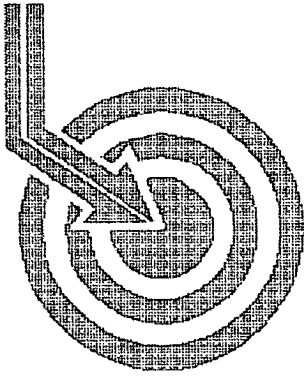




Scientific Drilling

CHEVRONTEXACO

Field: Vacuum Glorietta West
Site: Lea County, NM
Well: VGWU #44H
Wellpath: DH - Job #32D0603340
Survey: 07/03/03-07/16/03

SUR:P-26-17s-34e, 710/S & 860/E
BHL:N-25-17s-34e, 763/S & 1339/W
API # 30-025-20068

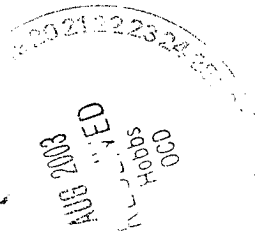
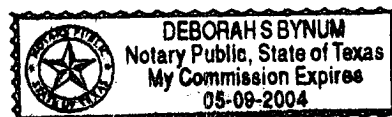
This survey is correct to the best of my knowledge
and is supported by actual field data.

..... Company Representative

Notorized this date 11th of August, 2003.

Deborah Sue Bynum
Notary Signature

County of Midland
State of Texas



Scientific Drilling Survey Report

Company: CHEVRONTEXACO	Date: 8/11/2003	Time: 17:56:35	Page: 1
Field: Vacuum Goriotta West	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: VGWU #44H	Section (VS) Reference:	Well (0.00N,0.00E,0.00Azi)	
Wellpath: VH - Job #32K0703341	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 07/03/03	Start Date: 7/3/2003
Company: Scientific Drilling	Engineer: Cary Coffee
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	0.24	59.14	100.0	0.1	0.1	0.2	0.24	0.2	59.14
200.0	0.27	44.97	200.0	0.4	0.4	0.5	0.07	0.6	54.06
300.0	0.31	76.05	300.0	0.6	0.6	1.0	0.16	1.1	57.29
400.0	0.26	34.63	400.0	0.9	0.9	1.3	0.21	1.6	57.27
500.0	0.32	24.71	500.0	1.3	1.3	1.6	0.08	2.1	50.64
600.0	0.45	19.51	600.0	1.9	1.9	1.8	0.13	2.7	43.63
700.0	0.44	29.17	700.0	2.6	2.6	2.2	0.08	3.4	39.32
800.0	0.36	355.47	800.0	3.3	3.3	2.3	0.24	4.0	35.25
900.0	0.26	8.35	900.0	3.8	3.8	2.3	0.12	4.5	31.35
1000.0	0.12	263.05	1000.0	4.0	4.0	2.3	0.31	4.6	29.23
1100.0	0.04	319.95	1100.0	4.0	4.0	2.1	0.10	4.6	27.75
1200.0	0.10	306.46	1200.0	4.1	4.1	2.0	0.06	4.6	26.28
1300.0	0.22	295.34	1300.0	4.3	4.3	1.8	0.12	4.6	22.86
1400.0	0.18	298.43	1400.0	4.4	4.4	1.5	0.04	4.7	18.59
1500.0	0.17	327.14	1500.0	4.6	4.6	1.3	0.09	4.8	15.35
1600.0	0.02	347.83	1600.0	4.8	4.8	1.2	0.15	4.9	13.95
1700.0	0.10	21.96	1700.0	4.9	4.9	1.2	0.08	5.0	14.00
1800.0	0.34	8.80	1800.0	5.2	5.2	1.3	0.24	5.4	13.84
1900.0	0.42	10.55	1900.0	5.9	5.9	1.4	0.08	6.0	13.39
2000.0	0.59	25.40	2000.0	6.7	6.7	1.7	0.21	6.9	14.13
2100.0	0.57	9.04	2100.0	7.7	7.7	2.0	0.17	7.9	14.54
2200.0	0.81	13.96	2200.0	8.8	8.8	2.2	0.25	9.1	14.19
2300.0	0.88	6.66	2300.0	10.3	10.3	2.5	0.13	10.6	13.63
2400.0	1.07	6.18	2399.9	12.0	12.0	2.7	0.19	12.3	12.63
2500.0	1.17	12.30	2499.9	13.9	13.9	3.0	0.16	14.2	12.19
2600.0	1.58	12.64	2599.9	16.2	16.2	3.5	0.41	16.6	12.23
2700.0	1.77	11.88	2699.8	19.1	19.1	4.1	0.19	19.5	12.23
2800.0	1.64	14.35	2799.8	22.0	22.0	4.8	0.15	22.5	12.34
2900.0	1.43	10.11	2899.8	24.6	24.6	5.4	0.24	25.2	12.35
3000.0	1.53	3.70	2999.7	27.2	27.2	5.7	0.19	27.7	11.83
3100.0	0.92	8.79	3099.7	29.3	29.3	5.9	0.62	29.9	11.39
3200.0	0.61	0.42	3199.7	30.6	30.6	6.0	0.32	31.2	11.14
3300.0	0.51	357.99	3299.7	31.6	31.6	6.0	0.10	32.1	10.78
3400.0	0.30	7.54	3399.7	32.3	32.3	6.0	0.22	32.8	10.58
3500.0	0.20	4.09	3499.7	32.7	32.7	6.1	0.10	33.3	10.52
3600.0	0.10	341.22	3599.7	33.0	33.0	6.1	0.11	33.5	10.42
3700.0	0.06	348.40	3699.7	33.1	33.1	6.0	0.04	33.7	10.31
3800.0	0.26	122.97	3799.7	33.0	33.0	6.2	0.30	33.6	10.63
3900.0	0.37	134.75	3899.7	32.7	32.7	6.6	0.13	33.4	11.45
4000.0	0.37	154.26	3999.7	32.2	32.2	7.0	0.13	32.9	12.25
4100.0	0.45	164.39	4099.7	31.5	31.5	7.2	0.11	32.3	12.93
4200.0	0.52	144.40	4199.7	30.8	30.8	7.6	0.18	31.7	13.88
4300.0	0.58	144.47	4299.7	30.0	30.0	8.2	0.06	31.1	15.23
4400.0	0.56	149.03	4399.7	29.2	29.2	8.7	0.05	30.4	16.63
4500.0	0.57	125.41	4499.7	28.4	28.4	9.4	0.23	29.9	18.22
4600.0	0.53	108.50	4599.7	28.0	28.0	10.2	0.17	29.8	20.02
4700.0	0.56	92.07	4699.7	27.8	27.8	11.1	0.16	30.0	21.79
4800.0	0.78	92.53	4799.7	27.8	27.8	12.3	0.22	30.4	23.87

