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DRILTECH MWD SURVEY REPORT

Company	RKI/TRINITY	Job Number:	2010165	Calculation Method	Minimum Curvature
Well:	RDU FED 22-1H	Magnetic Decl.:	7.78	Proposed Azimuth	179.81
Location	EDDY CO. NM	Grid Corr.:	-0.23	WELL API #	30 015 38240
Rig:	SILVER OAKS #9	Total Grid Corr.:	7.55	Tie Into:	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)		Coordinates E/W (ft)		Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
Tie In	GYRO	0	0.00	0.00	0	0	0	0		0		0	0	0	0
1	GYRO	200	0.38	273.63	200	200.00	-0.04	0.04	N	0.66	W	0.66	273.63	0.19	0.19
2	GYRO	400.00	0.45	344.89	200	399.99	-0.85	0.84	N	1.53	W	1 75	298.86	0.24	0.04
3	GYRO	600.00	2.92	20.10	200	599 89	-6.39	6.39	N	0.02	E	6.39	0.16	1.28	1.24
4	GYRO	800.00	3.66	34.56	200	799 57	-16.41	16.43	N	5.39	E	17.29	18.17	0.55	0.37
5	GYRO	1000.00	3 95	32.12	200	999.13	-27.48	27.52	N	12 67	E	30.30	24.73	0.17	0.15
6	GYRO	1200.00	3.32	27.04	200	1198.72	-38.45	38.51	N	18.97	E	42.93	26.22	0.35	-0.32
7	GYRO	1400.00	1.50	343.39	200	1398.55	-46.11	46.18	N	20.85	E	50.67	24.30	1.23	-0.91
8	GYRO	1600.00	1.44	274.06	200	1598.50	-48.81	48.86	N	17.60	E	51.94	19.81	0.84	-0.03
9	GYRO	1800.00	0.99	196.28	200	1798.47	-47.34	47.38	N	14.61	E	49.58	17.13	0.78	-0 23
10	GYRO	2000.00	0.89	156 30	200	1998.44	-44.25	44.30	N	14.75	E	46.69	18.41	0.32	-0.05
11	GYRO	2200.00	0.90	99.75	200	2198.42	-42.56	42 62	N	16.92	E	45.85	21 65	0.42	0.01
12	GYRO	2400.00	0.72	27.15	200	2398.41	-43.40	43.47	N	19.04	E	47.45	23.66	0.48	-0.09
13	GYRO	2600.00	0.78	307.97	200	2598.39	-45.36	45.42	N	18.54	E	49.06	22.21	0.48	0.03
14	GYRO	2800.00	0 39	237.65	200	2798.38	-45.84	45.90	N	16 89	E	48.91	20.21	0.37	-0.20
15	GYRO	3000.00	2.30	116.86	200	2998.33	-43 65	43.72	N	19.90	E	48.03	24.47	1.26	0.96
16	GYRO	3200.00	3.67	117.63	200	3198.06	-38.84	38.94	N	29.15	E	48.64	36.82	0 69	0.69
17	GYRO	3400.00	4.80	115.92	200	3397.51	-32.17	32.31	N	42.35	E	53.27	52.66	0.57	0.57
18	GYRO	3600 00	2.22	91.69	200	3597.13	-28.36	28.54	N	53.75	E	60.85	62.03	1.46	-1.29
19	GYRO	3800.00	2.15	93.35	200	3796.98	-28.00	28.20	N	61.37	E	67.54	65.32	0.05	-0.04
20	GYRO	4000.00	2.12	92.88	200	3996.84	-27.57	27.80	N	68.81	E	74.21	68 00	0.02	-0.01
21	GYRO	4200.00	2.14	87.81	200	4196.70	-27.50	27.76	N	76.23	E	81.13	69.99	0.09	0.01
22	GYRO	4400.00	2.19	84.52	200	4396.56	-27.99	28.26	N	83.77	E	88 41	71.36	0.07	0 02
23	GYRO	4600.00	2.26	79.08	200	4596.41	-29.07	29.38	N	91.44	E	96 05	72.19	0.11	0.03
24	GYRO	4800.00	2.01	75.67	200	4796.27	-30.66	30.99	N	98.71	E	103.46	72.57	0.14	-0.13
