

30.015.36072

A Gyrodata Directional Survey

for

LCX

Lease: 1724 Federal Well: No. 112, 4 1/2" Drillpipe
Location: Big Dog #2, Eddy County, New Mexico

Job Number: MD0308G_164

Run Date: 02 Apr 2008

Surveyor: Thomas Bowden; Steve Winther

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 31.856289 deg. N Longitude: 104.556353 deg. W

Azimuth Correction:

Gyro: 0.12000 deg East 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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MEASURED DEPTH feet	INC L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.0	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 TO 4920 FT. RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 4 1/2" DRILLPIPE ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO BIG DOG #2 R.K.B.							
200.00	0.21	273.52	0.0	0.11	200.00	0.4 273.5	0.02 N 0.37 W
400.00	0.29	254.61	-0.1	0.06	400.00	1.2 265.8	0.09 S 1.22 W
600.00	0.79	213.10	-1.4	0.30	599.99	2.8 240.8	1.37 S 2.46 W
800.00	1.31	111.34	-3.4	0.83	799.97	3.5 197.7	3.36 S 1.08 W
1000.00	1.18	110.07	-4.9	0.07	999.92	5.7 148.6	4.90 S 2.99 E
1200.00	1.09	98.48	-5.9	0.12	1199.88	9.0 130.8	5.88 S 6.81 E
1400.00	0.97	94.32	-6.3	0.07	1399.85	12.1 121.2	6.29 S 10.39 E
1600.00	1.12	90.77	-6.5	0.08	1599.81	15.5 114.7	6.45 S 14.04 E
1800.00	0.87	87.08	-6.4	0.13	1799.78	18.6 110.1	6.40 S 17.51 E
2000.00	0.77	57.01	-5.6	0.22	1999.76	20.9 105.5	5.59 S 20.17 E
2200.00	0.92	54.03	-3.9	0.08	2199.74	22.9 99.8	3.91 S 22.59 E
2400.00	0.66	45.81	-2.2	0.14	2399.72	24.8 95.0	2.17 S 24.71 E
2600.00	0.51	41.08	-0.7	0.08	2599.71	26.1 91.5	0.70 S 26.12 E
2800.00	0.54	37.79	0.7	0.02	2799.71	27.3 88.5	0.71 N 27.28 E
3000.00	0.62	42.38	2.3	0.05	2999.69	28.7 85.5	2.26 N 28.59 E
3200.00	0.60	50.77	3.7	0.05	3199.68	30.4 83.0	3.72 N 30.13 E
3400.00	0.53	57.24	4.9	0.05	3399.67	32.1 81.2	4.89 N 31.72 E
3562.00	0.60	68.20	5.6	0.08	3561.67	33.6 80.4	5.61 N 33.14 E
3750.00	0.71	65.35	6.5	0.07	3749.65	35.7 79.6	6.46 N 35.11 E
3938.00	0.69	65.53	7.4	0.01	3937.64	37.9 78.7	7.42 N 37.21 E

