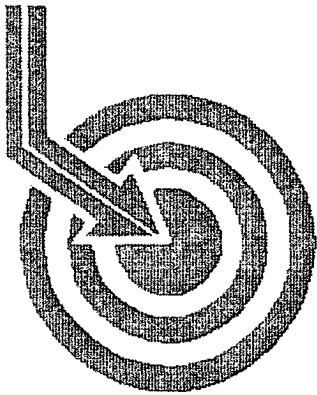




Scientific Drilling

E.O.G.

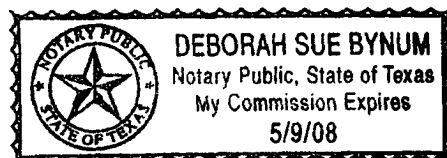
Field: Cottonwood Creek
Site: Eddy County, NM
Well: Rio Grande 23 Fed #1H
Wellpath: VH - Job #32K0905685
Survey: 09/20/05

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

.....*Deborah Sue Bynum*..... Company Representative

Notorized this date 16th of October, 2005.

Deborah Sue Bynum
Notary Signature
County of Midland
State of Texas





Scientific Drilling International

Survey Report

Company: E.O.G. **Date:** 10/16/2005 **Time:** 17:20:10 **Page:** 1
Field: Cottonwood Creek **Co-ordinate(NE) Reference:** Site: Eddy County, NM, Grid North
Site: Eddy County, NM **Vertical (TVD) Reference:** SITE 0.0
Well: Rio Grande 23 Fed #1H **Section (VS) Reference:** Well (0.00N,0.00E,0.16Azi)
Wellpath: VH - Job #32K0905685 **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

