

Reservoir Development
Drilling & Measurements (Anadrill)
4301 SW 44th St
Oklahoma City, Oklahoma 73119 USA
Phone: (405) 682-2284
Fax: (405) 682-3937

April 23, 2010

Railroad Commission of Texas
Oil and Gas Division
PO Box 12967
Capital Station
Austin, Texas 78711

RECEIVED
O&G
AUSTIN TX
JUL 16 2010

Attention: Pam Johns

Re: CLIENT: Energen Resources
WELL: University 45-20 #1
FIELD: War-Wink, S. (Wolfcamp)
RIG: Nabors F25
COUNTY: Ward
API NO: 42-475-35537
JOB NO: 10SWB0087

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements (formerly Anadrill), a division of Schlumberger Technology Corporation (P-5 No. 754900). Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Topo Adekola FE-2	University 45-20 #1 Original Hole	11989.00 Ft ft to 16025.00 Ft ft	April 11, 2010 to April 21, 2010	Impulse

A plat of the bottom hole location is oriented both to the surface location and to the lease lines (or until line in case of pooling), is attached to the survey report.

If any other information is required, please contact the undersigned at the above letterhead and phone number.
Sincerely,



C. McMillan
Field Service Manager

CC: Energen Resources
Enclosures: [2]
County of Ward
State of Texas

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Seq #	Measured depth (ft)	Incl angle (deg)	Azimuth angle (deg)	Course length (ft)	TVD depth (ft)	Vertical section (ft)	Displ +N/S- (ft)	Displ +E/W- (ft)	Total displ (ft)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	100.00	0.24	300.28	100.00	100.00	-0.06	0.11	-0.18	0.21	300.28	0.24	MWD	None
3	200.00	0.26	309.25	100.00	200.00	-0.16	0.35	-0.54	0.64	303.43	0.04	MWD	None
4	300.00	0.30	306.89	100.00	300.00	-0.25	0.66	-0.92	1.13	305.39	0.04	MWD	None
5	400.00	0.30	295.80	100.00	400.00	-0.40	0.93	-1.37	1.65	304.12	0.06	MWD	None
6	500.00	0.47	270.20	100.00	499.99	-0.80	1.04	-2.01	2.27	297.36	0.24	MWD	None
7	600.00	0.72	259.89	100.00	599.99	-1.64	0.93	-3.04	3.18	287.05	0.27	MWD	None
8	700.00	1.35	251.46	100.00	699.97	-3.26	0.45	-4.78	4.80	275.36	0.65	MWD	None
9	800.00	1.71	248.73	100.00	799.94	-5.73	-0.47	-7.28	7.30	266.33	0.37	MWD	None
10	900.00	1.75	247.05	100.00	899.89	-8.57	-1.60	-10.08	10.21	260.96	0.06	MWD	None
11	1000.00	1.30	245.70	100.00	999.85	-11.10	-2.67	-12.52	12.80	257.98	0.45	MWD	None
12	1100.00	0.83	243.57	100.00	1099.84	-12.88	-3.46	-14.20	14.62	256.33	0.47	MWD	None
13	1200.00	0.51	212.30	100.00	1199.83	-14.01	-4.15	-15.09	15.65	254.61	0.47	MWD	None
14	1300.00	0.46	215.62	100.00	1299.83	-14.83	-4.86	-15.56	16.30	252.67	0.06	MWD	None
15	1400.00	0.32	217.36	100.00	1399.82	-15.49	-5.40	-15.96	16.86	251.30	0.14	MWD	None
16	1500.00	0.15	181.60	100.00	1499.82	-15.86	-5.76	-16.14	17.13	250.36	0.22	MWD	None
17	1600.00	0.38	110.22	100.00	1599.82	-15.79	-6.00	-15.83	16.93	249.23	0.36	MWD	None
18	1700.00	0.46	93.52	100.00	1699.82	-15.35	-6.14	-15.12	16.32	247.89	0.15	MWD	None
19	1800.00	0.90	79.89	100.00	1799.81	-14.41	-6.03	-13.94	15.19	246.62	0.47	MWD	None
20	1900.00	0.78	73.65	100.00	1899.80	-13.12	-5.70	-12.52	13.76	245.52	0.15	MWD	None
21	2000.00	0.99	65.97	100.00	1999.79	-11.69	-5.16	-11.08	12.22	245.04	0.24	MWD	None
22	2100.00	0.96	64.90	100.00	2099.77	-10.06	-4.45	-9.53	10.52	244.97	0.04	MWD	None
23	2200.00	1.20	62.36	100.00	2199.76	-8.25	-3.61	-7.84	8.63	245.29	0.24	MWD	None
24	2300.00	1.32	64.68	100.00	2299.73	-6.13	-2.63	-5.87	6.44	245.88	0.13	MWD	None
25	2400.00	1.35	63.05	100.00	2399.71	-3.89	-1.60	-3.78	4.11	247.03	0.05	MWD	None
26	2500.00	1.31	53.35	100.00	2499.68	-1.61	-0.39	-1.82	1.86	257.96	0.23	MWD	None
27	2600.00	1.44	53.52	100.00	2599.65	0.78	1.04	0.11	1.05	6.14	0.13	MWD	None
28	2700.00	1.39	52.79	100.00	2699.62	3.24	2.52	2.09	3.28	39.62	0.05	MWD	None
29	2800.00	1.35	48.95	100.00	2799.59	5.63	4.03	3.94	5.64	44.37	0.10	MWD	None
30	2900.00	1.16	37.47	100.00	2899.57	7.80	5.61	5.45	7.82	44.17	0.31	MWD	None

