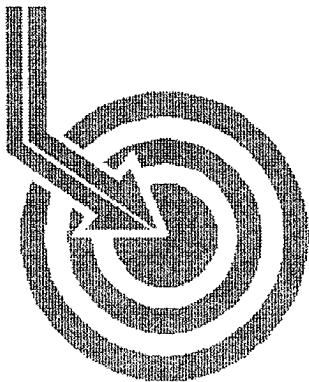




Scientific Drilling

SUR: J-2-18s-34e, 1980/S & 1980/E
BHL: L-2-18s-34e, 2061/S & 4377/E
API # 30-025-02272

CHEVRONTEXACO

Field: Vacuum Glorietta San Andres
Site: Lea County, NM
Well: VGSAU #23H
Wellpath: DH - Job #32D0305171
Survey: 03/07/05-03/17/05

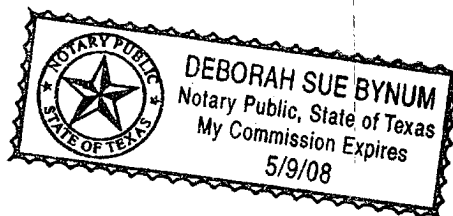
This survey is correct to the best of my knowledge
and is supported by actual field data.

Deaf Noddy Company Representative

Notorized this date 15th of April, 2005.

