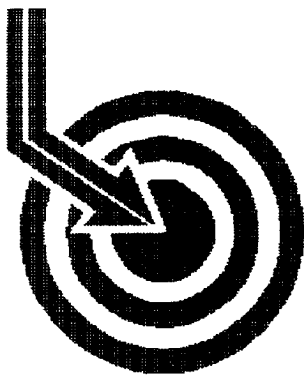




Scientific Drilling

SUR: H-25-17s-33em 1980/N & 1260/E
BHL: H-25-17s-33e, 1865/N & 1221/E
API # 30-025-37823

PATTERSON PETROLEUM

Field: Vacuum
Site: Lea County, NM
Well: Gen Montcalm 25 State #1
Wellpath: VH - Job #32K0806674
Survey: 08/19/06



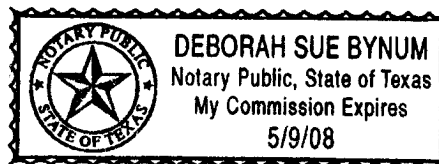
This survey is correct to the best of my knowledge
and is supported by actual field data.

.....R. L. Wharton..... Company Representative

Notorized this date 26th of September, 2006.

Deborah Sue Bynum
Notary Signature

County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: PATTERSON PETROLEUM
Field: Vacuum
Site: Lea County, NM
Well: Gen Montcalm 25 State #1
Wellpath: VH - Job #32K0806674

