

A Gyrodata Directional Survey

for

EOG RESOURCES

Well: Purple Mummy 15 #1, 3-1/2" Drillpipe
Location: McVay #7, Lea County, New Mexico

Job Number: MD0703GW216

Run Date: 7/1/2003 1:00:00 PM

Surveyor: James Butler

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 32.927000 deg. N Longitude: 103.348100 deg. W

Azimuth Correction:

Gyro: 0.54000 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

SUR: D-15-16s-36e, 783/N & 964/W
BHL: C-15-16s-36e, 301/N & 2173/W
API # 30-025-36089

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MEASURED DEPTH feet	INCL 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 - 6073 FT RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 3-1/2" DRILLPIPE ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO MCVAY #7 R.K.B							
100.00	0.07	324.43	N 35 34 W	0.07	100.00	0.1 324.4	0.05 N 0.04 W
200.00	0.04	312.51	N 47 29 W	0.03	200.00	0.2 321.6	0.12 N 0.10 W
300.00	0.24	340.67	N 19 20 W	0.21	300.00	0.4 330.7	0.35 N 0.20 W
400.00	0.08	31.65	N 31 39 E	0.20	400.00	0.6 339.3	0.61 N 0.23 W
500.00	0.11	127.17	S 52 50 E	0.14	500.00	0.6 349.1	0.61 N 0.12 W
600.00	0.19	115.14	S 64 51 E	0.09	600.00	0.5 12.7	0.48 N 0.11 E
700.00	0.09	131.80	S 48 12 E	0.11	700.00	0.5 41.4	0.36 N 0.32 E
800.00	0.09	83.76	N 83 46 E	0.07	800.00	0.5 55.0	0.31 N 0.45 E
900.00	0.16	50.90	N 50 54 E	0.10	900.00	0.8 56.9	0.41 N 0.64 E
1000.00	0.05	44.64	N 44 38 E	0.11	1000.00	0.9 55.4	0.54 N 0.78 E
1100.00	0.09	69.14	N 69 8 E	0.05	1100.00	1.1 55.9	0.59 N 0.88 E
1200.00	0.14	58.97	N 58 58 E	0.05	1200.00	1.3 57.0	0.68 N 1.05 E
1300.00	0.27	46.67	N 46 40 E	0.14	1300.00	1.6 55.6	0.91 N 1.33 E
1400.00	0.20	31.53	N 31 32 E	0.09	1400.00	2.0 52.5	1.22 N 1.59 E
1500.00	0.07	38.61	N 38 37 E	0.13	1500.00	2.2 50.5	1.42 N 1.72 E
1600.00	0.08	39.09	N 39 5 E	0.01	1600.00	2.4 49.9	1.52 N 1.80 E
1700.00	0.05	67.82	N 67 49 E	0.05	1700.00	2.5 49.9	1.59 N 1.89 E
1800.00	0.25	145.92	S 34 5 E	0.24	1800.00	2.5 55.1	1.43 N 2.05 E
1900.00	0.26	153.19	S 26 49 E	0.03	1899.99	2.5 65.1	1.05 N 2.27 E

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
2000.00	0.38	136.75	S 43 15 E	0.15	1999.99	2.7 76.7	0.61 N 2.60 E
2100.00	0.29	139.88	S 40 7 E	0.08	2099.99	3.0 86.6	0.18 N 2.99 E
2200.00	0.32	143.03	S 36 58 E	0.03	2199.99	3.3 94.1	0.24 S 3.32 E
2300.00	0.25	150.82	S 29 11 E	0.08	2299.99	3.7 100.3	0.65 S 3.60 E
2400.00	0.21	152.54	S 47 28 E	0.08	2399.99	4.0 104.1	0.97 S 3.84 E
2500.00	0.15	142.88	S 37 7 E	0.07	2499.99	4.2 106.4	1.20 S 4.05 E
2600.00	0.17	127.37	S 52 38 E	0.05	2599.99	4.5 108.1	1.39 S 4.25 E
2700.00	0.27	129.49	S 50 30 E	0.11	2699.99	4.8 109.7	1.63 S 4.55 E
2800.00	0.31	113.01	S 66 59 E	0.09	2799.98	5.3 110.7	1.89 S 4.98 E
2900.00	0.25	123.91	S 56 5 E	0.08	2899.98	5.8 111.3	2.11 S 5.41 E
3000.00	0.29	112.40	S 67 36 E	0.06	2999.98	6.3 111.8	2.33 S 5.82 E
3100.00	0.32	113.63	S 66 22 E	0.03	3099.98	6.8 111.9	2.54 S 6.31 E
3200.00	0.35	116.54	S 63 28 E	0.04	3199.98	7.4 112.2	2.78 S 6.83 E
3300.00	0.37	115.92	S 64 5 E	0.03	3299.98	8.0 112.5	3.06 S 7.40 E
3400.00	0.44	109.07	S 70 56 E	0.08	3399.97	8.7 112.5	3.33 S 8.05 E
3500.00	0.38	109.21	S 70 48 E	0.05	3499.97	9.4 112.2	3.57 S 8.73 E
3600.00	0.33	108.72	S 71 17 E	0.05	3599.97	10.1 112.0	3.77 S 9.32 E
3700.00	0.39	105.28	S 74 43 E	0.06	3699.97	10.7 111.7	3.95 S 9.93 E
3800.00	0.33	98.34	S 81 40 E	0.08	3799.97	11.3 111.2	4.09 S 10.55 E
3900.00	0.35	104.08	S 75 55 E	0.04	3899.96	11.9 110.7	4.20 S 11.13 E
4000.00	0.45	96.84	S 83 9 E	0.11	3999.96	12.6 110.1	4.32 S 11.82 E
4100.00	0.49	94.56	S 85 26 E	0.04	4099.96	13.4 109.2	4.41 S 12.63 E
4200.00	0.43	81.69	N 81 41 E	0.12	4199.96	14.1 108.1	4.39 S 13.43 E

