

D.I.G. INC.
MIDLAND, TEXAS

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

* SANTA FE ENERGY RESOURCES, INC. *

JOB NUMBER: G-3098

WELL NAME: CORRAL FLY 2 STATE #1

LOCATION: EDDY COUNTY, NEW MEXICO

SURVEY DATE: 8-26-95

SURVEY ENGINEER: BILL LAMB

GYRO REFERENCE BEARING: S88-00E

SURF. ELEVATION: R.K.B.

***** DEPTH MEASURED IN FEET *****

***** THIS DIRECTIONAL SURVEY REPORT IS *****
***** CORRECT TO THE BEST OF MY KNOWLEDGE *****
***** AND IS SUPPORTED BY ACTUAL FIELD DATA! *****
COMMENTS: GYRO 0-10300
NABORS DRILLING U.S.A. #356**
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** COMPANY REPRESENTATIVE **

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INRUN SURVEY
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MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING	COORDINATES		D-LEG /100	D-LEG /CL	STATION DISPLACEMENT	
						LATITUDE	DEPARTURE			DISP.	DIRECTION
100.0	100.00	0.40	-0.172	00.50	S21.07E	0.41 S	0.16 E	0.50	0.50	0.44 AT	S21.07E
200.0	199.99	1.22	-0.479	00.50	S16.09E	1.23 S	0.43 E	0.04	0.04	1.31 AT	S19.41E
300.0	299.99	2.28	-0.526	00.75	S09.90W	2.30 S	0.44 E	0.37	0.37	2.34 AT	S10.91E
400.0	399.98	3.58	-0.417	00.75	S03.88W	3.60 S	0.29 E	0.08	0.08	3.61 AT	S04.55E
500.0	499.97	5.11	-0.323	01.00	S06.86W	5.11 S	0.14 E	0.25	0.25	5.12 AT	S01.54E
600.0	599.95	6.89	0.340	01.25	S34.85W	6.88 S	0.59 W	0.60	0.60	6.90 AT	S04.90W
700.0	699.92	9.15	1.665	01.75	S30.84W	9.08 S	2.00 W	0.51	0.51	9.30 AT	S12.39W
800.0	799.87	11.85	3.087	01.75	S28.82W	11.73 S	3.51 W	0.06	0.06	12.25 AT	S16.68W
900.0	899.82	14.63	4.793	02.00	S37.81W	14.45 S	5.32 W	0.39	0.39	15.40 AT	S20.22W
1000.0	999.77	17.11	6.576	01.50	S37.79W	16.86 S	7.19 W	0.50	0.50	18.33 AT	S23.10W
1100.0	1099.73	19.41	7.759	01.50	S20.77W	19.12 S	8.46 W	0.44	0.44	20.91 AT	S23.87W
1200.0	1199.70	21.93	8.465	01.50	S14.75W	21.61 S	9.26 W	0.16	0.16	23.51 AT	S23.19W
1300.0	1299.66	24.73	8.770	01.75	S02.73W	24.40 S	9.66 W	0.42	0.42	26.24 AT	S21.60W
