

A Gyrodata Directional Survey

30-039-26987

for

CONOCO INC.

Location: KEY #10, Rio Arriba County, New Mexico

Well: SAN JAUN 28-7 261F, 4 1/2" PIPE CASING

Surface: 1975/S 1855/W
BHL: 2382/S 545/W

Job Number: MD0902GBM235

Run Date: 9/11/02

Surveyor: Frank Pawlik

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 36.601110 deg. N Longitude: 107.599590 deg. E

Azimuth Correction:

Gyro: Bearings are Relative to True 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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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.0	0.00	0.00	N 0 0 E	0.00	0.0	0.0 0.0	0.00 N 0.00 E

0 - 8000 FT RATE GYROSCOPIC MULTISHOT SURVEY INSIDE 4-1/2" CASING							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO KEY #10 R.K.B.							

250.0	0.38	233.14	S 53 8 W	0.15	250.0	0.8 233.1	0.50 S 0.66 W
500.0	7.98	285.25	N 74 45 W	3.10	499.2	18.4 281.2	3.58 N 18.09 W
750.0	19.42	289.91	N 70 5 W	4.59	741.7	77.4 286.8	22.35 N 74.07 W
1000.0	19.93	288.65	N 71 21 W	0.27	977.1	161.5 288.1	50.13 N 153.52 W
1250.0	21.76	287.82	N 72 11 W	0.74	1210.7	250.5 288.1	77.95 N 238.03 W
1500.0	22.17	289.84	N 70 9 W	0.34	1442.5	344.0 288.3	108.15 N 326.52 W
1750.0	22.26	288.70	N 71 18 W	0.18	1674.0	438.5 288.5	139.34 N 415.75 W
2000.0	21.91	291.76	N 68 14 W	0.48	1905.6	532.4 288.8	171.82 N 503.94 W
2250.0	21.45	293.76	N 66 14 W	0.35	2138.0	624.6 289.4	207.53 N 589.10 W
2500.0	20.76	289.60	N 70 24 W	0.66	2371.2	714.5 289.7	240.81 N 672.68 W
2750.0	19.92	291.26	N 68 44 W	0.41	2605.6	801.4 289.8	271.12 N 754.10 W
3000.0	19.02	296.82	N 63 11 W	0.82	2841.3	884.4 290.2	304.95 N 830.14 W
3250.0	19.07	292.51	N 67 29 W	0.56	3077.7	965.7 290.5	338.97 N 904.24 W
3500.0	18.39	290.03	N 69 58 W	0.42	3314.4	1045.9 290.6	368.11 N 979.01 W
3750.0	18.74	295.07	N 64 56 W	0.66	3551.4	1125.4 290.7	398.63 N 1052.43 W
4000.0	15.92	290.84	N 69 9 W	1.24	3790.1	1199.7 290.9	427.85 N 1120.86 W
4250.0	13.18	294.01	N 65 59 W	1.14	4032.0	1262.5 291.0	451.64 N 1178.93 W
4500.0	7.30	285.64	N 74 22 W	2.42	4278.0	1306.8 291.0	467.54 N 1220.30 W
4750.0	4.81	278.39	N 81 37 W	1.04	4526.6	1332.9 290.8	473.35 N 1245.97 W
5000.0	3.45	277.80	N 82 12 W	0.54	4775.9	1350.4 290.6	475.90 N 1263.80 W

