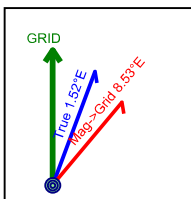
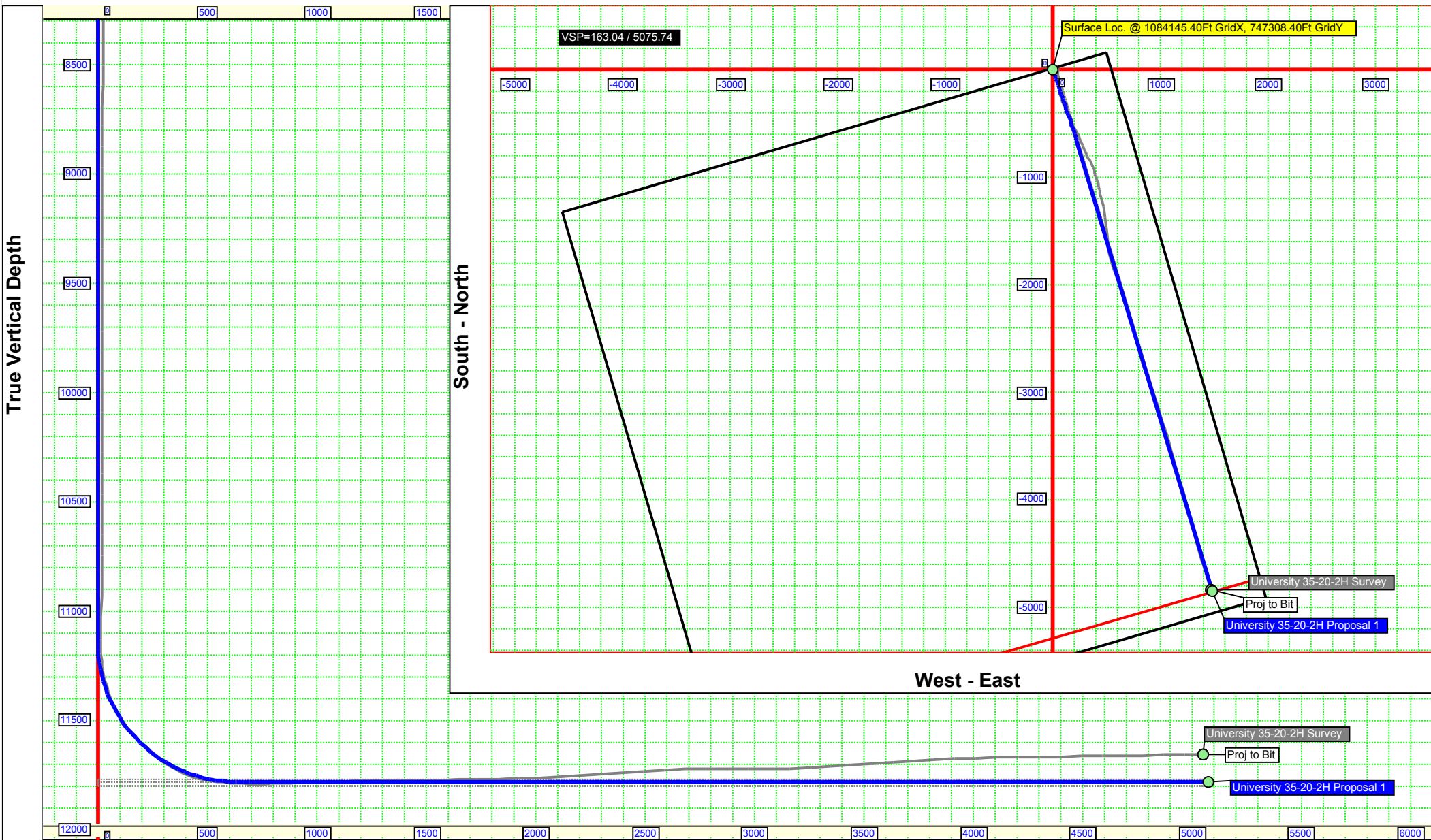




Job Number: University35202HSvy
Company: Energen Resources
Lease/Well: University 35-20-2H
Location: Central
Rig Name:
State/County: Texas/ Winkler
Country: USA
API Number:



Elevation (To MSL): 2774.00 ft
RKB: 0.00 ft
Projection System: US State Plane 1927 (Exact solution)
Projection Group: Texas Central 4203
Projection Datum: CLARKE 1866
Magnetic Declination: 7.01
Grid Convergence: -1.51635 W
Date: Monday, December 08, 2014



Vertical Section (500 Ft/Div) VSP: 163.04°

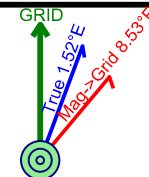


Job Number: University35202HSvy
Company: Energen Resources
Lease/Well: University 35-20-2H
Location: Central
Rig Name:
State/Country: Texas/ Winkler
Country: USA

Elev. GL: 2774.00 ft **RKB:** 0.00 ft
System: US State Plane 1927 (Exact solution)
Group: Texas Central 4203
Datum: CLARKE 1866
Mag. Decl.: 7.01° (C:\HawkEye\IGRF2010.MIF)
Grid Conv.: -1.51635 W
Date: Monday, December 08, 2014



Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 163.04°
Northing (US ft): 747308.40 Easting (US ft): 1084145.40
Latitude: 31°41'17.1635" N Longitude: -103°16'40.9577" W
Direction Reference: Grid North



#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS °/100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	747308.40	1084145.40	0.00	0.00 (E)	0.00 (N)
2	200.00	0.20	173.10	200.00	200.00	0.34	-0.35	0.04	747308.05	1084145.44	0.10	0.04 (E)	-0.35 (S)
3	294.00	0.10	149.90	94.00	294.00	0.59	-0.58	0.10	747307.82	1084145.50	0.12	0.10 (E)	-0.58 (S)
4	388.00	0.30	114.30	94.00	388.00	0.83	-0.75	0.37	747307.65	1084145.77	0.24	0.37 (E)	-0.75 (S)
5	479.00	0.40	110.30	91.00	479.00	1.18	-0.96	0.88	747307.44	1084146.28	0.11	0.88 (E)	-0.96 (S)
6	572.00	0.40	100.80	93.00	571.99	1.52	-1.13	1.51	747307.27	1084146.91	0.07	1.51 (E)	-1.13 (S)
7	662.00	0.40	80.20	90.00	661.99	1.71	-1.14	2.12	747307.26	1084147.52	0.16	2.12 (E)	-1.14 (S)
8	755.00	0.20	95.50	93.00	754.99	1.81	-1.10	2.61	747307.30	1084148.01	0.23	2.61 (E)	-1.10 (S)
9	789.00	0.30	105.30	34.00	788.99	1.88	-1.13	2.75	747307.27	1084148.15	0.32	2.75 (E)	-1.13 (S)
10	882.00	0.40	60.60	93.00	881.99	1.94	-1.03	3.27	747307.37	1084148.67	0.30	3.27 (E)	-1.03 (S)
11	974.00	0.30	104.20	92.00	973.99	2.00	-0.94	3.78	747307.46	1084149.18	0.30	3.78 (E)	-0.94 (S)
12	1068.00	0.30	83.10	94.00	1067.99	2.17	-0.97	4.26	747307.43	1084149.66	0.12	4.26 (E)	-0.97 (S)
13	1162.00	0.30	113.70	94.00	1161.99	2.37	-1.04	4.73	747307.36	1084150.13	0.17	4.73 (E)	-1.04 (S)
14	1255.00	0.20	117.40	93.00	1254.98	2.64	-1.21	5.10	747307.19	1084150.50	0.11	5.10 (E)	-1.21 (S)
15	1348.00	0.30	82.60	93.00	1347.98	2.80	-1.25	5.49	747307.15	1084150.89	0.19	5.49 (E)	-1.25 (S)
16	1441.00	0.40	83.60	93.00	1440.98	2.90	-1.18	6.05	747307.22	1084151.45	0.11	6.05 (E)	-1.19 (S)
17	1534.00	0.20	82.40	93.00	1533.98	2.98	-1.13	6.53	747307.27	1084151.93	0.22	6.53 (E)	-1.13 (S)
18	1627.00	0.30	99.70	93.00	1626.98	3.12	-1.15	6.94	747307.25	1084152.34	0.13	6.94 (E)	-1.15 (S)
19	1722.00	0.40	82.70	95.00	1721.98	3.29	-1.15	7.51	747307.25	1084152.91	0.15	7.51 (E)	-1.15 (S)
20	1814.00	0.40	43.20	92.00	1813.98	3.18	-0.87	8.05	747307.53	1084153.45	0.29	8.05 (E)	-0.87 (S)
21	1908.00	0.50	62.00	94.00	1907.97	2.94	-0.44	8.63	747307.96	1084154.03	0.19	8.63 (E)	-0.44 (S)