1400.0	1399.61	27.79	8.857	01.75	S04.71W	27.45 S	9.86 W	0.06	0.06	29.16 AT	S19.76W
1500.0	1499.58	30.38	8.693	01.25	S10.31E	30.04 S	9.79 W	0.63	0.63	31.60 AT	S18.05W
1600.0	1599.56	32.50	8.187	01.25	S12.33E	32.18 S	9.36 W	0.04	0.04	33.51 AT	S16.22W
1700.0	1699.53	34.60	7.607	01.25	S14.35E	34.30 S	8.86 W	0.04	0.04	35.43 AT	S14.48W
1800.0	1799.51	36.72	7.101	01.25	S08.36E	36.44 S	8.43 W	0.13	0.13	37.40 AT	S13.03W
1900.0	1899.49	38.66	6.805	01.00	S04.38E	38.39 S	8.20 W	0.26	0.26	39.25 AT	S12.06W
2000.0	1999.48	40.17	6.599	00.75	S07.40E	39.91 S	8.05 W	0.25	0.25	40.71 AT	S11.41W
2100.0	2099.47	41.23	6.360	00.50	S15.52E	40.98 S	7.85 W	0.26	0.26	41.72 AT	S10.85W
2200.0	2199.47	42.00	5.968	00.50	S34.53E	41.76 S	7.49 W	0.17	0.17	42.42 AT	S10.17W
2300.0	2299.46	42.70	5.441	00.50	S35.55E	42.47 S	6.99 W	0.01	0.01	43.04 AT	S09.34W
2400.0	2399.46	43.56	4.775	00.75	S35.57E	43.36 S	6.35 W	0.25	0.25	43.82 AT	S08.34W
2500.0	2499.44	44.51	3.373	01.25	S64.59E	44.36 S	4.99 W	0.70	0.70	44.64 AT	S06.41W
2600.0	2599.40	45.55	0.735	02.00	S67.61E	45.49 S	2.39 W	0.75	0.75	45.55 AT	S03.00W
2700.0	2699.32	46.58	-3.262	02.75	S77.63E	46.67 S	1.57 E	0.85	0.85	46.70 AT	S01.93E
2800.0	2799.20	47.48	-7.975	02.75	S76.65E	47.74 S	6.25 E	0.05	0.05	48.14 AT	S07.45E
2900.0	2899.09	48.74	-12.592	02.75	S68.68E	49.16 S	10.82 E	0.38	0.38	50.34 AT	S12.41E
3000.0	2998.98	50.10	-16.962	02.50	S72.74E	50.68 S	15.13 E	0.31	0.31	52.89 AT	S16.62E
3100.0	3098.90	51.15	-20.744	02.00	S71.85E	51.87 S	18.87 E	0.50	0.50	55.20 AT	S19.99E
3200.0	3198.87	51.74	-23.287	01.00	S80.96E	52.55 S	21.39 E	1.02	1.02	56.74 AT	S22.15E
3300.0	3298.86	52.00	-24.563	00.50	S68.07E	52.85 S	22.66 E	0.52	0.52	57.51 AT	S23.21E
3400.0	3398.86	52.37	-25.349	00.50	S57.19E	53.25 S	23.43 E	0.09	0.09	58.18 AT	S23.75E
3500.0	3498.85	52.55	-25.938	00.25	N80.69E	53.45 S	24.01 E	0.36	0.36	58.60 AT	S24.19E
3600.0	3598.85	52.45	-26.362	00.25	N76.58E	53.37 S	24.44 E	0.02	0.02	58.70 AT	S24.61E