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Seq #	Measured depth	Incl angle	Azimuth angle	Course length	TVD depth	Vertical section	Displ +N/S-	Displ +E/W-	Total displ	At Azim	DLS (deg/100f)	Srvy tool	Tool Corr
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-	(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	100f)	type	(deg)
31	3000.00	1.17	37.40	100.00	2999.55	9.80	7.22	6.68	9.84	42.78	0.01	MWD	None
32	3100.00	1.12	30.70	100.00	3099.53	11.73	8.87	7.80	11.81	41.33	0.14	MWD	None
33	3200.00	1.03	19.06	100.00	3199.51	13.45	10.56	8.59	13.62	39.13	0.24	MWD	None
34	3300.00	0.88	20.73	100.00	3299.49	14.92	12.13	9.16	15.20	37.06	0.15	MWD	None
35	3400.00	0.53	285.44	100.00	3399.49	15.35	12.97	8.99	15.78	34.71	1.07	MWD	None
36	3500.00	0.59	260.21	100.00	3499.48	14.67	13.01	8.03	15.29	31.70	0.25	MWD	None
37	3600.00	1.40	68.33	100.00	3599.48	15.38	13.37	8.66	15.93	32.93	1.98	MWD	None
38	3700.00	1.45	64.38	100.00	3699.45	17.74	14.37	10.94	18.06	37.28	0.11	MWD	None
39	3800.00	1.11	49.66	100.00	3799.42	19.92	15.54	12.82	20.15	39.51	0.47	MWD	None
40	3900.00	1.06	35.96	100.00	3899.40	21.79	16.92	14.10	22.02	39.80	0.26	MWD	None
41	4000.00	1.93	57.33	100.00	3999.37	24.36	18.58	16.06	24.55	40.84	1.02	MWD	None
42	4100.00	2.97	64.58	100.00	4099.28	28.50	20.60	19.82	28.58	43.89	1.08	MWD	None
43	4200.00	2.70	64.41	100.00	4199.15	33.25	22.73	24.28	33.26	46.89	0.27	MWD	None
44	4300.00	2.61	66.38	100.00	4299.05	37.67	24.66	28.49	37.68	49.13	0.13	MWD	None
45	4400.00	1.97	68.55	100.00	4398.97	41.44	26.20	32.18	41.49	50.85	0.65	MWD	None
46	4500.00	1.44	72.80	100.00	4498.92	44.20	27.20	34.98	44.31	52.13	0.54	MWD	None
47	4600.00	1.60	74.57	100.00	4598.89	46.59	27.94	37.52	46.78	53.33	0.17	MWD	None
48	4700.00	1.66	79.85	100.00	4698.85	49.07	28.57	40.29	49.39	54.66	0.16	MWD	None
49	4800.00	2.15	77.93	100.00	4798.79	51.93	29.21	43.55	52.44	56.15	0.49	MWD	None
50	4900.00	2.56	78.46	100.00	4898.71	55.48	30.05	47.58	56.27	57.72	0.41	MWD	None
51	5000.00	2.03	79.07	100.00	4998.63	58.93	30.84	51.50	60.03	59.09	0.53	MWD	None
52	5100.00	1.81	84.91	100.00	5098.57	61.71	31.31	54.82	63.13	60.26	0.29	MWD	None
53	5200.00	0.96	100.07	100.00	5198.54	63.49	31.31	57.21	65.22	61.31	0.92	MWD	None
54	5300.00	0.78	99.89	100.00	5298.53	64.43	31.04	58.71	66.41	62.13	0.18	MWD	None
55	5400.00	0.65	111.20	100.00	5398.52	65.11	30.72	59.91	67.33	62.85	0.19	MWD	None
56	5500.00	0.57	113.38	100.00	5498.51	65.57	30.32	60.89	68.02	63.53	0.08	MWD	None
57	5600.00	0.39	120.89	100.00	5598.51	65.88	29.95	61.64	68.53	64.09	0.19	MWD	None
58	5700.00	0.19	129.57	100.00	5698.51	66.00	29.67	62.06	68.79	64.45	0.20	MWD	None
59	5800.00	0.15	185.70	100.00	5798.51	65.93	29.43	62.18	68.79	64.67	0.16	MWD	None
60	5900.00	0.18	151.76	100.00	5898.51	65.80	29.16	62.24	68.73	64.89	0.10	MWD	None