Scientific Drilling Survey Report

Company: CHEVRONTEXACO
Field: Vacuum Goriotta West
Site: Lea County, NM
Well: VGWU #44H
Wellpath: VH - Job #32K0703341

Date: 8/11/2003 Time: 17:56:35 Page: 2
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,0.00Azi)
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	0.92	88.05	4899.6	27.8	27.8	13.8	0.16	31.0	26.37
5000.0	1.15	103.97	4999.6	27.6	27.6	15.6	0.36	31.7	29.42
5100.0	1.24	90.14	5099.6	27.3	27.3	17.6	0.30	32.5	32.78
5200.0	1.35	102.10	5199.6	27.1	27.1	19.8	0.29	33.6	36.22
5300.0	1.37	105.58	5299.6	26.5	26.5	22.1	0.09	34.5	39.86
5400.0	1.51	109.50	5399.5	25.8	25.8	24.5	0.17	35.6	43.60
5500.0	1.56	117.89	5499.5	24.7	24.7	27.0	0.23	36.6	47.54
5600.0	1.67	122.10	5599.4	23.3	23.3	29.4	0.16	37.5	51.65
5700.0	1.67	119.76	5699.4	21.8	21.8	31.9	0.07	38.6	55.69
5742.0	1.97	122.70	5741.4	21.1	21.1	33.0	0.75	39.2	57.47

Scientific Drilling Survey Report

Company: CHEVRONTEXACO Field: Vacuum Glorieta West Site: Lea County, NM Well: VGWU #44H Wellpath: DH - Job #32D0603340	Date: 8/11/2003 Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,57.47Azi) Survey Calculation Method: Minimum Curvature	Page: 1 Db: Sybase
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Survey: 07/03/03-07/16/03 MWD 58755'-7995'	Start Date: 7/3/2003
Company: Scientific Drilling Tool: MWD,MWD	Engineer: Lamb/Melendez/Hendrix Tied-to: From: Definitive Path

