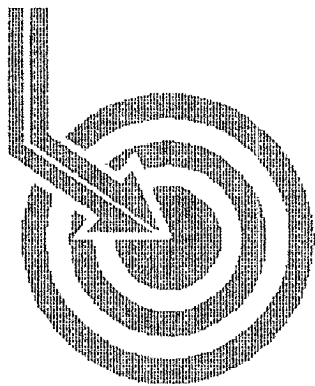




Scientific Drilling

E.O.G.

Field: MacKenzie
Site: Eddy County, NM
Well: MacKenzie 13 Fee #1H
Wellpath: VH- Job #32K0605461
Survey: 6/28/05

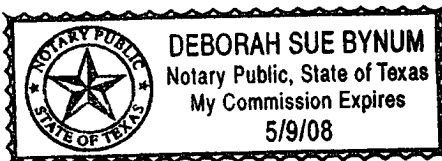
This survey is correct to the best of my knowledge
and is supported by actual field data.

Scott Nard Company Representative

Notorized this date 18th of July, 2005.

Deborah Sue Bynum

Notary Signature
County of Midland
State of Texas





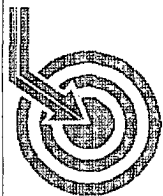
Scientific Drilling International Survey Report

Company: E.O.G.	Date: 7/17/2005	Time: 10:56:22	Page: 1
Field: MacKenzie	Co-ordinate(NE) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE: 0.0	
Well: MacKenzie 13 Fee #1H	Section (VS) Reference:	Well: (0.00N,0.00E,359.97Azi)	
Wellpath: VH- Job #32K0605461	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 6/28/05 KSRG 0'-4696'	Start Date: 6/28/2005
Company: Scientific Drilling Internatio	Engineer: Carter/Warren w/Rotary
Tool: Keeper;Keeper Surface Readout Gyro	Tied-to: From Surface