22	2001.00	0.50	55.60	93.00	2000.97	2.74	-0.02	9.33	747308.38	1084154.73	0.06	9.33 (E)	-0.02 (S)
23	2094.00	0.70	41.50	93.00	2093.96	2.32	0.64	10.04	747309.04	1084155.44	0.27	10.04 (E)	0.63 (N)
24	2188.00	1.10	51.00	94.00	2187.95	1.68	1.63	11.12	747310.03	1084156.52	0.45	11.12 (E)	1.63 (N)
25	2281.00	1.30	41.90	93.00	2280.93	0.80	2.98	12.52	747311.38	1084157.92	0.30	12.52 (E)	2.98 (N)
26	2375.00	1.00	51.10	94.00	2374.91	-0.06	4.29	13.87	747312.69	1084159.27	0.37	13.87 (E)	4.29 (N)
27	2468.00	0.40	170.20	93.00	2467.91	-0.04	4.48	14.56	747312.88	1084159.96	1.34	14.56 (E)	4.48 (N)
28	2561.00	0.70	172.00	93.00	2560.90	0.85	3.60	14.69	747312.00	1084160.09	0.32	14.69 (E)	3.59 (N)
29	2654.00	0.60	171.30	93.00	2653.90	1.89	2.55	14.84	747310.95	1084160.24	0.11	14.84 (E)	2.55 (N)
30	2748.00	0.60	150.30	94.00	2747.89	2.86	1.64	15.16	747310.04	1084160.56	0.23	15.16 (E)	1.64 (N)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS %/100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
31	2842.00	0.60	136.10	94.00	2841.89	3.77	0.86	15.75	747309.26	1084161.15	0.16	15.75 (E)	0.85 (N)
32	2936.00	0.70	106.20	94.00	2935.88	4.53	0.34	16.64	747308.74	1084162.04	0.37	16.64 (E)	0.34 (N)
33	3030.00	0.90	85.40	94.00	3029.87	5.00	0.24	17.93	747308.64	1084163.33	0.37	17.93 (E)	0.24 (N)
34	3124.00	1.00	86.50	94.00	3123.86	5.35	0.35	19.48	747308.75	1084164.88	0.11	19.48 (E)	0.35 (N)
35	3218.00	0.40	19.50	94.00	3217.85	5.28	0.71	20.41	747309.11	1084165.81	0.98	20.41 (E)	0.71 (N)
36	3311.00	0.60	359.60	93.00	3310.85	4.55	1.50	20.51	747309.90	1084165.91	0.28	20.51 (E)	1.50 (N)
37	3404.00	0.70	350.00	93.00	3403.84	3.52	2.55	20.41	747310.95	1084165.81	0.16	20.41 (E)	2.55 (N)
38	3498.00	0.80	351.00	94.00	3497.84	2.30	3.76	20.21	747312.16	1084165.61	0.11	20.21 (E)	3.76 (N)
39	3591.00	0.70	343.40	93.00	3590.83	1.09	4.95	19.95	747313.35	1084165.35	0.15	19.95 (E)	4.94 (N)
40	3684.00	0.80	2.10	93.00	3683.82	-0.10	6.14	19.81	747314.54	1084165.21	0.28	19.81 (E)	6.14 (N)
41	3777.00	1.10	33.90	93.00	3776.81	-1.27	7.53	20.33	747315.93	1084165.73	0.64	20.33 (E)	7.53 (N)
42	3871.00	0.30	121.20	94.00	3870.80	-1.66	8.15	21.04	747316.55	1084166.44	1.20	21.04 (E)	8.15 (N)
43	3965.00	0.60	153.50	94.00	3964.80	-0.99	7.58	21.47	747315.98	1084166.87	0.41	21.47 (E)	7.58 (N)
44	4058.00	0.60	131.60	93.00	4057.79	-0.09	6.83	22.05	747315.23	1084167.45	0.25	22.05 (E)	6.82 (N)
45	4151.00	0.70	126.50	93.00	4150.79	0.78	6.16	22.88	747314.56	1084168.28	0.12	22.88 (E)	6.16 (N)
46	4244.00	0.70	124.60	93.00	4243.78	1.68	5.50	23.80	747313.90	1084169.20	0.02	23.80 (E)	5.50 (N)
47	4337.00	0.90	113.60	93.00	4336.77	2.60	4.89	24.94	747313.29	1084170.34	0.27	24.94 (E)	4.88 (N)
48	4430.00	1.30	108.50	93.00	4429.76	3.69	4.26	26.61	747312.66	1084172.01	0.44	26.61 (E)	4.26 (N)
49	4523.00	0.50	187.20	93.00	4522.75	4.67	3.52	27.56	747311.92	1084172.96	1.40	27.56 (E)	3.52 (N)
50	4617.00	0.50	195.30	94.00	4616.74	5.39	2.72	27.40	747311.12	1084172.80	0.08	27.40 (E)	2.72 (N)
51	4710.00	0.40	136.60	93.00	4709.74	6.02	2.09	27.51	747310.49	1084172.91	0.48	27.51 (E)	2.09 (N)
52	4804.00	0.70	123.70	94.00	4803.73	6.76	1.54	28.22	747309.94	1084173.62	0.34	28.22 (E)	1.53 (N)
53	4898.00	0.50	122.70	94.00	4897.73	7.52	1.00	29.04	747309.40	1084174.44	0.21	29.04 (E)	0.99 (N)
54	4983.00	0.50	105.30	85.00	4982.73	8.00	0.70	29.71	747309.10	1084175.11	0.18	29.71 (E)	0.69 (N)
