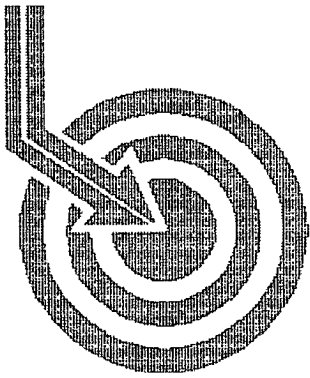
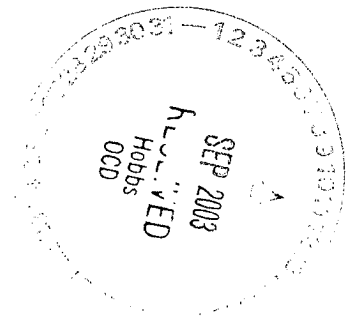




Scientific Drilling



OCCIDENTAL PERMIAN LTD.

Field: Hobbs Deep
Site: Lea County, NM
Well: Hobbs Deep "A" #1
Wellpath: DH - Job #32D1202432
Survey: 12/01/02-12/11/02

SUR: P-13-18s-37e, 990/S & 660/E
BHL: P-13-18s-37e, 336/S & 654/E
API # 30-025-36046

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

[Signature].....Company Representative

Notorized this date 31st of December, 2002.

Deborah S Bynum
Notary Signature
County of Midland
State of Texas



Scientific Drilling International

Survey Report

Company: OCCIDENTAL PERMIAN LTD.
 Field: Hobbs Deep
 Site: Lea County, NM
 Well: Hobbs Deep "A" #1
 Wellpath: VH - Job #32K1202428

Date: 12/30/2002 Time: 16:41:04 Page: 1
 Co-ordinate(N/E) Reference: Site: Lea County, NM, Grid North
 Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
 Section (VS) Reference: Well (0.0E, 0.0N, 179.4Azi)
 Survey Calculation Method: Minimum Curvature

Survey: 12/1/02
 KSRG 0'-5963'