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
5742.0	1.97	122.70	5741.4	39.2	21.1	33.0	0.00	39.2	57.47
5755.0	1.97	122.70	5754.4	39.4	20.8	33.4	0.00	39.4	58.06
5794.0	23.74	96.17	5792.2	45.9	19.6	41.9	56.39	46.3	64.91
5808.0	31.57	93.88	5804.6	51.0	19.1	48.4	56.43	52.0	68.48
5839.0	42.21	96.61	5829.3	65.7	17.3	66.9	34.72	69.1	75.48
5870.0	50.56	95.55	5850.7	83.2	15.0	89.2	27.05	90.4	80.48
5901.0	58.56	92.57	5868.7	103.5	13.2	114.3	26.96	115.1	83.41
5934.0	68.41	91.33	5883.4	127.8	12.2	143.8	30.04	144.3	85.15
5949.0	74.57	92.74	5888.1	139.5	11.7	158.0	42.02	158.4	85.76
5994.0	87.41	86.06	5895.2	177.2	12.2	202.3	32.06	202.7	86.55
6026.0	89.43	88.35	5896.1	204.9	13.8	234.3	9.54	234.7	86.64
6057.0	91.01	89.40	5895.9	231.4	14.4	265.3	6.12	265.7	86.90
6088.0	90.66	89.49	5895.5	257.7	14.7	296.3	1.17	296.6	87.16
6119.0	90.40	90.19	5895.2	283.9	14.8	327.3	2.41	327.6	87.42
6150.0	90.84	89.84	5894.9	310.0	14.8	358.3	1.81	358.6	87.64
6182.0	88.72	88.70	5895.0	337.2	15.2	390.3	7.52	390.6	87.77
6213.0	89.78	89.14	5895.4	363.6	15.8	421.3	3.70	421.5	87.86
6244.0	88.81	89.66	5895.8	389.9	16.1	452.2	3.55	452.5	87.96
6276.0	89.08	89.58	5896.4	417.0	16.3	484.2	0.88	484.5	88.07
6307.0	87.67	90.10	5897.2	443.2	16.4	515.2	4.85	515.5	88.18
6338.0	87.76	90.54	5898.5	469.2	16.2	546.2	1.45	546.4	88.30
6370.0	88.90	91.25	5899.4	495.9	15.7	578.2	4.20	578.4	88.44
6400.0	89.87	90.81	5899.7	520.9	15.2	608.2	3.55	608.4	88.57
6432.0	88.46	88.26	5900.2	548.0	15.4	640.2	9.10	640.4	88.62
6463.0	87.05	87.91	5901.4	574.7	16.5	671.1	4.69	671.3	88.60
6494.0	86.61	87.99	5903.1	601.3	17.6	702.1	1.44	702.3	88.57
6525.0	88.29	87.82	5904.5	628.0	18.7	733.0	5.45	733.2	88.54
6557.0	90.04	88.87	5905.0	655.5	19.6	765.0	6.38	765.2	88.53
6588.0	90.48	89.40	5904.8	681.9	20.1	796.0	2.22	796.2	88.55
6619.0	91.28	89.93	5904.4	708.1	20.3	827.0	3.10	827.2	88.60
6650.0	92.51	88.52	5903.3	734.5	20.7	858.0	6.03	858.2	88.62
6682.0	93.83	88.26	5901.6	761.9	21.6	889.9	4.20	890.2	88.61
6713.0	94.09	87.91	5899.4	788.5	22.6	920.8	1.40	921.1	88.59
6744.0	90.66	87.99	5898.1	815.2	23.7	951.8	11.07	952.0	88.57
6776.0	90.22	88.17	5897.9	842.7	24.8	983.7	1.49	984.0	88.56
6806.0	87.05	88.08	5898.6	868.5	25.8	1013.7	10.57	1014.0	88.54
6838.0	86.88	89.58	5900.3	895.8	26.4	1045.7	4.71	1046.0	88.55
6869.0	86.97	91.60	5902.0	921.7	26.1	1076.6	6.51	1076.9	88.61
6900.0	87.67	91.60	5903.4	947.3	25.2	1107.6	2.26	1107.8	88.69
6931.0	88.87	88.29	5904.3	973.5	25.3	1138.5	11.35	1138.8	88.73
6962.0	88.64	88.35	5905.0	1000.1	26.2	1169.5	0.77	1169.8	88.72
6993.0	91.01	87.29	5905.1	1026.8	27.4	1200.5	8.37	1200.8	88.69
7024.0	91.54	86.59	5904.4	1053.8	29.0	1231.4	2.83	1231.8	88.65
7055.0	91.98	87.56	5903.5	1080.7	30.6	1262.4	3.43	1262.8	88.61
7086.0	92.95	87.56	5902.1	1107.5	31.9	1293.3	3.13	1293.7	88.59
7118.0	92.51	87.47	5900.6	1135.2	33.3	1325.3	1.40	1325.7	88.56
7148.0	86.35	86.32	5900.9	1161.3	34.9	1355.2	20.89	1355.7	88.52
7179.0	85.65	85.18	5903.1	1188.6	37.2	1386.0	4.31	1386.5	88.46
7210.0	87.49	84.65	5904.9	1216.0	40.0	1416.9	6.18	1417.4	88.38