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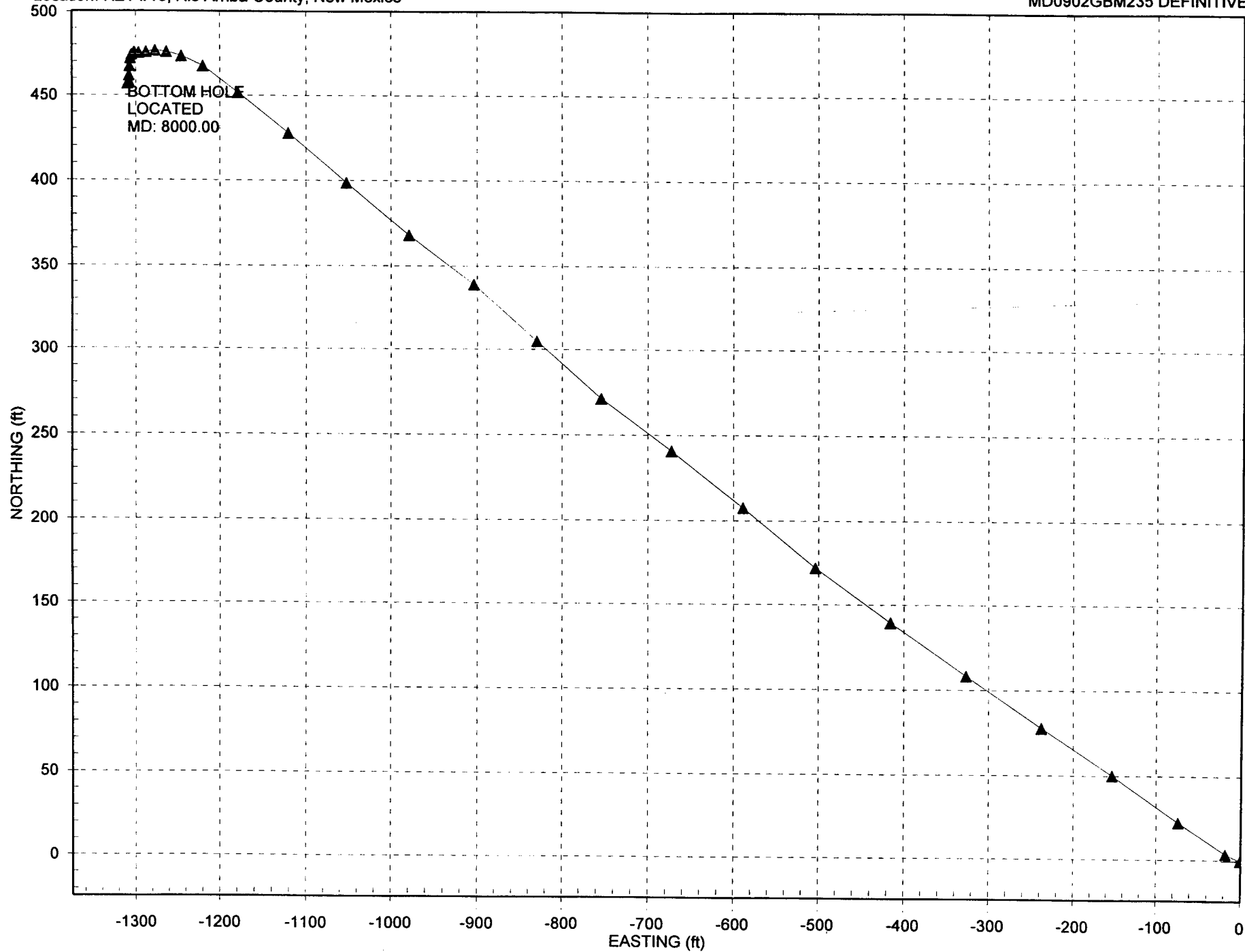
Job Number: MD0902GBM235

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
5250.0	2.65	268.26	S 88 16 W	0.38	5025.6	1363.1 290.5	476.75 N 1277.03 W
5500.0	2.38	261.28	S 81 17 W	0.16	5275.3	1373.0 290.3	475.78 N 1287.94 W
5750.0	1.68	276.86	N 83 8 W	0.36	5525.2	1381.1 290.1	475.43 N 1296.72 W
6000.0	0.86	257.59	S 77 35 W	0.36	5775.1	1386.3 290.1	475.47 N 1302.20 W
6250.0	0.59	230.82	S 50 49 W	0.17	6025.1	1388.5 290.0	474.26 N 1305.02 W
6500.0	0.70	200.60	S 20 36 W	0.14	6275.1	1389.2 289.9	472.02 N 1306.55 W
6750.0	1.50	185.27	S 5 16 W	0.34	6525.0	1388.4 289.7	467.34 N 1307.38 W
7000.0	1.03	190.76	S 10 46 W	0.19	6774.9	1387.3 289.4	461.88 N 1308.10 W
7250.0	0.48	175.97	S 4 2 E	0.23	7024.9	1386.5 289.3	458.64 N 1308.45 W
7500.0	0.04	233.59	S 53 35 W	0.19	7274.9	1386.1 289.3	457.54 N 1308.44 W
7750.0	0.26	261.33	S 81 20 W	0.09	7524.9	1386.7 289.3	457.41 N 1309.05 W
8000.0	0.24	216.29	S 36 17 W	0.08	7774.9	1387.3 289.2	456.91 N 1309.91 W

Final Station Closure: Distance: 1387.31 ft Az: 289.23 deg.