Survey: 09/20/05 **Start Date:** 9/20/2005
Company: Scientific Drilling Internatio **Engineer:** Carter w/P&M
Tool: Keeper;Keeper Surface Readout 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	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.54	270.23	100.00	0.00	0.00	-0.47	0.54	0.47	270.23
200.00	0.62	265.85	199.99	-0.04	-0.04	-1.48	0.09	1.48	268.63
300.00	0.05	280.82	299.99	-0.07	-0.07	-2.06	0.57	2.07	268.16
400.00	0.99	97.00	399.99	-0.17	-0.16	-1.25	1.04	1.26	262.55
500.00	1.17	99.42	499.97	-0.43	-0.44	0.61	0.19	0.75	125.34
600.00	1.10	111.70	599.95	-0.95	-0.96	2.51	0.25	2.69	110.86
700.00	1.49	127.91	699.92	-2.10	-2.11	4.43	0.53	4.91	115.48
800.00	1.39	128.00	799.89	-3.64	-3.66	6.41	0.10	7.38	119.70
900.00	1.35	133.40	899.86	-5.19	-5.21	8.22	0.14	9.74	122.37
1000.00	1.28	134.08	999.84	-6.77	-6.80	9.88	0.07	12.00	124.53
1100.00	1.14	141.32	1099.82	-8.32	-8.35	11.31	0.21	14.06	126.46
1200.00	1.03	137.64	1199.80	-9.76	-9.79	12.53	0.13	15.91	128.00
1300.00	0.86	144.41	1299.78	-11.03	-11.07	13.58	0.20	17.52	129.19
1400.00	0.76	151.34	1399.77	-12.22	-12.26	14.33	0.14	18.86	130.55
1500.00	0.77	154.85	1499.76	-13.41	-13.45	14.94	0.05	20.10	132.01
1600.00	0.77	165.11	1599.76	-14.67	-14.71	15.39	0.14	21.29	133.70
1700.00	0.63	148.90	1699.75	-15.78	-15.83	15.85	0.24	22.40	134.96
1800.00	0.50	183.20	1799.74	-16.69	-16.73	16.11	0.36	23.23	136.09
1900.00	0.30	183.69	1899.74	-17.39	-17.43	16.07	0.20	23.71	137.33
2000.00	0.13	158.32	1999.74	-17.75	-17.80	16.09	0.19	24.00	137.88
2100.00	0.22	135.96	2099.74	-18.00	-18.04	16.27	0.11	24.29	137.96
2200.00	0.20	138.26	2199.74	-18.26	-18.31	16.52	0.02	24.66	137.94
2300.00	0.23	146.23	2299.74	-18.56	-18.61	16.75	0.04	25.03	138.01
2400.00	0.40	168.93	2399.74	-19.07	-19.12	16.92	0.21	25.53	138.48
2500.00	0.46	173.27	2499.73	-19.81	-19.86	17.04	0.07	26.17	139.37
2600.00	0.37	181.81	2599.73	-20.53	-20.58	17.08	0.11	26.74	140.32
2700.00	0.31	162.69	2699.73	-21.11	-21.16	17.15	0.13	27.23	140.98
2800.00	0.34	148.79	2799.73	-21.62	-21.67	17.38	0.08	27.78	141.27
2900.00	0.11	187.32	2899.73	-21.97	-22.02	17.52	0.26	28.14	141.49
3000.00	0.17	201.29	2999.73	-22.21	-22.25	17.46	0.07	28.28	141.89
3100.00	0.23	204.67	3099.73	-22.53	-22.58	17.32	0.06	28.45	142.51
3200.00	0.46	212.61	3199.72	-23.05	-23.10	17.02	0.23	28.69	143.62
3300.00	0.41	196.17	3299.72	-23.73	-23.78	16.70	0.13	29.06	144.91
3400.00	0.37	166.55	3399.72	-24.39	-24.44	16.68	0.20	29.58	145.69
3500.00	0.49	169.38	3499.72	-25.12	-25.17	16.83	0.12	30.28	146.23
3600.00	0.49	153.59	3599.71	-25.92	-25.97	17.10	0.13	31.10	146.64
3700.00	0.61	145.51	3699.71	-26.75	-26.79	17.59	0.14	32.05	146.71
3800.00	0.82	141.87	3799.70	-27.74	-27.80	18.34	0.21	33.30	146.59
3900.00	1.14	142.97	3899.69	-29.10	-29.15	19.38	0.32	35.00	146.39
4000.00	1.40	140.45	3999.66	-30.83	-30.89	20.75	0.27	37.21	146.10
4100.00	1.46	138.77	4099.63	-32.73	-32.79	22.37	0.07	39.69	145.70
4200.00	1.77	130.25	4199.59	-34.68	-34.75	24.39	0.39	42.45	144.93
4300.00	1.83	131.87	4299.54	-36.73	-36.81	26.76	0.08	45.51	143.99
4400.00	1.84	131.22	4399.49	-38.85	-38.93	29.15	0.02	48.64	143.17
4500.00	1.89	130.58	4499.44	-40.97	-41.06	31.61	0.05	51.82	142.41
4600.00	1.90	133.45	4599.38	-43.18	-43.28	34.07	0.10	55.08	141.79
4700.00	1.87	134.86	4699.33	-45.46	-45.57	36.43	0.06	58.34	141.36
4800.00	1.78	134.61	4799.28	-47.70	-47.81	38.69	0.09	61.50	141.02



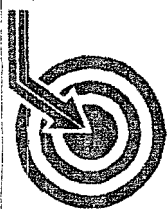
Scientific Drilling International

Survey Report

Company: E.O.G.	Date: 10/16/2005	Time: 17:20:10	Page: 2
Field: Cottonwood Creek	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: Rio Grande 23 Fed #1H	Section (VS) Reference:	Well (0.00N,0.00E,0.16Azi)	
Wellpath: VH - Job #32K0905685	Survey Calculation Method:	Minimum Curvature	Db: Sybase

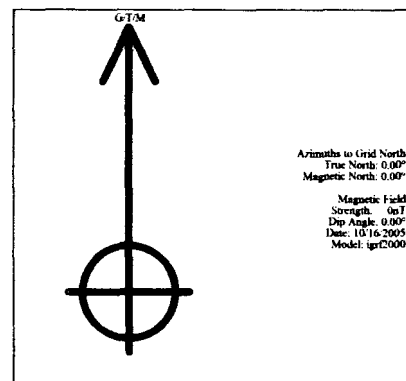
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.00	1.59	131.71	4899.23	-49.71	-49.82	40.83	0.21	64.42	140.66
5000.00	1.57	125.57	4999.20	-51.42	-51.54	42.98	0.17	67.11	140.17
5010.00	1.26	133.24	5009.19	-51.58	-51.70	43.17	3.63	67.35	140.13