25	GYRO	5000 00	1 67	74 14	200	4996.17	-32.31	32.65	N	104.91	E	109.88	72.71	0.17	-0.17
26	GYRO	5200 00	1.75	72.07	200	5196.08	-34.02	34.39	N	110.62	E	115.85	72.73	0.05	0.04
27	GYRO	5400 00	2.03	70.41	200	5395.97	-36.13	36.52	N	116.87	E	122 44	72.65	0.14	0.14
28	GYRO	5600.00	1.70	69.63	200	5595.86	-38.33	38.74	N	122.98	E	128.94	72.52	0.17	-0.17
29	GYRO	5800.00	1.29	95.05	200	5795.80	-39.15	39.57	N	128.01	E	133.99	72.82	0.38	-0.21
30	GYRO	5837 00	1.21	88.22	37	5832 79	-39.12	39.55	N	128.81	E	134.75	72.93	0.46	-0 22

Survey calculations

Provide certification of survey

DRILTECH MWD SURVEY REPORT

Company:	RKI/TRINITY	Job Number:	2010165	Calculation Method	Minimum Curvature
Well.	RDU FED 22-1H	Magnetic Decl.	7.78	Proposed Azimuth	179 81
Location:	EDDY CO NM	Grid Corr.:	-0 23	WELL API #	30 015 38240
Rig	SILVER OAKS #9	Total Grid Corr.:	7 55	Tie Into:	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)		Coordinates E/W (ft)		Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
31	MWD	5928.00	2.80	196.50	91	5923.75	-37.02	37.45	N	129.14	E	134.46	73.83	3.71	1.75
32	MWD	6118.00	0.70	122.70	190	6113.66	-31.94	32.37	N	128.80	E	132.81	75.89	1.42	-1.11
33	MWD	6307.00	1.10	173.70	189	6302.64	-29.51	29 94	N	129.97	E	133.38	77.03	0.45	0.21
34	MWD	6498.00	0.90	181.70	191	6493.61	-26.19	26.62	N	130.13	E	132.82	78.44	0 13	-0.10
35	MWD	6689.00	1.10	197.40	191	6684.58	-22.94	23.37	N	129.54	E	131.63	79.77	0.18	0.10
36	MWD	6880.00	1.10	181.60	191	6875.55	-19.36	19.79	N	128.94	E	130.45	81.27	0.16	0.00
37	MWD	7117.00	1.60	156.40	237	7112.49	-14.05	14.48	N	130.20	E	131.00	83.65	0.32	0.21
38	MWD	7308.00	1.40	166.50	191	7303.42	-9.33	9.77	N	131.81	E	132.17	85.76	0.17	-0.10
39	MWD	7416.00	1.80	164.30	108	7411.38	-6.42	6.86	N	132.58	E	132.75	87.04	0.37	0.37
40	MWD	7435.00	1.60	163.50	19	7430.37	-5.87	6 31	N	132.73	E	132.88	87.28	1 06	-1.05
41	MWD	7467.00	1.10	167.00	32	7462.36	-5.15	5.59	N	132.93	E	133.05	87.59	1.58	-1.56
42	MWD	7499.00	1.40	175.10	32	7494.35	-4.46	4 90	N	133.03	E	133.12	87.89	1.09	0.94
43	MWD	7530.00	1 90	173.10	31	7525.34	-3.57	4.01	N	133.13	E	133.19	88.27	1.62	1.61
44	MWD	7562.00	4.60	173.00	32	7557.29	-1.77	2.21	N	133.35	E	133.36	89.05	8.44	8.44
45	MWD	7594.00	7 90	177.70	32	7589.09	1.70	1.26	S	133.59	E	133.60	90.54	10.43	10.31
46	MWD	7626.00	11.60	180.90	32	7620.62	7.12	6.68	S	133.63	E	133.79	92.86	11.68	11.56
47	MWD	7658.00	14.40	180.50	32	7651.80	14.32	13.88	S	133.54	E	134.26	95.93	8.75	8.75
48	MWD	7690.00	16.50	178.90	32	7682.64	22.84	22.40	S	133.60	E	135.46	99.52	6.70	6.56
49	MWD	7722.00	18.70	177.90	32	7713.14	32.51	32 07	S	133.87	E	137.66	103.47	6.94	6.88