Scientific Drilling Survey Report

Company: CHEVRONTExACO
Field: Vacuum Glorietta West
Site: Lea County, NM
Well: VGWU #44H
Wellpath: DH - Job #32D0603340

Date: 8/11/2003 **Time:** 18:04:10 **Page:** 2
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,57.47Azi)
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
7241.0	88.64	85.71	5906.0	1243.4	42.6	1447.7	5.04	1448.4	88.32
7272.0	84.77	89.49	5907.8	1270.2	43.9	1478.6	17.44	1479.3	88.30
7303.0	81.87	88.70	5911.4	1296.4	44.4	1509.4	9.69	1510.1	88.32
7334.0	88.11	87.12	5914.1	1323.0	45.5	1540.3	20.76	1540.9	88.31
7365.0	91.80	85.71	5914.1	1350.2	47.4	1571.2	12.74	1571.9	88.27
7396.0	90.66	84.57	5913.4	1377.6	50.0	1602.1	5.20	1602.9	88.21
7427.0	85.47	85.62	5914.5	1405.0	52.7	1632.9	17.08	1633.8	88.15
7459.0	87.32	89.23	5916.5	1432.7	54.1	1664.8	12.66	1665.7	88.14
7490.0	87.58	89.66	5917.9	1459.0	54.4	1695.8	1.62	1696.7	88.16
7521.0	88.02	91.77	5919.1	1484.9	54.0	1726.8	6.95	1727.6	88.21
7552.0	87.14	90.98	5920.4	1510.6	53.3	1757.7	3.81	1758.6	88.26
7583.0	86.17	90.02	5922.2	1536.5	53.0	1788.7	4.40	1789.5	88.30
7614.0	86.09	90.10	5924.3	1562.6	53.0	1819.6	0.36	1820.4	88.33
7645.0	87.76	91.16	5925.9	1588.5	52.7	1850.6	6.38	1851.3	88.37
7676.0	86.35	90.54	5927.5	1614.3	52.2	1881.5	4.97	1882.2	88.41
7707.0	86.09	90.37	5929.6	1640.3	51.9	1912.5	1.00	1913.2	88.44
7739.0	83.71	91.60	5932.4	1666.9	51.4	1944.3	8.36	1945.0	88.49
7769.0	83.98	93.09	5935.6	1691.3	50.2	1974.1	5.02	1974.8	88.54
7801.0	87.58	91.77	5938.0	1717.5	48.8	2006.0	11.98	2006.6	88.61
7832.0	87.41	93.80	5939.3	1742.7	47.3	2036.9	6.57	2037.5	88.67
7864.0	86.09	90.98	5941.2	1768.9	46.0	2068.9	9.72	2069.4	88.73
7894.0	88.29	91.33	5942.6	1793.9	45.4	2098.8	7.43	2099.3	88.76
7925.0	88.72	87.47	5943.4	1820.2	45.7	2129.8	12.52	2130.3	88.77
7957.0	86.44	83.16	5944.8	1848.4	48.3	2161.6	15.23	2162.2	88.72
7995.0	86.44	83.16	5947.1	1882.6	52.8	2199.3	0.00	2199.9	88.62