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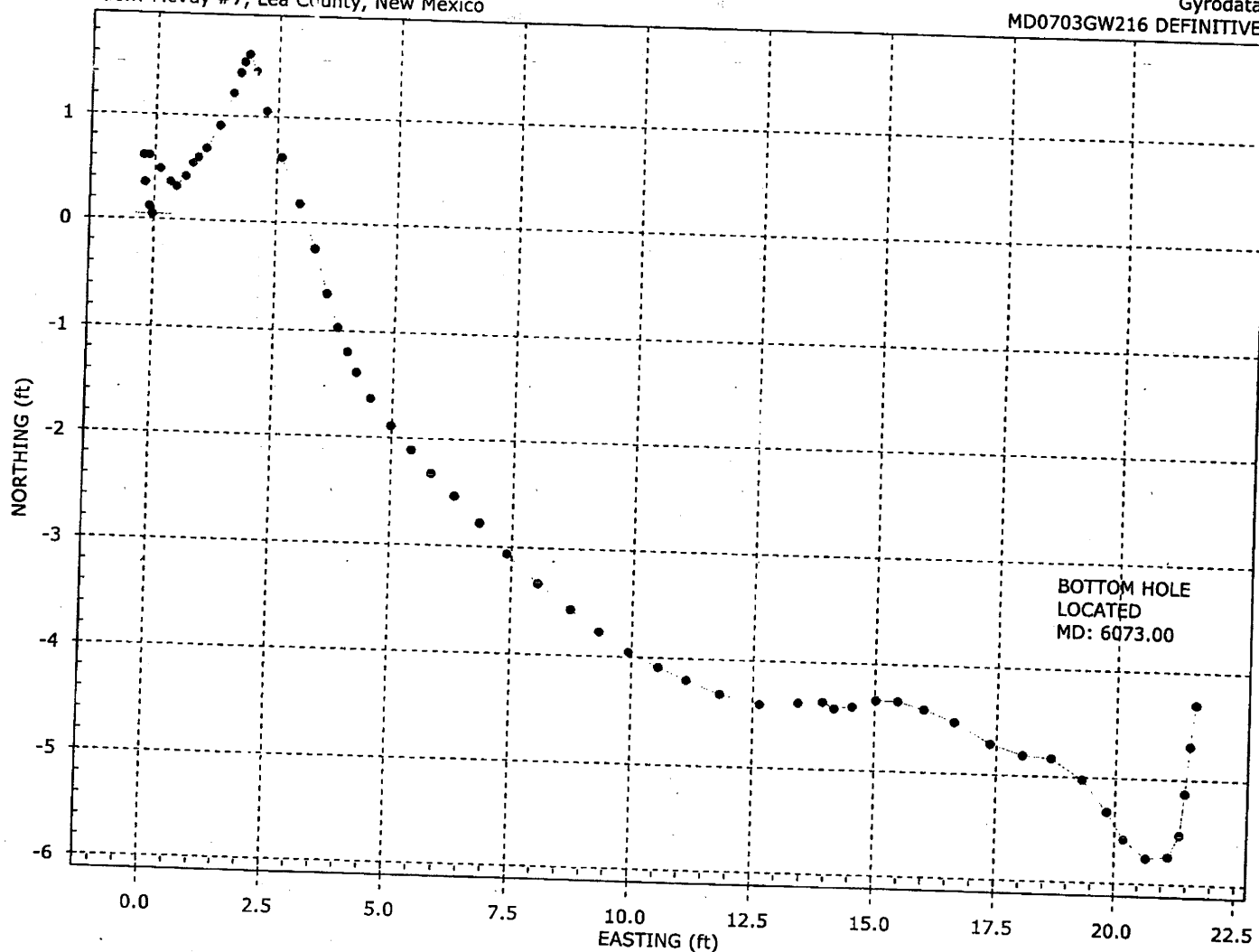
EOG Resources
Well: Purple Mummy 15 #1, 3-1/2" Drillpipe
Location: McVay #7, Lea County, New Mexico
Job Number: MD0703GW216