50	MWD	7754.00	20.80	177.50	32	7743.26	43.32	42 87	S	134.31	E	140.98	107.70	6.58	6.56
51	MWD	7786.00	23.00	178 60	32	7772.95	55.25	54.80	S	134.71	E	145.43	112.14	6.99	6.88
52	MWD	7818 00	26.00	178 80	32	7802.06	68.51	68.07	S	135.01	E	151.19	116.76	9.38	9.38
53	MWD	7850.00	28.90	178.10	32	7830.46	83.26	82.81	S	135.41	E	158.72	121.45	9.12	9.06
54	MWD	7881.00	31.10	178.80	31	7857.30	98.75	98.30	S	135.83	E	167.67	125.89	7.19	7.10
55	MWD	7913.00	34.00	179.50	32	7884.27	115.97	115 52	S	136.08	E	178.50	130.33	9.14	9.06
56	MWD	7945.00	36.10	179.60	32	7910.47	134.34	133 89	S	136.22	E	191.01	134.51	6.56	6.56
57	MWD	7977 00	38.40	180.20	32	7935.94	153.71	153.26	S	136.25	E	205 07	138.36	7.28	7.19
58	MWD	8009.00	40.30	180.70	32	7960.68	174.00	173.55	S	136.09	E	220.54	141.90	6.02	5.94
59	MWD	8041.00	43.10	180.30	32	7984.57	195.28	194.83	S	135.91	E	237.55	145.10	8.79	8.75
60	MWD	8072.00	46.50	180.00	31	8006.57	217.12	216.67	S	135.85	E	255.74	147.91	10.99	10.97
61	MWD	8104.00	49.80	179.60	32	8027.91	240.96	240.51	S	135.94	E	276 26	150.52	10.35	10.31
62	MWD	8136.00	53.10	179.80	32	8047.85	265.98	265.53	S	136.07	E	298.36	152 87	10.32	10.31
63	MWD	8167 00	56.30	180.00	31	8065.76	291.27	290.82	S	136.11	E	321.10	154.92	10.34	10.32
64	MWD	8199 00	59.60	180.50	32	8082.74	318.39	317.94	S	135.99	E	345.81	156.84	10.40	10.31

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Location:	EDDY CO NM	Grid Corr.	-0 23	WELL API #	30 015 38240
Rig:	SILVER OAKS #9	Total Grid Corr.:	7.55	Tie Into:	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
65	MWD	8231.00	63.50	181.40	32	8097.99	346.52	346.07 S	135.52 E	371.66	158.61	12.44	12 19
66	MWD	8263.00	67.60	181.40	32	8111.23	375.63	375.18 S	134.81 E	398.67	160.24	12.81	12 81
67	MWD	8295.00	71.80	181.70	32	8122.33	405.62	405.18 S	134.00 E	426.76	161.70	13.15	13.13
68	MWD	8327.00	74.60	181.90	32	8131.58	436.23	435.80 S	133.03 E	455.65	163.02	8.77	8.75
69	MWD	8358.00	76.70	182.30	31	8139.26	466.24	465.81 S	131.93 E	484.13	164.19	6.89	6.77
70	MWD	8391.00	78.50	183 00	33	8146.34	498.43	498.00 S	130.44 E	514.80	165.32	5.83	5.45
71	MWD	8423.00	81.30	183 30	32	8151.96	529.88	529.45 S	128.71 E	544.87	166 34	8.80	8.75
72	MWD	8455.00	85.50	183.30	32	8155.63	561.60	561.18 S	126.88 E	575.35	167.26	13.13	13.13
73	MWD	8499.00	89 70	183 50	44	8157.47	605 46	605.06 S	124.27 E	617.69	168.39	9.56	9.55
74	MWD	8518.00	89.70	183.70	19	8157.57	624.42	624.02 S	123.08 E	636.04	168.84	1.05	0.00
75	MWD	8550.00	89.40	183.70	32	8157.83	656.35	655.95 S	121.02 E	667.02	169.55	0.94	-0.94
