

**McVAY DRILLING COMPANY**

Post Office Box 924
Hobbs, New Mexico 88241
(505) 397-3311
FAX: 39-DRILL

SCANNED

Well Name and Number: Red Hills North Unit # 811**Location: Sec. 8, T25S, R34E, Lea County, NM**

SUR: M-8-25s-34e, 662/S & 509/W
BHL: B-18-25s-34e, 169/N & 2462/E
API # 30-025-32980

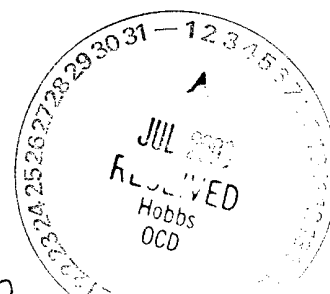
Operator: EOG**Drilling Contractor: McVay Drilling Company**

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
3.6	11852	89 ¾	12805	92 ½	14381
3.7	11926	92	12901	92 ¾	14503
5.9	11945	92 ½	12931	91	14601
7.1	11974	89 ½	12964	90 ½	14698
9.7	12013	88 ¾	12994	90 ½	14728
14.8	12075	88 ¾	13058	88 ¾	14792
20.5	12104	87 ¾	13087	87 ½	14950
27.2	12128	88 ¾	13150	88 ¾	15013
34.6	12171	88 ¾	13212	89 ½	15108
49.4	12333	88 ½	13245	90 ½	15140
67.1	12395	90 ½	13369	90 ½	15203
72	12331	90 ½	13403	92	15361
73 ¾	12559	90 ¾	13432	92 ¼	15392
75	12391	89 ¾	13560		
81 ¾	12457	88 ¾	13655		
92	12522	90	13687		
93 ¼	12553	90 ¾	13781		
93 ¼	12583	91 ½	13876		
91 ¼	12649	90 ¾	13907		
92	12677	89 ¾	14065		
92 ¾	12711	89	14159		
90	12743	91 ¾	14286		
89 ¾	12775	93	14413		

Drilling Contractor: McVay Drilling CompanyBy: Jan WynnSubscribed and sworn to before me this 29th day of April, 2003Sara Hawkins
Notary PublicMy Commission Expires 8-16-05

Lea County, New Mexico



AUG 01 2003

A Gyrodata Directional Survey

for

EOG RESOURCES

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

Run Date: 3/18/2003 5:15:00 AM

Surveyor: Mike Martinez

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.139580 deg. N Longitude: 103.498810 deg. W

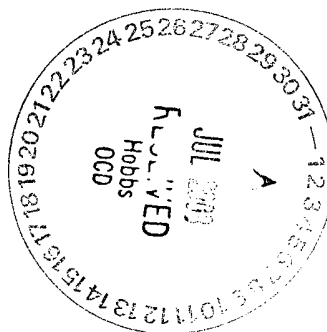
Azimuth Correction:

Gyro: -0.44000 deg West to Grid North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location



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EOG Resources

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0'-12000' RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 5-1/2" CASING ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO WELL HEAD							
100.00	0.51	34.61	N 34 37 E	0.51	100.00	0.4 34.6	0.36 N 0.25 E
200.00	0.32	45.26	N 45 15 E	0.20	200.00	1.2 37.2	0.92 N 0.70 E
300.00	0.27	114.62	S 65 23 E	0.34	300.00	1.5 47.4	1.02 N 1.11 E
400.00	0.74	126.02	S 53 59 E	0.48	399.99	1.9 73.5	0.55 N 1.85 E
500.00	0.69	145.96	S 34 2 E	0.25	499.98	2.7 96.9	0.33 S 2.71 E
600.00	0.80	128.55	S 51 27 E	0.25	599.97	3.8 109.4	1.26 S 3.59 E
700.00	0.52	130.07	S 49 56 E	0.29	699.97	4.9 113.9	1.99 S 4.48 E
800.00	0.73	144.75	S 35 15 E	0.26	799.96	5.9 118.3	2.80 S 5.19 E
900.00	0.72	118.21	S 61 47 E	0.33	899.95	7.1 120.6	3.61 S 6.11 E
1000.00	0.68	136.94	S 43 4 E	0.23	999.95	8.3 121.6	4.34 S 7.07 E
1100.00	0.75	124.88	S 55 7 E	0.17	1099.94	9.5 122.7	5.15 S 8.02 E
1200.00	0.71	116.99	S 63 1 E	0.11	1199.93	10.8 122.5	5.81 S 9.11 E
1300.00	0.76	121.51	S 58 29 E	0.07	1299.92	12.1 122.2	6.44 S 10.23 E
1400.00	0.74	142.57	S 37 26 E	0.27	1399.91	13.4 123.1	7.30 S 11.19 E
1500.00	0.63	118.45	S 61 33 E	0.31	1499.91	14.5 123.8	8.08 S 12.06 E
1600.00	0.74	137.07	S 42 56 E	0.25	1599.90	15.7 124.2	8.81 S 12.98 E
1700.00	0.65	113.86	S 66 8 E	0.29	1699.89	16.9 124.3	9.52 S 13.95 E

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A Gyrodata Directional Survey

EOG Resources

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1800.00	0.78	133.19	S 46 49 E	0.27	1799.89	18.1 124.3	10.21 S 14.96 E
1900.00	0.88	116.80	S 63 12 E	0.26	1899.88	19.5 124.3	11.02 S 16.14 E
2000.00	0.86	114.31	S 65 41 E	0.04	1999.86	21.0 123.7	11.68 S 17.51 E
2100.00	0.84	113.59	S 66 25 E	0.02	2099.85	22.5 123.1	12.28 S 18.87 E
2200.00	0.42	105.81	S 74 11 E	0.43	2199.85	23.6 122.5	12.67 S 19.90 E
2300.00	0.71	100.30	S 79 42 E	0.30	2299.84	24.5 121.7	12.88 S 20.86 E
2400.00	0.66	122.39	S 57 36 E	0.27	2399.83	25.7 121.2	13.30 S 21.96 E
2500.00	0.49	106.44	S 73 34 E	0.24	2499.83	26.7 121.0	13.73 S 22.85 E
2600.00	1.01	77.62	N 77 37 E	0.63	2599.82	27.7 119.5	13.67 S 24.12 E
2700.00	1.31	88.37	N 88 22 E	0.38	2699.80	29.4 117.2	13.45 S 26.12 E
2800.00	0.93	92.20	S 87 48 E	0.39	2799.78	31.1 115.6	13.44 S 28.08 E
2900.00	1.07	76.63	N 76 38 E	0.30	2899.77	32.6 114.0	13.26 S 29.80 E
3000.00	1.42	62.30	N 62 18 E	0.47	2999.74	34.2 111.4	12.47 S 31.80 E
3100.00	1.67	65.32	N 65 20 E	0.26	3099.71	36.0 108.3	11.28 S 34.22 E
3200.00	1.91	73.15	N 73 9 E	0.35	3199.66	38.5 105.3	10.19 S 37.14 E
3300.00	2.28	62.51	N 62 30 E	0.54	3299.59	41.4 102.2	8.79 S 40.50 E
3400.00	2.27	79.55	N 79 33 E	0.67	3399.51	44.9 99.6	7.51 S 44.22 E
3500.00	3.07	72.38	N 72 23 E	0.87	3499.40	49.1 97.4	6.34 S 48.72 E
3600.00	3.05	76.42	N 76 25 E	0.22	3599.26	54.1 95.2	4.91 S 53.85 E
3700.00	3.13	78.18	N 78 11 E	0.12	3699.12	59.2 93.6	3.72 S 59.11 E
3800.00	3.47	92.47	S 87 32 E	0.89	3798.95	64.9 92.9	3.29 S 64.80 E
3900.00	3.52	85.42	N 85 25 E	0.43	3898.77	71.0 92.6	3.18 S 70.89 E