55	5077.00	0.50	98.60	94.00	5076.72	8.39	0.53	30.51	747308.93	1084175.91	0.06	30.51 (E)	0.52 (N)
56	5170.00	0.50	90.90	93.00	5169.72	8.69	0.46	31.32	747308.86	1084176.72	0.07	31.32 (E)	0.46 (N)
57	5263.00	0.50	94.10	93.00	5262.72	8.96	0.43	32.13	747308.83	1084177.53	0.03	32.13 (E)	0.42 (N)
58	5357.00	0.50	94.40	94.00	5356.71	9.26	0.37	32.95	747308.77	1084178.35	0.00	32.95 (E)	0.36 (N)
59	5451.00	0.50	100.60	94.00	5450.71	9.60	0.26	33.76	747308.66	1084179.16	0.06	33.76 (E)	0.25 (N)
60	5544.00	0.60	91.20	93.00	5543.70	9.94	0.17	34.64	747308.57	1084180.04	0.14	34.64 (E)	0.17 (N)
61	5639.00	0.60	88.20	95.00	5638.70	10.23	0.18	35.64	747308.58	1084181.04	0.03	35.64 (E)	0.17 (N)
62	5732.00	0.60	90.00	93.00	5731.69	10.49	0.19	36.61	747308.59	1084182.01	0.02	36.61 (E)	0.19 (N)
63	5825.00	0.60	97.10	93.00	5824.69	10.84	0.13	37.58	747308.53	1084182.98	0.08	37.58 (E)	0.13 (N)
64	5919.00	0.60	94.60	94.00	5918.68	11.22	0.03	38.56	747308.43	1084183.96	0.03	38.56 (E)	0.03 (N)
65	6012.00	0.70	110.10	93.00	6011.68	11.74	-0.20	39.58	747308.20	1084184.98	0.22	39.58 (E)	-0.21 (S)
66	6106.00	0.70	118.60	94.00	6105.67	12.49	-0.67	40.62	747307.73	1084186.02	0.11	40.62 (E)	-0.68 (S)
67	6199.00	0.70	123.50	93.00	6198.66	13.34	-1.26	41.59	747307.14	1084186.99	0.06	41.59 (E)	-1.26 (S)
68	6292.00	0.80	122.60	93.00	6291.66	14.27	-1.92	42.62	747306.48	1084188.02	0.11	42.62 (E)	-1.93 (S)
69	6385.00	0.70	124.00	93.00	6384.65	15.21	-2.59	43.63	747305.81	1084189.03	0.11	43.63 (E)	-2.59 (S)
70	6478.00	0.70	117.40	93.00	6477.64	16.04	-3.17	44.61	747305.23	1084190.01	0.09	44.61 (E)	-3.17 (S)
71	6570.00	0.70	110.20	92.00	6569.63	16.78	-3.62	45.64	747304.78	1084191.04	0.10	45.64 (E)	-3.63 (S)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS °/100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
72	6664.00	1.10	183.60	94.00	6663.63	17.97	-4.72	46.12	747303.68	1084191.52	1.19	46.12 (E)	-4.72 (S)
73	6757.00	1.40	186.10	93.00	6756.60	19.85	-6.74	45.94	747301.66	1084191.34	0.33	45.94 (E)	-6.75 (S)
74	6851.00	0.60	173.10	94.00	6850.59	21.39	-8.37	45.88	747300.03	1084191.28	0.88	45.88 (E)	-8.38 (S)
75	6944.00	0.70	171.60	93.00	6943.58	22.43	-9.42	46.02	747298.98	1084191.42	0.11	46.02 (E)	-9.42 (S)
76	7037.00	0.60	164.40	93.00	7036.58	23.48	-10.45	46.23	747297.95	1084191.63	0.14	46.23 (E)	-10.45 (S)
77	7130.00	0.70	164.90	93.00	7129.57	24.53	-11.46	46.51	747296.94	1084191.91	0.11	46.51 (E)	-11.47 (S)
78	7224.00	0.60	162.60	94.00	7223.56	25.60	-12.49	46.81	747295.91	1084192.21	0.11	46.81 (E)	-12.49 (S)
79	7318.00	0.60	161.30	94.00	7317.56	26.58	-13.42	47.11	747294.98	1084192.51	0.01	47.11 (E)	-13.43 (S)
80	7411.00	0.50	173.10	93.00	7410.55	27.47	-14.29	47.32	747294.11	1084192.72	0.16	47.32 (E)	-14.29 (S)
81	7504.00	0.50	156.70	93.00	7503.55	28.27	-15.06	47.53	747293.34	1084192.93	0.15	47.53 (E)	-15.07 (S)
82	7598.00	0.80	141.70	94.00	7597.54	29.29	-15.96	48.10	747292.44	1084193.50	0.36	48.10 (E)	-15.96 (S)
83	7691.00	1.00	185.50	93.00	7690.53	30.65	-17.27	48.42	747291.13	1084193.82	0.75	48.42 (E)	-17.28 (S)
84	7753.00	1.20	192.20	62.00	7752.52	31.71	-18.45	48.23	747289.95	1084193.63	0.38	48.23 (E)	-18.45 (S)
85	7846.00	0.90	316.50	93.00	7845.52	31.91	-18.87	47.52	747289.53	1084192.92	2.00	47.52 (E)	-18.87 (S)
86	7941.00	0.80	341.60	95.00	7940.51	30.58	-17.70	46.80	747290.70	1084192.20	0.40	46.80 (E)	-17.70 (S)