76	MWD	8582.00	90.30	183.20	32	8157.91	688.28	687.89 S	119.09 E	698.12	170.18	3.22	2.81
77	MWD	8614.00	91.50	183.30	32	8157 41	720.22	719.84 S	117.28 E	729.33	170.75	3.76	3.75
78	MWD	8646.00	91.50	183.50	32	8156.57	752.15	751.77 S	115.38 E	760.57	171.27	0.62	0.00
79	MWD	8678.00	91.50	183.00	32	8155.73	784.08	783.71 S	113.57 E	791.89	171.75	1.56	0.00
80	MWD	8725.00	91.30	182.80	47	8154 58	831.00	830.63 S	111.19 E	838.04	172.38	0.60	-0.43
81	MWD	8741.00	91.50	182.60	16	8154 19	846.97	846.61 S	110.43 E	853.78	172.57	1.77	1.25
82	MWD	8773.00	91.80	181.60	32	8153.27	878.93	878.57 S	109.26 E	885.34	172.91	3.26	0.94
83	MWD	8805.00	92.70	181.60	32	8152.01	910.89	910.54 S	108.37 E	916.96	173.21	2.81	2.81
84	MWD	8836.00	93.30	181.70	31	8150.39	941.83	941.48 S	107.48 E	947.60	173.49	1.96	1.94
85	MWD	8868.00	92.20	180.70	32	8148.86	973.79	973.44 S	106.81 E	979.28	173.74	4.64	-3.44
86	MWD	8900.00	92.20	181.00	32	8147.63	1005.76	1005.41 S	106.34 E	1011.02	173.96	0.94	0.00
87	MWD	8932.00	90.40	180.30	32	8146.90	1037.74	1037.40 S	105.97 E	1042.80	174 17	6 04	-5.62
88	MWD	8964.00	88.50	179.60	32	8147.21	1069.74	1069.39 S	106.00 E	1074.63	174.34	6 33	-5.94
89	MWD	8996.00	88.50	179.80	32	8148.05	1101.73	1101.38 S	106.17 E	1106.49	174 49	0.62	0.00
90	MWD	9027.00	87.80	179.10	31	8149.05	1132.71	1132.36 S	106.47 E	1137.36	174.63	3.19	-2.26
91	MWD	9059.00	90.10	179.50	32	8149.63	1164.70	1164.35 S	106.86 E	1169.25	174.76	7.30	7.19
92	MWD	9091.00	90.10	179.50	32	8149.58	1196.70	1196 35 S	107.14 E	1201.14	174 88	0.00	0.00
93	MWD	9123.00	89.00	179.30	32	8149.83	1228.70	1228 35 S	107.47 E	1233.04	175 00	3.49	-3.44
94	MWD	9154.00	92.20	179.30	31	8149.50	1259.69	1259.34 S	107.85 E	1263.95	175.11	10.32	10.32
95	MWD	9186.00	93.10	178.90	32	8148.03	1291.66	1291.30 S	108.35 E	1295.84	175.20	3.08	2.81
96	MWD	9218.00	93.80	179.60	32	8146.10	1323.60	1323.24 S	108.77 E	1327.71	175.30	3.09	2.19
97	MWD	9250.00	94.10	179.60	32	8143.90	1355.52	1355.17 S	108.99 E	1359.54	175.40	0.94	0.94
98	MWD	9282.00	93.40	179.10	32	8141.80	1387.45	1387.09 S	109.35 E	1391.40	175.49	2.69	-2.19

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Location	EDDY CO. NM	Grid Corr..	-0 23	WELL API #	30 015 38240
Rig	SILVER OAKS #9	Total Grid Corr.:	7.55	Tie Into	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
99	MWD	9314.00	93.40	178.60	32	8139.90	1419.39	1419.03 S	110.00 E	1423.29	175.57	1.56	0.00
100	MWD	9345.00	93.60	178.60	31	8138.01	1450.32	1449.97 S	110.75 E	1454.19	175.63	0.65	0.65
101	MWD	9377.00	94.00	178.40	32	8135.89	1482.25	1481.88 S	111.59 E	1486.08	175 69	1.40	1.25
