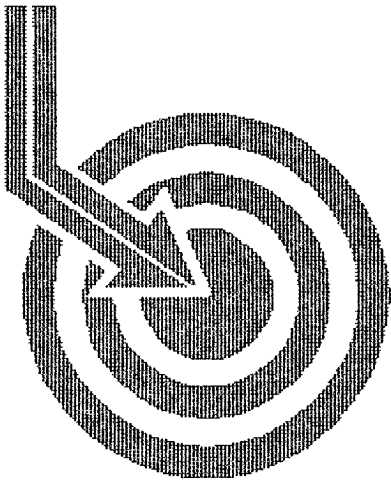
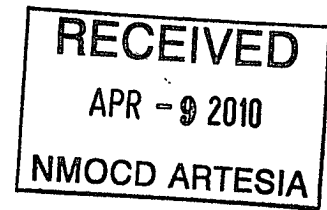


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Scientific Drilling



COG RESOURCES

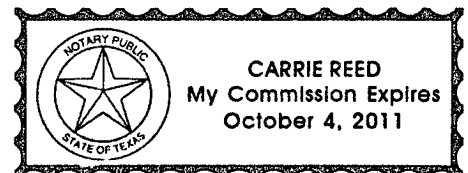
Field: Loco Hills
Site: Eddy County, NM
Well: Electra Federal #3
Wellpath: VH - Job #32K0210103
Survey: 02/13/10

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

Richard M. ...
Company Representative

Notarized this date 11th of March, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas



MD



Scientific Drilling International, Inc.

Survey Report

Company: COG RESOURCES
Field: Loco Hills
Site: Eddy County, NM
Well: Electra Federal #3
Wellpath: VH - Job #32K0210103

Date: 2/17/2010
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,243.58Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey: 02/13/10
Start Date: 2/13/2010
Company: Scientific Drilling Internatio
Engineer: Melendez w/Halliburton
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
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	1.09	272.90	100.0	0.8	0.0	-0.9	1.09	1.0	272.90
200.0	1.29	254.64	200.0	2.8	-0.2	-3.0	0.43	3.0	266.13
300.0	1.58	230.15	299.9	5.2	-1.4	-5.1	0.67	5.3	254.90
400.0	2.09	224.81	399.9	8.3	-3.6	-7.5	0.54	8.3	244.52
500.0	2.73	231.51	499.8	12.3	-6.3	-10.6	0.70	12.4	239.18
600.0	2.87	233.51	599.7	17.1	-9.3	-14.5	0.17	17.2	237.30
700.0	2.14	235.63	699.6	21.4	-11.9	-18.1	0.74	21.6	236.72
800.0	1.61	239.12	799.5	24.7	-13.6	-20.8	0.54	24.9	236.77
900.0	1.04	211.61	899.5	26.9	-15.1	-22.5	0.84	27.1	236.08
1000.0	0.59	175.14	999.5	27.8	-16.4	-22.9	0.67	28.2	234.40
1100.0	0.81	136.47	1099.5	27.8	-17.4	-22.4	0.51	28.4	232.09
1200.0	0.83	137.76	1199.5	27.4	-18.5	-21.4	0.03	28.3	229.20
1300.0	0.91	164.24	1299.5	27.3	-19.8	-20.7	0.41	28.6	226.31
1400.0	1.04	169.24	1399.5	27.7	-21.4	-20.3	0.16	29.5	223.47
1500.0	1.00	183.63	1499.4	28.4	-23.2	-20.2	0.26	30.8	221.06
1600.0	1.02	195.73	1599.4	29.5	-24.9	-20.5	0.21	32.3	219.44
1700.0	0.94	216.90	1699.4	30.8	-26.4	-21.2	0.37	33.9	218.77
1800.0	0.88	220.40	1799.4	32.2	-27.7	-22.2	0.08	35.5	218.77
1900.0	0.83	250.14	1899.4	33.6	-28.5	-23.4	0.44	36.9	219.39
2000.0	1.06	259.98	1999.4	35.3	-28.9	-25.0	0.28	38.2	220.84
2100.0	1.12	250.98	2099.4	37.1	-29.4	-26.8	0.18	39.8	222.39
2200.0	1.02	258.86	2199.3	38.9	-29.9	-28.6	0.18	41.4	223.77
2300.0	1.05	260.69	2299.3	40.7	-30.2	-30.4	0.04	42.9	225.19
2400.0	0.96	266.19	2399.3	42.3	-30.4	-32.1	0.13	44.3	226.59
2500.0	1.08	270.63	2499.3	43.9	-30.5	-33.9	0.14	45.6	228.08
2600.0	0.95	269.98	2599.3	45.5	-30.4	-35.7	0.13	46.9	229.54
2700.0	0.95	270.41	2699.3	47.0	-30.4	-37.4	0.01	48.2	230.82
2800.0	0.86	265.07	2799.2	48.4	-30.5	-38.9	0.12	49.5	231.93
2900.0	0.97	263.84	2899.2	49.9	-30.7	-40.5	0.11	50.8	232.89
3000.0	0.92	262.12	2999.2	51.5	-30.9	-42.2	0.06	52.2	233.80
3100.0	0.83	271.85	3099.2	52.9	-30.9	-43.7	0.17	53.5	234.69
3200.0	0.77	275.25	3199.2	54.1	-30.9	-45.1	0.08	54.6	235.60
3300.0	0.73	279.11	3299.2	55.2	-30.7	-46.4	0.06	55.6	236.50
3400.0	0.77	278.79	3399.2	56.3	-30.5	-47.7	0.04	56.6	237.39
3500.0	0.74	280.25	3499.2	57.3	-30.3	-49.0	0.04	57.6	238.27
3600.0	0.88	280.14	3599.2	58.5	-30.0	-50.4	0.14	58.6	239.19
3700.0	0.96	284.56	3699.1	59.7	-29.7	-51.9	0.11	59.8	240.25
3800.0	0.72	276.68	3799.1	60.9	-29.4	-53.4	0.27	60.9	241.15
3900.0	0.86	268.60	3899.1	62.1	-29.3	-54.7	0.18	62.1	241.80
4000.0	0.85	273.06	3999.1	63.4	-29.3	-56.2	0.07	63.4	242.46
4100.0	0.90	257.90	4099.1	64.8	-29.4	-57.7	0.24	64.8	242.98
4200.0	0.95	261.02	4199.1	66.4	-29.7	-59.3	0.07	66.4	243.37
4300.0	0.74	257.16	4299.1	67.8	-30.0	-60.8	0.22	67.8	243.72
4400.0	0.94	246.58	4399.1	69.2	-30.5	-62.1	0.25	69.2	243.87
4500.0	0.93	249.53	4499.1	70.8	-31.1	-63.7	0.05	70.8	243.97
4600.0	0.86	240.31	4599.0	72.4	-31.7	-65.1	0.16	72.4	243.99
4700.0	0.68	252.71	4699.0	73.7	-32.3	-66.3	0.24	73.7	244.03
4800.0	0.80	231.93	4799.0	75.0	-32.9	-67.4	0.29	75.0	243.98