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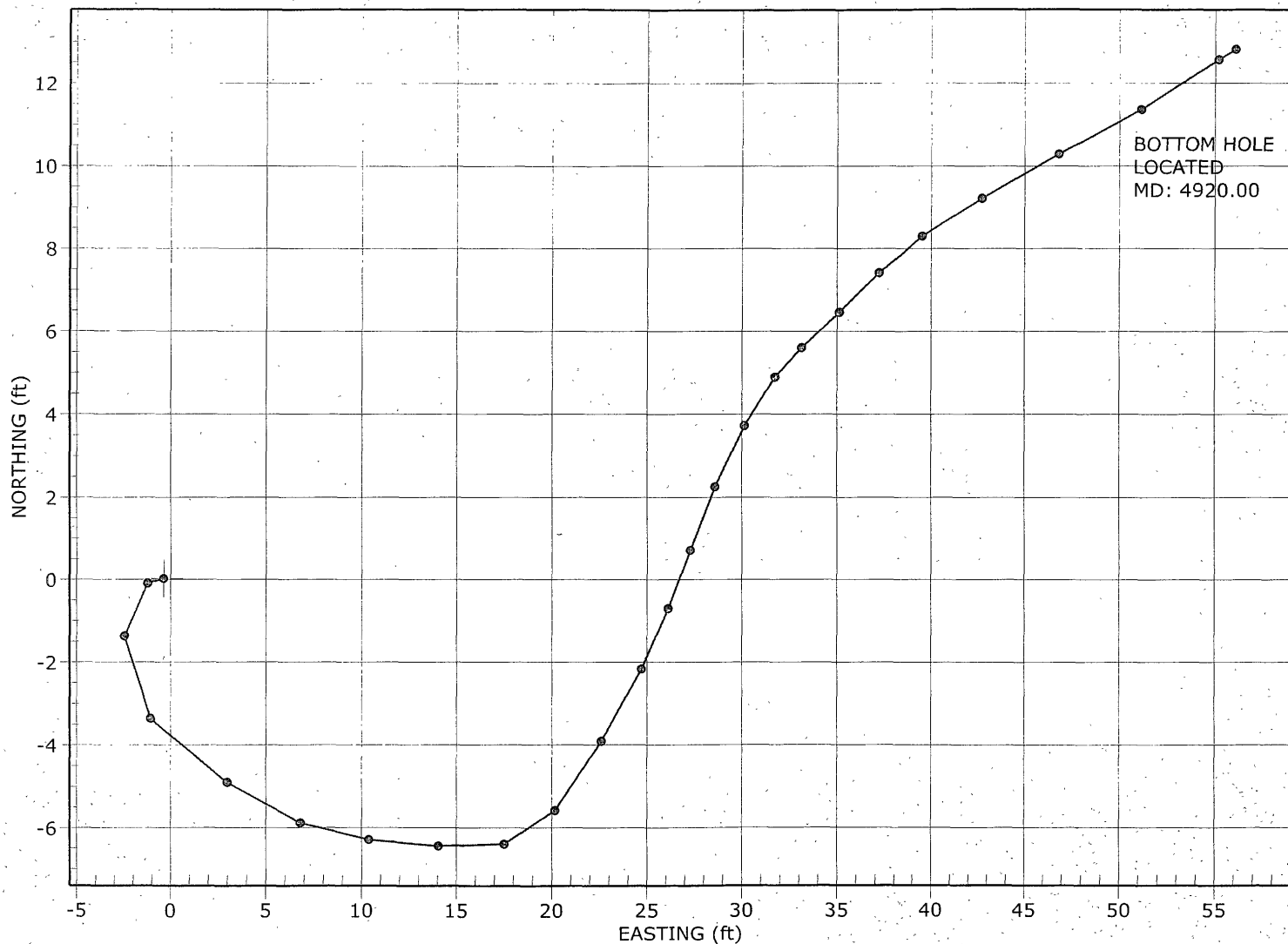
Job Number: MD0308G_164

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	VERTICAL SECTION feet	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet	
4126.00	0.81	71.88	8.3	0.08	4125.62	40.4	78.1	8.30 N	39.51 E
4314.00	1.21	75.41	9.2	0.21	4313.59	43.7	77.8	9.22 N	42.70 E
4502.00	1.39	75.58	10.3	0.10	4501.54	48.0	77.6	10.29 N	46.84 E
4690.00	1.31	76.38	11.4	0.05	4689.49	52.4	77.5	11.37 N	51.14 E
4878.00	1.26	70.39	12.6	0.08	4877.45	56.6	77.2	12.57 N	55.18 E
4920.00	1.28	78.26	12.8	0.42	4919.43	57.5	77.1	12.82 N	56.08 E

Final Station Closure: Distance: 57.52 ft Az: 77.13 deg.

