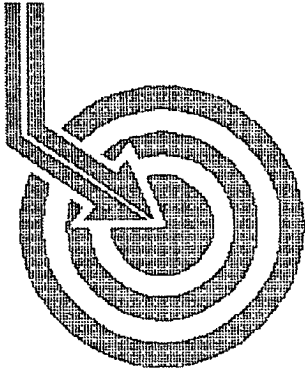




Scientific Drilling

SUR: L-1-18s-34e, 1980/S & 1308/W
BHL: I-2-18s-34e, 1983/S & 342/e
API # 30-025-32026

CHEVRONTEXACO

Field: Vacuum Glorietta San Andres
Site: Lea County, NM
Well: VGSAU # 126
Wellpath: DH - JOB #32D1103595
Survey: 11/16/03-11/21/03

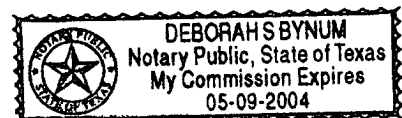


This survey is correct to the best of my knowledge
and is supported by actual field data.

[Signature] Company Representative

Notorized this date 16th of December, 2003.

Deborah S Bynum
Notary Signature
County of Midland
State of Texas



Scientific Drilling Survey Report

Company: CHEVRONTExACO Field: Vacuum Glorietta San Andres Site: Lea County, NM Well: VGSAU # 126 Wellpath: VH - Job #32K1103593	Date: 12/15/2003 Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,270.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey: 11/16/03 KSRG 0'-4227' Company: Scientific Drilling Tool: Keeper, Keeper Gyro	Start Date: 11/15/2003 Engineer: Cary Coffee Tied-to: From Surface
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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	359.48	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.48	68.03	100.0	-0.4	0.2	0.4	0.48	0.4	68.03
200.0	0.58	73.90	200.0	-1.3	0.5	1.3	0.11	1.3	70.24
300.0	0.66	62.13	300.0	-2.3	0.9	2.3	0.15	2.4	69.08
400.0	0.74	73.07	400.0	-3.4	1.3	3.4	0.16	3.6	68.69
500.0	0.67	68.65	500.0	-4.5	1.7	4.5	0.09	4.9	69.27
600.0	0.66	89.63	600.0	-5.7	1.9	5.7	0.24	6.0	71.13
700.0	0.56	95.85	700.0	-6.7	1.9	6.7	0.12	7.0	74.30
800.0	0.69	98.65	800.0	-7.8	1.8	7.8	0.13	8.0	77.37
900.0	0.64	85.00	899.9	-9.0	1.7	9.0	0.17	9.1	79.20
1000.0	0.52	89.40	999.9	-10.0	1.8	10.0	0.13	10.1	79.98
1100.0	0.52	79.37	1099.9	-10.9	1.9	10.9	0.09	11.0	80.34
1200.0	0.60	76.61	1199.9	-11.8	2.1	11.8	0.08	12.0	80.14
1300.0	0.59	63.47	1299.9	-12.8	2.4	12.8	0.14	13.0	79.35
1400.0	0.63	68.53	1399.9	-13.8	2.8	13.8	0.07	14.1	78.35
1500.0	0.63	46.75	1499.9	-14.7	3.4	14.7	0.24	15.1	76.90
1600.0	0.67	48.64	1599.9	-15.5	4.2	15.5	0.05	16.1	74.93
1700.0	1.09	42.92	1699.9	-16.6	5.3	16.6	0.43	17.4	72.43
1800.0	1.11	47.44	1799.9	-18.0	6.6	18.0	0.09	19.1	69.80
1900.0	1.28	53.82	1899.9	-19.6	7.9	19.6	0.21	21.1	67.97
2000.0	1.33	49.69	1999.8	-21.4	9.3	21.4	0.11	23.3	66.41
2100.0	1.31	51.08	2099.8	-23.1	10.8	23.1	0.04	25.5	64.98
2200.0	1.58	52.68	2199.8	-25.1	12.4	25.1	0.27	28.0	63.82
2300.0	1.77	69.48	2299.7	-27.7	13.7	27.7	0.52	30.9	63.61
2400.0	2.14	62.96	2399.7	-30.8	15.1	30.8	0.43	34.3	63.83
2500.0	2.30	62.32	2499.6	-34.2	16.9	34.2	0.16	38.1	63.71
2600.0	2.55	64.16	2599.5	-38.0	18.8	38.0	0.26	42.4	63.67
2700.0	2.61	66.09	2699.4	-42.1	20.7	42.1	0.11	46.9	63.81
2800.0	2.68	64.61	2799.3	-46.3	22.6	46.3	0.10	51.5	63.95
2900.0	2.76	64.70	2899.2	-50.5	24.6	50.5	0.08	56.2	64.01
3000.0	2.88	64.70	2999.1	-55.0	26.7	55.0	0.12	61.2	64.06
3100.0	2.69	67.97	3099.0	-59.4	28.7	59.4	0.25	66.0	64.23
3200.0	2.70	66.77	3198.8	-63.8	30.5	63.8	0.06	70.7	64.44
3300.0	2.70	64.00	3298.7	-68.1	32.5	68.1	0.13	75.4	64.49
3400.0	2.79	62.13	3398.6	-72.3	34.6	72.3	0.13	80.2	64.41
3500.0	2.98	60.74	3498.5	-76.7	37.0	76.7	0.20	85.2	64.23
3600.0	3.00	60.80	3598.4	-81.3	39.6	81.3	0.02	90.4	64.03
3700.0	3.24	61.25	3698.2	-86.1	42.2	86.1	0.24	95.9	63.86
3800.0	3.31	61.24	3798.0	-91.1	45.0	91.1	0.07	101.6	63.71
3900.0	3.09	64.04	3897.9	-96.0	47.5	96.0	0.27	107.1	63.66
4000.0	3.15	63.96	3997.7	-100.9	49.9	100.9	0.06	112.6	63.67
4100.0	2.89	62.08	4097.6	-105.6	52.3	105.6	0.28	117.9	63.65
4200.0	2.96	59.00	4197.5	-110.0	54.8	110.0	0.17	123.0	63.52
4227.0	3.12	63.05	4224.4	-111.3	55.5	111.3	0.99	124.4	63.49