Scientific Drilling International, Inc.

Survey Report

Company: COG RESOURCES Date: 2/17/2010 Time: 09:38:30 Page: 2
Field: Loco Hills Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Site: Eddy County, NM Vertical (TVD) Reference: SITE 0.0
Well: Electra Federal #3 Section (VS) Reference: Well (0.00N,0.00E,243.58Azi)
Wellpath: VH - Job #32K0210103 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

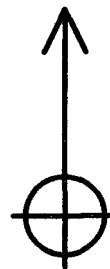
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.0	0.60	211.47	4899.0	76.1	-33.8	-68.2	0.32	76.1	243.66
5000.0	0.61	212.09	4999.0	77.0	-34.7	-68.8	0.01	77.0	243.25
5100.0	0.69	228.03	5099.0	78.1	-35.5	-69.5	0.20	78.1	242.93
5200.0	0.83	242.24	5199.0	79.4	-36.3	-70.6	0.23	79.4	242.81
5300.0	0.58	248.08	5299.0	80.6	-36.8	-71.7	0.26	80.6	242.84
5400.0	0.45	291.05	5399.0	81.4	-36.8	-72.5	0.40	81.4	243.08
5500.0	0.66	283.84	5499.0	82.1	-36.6	-73.5	0.22	82.1	243.54
5600.0	0.56	272.42	5599.0	82.9	-36.4	-74.5	0.16	82.9	243.96
5700.0	0.53	244.40	5699.0	83.8	-36.6	-75.4	0.27	83.8	244.13
5800.0	0.46	226.56	5799.0	84.7	-37.1	-76.1	0.17	84.7	244.05
5900.0	0.31	236.83	5899.0	85.3	-37.5	-76.7	0.16	85.3	243.94
6000.0	0.47	106.36	5999.0	85.3	-37.7	-76.5	0.71	85.3	243.73
6044.0	0.46	101.79	6043.0	85.0	-37.8	-76.1	0.09	85.0	243.58