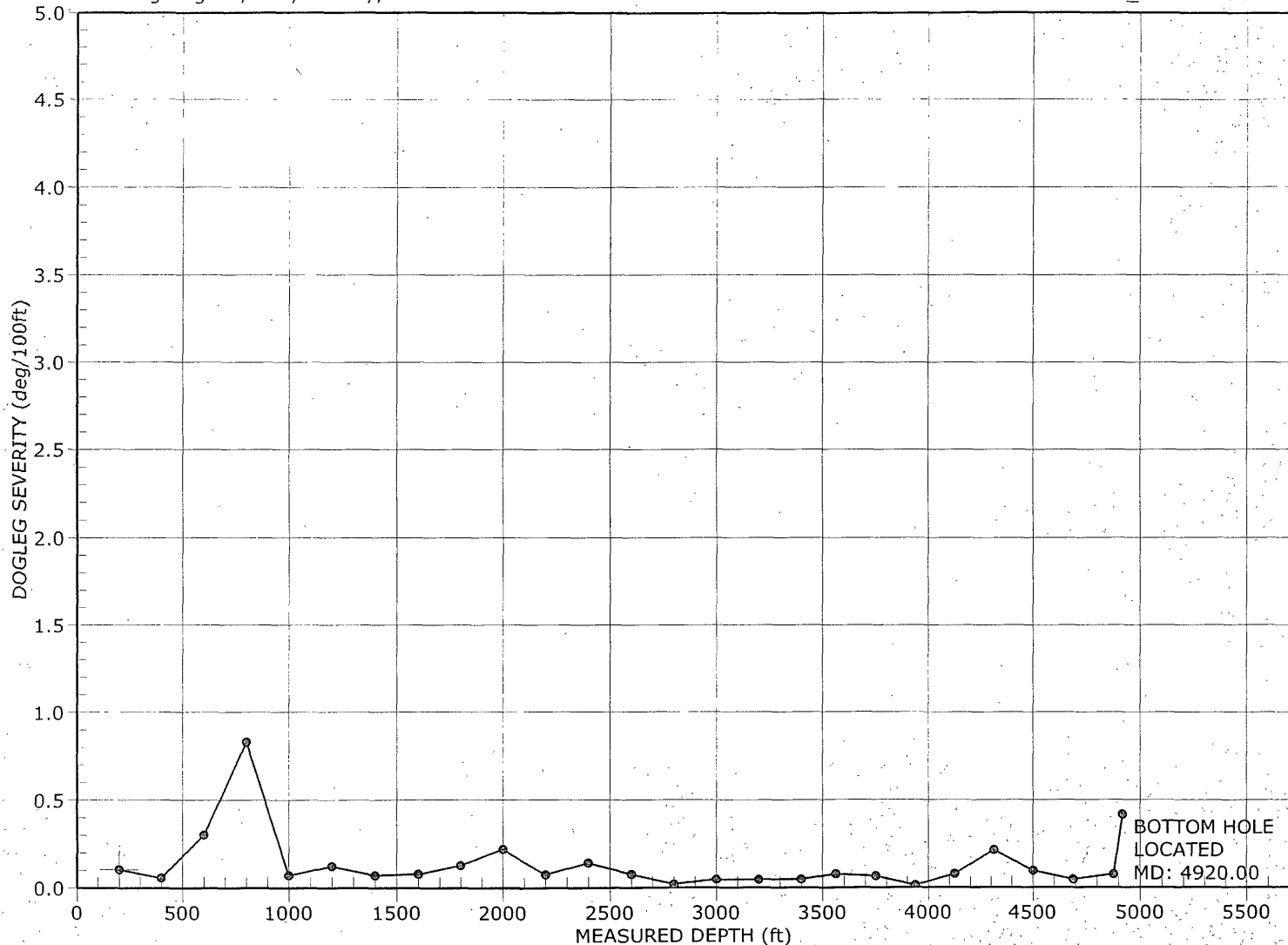
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Outrun
Gyrodata
MD0308G_164 DEFINITIVE



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