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLE SEVERITY deg/ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4300.00	0.15	106.30	S 73 42 E	0.30	4299.95	14.6 107.4	4.37 S 13.93 E
4400.00	0.13	101.36	S 78 39 E	0.03	4399.95	14.8 107.4	4.43 S 14.16 E
4500.00	0.30	80.00	N 80 0 E	0.19	4499.95	15.2 106.9	4.41 S 14.53 E
4600.00	0.26	85.03	N 85 2 E	0.05	4599.95	15.6 106.1	4.34 S 15.02 E
4700.00	0.26	96.18	S 83 49 E	0.05	4699.95	16.1 105.7	4.35 S 15.47 E
4800.00	0.36	98.18	S 81 49 E	0.10	4799.95	16.6 105.4	4.41 S 16.01 E
4900.00	0.37	101.38	S 78 37 E	0.02	4899.95	17.2 105.2	4.52 S 16.63 E
5000.00	0.50	107.00	S 73 0 E	0.14	4999.94	18.0 105.2	4.72 S 17.37 E
5100.00	0.29	82.96	N 82 58 E	0.27	5099.94	18.7 104.9	4.81 S 18.04 E
5200.00	0.39	98.64	S 81 21 E	0.14	5199.94	19.2 104.5	4.83 S 18.63 E
5300.00	0.40	113.29	S 66 43 E	0.10	5299.94	19.9 104.6	5.02 S 19.29 E
5400.00	0.30	127.10	S 52 54 E	0.13	5399.94	20.5 105.0	5.32 S 19.82 E
5500.00	0.22	121.96	S 58 3 E	0.08	5499.93	21.0 105.4	5.58 S 20.20 E
5600.00	0.37	103.24	S 76 46 E	0.17	5599.93	21.5 105.6	5.75 S 20.67 E
5700.00	0.20	58.67	N 58 40 E	0.26	5699.93	21.9 105.2	5.74 S 21.13 E
5800.00	0.17	34.04	N 34 2 E	0.09	5799.93	22.1 104.5	5.52 S 21.36 E
5900.00	0.31	2.87	N 2 52 E	0.19	5899.93	22.1 103.4	5.13 S 21.46 E
6000.00	0.22	25.36	N 25 22 E	0.14	5999.93	22.1 102.3	4.69 S 21.55 E
6073.00	0.42	8.23	N 8 14 E	0.30	6072.93	22.1 101.2	4.30 S 21.65 E

Final Station Closure: Distance: 22.07 ft Az: 101.24 deg.

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Well: Purple Mumpy 15 #1 3-1/2" Drillpipe
Location: McVay #7, Lea County, New Mexico

