0.11	-0.05	-18.83
5,242.00	0.35	12.25	5,241.72	-6.47	20.51	-6.42	0.12	0.05	22.46
5,431.00	0.09	318.02	5,430.72	-5.80	20.53	-5.75	0.16	-0.14	-28.69
5,620.00	0.35	125.72	5,619.72	-6.03	20.90	-5.97	0.23	0.14	88.73
5,810.00	0.35	159.73	5,809.72	-6.91	21.57	-6.85	0.11	0.00	17.90
5,999.00	0.44	149.01	5,998.71	-8.07	22.15	-8.02	0.06	0.05	-5.67
6,141.00	0.62	134.51	6,140.70	-9.08	22.98	-9.02	0.16	0.13	-10.21
6,197.00	1.41	358.54	6,196.70	-8.60	23.17	-8.54	3.40	1.41	-242.80
6,229.00	5.80	351.07	6,228.63	-6.61	22.91	-6.55	13.77	13.72	-23.34
6,260.00	10.99	350.37	6,259.29	-2.15	22.18	-2.09	16.74	16.74	-2.26
6,292.00	16.27	351.16	6,290.37	5.29	20.98	5.35	16.51	16.50	2.47
6,324.00	21.28	353.71	6,320.66	15.50	19.65	15.55	15.86	15.66	7.97
6,355.00	24.80	355.81	6,349.19	27.58	18.56	27.63	11.66	11.35	6.77
6,387.00	24.97	358.54	6,378.22	41.03	17.90	41.07	3.63	0.53	8.53
6,418.00	27.79	359.77	6,405.98	54.80	17.70	54.84	9.27	9.10	3.97
6,450.00	31.74	0.21	6,433.76	70.68	17.70	70.73	12.36	12.34	1.38
6,481.00	35.88	359.51	6,459.51	87.93	17.65	87.97	13.41	13.35	-2.26
6,513.00	40.10	358.80	6,484.72	107.62	17.36	107.66	13.26	13.19	-2.22
6,544.00	44.32	357.75	6,507.68	128.43	16.72	128.47	13.80	13.61	-3.39
6,576.00	47.48	357.75	6,529.95	151.39	15.82	151.43	9.88	9.88	0.00
6,608.00	50.21	358.98	6,551.00	175.47	15.14	175.51	9.01	8.53	3.84
6,639.00	52.67	0.38	6,570.33	199.71	15.01	199.75	8.69	7.94	4.52