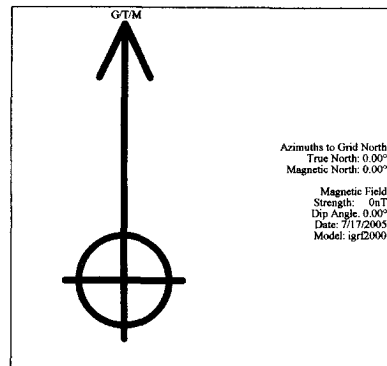
Survey

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	0.22	353.31	100.00	0.19	0.19	-0.02	0.22	0.19	353.31
200.00	0.43	355.41	200.00	0.76	0.76	-0.07	0.21	0.76	354.35
300.00	0.04	279.28	300.00	1.14	1.14	-0.14	0.42	1.14	353.01
400.00	0.19	244.40	400.00	1.07	1.07	-0.32	0.16	1.12	343.18
500.00	0.18	211.55	500.00	0.86	0.86	-0.55	0.11	1.03	327.27
600.00	0.78	180.94	599.99	0.05	0.05	-0.65	0.63	0.65	274.33
700.00	1.57	163.00	699.97	-1.94	-1.94	-0.26	0.86	1.96	187.60
800.00	2.00	146.00	799.92	-4.70	-4.70	1.12	0.68	4.83	166.62
900.00	1.71	138.56	899.87	-7.27	-7.26	3.08	0.38	7.89	157.02
1000.00	1.82	141.41	999.82	-9.63	-9.62	5.06	0.14	10.87	152.27
1100.00	1.87	138.51	1099.77	-12.09	-12.09	7.13	0.11	14.03	149.46
1200.00	1.69	138.01	1199.72	-14.41	-14.40	9.20	0.18	17.09	147.44
1300.00	1.67	139.81	1299.68	-16.62	-16.61	11.12	0.06	19.99	146.19
1400.00	1.47	136.96	1399.64	-18.67	-18.66	12.94	0.21	22.71	145.27
1500.00	1.42	137.96	1499.61	-20.53	-20.52	14.65	0.06	25.21	144.49
1600.00	1.30	135.02	1599.58	-22.25	-22.24	16.28	0.14	27.56	143.81
1700.00	1.21	149.11	1699.56	-23.96	-23.95	17.62	0.32	29.74	143.66
1800.00	0.87	152.20	1799.54	-25.54	-25.53	18.52	0.34	31.54	144.05
1900.00	0.86	136.21	1899.53	-26.75	-26.74	19.39	0.24	33.03	144.06
2000.00	0.67	146.76	1999.52	-27.79	-27.77	20.23	0.24	34.36	143.93
2100.00	0.43	141.06	2099.52	-28.57	-28.56	20.79	0.25	35.32	143.95
2200.00	0.55	122.84	2199.51	-29.12	-29.11	21.43	0.20	36.14	143.64
2300.00	0.63	120.07	2299.51	-29.66	-29.64	22.30	0.08	37.10	143.04
2400.00	0.45	112.24	2399.50	-30.08	-30.07	23.14	0.19	37.94	142.41
2500.00	0.41	122.27	2499.50	-30.42	-30.41	23.81	0.09	38.62	141.94
2600.00	0.55	141.80	2599.50	-30.99	-30.98	24.41	0.21	39.44	141.76
2700.00	0.47	175.97	2699.49	-31.77	-31.76	24.73	0.31	40.26	142.09
2800.00	0.39	145.39	2799.49	-32.46	-32.45	24.96	0.24	40.94	142.44
2900.00	0.55	164.86	2899.49	-33.21	-33.19	25.28	0.22	41.72	142.71
3000.00	0.37	177.33	2999.48	-33.99	-33.98	25.42	0.20	42.43	143.21
3100.00	0.38	173.43	3099.48	-34.65	-34.63	25.47	0.03	42.99	143.67
3200.00	0.36	161.71	3199.48	-35.27	-35.26	25.61	0.08	43.58	144.01
3300.00	0.43	149.61	3299.48	-35.90	-35.88	25.89	0.11	44.25	144.18
3400.00	0.46	136.49	3399.48	-36.51	-36.50	26.36	0.11	45.02	144.16
3500.00	0.60	137.61	3499.47	-37.19	-37.17	26.99	0.14	45.94	144.02
3600.00	0.42	139.49	3599.47	-37.85	-37.84	27.58	0.18	46.82	143.91
3700.00	0.52	120.68	3699.46	-38.37	-38.35	28.21	0.18	47.61	143.66
3800.00	0.68	113.11	3799.46	-38.83	-38.81	29.14	0.18	48.54	143.10
3900.00	0.92	89.55	3899.45	-39.06	-39.04	30.49	0.40	49.54	142.01
4000.00	1.25	85.81	3999.43	-38.97	-38.96	32.38	0.34	50.66	140.26
4100.00	1.25	72.35	4099.41	-38.56	-38.55	34.51	0.29	51.74	138.16
4200.00	1.33	74.95	4199.38	-37.93	-37.91	36.67	0.10	52.75	135.95
4300.00	1.32	75.20	4299.35	-37.34	-37.32	38.91	0.01	53.91	133.81
4400.00	1.46	74.80	4399.33	-36.71	-36.69	41.25	0.14	55.20	131.65
4500.00	1.40	71.69	4499.29	-35.99	-35.97	43.64	0.10	56.55	129.50
4600.00	1.53	83.66	4599.26	-35.46	-35.44	46.12	0.33	58.17	127.54
4696.00	1.37	76.58	4695.23	-35.06	-35.03	48.51	0.25	59.84	125.83