Outrun
Gyrodata
MD0703GW216 DEFINITIVE

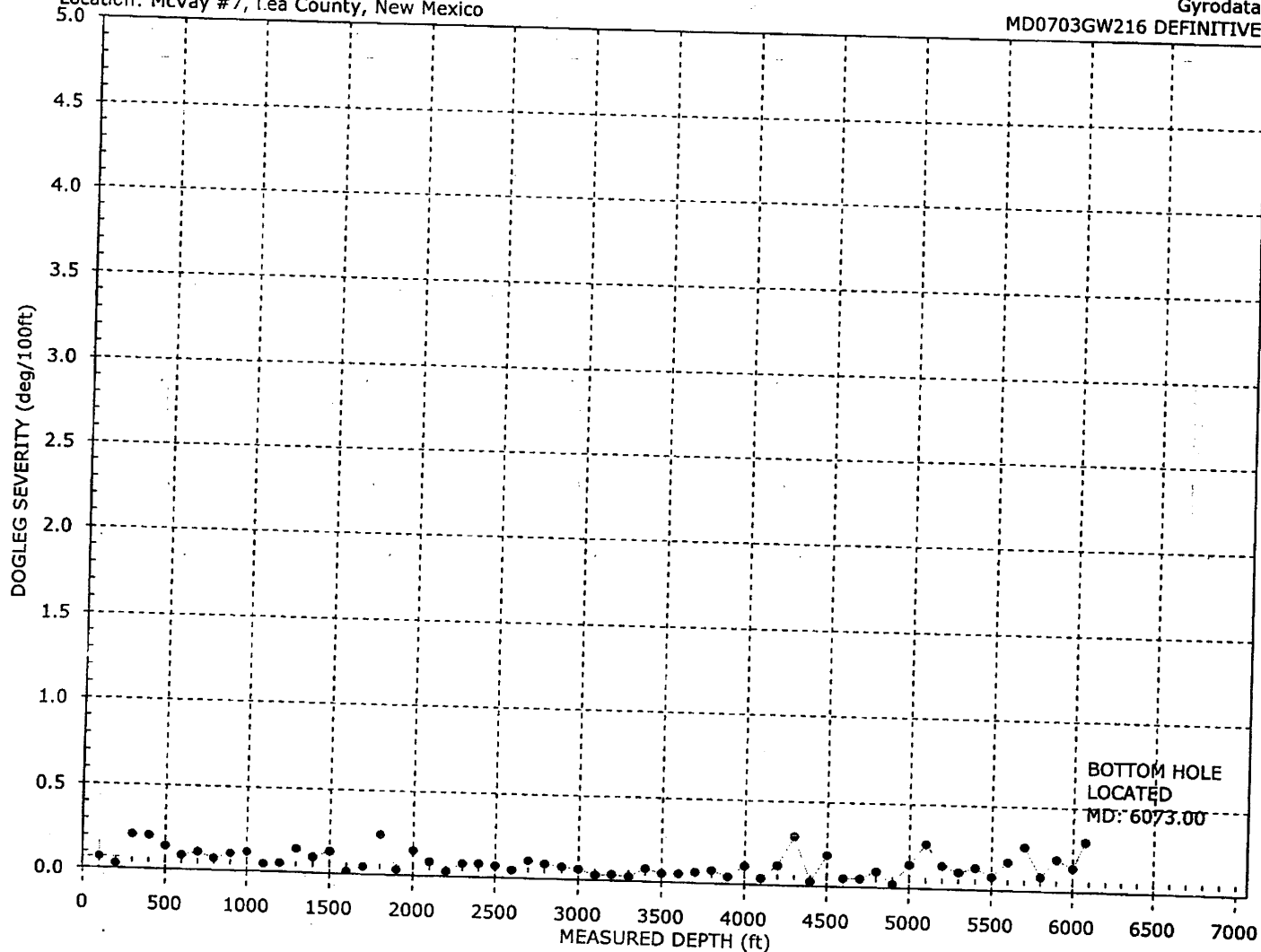


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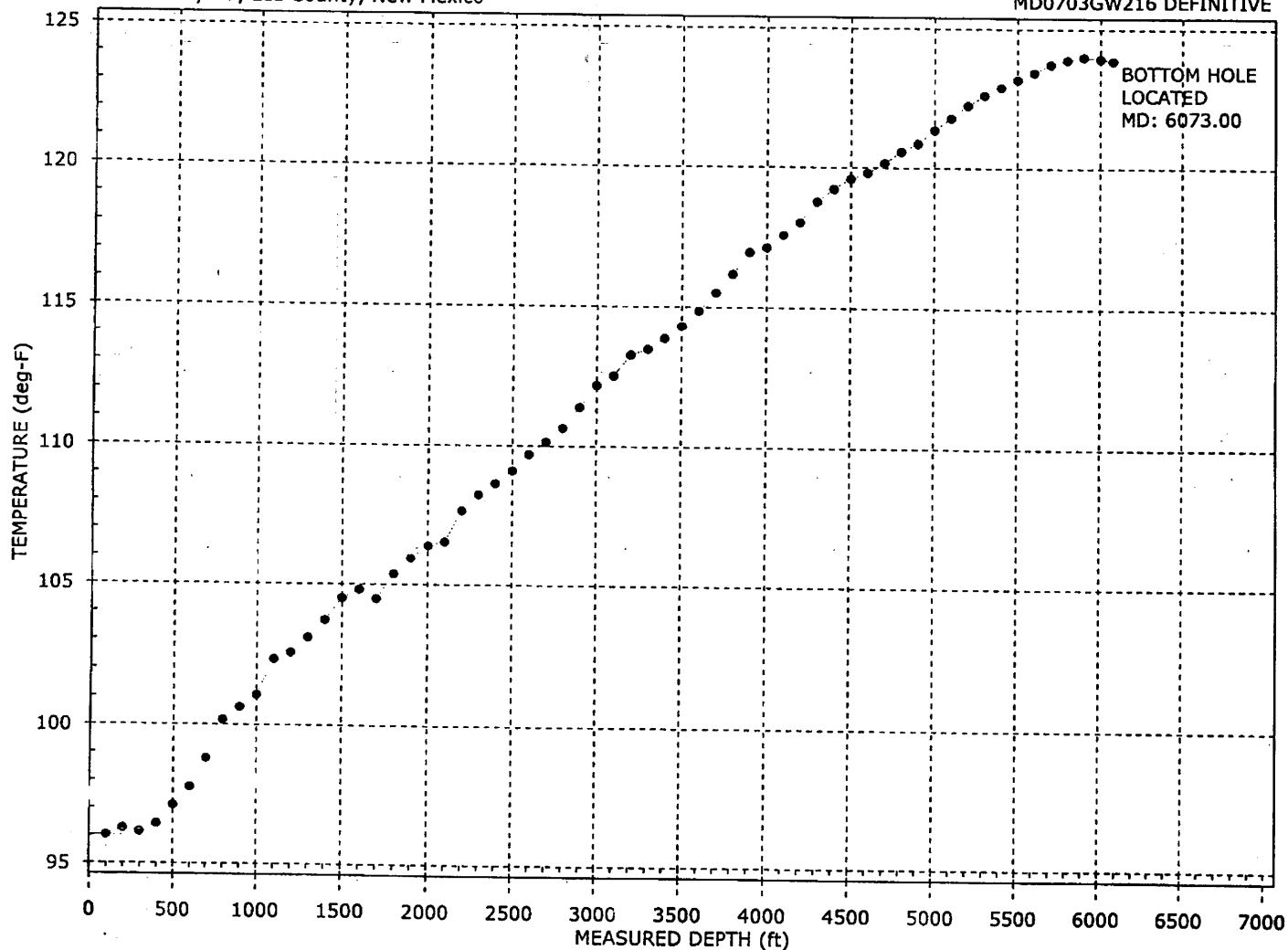
Outrun
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Well: Purple Mumpy 15 #1 3-1/2" Drillpipe
Location: McVay #7, Lea County, New Mexico

Outrun
Gyrodata
MD0703GW216 DEFINITIVE





Company: EOG Resources
Well: Purple Humpy *15* #1
Location: Lea Co., NM
Rig: McVay #7

Job Number: 505747
Magnetic Decl.: 8.49
Grid Corr.: -0.54
Total Grid Corr.: 7.95
Calculation Method: Minimum Curvature
Proposed Azimuth: 68.75
Depth Reference: RKB
Tie Into: Scientific Gyro