<b>Company:</b>	EOG Resources	<b>Local Co-ordinate Reference:</b>	Site University 43-A #0803H
<b>Project:</b>	Irion County, TX (NAD27 TC)	<b>TVD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Site:</b>	University 43-A #0803H	<b>MD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Well:</b>	University 43-A #0803H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,671.00	55.31	0.91	6,589.14	225.59	15.30	225.63	8.36	8.25	1.66
6,702.00	58.30	0.82	6,606.11	251.52	15.69	251.56	9.65	9.65	-0.29
6,734.00	61.55	0.65	6,622.14	279.21	16.05	279.25	10.17	10.16	-0.53
6,765.00	63.93	0.56	6,636.34	306.76	16.34	306.80	7.68	7.68	-0.29
6,797.00	66.04	0.56	6,649.87	335.76	16.62	335.80	6.59	6.59	0.00
6,828.00	68.06	1.00	6,661.96	364.30	17.01	364.34	6.65	6.52	1.42
6,859.00	70.26	1.62	6,672.99	393.26	17.67	393.31	7.34	7.10	2.00
6,890.00	72.90	1.09	6,682.78	422.66	18.37	422.71	8.67	8.52	-1.71
6,922.00	75.62	359.59	6,691.46	453.46	18.55	453.51	9.62	8.50	-4.69
6,953.00	78.44	359.51	6,698.42	483.66	18.31	483.71	9.10	9.10	-0.26
6,985.00	80.72	358.89	6,704.21	515.13	17.87	515.18	7.38	7.13	-1.94
7,016.00	82.24	358.47	6,708.80	545.78	17.16	545.82	5.08	4.90	-1.35
7,048.00	83.71	358.10	6,712.71	577.52	16.21	577.56	4.73	4.59	-1.16
7,079.00	84.15	358.01	6,715.99	608.33	15.17	608.37	1.45	1.42	-0.29
7,111.00	85.47	358.36	6,718.88	640.18	14.16	640.22	4.27	4.13	1.09
7,174.00	89.78	359.95	6,721.49	703.11	13.23	703.14	7.29	6.84	2.52
7,269.00	91.80	359.07	6,720.18	798.09	12.42	798.12	2.32	2.13	-0.93
7,363.00	92.95	358.89	6,716.29	891.99	10.75	892.02	1.24	1.22	-0.19
7,458.00	91.45	359.77	6,712.64	986.91	9.64	986.93	1.83	-1.58	0.93
7,553.00	90.04	1.26	6,711.41	1,081.89	10.49	1,081.92	2.16	-1.48	1.57
7,647.00	89.34	1.35	6,711.92	1,175.87	12.63	1,175.90	0.75	-0.74	0.10
7,742.00	88.11	3.29	6,714.03	1,270.76	16.48	1,270.80	2.42	-1.29	2.04
7,837.00	88.55	2.41	6,716.80	1,365.60	21.20	1,365.65	1.04	0.46	-0.93
7,931.00	89.60	1.79	6,718.32	1,459.52	24.64	1,459.58	1.30	1.12	-0.66
8,026.00	88.11	0.91	6,720.21	1,554.47	26.88	1,554.54	1.82	-1.57	-0.93
8,121.00	88.72	0.82	6,722.84	1,649.43	28.31	1,649.50	0.65	0.64	-0.09
8,215.00	90.48	2.93	6,723.50	1,743.37	31.39	1,743.44	2.92	1.87	2.24
8,309.00	89.52	2.32	6,723.50	1,837.27	35.69	1,837.35	1.21	-1.02	-0.65
8,403.00	89.43	0.74	6,724.36	1,931.23	38.20	1,931.32	1.68	-0.10	-1.68
8,497.00	87.41	359.95	6,726.95	2,025.18	38.77	2,025.28	2.31	-2.15	-0.84
8,591.00	87.93	359.42	6,730.77	2,119.10	38.25	2,119.20	0.79	0.55	-0.56
8,685.00	88.90	359.15	6,733.37	2,213.06	37.08	2,213.15	1.07	1.03	-0.29
8,778.00	91.20	1.70	6,733.29	2,306.04	37.77	2,306.13	3.69	2.47	2.74
8,872.00	89.87	1.35	6,732.41	2,400.00	40.27	2,400.10	1.46	-1.41	-0.37
8,966.00	90.04	4.34	6,732.49	2,493.87	44.94	2,493.98	3.19	0.18	3.18
9,060.00	90.13	5.75	6,732.35	2,587.51	53.20	2,587.64	1.50	0.10	1.50
9,152.00	86.00	3.37	6,735.46	2,679.14	60.51	2,679.29	5.18	-4.49	-2.59
9,245.00	87.32	2.76	6,740.87	2,771.84	65.48	2,772.01	1.56	1.42	-0.66
9,337.00	88.20	2.67	6,744.47	2,863.67	69.83	2,863.84	0.96	0.96	-0.10
9,429.00	88.64	2.23	6,747.01	2,955.55	73.76	2,955.73	0.68	0.48	-0.48
9,524.00	88.46	2.14	6,749.41	3,050.45	77.38	3,050.64	0.21	-0.19	-0.09
9,619.00	90.66	0.30	6,750.14	3,145.42	79.41	3,145.61	3.02	2.32	-1.94
9,713.00	91.10	359.07	6,748.70	3,239.40	78.89	3,239.60	1.39	0.47	-1.31