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Seq #	Measured depth (ft)	Incl angle (deg)	Azimuth angle (deg)	Course length (ft)	TVD depth (ft)	Vertical section (ft)	Disp1 +N/S- (ft)	Disp1 +E/W- (ft)	Total displ (ft)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
61	6000.00	0.20	178.46	100.00	5998.51	65.65	28.85	62.32	68.67	65.16	0.09	MWD	None

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62	6100.00	0.39	179.28	100.00	6098.51	65.31	28.33	62.33	68.46	65.55	0.19	MWD	None
63	6200.00	0.39	163.89	100.00	6198.50	64.94	27.67	62.42	68.28	66.10	0.10	MWD	None
64	6300.00	0.37	162.72	100.00	6298.50	64.66	27.03	62.61	68.20	66.65	0.02	MWD	None
65	6400.00	0.17	183.32	100.00	6398.50	64.42	26.57	62.70	68.10	67.03	0.22	MWD	None
66	6500.00	0.10	204.72	100.00	6498.50	64.23	26.35	62.66	67.97	67.19	0.09	MWD	None
67	6600.00	0.19	206.74	100.00	6598.50	64.00	26.12	62.55	67.78	67.33	0.09	MWD	None
68	6700.00	0.20	227.14	100.00	6698.50	63.67	25.85	62.34	67.49	67.48	0.07	MWD	None
69	6800.00	0.37	243.91	100.00	6798.50	63.18	25.59	61.93	67.01	67.55	0.19	MWD	None
70	6900.00	0.65	274.28	100.00	6898.49	62.48	25.49	61.07	66.18	67.34	0.38	MWD	None
71	7000.00	1.62	267.55	100.00	6998.47	60.99	25.47	59.09	64.35	66.68	0.98	MWD	None
72	7100.00	1.75	269.28	100.00	7098.43	58.75	25.39	56.15	61.63	65.67	0.14	MWD	None
73	7200.00	2.16	264.16	100.00	7198.37	56.08	25.18	52.75	58.45	64.48	0.45	MWD	None
74	7300.00	2.97	266.50	100.00	7298.27	52.53	24.83	48.29	54.30	62.79	0.82	MWD	None
75	7400.00	2.65	279.62	100.00	7398.15	49.06	25.06	43.43	50.14	60.01	0.72	MWD	None
76	7500.00	1.81	282.93	100.00	7498.07	46.71	25.80	39.61	47.27	56.92	0.85	MWD	None
77	7600.00	1.63	281.78	100.00	7598.03	44.96	26.45	36.68	45.22	54.21	0.18	MWD	None
78	7700.00	1.70	285.91	100.00	7697.99	43.33	27.14	33.86	43.39	51.28	0.14	MWD	None
79	7800.00	1.40	292.39	100.00	7797.95	42.01	28.01	31.30	42.01	48.17	0.35	MWD	None
80	7900.00	1.25	296.15	100.00	7897.92	41.07	28.96	29.19	41.12	45.23	0.17	MWD	None
81	8000.00	1.22	282.86	100.00	7997.90	40.05	29.68	27.18	40.24	42.48	0.29	MWD	None
82	8100.00	1.10	270.75	100.00	8097.88	38.73	29.93	25.18	39.11	40.07	0.27	MWD	None
83	8200.00	1.08	279.15	100.00	8197.86	37.43	30.09	23.29	38.05	37.74	0.16	MWD	None
84	8300.00	0.99	269.90	100.00	8297.84	36.19	30.24	21.49	37.10	35.40	0.19	MWD	None
85	8400.00	0.87	270.28	100.00	8397.83	34.99	30.24	19.87	36.18	33.31	0.12	MWD	None
86	8500.00	0.55	309.10	100.00	8497.82	34.35	30.55	18.74	35.84	31.53	0.56	MWD	None
87	8600.00	0.78	283.97	100.00	8597.82	33.89	31.01	17.71	35.71	29.72	0.37	MWD	None
88	8700.00	0.82	280.00	100.00	8697.81	33.07	31.30	16.34	35.31	27.56	0.07	MWD	None
89	8800.00	0.81	283.36	100.00	8797.80	32.22	31.59	14.95	34.95	25.32	0.05	MWD	None
90	8900.00	0.95	283.41	100.00	8897.79	31.35	31.95	13.45	34.66	22.84	0.14	MWD	None