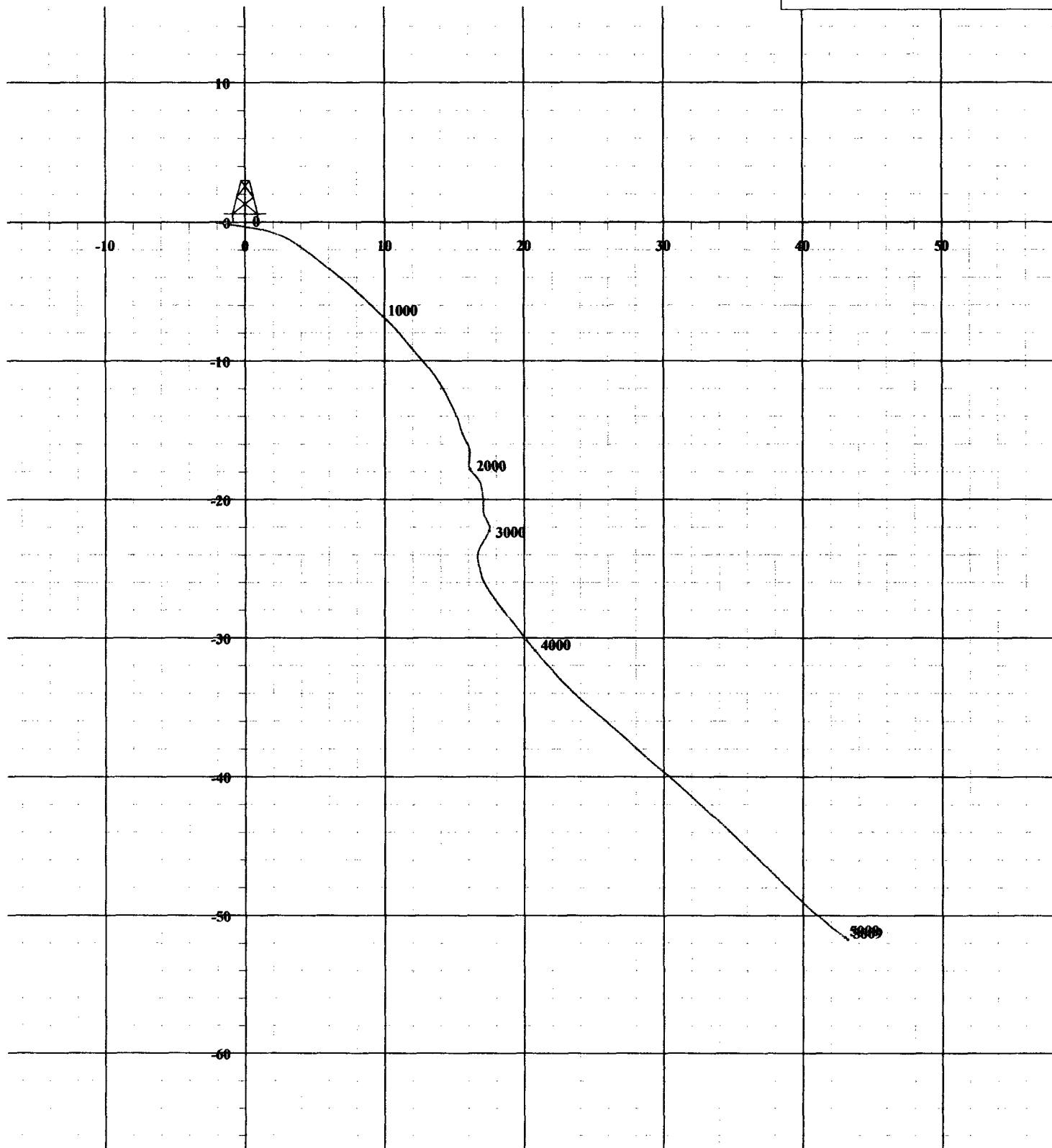


**Scientific
Drilling**

**Field: Cottonwood Creek
Site: Eddy County, NM
Well: Rio Grande 23 Fed #1H
Wellpath: VH - Job #32K0905685
Survey: 09/20/05**



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



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