Date: 09/26/2006 Time: 09:20:17 Page: 1
Co-ordinate(N/E) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,40.18Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 08/19/06 Start Date: 08/19/2006
KSRG 0'-12510'
Company: Scientific Drilling Internatio Engineer: Gonzales w/Gray
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	ChD ft	ChA deg
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.33	136.70	100.00	-0.03	-0.21	0.20	0.33	0.29	136.70
200.00	0.58	113.83	200.00	0.08	-0.62	0.86	0.30	1.06	126.01
300.00	0.69	120.92	299.99	0.32	-1.14	1.84	0.13	2.16	121.76
400.00	0.73	131.42	399.98	0.40	-1.87	2.83	0.14	3.39	123.42
500.00	0.86	143.37	499.97	0.21	-2.89	3.76	0.21	4.74	127.59
600.00	0.89	135.31	599.96	-0.03	-4.05	4.75	0.13	6.24	130.42
700.00	0.84	130.82	699.95	-0.10	-5.08	5.85	0.08	7.75	130.95
800.00	0.59	129.46	799.94	-0.11	-5.88	6.80	0.25	9.00	130.85
900.00	0.58	143.58	899.94	-0.22	-6.62	7.50	0.14	10.00	131.42
1000.00	0.46	134.76	999.93	-0.37	-7.31	8.09	0.14	10.90	132.10
1100.00	0.63	142.59	1099.93	-0.52	-8.03	8.71	0.19	11.84	132.68
1200.00	0.48	144.26	1199.92	-0.74	-8.80	9.29	0.15	12.80	133.48
1300.00	0.53	144.80	1299.92	-0.95	-9.52	9.80	0.05	13.66	134.19
1400.00	0.58	163.47	1399.92	-1.35	-10.39	10.21	0.19	14.56	135.50
1500.00	0.60	180.17	1499.91	-2.03	-11.39	10.35	0.17	15.39	137.75
1600.00	0.40	190.56	1599.91	-2.73	-12.26	10.28	0.22	16.00	140.01
1700.00	0.36	212.33	1699.90	-3.35	-12.87	10.05	0.15	16.33	142.01
1800.00	0.47	180.55	1799.90	-3.97	-13.55	9.88	0.25	16.77	143.89
1900.00	0.10	128.59	1899.90	-4.29	-14.01	9.94	0.42	17.18	144.63
2000.00	0.28	48.72	1999.90	-4.04	-13.90	10.20	0.28	17.24	143.74
2100.00	0.52	22.56	2099.90	-3.37	-13.32	10.55	0.30	17.00	141.61
2200.00	0.68	21.52	2199.89	-2.37	-12.35	10.95	0.16	16.50	138.45
2300.00	0.71	49.58	2299.88	-1.20	-11.40	11.64	0.34	16.29	134.41
2400.00	0.68	33.63	2399.88	0.00	-10.50	12.44	0.20	16.28	130.18
2500.00	1.13	47.17	2499.86	1.57	-9.34	13.49	0.50	16.40	124.70
2600.00	0.97	53.27	2599.85	3.37	-8.16	14.89	0.19	16.98	118.73
2700.00	1.26	43.62	2699.83	5.29	-6.86	16.33	0.34	17.71	112.79
2800.00	1.47	32.33	2799.80	7.66	-4.98	17.77	0.34	18.45	105.65
2900.00	1.33	18.87	2899.77	10.01	-2.80	18.83	0.36	19.04	98.45
3000.00	1.18	24.38	2999.75	12.09	-0.76	19.63	0.19	19.65	92.22
3100.00	1.09	18.36	3099.73	13.96	1.08	20.36	0.15	20.39	86.97
3200.00	0.92	14.70	3199.71	15.57	2.76	20.86	0.18	21.04	82.47
3300.00	0.86	25.70	3299.70	17.02	4.21	21.39	0.18	21.80	78.86
3400.00	0.83	18.41	3399.69	18.42	5.57	21.94	0.11	22.64	75.75
3500.00	0.78	22.79	3499.68	19.74	6.89	22.44	0.08	23.47	72.93
3600.00	0.77	11.06	3599.67	20.98	8.18	22.83	0.16	24.25	70.29
3700.00	0.65	356.06	3699.66	21.97	9.40	22.92	0.22	24.77	67.70
3800.00	0.57	341.40	3799.66	22.64	10.44	22.72	0.17	25.00	65.32
3900.00	0.58	343.10	3899.65	23.17	11.39	22.41	0.02	25.14	63.05
4000.00	0.35	319.55	3999.65	23.49	12.11	22.07	0.29	25.17	61.24
4100.00	0.67	313.58	4099.64	23.58	12.75	21.45	0.32	24.95	59.28
4200.00	0.57	323.72	4199.64	23.73	13.55	20.73	0.15	24.77	56.83
4300.00	0.57	313.68	4299.63	23.88	14.30	20.08	0.10	24.65	54.55
4400.00	0.48	312.89	4399.63	23.93	14.92	19.41	0.09	24.48	52.44
4500.00	0.47	301.57	4499.63	23.88	15.42	18.75	0.09	24.28	50.56
4600.00	0.42	275.93	4599.62	23.62	15.68	18.04	0.20	23.90	49.01
4700.00	0.33	297.67	4699.62	23.35	15.85	17.42	0.17	23.55	47.70
4800.00	0.40	269.29	4799.62	23.06	15.98	16.82	0.19	23.20	46.46



Scientific Drilling International Survey Report

Company: PATTERSON PETROLEUM
Field: Vacuum
Site: Lea County, NM
Well: Gen Montcalm 25 State #1
Wellpath: VH - Job #32K0806674