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
Tie In	6073	0.42	8.23	N 8.2 E		6072.93	18.62	4.31 S	21.65 E					
MWD	6279	0.28	308.30	N 53.7 W	208	6278.93	18.74	3.29 S	21.38 E	21.63	98.74	0.18	-0.08	-30.08
MWD	6457	0.28	72.80	N 72.8 E	178	6456.93	18.92	2.93 S	21.44 E	21.64	97.77	0.28	0.00	71.07
MWD	6487	0.70	65.80	N 65.8 E	30	6486.92	19.17	2.83 S	21.67 E	21.88	97.45	1.48	1.47	-23.33
MWD	6517	1.30	66.50	N 66.5 E	30	6516.92	19.70	2.62 S	22.15 E	22.31	96.75	2.00	2.00	2.33
MWD	6548	1.90	77.80	N 77.8 E	31	6547.91	20.58	2.37 S	22.98 E	23.10	95.90	2.18	1.94	36.45
MWD	6579	2.60	70.40	N 70.4 E	31	6578.88	21.77	2.09 S	24.14 E	24.23	94.80	2.44	2.28	-23.87
MWD	6610	3.20	76.50	N 76.5 E	31	6609.84	23.33	1.59 S	25.85 E	25.70	93.55	2.17	1.94	19.68
MWD	6640	3.90	81.30	N 81.3 E	30	6639.79	25.15	1.24 S	27.47 E	27.50	92.59	2.53	2.33	16.00
MWD	6672	4.60	78.20	N 79.2 E	32	6671.70	27.48	0.84 S	29.81 E	29.82	91.81	2.24	2.19	-6.58
MWD	6704	5.40	80.90	N 80.9 E	32	6703.58	30.21	0.38 S	32.55 E	32.55	90.83	2.54	2.50	5.31
MWD	6734	5.20	80.60	N 80.6 E	30	6733.42	33.18	0.13 N	35.54 E	35.54	89.79	2.87	2.87	-1.00
MWD	6765	7.00	82.00	N 82.0 E	31	6764.22	36.85	0.67 N	39.07 E	39.07	88.02	2.63	2.58	4.52
MWD	6797	7.50	83.40	N 83.4 E	32	6795.96	40.57	1.18 N	43.07 E	43.09	86.43	1.68	1.58	4.38
MWD	6827	8.00	84.40	N 84.4 E	30	6825.69	44.48	1.61 N	47.09 E	47.12	84.05	1.73	1.87	3.33
MWD	6858	8.30	86.60	N 86.6 E	31	6856.37	48.68	1.95 N	51.48 E	51.51	87.83	1.40	0.97	7.10
MWD	6890	9.10	88.00	N 88.0 E	32	6888.01	53.30	2.26 N	56.31 E	56.35	87.70	2.52	2.50	-1.87
MWD	6922	9.20	87.40	N 87.4 E	32	6919.60	58.14	2.58 N	61.39 E	61.44	87.81	0.78	0.31	4.38
MWD	6954	9.70	85.50	N 85.5 E	32	6951.18	63.14	2.88 N	66.83 E	66.89	87.52	1.84	1.68	-5.94
MWD	6985	10.50	85.10	N 85.1 E	31	6981.68	68.35	3.33 N	72.05 E	72.12	87.35	2.59	2.58	-1.29
MWD	7018	10.90	85.10	N 85.1 E	31	7012.14	73.88	3.82 N	77.78 E	77.87	87.19	1.29	1.29	0.00
MWD	7048	11.30	82.30	N 82.3 E	32	7043.55	79.83	4.50 N	83.90 E	84.02	86.93	2.10	1.25	-8.75
MWD	7078	12.20	83.30	N 83.3 E	31	7073.90	85.95	5.29 N	90.17 E	90.32	86.84	2.98	2.90	3.23
MWD	7111	12.70	78.80	N 78.8 E	32	7105.14	92.69	6.37 N	96.97 E	97.18	86.24	3.41	1.58	-14.08
MWD	7142	13.40	77.40	N 77.4 E	31	7135.34	99.80	7.81 N	103.82 E	104.12	85.70	2.48	2.28	-4.52
MWD	7173	14.10	78.10	N 78.1 E	31	7165.45	108.87	8.38 N	111.02 E	111.42	85.17	2.32	2.28	2.28
MWD	7204	14.80	78.50	N 78.5 E	31	7195.47	114.50	10.94 N	118.60 E	119.10	84.73	2.28	2.28	1.29
MWD	7237	15.30	78.10	N 78.1 E	33	7227.34	122.95	12.68 N	126.99 E	127.62	84.30	1.55	1.52	-1.21
MWD	7267	16.00	77.40	N 77.4 E	30	7258.23	130.84	14.40 N	134.90 E	135.68	83.91	2.42	2.33	-2.33
MWD	7330	17.00	77.70	N 77.7 E	63	7316.63	148.63	18.28 N	152.37 E	153.46	83.17	1.59	1.59	0.48
MWD	7391	18.90	77.00	N 77.0 E	61	7374.98	166.21	22.15 N	169.72 E	171.16	82.56	0.37	-0.16	-1.15
MWD	7454	18.90	77.40	N 77.4 E	63	7435.26	184.32	26.21 N	187.58 E	189.40	82.05	0.18	0.00	0.63
MWD	7485	18.80	77.40	N 77.4 E	31	7484.93	193.21	28.17 N	196.35 E	198.36	81.84	0.32	-0.32	0.00
MWD	7517	16.90	77.40	N 77.4 E	32	7495.58	202.38	30.19 N	205.40 E	207.81	81.64	0.31	0.31	0.00
MWD	7549	17.20	79.50	N 79.5 E	32	7528.15	211.63	32.07 N	214.59 E	216.98	81.50	2.14	0.84	6.58
MWD	7580	17.70	79.20	N 79.2 E	31	7555.73	220.76	33.79 N	223.73 E	226.27	81.41	1.64	1.61	-0.97
MWD	7611	18.60	78.80	N 78.8 E	31	7585.18	230.27	-35.63 N	233.21 E	235.91	81.31	2.93	2.80	-1.29
MWD	7642	19.50	78.50	N 78.5 E	31	7614.49	240.23	37.62 N	243.13 E	246.02	81.20	2.92	2.80	-0.97
MWD	7673	19.20	78.50	N 78.5 E	31	7643.73	250.36	39.67 N	253.19 E	256.28	81.10	0.97	-0.97	0.00