MD0303G_145

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EOG Resources

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

MEASURED INCL DEPTH feet	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet	
4000.00	3.41	83.19	N 83 11 E	0.17	3998.58	76.9 91.9	2.58 S 76.90 E
4100.00	3.68	81.47	N 81 28 E	0.29	4098.39	83.0 91.2	1.75 S 83.03 E
4200.00	3.72	75.47	N 75 28 E	0.39	4198.18	89.3 90.3	0.46 S 89.35 E
4300.00	3.49	79.54	N 79 33 E	0.34	4297.99	95.5 89.5	0.91 N 95.48 E
4400.00	3.69	79.64	N 79 39 E	0.20	4397.79	101.7 88.9	2.04 N 101.64 E
4500.00	3.93	77.97	N 77 58 E	0.27	4497.57	108.2 88.2	3.33 N 108.16 E
4600.00	4.18	77.75	N 77 45 E	0.25	4597.32	115.2 87.6	4.82 N 115.08 E
4700.00	3.92	78.15	N 78 9 E	0.27	4697.07	122.1 87.0	6.29 N 121.98 E
4800.00	4.09	83.79	N 83 47 E	0.43	4796.82	129.1 86.7	7.38 N 128.88 E
4900.00	4.38	84.77	N 84 46 E	0.30	4896.55	136.5 86.6	8.12 N 136.23 E
5000.00	4.42	85.53	N 85 32 E	0.07	4996.26	144.1 86.5	8.76 N 143.87 E
5100.00	3.72	94.78	S 85 13 E	0.96	5096.01	151.2 86.7	8.79 N 150.94 E
5200.00	2.99	88.34	N 88 21 E	0.81	5195.83	157.0 86.9	8.60 N 156.78 E
5300.00	2.55	91.70	S 88 18 E	0.47	5295.72	161.8 87.0	8.61 N 161.61 E
5400.00	2.31	80.82	N 80 49 E	0.52	5395.63	166.1 86.9	8.86 N 165.83 E
5500.00	2.07	81.59	N 81 35 E	0.24	5495.55	169.9 86.8	9.45 N 169.60 E
5600.00	2.01	86.61	N 86 37 E	0.19	5595.49	173.4 86.8	9.82 N 173.14 E
5700.00	1.92	87.78	N 87 47 E	0.10	5695.43	176.8 86.8	9.99 N 176.56 E
5800.00	1.83	88.95	N 88 57 E	0.09	5795.38	180.1 86.8	10.08 N 179.83 E
5900.00	1.72	79.89	N 79 53 E	0.30	5895.33	183.2 86.8	10.37 N 182.90 E
6000.00	1.71	83.43	N 83 26 E	0.11	5995.29	186.2 86.7	10.81 N 185.87 E

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EOG Resources

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
6100.00	1.91	78.18	N 78 11 E	0.26	6095.24	189.3 86.6	11.32 N 188.98 E
6200.00	1.46	95.31	S 84 41 E	0.67	6195.19	192.2 86.6	11.54 N 191.88 E
6300.00	1.71	88.39	N 88 24 E	0.31	6295.15	195.0 86.6	11.47 N 194.63 E
6400.00	1.49	85.23	N 85 14 E	0.24	6395.12	197.8 86.6	11.62 N 197.42 E
6500.00	1.32	89.48	N 89 29 E	0.20	6495.09	200.2 86.6	11.74 N 199.86 E
6600.00	1.30	82.95	N 82 57 E	0.15	6595.06	202.5 86.6	11.88 N 202.13 E
6700.00	1.30	82.65	N 82 39 E	0.01	6695.03	204.7 86.6	12.17 N 204.38 E
6800.00	1.30	83.23	N 83 14 E	0.01	6795.01	207.0 86.6	12.45 N 206.64 E
6900.00	1.20	83.42	N 83 25 E	0.10	6894.98	209.2 86.5	12.70 N 208.81 E
7000.00	1.33	82.76	N 82 46 E	0.13	6994.96	211.4 86.5	12.97 N 211.00 E
7100.00	1.18	77.30	N 77 18 E	0.19	7094.94	213.6 86.4	13.34 N 213.15 E
7200.00	1.02	81.66	N 81 39 E	0.18	7194.92	215.5 86.4	13.70 N 215.04 E
7300.00	1.00	83.08	N 83 5 E	0.03	7294.90	217.2 86.3	13.93 N 216.78 E
7400.00	0.91	93.00	S 87 0 E	0.19	7394.89	218.9 86.3	13.99 N 218.44 E
7500.00	0.90	89.38	N 89 23 E	0.06	7494.88	220.5 86.4	13.96 N 220.01 E
7600.00	0.97	92.23	S 87 46 E	0.08	7594.86	222.1 86.4	13.94 N 221.65 E
7700.00	1.07	95.46	S 84 32 E	0.12	7694.85	223.9 86.5	13.82 N 223.43 E
7800.00	1.11	102.50	S 77 30 E	0.14	7794.83	225.7 86.6	13.52 N 225.31 E
7900.00	1.24	109.55	S 70 27 E	0.20	7894.81	227.6 86.7	12.94 N 227.28 E
8000.00	1.13	112.30	S 67 42 E	0.12	7994.79	229.5 87.0	12.21 N 229.21 E
8100.00	1.06	114.38	S 65 37 E	0.08	8094.77	231.3 87.2	11.45 N 230.97 E
8200.00	1.09	113.19	S 66 49 E	0.04	8194.75	232.9 87.4	10.69 N 232.69 E

