

Scientific Drilling

COG RESOURCES

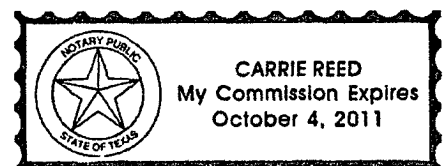
Field: Empire Yeso
Site: Eddy County, NM
Well: Folk Federal #10
Wellpath: DH - Job #32D0709244
Survey: 07/06/09-07/10/09

This survey is correct to the best of my knowledge
and is supported by actual field data.

Stewart.....Company Representative

Notorized this date 3/20 of July, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: COG RESOURCES	Date: 07/31/2009	Time: 08:50:50	Page: 1
Field: Empire Yeso	Co-ordinate(NE) Reference:	Site: Eddy County, NM, True North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Folk Federal #10	Section (VS) Reference:	Well (0.00N,0.00E,179.84Azi)	
Wellpath: VH - Job #32K0709245	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 07/06/09	Start Date: 07/06/2009
Company: Scientific Drilling Internatio	Engineer: Garza/Williams
Tool: Keeper;Keeper Gyro	Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.00	0.00	359.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.48	266.84	100.00	0.02	-0.02	-0.42	0.48	0.42	266.84
200.00	0.61	283.35	199.99	-0.08	0.08	-1.35	0.20	1.36	273.24
300.00	0.35	272.34	299.99	-0.22	0.21	-2.18	0.27	2.19	275.56
400.00	0.13	243.60	399.99	-0.18	0.17	-2.58	0.24	2.59	273.85
500.00	0.43	77.39	499.99	-0.21	0.21	-2.32	0.56	2.33	275.07
600.00	0.64	84.40	599.98	-0.35	0.34	-1.40	0.22	1.44	283.75
700.00	0.63	72.82	699.98	-0.56	0.56	-0.32	0.13	0.64	330.47
740.00	0.91	87.76	739.97	-0.64	0.64	0.21	0.86	0.67	18.33



Scientific
Drilling

Scientific Drilling International Survey Report

Company: COG RESOURCES	Date: 07/31/2009	Time: 08:56:10	Page: 1
Field: Empire Yeso	Co-ordinate(NE) Reference:	Site: Eddy County, NM, True North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Folk Federal #10	Section (VS) Reference:	Well (0.00N,0.00E,179.84Azi)	
Wellpath: DH - Job #32D0709244	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 07/06/09-07/10/09	Start Date: 07/06/2009
MWD 926'-3826'	
Company: Scientific Drilling Internatio	Engineer: Calvert/Baldwin
Tool: MWD;MWD	Tied-to: From: Definitive Path

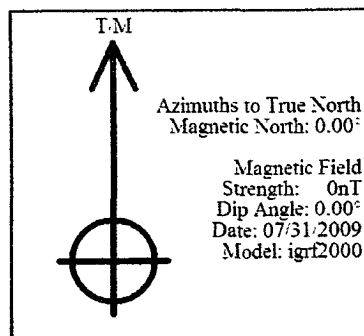
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
740.30	0.91	87.76	740.27	-0.64	0.64	0.22	0.00	0.67	18.71
926.00	0.81	123.81	925.96	0.04	-0.04	2.78	0.29	2.78	90.75
1024.00	2.43	202.08	1023.92	2.35	-2.35	2.57	2.45	3.48	132.36
1116.00	3.71	188.74	1115.79	7.10	-7.10	1.39	1.58	7.23	168.93
1212.00	3.60	189.57	1211.59	13.14	-13.14	0.42	0.13	13.15	178.19
1311.00	2.14	180.04	1310.47	18.05	-18.05	-0.10	1.55	18.05	180.32
1438.00	1.85	180.25	1437.39	22.47	-22.47	-0.11	0.23	22.47	180.29
1565.00	3.97	179.31	1564.22	28.92	-28.92	-0.07	1.67	28.92	180.14
1756.00	3.46	184.16	1754.82	41.28	-41.28	-0.41	0.31	41.28	180.57
1948.00	3.17	179.62	1946.50	52.36	-52.37	-0.79	0.20	52.37	180.87
2138.00	2.22	185.56	2136.28	61.28	-61.28	-1.11	0.52	61.29	181.04
2329.00	3.98	177.13	2327.00	71.58	-71.59	-1.14	0.95	71.60	180.91
2520.00	3.47	182.31	2517.59	83.98	-83.98	-1.04	0.32	83.99	180.71
2680.00	3.09	176.33	2677.33	93.12	-93.12	-0.96	0.32	93.13	180.59
2871.00	2.81	177.00	2868.08	102.93	-102.94	-0.39	0.15	102.94	180.22
3030.00	2.63	169.68	3026.90	110.42	-110.42	0.47	0.25	110.42	179.76
3189.00	3.73	184.60	3185.66	119.16	-119.16	0.71	0.86	119.16	179.66
3381.00	3.45	188.73	3377.28	131.09	-131.10	-0.67	0.20	131.10	180.29
3572.00	3.50	187.33	3567.93	142.55	-142.56	-2.28	0.05	142.58	180.92
3671.00	2.84	167.02	3666.78	147.94	-147.95	-2.12	1.31	147.96	180.82
3763.00	0.72	189.01	3758.73	150.73	-150.74	-1.70	2.38	150.75	180.65
3826.00	0.15	96.69	3821.73	151.13	-151.14	-1.68	1.18	151.15	180.64