<b>Company:</b>	EOG Resources	<b>Local Co-ordinate Reference:</b>	Site University 43-A #0803H
<b>Project:</b>	Irion County, TX (NAD27 TC)	<b>TVD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Site:</b>	University 43-A #0803H	<b>MD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Well:</b>	University 43-A #0803H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,808.00	92.51	358.36	6,745.70	3,334.33	76.76	3,334.52	1.66	1.48	-0.75
9,903.00	93.39	358.98	6,740.81	3,429.18	74.56	3,429.36	1.13	0.93	0.65
9,997.00	90.48	356.08	6,737.64	3,523.01	70.51	3,523.19	4.37	-3.10	-3.09
10,092.00	91.01	353.97	6,736.40	3,617.64	62.27	3,617.79	2.29	0.56	-2.22
10,187.00	92.24	354.50	6,733.71	3,712.12	52.73	3,712.25	1.41	1.29	0.56
10,281.00	89.87	354.50	6,731.98	3,805.67	43.72	3,805.77	2.52	-2.52	0.00
10,376.00	91.36	355.55	6,730.96	3,900.30	35.49	3,900.38	1.92	1.57	1.11
10,470.00	89.87	356.78	6,729.95	3,994.08	29.20	3,994.14	2.06	-1.59	1.31
10,565.00	87.93	357.84	6,731.77	4,088.95	24.74	4,089.00	2.33	-2.04	1.12
10,660.00	88.64	358.01	6,734.62	4,183.85	21.30	4,183.89	0.77	0.75	0.18
10,754.00	91.71	358.80	6,734.33	4,277.80	18.69	4,277.83	3.37	3.27	0.84
10,849.00	92.51	359.24	6,730.83	4,372.72	17.06	4,372.75	0.96	0.84	0.46
10,944.00	90.66	358.63	6,728.21	4,467.66	15.30	4,467.69	2.05	-1.95	-0.64
11,039.00	91.54	356.69	6,726.38	4,562.56	11.42	4,562.57	2.24	0.93	-2.04
11,133.00	90.84	357.40	6,724.43	4,656.41	6.58	4,656.41	1.06	-0.74	0.76
11,228.00	90.22	359.77	6,723.55	4,751.37	4.23	4,751.37	2.58	-0.65	2.49
11,319.00	91.63	1.18	6,722.08	4,842.35	4.99	4,842.35	2.19	1.55	1.55
11,413.00	88.46	0.30	6,722.01	4,936.33	6.20	4,936.33	3.50	-3.37	-0.94
11,508.00	88.81	359.68	6,724.27	5,031.30	6.18	5,031.30	0.75	0.37	-0.65
11,603.00	89.60	0.91	6,725.59	5,126.29	6.67	5,126.29	1.54	0.83	1.29
11,697.00	90.84	2.23	6,725.23	5,220.25	9.25	5,220.26	1.93	1.32	1.40
11,792.00	91.80	1.35	6,723.04	5,315.18	12.21	5,315.19	1.37	1.01	-0.93
11,886.00	91.98	1.62	6,719.94	5,409.09	14.65	5,409.11	0.35	0.19	0.29
11,981.00	89.96	0.48	6,718.33	5,504.06	16.38	5,504.08	2.44	-2.13	-1.21
12,075.00	89.16	359.77	6,719.05	5,598.05	16.59	5,598.08	1.13	-0.85	-0.75
12,170.00	89.08	359.59	6,720.51	5,693.04	16.06	5,693.06	0.21	-0.08	-0.19
12,265.00	90.66	0.82	6,720.73	5,788.04	16.40	5,788.06	2.11	1.66	1.29
12,359.00	90.75	1.70	6,719.57	5,882.01	18.46	5,882.03	0.94	0.10	0.94
12,454.00	91.10	1.79	6,718.04	5,976.95	21.35	5,976.98	0.38	0.37	0.09
12,549.00	89.25	1.88	6,717.75	6,071.90	24.40	6,071.94	1.95	-1.95	0.09
12,643.00	89.16	1.97	6,719.05	6,165.83	27.55	6,165.88	0.14	-0.10	0.10
12,738.00	91.28	0.30	6,718.69	6,260.80	29.44	6,260.86	2.84	2.23	-1.76
12,832.00	91.28	358.98	6,716.59	6,354.78	28.84	6,354.83	1.40	0.00	-1.40
12,927.00	87.85	358.01	6,717.31	6,449.73	26.35	6,449.77	3.75	-3.61	-1.02
13,022.00	88.28	358.00	6,720.52	6,544.61	23.05	6,544.65	0.45	0.45	-0.01
13,117.00	88.29	357.40	6,723.36	6,639.50	19.23	6,639.52	0.63	0.01	-0.63
13,211.00	89.52	358.98	6,725.16	6,733.43	16.27	6,733.45	2.13	1.31	1.68
13,306.00	90.31	356.34	6,725.30	6,828.34	12.39	6,828.35	2.90	0.83	-2.78
13,401.00	89.52	357.84	6,725.44	6,923.21	7.57	6,923.21	1.78	-0.83	1.58
13,495.00	90.48	359.77	6,725.44	7,017.19	5.61	7,017.18	2.29	1.02	2.05
13,590.00	88.55	356.69	6,726.24	7,112.12	2.67	7,112.10	3.83	-2.03	-3.24
13,684.00	89.25	1.70	6,728.05	7,206.06	1.35	7,206.04	5.38	0.74	5.33
13,748.00	90.84	1.18	6,728.00	7,270.04	2.96	7,270.02	2.61	2.48	-0.81
13,874.00	91.45	0.38	6,725.48	7,396.00	4.68	7,395.99	0.80	0.48	-0.63