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EOG Resources

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

MEASURED I N C L	AZIMUTH	BORE HOLE	DOGLEG	VERTICAL	CLOSURE	HORIZONTAL		
DEPTH		BEARING	SEVERITY	DEPTH	DIST. AZIMUTH	COORDINATES		
feet	deg.	deg.	deg. min.	deg./ 100 ft.	feet	feet	deg.	feet
8300.00	0.86	113.67	S 66 20 E	0.24	8294.74	234.5	87.6	10.01 N 234.25 E
8400.00	0.90	119.27	S 60 44 E	0.09	8394.72	235.8	87.7	9.33 N 235.62 E
8500.00	1.08	118.25	S 61 45 E	0.18	8494.71	237.3	87.9	8.50 N 237.13 E
8600.00	0.89	98.18	S 81 49 E	0.39	8594.69	238.9	88.1	7.95 N 238.73 E
8700.00	0.61	125.12	S 54 53 E	0.44	8694.69	240.0	88.2	7.53 N 239.93 E
8800.00	0.87	134.50	S 45 30 E	0.28	8794.68	241.0	88.4	6.69 N 240.91 E
8900.00	1.05	127.41	S 52 35 E	0.22	8894.66	242.2	88.7	5.60 N 242.18 E
9000.00	1.12	122.11	S 57 54 E	0.12	8994.65	243.8	88.9	4.53 N 243.73 E
9100.00	1.08	119.88	S 60 7 E	0.05	9094.63	245.4	89.2	3.54 N 245.38 E
9200.00	0.56	107.88	S 72 7 E	0.55	9194.62	246.7	89.3	2.91 N 246.67 E
9300.00	0.06	130.74	S 49 16 E	0.50	9294.61	247.2	89.4	2.73 N 247.17 E
9400.00	0.36	317.14	N 42 52 W	0.43	9394.61	247.0	89.3	2.92 N 247.00 E
9500.00	0.63	334.28	N 25 43 W	0.30	9494.61	246.6	89.2	3.65 N 246.55 E
9600.00	1.24	340.48	N 19 31 W	0.62	9594.60	246.0	88.8	5.16 N 245.95 E
9700.00	2.37	343.21	N 16 47 W	1.13	9694.55	245.1	88.1	8.15 N 244.99 E
9800.00	2.51	335.53	N 24 28 W	0.36	9794.46	243.8	87.2	12.12 N 243.49 E
9900.00	2.22	327.75	N 32 15 W	0.43	9894.37	242.1	86.3	15.75 N 241.55 E
10000.00	1.46	327.08	N 32 55 W	0.76	9994.32	240.5	85.6	18.46 N 239.82 E
10100.00	1.49	327.29	N 32 42 W	0.03	10094.29	239.3	85.1	20.62 N 238.43 E
10200.00	1.69	320.47	N 39 32 W	0.28	10194.25	237.9	84.5	22.85 N 236.79 E
10300.00	1.84	320.48	N 39 31 W	0.15	10294.20	236.2	83.9	25.23 N 234.83 E
10400.00	2.20	329.20	N 30 48 W	0.48	10394.14	234.5	83.1	28.12 N 232.82 E

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EOG Resources

Well: RHNU-#811, 5-1/2" Casing

Location: Baker Atlas Crane Truck, Lea County, New Mexico

Job Number: MD0303G_145

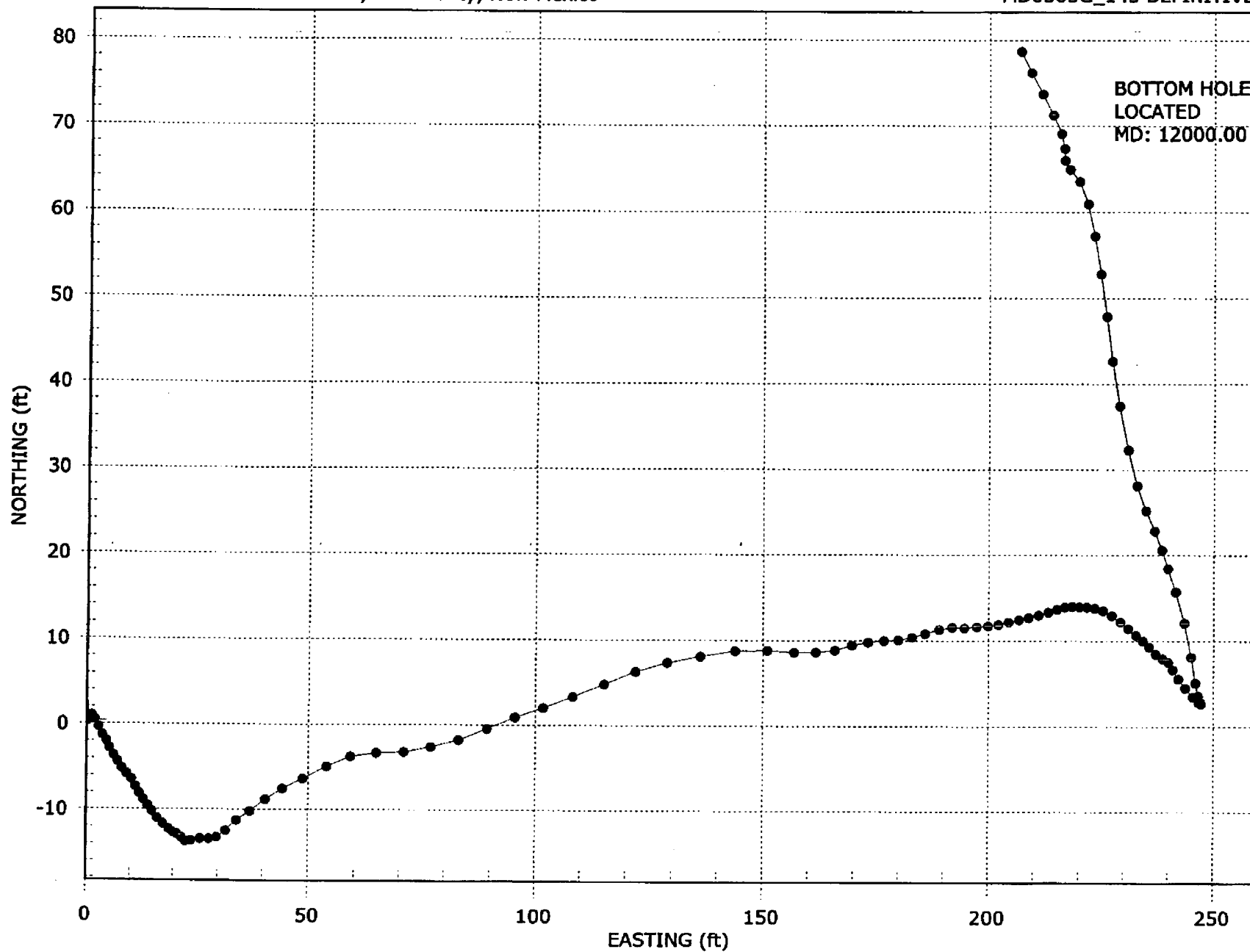
MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet	
10500.00	3.13	337.99	N 22 0 W	1.01	10494.03	233.1	82.0	32.30 N	230.81 E
10600.00	3.17	339.72	N 20 17 W	0.10	10593.88	231.9	80.7	37.42 N	228.83 E
10700.00	3.10	346.42	N 13 35 W	0.37	10693.73	231.2	79.4	42.65 N	227.24 E
10800.00	3.07	346.13	N 13 52 W	0.03	10793.58	231.0	78.0	47.88 N	225.96 E
10900.00	2.83	343.22	N 16 47 W	0.29	10893.45	230.7	76.8	52.84 N	224.61 E
11000.00	2.46	341.70	N 18 18 W	0.38	10993.34	230.4	75.6	57.24 N	223.22 E
11100.00	2.12	334.29	N 25 43 W	0.45	11093.26	230.0	74.6	60.94 N	221.74 E
11200.00	1.67	309.67	N 50 20 W	0.92	11193.21	228.8	73.9	63.54 N	219.82 E
11300.00	1.28	293.79	N 66 12 W	0.56	11293.18	227.1	73.4	64.93 N	217.67 E
11400.00	0.71	352.01	N 8 0 W	1.09	11393.16	226.4	73.1	65.99 N	216.56 E
11500.00	0.88	358.60	N 1 24 W	0.19	11493.15	226.7	72.7	67.38 N	216.45 E
11600.00	1.35	322.58	N 37 25 W	0.82	11593.14	226.5	72.2	69.08 N	215.72 E
11700.00	1.88	319.02	N 40 59 W	0.55	11693.10	225.5	71.6	71.26 N	213.93 E
11800.00	1.97	315.41	N 44 35 W	0.15	11793.04	224.1	70.8	73.72 N	211.64 E
11900.00	2.09	313.22	N 46 47 W	0.14	11892.98	222.6	70.0	76.19 N	209.11 E
12000.00	1.77	322.89	N 37 7 W	0.46	11992.92	221.3	69.2	78.67 N	206.85 E