Deborah Sue Bynum
Notary Signature

County of Midland
State of Texas





Scientific
Drilling

Scientific Drilling International

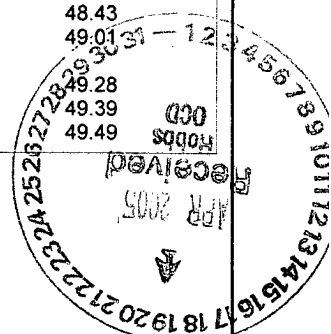
Survey Report

Company: CHEVRONTEXACO	Date: 4/14/2005	Time: 22:05:18	Page: 1
Field: Vacuum Glorietta San Andres	Co-ordinate(NE) Reference:	Site: Lea County, NM, Grid North	
Site: Lea County, NM	Vertical (TVD) Reference:	SITE 0.0	
Well: VGSAU #23H	Section (VS) Reference:	Well (0.00N,0.00E,271.96Azi)	
Wellpath: VH - Job #32K0305173	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 03/08/05	Start Date: 3/8/2005
KSRG 0'-4120'	
Company: Scientific Drilling Internatio	Engineer: Gonzales w/P&M
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	359.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.20	55.11	100.00	-0.14	0.10	0.14	0.20	0.17	55.11
200.00	0.55	61.48	200.00	-0.69	0.43	0.71	0.35	0.83	58.80
300.00	0.62	40.09	299.99	-1.44	1.07	1.48	0.23	1.83	54.05
400.00	0.33	15.53	399.99	-1.84	1.76	1.90	0.35	2.59	47.19
500.00	0.44	38.35	499.99	-2.14	2.34	2.22	0.19	3.23	43.46
600.00	0.63	31.93	599.98	-2.64	3.11	2.75	0.20	4.15	41.47
700.00	0.51	9.55	699.98	-2.97	4.02	3.11	0.25	5.08	37.78
800.00	0.23	346.89	799.98	-2.98	4.65	3.14	0.31	5.61	34.04
900.00	0.14	53.00	899.97	-3.02	4.92	3.19	0.22	5.86	32.99
1000.00	0.32	22.60	999.97	-3.22	5.25	3.40	0.21	6.25	32.91
1100.00	0.23	349.96	1099.97	-3.27	5.71	3.47	0.18	6.68	31.31
1200.00	0.29	72.82	1199.97	-3.47	5.98	3.68	0.35	7.02	31.60
1300.00	0.58	44.08	1299.97	-4.05	6.42	4.27	0.35	7.71	33.65
1400.00	0.58	55.49	1399.96	-4.80	7.07	5.04	0.12	8.68	35.50
1500.00	1.12	60.14	1499.95	-6.03	7.84	6.30	0.54	10.06	38.81
1600.00	1.25	49.10	1599.93	-7.66	9.04	7.98	0.26	12.06	41.42
1700.00	1.03	33.13	1699.91	-8.93	10.51	9.29	0.38	14.03	41.49
1800.00	0.57	43.65	1799.90	-9.72	11.62	10.13	0.48	15.41	41.07
1900.00	0.77	55.92	1899.90	-10.60	12.36	11.03	0.25	16.56	41.75
2000.00	0.92	48.80	1999.88	-11.73	13.26	12.19	0.18	18.01	42.58
2100.00	0.72	28.01	2099.87	-12.59	14.35	13.09	0.36	19.42	42.37
2200.00	0.63	45.37	2199.87	-13.24	15.29	13.77	0.22	20.58	42.02
2300.00	0.90	44.87	2299.86	-14.15	16.23	14.72	0.27	21.91	42.21
2400.00	0.82	27.17	2399.85	-14.99	17.42	15.60	0.28	23.38	41.84
2500.00	0.82	48.80	2499.84	-15.82	18.53	16.46	0.31	24.79	41.62
2600.00	1.17	50.26	2599.82	-17.11	19.65	17.79	0.35	26.51	42.15
2700.00	1.08	60.46	2699.80	-18.67	20.77	19.39	0.22	28.42	43.03
2800.00	1.37	67.06	2799.78	-20.56	21.70	21.31	0.32	30.42	44.48
2900.00	1.16	52.99	2899.76	-22.43	22.78	23.22	0.37	32.53	45.55
3000.00	0.90	61.92	2999.74	-23.90	23.76	24.72	0.30	34.29	46.14
3100.00	1.18	60.21	3099.72	-25.45	24.64	26.31	0.28	36.04	46.88
3200.00	1.12	50.36	3199.70	-27.06	25.77	27.96	0.21	38.02	47.33
3300.00	0.70	51.22	3299.69	-28.25	26.78	29.19	0.42	39.61	47.46
3400.00	0.75	51.15	3399.68	-29.21	27.57	30.17	0.05	40.87	47.58
3500.00	1.01	43.84	3499.67	-30.29	28.62	31.29	0.28	42.40	47.56
3600.00	1.17	47.59	3599.65	-31.61	29.94	32.66	0.18	44.30	47.48
3700.00	1.13	61.03	3699.63	-33.19	31.11	34.27	0.27	46.29	47.77
3800.00	1.23	65.52	3799.61	-35.00	32.03	36.11	0.14	48.27	48.43
3900.00	1.44	57.53	3899.58	-36.99	33.15	38.15	0.28	50.54	49.01
4000.00	1.46	51.83	3999.55	-39.00	34.61	40.21	0.15	53.06	49.28
4100.00	1.61	51.44	4099.52	-41.04	36.27	42.31	0.15	55.73	49.39
4120.00	1.73	66.94	4119.51	-41.53	36.57	42.81	2.33	56.30	49.49





