

DISTRICT I
1625 N. FRANCH DR., ROSA, NM 88240

DISTRICT II
1301 V. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Artesia, NM 87410

DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OCD-ARTESIA

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-34276	Pool Code 83620	Pool Name Undesignated Red Lake Atoka-Morrow
Property Code 35033	Property Name OPL HORSETAIL FEDERAL 15	Well Number 1
OGRID No. XYS7084 192463	Operator Name OXY USA WTP OXY HORSETAIL FEDERAL 15 Limited Partnership	Elevation 3471'

Surface Location

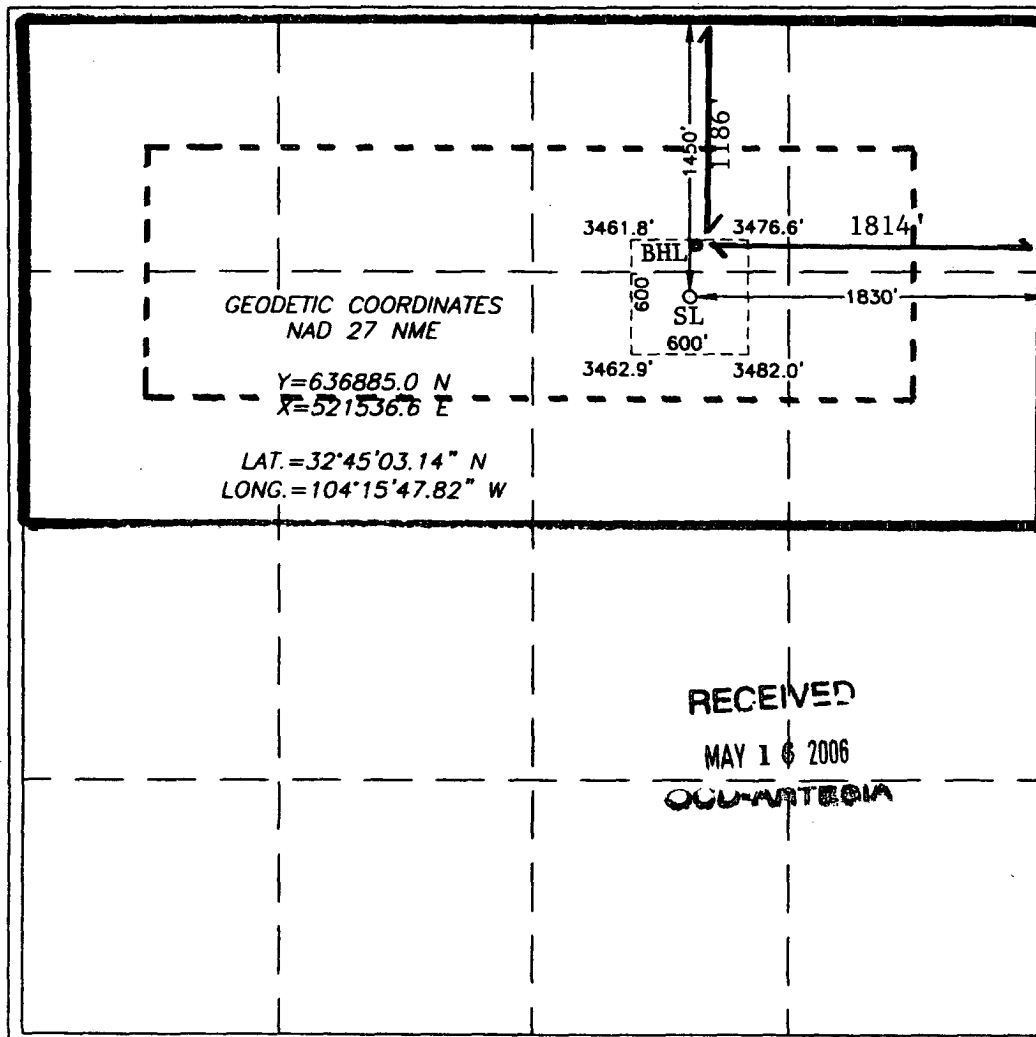
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	15	18-S	27-E		1450	NORTH	1830	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	15	18S	27E		1186	North	1814	East	Eddy

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	N		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



RECEIVED
MAY 16 2006
OCD-ARTESIA

OPERATOR CERTIFICATION

I hereby certify the the information
contained herein is true and complete to the
best of my knowledge and belief.