Final Station Closure: Distance: 221.30 ft Az: 69.18 deg.

AUG 01 2003

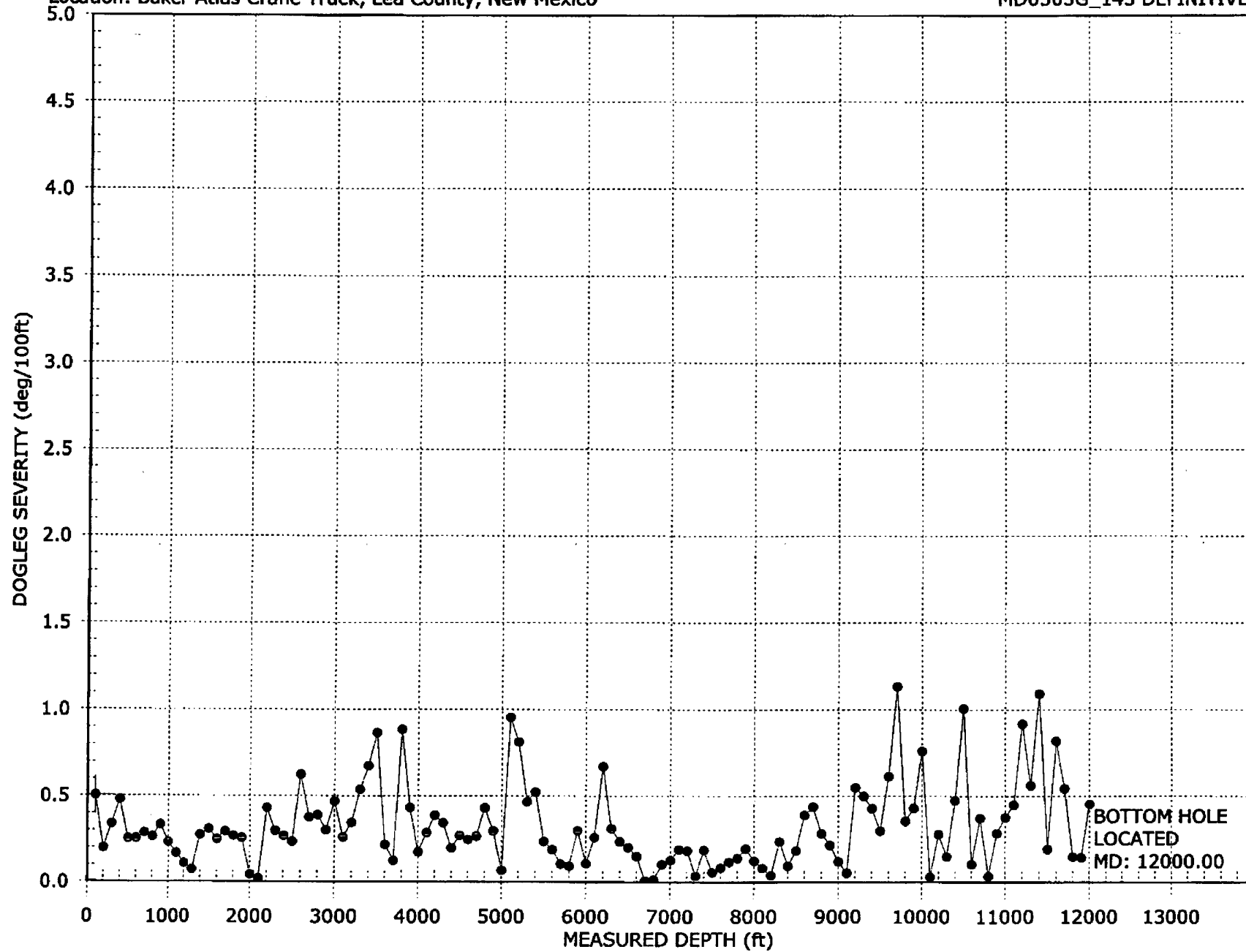
EOG Resources
Well: RHNU-#811 5-1/2" Casing
Location: Baker Atlas Crane Truck, Lea County, New Mexico

