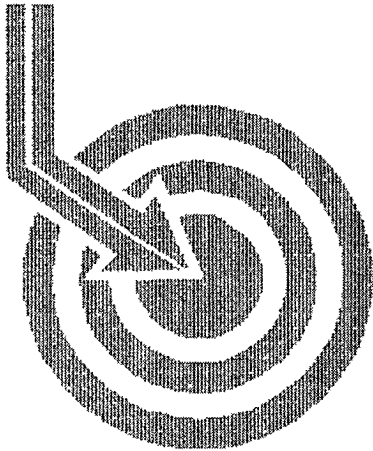
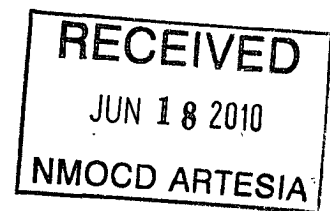




Scientific Drilling



30 015 37086

COG RESOURCES

Field: Loco Hills
Site: Eddy County, NM
Well: Electra Federal #42
Wellpath: VH - Job #32K0210134
Survey: 02/27/10

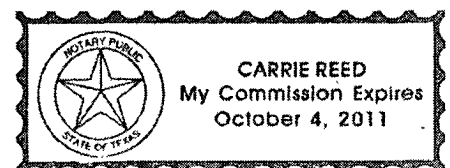
WR

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

L. Wharton
Company Representative

Notarized this date 11th of March, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific Drilling International, Inc.

Survey Report

Company: COG RESOURCES
Field: Loco Hills
Site: Eddy County, NM
Well: Electra Federal #42
Wellpath: VH - Job #32K0210134

Date: 3/4/2010 Time: 14:53:10 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,263.12Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 02/27/10
KSRG 0'-5972'

Start Date: 2/27/2010

Company: Scientific Drilling Internatio
Tool: Keeper, Keeper Gyro

Engineer: Madrid/Sutherland w/Halliburto
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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.54	67.96	100.0	-0.5	0.2	0.4	0.54	0.5	67.96
200.0	0.73	42.53	200.0	-1.4	0.8	1.3	0.34	1.5	57.74
300.0	0.94	23.76	300.0	-2.3	2.0	2.1	0.34	2.9	45.31
400.0	1.39	5.75	400.0	-3.0	4.0	2.5	0.57	4.7	32.18
500.0	1.49	5.38	499.9	-3.5	6.5	2.8	0.10	7.1	23.01
600.0	1.62	14.96	599.9	-4.3	9.2	3.2	0.29	9.7	19.52
700.0	1.73	19.02	699.9	-5.5	12.0	4.1	0.16	12.6	18.95
800.0	1.89	28.08	799.8	-7.1	14.8	5.4	0.33	15.8	19.91
900.0	2.13	40.44	899.7	-9.4	17.7	7.4	0.49	19.2	22.56
1000.0	2.36	45.22	999.7	-12.4	20.6	10.0	0.30	22.9	25.97
1100.0	2.25	54.51	1099.6	-15.8	23.2	13.1	0.39	26.6	29.46
1200.0	1.85	61.54	1199.5	-19.0	25.1	16.1	0.47	29.8	32.71
1300.0	1.34	60.58	1299.5	-21.6	26.4	18.5	0.51	32.3	35.06
1400.0	1.02	57.80	1399.5	-23.5	27.5	20.3	0.32	34.2	36.48
1500.0	0.76	61.52	1499.4	-24.9	28.3	21.6	0.27	35.6	37.46
1600.0	0.43	56.71	1599.4	-25.8	28.8	22.5	0.33	36.6	38.07
1700.0	0.10	26.50	1699.4	-26.2	29.1	22.9	0.35	37.0	38.23
1800.0	0.28	304.18	1799.4	-26.1	29.3	22.7	0.28	37.1	37.83
1900.0	0.33	269.97	1899.4	-25.6	29.4	22.2	0.19	36.9	37.10
2000.0	0.54	251.20	1999.4	-24.9	29.3	21.5	0.25	36.3	36.32
2100.0	0.52	255.58	2099.4	-23.9	29.0	20.6	0.05	35.6	35.42
2200.0	0.53	254.04	2199.4	-23.0	28.8	19.7	0.02	34.9	34.46
2300.0	0.68	251.42	2299.4	-22.0	28.4	18.7	0.15	34.1	33.37
2400.0	0.72	248.87	2399.4	-20.8	28.0	17.6	0.05	33.1	32.10
2500.0	0.88	244.36	2499.4	-19.5	27.5	16.3	0.17	31.9	30.69
2600.0	0.90	243.80	2599.4	-18.0	26.8	14.9	0.02	30.7	29.09
2700.0	0.91	241.87	2699.4	-16.5	26.1	13.5	0.03	29.4	27.38
2800.0	0.88	241.12	2799.4	-15.1	25.3	12.1	0.03	28.1	25.59
2900.0	0.94	237.56	2899.4	-13.6	24.5	10.8	0.08	26.8	23.71
3000.0	0.69	226.92	2999.3	-12.4	23.7	9.6	0.29	25.5	22.15
3100.0	0.65	229.02	3099.3	-11.4	22.9	8.8	0.05	24.5	20.96
3200.0	0.68	228.08	3199.3	-10.5	22.1	7.9	0.03	23.5	19.65
3300.0	0.73	226.42	3299.3	-9.5	21.3	7.0	0.05	22.4	18.19
3400.0	0.62	214.53	3399.3	-8.6	20.4	6.2	0.18	21.3	16.97
3500.0	0.75	211.46	3499.3	-7.9	19.4	5.6	0.14	20.2	16.04
3600.0	0.73	219.51	3599.3	-7.0	18.3	4.8	0.11	19.0	14.75
3700.0	0.92	215.29	3699.3	-6.0	17.2	4.0	0.20	17.6	12.97
3800.0	0.84	218.25	3799.3	-4.9	16.0	3.0	0.09	16.2	10.79
3900.0	0.86	217.15	3899.3	-3.9	14.8	2.1	0.03	14.9	8.21
4000.0	0.77	216.44	3999.3	-2.9	13.6	1.3	0.09	13.7	5.36
4100.0	0.74	222.89	4099.2	-2.0	12.6	0.4	0.09	12.6	2.00
4200.0	0.81	221.09	4199.2	-0.9	11.6	-0.5	0.07	11.6	357.72
4300.0	0.88	229.82	4299.2	0.2	10.6	-1.5	0.15	10.7	351.87
4400.0	0.90	237.84	4399.2	1.6	9.7	-2.8	0.13	10.1	344.05
4500.0	0.80	230.87	4499.2	2.9	8.8	-4.0	0.14	9.7	335.76
4600.0	0.79	233.34	4599.2	4.1	8.0	-5.1	0.04	9.4	327.55
4700.0	0.73	221.89	4699.2	5.2	7.1	-6.0	0.16	9.3	319.52
4800.0	0.52	212.36	4799.2	5.9	6.2	-6.7	0.23	9.2	312.84