David Stewart
Signature

David Stewart
Printed Name

Sr. Regulatory Analyst
Title

5/31/05 5/18/06
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown
on this plat was plotted from field notes of
actual surveys made by me or under my
supervision, and that the same is true and
correct to the best of my belief.

APRIL 14, 2005

Date Surveyed LA

Gary B. Eidsen
Signature & Seal of
Professional Surveyor
NEW MEXICO
05.11/0537
9/27/05

Certificate No. GARY, EIDSEN 12541



November 21, 2005

OXY Permian, Ltd.
P.O. Box 4294
Houston, TX 77210-4294

Attention: Regulatory Compliance

Re: OXY Permian, Ltd.
OPL Horsetail -15- Federal #1
Eddy County, NM
Patterson Drilling 508

RECEIVED

MAY 16 2006

WATERS

Dear Sir or Madam:

Please find enclosed (2) copies of MWD Survey Report for the well referenced above. Please advise if MWD Services is to file survey with any agency. If so, please forward a scaled land plat and copy of API Drilling Permit.

Regards,

Clyde Cormier
President

CJC:pe

Enclosures



MWD SURVEY REPORT

MWD Services, Inc.

Survey End Date :	October 18, 2005	Target +N / -S =	275.0'
Job Number :	05118	Target +E / -W =	-10.0'
Operator :	OXY Permian, Ltd.	Target TVD =	10000.0'
Lease / Well :	OPL Horsetail -15- Federal #1	Magnetic Declination +E / -W =	8.61°
Location :	Eddy County, New Mexico	Grid Convergence +E / -W =	0.04°
Field :		Total Correction +E / -W =	8.61°
Contractor / Rig :	Patterson Drilling Rig No. 508	North Reference =	True
Directional Company :	Black Viper Energy Services, Ltd.	RKB Height =	
MWD Field Rep. :	Eric Blandin	Ground Level Elevation =	
Tie In Survey Reference :	Scientific Drilling International, Inc.	Vertical Section Azimuth =	357.92°
Calculation Method :	MINIMUM CURVATURE		

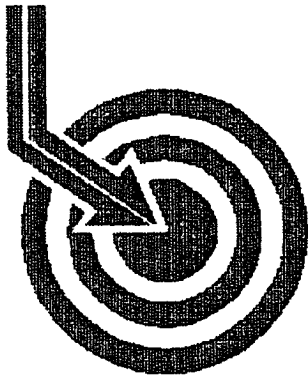
Comments :