Inrun
Gyrodata
MD0303G_145 DEFINITIVE



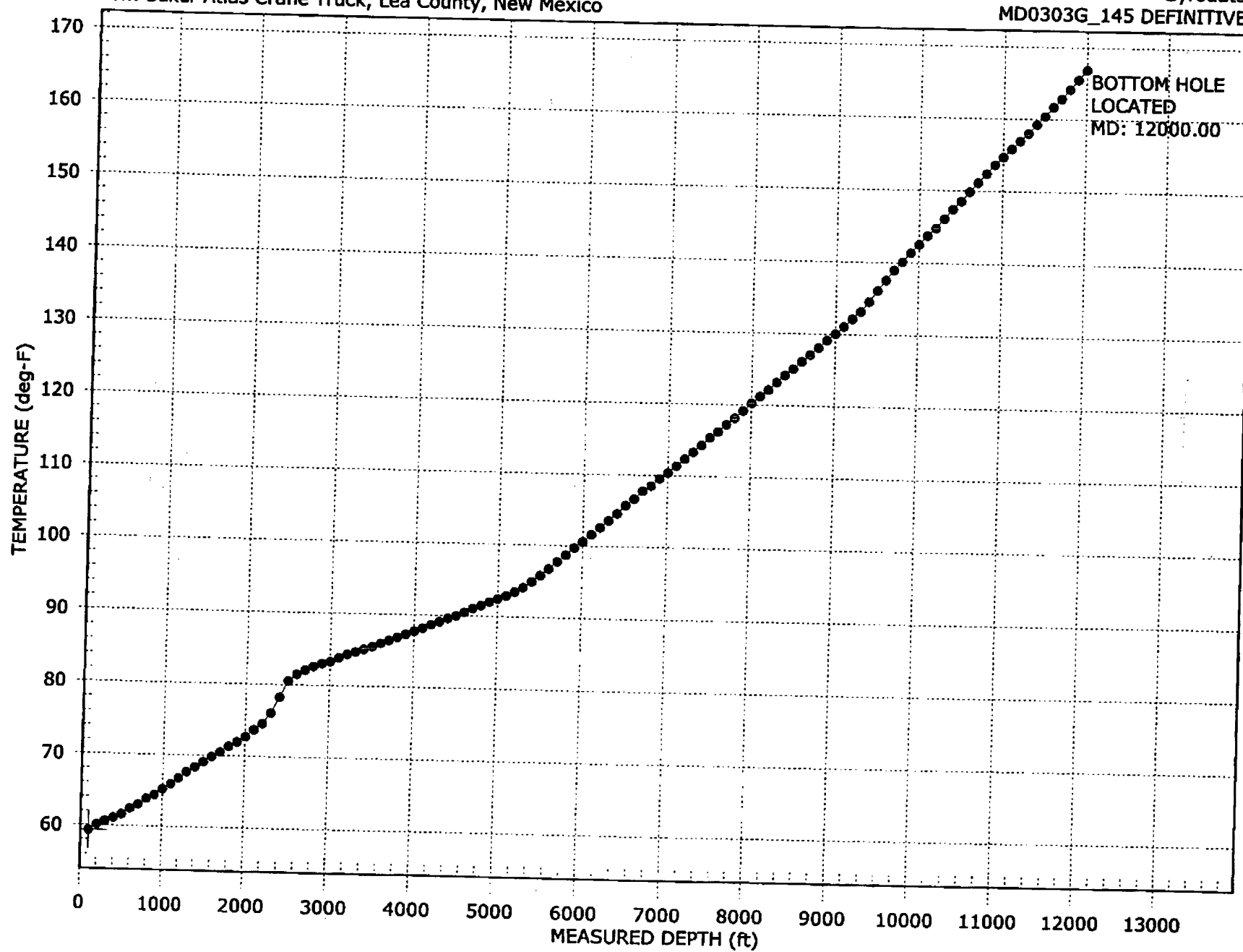
EOG Resources
Well: RHNU-#811 5-1/2" Casing
Location: Baker Atlas Crane Truck, Lea County, New Mexico

Inrun
Gyrodata
MD0303G_145 DEFINITIVE



EOG Resources
Well: RHNU-#811 5-1/2" Casing
Location: Baker Atlas Crane Truck, Lea County, New Mexico

Inrun
Gyrodata
MD0303G_145 DEFINITIVE



RHNU 811 Surveys

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	RECTA COORD	ANGULAR INATES	Dogleg Deg/100	Vert ft Sect	GRID C Easting	O O R D S Northing
0	0	0	0	0.00N	0.00E	0	0	758443	415470
100	0.51	34.61	100	0.36N	0.25E	0.51	-0.34	758443.25	415470.36
200	0.32	45.26	200	0.92N	0.70E	0.2	-0.92	758443.7	415470.92
300	0.27	114.62	300	1.02N	1.11E	0.34	-1.34	758444.11	415471.02
400	0.74	126.02	399.99	0.55N	1.85E	0.48	-1.93	758444.85	415470.55
500	0.69	145.96	499.98	0.33S	2.71E	0.25	-2.53	758445.71	415469.67
600	0.8	128.55	599.97	1.26S	3.59E	0.25	-3.14	758446.59	415468.74
700	0.52	130.07	699.97	1.99S	4.48E	0.29	-3.81	758447.48	415468.01
800	0.73	144.75	799.96	2.80S	5.19E	0.26	-4.29	758448.19	415467.2
900	0.72	118.21	899.95	3.61S	6.11E	0.33	-4.96	758449.11	415466.39
1000	0.68	136.94	999.95	4.34S	7.07E	0.23	-5.7	758450.07	415465.66
1100	0.75	124.88	1099.94	5.15S	8.01E	0.17	-6.4	758451.01	415464.85
1200	0.71	116.99	1199.93	5.81S	9.11E	0.11	-7.28	758452.11	415464.19
1300	0.76	121.51	1299.92	6.44S	10.23E	0.07	-8.2	758453.23	415463.56
1400	0.74	142.57	1399.91	7.30S	11.19E	0.27	-8.9	758454.19	415462.7
1500	0.63	118.45	1499.91	8.08S	12.06E	0.31	-9.55	758455.06	415461.92
1600	0.74	137.07	1599.9	8.81S	12.98E	0.25	-10.24	758455.98	415461.19
1700	0.66	113.86	1699.89	9.52S	13.95E	0.29	-10.99	758456.95	415460.48
1800	0.78	133.19	1799.89	10.21S	14.96E	0.27	-11.79	758457.96	415459.79
1900	0.88	116.8	1899.88	11.02S	16.14E	0.26	-12.72	758459.14	415458.98
2000	0.86	114.31	1999.86	11.67S	17.51E	0.04	-13.87	758460.51	415458.33
2100	0.84	113.59	2099.85	12.28S	18.87E	0.02	-15.02	758461.87	415457.72
2200	0.42	105.81	2199.85	12.67S	19.90E	0.43	-15.91	758462.9	415457.33
2300	0.71	100.3	2299.84	12.88S	20.86E	0.3	-16.79	758463.86	415457.12
2400	0.66	122.39	2399.83	13.30S	21.96E	0.27	-17.74	758464.96	415456.7
2500	0.49	106.44	2499.83	13.73S	22.85E	0.24	-18.49	758465.85	415456.27
2600	1.01	77.62	2599.82	13.67S	24.12E	0.63	-19.73	758467.12	415456.33
2700	1.31	88.37	2699.8	13.45S	26.12E	0.38	-21.72	758469.12	415456.55
2800	0.93	92.2	2799.78	13.44S	28.08E	0.39	-23.61	758471.08	415456.56
2900	1.07	76.63	2899.77	13.26S	29.80E	0.3	-25.32	758472.8	415456.74
3000	1.42	62.3	2999.74	12.47S	31.80E	0.47	-27.46	758474.8	415457.53
3100	1.67	65.33	3099.71	11.28S	34.22E	0.26	-30.11	758477.22	415458.72
3200	1.91	73.15	3199.66	10.19S	37.14E	0.35	-33.21	758480.14	415459.81
3300	2.28	62.51	3299.59	8.79S	40.50E	0.54	-36.82	758483.5	415461.21
3400	2.27	79.55	3399.51	7.51S	44.22E	0.67	-40.74	758487.22	415462.49
3500	3.07	72.38	3499.4	6.34S	48.72E	0.87	-45.39	758491.72	415463.66
3600	3.05	76.42	3599.26	4.91S	53.85E	0.22	-50.72	758496.85	415465.09
3700	3.13	78.18	3699.12	3.72S	59.11E	0.12	-56.11	758502.11	415466.28
3800	3.47	92.47	3798.95	3.29S	64.80E	0.89	-61.71	758507.8	415466.71
3900	3.52	85.42	3898.77	3.18S	70.89E	0.43	-67.62	758513.89	415466.82