Scientific
Drilling

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Survey Report

Company: CHEVRONTXACO Date: 4/14/2005 Time: 22:11:33 Page: 1
Field: Vacuum Goriotta San Andres Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Site: Lea County, NM Vertical (TVD) Reference: SITE 0.0
Well: VGSAU #23H Section (VS) Reference: Well (0.00N,0.00E,271.96Azi)
Wellpath: DH - Job #32D0305171 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 03/07/05-03/17/05 Start Date: 3/7/2005
MWD 4161'-6928'
Company: Scientific Drilling Internatio Engineer: Lamb/Melendez/Harvell
Tool: MWD,MWD 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
4120.00	1.73	66.94	4119.51	-41.53	36.57	42.81	0.00	56.30	49.49
4161.00	1.73	66.94	4160.49	-42.65	37.05	43.95	0.00	57.48	49.86
4224.00	7.47	271.16	4223.34	-39.41	37.51	40.72	14.41	55.36	47.35
4255.00	7.16	269.22	4254.09	-35.47	37.52	36.77	1.28	52.54	44.42
4286.00	6.54	268.64	4284.87	-31.78	37.46	33.08	2.01	49.97	41.45
4317.00	5.63	274.20	4315.69	-28.49	37.53	29.80	3.49	47.92	38.45
4348.00	5.46	274.36	4346.55	-25.50	37.75	26.81	0.55	46.30	35.38
4379.00	5.56	276.05	4377.40	-22.53	38.02	23.84	0.61	44.88	32.09
4408.00	5.38	272.48	4406.27	-19.77	38.23	21.09	1.33	43.66	28.89
4439.00	8.44	269.84	4437.04	-16.04	38.28	17.36	9.92	42.04	24.39
4451.00	14.13	265.87	4448.80	-13.70	38.17	15.02	47.83	41.02	21.47
4461.00	18.65	263.97	4458.40	-10.91	37.92	12.21	45.51	39.84	17.85
4471.00	23.02	263.79	4467.74	-7.38	37.54	8.67	43.70	38.53	13.01
4482.00	27.81	263.97	4477.67	-2.71	37.04	3.98	43.55	37.25	6.13
4492.00	32.18	264.04	4486.33	2.24	36.51	-0.99	43.70	36.53	358.45
4502.00	36.64	263.36	4494.58	7.83	35.89	-6.61	44.76	36.50	349.57
4512.00	41.15	262.29	4502.36	14.03	35.11	-12.83	45.60	37.38	339.92
4534.00	50.14	262.95	4517.72	29.53	33.09	-28.42	40.92	43.62	319.35
4565.00	62.58	265.50	4534.87	55.06	30.54	-54.05	40.70	62.08	299.47
4597.00	66.64	267.75	4548.59	83.83	28.85	-82.90	14.19	87.77	289.19
4628.00	70.76	269.95	4559.84	112.67	28.28	-111.76	14.84	115.29	284.20
4660.00	75.03	271.19	4569.26	143.23	28.59	-142.34	13.85	145.18	281.36
4691.00	80.23	273.33	4575.89	173.50	29.79	-172.58	18.08	175.14	279.79
4723.00	83.67	273.74	4580.37	205.17	31.74	-204.20	10.82	206.66	278.84
4754.00	84.34	274.20	4583.61	235.98	33.88	-234.96	2.62	237.39	278.20
4785.00	84.13	274.01	4586.73	266.80	36.08	-265.72	0.91	268.16	277.73
4817.00	84.24	273.68	4589.97	298.62	38.22	-297.49	1.08	299.93	277.32
4848.00	83.66	271.71	4593.24	329.44	39.67	-328.28	6.59	330.67	276.89
4880.00	83.73	271.81	4596.75	361.25	40.65	-360.07	0.38	362.36	276.44
4911.00	83.90	272.50	4600.09	392.07	41.80	-390.87	2.28	393.10	276.10
4942.00	82.21	271.97	4603.84	422.84	43.00	-421.62	5.71	423.80	275.82
4973.00	81.53	271.72	4608.22	453.53	43.99	-452.29	2.33	454.42	275.56
5004.00	81.63	271.86	4612.76	484.19	44.95	-482.94	0.55	485.03	275.32
5034.00	81.46	272.08	4617.17	513.87	45.97	-512.60	0.92	514.65	275.12
5064.00	82.64	272.92	4621.32	543.58	47.27	-542.28	4.81	544.33	274.98
5095.00	82.47	273.38	4625.34	574.31	48.96	-572.97	1.57	575.06	274.88
5127.00	82.51	271.91	4629.52	606.03	50.42	-604.66	4.56	606.76	274.77
5158.00	82.61	271.67	4633.54	636.77	51.38	-635.39	0.83	637.46	274.62
5189.00	83.50	271.54	4637.28	667.54	52.24	-666.15	2.90	668.19	274.48
5220.00	83.77	272.45	4640.72	698.35	53.31	-696.94	3.04	698.97	274.37
5251.00	83.76	272.73	4644.09	729.17	54.71	-727.72	0.90	729.77	274.30
5283.00	83.66	270.30	4647.59	760.97	55.55	-759.51	7.55	761.54	274.18
5314.00	83.90	269.23	4650.95	791.76	55.42	-790.33	3.52	792.27	274.01
5345.00	83.93	269.58	4654.24	822.56	55.10	-821.15	1.13	823.00	273.84
5377.00	84.10	269.35	4657.58	854.35	54.80	-852.98	0.89	854.74	273.68
5408.00	84.44	268.80	4660.67	885.16	54.31	-883.82	2.08	885.49	273.52
5440.00	82.54	270.99	4664.30	916.93	54.25	-915.61	9.03	917.22	273.39
5471.00	81.32	270.47	4668.65	947.61	54.64	-946.30	4.27	947.88	273.30
5502.00	81.45	271.12	4673.29	978.26	55.06	-976.95	2.12	978.50	273.23