Survey #0 = Tie In Survey

Survey #41 = Straight Line Projected Survey To Bit Depth

Srv. No.	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (deg/100')
							+N / -S (ft)	+E / -W (ft)	Distance (ft)	Azimuth (deg)	
0	8602.00'	6.82°	12.13°		8597.57'	119.05'	113.82'	-146.15'	185.24'	307.91°	
1	8641.00'	8.50°	9.10°	39'	8636.22'	124.12'	118.93'	-145.21'	187.70'	309.32°	4.43°
2	8673.00'	9.30°	9.10°	32'	8667.84'	128.98'	123.82'	-144.42'	190.24'	310.61°	2.50°
3	8705.00'	9.50°	11.90°	32'	8699.41'	134.08'	128.96'	-143.47'	192.91'	311.95°	1.56°
4	8736.00'	9.60°	16.00°	31'	8729.98'	139.02'	133.94'	-142.23'	195.37'	313.28°	2.22°
5	8768.00'	10.10°	21.90°	32'	8761.51'	144.12'	139.11'	-140.45'	197.68'	314.73°	3.52°
6	8800.00'	10.00°	26.30°	32'	8793.01'	149.13'	144.21'	-138.17'	199.72'	316.22°	2.42°
7	8831.00'	9.90°	30.80°	31'	8823.55'	153.73'	148.91'	-135.61'	201.41'	317.68°	2.53°
8	8863.00'	9.60°	36.90°	32'	8855.09'	158.12'	153.41'	-132.60'	202.77'	319.16°	3.36°
9	8895.00'	9.00°	42.40°	32'	8886.67'	161.98'	157.39'	-129.31'	203.70'	320.59°	3.35°
10	8926.00'	9.10°	46.80°	31'	8917.28'	165.32'	160.86'	-125.89'	204.26'	321.95°	2.26°
11	8958.00'	9.10°	49.00°	32'	8948.88'	168.57'	164.25'	-122.14'	204.68'	323.37°	1.09°
12	8990.00'	9.20°	49.70°	32'	8980.47'	171.75'	167.56'	-118.28'	205.10'	324.78°	0.47°
13	9022.00'	9.30°	49.70°	32'	9012.06'	174.93'	170.89'	-114.35'	205.62'	326.21°	0.31°
14	9053.00'	9.60°	49.20°	31'	9042.64'	178.10'	174.20'	-110.49'	206.28'	327.62°	1.00°
15	9085.00'	10.00°	48.20°	32'	9074.17'	181.54'	177.80'	-106.39'	207.20'	329.10°	1.36°
16	9117.00'	10.10°	47.40°	32'	9105.68'	185.14'	181.55'	-102.26'	208.36'	330.61°	0.54°
17	9148.00'	10.20°	46.60°	31'	9136.19'	188.72'	185.27'	-98.26'	209.72'	332.06°	0.56°
18	9180.00'	10.40°	46.40°	32'	9167.68'	192.50'	189.21'	-94.11'	211.32'	333.55°	0.63°
19	9212.00'	10.10°	46.70°	32'	9199.17'	196.27'	193.13'	-89.98'	213.06'	335.02°	0.95°
20	9244.00'	9.90°	46.80°	32'	9230.68'	199.92'	196.93'	-85.93'	214.87'	336.43°	0.63°
21	9275.00'	9.50°	46.00°	31'	9261.24'	203.39'	200.54'	-82.15'	216.71'	337.72°	1.36°
22	9297.00'	9.30°	44.60°	22'	9282.94'	205.82'	203.06'	-79.59'	218.10'	338.60°	1.38°
23	9328.00'	9.20°	44.20°	31'	9313.54'	209.25'	206.62'	-76.11'	220.19'	339.78°	0.38°
24	9360.00'	8.80°	43.80°	32'	9345.14'	212.72'	210.22'	-72.63'	222.42'	340.94°	1.27°
25	9392.00'	8.40°	44.20°	32'	9376.78'	216.04'	213.67'	-69.31'	224.63'	342.03°	1.26°
26	9423.00'	7.80°	43.10°	31'	9407.47'	219.09'	216.83'	-66.29'	226.73'	343.00°	2.00°
27	9455.00'	7.50°	43.20°	32'	9439.19'	222.09'	219.93'	-63.38'	228.88'	343.92°	0.94°

Srv. No.	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (deg/100 ')
							+N / -S (ft)	+E / -W (ft)	Distance (ft)	Azimuth (deg)	
28	9487.00'	6.90°	43.30°	32'	9470.94'	224.91'	222.85'	-60.63'	230.95'	344.78°	1.88°
29	9518.00'	6.70°	44.40°	31'	9501.72'	227.46'	225.50'	-58.09'	232.86'	345.56°	0.77°
30	9550.00'	6.60°	45.40°	32'	9533.50'	229.99'	228.13'	-55.47'	234.77'	346.33°	0.48°
31	9582.00'	6.90°	48.30°	32'	9565.28'	232.46'	230.70'	-52.73'	236.65'	347.13°	1.42°
32	9613.00'	6.90°	46.00°	31'	9596.06'	234.89'	233.23'	-50.00'	238.53'	347.90°	0.89°
33	9645.00'	6.90°	46.40°	32'	9627.83'	237.45'	235.89'	-47.22'	240.57'	348.68°	0.15°
34	9677.00'	7.30°	47.50°	32'	9659.58'	240.04'	238.59'	-44.33'	242.67'	349.47°	1.32°
35	9709.00'	7.40°	47.10°	32'	9691.32'	242.71'	241.36'	-41.32'	244.88'	350.28°	0.35°
36	9740.00'	7.00°	45.70°	31'	9722.07'	245.28'	244.04'	-38.51'	247.06'	351.03°	1.41°
37	9772.00'	7.00°	45.60°	32'	9753.83'	247.90'	246.77'	-35.72'	249.34'	351.76°	0.04°
38	9804.00'	7.20°	47.50°	32'	9785.59'	250.52'	249.49'	-32.85'	251.64'	352.50°	0.96°
39	9835.00'	7.70°	48.10°	31'	9816.33'	253.11'	252.19'	-29.87'	253.95'	353.25°	1.63°
40	9856.00'	7.70°	51.20°	21'	9837.14'	254.85'	254.01'	-27.73'	255.52'	353.77°	1.98°
41	9970.00'	7.70°	51.20°	114'	9950.11'	263.98'	263.58'	-15.82'	264.05'	356.56°	0.00°