4000	3.41	83.19	3998.58	2.58S	76.90E	0.17	-73.58	758519.9	415467.42
4100	3.68	81.47	4098.39	1.75S	83.03E	0.29	-79.72	758526.03	415468.25
4200	3.72	75.47	4198.18	0.46S	89.34E	0.39	-86.15	758532.34	415469.54
4300	3.49	79.54	4297.99	0.91N	95.48E	0.34	-92.43	758538.48	415470.91
4400	3.69	79.64	4397.79	2.04N	101.64E	0.2	-98.67	758544.64	415472.04
4500	3.94	77.97	4497.57	3.33N	108.16E	0.27	-105.3	758551.16	415473.33
4600	4.18	77.75	4597.32	4.82N	115.08E	0.25	-112.37	758558.08	415474.82
4700	3.92	78.15	4697.07	6.29N	121.98E	0.27	-119.42	758564.98	415476.29
4800	4.09	83.79	4796.82	7.38N	128.88E	0.43	-126.36	758571.88	415477.38
4900	4.38	84.77	4896.55	8.12N	136.23E	0.3	-133.65	758579.23	415478.12
5000	4.42	85.53	4996.26	8.76N	143.87E	0.07	-141.19	758586.87	415478.76
5100	3.72	94.78	5096.01	8.79N	150.94E	0.96	-148.03	758593.94	415478.79
5200	2.99	88.34	5195.83	8.60N	156.78E	0.81	-153.61	758599.78	415478.6
5300	2.55	91.7	5295.72	8.61N	161.61E	0.47	-158.29	758604.61	415478.61
5400	2.31	80.82	5395.63	8.86N	165.83E	0.52	-162.42	758608.83	415478.86
5500	2.07	81.59	5495.55	9.45N	169.60E	0.24	-166.22	758612.6	415479.45
5600	2.01	86.61	5595.49	9.82N	173.14E	0.19	-169.73	758616.14	415479.82
5700	1.92	87.78	5695.43	9.99N	176.56E	0.1	-173.08	758619.56	415479.99
5800	1.83	88.95	5795.38	10.08N	179.83E	0.09	-176.26	758622.83	415480.08
5900	1.72	79.89	5895.33	10.37N	182.90E	0.3	-179.3	758625.9	415480.37
6000	1.71	83.43	5995.29	10.81N	185.87E	0.11	-182.28	758628.87	415480.81
6100	1.91	78.18	6095.24	11.32N	188.98E	0.26	-185.42	758631.98	415481.32
6200	1.46	95.31	6195.19	11.54N	191.88E	0.67	-188.27	758634.88	415481.54
6300	1.71	88.39	6295.15	11.47N	194.63E	0.31	-190.91	758637.63	415481.47
6400	1.49	85.23	6395.12	11.62N	197.42E	0.24	-193.64	758640.42	415481.62
6500	1.32	89.48	6495.09	11.74N	199.86E	0.2	-196.03	758642.86	415481.74
6600	1.3	82.95	6595.06	11.88N	202.13E	0.15	-198.26	758645.13	415481.88
6700	1.3	82.65	6695.03	12.17N	204.38E	0.01	-200.51	758647.38	415482.17
6800	1.3	83.23	6795.01	12.45N	206.64E	0.01	-202.76	758649.64	415482.45
6900	1.2	83.42	6894.98	12.70N	208.81E	0.1	-204.92	758651.81	415482.7
7000	1.33	82.76	6994.96	12.97N	211.00E	0.13	-207.11	758654	415482.97
7100	1.18	77.3	7094.94	13.34N	213.15E	0.19	-209.29	758656.15	415483.34
7200	1.02	81.66	7194.92	13.70N	215.04E	0.18	-211.2	758658.04	415483.7
7300	1	83.08	7294.9	13.93N	216.78E	0.03	-212.94	758659.78	415483.93
7400	0.91	93	7394.89	13.99N	218.44E	0.19	-214.55	758661.44	415483.99
7500	0.9	89.38	7494.88	13.96N	220.01E	0.06	-216.07	758663.01	415483.96
7600	0.97	92.23	7594.86	13.94N	221.65E	0.08	-217.64	758664.65	415483.94
7700	1.07	95.46	7694.85	13.82N	223.43E	0.12	-219.33	758666.43	415483.82
7800	1.11	102.5	7794.83	13.52N	225.31E	0.14	-221.07	758668.31	415483.52
7900	1.24	109.55	7894.81	12.94N	227.28E	0.2	-222.82	758670.28	415482.94
8000	1.13	112.3	7994.79	12.21N	229.21E	0.12	-224.49	758672.21	415482.21
8100	1.06	114.39	8094.77	11.45N	230.97E	0.08	-225.99	758673.97	415481.45
8200	1.09	113.19	8194.75	10.69N	232.69E	0.04	-227.46	758675.69	415480.69