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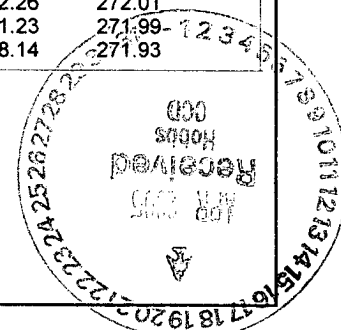
Survey Report

Company: CHEVRONTXACO
Field: Vacuum Goriotta San Andres
Site: Lea County, NM
Well: VGSAU #23H
Wellpath: DH - Job #32D0305171

Date: 4/14/2005 Time: 22:11:33 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,271.96Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

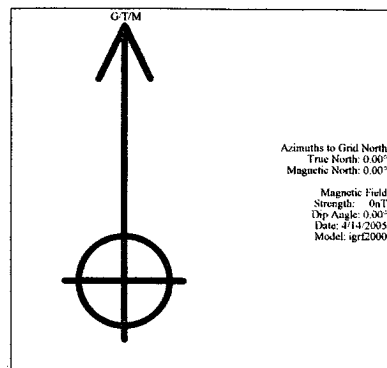
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
5534.00	81.82	271.27	4677.95	1009.92	55.72	-1008.60	1.25	1010.14	273.16
5565.00	81.73	271.21	4682.38	1040.59	56.39	-1039.27	0.35	1040.80	273.11
5596.00	81.48	271.37	4686.91	1071.26	57.08	-1069.93	0.95	1071.45	273.05
5628.00	81.56	271.37	4691.63	1102.91	57.83	-1101.57	0.25	1103.09	273.01
5659.00	81.59	271.83	4696.17	1133.57	58.69	-1132.23	1.47	1133.75	272.97
5691.00	83.49	270.84	4700.33	1165.30	59.43	-1163.95	6.68	1165.46	272.92
5722.00	83.59	270.38	4703.81	1196.09	59.76	-1194.75	1.51	1196.24	272.86
5753.00	84.27	270.22	4707.09	1226.91	59.92	-1225.57	2.25	1227.04	272.80
5785.00	84.37	270.32	4710.26	1258.73	60.07	-1257.42	0.44	1258.85	272.74
5816.00	83.82	269.31	4713.45	1289.55	59.97	-1288.25	3.69	1289.65	272.67
5848.00	83.45	269.26	4717.00	1321.32	59.57	-1320.05	1.17	1321.39	272.58
5879.00	84.23	270.67	4720.32	1352.12	59.55	-1350.87	5.17	1352.18	272.52
5911.00	84.84	271.03	4723.37	1383.97	60.03	-1382.72	2.21	1384.02	272.49
5942.00	84.57	271.42	4726.23	1414.83	60.69	-1413.58	1.53	1414.88	272.46
5973.00	83.92	270.89	4729.34	1445.67	61.31	-1444.42	2.70	1445.72	272.43
6005.00	83.93	270.50	4732.73	1477.48	61.69	-1476.24	1.21	1477.53	272.39
6036.00	85.92	271.08	4735.47	1508.35	62.12	-1507.11	6.68	1508.39	272.36
6068.00	87.04	270.92	4737.43	1540.29	62.68	-1539.05	3.54	1540.32	272.33
6099.00	87.24	271.51	4738.98	1571.25	63.33	-1570.00	2.01	1571.28	272.31