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Seq #	Measured depth (ft)	Incl angle (deg)	Azimuth angle (deg)	Course length (ft)	TVD depth (ft)	Vertical section (ft)	Disp1 +N/S- (ft)	Disp1 +E/W- (ft)	Total displ (ft)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
91	9000.00	0.90	276.99	100.00	8997.77	30.36	32.23	11.87	34.35	20.21	0.11	MWD	None
92	9100.00	0.97	281.40	100.00	9097.76	29.34	32.50	10.26	34.08	17.52	0.10	MWD	None
93	9200.00	0.82	268.33	100.00	9197.75	28.29	32.64	8.71	33.79	14.95	0.25	MWD	None
94	9300.00	0.90	251.83	100.00	9297.74	27.02	32.38	7.25	33.18	12.62	0.26	MWD	None

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95	9400.00	0.98	246.69	100.00	9397.72	25.49	31.79	5.72	32.30	10.20	0.12	MWD	None
96	9500.00	1.05	249.11	100.00	9497.71	23.83	31.13	4.08	31.39	7.47	0.08	MWD	None
97	9600.00	1.05	238.51	100.00	9597.69	22.07	30.32	2.44	30.42	4.60	0.19	MWD	None
98	9700.00	0.84	236.29	100.00	9697.68	20.44	29.44	1.05	29.46	2.04	0.21	MWD	None
99	9800.00	0.84	233.71	100.00	9797.67	18.99	28.60	-0.15	28.60	359.70	0.04	MWD	None
100	9900.00	0.77	235.28	100.00	9897.66	17.59	27.78	-1.29	27.81	357.34	0.07	MWD	None
101	9985.00	0.97	243.59	85.00	9982.65	16.33	27.14	-2.41	27.24	354.93	0.28	MWD	None
102	10080.00	1.06	240.43	95.00	10077.63	14.70	26.34	-3.89	26.63	351.60	0.11	MWD	None
103	10175.00	1.14	248.60	95.00	10172.61	12.95	25.57	-5.54	26.16	347.78	0.19	MWD	None
104	10271.00	1.32	266.09	96.00	10268.59	11.19	25.14	-7.53	26.24	343.33	0.43	MWD	None
105	10366.00	0.35	339.30	95.00	10363.58	10.43	25.34	-8.72	26.80	341.01	1.33	MWD	None
106	10462.00	0.62	78.97	96.00	10459.58	10.98	25.71	-8.32	27.02	342.08	0.79	MWD	None
107	10557.00	1.14	62.89	95.00	10554.57	12.34	26.24	-6.97	27.15	345.12	0.60	MWD	None
108	10589.00	2.29	46.45	32.00	10586.55	13.28	26.83	-6.22	27.54	346.94	3.87	MWD	None
109	10621.00	3.61	43.90	32.00	10618.51	14.93	27.99	-5.06	28.45	349.75	4.14	MWD	None
110	10653.00	4.84	42.76	32.00	10650.42	17.28	29.71	-3.45	29.91	353.38	3.85	MWD	None
111	10685.00	6.51	46.89	32.00	10682.27	20.44	31.94	-1.21	31.96	357.84	5.37	MWD	None
112	10716.00	8.00	47.95	31.00	10713.02	24.35	34.59	1.68	34.63	2.78	4.83	MWD	None
113	10748.00	9.50	46.45	32.00	10744.64	29.22	37.90	5.25	38.26	7.88	4.74	MWD	None
114	10780.00	11.17	44.43	32.00	10776.12	34.95	41.93	9.33	42.96	12.55	5.34	MWD	None
115	10812.00	12.66	44.08	32.00	10807.43	41.54	46.66	13.94	48.70	16.63	4.66	MWD	None
116	10844.00	14.25	43.90	32.00	10838.55	48.97	52.02	19.11	55.42	20.17	4.97	MWD	None
117	10876.00	16.00	46.54	32.00	10869.44	57.31	57.89	25.04	63.08	23.39	5.88	MWD	None
118	10907.00	17.85	46.89	31.00	10899.10	66.33	64.08	31.61	71.45	26.26	5.98	MWD	None
119	10939.00	19.70	47.16	32.00	10929.40	76.62	71.10	39.15	81.17	28.84	5.79	MWD	None
120	10971.00	21.54	47.86	32.00	10959.35	87.89	78.71	47.46	91.91	31.09	5.80	MWD	None