87	8034.00	0.80	359.20	93.00	8033.50	29.31	-16.43	46.59	747291.97	1084191.99	0.26	46.59 (E)	-16.44 (S)
88	8128.00	1.00	1.90	94.00	8127.48	27.90	-14.96	46.60	747293.44	1084192.00	0.22	46.60 (E)	-14.96 (S)
89	8222.00	1.10	359.30	94.00	8221.47	26.26	-13.23	46.62	747295.17	1084192.02	0.12	46.62 (E)	-13.24 (S)
90	8316.00	1.40	7.70	94.00	8315.45	24.35	-11.19	46.76	747297.21	1084192.16	0.37	46.76 (E)	-11.20 (S)
91	8394.00	0.70	339.70	78.00	8393.43	23.01	-9.80	46.73	747298.60	1084192.13	1.09	46.73 (E)	-9.81 (S)
92	8503.00	0.50	324.00	109.00	8502.43	21.89	-8.79	46.22	747299.61	1084191.62	0.24	46.22 (E)	-8.80 (S)
93	8596.00	0.50	5.20	93.00	8595.42	21.13	-8.06	46.01	747300.34	1084191.41	0.38	46.01 (E)	-8.07 (S)
94	8690.00	1.00	8.10	94.00	8689.42	20.01	-6.84	46.17	747301.56	1084191.57	0.53	46.17 (E)	-6.85 (S)
95	8783.00	1.10	10.80	93.00	8782.40	18.49	-5.16	46.45	747303.24	1084191.85	0.12	46.45 (E)	-5.17 (S)
96	8877.00	0.50	33.40	94.00	8876.39	17.43	-3.93	46.84	747304.47	1084192.24	0.71	46.84 (E)	-3.94 (S)
97	8970.00	0.50	59.60	93.00	8969.39	17.07	-3.39	47.42	747305.01	1084192.82	0.24	47.42 (E)	-3.39 (S)
98	9063.00	0.50	55.40	93.00	9062.38	16.86	-2.95	48.10	747305.45	1084193.50	0.04	48.10 (E)	-2.96 (S)
99	9157.00	0.60	49.20	94.00	9156.38	16.53	-2.40	48.81	747306.00	1084194.21	0.12	48.81 (E)	-2.40 (S)
100	9251.00	0.70	47.50	94.00	9250.37	16.09	-1.69	49.61	747306.71	1084195.01	0.11	49.61 (E)	-1.70 (S)
101	9344.00	0.70	64.90	93.00	9343.37	15.76	-1.06	50.54	747307.34	1084195.94	0.23	50.54 (E)	-1.07 (S)
102	9437.00	1.20	68.80	93.00	9436.35	15.61	-0.47	51.96	747307.93	1084197.36	0.54	51.96 (E)	-0.48 (S)
103	9530.00	0.70	82.90	93.00	9529.34	15.63	-0.05	53.43	747308.35	1084198.83	0.59	53.43 (E)	-0.06 (S)
104	9624.00	1.10	61.20	94.00	9623.33	15.55	0.46	54.79	747308.86	1084200.19	0.55	54.79 (E)	0.45 (N)
105	9717.00	0.60	84.50	93.00	9716.32	15.46	0.94	56.06	747309.34	1084201.46	0.64	56.06 (E)	0.93 (N)
106	9810.00	0.20	122.50	93.00	9809.32	15.68	0.89	56.68	747309.29	1084202.08	0.49	56.68 (E)	0.89 (N)
107	9903.00	0.40	118.00	93.00	9902.32	16.03	0.65	57.11	747309.05	1084202.51	0.22	57.11 (E)	0.65 (N)
108	9997.00	0.20	132.80	94.00	9996.31	16.41	0.39	57.52	747308.79	1084202.92	0.23	57.52 (E)	0.38 (N)
109	10091.00	0.20	174.50	94.00	10090.31	16.71	0.11	57.65	747308.51	1084203.05	0.15	57.65 (E)	0.11 (N)
110	10184.00	0.40	85.60	93.00	10183.31	16.94	-0.02	57.99	747308.38	1084203.39	0.48	57.99 (E)	-0.03 (S)
111	10278.00	0.40	78.90	94.00	10277.31	17.04	0.07	58.64	747308.47	1084204.04	0.05	58.64 (E)	0.06 (N)
112	10372.00	0.40	138.90	94.00	10371.31	17.38	-0.12	59.18	747308.28	1084204.58	0.43	59.18 (E)	-0.13 (S)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS %/100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
113	10466.00	0.60	243.20	94.00	10465.31	17.76	-0.59	58.96	747307.81	1084204.36	0.85	58.96 (E)	-0.60 (S)
114	10561.00	1.60	249.20	95.00	10560.29	17.93	-1.28	57.27	747307.12	1084202.67	1.06	57.27 (E)	-1.29 (S)
115	10654.00	1.10	261.20	93.00	10653.26	17.89	-1.88	55.18	747306.52	1084200.58	0.61	55.18 (E)	-1.89 (S)
116	10747.00	0.40	352.20	93.00	10746.25	17.45	-1.69	54.25	747306.71	1084199.65	1.27	54.25 (E)	-1.70 (S)
117	10841.00	0.60	357.60	94.00	10840.25	16.65	-0.88	54.18	747307.52	1084199.58	0.22	54.18 (E)	-0.89 (S)