<b>Company:</b>	EOG Resources	<b>Local Co-ordinate Reference:</b>	Site University 43-A #0803H
<b>Project:</b>	Irion County, TX (NAD27 TC)	<b>TVD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Site:</b>	University 43-A #0803H	<b>MD Reference:</b>	RF @ 2645.00usft (H & P #434)
<b>Well:</b>	University 43-A #0803H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,968.00	91.89	0.03	6,722.74	7,489.96	5.01	7,489.95	0.60	0.47	-0.37
14,063.00	92.51	359.86	6,719.09	7,584.89	4.92	7,584.88	0.68	0.65	-0.18
14,158.00	90.84	359.77	6,716.32	7,679.85	4.61	7,679.83	1.76	-1.76	-0.09
14,252.00	91.45	359.51	6,714.44	7,773.83	4.02	7,773.81	0.71	0.65	-0.28
14,347.00	90.13	1.97	6,713.13	7,868.80	5.25	7,868.79	2.94	-1.39	2.59
14,415.00	88.20	2.14	6,714.12	7,936.75	7.69	7,936.74	2.85	-2.84	0.25
Last MWD Survey									
14,465.00	88.20	2.14	6,715.69	7,986.69	9.55	7,986.68	0.00	0.00	0.00
Projection to Bit									