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Seq #	Measured depth (ft)	Incl angle (deg)	Azimuth angle (deg)	Course length (ft)	TVD depth (ft)	Vertical section (ft)	Disp1 +N/S- (ft)	Disp1 +E/W- (ft)	Total disp1 (ft)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
121	11003.00	23.13	48.04	32.00	10988.94	100.05	86.85	56.49	103.61	33.04	4.97	MWD	None
122	11035.00	24.89	48.74	32.00	11018.17	113.07	95.50	66.23	116.21	34.74	5.57	MWD	None
123	11066.00	26.73	49.09	31.00	11046.08	126.57	104.37	76.40	129.34	36.21	5.96	MWD	None
124	11098.00	29.19	48.65	32.00	11074.34	141.57	114.24	87.70	144.02	37.51	7.71	MWD	None
125	11130.00	31.13	48.21	32.00	11102.01	157.64	124.90	99.73	159.83	38.60	6.10	MWD	None
126	11162.00	33.15	47.86	32.00	11129.11	174.67	136.29	112.38	176.65	39.51	6.34	MWD	None

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127	11194.00	35.26	47.95	32.00	11155.57	192.65	148.35	125.73	194.46	40.28	6.60	MWD	None
128	11226.00	37.28	48.39	32.00	11181.37	211.58	160.97	139.84	213.23	40.98	6.36	MWD	None
129	11257.00	39.31	48.74	31.00	11205.70	230.79	173.68	154.24	232.28	41.61	6.59	MWD	None
130	11289.00	41.33	49.00	32.00	11230.09	251.50	187.30	169.84	252.83	42.20	6.33	MWD	None
131	11321.00	43.00	49.09	32.00	11253.81	272.97	201.38	186.06	274.17	42.74	5.22	MWD	None
132	11353.00	44.85	49.44	32.00	11276.86	295.17	215.86	202.88	296.24	43.22	5.83	MWD	None
133	11385.00	46.60	49.27	32.00	11299.20	318.07	230.79	220.26	319.03	43.66	5.48	MWD	None
134	11417.00	48.10	48.83	32.00	11320.88	341.60	246.21	238.04	342.47	44.03	4.80	MWD	None
135	11448.00	49.86	48.83	31.00	11341.22	364.99	261.61	255.64	365.78	44.34	5.68	MWD	None
136	11480.00	51.97	48.65	32.00	11361.39	389.83	277.99	274.31	390.55	44.62	6.61	MWD	None
137	11512.00	54.26	48.12	32.00	11380.60	415.42	294.99	293.45	416.09	44.85	7.28	MWD	None
138	11544.00	56.10	48.56	32.00	11398.87	441.69	312.45	313.07	442.31	45.06	5.86	MWD	None
139	11576.00	57.24	48.30	32.00	11416.45	468.42	330.19	333.08	469.00	45.25	3.63	MWD	None
140	11607.00	59.09	48.65	31.00	11432.80	494.76	347.65	352.79	495.30	45.42	6.04	MWD	None
141	11639.00	61.73	48.30	32.00	11448.60	522.58	366.09	373.62	523.09	45.58	8.30	MWD	None
142	11671.00	64.10	48.56	32.00	11463.17	551.07	385.00	394.94	551.54	45.73	7.44	MWD	None
143	11703.00	66.57	49.35	32.00	11476.53	580.14	404.09	416.87	580.57	45.89	8.04	MWD	None
144	11735.00	68.41	49.00	32.00	11488.78	609.70	423.41	439.24	610.09	46.05	5.84	MWD	None
145	11767.00	70.52	48.83	32.00	11500.00	639.66	443.11	461.82	640.02	46.18	6.61	MWD	None
146	11798.00	72.55	49.18	31.00	11509.82	669.06	462.39	484.01	669.39	46.31	6.64	MWD	None
147	11830.00	74.57	48.65	32.00	11518.88	699.75	482.56	507.15	700.05	46.42	6.51	MWD	None
148	11862.00	76.50	47.86	32.00	11526.87	730.73	503.19	530.26	731.02	46.50	6.49	MWD	None
149	11894.00	78.96	47.77	32.00	11533.67	762.00	524.19	553.43	762.27	46.55	7.69	MWD	None
150	11926.00	80.72	48.12	32.00	11539.31	793.49	545.29	576.82	793.76	46.61	5.60	MWD	None