Date: 09/26/2006 Time: 09:20:17 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,40.18Azi)
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	0.60	246.83	4899.62	22.36	15.77	15.98	0.28	22.45	45.39
5000.00	0.58	235.06	4999.61	21.40	15.27	15.09	0.12	21.47	44.66
5100.00	0.53	215.58	5099.61	20.45	14.61	14.40	0.19	20.51	44.60
5200.00	0.45	213.34	5199.60	19.60	13.90	13.92	0.08	19.67	45.04
5300.00	0.35	184.45	5299.60	18.96	13.27	13.68	0.22	19.06	45.88
5400.00	0.33	195.45	5399.60	18.45	12.69	13.58	0.07	18.58	46.95
5500.00	0.26	183.31	5499.60	18.01	12.18	13.49	0.09	18.18	47.92
5600.00	0.39	192.92	5599.59	17.53	11.62	13.40	0.14	17.74	49.06
5700.00	0.36	221.79	5699.59	16.91	11.06	13.12	0.19	17.15	49.86
5800.00	0.24	216.98	5799.59	16.39	10.66	12.78	0.12	16.64	50.18
5900.00	0.14	229.05	5899.59	16.06	10.41	12.56	0.11	16.31	50.35
6000.00	0.23	229.53	5999.59	15.74	10.20	12.32	0.09	15.99	50.37
6100.00	0.15	305.56	6099.59	15.53	10.14	12.06	0.24	15.76	49.92
6200.00	0.13	316.87	6199.59	15.53	10.30	11.87	0.03	15.72	49.05
6300.00	0.21	269.30	6299.59	15.43	10.38	11.61	0.16	15.58	48.20
6400.00	0.19	12.08	6399.59	15.45	10.54	11.46	0.31	15.58	47.39
6500.00	0.38	33.95	6499.59	15.93	10.98	11.68	0.22	16.03	46.78
6600.00	0.46	25.77	6599.58	16.65	11.62	12.04	0.10	16.73	46.03
6700.00	0.41	18.56	6699.58	17.37	12.32	12.33	0.07	17.43	45.03
6800.00	0.25	6.16	6799.58	17.88	12.87	12.47	0.17	17.92	44.08
6900.00	0.54	32.05	6899.58	18.53	13.49	12.74	0.33	18.56	43.37
7000.00	0.56	20.36	6999.57	19.46	14.35	13.16	0.11	19.47	42.53
7100.00	0.56	19.54	7099.57	20.37	15.27	13.50	0.01	20.38	41.48
7200.00	0.71	27.06	7199.56	21.43	16.28	13.94	0.17	21.43	40.58
7300.00	0.62	38.61	7299.56	22.58	17.25	14.56	0.16	22.58	40.16
7400.00	0.50	18.52	7399.55	23.52	18.09	15.04	0.23	23.52	39.73
7500.00	0.58	28.59	7499.55	24.42	18.95	15.42	0.12	24.43	39.13
7600.00	0.40	354.41	7599.54	25.16	19.74	15.63	0.34	25.18	38.36
7700.00	0.30	17.39	7699.54	25.65	20.34	15.67	0.17	25.67	37.62
7800.00	0.40	20.89	7799.54	26.22	20.91	15.87	0.10	26.26	37.20
7900.00	0.39	9.39	7899.54	26.84	21.58	16.05	0.08	26.89	36.65
8000.00	0.26	353.34	7999.54	27.29	22.14	16.08	0.16	27.36	36.00
8100.00	0.29	324.18	8099.53	27.51	22.57	15.91	0.14	27.61	35.18
8200.00	0.47	309.26	8199.53	27.56	23.03	15.44	0.20	27.73	33.84
8300.00	0.46	288.19	8299.53	27.40	23.42	14.74	0.17	27.67	32.20
8400.00	0.28	287.09	8399.53	27.16	23.61	14.13	0.18	27.52	30.89
8500.00	0.26	291.29	8499.53	26.99	23.77	13.68	0.03	27.43	29.93
8600.00	0.29	279.57	8599.52	26.79	23.89	13.22	0.06	27.31	28.96
8700.00	0.15	299.16	8699.52	26.63	24.00	12.86	0.16	27.23	28.18
8800.00	0.13	339.64	8799.52	26.66	24.17	12.71	0.10	27.30	27.73
8900.00	0.03	333.81	8899.52	26.73	24.30	12.65	0.10	27.40	27.51
9000.00	0.07	2.40	8999.52	26.79	24.38	12.65	0.05	27.47	27.41
9100.00	0.10	79.19	9099.52	26.90	24.46	12.73	0.11	27.58	27.50
9200.00	0.11	319.68	9199.52	26.99	24.55	12.76	0.18	27.67	27.46
9300.00	0.15	23.28	9299.52	27.13	24.74	12.75	0.14	27.83	27.26
9400.00	0.12	21.32	9399.52	27.35	24.96	12.84	0.03	28.07	27.21
9500.00	0.13	33.10	9499.52	27.56	25.15	12.94	0.03	28.29	27.22
9600.00	0.01	348.85	9599.52	27.68	25.26	13.00	0.12	28.41	27.23
9700.00	0.11	131.56	9699.52	27.69	25.20	13.07	0.12	28.39	27.41
9800.00	0.25	27.39	9799.52	27.90	25.33	13.24	0.30	28.58	27.59
9900.00	0.03	334.20	9899.52	28.12	25.55	13.33	0.23	28.82	27.55
10000.00	0.13	107.30	9999.52	28.17	25.54	13.42	0.15	28.85	27.73