Scientific Drilling

OCCIDENTAL PERMIAN LTD.

Field: Horsetail
Site: Eddy County, NM
Well: OPL Horsetail 15 Federal #1
Wellpath: VH - Job #32K1005739
Survey: 10/06/05

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MAY 16 2006

JULIANTECH

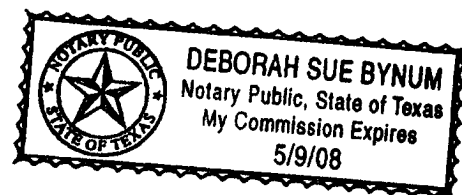
This survey is correct to the best of my knowledge
and is supported by actual field data.

.....*Richard*.....Company Representative

Notorized this date 19th of November, 2005.

Deborah Sue Bynum
Notary Signature

County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: OCCIDENTAL PERMIAN LTD.	Date: 11/19/2005	Time: 14:13:48	Page: 1
Field: Horsetail	Co-ordinate(N/E) Reference:	Site: Eddy County, NM, Grid North	
Site: Eddy County, NM	Vertical (TVD) Reference:	SITE: 0.0	
Well: OPL Horsetail 15 Federal #1	Section (VS) Reference:	Well: (0.00N,0.00E,307.91Az)	
Wellpath: VH - Job #32K1005739	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: 10/06/05	Start Date: 10/8/2005
KSRG 0'-8602'	
Company: Scientific Drilling Internatio	Engineer: Carter/Lilja w/Gray
Tool: Keeper, Keeper Surface Readout	Tied-to: From Surface

