

ROSE FED #16 DIRECTIONAL SURVEYS.

Gyro Surveys:

Date: 9/8/01

Target Direction: 80



Measured Depth in Feet	Course Inclination	Course Direction	Vertical Depth in Feet	Rectangular Coordinates		Vertical Section	Dogleg Severity
				N/S	E/W		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.12	176.34	100.00	-0.10	0.01	-0.01	0.12
200.00	0.34	66.97	200.00	-0.09	0.29	0.27	0.40
300.00	0.32	124.62	300.00	-0.13	0.79	0.76	0.32
400.00	0.57	113.72	399.99	-0.48	1.47	1.36	0.26
500.00	0.85	143.36	499.99	-1.28	2.37	2.11	0.45
600.00	0.62	115.37	599.98	-2.11	3.30	2.88	0.42
700.00	0.64	85.58	699.97	-2.30	4.35	3.88	0.32
800.00	0.77	97.69	799.96	-2.35	5.57	5.08	0.20
900.00	0.57	79.67	899.96	-2.35	6.72	6.21	0.29
1000.00	0.28	104.53	999.95	-2.32	7.45	6.93	0.33
1100.00	1.04	105.62	1099.95	-2.62	8.56	7.97	0.75

Final Closure: Direction: 107.02 Degrees
Distance: 8.95 feet

MWD Surveys:

Survey Number	Survey Depth in ft	Inclination in Deg.	Azimuth in Deg.	Course Length/ft	TVD FT.	VS in feet	Coordinates	
							N/S in ft	E/W in ft.

1	1208.00	0.90	90.00	108.00	1207.93	9.69	2.38 S	10.35 E
2	1238.00	1.20	86.60	30.00	1237.93	10.24	2.37 S	10.90 E
3	1300.00	4.40	74.90	62.00	1299.85	13.25	2.21 S	13.85 E
4	1363.00	5.00	75.10	63.00	1362.64	18.40	0.37 S	18.83 E
5	1425.00	5.10	79.40	62.00	1424.40	23.84	0.33 N	24.15 E
6	1488.00	6.30	84.90	63.00	1487.08	30.09	1.15 N	30.35 E
7	1551.00	6.50	82.20	63.00	1549.69	37.09	1.94 N	37.32 E
8	1612.00	7.40	84.30	61.00	1610.24	44.46	2.80 N	44.65 E
9	1673.00	8.30	80.20	61.00	1670.67	52.78	3.94 N	52.90 E
10	1735.00	9.10	76.90	62.00	1731.96	62.17	5.82 N	62.09 E
11	1798.00	10.30	75.10	63.00	1794.05	72.74	8.39 N	72.38 E
12	1861.00	11.30	75.70	63.00	1855.94	84.51	11.37 N	83.81 E
13	1923.00	12.60	77.40	62.00	1916.59	97.32	14.34 N	96.29 E
14	1986.00	13.40	76.70	63.00	1977.98	111.47	17.52 N	110.10 E
15	2049.00	13.40	76.70	63.00	2039.26	126.05	20.88 N	124.31 E
16	2111.00	13.30	77.70	62.00	2099.59	140.35	24.05 N	138.27 E
17	2174.00	13.20	76.10	63.00	2160.91	154.76	27.32 N	152.33 E
18	2237.00	13.00	76.10	63.00	2222.27	169.01	20.75 N	166.19 E
19	2299.00	13.00	77.80	62.00	2282.68	182.94	33.90 N	179.78 E