118	10934.00	0.50	356.00	93.00	10933.25	15.78	0.01	54.14	747308.41	1084199.54	0.11	54.14 (E)	0.00 (N)
119	11027.00	0.70	11.30	93.00	11026.24	14.88	0.98	54.22	747309.38	1084199.62	0.27	54.22 (E)	0.97 (N)
120	11090.00	0.90	353.30	63.00	11089.24	14.06	1.84	54.24	747310.24	1084199.64	0.51	54.24 (E)	1.83 (N)
121	11132.00	0.80	350.70	42.00	11131.23	13.44	2.46	54.15	747310.86	1084199.55	0.26	54.15 (E)	2.45 (N)
122	11163.00	1.70	235.80	31.00	11162.23	13.37	2.42	53.73	747310.82	1084199.13	6.97	53.61 (E)	2.77 (N)
123	11195.00	4.80	219.40	32.00	11194.17	14.25	1.11	52.49	747309.51	1084197.89	10.02	-38.25 (L)	-35.29 (D)
124	11226.00	7.40	206.20	31.00	11224.99	16.42	-1.68	50.79	747306.72	1084196.19	9.48	-42.84 (L)	-24.57 (D)
125	11257.00	9.90	195.70	31.00	11255.64	20.12	-6.04	49.18	747302.36	1084194.58	9.51	-43.60 (L)	-15.53 (D)
126	11288.00	12.80	190.50	31.00	11286.03	25.42	-11.98	47.84	747296.42	1084193.24	9.91	-41.58 (L)	-10.76 (D)
127	11319.00	15.20	187.80	31.00	11316.11	32.15	-19.38	46.66	747289.02	1084192.06	8.02	-38.46 (L)	-8.08 (D)
128	11350.00	17.20	186.30	31.00	11345.88	40.06	-27.97	45.60	747280.43	1084191.00	6.59	-34.69 (L)	-6.63 (D)
129	11381.00	19.70	184.90	31.00	11375.28	49.12	-37.73	44.66	747270.67	1084190.06	8.19	-30.47 (L)	-5.63 (D)
130	11412.00	22.10	184.20	31.00	11404.24	59.41	-48.75	43.78	747259.65	1084189.18	7.78	-25.79 (L)	-5.24 (D)
131	11444.00	25.50	180.90	32.00	11433.52	71.58	-61.65	43.23	747246.75	1084188.63	11.41	-20.95 (L)	-3.97 (D)
132	11475.00	28.70	177.30	31.00	11461.11	85.15	-75.76	43.48	747232.64	1084188.88	11.59	-16.54 (L)	-2.88 (D)
133	11506.00	32.20	176.30	31.00	11487.83	100.41	-91.44	44.36	747216.96	1084189.76	11.41	-12.21 (L)	-2.52 (D)
134	11537.00	36.20	174.20	31.00	11513.47	117.44	-108.80	45.82	747199.60	1084191.22	13.45	-8.01 (L)	-1.65 (D)
135	11569.00	39.90	172.30	32.00	11538.66	136.84	-128.38	48.15	747180.02	1084193.55	12.13	-3.97 (L)	-0.48 (D)
136	11600.00	42.80	170.50	31.00	11561.93	157.10	-148.63	51.22	747159.77	1084196.62	10.11	-0.41 (L)	0.72 (U)
137	11631.00	45.10	168.80	31.00	11584.25	178.47	-169.79	55.09	747138.61	1084200.49	8.34	2.74 (R)	1.66 (U)
138	11662.00	46.60	166.60	31.00	11605.84	200.64	-191.51	59.84	747116.89	1084205.24	7.02	5.32 (R)	1.96 (U)
139	11694.00	48.20	164.50	32.00	11627.50	224.17	-214.32	65.72	747094.08	1084211.12	6.95	7.20 (R)	1.45 (U)
140	11725.00	50.20	162.80	31.00	11647.76	247.63	-236.83	72.33	747071.57	1084217.73	7.67	8.28 (R)	0.38 (U)
141	11738.00	51.40	162.00	13.00	11655.98	257.71	-246.44	75.38	747061.96	1084220.78	10.39	8.52 (R)	-0.11 (D)
142	11762.00	52.20	159.80	24.00	11670.82	276.55	-264.26	81.55	747044.14	1084226.95	7.94	8.43 (R)	-1.51 (D)
143	11793.00	54.30	161.00	31.00	11689.37	301.36	-287.65	89.88	747020.75	1084235.28	7.45	8.14 (R)	-3.44 (D)
144	11824.00	57.40	159.80	31.00	11706.77	326.98	-311.82	98.49	746996.58	1084243.89	10.50	7.76 (R)	-5.64 (D)
145	11856.00	60.40	159.00	32.00	11723.29	354.33	-337.46	108.13	746970.94	1084253.53	9.62	6.88 (R)	-7.72 (D)
146	11888.00	64.90	158.50	32.00	11737.99	382.66	-363.94	118.43	746944.46	1084263.83	14.13	5.67 (R)	-9.24 (D)
147	11919.00	69.60	157.60	31.00	11749.98	411.13	-390.45	129.12	746917.95	1084274.52	15.40	4.12 (R)	-9.76 (D)
148	11951.00	73.20	157.20	32.00	11760.18	441.31	-418.45	140.77	746889.95	1084286.17	11.31	2.18 (R)	-9.49 (D)