**Scientific
Drilling**

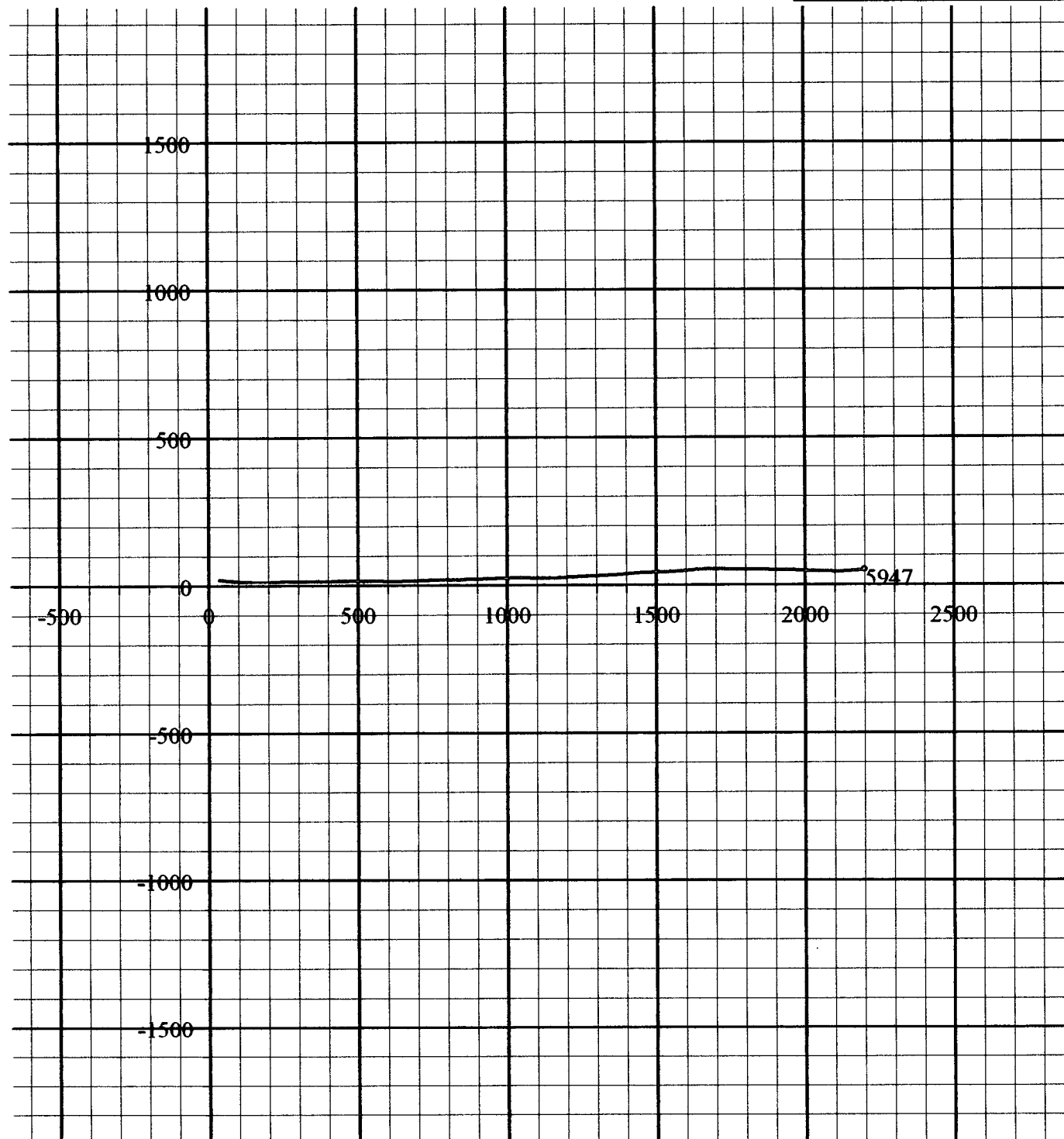
Field: Vacuum Glorietta West
Site: Lea County, NM
Well: VGWU #44H
Wellpath: DH - Job #32D0603340
Survey: 07/03/03-07/16/03



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 8/11/2003
Model: Wmm_95

South(-)/North(+) [500ft/in]



West(-)/East(+) [500ft/in]