20	2362.00	12.90	76.10	63.00	2344.08	197.04 36.85 N	193.59 E
21	2425.00	12.60	79.40	63.00	2405.53	210.94 39.56 N	207.22 E
22	2489.00	12.50	79.80	64.00	2468.00	224.85 42.07 N	220.90 E
23	2550.00	12.40	80.70	61.00	2527.56	238.00 44.30 N	233.86 E
24	2613.00	12.40	81.20	63.00	2589.09	251.53 46.43 N	247.22 E
25	2676.00	12.50	82.20	63.00	2650.10	265.10 48.39 N	260.66 E
26	2738.00	11.70	80.20	62.00	2711.23	278.09 50.37 N	273.50 E
27	2801.00	11.60	79.60	63.00	2772.94	290.82 52.60 N	286.03 E
28	2864.00	11.70	81.20	63.00	2834.64	303.54 54.72 N	298.57 E
29	2926.00	11.70	80.50	62.00	2895.35	316.11 56.72 N	310.98 E
30	2989.00	11.60	82.00	63.00	2957.05	328.82 58.66 N	323.55 E
31	3052.00	11.70	83.00	63.00	3018.76	341.53 60.32 N	336.17 E
32	3115.00	11.50	81.00	63.00	3080.47	354.19 62.08 N	348.71 E
33	3177.00	10.80	82.10	62.00	3141.30	366.18 63.84 N	360.57 E
34	3240.00	10.70	82.70	63.00	3203.19	377.92 65.40 N	372.22 E
35	3303.00	10.40	84.30	63.00	3265.13	389.43 66.70 N	383.68 E
36	3365.00	9.70	82.80	62.00	3326.18	400.23 67.91 N	394.43 E
37	3428.00	9.60	83.00	63.00	3388.26	410.77 69.22 N	410.78 E
38	3491.00	9.30	83.10	63.00	3450.43	421.10 70.47 N	415.17 E
39	3553.00	10.40	80.70	62.00	3511.51	431.70 71.98 N	425.67 E
40	3616.00	11.00	81.80	63.00	3573.42	443.40 73.75 N	437.23 E
41	3679.00	10.30	76.90	63.00	3635.33	455.03 75.89 N	448.67 E
42	3741.00	10.60	79.80	62.00	3696.31	466.26 78.15 N	459.68 E
43	3806.00	10.20	75.20	65.00	3760.24	477.98 80.68 N	471.13 E
44	3899.00	8.50	74.50	93.00	3852.00	493.03 84.62 N	485.71 E
45	3962.00	7.90	72.20	63.00	3914.36	501.95 87.19 N	494.32 E
46	4024.00	8.00	73.20	62.00	3975.76	510.46 89.74 N	502.51 E
47							

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Closure		DLS	Bld Rate	Wlk Rate
Dist. In ft	Ang in deg	deg/100'	Deg/100'	Deg/100'

10.75	105.57	0.28	-0.1	-14.5
11.27	104.73	1.02	1	-11.3
14.02	99.06	5.22	5.2	-18.9
18.85	92.65	0.95	1.00	0.30
24.15	89.22	0.63	0.20	6.90
30.37	87.83	2.09	1.90	8.70
37.37	87.02	0.57	0.30	-4.30
44.74	86.41	1.53	1.50	3.40
53.05	85.74	1.74	1.50	-6.70
62.36	84.65	1.52	1.30	-5.30
72.87	83.39	1.96	1.90	-2.90
84.57	82.28	1.60	1.60	1.00
97.35	81.53	2.17	2.10	2.70
111.49	80.96	1.29	1.30	-1.10
126.05	80.47	0.00	0.00	0.00
140.35	80.13	0.41	-0.20	1.60
154.76	79.83	0.60	-0.20	-2.50
169.02	79.52	0.32	-0.30	0.00
182.95	79.32	0.62	0.00	2.70

197.06	79.22	0.19	-0.20	0.50
210.97	79.19	0.55	-0.50	2.10
224.87	79.22	0.21	-0.20	0.60
238.02	79.27	0.36	-0.20	1.50
251.54	79.36	0.17	0.00	0.60
265.11	79.48	0.38	0.20	1.60
278.10	79.57	1.46	-1.30	-3.20
290.82	79.58	0.25	-0.20	-1.00
303.54	79.61	0.54	0.20	2.50
316.11	79.66	0.23	0.00	-1.10
328.83	79.72	0.51	-0.20	2.40
341.54	79.83	0.36	0.20	1.60
354.19	79.91	0.71	-0.30	-3.20
366.18	79.96	1.18	-1.10	1.60
377.92	80.04	0.24	-0.20	1.00
389.43	80.14	0.67	-0.50	2.50
400.23	80.23	1.21	-1.10	-2.40
410.78	80.30	0.17	-0.20	0.30
421.11	80.37	0.48	-0.50	0.20
431.71	80.40	1.89	1.80	-3.90
443.41	80.43	1.01	1.00	1.70
455.04	80.40	1.82	-1.10	-7.80
466.27	80.35	0.98	0.50	4.70
477.98	80.28	1.42	-0.60	-7.10
493.03	80.12	1.83	-1.80	-0.80
501.95	80.00	1.09	-1.00	-3.70
510.46	79.87	0.28	0.20	1.60