149	11982.00	76.70	155.20	31.00	11768.23	471.03	-445.83	152.85	746862.57	1084298.25	12.89	-0.41 (L)	-8.84 (D)
150	12023.00	81.90	153.00	41.00	11775.84	510.81	-482.05	170.45	746826.35	1084315.85	13.73	-5.31 (L)	-7.11 (D)
151	12055.00	84.40	152.10	32.00	11779.66	542.05	-510.24	185.09	746798.16	1084330.49	8.30	-10.04 (L)	-5.46 (D)
152	12086.00	84.60	152.10	31.00	11782.63	572.34	-537.51	199.53	746770.89	1084344.93	0.65	-14.92 (L)	-4.68 (D)
153	12118.00	85.80	153.50	32.00	11785.31	603.72	-565.87	214.11	746742.53	1084359.51	5.75	-19.49 (L)	-5.12 (D)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS °/100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
154	12150.00	85.70	154.80	32.00	11787.68	635.25	-594.59	228.02	746713.81	1084373.42	4.06	-23.35 (L)	-6.68 (D)
155	12181.00	87.30	155.10	31.00	11789.57	665.88	-622.62	241.12	746685.78	1084386.52	5.25	-27.06 (L)	-8.56 (D)
156	12213.00	88.50	155.10	32.00	11790.74	697.55	-651.63	254.59	746656.77	1084399.99	3.75	-31.46 (L)	-9.72 (D)
157	12244.00	89.90	155.00	31.00	11791.18	728.25	-679.73	267.66	746628.67	1084413.06	4.53	-35.95 (L)	-10.16 (D)
158	12276.00	92.20	155.30	32.00	11790.59	759.94	-708.76	281.11	746599.64	1084426.51	7.25	-40.46 (L)	-9.58 (D)
159	12308.00	93.40	155.30	32.00	11789.03	791.61	-737.80	294.46	746570.60	1084439.86	3.75	-44.96 (L)	-8.02 (D)
160	12340.00	93.50	155.10	32.00	11787.10	823.25	-766.80	307.86	746541.60	1084453.26	0.70	-49.56 (L)	-6.09 (D)
161	12371.00	93.50	155.50	31.00	11785.21	853.91	-794.91	320.79	746513.49	1084466.19	1.29	-53.89 (L)	-4.20 (D)
162	12403.00	92.00	155.00	32.00	11783.67	885.58	-823.93	334.17	746484.47	1084479.57	4.94	-58.52 (L)	-2.65 (D)
163	12435.00	90.60	156.00	32.00	11782.95	917.29	-853.04	347.44	746455.36	1084492.84	5.38	-62.78 (L)	-1.93 (D)
164	12466.00	90.20	156.60	31.00	11782.73	948.08	-881.43	359.90	746426.97	1084505.30	2.33	-66.53 (L)	-1.71 (D)
165	12498.00	89.10	157.80	32.00	11782.93	979.91	-910.93	372.30	746397.47	1084517.70	5.09	-69.81 (L)	-1.91 (D)
166	12530.00	90.10	160.00	32.00	11783.15	1011.83	-940.78	383.82	746367.62	1084529.22	7.55	-72.08 (L)	-2.13 (D)
167	12562.00	90.70	161.20	32.00	11782.93	1043.79	-970.96	394.45	746337.44	1084539.85	4.19	-73.53 (L)	-1.91 (D)
168	12594.00	92.20	163.70	32.00	11782.12	1075.78	-1001.46	404.09	746306.94	1084549.49	9.11	-73.97 (L)	-1.10 (D)
169	12626.00	92.90	164.70	32.00	11780.69	1107.74	-1032.22	412.79	746276.18	1084558.19	3.81	-73.51 (L)	0.33 (U)
170	12658.00	92.70	165.60	32.00	11779.13	1139.68	-1063.11	420.99	746245.29	1084566.39	2.88	-72.52 (L)	1.89 (U)
171	12689.00	93.10	166.60	31.00	11777.56	1170.60	-1093.16	428.42	746215.24	1084573.82	3.47	-71.08 (L)	3.46 (U)
172	12721.00	92.30	166.90	32.00	11776.05	1202.49	-1124.28	435.75	746184.12	1084581.15	2.67	-69.19 (L)	4.97 (U)
173	12753.00	90.70	167.50	32.00	11775.22	1234.40	-1155.47	442.84	746152.93	1084588.24	5.34	-67.08 (L)	5.81 (U)
174	12785.00	89.60	167.50	32.00	11775.13	1266.30	-1186.71	449.76	746121.69	1084595.16	3.44	-64.76 (L)	5.89 (U)
175	12880.00	89.70	169.50	95.00	11775.71	1360.86	-1279.80	468.70	746028.60	1084614.10	2.11	-56.35 (L)	5.31 (U)
176	12975.00	90.30	171.00	95.00	11775.71	1455.11	-1373.42	484.79	745934.98	1084630.19	1.70	-44.98 (L)	5.31 (U)
177	13071.00	91.80	174.30	96.00	11773.95	1549.73	-1468.60	497.07	745839.80	1084642.47	3.78	-29.53 (L)	7.07 (U)