Start Date: 12/30/2002

Company: Scientific Drilling Internatio
 Tool: Keeper

Engineer: Jeff Cossey

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
0.0	0.00	0.61	0.0	0.0	0.0	0.0	0.0	0.00	0.00
100.0	0.23	78.18	100.0	0.0	0.0	0.2	0.2	78.18	0.23
200.0	0.18	78.85	200.0	-0.1	0.1	0.5	0.6	78.37	0.05
300.0	0.17	113.43	300.0	-0.1	0.1	0.8	0.8	84.27	0.10
400.0	0.37	44.90	400.0	-0.2	0.3	1.2	1.2	78.07	0.35
500.0	0.28	33.73	500.0	-0.7	0.7	1.6	1.7	66.34	0.11
600.0	0.20	46.39	600.0	-1.0	1.0	1.8	2.1	61.08	0.10
700.0	0.11	77.63	700.0	-1.1	1.2	2.0	2.3	60.67	0.12
800.0	0.12	96.96	800.0	-1.1	1.2	2.2	2.5	62.71	0.04
900.0	0.18	108.26	900.0	-1.1	1.1	2.5	2.7	66.31	0.07
1000.0	0.29	165.51	1000.0	-0.8	0.8	2.7	2.8	73.52	0.24
1100.0	0.27	138.38	1100.0	-0.3	0.4	2.9	3.0	82.60	0.13
1200.0	0.26	116.24	1200.0	-0.1	0.1	3.3	3.3	88.18	0.10
1300.0	0.30	76.62	1300.0	0.0	0.1	3.7	3.7	89.01	0.19
1400.0	0.29	131.76	1400.0	0.1	0.0	4.2	4.2	90.59	0.27
1500.0	0.27	145.18	1500.0	0.5	-0.4	4.5	4.5	95.13	0.07
1600.0	0.60	160.73	1600.0	1.1	-1.1	4.8	4.9	102.77	0.35
1700.0	0.55	164.86	1700.0	2.1	-2.1	5.1	5.5	111.82	0.06
1800.0	0.51	165.91	1800.0	3.0	-2.9	5.4	6.1	118.82	0.04
1900.0	0.34	181.35	1900.0	3.7	-3.7	5.5	6.6	123.96	0.20
2000.0	0.23	170.44	2000.0	4.2	-4.2	5.5	6.9	127.25	0.12
2100.0	0.18	128.55	2100.0	4.5	-4.5	5.6	7.2	128.37	0.15
2200.0	0.57	72.10	2200.0	4.5	-4.4	6.2	7.6	125.27	0.49
2300.0	1.27	57.58	2300.0	3.7	-3.7	7.6	8.5	115.60	0.73
2400.0	1.94	50.66	2399.9	2.1	-2.0	9.9	10.1	101.41	0.70
2500.0	2.22	54.52	2499.8	-0.1	0.2	12.8	12.8	89.09	0.31
2600.0	2.26	57.04	2599.8	-2.2	2.4	16.0	16.2	81.48	0.11
2700.0	1.87	63.28	2699.7	-4.0	4.2	19.1	19.6	77.59	0.45
2800.0	1.67	62.33	2799.7	-5.4	5.6	21.9	22.6	75.60	0.20
2900.0	1.01	66.28	2899.6	-6.4	6.6	24.0	24.9	74.50	0.67
3000.0	0.88	69.09	2999.6	-7.0	7.3	25.5	26.5	74.07	0.14
3100.0	0.91	74.12	3099.6	-7.5	7.8	27.0	28.1	73.93	0.08
3200.0	0.76	86.40	3199.6	-7.7	8.0	28.4	29.5	74.22	0.23
3300.0	0.42	107.94	3299.6	-7.6	8.0	29.4	30.5	74.86	0.40
3400.0	0.34	141.73	3399.6	-7.3	7.6	29.9	30.9	75.74	0.23
3500.0	0.28	192.40	3499.6	-6.8	7.1	30.1	30.9	76.65	0.27
3600.0	0.38	196.42	3599.6	-6.2	6.6	29.9	30.6	77.60	0.10
3700.0	0.35	220.26	3699.6	-5.7	6.0	29.6	30.2	78.50	0.15
3800.0	0.40	218.31	3799.6	-5.2	5.5	29.2	29.7	79.30	0.05
3900.0	0.39	215.37	3899.6	-4.6	5.0	28.8	29.2	80.21	0.02
4000.0	0.37	217.53	3999.6	-4.1	4.4	28.4	28.8	81.12	0.02
4100.0	0.51	203.50	4099.6	-3.5	3.8	28.0	28.3	82.34	0.18
4200.0	0.62	193.26	4199.6	-2.5	2.8	27.7	27.9	84.16	0.15
4300.0	0.77	170.41	4299.6	-1.3	1.6	27.7	27.8	86.60	0.31
4400.0	1.59	179.41	4399.5	0.7	-0.4	27.8	27.9	90.82	0.84
4500.0	2.30	176.19	4499.5	4.1	-3.8	28.0	28.3	97.71	0.72
4600.0	3.16	179.57	4599.4	8.9	-8.5	28.1	29.4	106.89	0.87
4700.0	4.50	174.24	4699.1	15.5	-15.2	28.6	32.4	118.03	1.39

Scientific Drilling International

Survey Report

Company: OCCIDENTAL PERMIAN LTD.
Field: Hobbs Deep
Site: Lea County, NM
Well: Hobbs Deep "A" #1
Wellpath: VH - Job #32K1202428

Date: 12/30/2002 **Time:** 16:41:04 **Page:** 2
Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
Section (VS) Reference: Well (0.0E, 0.0N, 179.4Azi)
Survey Calculation Method: Minimum Curvature

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
4800.0	4.70	175.21	4798.8	23.5	-23.2	29.3	37.4	128.37	0.21
4900.0	4.64	176.84	4898.5	31.6	-31.3	29.9	43.3	136.36	0.15
5000.0	4.41	178.79	4998.2	39.5	-39.2	30.2	49.5	142.42	0.28
5100.0	4.67	179.52	5097.9	47.4	-47.1	30.3	56.0	147.27	0.27
5200.0	4.56	177.23	5197.5	55.5	-55.2	30.5	63.0	151.05	0.21
5300.0	4.44	176.41	5297.2	63.3	-63.0	30.9	70.2	153.84	0.14
5400.0	4.50	180.85	5396.9	71.1	-70.8	31.1	77.3	156.26	0.35
5500.0	3.96	183.20	5496.7	78.5	-78.1	30.9	84.0	158.44	0.57
5600.0	3.85	181.83	5596.4	85.3	-84.9	30.6	90.3	160.20	0.14
5700.0	3.91	179.69	5696.2	92.0	-91.7	30.5	96.6	161.61	0.16
5800.0	4.16	184.36	5795.9	99.1	-98.7	30.2	103.3	162.98	0.41
5900.0	4.05	184.10	5895.7	106.2	-105.9	29.7	110.0	164.33	0.11
5963.0	3.85	183.67	5958.5	110.5	-110.2	29.4	114.1	165.06	0.32