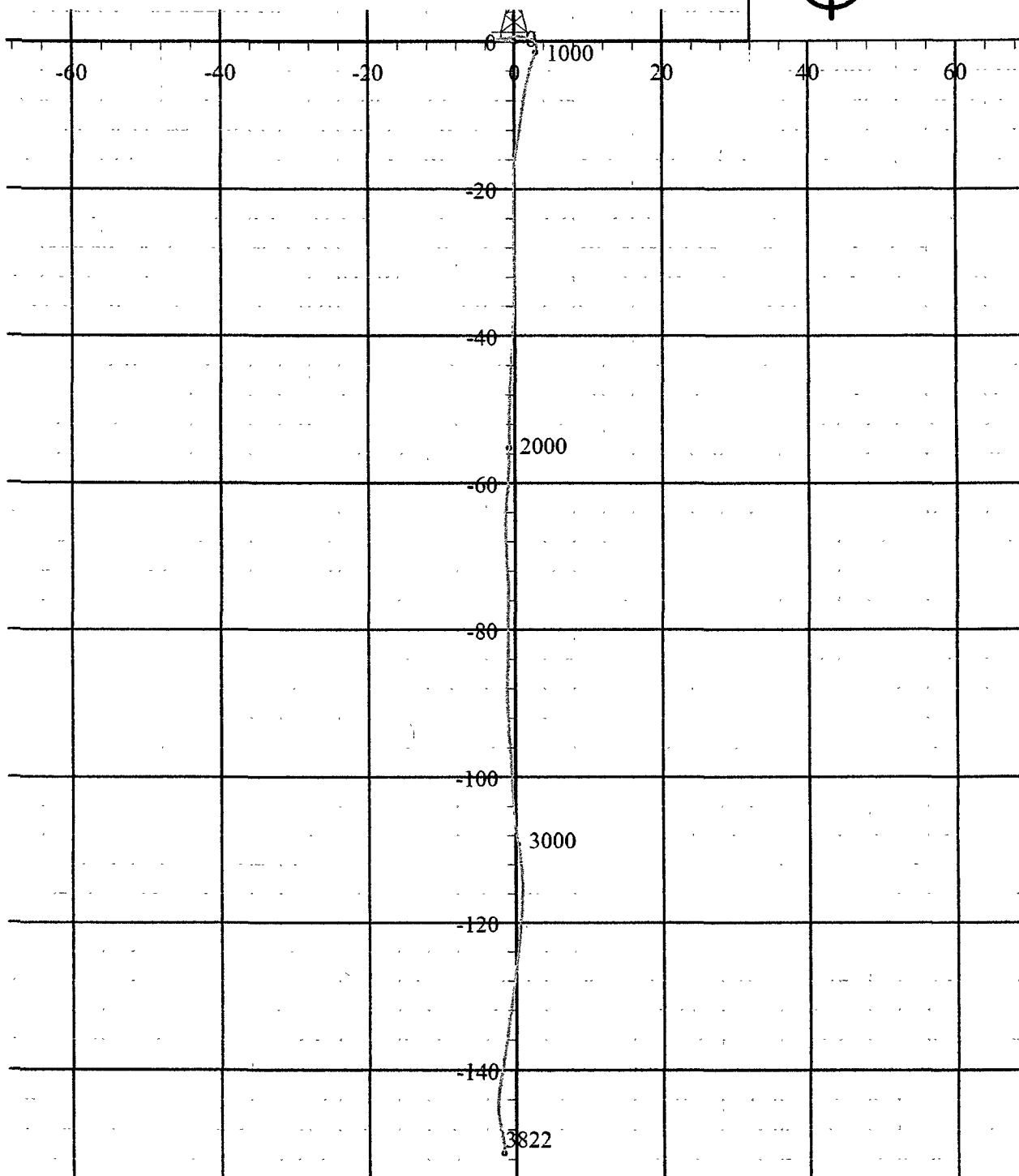


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Field: Empire Yeso
Site: Eddy County, NM
Well: Folk Federal #10
Wellpath: DH - Job #32D0709244
Survey: 07/06/09-07/10/09



South(-)/North(+) [20ft/in]



West(-)/East(+) [20ft/in]