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Seq #	Measured depth (ft)	Incl angle (deg)	Azimuth angle (deg)	Course length (ft)	TVD depth (ft)	Vertical section (ft)	Disp +N/S- (ft)	Disp +E/W- (ft)	Total displ (ft)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
151	11958.00	82.57	48.30	32.00	11543.96	825.15	566.39	600.42	825.41	46.67	5.81	MWD	None
152	11989.00	84.18	50.65	31.00	11547.54	855.93	586.39	623.83	856.16	46.77	9.15	IMP	None
153	12021.00	86.84	50.62	32.00	11550.04	887.80	606.62	648.49	887.99	46.91	8.31	IMP	None
154	12052.00	88.45	50.76	31.00	11551.32	918.74	626.25	672.45	918.90	47.04	5.21	IMP	None
155	12084.00	88.28	50.99	32.00	11552.23	950.69	646.43	697.27	950.82	47.17	0.89	IMP	None
156	12115.00	87.90	50.74	31.00	11553.26	981.64	665.98	721.30	981.74	47.28	1.47	IMP	None
157	12146.00	87.18	50.27	31.00	11554.59	1012.58	685.68	745.20	1012.66	47.38	2.77	IMP	None
158	12177.00	85.98	49.47	31.00	11556.45	1043.51	705.63	768.86	1043.58	47.46	4.68	IMP	None
159	12209.00	85.60	49.18	32.00	11558.80	1075.42	726.43	793.06	1075.47	47.51	1.47	IMP	None

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160	12240.00	86.46	49.27	31.00	11560.94	1106.34	746.62	816.48	1106.39	47.56	2.79	IMP	None
161	12271.00	86.76	49.24	31.00	11562.78	1137.28	766.82	839.93	1137.32	47.61	0.97	IMP	None
162	12302.00	87.56	49.35	31.00	11564.31	1168.23	787.01	863.40	1168.27	47.65	2.60	IMP	None
163	12334.00	88.45	49.38	32.00	11565.43	1200.20	807.84	887.67	1200.23	47.70	2.78	IMP	None
164	12365.00	89.28	49.46	31.00	11566.04	1231.19	828.00	911.21	1231.21	47.74	2.69	IMP	None
165	12459.00	89.62	48.15	94.00	11566.94	1325.18	889.91	981.93	1325.19	47.81	1.44	IMP	None
166	12553.00	89.38	46.94	94.00	11567.76	1419.17	953.36	1051.28	1419.19	47.80	1.31	IMP	None
167	12647.00	89.17	46.52	94.00	11568.95	1513.13	1017.78	1119.72	1513.16	47.73	0.50	IMP	None
168	12741.00	89.21	46.39	94.00	11570.28	1607.08	1082.53	1187.85	1607.13	47.66	0.14	IMP	None
169	12834.00	90.07	47.33	93.00	11570.87	1700.06	1146.12	1255.71	1700.12	47.61	1.37	IMP	None
170	12928.00	90.52	48.40	94.00	11570.38	1794.05	1209.18	1325.41	1794.11	47.63	1.23	IMP	None
171	13023.00	90.96	47.55	95.00	11569.16	1889.04	1272.78	1395.98	1889.10	47.64	1.01	IMP	None
172	13117.00	90.31	47.37	94.00	11568.11	1983.03	1336.33	1465.23	1983.10	47.63	0.72	IMP	None
173	13211.00	90.21	46.84	94.00	11567.69	2077.02	1400.31	1534.10	2077.09	47.61	0.57	IMP	None
174	13305.00	90.00	46.61	94.00	11567.52	2170.99	1464.74	1602.54	2171.08	47.57	0.33	IMP	None
175	13399.00	89.62	46.68	94.00	11567.83	2264.96	1529.28	1670.88	2265.07	47.53	0.41	IMP	None
176	13493.00	89.86	47.42	94.00	11568.25	2358.94	1593.32	1739.69	2359.06	47.51	0.83	IMP	None
177	13587.00	89.83	47.83	94.00	11568.51	2452.94	1656.68	1809.13	2453.06	47.52	0.44	IMP	None
178	13681.00	89.73	48.63	94.00	11568.87	2546.94	1719.29	1879.23	2547.05	47.54	0.86	IMP	None
179	13775.00	89.79	49.99	94.00	11569.26	2640.91	1780.57	1950.51	2641.01	47.61	1.45	IMP	None
180	13869.00	89.45	51.28	94.00	11569.89	2734.82	1840.19	2023.18	2734.88	47.71	1.42	IMP	None