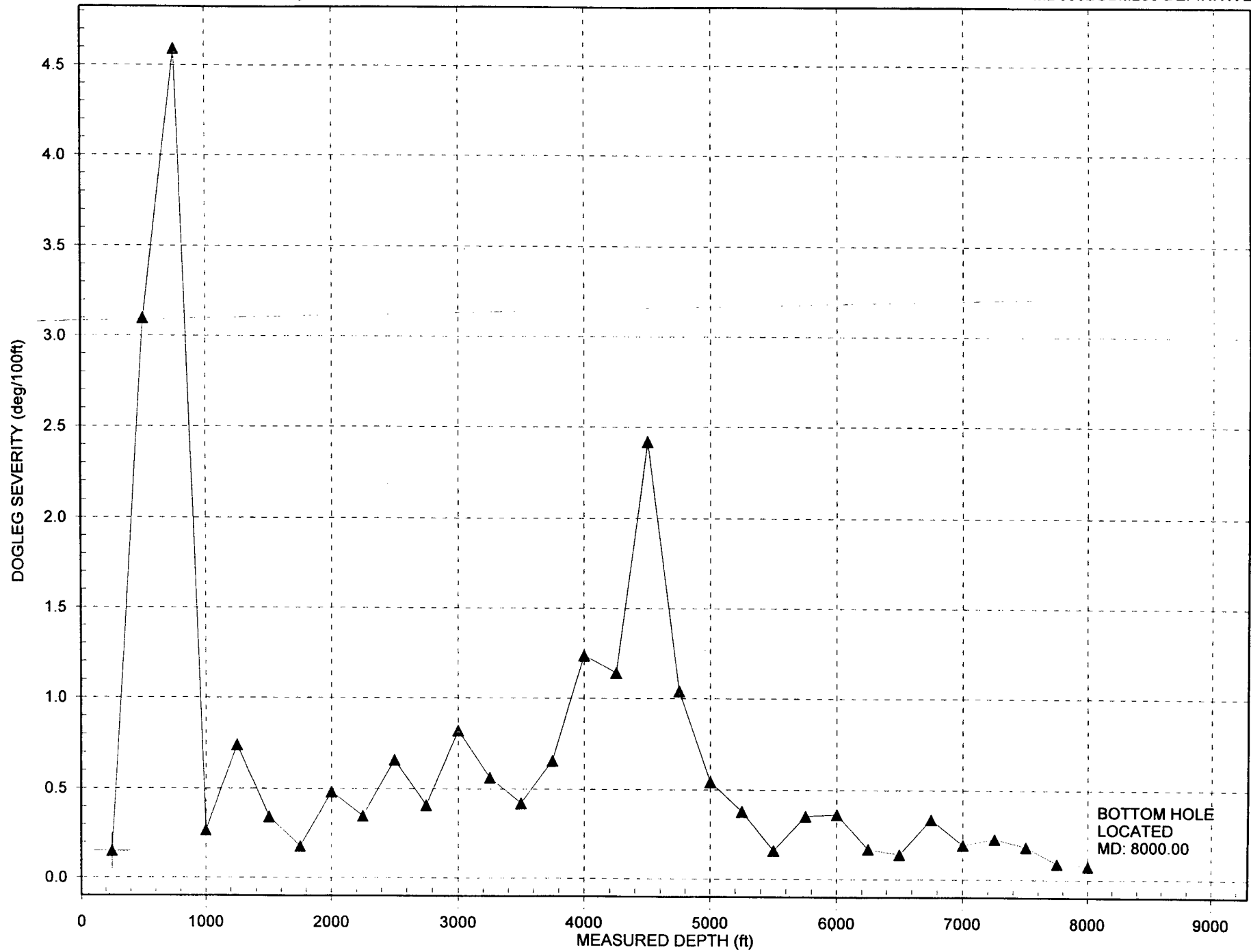
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Location: KEY #10, Rio Arriba County, New Mexico