Scientific Drilling Survey Report

Company: CHEVRONTEXACO Field: Vacuum Glorietta San Andres Site: Lea County, NM Well: VGSAU # 126 Wellpath: DH - Job #32D1103595	Date: 12/15/2003 Co-ordinate(NE) Reference: Vertical (TVD) Reference: Section (VS) Reference: Survey Calculation Method:	Time: 18:11:09 Site: Lea County, NM, Grid North SITE 0.0 Well (0.00N,0.00E,270.00Azi) Minimum Curvature	Page: 1 Db: Sybase
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Survey: 11/16/03-11/21/03 MWD 4241'-6133' Company: Scientific Drilling Tool: MWD,MWD	Start Date: 11/16/2003 Engineer: Lamb/Melendez/Hendrix Tied-to: From: Definitive Path
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Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4227.0	3.12	63.05	4224.4	-111.3	55.5	111.3	0.00	124.4	63.49
4241.0	3.12	63.05	4238.4	-112.0	55.9	112.0	0.00	125.1	63.49
4294.0	16.00	284.00	4290.8	-106.1	58.3	106.1	34.84	121.1	61.21
4310.0	21.10	283.38	4306.0	-101.2	59.5	101.2	31.90	117.4	59.54
4340.0	30.34	277.40	4333.0	-88.4	61.7	88.4	31.96	107.8	55.06
4372.0	38.78	275.47	4359.3	-70.4	63.7	70.4	26.59	94.9	47.83
4403.0	46.43	274.06	4382.1	-49.5	65.5	49.5	24.87	82.0	37.07
4435.0	51.09	266.86	4403.2	-25.4	65.6	25.4	22.31	70.4	21.19
4466.0	59.62	267.82	4420.8	0.0	64.4	0.0	27.63	64.4	359.99
4498.0	67.88	269.06	4434.9	28.7	63.7	-28.7	26.04	69.8	335.75
4529.0	71.84	270.81	4445.6	57.8	63.6	-57.8	13.83	85.9	317.76
4561.0	79.84	272.22	4453.4	88.8	64.5	-88.8	25.36	109.7	305.99
4592.0	85.74	272.75	4457.3	119.5	65.8	-119.5	19.11	136.4	298.84
4624.0	85.21	273.45	4459.9	151.3	67.5	-151.3	2.74	165.7	294.04
4655.0	84.59	272.75	4462.6	182.2	69.2	-182.2	3.01	194.9	290.80
4687.0	86.70	268.00	4465.0	214.1	69.4	-214.1	16.20	225.0	287.96
4718.0	87.05	268.44	4466.7	245.0	68.4	-245.0	1.81	254.4	285.61
4750.0	86.70	268.62	4468.5	276.9	67.6	-276.9	1.23	285.1	283.72
4782.0	82.92	269.76	4471.4	308.8	67.2	-308.8	12.33	316.0	282.27
4813.0	83.27	269.81	4475.1	339.6	67.0	-339.6	1.14	346.1	281.17
4844.0	85.12	271.34	4478.2	370.4	67.4	-370.4	7.73	376.5	280.31
4876.0	84.59	270.46	4481.1	402.3	67.9	-402.3	3.20	408.0	279.57
4908.0	84.06	270.46	4484.3	434.1	68.1	-434.1	1.66	439.4	278.92
4939.0	86.44	269.23	4486.8	465.0	68.0	-465.0	8.64	470.0	278.32
4971.0	87.23	270.11	4488.6	497.0	67.8	-497.0	3.69	501.6	277.77
5002.0	87.32	270.02	4490.1	527.9	67.9	-527.9	0.41	532.3	277.33
5034.0	86.17	271.78	4491.9	559.9	68.4	-559.9	6.56	564.0	276.96
5066.0	86.00	272.22	4494.1	591.8	69.5	-591.8	1.47	595.8	276.70
5097.0	86.44	270.99	4496.1	622.7	70.4	-622.7	4.21	626.7	276.45
5129.0	88.90	268.09	4497.4	654.7	70.1	-654.7	11.88	658.4	276.11
5161.0	89.96	267.65	4497.7	686.6	68.9	-686.6	3.59	690.1	275.73
5192.0	89.96	265.01	4497.8	717.6	66.9	-717.6	8.52	720.7	275.33
5224.0	90.75	265.63	4497.6	749.5	64.3	-749.5	3.14	752.2	274.91
5254.0	86.53	263.52	4498.3	779.3	61.5	-779.3	15.73	781.7	274.51
5287.0	83.45	262.99	4501.2	812.0	57.6	-812.0	9.47	814.0	274.06
5319.0	81.95	265.54	4505.2	843.5	54.5	-843.5	9.19	845.3	273.69
5350.0	82.31	265.49	4509.5	874.1	52.1	-874.1	1.17	875.7	273.41
5382.0	83.10	264.92	4513.5	905.8	49.4	-905.8	3.04	907.1	273.12
5413.0	80.20	265.01	4518.0	936.3	46.7	-936.3	9.36	937.5	272.86
5445.0	80.99	265.19	4523.3	967.8	44.0	-967.8	2.53	968.8	272.60
5477.0	81.87	265.01	4528.0	999.3	41.3	-999.3	2.81	1000.2	272.37
5508.0	82.48	264.66	4532.3	1029.9	38.5	-1029.9	2.26	1030.6	272.14
5540.0	78.44	265.98	4537.6	1061.3	36.0	-1061.3	13.26	1061.9	271.94
5572.0	78.96	265.10	4543.8	1092.6	33.5	-1092.6	3.15	1093.1	271.76
5603.0	79.67	265.36	4549.6	1123.0	31.0	-1123.0	2.43	1123.4	271.58
5635.0	81.25	266.95	4554.9	1154.5	28.9	-1154.5	6.96	1154.8	271.43
5667.0	81.25	266.77	4559.7	1186.0	27.1	-1186.0	0.56	1186.4	271.31
5698.0	80.72	266.77	4564.6	1216.6	25.4	-1216.6	1.71	1216.9	271.20
5730.0	85.30	266.07	4568.5	1248.3	23.4	-1248.3	14.48	1248.5	271.08