Scientific Drilling International

Survey Report

Company: OCCIDENTAL PERMIAN LTD.
 Field: Hobbs Deep
 Site: Lea County, NM
 Well: Hobbs Deep "A" #1
 Wellpath: DH - Job #32D1202432

Date: 12/30/2002 Time: 16:46:48 Page: 1
 Co-ordinate(NE) Reference: Site: Lea County, NM, Grid North
 Vertical (TVD) Reference: SITE 0.0 above Mean Sea Level
 Section (VS) Reference: Well (0.0E,0.0N,179.4Azi)
 Survey Calculation Method: Minimum Curvature

Survey: 12/01/02-12/11/02
 MWD 5997'-7745'

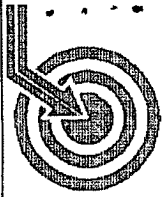
Start Date: 12/30/2002

Company: SDI w/MWD
 Tool: Multi-Shot

Engineer: Brusenhan/Gary

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	ClsD ft	ClsA deg	DLS deg/100ft
5963.0	3.85	183.67	5958.5	110.5	-110.2	29.4	114.1	165.06	0.00
5997.0	4.00	181.90	5992.5	112.9	-112.5	29.3	116.3	165.41	0.57
6060.0	3.70	180.40	6055.3	117.1	-116.8	29.2	120.4	165.95	0.50
6123.0	3.70	179.60	6118.2	121.1	-120.8	29.2	124.3	166.41	0.08
6155.0	3.40	174.60	6150.1	123.1	-122.8	29.3	126.3	166.58	1.35
6218.0	4.80	180.40	6213.0	127.6	-127.3	29.5	130.7	166.97	2.31
6249.0	5.70	184.00	6243.8	130.4	-130.1	29.3	133.4	167.29	3.09
6280.0	7.10	181.10	6274.6	133.9	-133.6	29.2	136.7	167.67	4.63
6312.0	9.10	182.00	6306.3	138.4	-138.1	29.1	141.1	168.11	6.26
6343.0	10.90	181.50	6336.8	143.8	-143.5	28.9	146.4	168.61	5.81
6375.0	12.60	180.00	6368.2	150.3	-150.0	28.8	152.7	169.12	5.40
6406.0	14.20	180.40	6398.3	157.5	-157.2	28.8	159.8	169.61	5.17
6438.0	15.30	180.70	6429.3	165.6	-165.3	28.7	167.8	170.14	3.45
6469.0	15.50	180.00	6459.2	173.9	-173.5	28.7	175.9	170.62	0.88
6505.0	15.60	178.70	6493.8	183.5	-183.2	28.8	185.4	171.07	1.01
6589.0	17.30	182.50	6574.4	207.3	-207.0	28.5	208.9	172.16	2.39
6653.0	18.90	181.10	6635.2	227.1	-226.8	27.9	228.5	172.99	2.59
6716.0	20.40	183.50	6694.6	248.3	-248.0	27.0	249.5	173.78	2.70
6780.0	21.50	184.70	6754.3	271.1	-270.8	25.4	272.0	174.65	1.84
6843.0	23.80	184.00	6812.5	295.3	-295.0	23.5	296.0	175.44	3.68
6906.0	24.30	182.80	6870.0	320.9	-320.6	22.0	321.4	176.07	1.11
7002.0	23.30	183.60	6957.8	359.5	-359.3	19.9	359.9	176.83	1.09
7066.0	23.90	181.30	7016.5	385.1	-384.9	18.8	385.4	177.21	1.72
7129.0	22.90	181.40	7074.3	410.1	-409.9	18.2	410.3	177.46	1.59
7193.0	22.80	180.80	7133.3	434.9	-434.8	17.7	435.1	177.67	0.40
7258.0	23.00	179.60	7193.2	460.2	-460.1	17.6	460.4	177.81	0.78
7322.0	23.00	181.50	7252.1	485.2	-485.1	17.4	485.4	177.95	1.16
7386.0	22.90	180.80	7311.0	510.2	-510.0	16.9	510.3	178.10	0.45
7448.0	23.70	181.90	7367.9	534.7	-534.5	16.3	534.8	178.25	1.47
7512.0	24.10	184.30	7426.5	560.6	-560.4	14.9	560.6	178.48	1.64
7543.0	24.30	184.20	7454.7	573.2	-573.1	14.0	573.3	178.60	0.66
7607.0	23.50	185.80	7513.2	599.0	-598.9	11.7	599.0	178.88	1.61
7639.0	23.50	185.70	7542.6	611.7	-611.6	10.4	611.7	179.02	0.12
7671.0	23.80	185.40	7571.9	624.5	-624.4	9.2	624.5	179.16	1.01
7703.0	24.00	185.60	7601.2	637.4	-637.3	7.9	637.4	179.29	0.67
7724.0	24.00	185.60	7620.3	645.8	-645.8	7.1	645.8	179.37	0.00
7745.0	24.00	185.60	7639.5	654.3	-654.3	6.3	654.3	179.45	0.00