Gyrodatta, Inc.
MD0902GBM235 DEFINITIVE



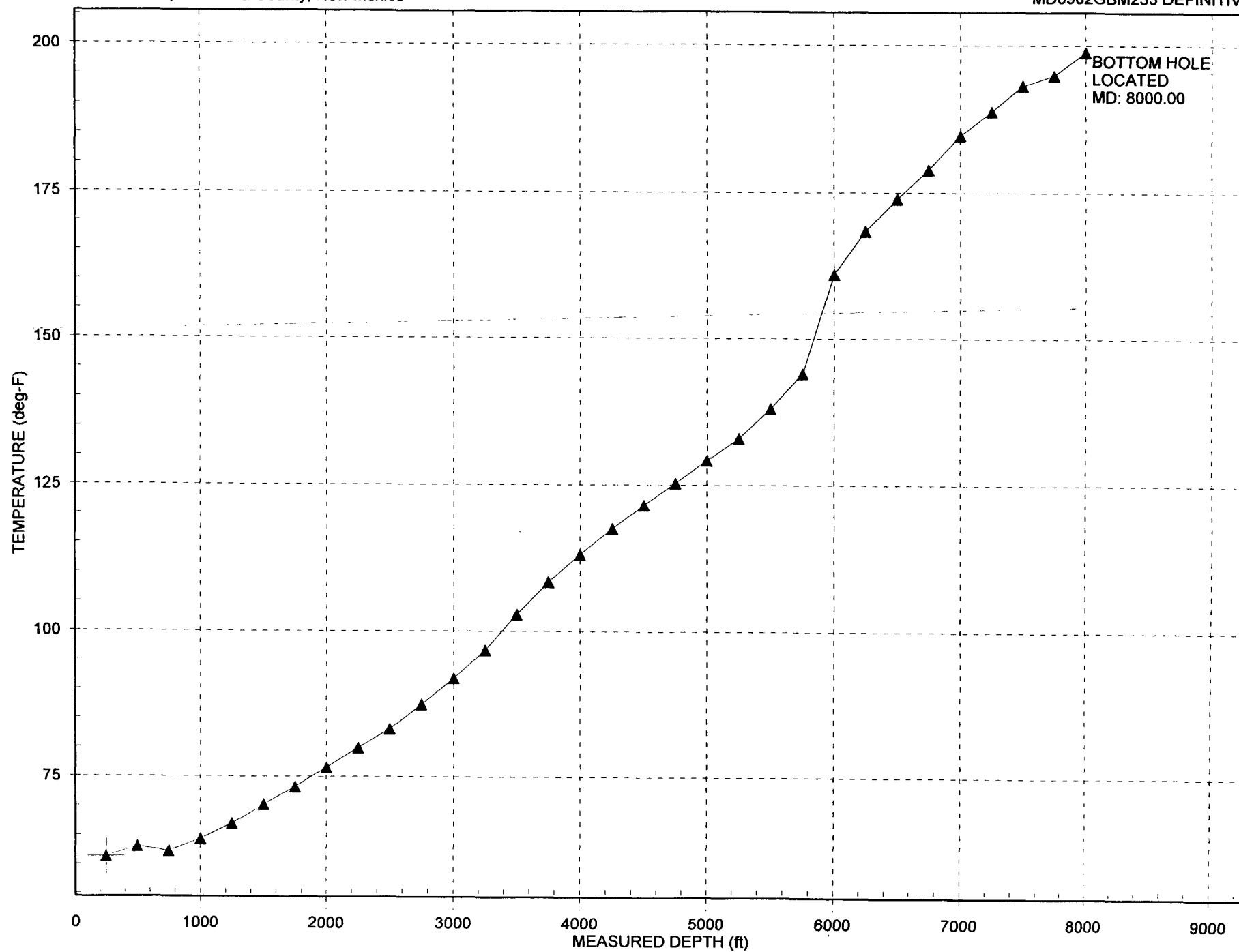
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Key Energy Services, Inc.

Four Corners Division
5651 US Highway 64
P.O. Box 900
Farmington, NM 87499

Phone: 505-327-4935
Fax: 505-327-4962

August 20, 2002

Rig #43

Conoco, Inc.
P.O. Box 2197, DU 2032
Houston, TX 77252-2197



This is to certify that Key Energy Services, Inc. did run deviation surveys at the listed depths on your San Juan 28-7 261F well in S05-T27N-R07W in Rio Arriba county, New Mexico.

H

Depth	Deviation	Depth	Deviation
219'	1/2°		
4600'	6°		

This was a directionally drilled well utilizing a MWD unit and a motor. Any other surveys will need to be obtained from the directional company.

Drilled with air hammer from 4235' to 8010'

To the best of my knowledge, I swear this information to be true.

Sincerely,

J.D. Griffith

J.D. Griffith
Drilling contract manager

Deanne M. Lousgore

Notary Public

My commission expires: _____

6/26/06