178	13165.00	91.30	175.70	94.00	11771.41	1641.65	-1562.21	505.26	745746.19	1084650.66	1.58	-10.22 (L)	9.61 (U)
179	13261.00	91.30	173.10	96.00	11769.23	1735.74	-1657.72	514.62	745650.68	1084660.02	2.71	8.57 (R)	11.79 (U)
180	13355.00	92.80	168.70	94.00	11765.87	1828.77	-1750.45	529.47	745557.95	1084674.87	4.94	20.93 (R)	15.17 (U)
181	13450.00	91.70	159.10	95.00	11762.13	1923.57	-1841.54	555.77	745466.86	1084701.17	10.16	21.73 (R)	18.90 (U)
182	13546.00	90.20	157.10	96.00	11760.54	2019.19	-1930.59	591.57	745377.81	1084736.97	2.60	13.03 (R)	20.48 (U)
183	13641.00	93.60	160.30	95.00	11757.39	2113.84	-2019.03	626.05	745289.37	1084771.45	4.91	5.23 (R)	23.68 (U)
184	13736.00	93.80	161.85	95.00	11751.26	2208.59	-2108.71	656.80	745199.69	1084802.20	1.64	1.52 (R)	29.83 (U)
185	13831.00	93.00	163.90	95.00	11745.62	2303.41	-2199.33	684.72	745109.07	1084830.12	2.31	0.83 (R)	35.45 (U)
186	13927.00	93.80	164.20	96.00	11739.93	2399.23	-2291.47	711.05	745016.93	1084856.45	0.89	2.06 (R)	41.18 (U)
187	14023.00	93.70	164.00	96.00	11733.65	2495.01	-2383.60	737.30	744924.80	1084882.70	0.23	3.34 (R)	47.47 (U)
188	14119.00	93.50	163.90	96.00	11727.62	2590.80	-2475.67	763.79	744832.73	1084909.19	0.23	4.38 (R)	53.50 (U)
189	14213.00	91.80	165.80	94.00	11723.28	2684.65	-2566.30	788.32	744742.10	1084933.72	2.71	6.92 (R)	57.77 (U)
190	14309.00	90.20	165.80	96.00	11721.60	2780.52	-2659.35	811.87	744649.05	1084957.27	1.67	10.99 (R)	59.42 (U)
191	14404.00	88.30	160.10	95.00	11722.85	2875.47	-2750.13	839.71	744558.27	1084985.11	6.32	10.46 (R)	58.20 (U)
192	14499.00	90.70	158.60	95.00	11723.67	2970.26	-2839.01	873.20	744469.39	1085018.60	2.98	3.70 (R)	57.35 (U)
193	14594.00	91.60	159.70	95.00	11721.77	3065.02	-2927.77	907.01	744380.63	1085052.41	1.50	-3.29 (L)	59.28 (U)
194	14689.00	92.60	159.90	95.00	11718.29	3159.80	-3016.87	939.79	744291.53	1085085.19	1.07	-9.21 (L)	62.80 (U)

#	Measured Depth (Ft)	INC Deg	AZM Deg	CL (Ft)	TVD (Ft)	VS (Ft)	NS (Ft)	EW (Ft)	Northing (US ft)	Easting (US ft)	DLS °/100 Ft	LR/EW From-Plan (Ft)	UD/NS From-Plan (Ft)
195	14784.00	92.10	160.70	95.00	11714.39	3254.61	-3106.23	971.79	744202.17	1085117.19	0.99	-14.16 (L)	66.67 (U)
196	14878.00	94.10	164.20	94.00	11709.31	3348.45	-3195.70	1000.09	744112.70	1085145.49	4.28	-15.40 (L)	71.90 (U)
197	14974.00	94.10	163.00	96.00	11702.44	3444.20	-3287.56	1027.12	744020.84	1085172.52	1.25	-15.06 (L)	78.78 (U)
198	15068.00	92.20	162.20	94.00	11697.28	3538.05	-3377.12	1055.19	743931.28	1085200.59	2.19	-16.29 (L)	83.81 (U)
199	15162.00	94.20	164.90	94.00	11692.03	3631.88	-3467.12	1081.76	743841.28	1085227.16	3.57	-15.69 (L)	89.23 (U)
200	15258.00	93.80	164.90	96.00	11685.33	3727.60	-3559.58	1106.71	743748.82	1085252.11	0.42	-13.07 (L)	95.90 (U)
201	15353.00	94.50	165.50	95.00	11678.46	3822.28	-3651.18	1130.92	743657.22	1085276.32	0.97	-9.85 (L)	102.88 (U)
202	15447.00	92.10	164.70	94.00	11673.05	3916.06	-3741.86	1155.04	743566.54	1085300.44	2.69	-7.16 (L)	108.05 (U)
203	15542.00	90.60	163.80	95.00	11670.81	4011.01	-3833.27	1180.82	743475.13	1085326.22	1.84	-5.72 (L)	110.22 (U)
204	15645.00	90.50	163.80	103.00	11669.82	4113.99	-3932.17	1209.56	743376.23	1085354.96	0.10	-4.88 (L)	111.21 (U)
205	15740.00	90.40	162.50	95.00	11669.07	4208.99	-4023.09	1237.09	743285.31	1085382.49	1.37	-5.20 (L)	111.95 (U)
