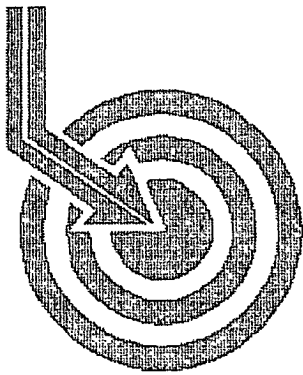




Scientific Drilling

CIMAREX ENERGY

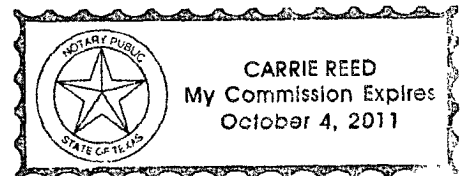
Field: Cottonwood Draw
Site: Eddy County, NM
Well: White City 14 Federal #8
Wellpath: VH - Job #32K1209535
Survey: 12/06/09

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

Clayton.....Company Representative

Notorized this date 31st of December, 2009.

Carrie Reed
Notary Signature
County of Midland
State of Texas





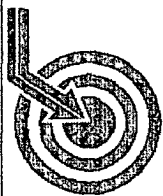
Scientific Drilling International Survey Report

Company: CIMAREX ENERGY	Date: 12/09/2009	Time: 12:39:04	Page: 1
Field: Cottonwood Draw	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: White City 14 Federal #8	Section (VS) Reference:	Well (0.00N,0.00E,179.29Azi)	
Wellpath: VH - Job #32K1209535	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 12/06/09	Start Date: 12/06/2009
KSRG 0'-2765'	
Company: Scientific Drilling Internatio	Engineer: Garza w/Rotary
Tool: Keeper;Keeper Gyro	Tied-to: From Surface

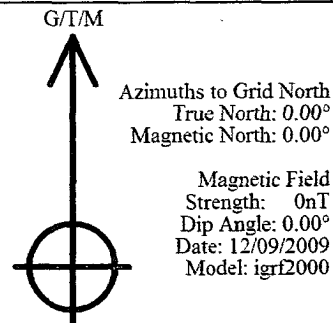
Survey

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	359.97	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.38	211.25	100.00	0.28	-0.28	-0.17	0.38	0.33	211.25
200.00	0.57	182.46	200.00	1.06	-1.06	-0.37	0.30	1.12	198.95
300.00	0.58	155.41	299.99	2.02	-2.02	-0.18	0.27	2.03	184.98
400.00	0.07	168.47	399.99	2.54	-2.54	0.05	0.51	2.54	178.95
500.00	0.03	100.42	499.99	2.61	-2.61	0.08	0.07	2.61	178.14
600.00	0.60	133.16	599.99	2.97	-2.97	0.49	0.57	3.01	170.58
700.00	0.77	145.83	699.98	3.90	-3.88	1.25	0.23	4.08	162.13
800.00	0.75	108.89	799.97	4.68	-4.65	2.25	0.48	5.17	154.20
900.00	0.45	110.05	899.97	5.04	-5.00	3.24	0.30	5.95	147.07
1000.00	0.18	205.10	999.97	5.32	-5.27	3.54	0.50	6.35	146.14
1100.00	0.81	210.99	1099.96	6.06	-6.02	3.11	0.63	6.78	152.70
1200.00	1.03	151.80	1199.95	7.46	-7.42	3.17	0.93	8.07	156.87
1300.00	1.94	122.82	1299.92	9.19	-9.13	5.02	1.15	10.42	151.21
1400.00	1.90	120.57	1399.86	10.99	-10.89	7.87	0.09	13.43	144.16
1500.00	2.80	106.54	1499.78	12.57	-12.43	11.63	1.06	17.02	136.89
1600.00	3.94	107.50	1599.60	14.37	-14.16	17.25	1.14	22.32	129.37
1700.00	4.21	111.64	1699.35	16.84	-16.54	23.94	0.40	29.10	124.65
1800.00	3.13	115.64	1799.14	19.45	-19.08	29.81	1.11	35.40	122.62
1900.00	1.85	101.82	1899.05	21.01	-20.59	33.86	1.40	39.63	121.31
2000.00	1.27	96.68	1999.01	21.50	-21.05	36.54	0.60	42.17	119.95
2100.00	1.20	96.80	2098.99	21.78	-21.30	38.68	0.07	44.16	118.85
2200.00	0.87	92.38	2198.97	21.96	-21.46	40.48	0.34	45.81	117.93
2300.00	0.84	107.57	2298.96	22.23	-21.71	41.93	0.23	47.22	117.37
2400.00	0.54	91.94	2398.95	22.48	-21.95	43.10	0.35	48.37	116.99
2500.00	0.75	106.32	2498.95	22.70	-22.15	44.20	0.26	49.44	116.62
2600.00	0.72	112.83	2598.94	23.14	-22.58	45.41	0.09	50.71	116.44
2700.00	0.69	125.13	2698.93	23.74	-23.17	46.48	0.15	51.93	116.49
2765.00	0.82	147.67	2763.92	24.37	-23.79	47.05	0.49	52.72	116.82



**Scientific
Drilling**

Field: Cottonwood Draw
Site: Eddy County, NM
Well: White City 14 Federal #8
Wellpath: VH - Job #32K1209535
Survey: 12/06/09



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

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