102	MWD	9407.00	93.80	178.40	30	8133.85	1512.17	1511.80 S	112.42 E	1515.98	175.75	0.67	-0.67
103	MWD	9439.00	93.60	177.90	32	8131.79	1544.09	1543.72 S	113.45 E	1547.88	175 80	1.68	-0.63
104	MWD	9471.00	94.10	178.10	32	8129.64	1576.00	1575.63 S	114.57 E	1579.79	175.84	1.68	1.56
105	MWD	9502.00	94.50	178.20	31	8127.31	1606.90	1606.52 S	115.57 E	1610.68	175.89	1.33	1.29
106	MWD	9534.00	93 30	178 40	32	8125.14	1638.81	1638.44 S	116.51 E	1642.57	175.93	3.80	-3.75
107	MWD	9565.00	92.60	178.90	31	8123.54	1669.76	1669.39 S	117.24 E	1673.50	175.98	2.77	-2.26
108	MWD	9597.00	92.00	179.60	32	8122.26	1701.74	1701.36 S	117.66 E	1705.42	176.04	2.88	-1.87
109	MWD	9628.00	92.00	179.60	31	8121.17	1732.72	1732.34 S	117.88 E	1736.34	176.11	0.00	0.00
110	MWD	9660.00	92.00	179.10	32	8120.06	1764.70	1764 31 S	118.24 E	1768.27	176.17	1.56	0.00
111	MWD	9691.00	91 50	179.60	31	8119.11	1795.68	1795.30 S	118.59 E	1799.21	176.22	2.28	-1.61
112	MWD	9723.00	91.10	179.50	32	8118.39	1827.67	1827.29 S	118.84 E	1831.15	176.28	1.29	-1.25
113	MWD	9755.00	90.30	180.70	32	8117.99	1859.67	1859.29 S	118.79 E	1863.08	176.34	4.51	-2 50
114	MWD	9787.00	91 00	180 20	32	8117.63	1891.66	1891.28 S	118.54 E	1894.99	176.41	2.69	2.19
115	MWD	9818.00	91.00	181.90	31	8117.09	1922.65	1922.27 S	117.97 E	1925.89	176.49	5.48	0.00
116	MWD	9850.00	91.80	182.80	32	8116.31	1954.61	1954.23 S	116.66 E	1957.71	176.58	3.76	2.50
117	MWD	9882 00	92.60	183.00	32	8115.08	1986.54	1986.17 S	115.04 E	1989.50	176.69	2.58	2.50
118	MWD	9914.00	93.60	183 20	32	8113.35	2018.44	2018.08 S	113.31 E	2021.25	176.79	3.19	3.13
119	MWD	9946.00	92.00	183.50	32	8111 79	2050.34	2049.98 S	111.44 E	2053.01	176.89	5.09	-5.00
120	MWD	9977.00	89.90	183.20	31	8111 27	2081.27	2080.92 S	109.63 E	2083.81	176.98	6.84	-6.77
121	MWD	10009.00	89.60	182.80	32	8111 41	2113.22	2112.88 S	107.96 E	2115.63	177.08	1.56	-0.94
122	MWD	10040.00	88.90	183.00	31	8111.82	2144.18	2143.84 S	106.39 E	2146.47	177.16	2.35	-2.26
123	MWD	10072.00	88.70	182.80	32	8112.49	2176.12	2175.79 S	104.77 E	2178.31	177 24	0.88	-0.63
124	MWD	10104.00	88.50	182.60	32	8113.27	2208.07	2207.74 S	103.26 E	2210.16	177.32	0 88	-0.63
125	MWD	10136.00	89.20	182.80	32	8113.91	2240.03	2239.70 S	101.76 E	2242.01	177.40	2.27	2.19
126	MWD	10168.00	89.20	182.60	32	8114.36	2271.98	2271.66 S	100.25 E	2273.87	177.47	0.62	0.00
127	MWD	10199.00	89.40	182.50	31	8114.74	2302.94	2302.63 S	98.87 E	2304.75	177.54	0.72	0.65
128	MWD	10231.00	89.40	183.00	32	8115.07	2334.90	2334.59 S	97.33 E	2336.62	177.61	1.56	0.00