Survey

MD ft	Incl deg	Azin 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	0.46	27.14	100.00	0.08	0.36	0.18	0.46	0.40	27.14
200.00	0.47	26.96	200.00	0.23	1.08	0.55	0.01	1.21	27.08
300.00	0.19	321.54	299.99	0.47	1.58	0.84	0.43	1.70	21.95
400.00	0.40	5.98	399.99	0.81	2.05	0.57	0.30	2.13	15.48
500.00	0.47	314.68	499.99	1.40	2.69	0.31	0.38	2.71	6.64
600.00	0.51	318.36	599.99	2.25	3.31	-0.27	0.05	3.32	355.26
700.00	0.59	329.15	699.98	3.17	4.08	-0.83	0.13	4.17	348.46
800.00	0.23	303.53	799.98	3.85	4.64	-1.27	0.40	4.81	344.73
900.00	0.29	309.33	899.98	4.30	4.91	-1.63	0.07	5.17	341.64
1000.00	0.61	296.70	999.98	5.08	5.31	-2.30	0.33	5.78	336.57
1100.00	0.54	283.17	1099.97	6.03	5.65	-3.23	0.15	6.51	330.23
1200.00	0.74	275.21	1199.96	7.00	5.82	-4.34	0.22	7.26	323.31
1300.00	1.09	283.09	1299.95	8.40	6.09	-5.91	0.37	8.49	315.90
1400.00	1.19	293.15	1399.93	10.27	6.72	-7.79	0.22	10.28	310.78
1500.00	1.38	284.60	1499.91	12.38	7.43	-9.91	0.27	12.38	306.87
1600.00	1.37	275.06	1599.88	14.49	7.84	-12.26	0.23	14.55	302.59
1700.00	1.14	274.16	1699.85	16.32	8.02	-14.45	0.23	16.52	299.03
1800.00	1.14	279.32	1799.83	18.02	8.25	-16.42	0.10	18.38	296.67
1900.00	1.23	271.05	1899.81	19.76	8.43	-18.47	0.19	20.31	294.53
2000.00	1.14	281.10	1999.79	21.50	8.64	-20.52	0.23	22.27	292.83
2100.00	0.80	255.06	2099.78	22.81	8.65	-22.17	0.55	23.80	291.32
2200.00	1.15	270.89	2199.76	24.03	8.49	-23.85	0.44	25.32	289.59
2300.00	0.92	255.73	2299.75	25.33	8.31	-25.63	0.36	26.95	287.95
2400.00	0.76	264.61	2399.74	26.30	8.05	-27.07	0.21	28.24	286.55
2500.00	1.19	269.15	2499.72	27.60	7.97	-28.77	0.44	29.85	285.48
2600.00	1.18	259.91	2599.70	29.09	7.77	-30.82	0.19	31.79	284.15
2700.00	0.98	257.98	2699.68	30.33	7.41	-32.67	0.20	33.50	282.78
2800.00	1.06	258.28	2799.67	31.48	7.05	-34.41	0.08	35.13	281.57
2900.00	1.34	270.24	2899.64	33.01	6.86	-36.49	0.37	37.13	280.65
3000.00	1.31	259.27	2999.62	34.69	6.66	-38.78	0.26	39.35	279.74
3100.00	1.28	271.49	3099.59	36.34	6.47	-41.02	0.28	41.53	278.97
3200.00	1.12	266.02	3199.57	37.97	6.43	-43.11	0.20	43.59	278.49
3300.00	1.13	263.95	3299.55	39.41	6.26	-45.07	0.04	45.50	277.91
3400.00	1.13	268.15	3399.53	40.87	6.13	-47.04	0.08	47.43	277.42
3500.00	1.31	261.92	3499.51	42.43	5.93	-49.15	0.22	49.51	276.88
3600.00	1.61	276.80	3599.48	44.42	5.94	-51.68	0.48	52.02	276.56
3700.00	1.33	280.62	3699.44	46.66	6.32	-54.21	0.30	54.58	276.65
3800.00	1.58	271.61	3799.41	48.80	6.57	-56.73	0.34	57.11	276.61
3900.00	1.19	274.17	3899.38	50.77	6.69	-59.15	0.39	59.52	276.45
4000.00	1.59	273.80	3999.35	52.79	6.85	-61.57	0.40	61.95	276.35
4100.00	1.46	280.30	4099.32	55.06	7.17	-64.20	0.22	64.60	276.36
4200.00	1.28	271.55	4199.29	57.09	7.43	-66.57	0.28	66.99	276.37
4300.00	1.63	277.59	4299.26	59.22	7.65	-69.10	0.38	69.52	276.32
4400.00	1.51	286.77	4399.22	61.68	8.22	-71.77	0.28	72.24	276.53
4500.00	1.37	284.08	4499.19	64.00	8.89	-74.19	0.16	74.72	276.83
4600.00	1.27	280.89	4599.16	66.08	9.39	-76.44	0.12	77.02	277.00
4700.00	1.23	278.86	4699.14	68.00	9.76	-78.59	0.06	79.19	277.08
4800.00	1.31	273.73	4799.11	69.89	10.00	-80.79	0.14	81.41	277.06



Scientific Drilling International Survey Report

Company: OCCIDENTAL PERMIAN LTD.
Field: Horsetail
Site: Eddy County, NM
Well: OPL Horsetail 15 Federal #1
Wellpath: VH - Job #32K1005739