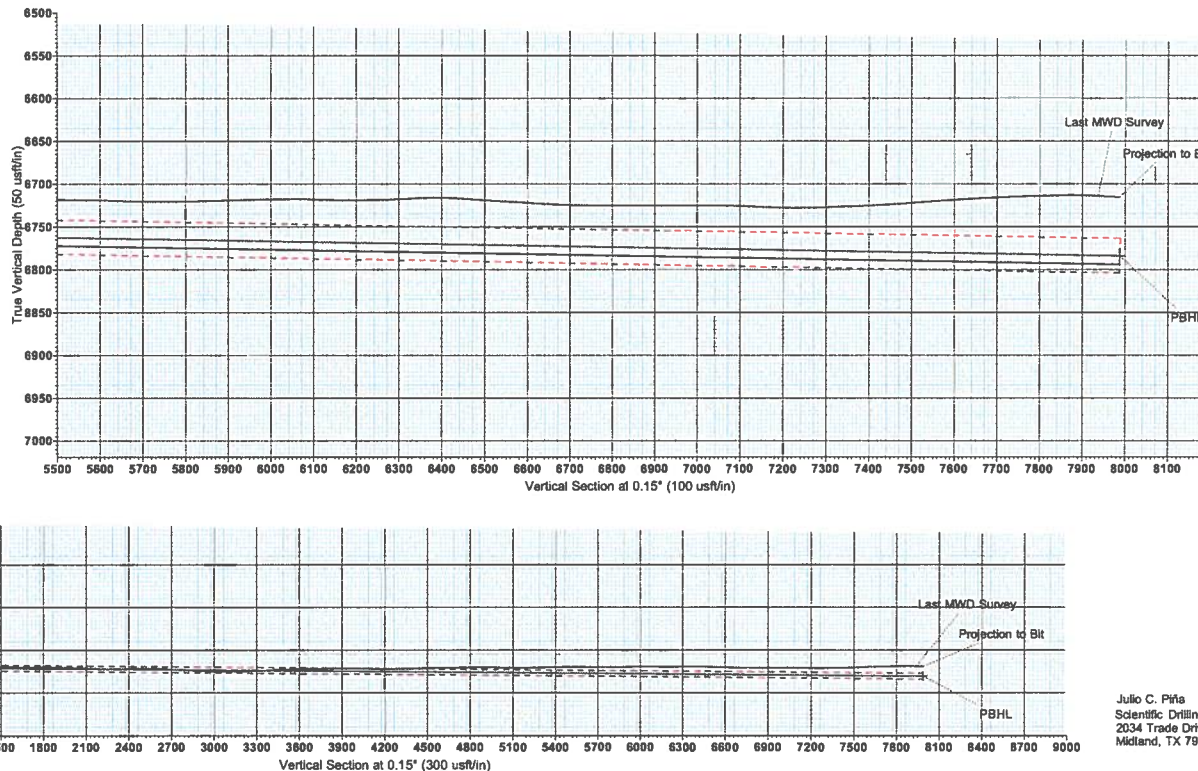
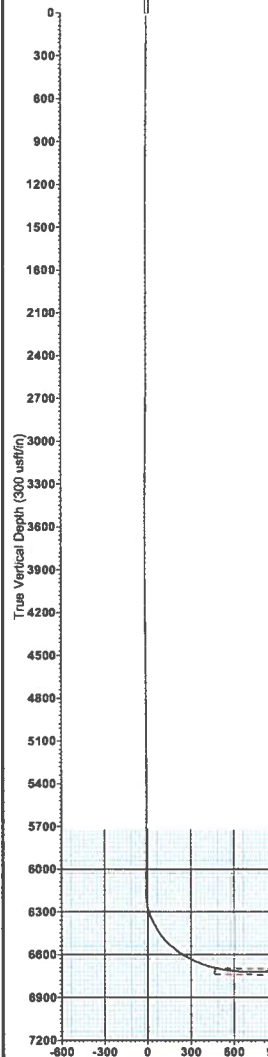
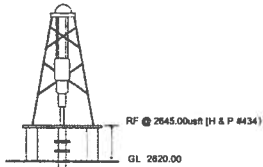
Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
680.00	679.95	-5.47	4.79	Gyro Tie-in
14,415.00	6,714.12	7,936.75	7.69	Last MWD Survey
14,465.00	6,715.69	7,986.69	9.55	Projection to Bit

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_





University 43-A #0803H  
Irion County, TX (NAD27 TC)  
Northing (Y) 531386.00  
Easting (X) 1711627.00  
Plan #3 vs Actual - 8-3/4" Hole



WELL DETAILS: University 43-A #0803H

+N/-S	+E/-W	Northing	Ground Level	Easting	Latitude	Longitude	Slot
0.00	0.00	531386.00	2620.00	1711627.00	31° 7' 28.200 N	101° 15' 17.891 W	

SECTION DETAILS






Sec	MD	Inc	Act	TVD	+N/-S	+E/-W	Diag	TFace	VFace	Target
1	7174.00	89.78	359.95	6721.49	703.11	13.23	0.00	0.00	703.14	
2	7188.69	89.51	0.06	6721.59	717.80	13.23	2.00	157.78	717.83	
3	14458.17	89.51	0.06	6784.00	7987.00	21.00	0.00	0.00	7987.03	PBHL-Univ 43-A #0803H

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Univ 43-A #0803H	8784.00	7987.00	21.00	539373.00	1711648.00	31° 8' 47.257 N	101° 15' 18.411 W	Rectangle (Sides: L40.00 W150.00)

- plan hits target center

LEGEND

 University 43-A #0803H, OH, MS Gyro  
 University 43-A #0803H, OH, MWD  
 University 43-A #0803H, OH, Actual VO  
 University 43-A #0803H, OH, Plan #2 - 8-3/4" Hole VO  
 Plan #3- 8-3/4" Hole