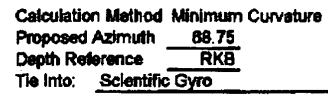


Company: EOG Resources
Well: Purple Humpy "15" #1
Location: Lea Co., NM
Rig: McVay #7

Job Number: 505747
Magnetic Decl.: 8.49
Grid Corr.: -0.54
Total Grid Corr.: 7.95

Calculation Method: Minimum Curvature
Proposed Azimuth: 68.75
Depth Reference: RKB
Tie Info: Scientific Gyro

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
MWD	7735	18.50	80.20	N 80.2 E	62	7702.41	270.04	43.38 N	272.88 E	276.30	80.97	1.43	-1.13	2.74
MWD	7797	18.90	79.90	N 79.9 E	62	7761.14	269.54	46.81 N	292.46 E	296.18	80.91	0.68	0.65	-0.48
MWD	7828	18.60	79.90	N 79.9 E	31	7790.49	299.31	48.56 N	302.27 E	308.14	80.87	0.97	-0.97	0.00
MWD	7889	19.30	79.20	N 79.2 E	61	7848.18	318.77	52.15 N	321.75 E	325.95	80.79	1.21	1.15	-1.15
MWD	7952	19.40	78.80	N 78.8 E	63	7907.63	339.31	58.14 N	342.24 E	348.81	80.68	0.26	0.16	-0.63
MWD	8013	19.40	78.50	N 78.5 E	61	7965.16	359.27	60.12 N	362.10 E	367.08	80.57	0.16	0.00	-0.48
MWD	8075	18.90	78.80	N 78.8 E	62	8023.73	379.31	64.13 N	382.04 E	387.39	80.47	0.82	-0.81	0.48
MWD	8138	19.80	77.40	N 77.4 E	63	8083.17	399.81	68.44 N	402.47 E	408.24	80.35	1.61	1.43	-2.22
MWD	8201	19.40	77.00	N 77.0 E	63	8142.52	420.81	73.12 N	423.07 E	429.35	80.19	0.67	-0.63	-0.63
MWD	8278	19.20	78.10	N 78.1 E	77	8215.19	445.96	78.61 N	447.92 E	454.77	80.05	0.54	-0.26	1.43
MWD	8341	19.20	77.40	N 77.4 E	63	8274.69	466.42	83.00 N	468.17 E	475.47	79.95	0.37	0.00	-1.11
MWD	8404	19.20	74.20	N 74.2 E	63	8334.19	486.96	88.08 N	488.25 E	496.13	79.77	1.62	0.00	-5.08
MWD	8466	19.00	72.80	N 72.8 E	62	8392.77	507.19	93.84 N	507.70 E	516.30	79.53	0.81	-0.32	-2.26
MWD	8527	18.80	72.50	N 72.5 E	61	8450.49	526.91	99.74 N	526.58 E	535.92	79.27	0.36	-0.33	-0.49
MWD	8590	18.30	72.50	N 72.5 E	63	8510.21	546.90	105.76 N	545.67 E	555.83	79.03	0.79	-0.79	0.00
MWD	8654	18.20	73.90	N 73.9 E	94	8598.48	576.25	114.27 N	573.85 E	585.12	78.74	0.48	-0.11	1.49
MWD	8747	17.80	76.30	N 76.3 E	63	8656.40	595.60	119.28 N	592.66 E	604.55	78.62	1.34	-0.63	3.81
MWD	8809	16.50	78.20	N 78.2 E	61	8717.69	613.36	123.26 N	610.20 E	622.62	78.58	2.32	-2.13	3.11
MWD	8839	16.20	78.80	N 78.8 E	31	8747.44	621.99	125.00 N	618.75 E	631.25	78.58	1.11	-0.97	1.94
MWD	8902	16.40	78.80	N 78.8 E	63	8807.90	639.40	128.43 N	636.10 E	648.93	78.58	0.32	0.32	0.00
MWD	8963	16.20	78.80	N 78.8 E	61	8868.45	656.25	131.76 N	652.89 E	666.05	78.59	0.33	-0.33	0.00
MWD	9058	16.00	78.80	N 78.8 E	95	8957.72	682.19	136.88 N	678.73 E	692.40	78.60	0.21	-0.21	0.00
MWD	9120	15.90	78.50	N 78.5 E	62	9017.34	698.98	140.23 N	695.44 E	709.44	78.60	0.21	-0.16	-0.48
MWD	9213	18.60	77.00	N 77.0 E	93	9106.62	724.68	145.78 N	720.87 E	736.45	78.57	0.88	0.75	-1.61
MWD	9276	18.50	76.60	N 76.6 E	63	9187.01	742.45	149.86 N	736.34 E	753.39	78.53	0.24	-0.16	-0.63
MWD	9338	16.70	78.50	N 78.5 E	62	9226.43	759.95	153.67 N	755.63 E	771.10	78.50	0.93	0.32	3.08
MWD	9432	16.80	78.80	N 78.8 E	94	9316.44	786.64	159.00 N	782.19 E	798.19	78.51	0.14	0.11	0.32
MWD	9495	16.40	78.80	N 78.8 E	63	9376.81	804.36	162.50 N	799.85 E	816.19	78.52	0.63	-0.63	0.00
MWD	9587	16.60	78.80	N 78.8 E	92	9465.03	830.09	167.67 N	825.48 E	842.32	78.52	0.22	0.22	0.00
MWD	9648	16.70	79.90	N 79.9 E	61	9523.47	847.27	170.80 N	842.66 E	859.79	78.54	0.54	0.16	1.60
MWD	9755	16.50	79.50	N 79.5 E	107	9626.01	877.26	176.27 N	872.73 E	890.35	78.58	0.22	-0.19	-0.37
MWD	9817	16.20	79.20	N 79.2 E	62	9685.50	894.43	178.49 N	889.88 E	907.61	78.60	0.50	-0.48	-0.48
MWD	9879	16.10	79.20	N 79.2 E	62	9745.05	911.39	182.73 N	908.82 E	925.05	78.61	0.16	-0.16	0.00
MWD	9944	16.50	77.00	N 77.0 E	65	9807.44	929.39	186.49 N	924.87 E	943.28	78.60	1.13	0.62	-3.38
MWD	10006	16.30	77.00	N 77.0 E	62	9868.92	946.72	190.43 N	941.73 E	960.79	78.57	0.32	-0.32	0.00
MWD	10036	16.40	78.70	N 78.7 E	30	9895.71	955.08	192.35 N	949.95 E	969.23	78.55	0.44	0.33	-1.00
MWD	10098	17.10	77.40	N 77.4 E	62	9955.08	972.78	196.35 N	967.37 E	987.09	78.53	1.17	1.13	1.13
MWD	10159	17.10	77.00	N 77.0 E	61	10013.38	990.50	200.33 N	984.86 E	1005.02	78.50	0.19	0.00	-0.86
MWD	10223	17.10	77.70	N 77.7 E	64	10074.55	1009.11	204.45 N	1003.22 E	1023.84	78.48	0.32	0.00	1.08