8300	0.86	113.67	8294.74	10.01N	234.25E	0.24	-228.79	758677.25	415480.01
8400	0.9	119.27	8394.72	9.33N	235.62E	0.09	-229.93	758678.62	415479.33
8500	1.08	118.25	8494.71	8.50N	237.13E	0.18	-231.18	758680.13	415478.5
8600	0.89	98.18	8594.69	7.95N	238.73E	0.39	-232.57	758681.73	415477.95
8700	0.61	125.12	8694.69	7.53N	239.93E	0.44	-233.63	758682.93	415477.53
8800	0.87	134.5	8794.68	6.69N	240.91E	0.28	-234.36	758683.91	415476.69
8900	1.05	127.41	8894.66	5.60N	242.18E	0.22	-235.3	758685.18	415475.6
9000	1.12	122.11	8994.65	4.53N	243.73E	0.12	-236.52	758686.73	415474.53
9100	1.08	119.88	9094.63	3.54N	245.38E	0.05	-237.85	758688.38	415473.54
9200	0.56	107.88	9194.62	2.91N	246.67E	0.55	-238.93	758689.67	415472.91
9300	0.06	130.74	9294.61	2.73N	247.17E	0.5	-239.37	758690.17	415472.73
9400	0.36	317.14	9394.61	2.92N	247.00E	0.43	-239.25	758690	415472.92
9500	0.63	334.28	9494.61	3.65N	246.55E	0.3	-239.01	758689.55	415473.65
9600	1.24	340.48	9594.6	5.16N	245.95E	0.62	-238.82	758688.95	415475.16
9700	2.37	343.21	9694.55	8.15N	244.99E	1.13	-238.68	758687.99	415478.15
9800	2.51	335.53	9794.46	12.12N	243.49E	0.36	-238.26	758686.49	415482.12
9900	2.22	327.75	9894.37	15.75N	241.55E	0.43	-237.33	758684.55	415485.75
10000	1.46	327.08	9994.32	18.46N	239.82E	0.76	-236.37	758682.82	415488.46
10100	1.49	327.29	10094.29	20.62N	238.43E	0.03	-235.58	758681.43	415490.62
10200	1.69	320.47	10194.25	22.85N	236.79E	0.28	-234.58	758679.79	415492.85
10300	1.84	320.48	10294.2	25.23N	234.83E	0.15	-233.3	758677.83	415495.23
10400	2.2	329.2	10394.14	28.12N	232.82E	0.48	-232.12	758675.82	415498.12
10500	3.13	337.99	10494.03	32.30N	230.81E	1.01	-231.27	758673.81	415502.3
10600	3.17	339.72	10593.88	37.42N	228.83E	0.1	-230.69	758671.83	415507.42
10700	3.1	346.42	10693.73	42.65N	227.24E	0.37	-230.51	758670.24	415512.65
10800	3.07	346.13	10793.58	47.88N	225.96E	0.03	-230.64	758668.96	415517.88
10900	2.83	343.22	10893.45	52.84N	224.61E	0.29	-230.62	758667.61	415522.84
11000	2.46	341.7	10993.34	57.24N	223.22E	0.38	-230.43	758666.22	415527.24
11100	2.12	334.29	11093.26	60.94N	221.74E	0.45	-229.96	758664.74	415530.94
11200	1.67	309.67	11193.21	63.54N	219.82E	0.92	-228.78	758662.82	415533.54
11300	1.28	293.79	11293.18	64.93N	217.67E	0.56	-227.06	758660.67	415534.93
11400	0.71	352.01	11393.16	65.99N	216.56E	1.09	-226.27	758659.56	415535.99
11500	0.88	358.6	11493.15	67.38N	216.45E	0.19	-226.53	758659.45	415537.38
11600	1.35	322.58	11593.14	69.08N	215.72E	0.82	-226.26	758658.72	415539.08
11700	1.88	319.02	11693.1	71.26N	213.93E	0.55	-225.1	758656.93	415541.26
11800	1.97	315.41	11793.04	73.72N	211.64E	0.15	-223.53	758654.64	415543.72
11884	2.5	271	11876.98	74.78N	208.80E	2.09	-221.06	758651.8	415544.78
11915	3.7	265.8	11907.94	74.72N	207.12E	3.97	-219.43	758650.12	415544.72
11945	5.9	291.8	11937.83	75.22N	204.73E	10.14	-217.25	758647.73	415545.22
11974	7.1	286.5	11966.64	76.29N	201.62E	4.62	-214.53	758644.62	415546.29
12008	7.7	271.7	12000.36	76.95N	197.33E	5.86	-210.56	758640.33	415546.95
12043	9.7	270.7	12034.96	77.06N	192.04E	5.73	-205.47	758635.04	415547.06
12075	14.8	271	12066.22	77.16N	185.25E	15.94	-198.95	758628.25	415547.16

12104	20.5	269.3	12093.84	77.16N	176.46E	19.73	-190.46	758619.46	415547.16
12138	27.2	266.8	12124.92	76.66N	162.74E	19.92	-177.07	758605.74	415546.66
12171	34.6	264.4	12153.22	75.32N	145.86E	22.73	-160.43	758588.86	415545.32
12200	40.5	264	12176.2	73.53N	128.28E	20.36	-142.99	758571.28	415543.53
12233	49.4	262.5	12199.54	70.77N	105.16E	27.16	-119.95	758548.16	415540.77
12265	58.6	259.4	12218.33	66.66N	79.63E	29.79	-94.23	758522.63	415536.66
12295	67.1	256.3	12232.01	61.02N	53.57E	29.78	-67.6	758496.57	415531.02
12331	72	258.4	12244.58	53.65N	20.66E	14.67	-33.91	758463.66	415523.65
12362	73.7	259.4	12253.72	47.95N	8.40W	6.29	-4.36	758434.6	415517.95
12393	75.6	259.1	12261.93	42.37N	37.77W	6.2	25.45	758405.23	415512.37
12425	78.7	257.3	12269.05	35.99N	68.30W	11.13	56.59	758374.7	415505.99
12457	81.8	257	12274.46	28.97N	99.05W	9.73	88.1	758343.95	415498.97
12486	87.7	257.3	12277.12	22.55N	127.19W	20.37	116.94	758315.81	415492.55
12522	92.1	256.6	12277.18	14.43N	162.25W	12.38	152.91	758280.75	415484.43
12553	93.3	255.9	12275.72	7.07N	192.33W	4.48	183.87	758250.67	415477.07
12583	93.3	254.5	12273.99	0.58S	221.28W	4.66	213.82	758221.72	415469.42
12616	90.4	251.4	12272.93	10.25S	252.81W	12.86	246.77	758190.19	415459.75
12647	91.3	251	12272.47	20.24S	282.15W	3.18	277.7	758160.85	415449.76
12677	92.1	250.6	12271.58	30.10S	310.47W	2.98	307.61	758132.53	415439.9
12711	92.7	250.3	12270.15	41.47S	342.48W	1.97	341.48	758100.52	415428.53
12741	90	250.3	12269.45	51.58S	370.72W	9	371.37	758072.28	415418.42
12775	89.9	250.3	12269.48	63.04S	402.73W	0.29	405.26	758040.27	415406.96
12805	89.7	250.3	12269.58	73.15S	430.97W	0.67	435.16	758012.03	415396.85
12838	91.2	250.6	12269.32	84.20S	462.07W	4.64	468.06	757980.93	415385.8
12867	91.3	251	12268.69	93.73S	489.45W	1.42	496.98	757953.55	415376.27
12901	92.3	252.4	12267.62	104.40S	521.71W	5.06	530.91	757921.29	415365.6
12931	92.5	253.5	12266.37	113.19S	550.37W	3.72	560.86	757892.63	415356.81
12964	89.5	253.1	12265.79	122.67S	581.97W	9.17	593.84	757861.03	415347.33
12994	88.9	253.5	12266.21	131.29S	610.70W	2.4	623.82	757832.3	415338.71
13027	88.1	253.1	12267.07	140.77S	642.29W	2.71	656.8	757800.71	415329.23
13058	88.2	253.1	12268.07	149.78S	671.94W	0.32	687.77	757771.06	415320.22
13087	87.7	253.5	12269.11	158.10S	699.70W	2.21	716.74	757743.3	415311.9
13119	88.1	253.5	12270.28	167.19S	730.36W	1.25	748.71	757712.64	415302.81
13146	88.3	253.5	12271.13	174.85S	756.24W	0.74	775.68	757686.76	415295.15
13182	88.4	253.1	12272.17	185.19S	790.70W	1.14	811.65	757652.3	415284.81
13211	88.7	253.5	12272.9	193.52S	818.47W	1.72	840.63	757624.53	415276.48
13245	88.5	253.1	12273.73	203.29S	851.03W	1.32	874.61	757591.97	415266.71
13275	88.6	253.1	12274.49	212.01S	879.72W	0.33	904.59	757563.28	415257.99
13308	90.4	253.5	12274.78	221.49S	911.33W	5.59	937.57	757531.67	415248.51
13338	90.4	253.5	12274.57	230.01S	940.09W	0	967.56	757502.91	415239.99
13371	90.5	253.5	12274.31	239.38S	971.73W	0.3	1000.55	757471.27	415230.62
13403	90.4	253.5	12274.06	248.47S	1002.41W	0.31	1032.54	757440.59	415221.53
13434	90.3	253.5	12273.87	257.27S	1032.14W	0.32	1063.53	757410.86	415212.73
13466	89.3	252.8	12273.98	266.55S	1062.76W	3.81	1095.51	757380.24	415203.45