Scientific Drilling International Survey Report

Company: PATTERSON PETROLEUM
Field: Vacuum
Site: Lea County, NM
Well: Gen Montcalm 25 State #1
Wellpath: VH - Job #32K0806674

Date: 09/26/2006 Time: 09:20:17 Page: 3
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,40.18Azi)
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	ChD ft	ChA deg
10100.00	0.14	39.44	10099.52	28.34	25.60	13.61	0.15	28.99	28.00
10200.00	0.23	72.90	10199.52	28.63	25.75	13.88	0.14	29.26	28.32
10300.00	0.16	352.72	10299.52	28.89	25.95	14.05	0.26	29.51	28.44
10400.00	0.41	7.81	10399.52	29.29	26.44	14.09	0.26	29.96	28.04
10500.00	0.36	26.05	10499.52	29.90	27.08	14.27	0.13	30.61	27.79
10600.00	0.41	14.42	10599.51	30.52	27.71	14.50	0.09	31.27	27.62
10700.00	0.50	15.34	10699.51	31.24	28.48	14.70	0.09	32.05	27.31
10800.00	0.31	322.66	10799.51	31.70	29.11	14.65	0.40	32.59	26.72
10900.00	0.21	344.76	10899.51	31.86	29.50	14.44	0.14	32.85	26.08
11000.00	0.30	58.72	10999.51	32.21	29.82	14.62	0.32	33.21	26.12
11100.00	0.21	88.63	11099.51	32.58	29.96	15.03	0.16	33.51	26.64
11200.00	0.09	6.08	11199.51	32.77	30.04	15.22	0.22	33.67	26.86
11300.00	0.44	65.85	11299.51	33.18	30.28	15.58	0.40	34.05	27.22
11400.00	0.22	76.84	11399.50	33.68	30.48	16.11	0.23	34.47	27.87
11500.00	0.11	136.57	11499.50	33.82	30.45	16.37	0.19	34.57	28.26
11600.00	0.22	241.19	11599.50	33.63	30.29	16.26	0.27	34.38	28.23
11700.00	0.12	240.01	11699.50	33.36	30.14	16.00	0.10	34.13	27.97
11800.00	0.18	110.45	11799.50	33.31	30.04	16.06	0.27	34.06	28.13
11900.00	0.47	108.06	11899.50	33.52	29.85	16.60	0.29	34.16	29.07
12000.00	0.48	131.76	11999.50	33.66	29.45	17.30	0.20	34.15	30.43
12100.00	0.58	128.97	12099.49	33.66	28.85	18.01	0.10	34.01	31.97
12200.00	0.69	126.95	12199.49	33.70	28.17	18.88	0.11	33.91	33.83
12300.00	0.73	119.41	12299.48	33.86	27.50	19.92	0.10	33.95	35.92
12400.00	0.73	127.49	12399.47	34.01	26.79	20.98	0.10	34.03	38.06
12500.00	0.63	106.09	12499.46	34.26	26.25	22.01	0.27	34.26	39.98
12510.00	0.85	136.07	12509.46	34.28	26.19	22.12	4.38	34.28	40.18