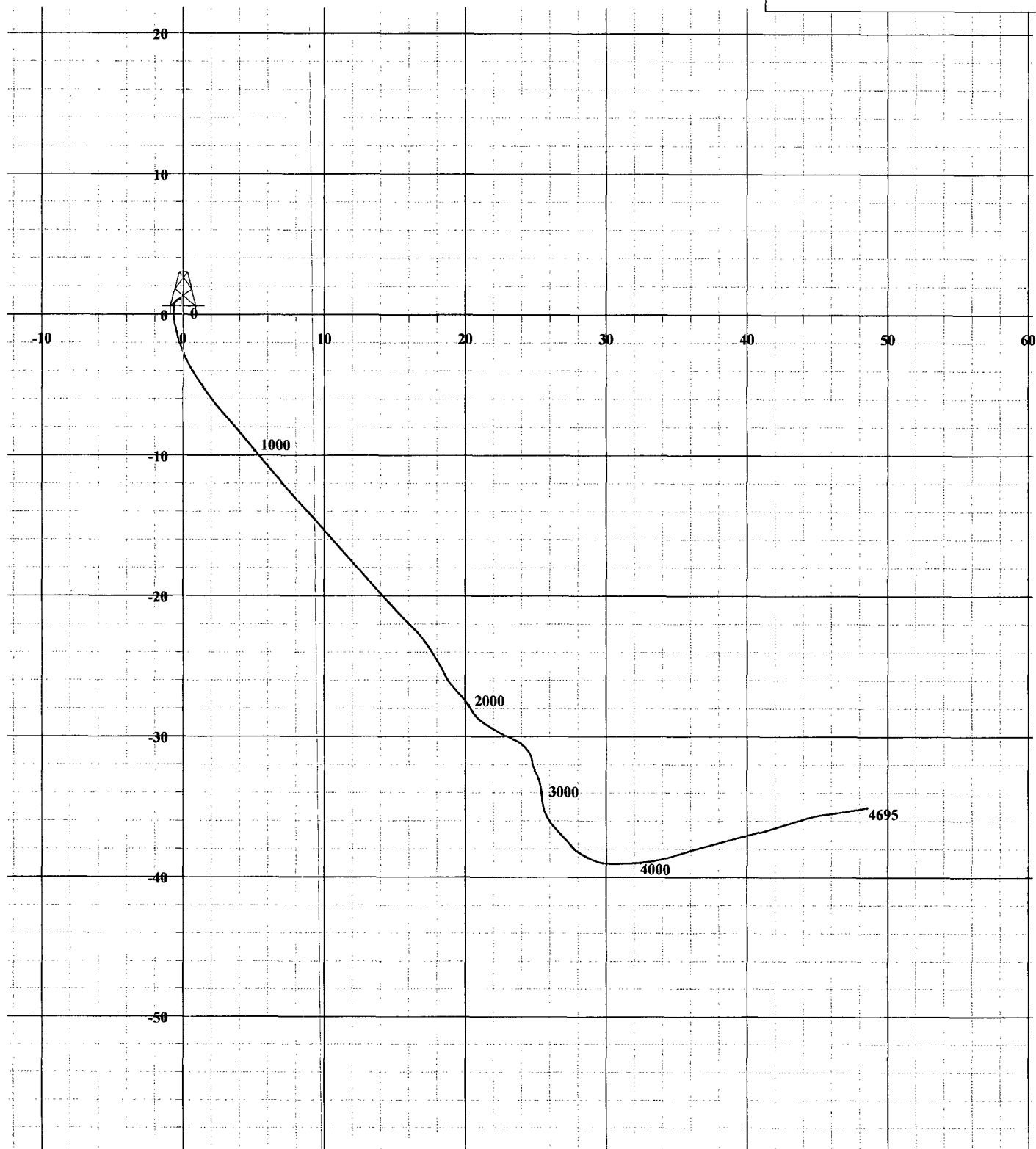


Scientific
Drilling

Field: MacKenzie
Site: Eddy County, NM
Well: MacKenzie 13 Fee #1H
Wellpath: VH- Job #32K0605461
Survey: 6/28/05



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



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