[illegible]



Company: EOG Resources
 Well: Purple Humpy "15" #1
 Location: Lea Co., NM
 Rig: McVay #7

Job Number: 505747
 Magnetic Decl.: 8.49
 Grid Corr.: -0.54
 Total Grid Corr.: 7.95
 Calculation Method: Minimum Curvature
 Proposed Azimuth: 68.75
 Depth Reference: RKB
 Tie Into: Scientific Gyro

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
MWD	10694	15.20	37.70	N 37.7 E	31	10526.52	1137.12	267.91 N	1115.89 E	1147.60	76.50	3.50	-1.29	-12.26
MWD	10758	15.60	30.10	N 30.1 E	82	10588.30	1150.60	281.55 N	1125.05 E	1159.74	75.95	3.32	0.65	-12.26
MWD	10788	16.10	27.50	N 27.5 E	32	10617.08	1157.29	288.21 N	1129.25 E	1165.70	75.63	2.71	1.56	-8.13
MWD	10833	16.80	23.60	N 23.6 E	45	10680.24	1166.57	300.70 N	1134.74 E	1173.91	75.16	2.90	1.56	-8.67
MWD	10881	17.00	22.90	N 22.9 E	48	10706.17	1176.35	313.52 N	1140.25 E	1182.58	74.63	0.59	0.42	-1.46
MWD	10959	17.70	24.00	N 24.0 E	78	10780.62	1192.72	334.88 N	1149.51 E	1197.29	73.78	0.99	0.90	1.41
MWD	10990	17.80	23.10	N 23.1 E	31	10810.14	1199.37	343.52 N	1153.28 E	1203.36	73.41	0.94	0.32	-2.90
PROJ	11047	17.80	23.10	N 23.1 E	57	10864.41	1211.55	359.55 N	1160.12 E	1214.58	72.78	0.00	0.00	0.00



Company: EOG Resources
 Well: Purple Humpy "15" #1
 Location: Lea Co., NM
 Rig: McVay #7

Job Number: 505747
 Magnetic Decl.: 8.48
 Grid Corr.: -0.54
 Total Grid Corr.: 7.95
 Calculation Method: Minimum Curvature
 Proposed Azimuth: 68.75
 Depth Reference: RKB
 Tie Into: Scientific Gyro

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
MWD	10959	17.70	24.00	N 24.0 E	78	10780.82	1192.72	334.86 N	1149.51 E	1197.29	73.76	0.89	0.90	1.41
MWD	10990	17.80	23.10	N 23.1 E	31	10810.14	1199.37	343.52 N	1153.28 E	1203.36	73.41	0.94	0.32	-2.90
MWD	11020	17.80	22.70	N 22.7 E	30	10838.72	1205.73	351.93 N	1158.83 E	1209.18	73.08	0.78	-0.67	-1.33
MWD	11083	17.80	23.10	N 23.1 E	63	10898.77	1219.00	369.47 N	1164.24 E	1221.48	72.39	0.19	0.00	0.63
MWD	11115	17.40	22.70	N 22.7 E	32	10928.28	1225.70	378.34 N	1167.98 E	1227.74	72.08	0.73	-0.63	-1.25
MWD	11179	17.20	22.40	N 22.4 E	64	10990.40	1238.87	395.92 N	1175.26 E	1240.18	71.38	0.34	-0.31	-0.47
MWD	11243	15.80	19.60	N 19.6 E	64	11051.78	1251.10	412.87 N	1181.82 E	1251.86	70.74	2.52	-2.19	-4.38
MWD	11273	15.20	18.10	N 18.1 E	30	11080.87	1256.27	420.48 N	1184.41 E	1256.82	70.46	2.41	-2.00	-5.00
MWD	11304	14.00	18.10	N 18.1 E	31	11110.87	1261.22	427.89 N	1188.84 E	1261.61	70.17	3.87	-3.87	0.00
MWD	11335	12.90	18.80	N 18.8 E	31	11140.82	1265.83	434.73 N	1189.12 E	1266.09	69.92	3.59	-3.55	2.28
MWD	11366	11.80	20.70	N 20.7 E	31	11171.10	1270.17	440.87 N	1191.35 E	1270.34	69.69	3.78	-3.55	6.13
Proj	11433	9.50	22.00	N 22.0 E	67	11236.94	1278.54	452.50 N	1195.84 E	1278.59	69.27	3.45	-3.43	1.94