129	MWD	10263.00	90.40	182.80	32	8115.13	2366.85	2366.55 S	95.72 E	2368.48	177.68	3.19	3.13
130	MWD	10295.00	91.70	183.30	32	8114.54	2398 80	2398.50 S	94.01 E	2400.34	177.76	4.35	4.06
131	MWD	10327.00	92.00	183.20	32	8113.51	2430.72	2430.43 S	92.20 E	2432.18	177.83	0.99	0.94
132	MWD	10359 00	92.60	183.20	32	8112.23	2462.64	2462.35 S	90.41 E	2464 01	177.90	1.87	1.87

DRILTECH MWD SURVEY REPORT

Company	RKI/TRINITY	Job Number:	2010165	Calculation Method	Minimum Curvature
Well:	RDU FED 22-1H	Magnetic Decl.	7.78	Proposed Azimuth	179.81
Location:	EDDY CO. NM	Grid Corr.:	-0 23	WELL API #	30 015 38240
Rig	SILVER OAKS #9	Total Grid Corr.:	7 55	Tie Into	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
133	MWD	10391.00	92.60	183.00	32	8110.77	2494.55	2494.27 S	88.69 E	2495 85	177.96	0.62	0.00
134	MWD	10422.00	92.90	182.60	31	8109 29	2525.48	2525.20 S	87.17 E	2526.70	178.02	1.61	0.97
135	MWD	10454.00	92.70	182.50	32	8107.72	2557.40	2557.13 S	85.75 E	2558.57	178.08	0.70	-0.63
136	MWD	10486.00	92.20	182.30	32	8106.35	2589.34	2589.07 S	84.41 E	2590.45	178.13	1.68	-1.56
137	MWD	10518.00	91.50	182.30	32	8105.32	2621.29	2621.03 S	83.13 E	2622.35	178 18	2.19	-2.19
138	MWD	10549.00	91.10	182 10	31	8104.62	2652.26	2652.00 S	81.94 E	2653.27	178.23	1.44	-1 29
139	MWD	10581.00	91.30	181.70	32	8103.95	2684.23	2683.97 S	80.88 E	2685.19	178.27	1.40	0.63
140	MWD	10613.00	91.30	181.70	32	8103 22	2716.20	2715.95 S	79.93 E	2717.13	178.31	0.00	0.00
141	MWD	10643.00	91.50	181.20	30	8102.49	2746.18	2745.93 S	79.17 E	2747.08	178.35	1.79	0.67
142	MWD	10675.00	91.70	180.90	32	8101 60	2778.16	2777.92 S	78.58 E	2779.03	178.38	1.13	0.63
143	MWD	10707.00	92.20	180.90	32	8100 51	2810.14	2809.89 S	78.08 E	2810.98	178.41	1.56	1.56
144	MWD	10739.00	91.30	180.50	32	8099.53	2842.12	2841.88 S	77.69 E	2842.94	178.43	3.08	-2.81
145	MWD	10771.00	91.70	180.70	32	8098.69	2874.10	2873.86 S	77.36 E	2874.90	178.46	1.40	1.25
146	MWD	10803.00	92.40	180.90	32	8097 55	2906.08	2905.84 S	76.91 E	2906.86	178.48	2.27	2.19
147	MWD	10835.00	91.80	181.60	32	8096 37	2938.05	2937.81 S	76.21 E	2938.80	178.51	2.88	-1 88
148	MWD	10867.00	91.70	181.90	32	8095.40	2970.01	2969.78 S	75.24 E	2970.73	178.55	0.99	-0.31
149	MWD	10899.00	90.10	180 90	32	8094.90	3002.00	3001.76 S	74.45 E	3002.69	178.58	5.90	-5.00
150	MWD	10931.00	88.20	180.00	32	8095 37	3033.99	3033.76 S	74.20 E	3034.67	178.60	6.57	-5.94
151	MWD	10962.00	88.00	180 50	31	8096.40	3064.97	3064.74 S	74.07 E	3065.64	178.62	1.74	-0.65
152	MWD	10994.00	88.50	181.20	32	8097.37	3096.95	3096.72 S	73.59 E	3097.60	178.64	2.69	1.56
