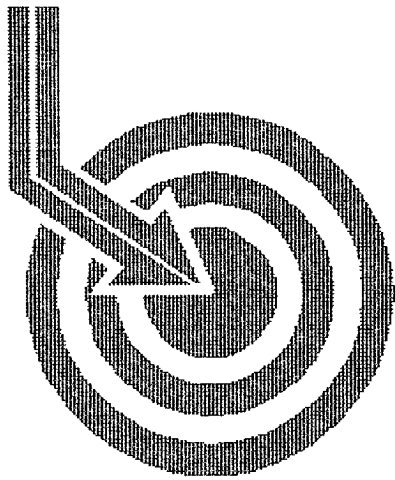
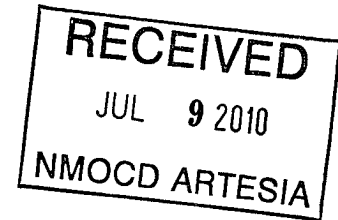


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Scientific Drilling



COG RESOURCES

Field: Loco Hills Paddock
Site: Eddy County, NM
Well: Holder CB Federal #7
Wellpath: VH - Job #32K0510327
Survey: 05/05/10

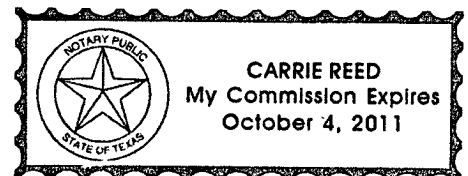
W2

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

[Signature]
Company Representative

Notarized this date 2nd of June, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International, Inc.