Company: EOG Resources
 Well: Purple Humpy #15 #1
 Location: Lea Co., NM
 Rig: McVay #7

Job Number: 505747
 Magnetic Decl.: 8.49
 Grid Corr.: -0.54
 Total Grid Corr.: 7.95

Calculation Method: Minimum Curvature
 Proposed Azimuth: 68.75
 Depth Reference: RKB
 Tie Into: Scientific Gyro

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
MWD	11335	12.90	18.80	N 18.8 E	31	11140.82	1265.83	434.73 N	1189.12 E	1266.09	69.92	3.59	-3.55	2.28
MWD	11368	11.80	20.70	N 20.7 E	31	11171.10	1270.17	440.97 N	1191.35 E	1270.34	69.69	3.78	-3.55	6.13
MWD	11397	10.70	23.50	N 23.5 E	31	11201.50	1274.32	446.57 N	1193.62 E	1274.42	68.49	3.96	-3.55	9.03
MWD	11429	9.50	25.30	N 25.3 E	32	11233.01	1278.33	451.68 N	1195.93 E	1278.39	68.31	3.88	-3.75	5.63
MWD	11461	8.60	24.30	N 24.3 E	32	11264.61	1281.95	456.25 N	1198.05 E	1281.98	68.15	2.88	-2.81	-3.13
MWD	11493	7.70	26.20	N 26.2 E	32	11296.28	1285.24	460.36 N	1199.98 E	1285.25	68.01	2.94	-2.81	5.94
MWD	11525	6.70	28.90	N 28.9 E	32	11328.03	1288.21	463.94 N	1201.77 E	1288.21	68.89	3.14	-3.13	2.19
MWD	11557	6.10	23.10	N 23.1 E	32	11359.83	1290.79	467.17 N	1203.26 E	1290.79	68.78	2.29	-1.88	-11.88
MWD	11589	5.40	19.60	N 19.6 E	32	11391.67	1292.98	470.16 N	1204.45 E	1292.98	68.68	2.45	-2.19	-10.94
MWD	11621	4.60	19.00	N 19.0 E	32	11423.54	1294.81	472.84 N	1205.39 E	1294.82	68.58	1.88	-1.88	-1.88
MWD	11653	3.90	19.20	N 19.2 E	32	11455.45	1296.38	475.13 N	1206.19 E	1296.39	68.50	2.81	-2.81	0.82
MWD	11685	3.60	18.8	N 18.8 E	32	11487.38	1297.73	477.11 N	1206.87 E	1297.75	68.43	0.94	-0.94	-1.25
Proj	11755	1.8	24.0	N 24.0 E	70	11557.30	1299.93	480.20 N	1208.02 E	1299.97	68.32	2.58	-2.57	7.43



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 Proposed Azimuth: 68.75
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Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Direction	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)											
MWD	11625	6.70	28.90	N 28.9 E	32	11328.03	1288.21	483.94 N	1201.77 E	1288.21	68.89	3.14	-3.13	2.19
MWD	11557	6.10	23.10	N 23.1 E	32	11359.83	1290.79	487.17 N	1203.28 E	1290.79	68.78	2.29	-1.88	-11.88
MWD	11589	5.40	19.60	N 19.6 E	32	11391.67	1292.98	470.16 N	1204.46 E	1292.98	68.68	2.45	-2.19	-10.94
MWD	11621	4.80	19.00	N 19.0 E	32	11423.54	1294.81	472.84 N	1205.39 E	1294.82	68.58	1.88	-1.88	-1.88
MWD	11653	3.90	19.20	N 19.2 E	32	11455.45	1296.38	475.13 N	1206.19 E	1296.39	68.50	2.81	-2.81	0.62
MWD	11685	3.60	18.8	N 18.8 E	32	11487.38	1297.73	477.11 N	1208.87 E	1297.75	68.43	0.94	-0.94	-1.25
MWD	11717	2.90	23.9	N 23.9 E	32	11519.33	1298.95	478.80 N	1207.52 E	1298.98	68.37	2.36	-2.19	15.94
MWD	11750	1.80	35.7	N 35.7 E	33	11552.30	1299.98	479.99 N	1208.16 E	1300.02	68.33	3.62	-3.33	35.76
MWD	11782	1.00	37.8	N 37.8 E	32	11584.29	1300.64	480.62 N	1208.63 E	1300.68	68.31	2.50	-2.50	6.56
MWD	11814	0.40	13.9	N 13.9 E	32	11616.29	1300.95	480.95 N	1208.82 E	1300.99	68.30	2.05	-1.88	-74.69
MWD	11878	0.40	347.9	N 12.1 W	64	11680.29	1301.11	481.38 N	1208.83 E	1301.15	68.29	0.28	0.00	-40.63
MWD	11954	0.40	35.7	N 35.7 E	78	11758.29	1301.37	481.86 N	1208.93 E	1301.42	68.27	0.43	0.00	62.89
PROJ	12000	0.40	35.7	N 35.7 E	48	11802.29	1301.64	482.12 N	1209.12 E	1301.69	68.26	0.00	0.00	0.00