6130.00	87.17	271.11	4740.49	1602.21	64.04	-1600.96	1.31	1602.24	272.29
6162.00	86.97	271.24	4742.13	1634.16	64.70	-1632.91	0.75	1634.19	272.27
6193.00	84.20	271.99	4744.51	1665.07	65.57	-1663.80	9.26	1665.09	272.26
6225.00	83.35	272.37	4747.98	1696.88	66.78	-1695.59	2.91	1696.90	272.26
6256.00	83.25	271.94	4751.60	1727.67	67.94	-1726.35	1.41	1727.69	272.25
6287.00	84.40	272.51	4754.93	1758.49	69.13	-1757.15	4.14	1758.51	272.25
6319.00	84.16	272.29	4758.12	1790.33	70.47	-1788.96	1.02	1790.35	272.26
6350.00	84.48	272.82	4761.19	1821.17	71.84	-1819.78	1.99	1821.20	272.26
6381.00	83.97	272.92	4764.31	1852.01	73.39	-1850.58	1.68	1852.04	272.27
6413.00	84.03	272.88	4767.66	1883.83	75.00	-1882.37	0.22	1883.86	272.28
6444.00	84.50	270.69	4770.75	1914.67	75.96	-1913.19	7.19	1914.70	272.27
6476.00	84.61	270.33	4773.79	1946.52	76.24	-1945.05	1.17	1946.54	272.24
6507.00	87.54	270.25	4775.91	1977.43	76.40	-1975.97	9.46	1977.45	272.21
6538.00	87.88	271.27	4777.15	2008.40	76.81	-2006.94	3.47	2008.41	272.19
6570.00	88.15	270.14	4778.26	2040.37	77.20	-2038.92	3.63	2040.38	272.17
6601.00	90.27	270.97	4778.69	2071.36	77.50	-2069.92	7.34	2071.37	272.14
6632.00	91.11	270.14	4778.31	2102.34	77.80	-2100.91	3.81	2102.35	272.12
6664.00	91.51	270.95	4777.58	2134.33	78.11	-2132.90	2.82	2134.33	272.10
6695.00	89.33	271.33	4777.36	2165.32	78.72	-2163.89	7.14	2165.32	272.08
6727.00	88.65	271.03	4777.92	2197.31	79.38	-2195.88	2.32	2197.32	272.07
6758.00	88.79	270.90	4778.61	2228.30	79.90	-2226.87	0.62	2228.30	272.05
6790.00	88.59	271.54	4779.34	2260.29	80.58	-2258.85	2.09	2260.29	272.04
6821.00	88.99	270.62	4780.00	2291.28	81.17	-2289.84	3.24	2291.28	272.03
6852.00	88.69	270.96	4780.63	2322.26	81.60	-2320.83	1.46	2322.26	272.01
6881.00	87.91	269.08	4781.49	2351.23	81.61	-2349.82	7.02	2351.23	271.99
6928.00	87.91	269.08	4783.20	2398.14	80.85	-2396.78	0.00	2398.14	271.93