CASING DETAILS

7VD	MD	Name	Size
864.00		9-5/8" Casing	9-5/8"

PROJECT DETAILS: Irion County, TX (NAD27 TC)  
Geocentric System: US State Plane 1827 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: Texas Central 4203  
System Datum: Mean Sea Level

SITE DETAILS: University 43-A #0803H  
Site Centre Northing: 531386.00  
Easting: 1711627.00

Positional Uncertainty: 0.00  
Convergence: -0.47  
Local North: Grid

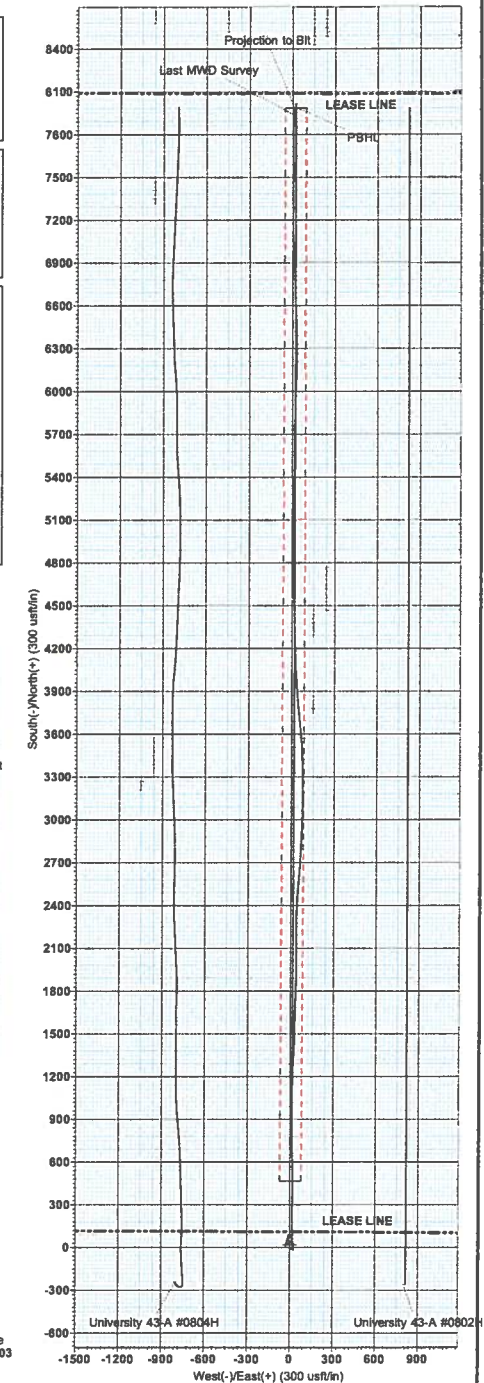
Map System: US State Plane 1827 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone Name: Texas Central 4203  
Local Origin: Site University 43-A #0803H, Grid North  
Latitude: 31° 7' 28.200 N  
Longitude: 101° 15' 17.891 W

Grid East: 1711627.00  
Grid North: 531386.00  
Scale Factor: 1.000

Geomagnetic Model: IGRF2010  
Sample Date: 13-Feb-12  
Magnetic Declination: 6.33°  
Dip Angle from Horizontal: 59.52°  
Magnetic Field Strength: 48122  
To convert a Magnetic Direction to a True Direction, Add 6.80°  
To convert a Magnetic Direction to a Grid Direction, Add 6.33° East  
To convert a True Direction to a Grid Direction, Add 0.47°



Admuths to Grid North  
True North: 0.47°  
Magnetic North: 6.80°  
Magnetic Field  
Strength: 48121.5nT  
Dip Angle: 59.52°  
Date: 02/13/2012  
Model: IGRF2010  
To convert a Magnetic Direction to a Grid Direction, Add 6.80°  
To convert a True Direction to a Grid Direction, Add 0.47°



Julio C. Pina  
Scientific Drilling  
2034 Trade Drive  
Midland, TX 79703