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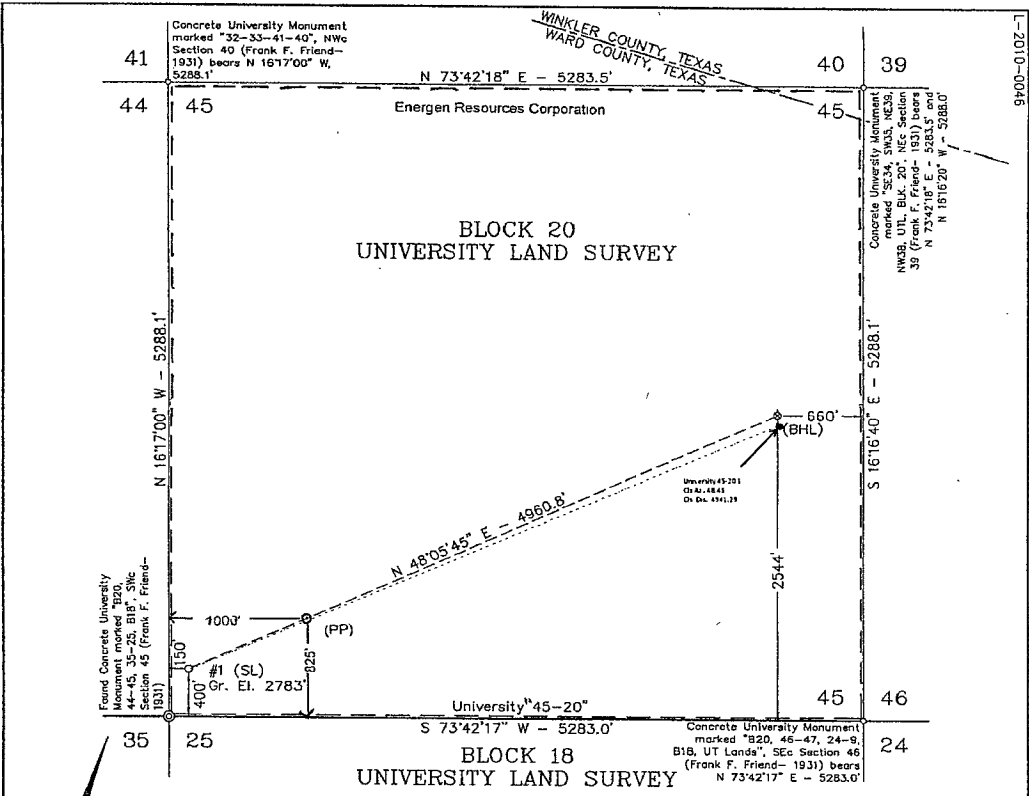
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Seq #	Measured depth (ft)	Incl angle (deg)	Azimuth angle (deg)	Course length (ft)	TVD depth (ft)	Vertical section (ft)	Disp +N/S- (ft)	Disp +E/W- (ft)	Total disp (ft)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
181	13963.00	89.69	52.03	94.00	11570.59	2828.63	1898.51	2096.90	2828.66	47.84	0.84	IMP	None
182	14057.00	89.76	51.90	94.00	11571.04	2922.42	1956.42	2170.93	2922.42	47.98	0.16	IMP	None
183	14151.00	89.69	51.38	94.00	11571.49	3016.23	2014.76	2244.64	3016.23	48.09	0.56	IMP	None
184	14245.00	89.55	50.28	94.00	11572.12	3110.12	2074.13	2317.51	3110.13	48.17	1.18	IMP	None
185	14339.00	89.52	49.48	94.00	11572.88	3204.07	2134.70	2389.39	3204.08	48.22	0.85	IMP	None
186	14434.00	89.93	48.97	95.00	11573.33	3299.05	2196.74	2461.33	3299.07	48.25	0.69	IMP	None
187	14528.00	89.86	47.67	94.00	11573.51	3393.05	2259.25	2531.54	3393.06	48.25	1.38	IMP	None
188	14621.00	89.18	46.40	93.00	11574.29	3486.03	2322.63	2599.59	3486.04	48.22	1.55	IMP	None
189	14716.00	89.11	45.26	95.00	11575.70	3580.94	2388.82	2667.72	3580.95	48.16	1.20	IMP	None
190	14810.00	89.45	44.90	94.00	11576.89	3674.81	2455.19	2734.28	3674.81	48.08	0.53	IMP	None
191	14904.00	88.93	43.34	94.00	11578.21	3768.57	2522.66	2799.71	3768.57	47.98	1.75	IMP	None