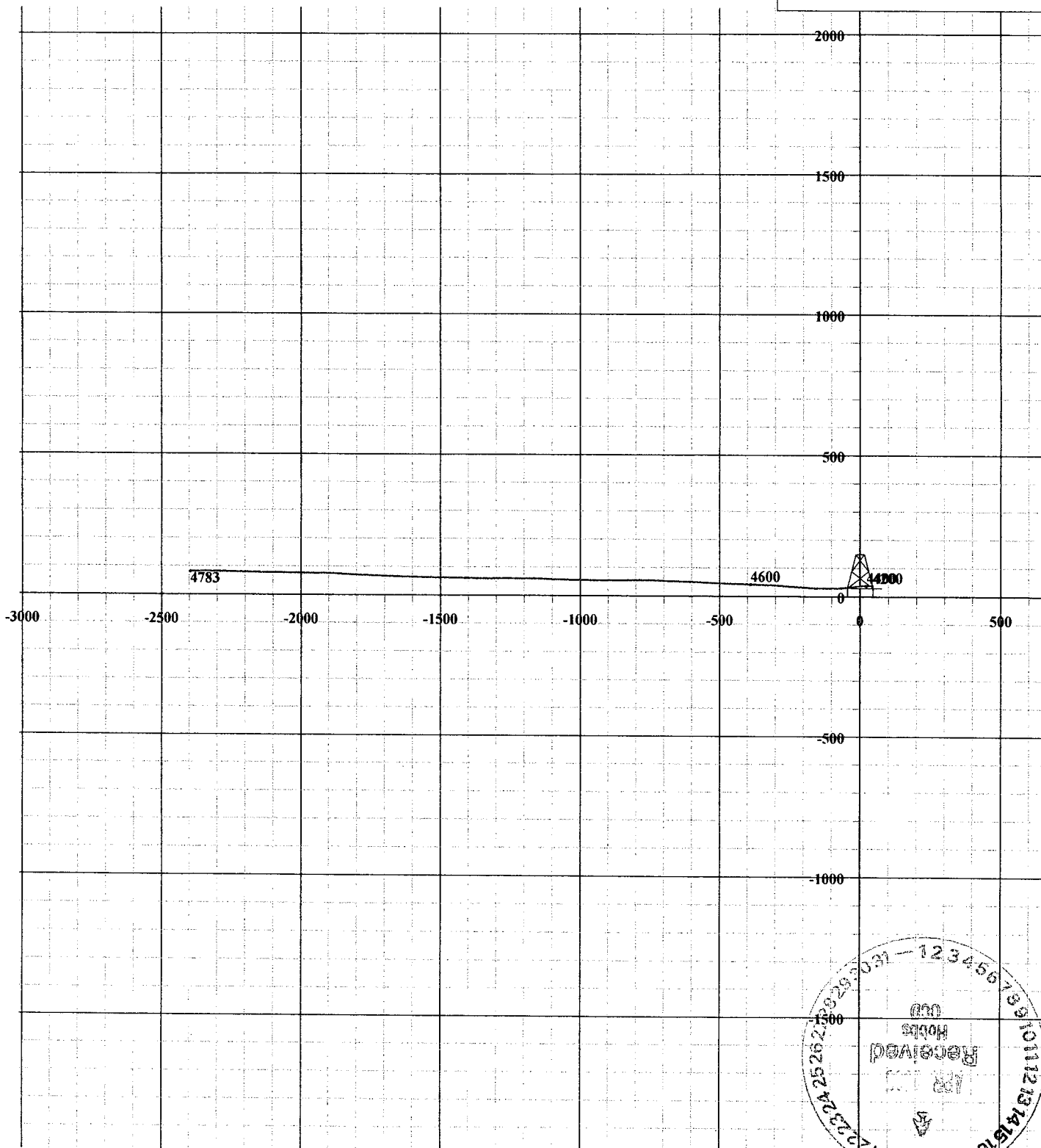


Scientific
Drilling

Field: Vacuum Glorieta San Andres
Site: Lea County, NM
Well: VGSAU #23H
Wellpath: DH - Job #32D0305171
Survey: 03/07/05-03/17/05



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



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