Survey Report

Company: COG RESOURCES	Date: 5/8/2010	Time: 11:20:01	Page: 1
Field: Loco Hills Paddock	Co-ordinate(NE) Reference:	Site: Eddy County, NM, True North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0 0	
Well: Holder CB Federal #7	Section (VS) Reference:	Well (0.00N,0.00E,184.53Azi)	
Wellpath: VH - Job #32K0510327	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: 05/05/10	Start Date: 5/5/2010
Company: Scientific Drilling Internatio	Engineer: Garza 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	0.15	337.29	100.0	-0.1	0.1	-0.1	0.15	0.1	337.29
200.0	0.10	328.75	200.0	-0.3	0.3	-0.1	0.05	0.3	335.16
300.0	0.31	211.54	300.0	-0.1	0.2	-0.3	0.37	0.4	295.68
400.0	0.91	212.06	400.0	0.8	-0.7	-0.9	0.60	1.2	230.32
500.0	1.31	209.76	500.0	2.6	-2.4	-1.9	0.40	3.1	218.05
600.0	1.36	206.89	599.9	4.7	-4.5	-3.0	0.08	5.4	213.83
700.0	1.20	199.46	699.9	6.8	-6.5	-3.9	0.23	7.6	210.78
800.0	0.91	177.90	799.9	8.6	-8.3	-4.2	0.49	9.3	206.85
900.0	1.10	120.15	899.9	9.8	-9.6	-3.3	0.98	10.1	199.23
1000.0	1.14	118.26	999.9	10.6	-10.5	-1.6	0.05	10.6	188.81
1100.0	1.14	123.02	1099.9	11.5	-11.5	0.1	0.09	11.5	179.60
1200.0	1.16	120.93	1199.8	12.4	-12.6	1.8	0.05	12.7	171.94
1300.0	0.99	133.55	1299.8	13.4	-13.7	3.3	0.29	14.1	166.55
1400.0	0.72	141.78	1399.8	14.4	-14.8	4.3	0.30	15.4	163.82
1500.0	0.62	144.23	1499.8	15.3	-15.7	5.0	0.10	16.5	162.37
1600.0	0.44	173.89	1599.8	16.1	-16.5	5.4	0.32	17.4	162.07
1700.0	0.42	176.50	1699.8	16.8	-17.3	5.4	0.03	18.1	162.61
1800.0	0.50	183.85	1799.8	17.6	-18.1	5.4	0.10	18.9	163.35
1900.0	0.50	184.91	1899.8	18.5	-19.0	5.3	0.01	19.7	164.26
2000.0	0.61	184.75	1999.8	19.5	-19.9	5.3	0.11	20.6	165.21
2100.0	0.62	178.56	2099.8	20.5	-21.0	5.2	0.07	21.6	166.01
2200.0	0.71	184.43	2199.8	21.7	-22.2	5.2	0.11	22.8	166.80
2300.0	0.82	186.22	2299.8	23.0	-23.5	5.1	0.11	24.0	167.81
2400.0	0.87	188.20	2399.7	24.5	-25.0	4.9	0.06	25.4	168.92
2500.0	0.75	192.44	2499.7	25.9	-26.3	4.6	0.13	26.7	170.02
2600.0	0.73	193.48	2599.7	27.2	-27.6	4.3	0.02	27.9	171.05
2700.0	0.70	194.92	2699.7	28.4	-28.8	4.0	0.03	29.1	172.01
2800.0	0.73	195.40	2799.7	29.6	-30.0	3.7	0.03	30.2	172.94
2900.0	0.73	193.53	2899.7	30.9	-31.3	3.4	0.02	31.4	173.79
3000.0	0.67	197.98	2999.7	32.1	-32.4	3.1	0.08	32.6	174.59
3100.0	0.55	203.45	3099.7	33.1	-33.4	2.7	0.13	33.5	175.39
3200.0	0.51	201.75	3199.7	34.0	-34.3	2.3	0.04	34.4	176.09
3300.0	0.44	197.53	3299.7	34.8	-35.1	2.1	0.08	35.1	176.64
3400.0	0.41	195.46	3399.7	35.5	-35.8	1.8	0.03	35.8	177.04
3500.0	0.43	200.60	3499.7	36.2	-36.5	1.6	0.04	36.5	177.45
3600.0	0.40	202.22	3599.7	36.9	-37.1	1.4	0.03	37.2	177.91
3700.0	0.34	201.41	3699.7	37.5	-37.7	1.1	0.06	37.8	178.30
3800.0	0.29	197.30	3799.7	38.1	-38.3	0.9	0.05	38.3	178.60
3900.0	0.28	197.90	3899.7	38.5	-38.7	0.8	0.01	38.7	178.84
4000.0	0.39	194.50	3999.7	39.1	-39.3	0.6	0.11	39.3	179.09
4100.0	0.35	186.87	4099.7	39.8	-39.9	0.5	0.06	39.9	179.28
4200.0	0.41	178.17	4199.7	40.4	-40.6	0.5	0.08	40.6	179.33
4300.0	0.44	175.16	4299.7	41.2	-41.3	0.5	0.04	41.3	179.28
4400.0	0.54	190.25	4399.7	42.0	-42.2	0.5	0.16	42.2	179.36
4500.0	0.32	228.50	4499.7	42.7	-42.8	0.2	0.35	42.8	179.76
4600.0	0.28	238.40	4599.7	43.0	-43.1	-0.2	0.07	43.1	180.32
4700.0	0.12	222.86	4699.7	43.2	-43.3	-0.5	0.17	43.3	180.69
4800.0	0.33	173.97	4799.7	43.6	-43.7	-0.6	0.27	43.7	180.74



Scientific Drilling International, Inc.

Survey Report

Company: COG RESOURCES Date: 5/8/2010 Time: 11:20:01 Page: 2
Field: Loco Hills Paddock Co-ordinate(NE) Reference: Site: Eddy County, NM, True North
Site: Eddy County, NM Vertical (TVD) Reference: SITE 0.0
Well: Holder CB Federal #7 Section (VS) Reference: Well (0.00N,0.00E,184.53Azi)
Wellpath: VH - Job #32K0510327 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	0.31	179.67	4899.7	44.2	-44.3	-0.5	0.04	44.3	180.69
5000.0	0.34	204.43	4999.7	44.7	-44.8	-0.7	0.14	44.8	180.83
5100.0	0.35	230.28	5099.6	45.2	-45.3	-1.0	0.15	45.3	181.28
5200.0	0.36	227.62	5199.6	45.6	-45.7	-1.5	0.02	45.7	181.85
5300.0	0.60	226.59	5299.6	46.3	-46.2	-2.1	0.24	46.3	182.59
5400.0	0.85	208.46	5399.6	47.3	-47.3	-2.8	0.34	47.3	183.42
5500.0	1.02	197.45	5499.6	48.9	-48.8	-3.4	0.25	48.9	184.04
5600.0	0.95	194.54	5599.6	50.6	-50.4	-3.9	0.09	50.6	184.44
5700.0	0.84	179.17	5699.6	52.1	-51.9	-4.1	0.26	52.1	184.53
5750.0	0.95	189.57	5749.6	52.9	-52.7	-4.2	0.39	52.9	184.53