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MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING	COORDINATES		D-LEG /100	D-LEG /CL	STATION DISPLACEMENT	
						LATITUDE	DEPARTURE			DISP.	DIRECTION
3700.0	3698.85	52.22	-26.708	00.25	N40.46E	53.15 S	24.79 E	0.15	0.15	58.65 AT	S25.01E
3800.0	3798.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.25	0.25	58.56 AT	S25.20E
3900.0	3898.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4000.0	3998.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4100.0	4098.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4200.0	4198.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4300.0	4298.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4400.0	4398.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4500.0	4498.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4600.0	4598.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4700.0	4698.85	52.05	-26.843	00.00	N00.00E	52.99 S	24.94 E	0.00	0.00	58.56 AT	S25.20E
4800.0	4798.85	52.21	-26.696	00.25	S44.47W	53.14 S	24.78 E	0.25	0.25	58.64 AT	S25.00E
4900.0	4898.85	52.37	-26.549	00.00	N00.00E	53.30 S	24.63 E	0.25	0.25	58.71 AT	S24.80E
5000.0	4998.85	52.62	-26.191	00.50	S57.21W	53.53 S	24.26 E	0.50	0.50	58.78 AT	S24.38E
5100.0	5098.85	53.29	-25.742	00.50	S14.04W	54.19 S	23.79 E	0.37	0.37	59.19 AT	S23.70E
5200.0	5198.84	54.11	-25.455	00.50	S28.87W	55.00 S	23.47 E	0.13	0.13	59.80 AT	S23.11E
5300.0	5298.84	54.87	-25.023	00.50	S34.71W	55.74 S	23.02 E	0.05	0.05	60.30 AT	S22.44E
5400.0	5398.83	55.83	-24.517	00.75	S26.54W	56.68 S	22.47 E	0.26	0.26	60.98 AT	S21.63E
5500.0	5498.83	56.78	-23.988	00.50	S38.37W	57.61 S	21.91 E	0.28	0.28	61.64 AT	S20.82E
5600.0	5598.82	57.57	-23.250	00.75	S49.21W	58.38 S	21.15 E	0.28	0.28	62.09 AT	S19.91E
5700.0	5698.80	58.84	-22.055	01.25	S43.04W	59.61 S	19.91 E	0.51	0.51	62.84 AT	S18.47E
5800.0	5798.79	60.48	-21.031	01.00	S22.87W	61.21 S	18.82 E	0.46	0.46	64.03 AT	S17.09E
5900.0	5898.77	61.90	-20.087	01.00	S48.71W	62.59 S	17.83 E	0.45	0.45	65.08 AT	S15.90E
6000.0	5998.76	63.33	-19.205	01.00	S18.54W	63.99 S	16.89 E	0.52	0.52	66.18 AT	S14.79E
6100.0	6098.74	65.02	-18.757	01.00	S15.37W	65.66 S	16.38 E	0.06	0.06	67.67 AT	S14.01E
6200.0	6198.73	66.74	-18.509	01.00	S05.20W	67.37 S	16.07 E	0.18	0.18	69.26 AT	S13.42E
6300.0	6298.71	68.67	-18.199	01.25	S16.03W	69.29 S	15.69 E	0.33	0.33	71.04 AT	S12.76E
6400.0	6398.68	70.82	-17.959	01.25	S00.86W	71.43 S	15.38 E	0.33	0.33	73.06 AT	S12.15E
6500.0	6498.66	73.18	-17.652	01.50	S16.70W	73.77 S	14.98 E	0.45	0.45	75.28 AT	S11.48E
6600.0	6598.62	75.71	-16.995	01.50	S16.53W	76.28 S	14.24 E	0.00	0.00	77.59 AT	S10.57E
6700.0	6698.59	78.29	-16.707	01.50	S00.36W	78.84 S	13.85 E	0.42	0.42	80.05 AT	S09.97E
6800.0	6798.55	80.86	-17.083	01.50	S12.81E	81.43 S	14.14 E	0.34	0.34	82.64 AT	S09.85E
6900.0	6898.52	83.40	-17.632	01.50	S03.96E	83.99 S	14.65 E	0.07	0.07	85.26 AT	S09.90E
7000.0	6998.50	85.54	-18.151	01.00	S10.16E	86.14 S	15.03 E	0.50	0.50	87.44 AT	S09.90E
7100.0	7098.48	86.87	-18.776	00.75	S40.20E	87.50 S	15.61 E	0.51	0.51	88.88 AT	S10.12E
7200.0	7198.46	88.54	-19.775	01.50	S23.22E	89.20 S	16.55 E	0.81	0.81	90.72 AT	S10.51E