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192	14998.00	89.11	42.46	94.00	11579.82	3862.17	2591.51	2863.68	3862.20	47.86	0.96	IMP	None
193	15092.00	89.66	44.58	94.00	11580.83	3955.85	2659.66	2928.41	3955.93	47.75	2.33	IMP	None
194	15124.00	89.31	46.04	32.00	11581.12	3987.81	2682.16	2951.15	3987.90	47.73	4.69	IMP	None
195	15155.00	87.66	46.35	31.00	11581.94	4018.79	2703.61	2973.52	4018.87	47.72	5.42	IMP	None
196	15186.00	87.63	47.27	31.00	11583.21	4049.75	2724.81	2996.10	4049.84	47.71	2.97	IMP	None
197	15217.00	87.80	48.23	31.00	11584.45	4080.73	2745.64	3019.03	4080.82	47.72	3.14	IMP	None
198	15249.00	87.73	48.74	32.00	11585.70	4112.70	2766.83	3042.97	4112.79	47.72	1.61	IMP	None
199	15280.00	87.94	49.57	31.00	11586.87	4143.67	2787.09	3066.40	4143.76	47.73	2.76	IMP	None
200	15374.00	88.32	52.12	94.00	11589.94	4237.51	2846.41	3139.25	4237.56	47.80	2.74	IMP	None
201	15468.00	88.59	53.50	94.00	11592.47	4331.15	2903.21	3214.11	4331.18	47.91	1.50	IMP	None
202	15562.00	88.45	52.93	94.00	11594.90	4424.75	2959.48	3289.36	4424.75	48.02	0.62	IMP	None
203	15656.00	87.90	52.52	94.00	11597.89	4518.39	3016.38	3364.13	4518.39	48.12	0.73	IMP	None
204	15750.00	88.18	52.64	94.00	11601.11	4612.05	3073.46	3438.74	4612.06	48.21	0.32	IMP	None
205	15844.00	87.83	52.20	94.00	11604.38	4705.72	3130.76	3513.19	4705.75	48.29	0.60	IMP	None
206	15938.00	88.42	51.84	94.00	11607.45	4799.45	3188.57	3587.24	4799.51	48.37	0.74	IMP	None
207	16025.00	88.66	51.02	87.00	11609.67	4886.28	3242.79	3655.24	4886.36	48.42	0.98	IMP	None
208	16080.00	88.66	51.02	55.00	11610.96	4941.19	3277.38	3697.98	4941.29	48.45	0.00	PROJ	None

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LEGEND

- - Denotes Proposed Well Location
- ⊙ - Denotes Proposed Bottom Hole Location
- ⊗ - Denotes Found Monument (As Described)
- - Denotes Calculated Corner this Survey
- - - - - Denotes Lease Line
- - - - - Denotes County Line (Approx.)

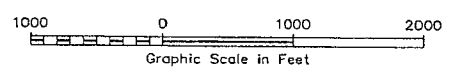
Date Surveyed: January 14, 2010
and January 19, 2010

Description	Coordinate Table		
	Plane Coordinate	Geodetic Coordinate	Geodetic Coordinate (NAD '83)
University 45-20 #1 Surface Location	X = 1,073,920.5 Y = 728,223.2	Longitude = 103.3092539° W Latitude = 31.6349028° N	Longitude = 103.3097111° W Latitude = 31.6350333° N
University 45-20 #1 Bottom Hole Location	X = 1,077,612.0 Y = 731,335.8	Longitude = 103.2976894° W Latitude = 31.6442784° N	Longitude = 103.2981367° W Latitude = 31.6444090° N

NOTE:

- 1) Plane Coordinates and Bearings shown hereon are Lambert Grid and Conform to the "Texas Coordinate System", Texas Central Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.
 - 2) Geodetic Coordinates, unless otherwise shown hereon, reference the North American Datum of 1927, (Clarke Spheroid of 1866). Reference Stations - "McDONALD VLBH STA" - CORS (AF9514); "SANDERSON" - CORS (DH3844) and "ODESSA RRP2" - CORS (DF5393).
 - 3) See information filed in the office of this Surveyor which describes the reconstruction of this Section.
- I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION.

The University 45-20 #1 is located approximately 13 miles Northwest of Pyote, Texas.



ENERGEN RESOURCES CORPORATION

Location of the
UNIVERSITY 45-20 #1
Surface Location: 400' FSL & 150' FWL
Bottom Hole Location: 2544' FSL & 660' FEL
Section 45, Block 20
University Land Survey
Ward County, Texas

Drawn By: LVA	Date: January 21, 2010
Scale: 1" = 1000'	Field Book: 417 / 80, 448 / 56-57
Revision Date: 2-01-2010	Quadrangle: Soda Lake NE
W.O. No: 2010-0046	Dwg. No.: L-2010-0046

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