13498	89.1	252.8	12274.43	276.01S	1093.33W	0.62	1127.49	757349.67	415193.99
13528	89.1	252.4	12274.9	284.98S	1121.95W	1.33	1157.46	757321.05	415185.02
13560	88.9	252.4	12275.46	294.66S	1152.45W	0.63	1189.42	757290.55	415175.34
13592	88.6	252.1	12276.16	304.41S	1182.92W	1.33	1221.38	757260.08	415165.59
13623	88.6	251.7	12276.91	314.04S	1212.37W	1.29	1252.33	757230.63	415155.96
13655	88.7	251.4	12277.67	324.16S	1242.72W	0.99	1284.26	757200.28	415145.84
13687	90	253.5	12278.03	333.81S	1273.23W	7.72	1316.23	757169.77	415136.19
13718	90.2	253.1	12277.98	342.72S	1302.92W	1.44	1347.22	757140.08	415127.28
13781	90.7	252.8	12277.48	361.19S	1363.15W	0.93	1410.18	757079.85	415108.81
13813	91	252.8	12277.01	370.65S	1393.71W	0.94	1442.15	757049.29	415099.35
13876	91.6	253.5	12275.58	388.91S	1453.99W	1.46	1505.1	756989.01	415081.09
13907	90.8	252.8	12274.93	397.89S	1483.66W	3.43	1536.08	756959.34	415072.11
13970	90.5	252.4	12274.21	416.73S	1543.77W	0.79	1599.03	756899.23	415053.27
14002	90.4	252.4	12273.96	426.41S	1574.27W	0.31	1630.99	756868.73	415043.59
14065	89.8	252.1	12273.85	445.61S	1634.27W	1.06	1693.93	756808.73	415024.39
14095	89.9	252.1	12273.93	454.83S	1662.82W	0.33	1723.89	756780.18	415015.17
14159	89.2	251	12274.43	475.09S	1723.53W	2.04	1787.78	756719.47	414994.91
14190	89.8	251.4	12274.7	485.08S	1752.87W	2.33	1818.71	756690.13	414984.92
14223	90.1	252.1	12274.73	495.41S	1784.21W	2.31	1851.66	756658.79	414974.59
14255	91.1	252.1	12274.4	505.24S	1814.66W	3.13	1883.62	756628.34	414964.76
14286	91.9	252.4	12273.59	514.69S	1844.17W	2.76	1914.57	756598.83	414955.31
14318	92.5	252.1	12272.36	524.44S	1874.63W	2.1	1946.51	756568.37	414945.56
14349	92.5	252.1	12271.01	533.96S	1904.10W	0	1977.45	756538.9	414936.04
14381	92.5	253.1	12269.61	543.52S	1934.60W	3.12	2009.39	756508.4	414926.48
14413	93	253.1	12268.07	552.81S	1965.19W	1.56	2041.34	756477.81	414917.19
14444	92.9	252.8	12266.48	561.89S	1994.79W	1.02	2072.28	756448.21	414908.11
14475	92.7	252.4	12264.96	571.15S	2024.33W	1.44	2103.21	756418.67	414898.85
14503	92.8	252.1	12263.62	579.67S	2050.97W	1.13	2131.15	756392.03	414890.33
14540	92.8	252.8	12261.81	590.82S	2086.20W	1.89	2168.07	756356.8	414879.18
14601	91.1	253.8	12259.74	608.34S	2144.59W	3.23	2229.01	756298.41	414861.66
14635	90.9	254.2	12259.14	617.71S	2177.27W	1.32	2263	756265.73	414852.29
14667	91.8	254.5	12258.39	626.34S	2208.08W	2.96	2294.99	756234.92	414843.66
14698	90.5	255.6	12257.77	634.33S	2238.02W	5.49	2325.98	756204.98	414835.67
14728	90.5	255.2	12257.51	641.89S	2267.05W	1.33	2355.98	756175.95	414828.11
14760	89	255.6	12257.65	649.96S	2298.02W	4.85	2387.98	756144.98	414820.04
14792	88.9	255.6	12258.23	657.92S	2329.01W	0.31	2419.97	756113.99	414812.08
14824	89.5	255.6	12258.68	665.87S	2360.00W	1.88	2451.97	756083	414804.13
14856	89.2	255.6	12259.04	673.83S	2390.99W	0.94	2483.96	756052.01	414796.17
14919	87.3	254.2	12260.97	690.23S	2451.78W	3.75	2546.93	755991.22	414779.77
14950	87.3	253.5	12262.43	698.85S	2481.52W	2.26	2577.89	755961.48	414771.15
14965	87.5	253.1	12263.11	703.15S	2495.88W	2.98	2592.87	755947.12	414766.85
15013	88.3	254	12264.87	716.73S	2541.88W	2.51	2640.82	755901.12	414753.27
15045	89.5	254.2	12265.48	725.50S	2572.65W	3.8	2672.81	755870.35	414744.5

15105	89.6	254.5	12265.95	741.68S	2630.42W	0.53	2732.8	755812.58	414728.32
15140	90.4	254.5	12265.95	751.04S	2664.15W	2.29	2767.8	755778.85	414718.96
15203	90.6	255.2	12265.4	767.50S	2724.96W	1.16	2830.8	755718.04	414702.5
15234	90.6	255.2	12265.08	775.42S	2754.93W	0	2861.8	755688.07	414694.58
15266	90.7	254.9	12264.71	783.68S	2785.84W	0.99	2893.8	755657.16	414686.32
15329	91.8	255.6	12263.34	799.71S	2846.75W	2.07	2956.78	755596.25	414670.29
15361	92	255.9	12262.28	807.58S	2877.75W	1.13	2988.76	755565.25	414662.42
15392	92.2	255.6	12261.14	815.21S	2907.78W	1.16	3019.73	755535.22	414654.79
15457	92.2	255.6	12258.65	831.36S	2970.69W	0	3084.68	755472.31	414638.64