153	MWD	11025.00	89.90	181.90	31	8097.81	3127.93	3127.71 S	72.75 E	3128.55	178.67	5.05	4.52
154	MWD	11057.00	89.70	182.30	32	8097.92	3159.91	3159.69 S	71.58 E	3160.50	178.70	1.40	-0.63
155	MWD	11089.00	90.30	182 50	32	8097.92	3191.87	3191.66 S	70.24 E	3192.43	178.74	1.98	1.87
156	MWD	11121.00	92.00	183.00	32	8097.28	3223.82	3223.61 S	68.71 E	3224.34	178.78	5.54	5.31
157	MWD	11153.00	92.90	183.00	32	8095.91	3255.74	3255.54 S	67.03 E	3256.23	178.82	2.81	2.81
158	MWD	11185.00	92.70	183.00	32	8094.35	3287.66	3287.46 S	65.36 E	3288.11	178.86	0.62	-0.63
159	MWD	11216.00	92.70	183.00	31	8092.89	3318.57	3318.38 S	63.74 E	3318.99	178.90	0.00	0.00
160	MWD	11248.00	92.90	183.00	32	8091.32	3350.49	3350.30 S	62.07 E	3350.87	178.94	0.62	0.63
161	MWD	11280.00	92.70	182.80	32	8089.76	3382.40	3382.22 S	60.45 E	3382.76	178.98	0.88	-0.63
162	MWD	11311.00	91.70	181.70	31	8088.57	3413.35	3413.17 S	59.23 E	3413.69	179.01	4.79	-3.23
163	MWD	11343.00	91.80	181.40	32	8087.59	3445.32	3445.14 S	58.37 E	3445.64	179.03	0.99	0.31
164	MWD	11375.00	91.80	181.00	32	8086.59	3477.29	3477.12 S	57.70 E	3477.60	179 05	1.25	0.00
165	MWD	11407.00	92.20	180.90	32	8085.47	3509.27	3509.10 S	57.17 E	3509.56	179.07	1.29	1.25
166	MWD	11439.00	92.90	180.70	32	8084.05	3541.23	3541.06 S	56.72 E	3541.52	179.08	2.27	2.19

DRILTECH MWD SURVEY REPORT

Company:	RKI/TRINITY	Job Number:	2010165	Calculation Method	Minimum Curvature
Well	RDU FED 22-1H	Magnetic Decl.	7 78	Proposed Azimuth	179 81
Location:	EDDY CO. NM	Grid Corr.:	-0 23	WELL API #	30 015 38240
Rig.	SILVER OAKS #9	Total Grid Corr.:	7.55	Tie Into.	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
167	MWD	11471.00	92 90	180.70	32	8082.43	3573.19	3573.02 S	56.33 E	3573 46	179.10	0.00	0.00
168	MWD	11502.00	92.90	182.10	31	8080.86	3604.13	3603.97 S	55.58 E	3604.40	179.12	4.51	0.00
169	MWD	11534.00	92.90	182.50	32	8079.24	3636.06	3635 90 S	54.29 E	3636.31	179.14	1.25	0.00
170	MWD	11566.00	92.90	182.30	32	8077.62	3667.99	3667.83 S	52.96 E	3668.22	179.17	0.62	0.00
171	MWD	11598.00	92 60	181.60	32	8076.09	3699.93	3699.78 S	51.87 E	3700.14	179.20	2.38	-0.94
172	MWD	11630.00	92.00	180.90	32	8074.80	3731.89	3731 74 S	51.17 E	3732 10	179.21	2.88	-1.87
173	MWD	11662.00	91.10	180.20	32	8073.94	3763.88	3763.73 S	50.86 E	3764.07	179.23	3.56	-2.81
174	MWD	11693.00	90 80	180 20	31	8073.42	3794.87	3794.73 S	50.76 E	3795.07	179.23	0.97	-0.97
175	MWD	11725.00	89.90	180 20	32	8073.23	3826.87	3826 73 S	50.64 E	3827.06	179.24	2.81	-2.81
176	MWD	11757.00	89.40	180.00	32	8073.42	3858.87	3858.72 S	50 59 E	3859.06	179.25	1.68	-1.56