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MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R CLOS.	INCL	BEARING	COORDINATES		D-LEG /100	D-LEG /CL	STATION DISPLACEMENT	
						LATITUDE	DEPARTURE			DISP.	DIRECTION
7300.0	7298.41	91.55	-21.048	02.25	S19.24E	92.26 S	17.71 E	0.76	0.76	93.94 AT	S10.87E
7400.0	7398.33	95.55	-21.964	02.50	S03.24E	96.29 S	18.48 E	0.71	0.71	98.05 AT	S10.87E
7500.0	7498.24	99.67	-22.451	02.25	S06.26E	100.42 S	18.82 E	0.28	0.28	102.17 AT	S10.61E
7600.0	7598.19	102.85	-23.170	01.50	S17.28E	103.62 S	19.42 E	0.83	0.83	105.42 AT	S10.62E
7700.0	7698.16	104.73	-24.181	01.00	S39.30E	105.54 S	20.36 E	0.68	0.68	107.49 AT	S10.92E
7800.0	7798.15	105.86	-25.215	00.75	S42.32E	106.70 S	21.36 E	0.25	0.25	108.82 AT	S11.32E
7900.0	7898.14	106.37	-26.763	01.25	S85.33E	107.28 S	22.88 E	0.87	0.87	109.69 AT	S12.04E
8000.0	7998.10	106.39	-29.379	01.75	S89.34E	107.38 S	25.50 E	0.51	0.51	110.37 AT	S13.36E
8100.0	8098.07	106.20	-31.987	01.25	N84.53E	107.30 S	28.11 E	0.52	0.52	110.92 AT	S14.68E
8200.0	8198.04	106.20	-34.150	01.25	S80.49E	107.37 S	30.27 E	0.33	0.33	111.56 AT	S15.75E
8300.0	8298.02	106.63	-36.054	01.00	S68.51E	107.87 S	32.16 E	0.34	0.34	112.56 AT	S16.60E
8400.0	8397.98	108.34	-38.231	02.25	S41.54E	109.66 S	34.27 E	1.43	1.43	114.89 AT	S17.36E
8500.0	8497.90	111.29	-41.145	02.50	S43.56E	112.71 S	37.08 E	0.26	0.26	118.65 AT	S18.21E
8600.0	8597.80	115.13	-43.351	02.75	S13.56E	116.62 S	39.14 E	1.38	1.38	123.02 AT	S18.55E
8700.0	8697.71	119.18	-44.079	02.00	S00.57E	120.70 S	39.72 E	0.92	0.92	127.07 AT	S18.22E
8800.0	8797.63	122.93	-42.840	02.75	S35.44W	124.40 S	38.35 E	1.63	1.63	130.18 AT	S17.13E
8900.0	8897.52	126.57	-40.080	02.50	S43.42W	127.94 S	35.46 E	0.44	0.44	132.76 AT	S15.49E
9000.0	8997.41	129.30	-36.261	03.00	S67.42W	130.53 S	31.54 E	1.24	1.24	134.28 AT	S13.59E
9100.0	9097.28	131.09	-31.363	03.00	S76.44W	132.15 S	26.58 E	0.47	0.47	134.79 AT	S11.37E
9200.0	9197.14	132.50	-26.323	03.00	S76.47W	133.37 S	21.50 E	0.00	0.00	135.09 AT	S09.16E
9300.0	9296.99	133.34	-20.971	03.25	S89.49W	134.01 S	16.12 E	0.75	0.75	134.97 AT	S06.86E
9400.0	9396.85	133.40	-15.741	02.75	N86.48W	133.89 S	10.89 E	0.54	0.54	134.33 AT	S04.65E
9500.0	9496.77	133.63	-11.622	02.00	S82.56W	133.97 S	6.76 E	0.87	0.87	134.14 AT	S02.89E
9600.0	9596.72	134.09	-8.603	01.50	S84.60W	134.31 S	3.73 E	0.50	0.50	134.37 AT	S01.59E
9700.0	9696.69	134.52	-6.022	01.50	S80.63W	134.65 S	1.14 E	0.10	0.10	134.66 AT	S00.48E
9800.0	9796.66	135.13	-3.939	01.00	S68.67W	135.18 S	0.97 W	0.56	0.56	135.18 AT	S00.41W
9900.0	9896.65	136.01	-2.766	00.75	S36.70W	136.02 S	2.17 W	0.54	0.54	136.04 AT	S00.91W
10000.0	9996.64	136.98	-1.903	00.75	S50.73W	136.96 S	3.07 W	0.18	0.18	137.00 AT	S01.28W
10100.0	10096.63	137.97	-1.066	00.75	S33.96W	137.92 S	3.94 W	0.22	0.22	137.98 AT	S01.64W
10200.0	10196.62	139.38	-0.525	01.00	S14.99W	139.30 S	4.53 W	0.38	0.38	139.38 AT	S01.86W
10300.0	10296.61	140.80	-0.003	00.75	S32.06W	140.70 S	5.11 W	0.36	0.36	140.80 AT	S02.08W

THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF

* 10300.0 FEET EQUALS 140.80 FEET AT S02.08W *