Scientific
Drilling

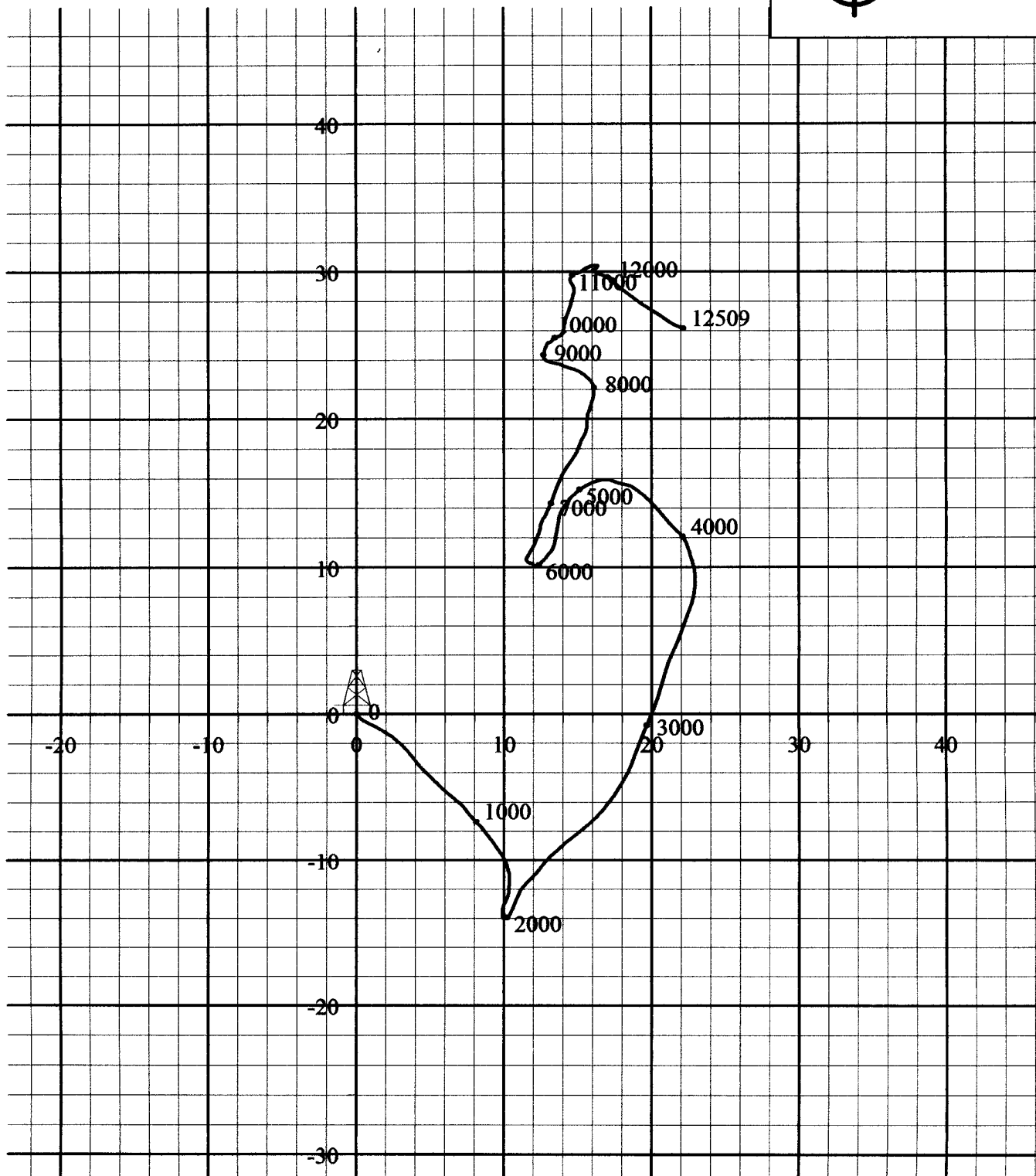
Field: Vacuum
Site: Lea County, NM
Well: Gen Montcalm 25 State #1
Wellpath: VH - Job #32K0806674
Survey: 08/19/06

G/T/M

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

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 09/25/2006
Model: igrf2000

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



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