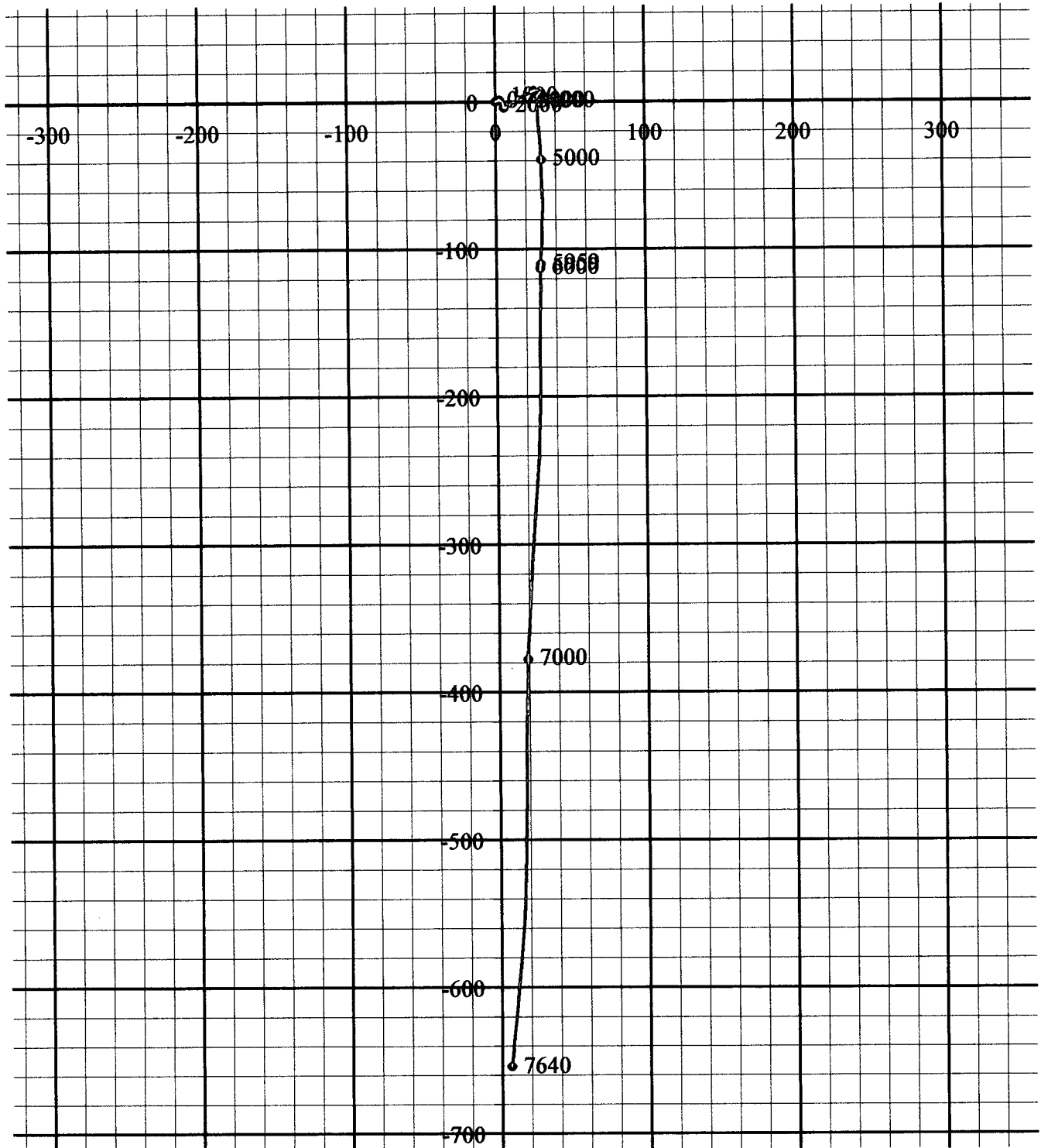


**Scientific
Drilling**

Field: Hobbs Deep
Site: Lea County, NM
Well: Hobbs Deep "A" #1
Wellpath: DH - Job #32D1202432
Survey: 12/01/02-12/11/02

G/T/M All Angles Relative
To Grid North
Grid North: 0.00
True North: 0.00
Magnetic North: 0.00

South(-)/North(+) [100ft/in]



West(-)/East(+) [100ft/in]