177	MWD	11789.00	89.90	180.30	32	8073.62	3890.87	3890.72 S	50.50 E	3891.05	179.26	1.82	1.56
178	MWD	11821.00	91.80	180.70	32	8073.14	3922.86	3922.72 S	50 22 E	3923.04	179.27	6.07	5.94
179	MWD	11853.00	91.30	180.70	32	8072.28	3954.85	3954.70 S	49.83 E	3955.02	179.28	1.56	-1.56
180	MWD	11884.00	91.50	180.30	31	8071.52	3985.84	3985.69 S	49.56 E	3986.00	179.29	1.44	0.65
181	MWD	11916.00	92.60	180.50	32	8070.38	4017.81	4017.67 S	49.34 E	4017.97	179.30	3.49	3.44
182	MWD	11948.00	91.50	179.80	32	8069.23	4049.79	4049.65 S	49.26 E	4049.95	179.30	4.07	-3.44
183	MWD	11980.00	91.50	179.30	32	8068.39	4081.78	4081.64 S	49.51 E	4081.94	179.31	1.56	0.00
184	MWD	12011.00	91.50	178.90	31	8067.58	4112.77	4112.62 S	49.99 E	4112.93	179 30	1.29	0.00
185	MWD	12042.00	91.10	178.80	31	8066.88	4143.75	4143.61 S	50.62 E	4143.92	179.30	1.33	-1.29
186	MWD	12074.00	88.90	177.50	32	8066.88	4175.74	4175.59 S	51.65 E	4175.91	179.29	7.99	-6.87
187	MWD	12106.00	89.20	177.40	32	8067.41	4207.71	4207.55 S	53.07 E	4207.89	179.28	0.99	0.94
188	MWD	12138.00	89.70	177.20	32	8067.72	4239.67	4239.52 S	54.58 E	4239.87	179.26	1 68	1.56
189	MWD	12170.00	90.10	177.00	32	8067.77	4271.64	4271.48 S	56.20 E	4271.84	179.25	1.40	1.25
190	MWD	12202.00	91.30	177.20	32	8067.38	4303.60	4303.43 S	57.82 E	4303.82	179.23	3.80	3.75
191	MWD	12233.00	92.20	177.40	31	8066.43	4334 55	4334.38 S	59.28 E	4334.79	179.22	2.97	2 90
192	MWD	12265.00	92.70	177.40	32	8065.07	4366.50	4366.32 S	60.73 E	4366.74	179.20	1.56	1.56
193	MWD	12297.00	92.90	177.20	32	8063.50	4398.43	4398.25 S	62.23 E	4398.69	179.19	0.88	0.63
194	MWD	12329.00	93.10	177.50	32	8061.83	4430.35	4430.17 S	63.71 E	4430.63	179.18	1.13	0.62
195	MWD	12361.00	92.20	177.20	32	8060.35	4462.29	4462.10 S	65.19 E	4462.58	179.16	2.96	-2.81
196	MWD	12392.00	92.20	176.50	31	8059.16	4493.23	4493.03 S	66.89 E	4493.53	179.15	2.26	0.00
197	MWD	12424.00	90.40	175.90	32	8058.43	4525.15	4524.95 S	69.01 E	4525 48	179.13	5.93	-5.62
198	MWD	12469.00	89.90	175.80	45	8058.31	4570.05	4569.83 S	72.27 E	4570.40	179.09	1.13	-1.11
199	PTB	12525.00	89.90	175.80	56	8058.41	4625.91	4625.68 S	76.37 E	4626.31	179.05	0.00	0.00

DRILTECH MWD SURVEY REPORT

Company:	RKI/TRINITY	Job Number:	2010165	Calculation Method	Minimum Curvature
Well:	RDU FED 22-1H	Magnetic Decl.:	7.78	Proposed Azimuth	179 81
Location:	EDDY CO. NM	Grid Corr.:	-0.23	WELL API #	30 015 38240
Rig	SILVER OAKS #9	Total Grid Corr.:	7.55	Tie Into	GYRO

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	Coordinates E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')