Scientific Drilling Survey Report

Company: CHEVRONTExACO Field: Vacuum Goriotta San Andres Site: Lea County, NM Well: VGSAU # 126 Wellpath: DH - Job #32D1103595	Date: 12/15/2003 Time: 18:11:09 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,270.00Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
5761.0	87.14	266.77	4570.5	1279.2	21.5	-1279.2	6.35	1279.4	270.96
5793.0	87.14	266.77	4572.1	1311.1	19.7	-1311.1	0.00	1311.2	270.86
5824.0	87.05	266.33	4573.7	1342.0	17.8	-1342.0	1.45	1342.1	270.76
5856.0	87.23	266.68	4575.3	1373.9	15.9	-1373.9	1.23	1374.0	270.66
5888.0	87.49	265.89	4576.8	1405.8	13.8	-1405.8	2.60	1405.9	270.56
5919.0	87.23	265.89	4578.2	1436.7	11.6	-1436.7	0.84	1436.7	270.46
5951.0	86.88	266.68	4579.8	1468.6	9.5	-1468.6	2.70	1468.6	270.37
5982.0	87.05	267.21	4581.5	1499.5	7.9	-1499.5	1.79	1499.5	270.30
6014.0	86.79	267.65	4583.2	1531.4	6.5	-1531.4	1.60	1531.4	270.24
6045.0	87.23	267.30	4584.8	1562.3	5.1	-1562.3	1.81	1562.3	270.19
6077.0	87.41	268.88	4586.3	1594.3	4.0	-1594.3	4.96	1594.3	270.14
6097.0	87.41	269.06	4587.2	1614.2	3.7	-1614.2	0.90	1614.3	270.13
6133.0	87.41	269.06	4588.9	1650.2	3.1	-1650.2	0.00	1650.2	270.11



**Scientific
Drilling**

Field: Vacuum Glorietta San Andres
Site: Lea County, NM
Well: VGSAU # 126
Wellpath: DH - JOB #32D1103595
Survey: 11/16/03-11/21/03



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

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 12/15/2003
Model: igrf2000