206	15834.00	92.30	164.00	94.00	11666.86	4302.95	-4113.07	1264.18	743195.33	1085409.58	2.57	-5.26 (L)	114.25 (U)
207	15930.00	90.50	165.50	96.00	11664.51	4398.88	-4205.66	1289.42	743102.74	1085434.82	2.44	-2.90 (L)	116.51 (U)
208	16025.00	91.40	164.80	95.00	11662.94	4493.80	-4297.47	1313.76	743010.93	1085459.16	1.20	0.15 (R)	118.12 (U)
209	16120.00	91.40	165.10	95.00	11660.62	4588.71	-4389.18	1338.42	742919.22	1085483.82	0.32	2.86 (R)	120.44 (U)
210	16214.00	90.50	164.80	94.00	11659.06	4682.65	-4479.95	1362.83	742828.45	1085508.23	1.01	5.45 (R)	121.97 (U)
211	16310.00	90.40	162.60	96.00	11658.30	4778.63	-4572.08	1389.77	742736.32	1085535.17	2.29	6.03 (R)	122.72 (U)
212	16404.00	92.30	162.30	94.00	11656.09	4872.60	-4661.67	1418.10	742646.73	1085563.50	2.05	4.51 (R)	125.03 (U)
213	16499.00	89.30	162.80	95.00	11654.76	4967.57	-4752.28	1446.58	742556.12	1085591.98	3.20	3.32 (R)	126.27 (U)
214	16522.00	90.20	163.00	23.00	11654.86	4990.57	-4774.27	1453.35	742534.13	1085598.75	4.01	3.13 (R)	126.16 (U)
Proj to Bit													
215	16584.00	90.20	163.00	62.00	11654.65	5052.57	-4833.56	1471.47	742474.84	1085616.87	0.00	2.77 (R)	126.37 (U)
GEODETIC INFORMATION													
Latitude: 31°41'17.1635" N Dec. Latitude: 31.68810096 Longitude: -103°16'40.9577" W Dec. Longitude: -103.27804381 Geodetic Group: US State Plane 1927 (Exact solution)							Geodetic Zone: Texas Central 4203 Geodetic Datum: NAD27 Easting: 1084145.40 Northing: 747308.40 Convergence: -1.52						
MAGNETICS INFORMATION													
Magnetic Model: C:\HawkEye\IGRF2010.MIF Date for Magnetics: 10/08/2014 Latitude: 31°41'17.1635" N Longitude: -103°16'40.9577" W Magnetic Declination: 7.01 Total Correction(Mag to Grid): 8.53							Field Strength (nt): 48016 B-X Component (nt): 24081 B-Y Component (nt): 2961 B-Z Component (nt): 41435 B-Horz Component (nt): 24263 Dip Angle: 59.65						

TARGET DATA													
Name		Shape	Easting (Ft)		Northing (Ft)		Subsea (Ft)	TVD (Ft)	NS (Ft)	EW (Ft)	Side A (Ft)	Side B (Ft)	Diameter (Ft)
University 35-20-2H PBHL		CYLINDER	1085626.0		742453.4		9007.0	11781.0	-4855.0	1480.6	-	-	30.0
University 35-20-2H FTP		POINT	1084341.6		746740.7		9007.0	11781.0	-567.7	196.2	-	-	-
VSP=163.04 / 5075.74		CYLINDER	1086145.4		749308.4		10007.0	12781.0	2000.0	2000.0	-	-	100.0
HARD LINE DATA													
#	X Point (Ft)	Y Point (Ft)	Direction (Deg)	Quad	Deg	Min	Sec	Distance (Ft)	Easting (Ft)	Northing (Ft)	Latitude (Deg)	Longitude (Deg)	
Name: Hardline 200' FSL													
0	1928.8	-4723.9	253.70696324	3	73	42	25.0677	5277.2	1086074.2	742584.5	31.67525910	-103.27144393	
1	-3136.4	-6204.4	0.00000000	1	0	0	0.0000	0.0	1081009.0	741104.0	31.67082167	-103.28759372	
LEASE LINE DATA													
#	X Point (Ft)	Y Point (Ft)	Direction (Deg)	Quad	Deg	Min	Sec	Distance (Ft)	Easting (Ft)	Northing (Ft)	Latitude (Deg)	Longitude (Deg)	
Name: Lease Lines													
0	1984.9	-4915.9	253.70696261	3	73	42	25.0654	5277.1	1086130.3	742392.5	31.67473558	-103.27124747	
1	-3080.3	-6396.4	343.71195573	4	16	17	16.9594	5285.1	1081065.1	740912.0	31.67029820	-103.28739711	
2	-4562.6	-1323.4	73.70401277	1	73	42	14.4460	5277.6	1079582.8	745985.0	31.68413126	-103.29259368	
3	503.0	157.5	163.71733399	2	16	16	57.5976	5285.4	1084648.4	747465.9	31.68857039	-103.27644068	
4	1984.9	-4915.9	253.70696261	3	73	42	25.0654	0.0	1086130.3	742392.5	31.67473558	-103.27124747	