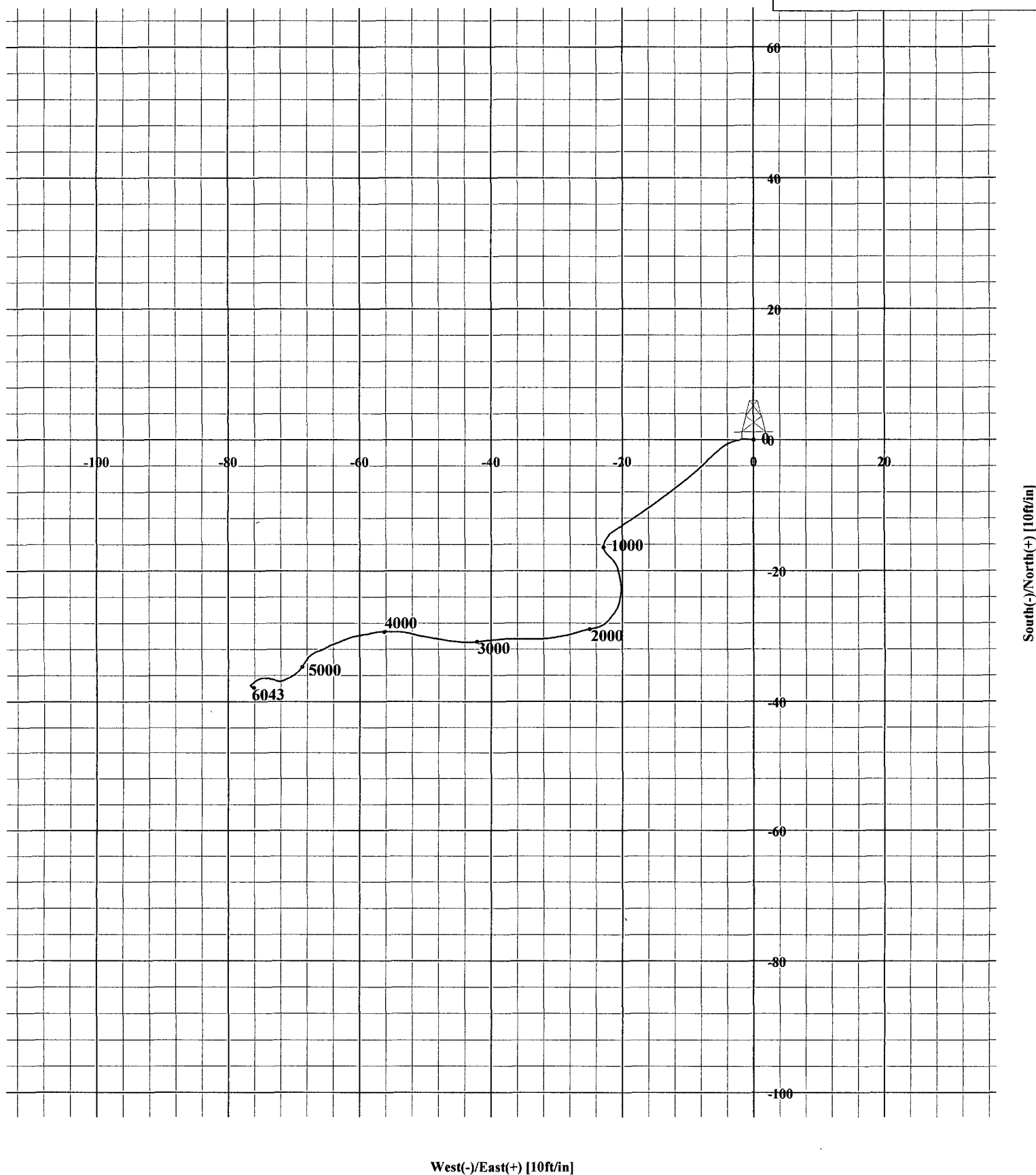
Scientific
Drilling

Field: Loco Hills
Site: Eddy County, NM
Well: Electra Federal #3
Survey: 02/13/10

G/T/M



Azimuths to Grid North
True North: 0 00°
Magnetic North: 0 00°
Magnetic Field
Dip Angle: 0 00°
Date: 2/15/2010
Model: igrf2000



South(-)/North(+) [10ft/in]

West(-)/East(+) [10ft/in]