Date: 11/18/2005 Time: 14:13:48 Page: 2
Co-ordinate(N/E) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,307.91Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azlm deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	Chd ft	ChA deg
4900.00	1.46	283.80	4899.08	72.00	10.38	-83.17	0.29	83.81	277.12
5000.00	1.36	311.18	4999.05	74.34	11.47	-85.30	0.67	86.07	277.66
5100.00	1.20	319.39	5099.03	76.56	13.04	-86.87	0.24	87.85	278.54
5200.00	1.26	324.73	5199.01	78.63	14.74	-88.19	0.13	89.41	279.49
5300.00	1.31	331.79	5298.98	80.73	16.64	-89.37	0.17	90.90	280.55
5400.00	1.43	324.08	5398.95	82.98	18.66	-90.64	0.22	92.54	281.63
5500.00	1.74	317.60	5498.91	85.67	20.79	-92.39	0.36	94.70	282.68
5600.00	2.17	308.67	5598.86	89.06	23.09	-94.90	0.53	97.67	283.68
5700.00	2.43	307.71	5698.78	93.07	25.57	-98.05	0.26	101.33	284.62
5800.00	2.75	308.15	5798.67	97.59	28.35	-101.61	0.32	105.50	285.59
5900.00	2.81	315.06	5898.56	102.42	31.57	-105.23	0.34	109.87	286.70
6000.00	2.38	318.10	5998.45	106.90	34.85	-108.35	0.45	113.82	287.83
6100.00	2.10	317.34	6098.38	110.75	37.74	-110.98	0.28	117.22	288.78
6200.00	2.05	312.70	6198.31	114.34	40.30	-113.53	0.18	120.48	289.54
6300.00	2.33	310.13	6298.24	118.15	42.83	-116.40	0.30	124.03	290.20
6400.00	2.54	315.23	6398.15	122.38	45.71	-119.52	0.30	127.96	290.93
6500.00	2.94	322.55	6498.03	127.06	49.32	-122.64	0.53	132.18	291.91
6600.00	3.05	321.06	6597.90	132.13	53.42	-125.87	0.13	136.74	293.00
6700.00	3.10	323.39	6697.75	137.33	57.66	-129.15	0.13	141.44	294.06
6800.00	3.40	323.03	6797.59	142.80	62.20	-132.55	0.30	146.42	295.14
6900.00	3.54	323.91	6897.41	148.63	67.07	-136.15	0.15	151.77	296.22
7000.00	3.84	325.18	6997.20	154.79	72.31	-139.88	0.31	157.47	297.34
7100.00	3.92	323.64	7096.97	161.28	77.81	-143.82	0.13	163.52	298.42
7200.00	4.04	322.19	7196.73	167.99	83.35	-148.01	0.16	169.86	299.39
7300.00	3.64	321.16	7296.51	174.49	88.60	-152.16	0.41	176.08	300.21
7400.00	3.08	319.70	7396.33	180.21	93.13	-155.89	0.57	181.58	300.85
7500.00	2.41	321.41	7496.22	184.88	96.82	-158.94	0.67	186.10	301.35
7600.00	1.56	325.69	7596.16	188.22	99.59	-161.01	0.86	189.32	301.74
7700.00	1.17	333.38	7696.13	190.44	101.62	-162.24	0.43	191.44	302.06
7800.00	0.68	21.37	7796.12	191.53	103.09	-162.48	0.88	192.42	302.39
7900.00	1.75	90.24	7896.10	190.49	103.63	-160.74	1.63	191.25	302.81
8000.00	1.65	103.14	7996.05	187.98	103.30	-157.81	0.39	188.61	303.21
8100.00	1.09	80.80	8096.03	186.02	103.13	-155.47	0.76	186.56	303.56
8200.00	0.96	86.81	8196.01	184.74	103.32	-153.69	0.17	185.19	303.91
8300.00	0.55	80.64	8296.00	183.79	103.45	-152.38	0.42	184.18	304.17
8400.00	0.98	67.22	8395.99	183.04	103.86	-151.12	0.46	183.37	304.50
8500.00	2.75	37.23	8495.94	182.65	106.10	-148.88	1.96	182.82	305.48
8600.00	6.56	12.37	8595.60	185.14	113.59	-146.20	4.23	185.14	307.85
8602.00	6.82	12.13	8597.58	185.25	113.82	-146.15	13.07	185.25	307.91

OPERATOR OXY USA WTP, LP
WELL/LEASE OXY HORSETAIL 15 #1
COUNTY EDDY, NM

508-0086

STATE OF NEW MEXICO
DEVIATION REPORT

200	0.50	8,935	9.00
352	0.50	8,966	9.10
880	0.50	8,998	9.10
1,341	0.75	9,030	9.20
1,815	1.50	9,062	9.30
2,005	2.00	9,093	9.60
2,195	1.25	9,125	10.00
2,683	1.00	9,156	10.10
3,166	1.25	9,188	10.20
3,641	1.75	9,220	10.40
3,799	1.50	9,252	10.10
4,179	1.50	9,284	9.90
4,651	1.75	9,315	9.50
4,905	1.25	9,337	9.30
5,288	1.25	9,368	9.20
5,573	2.00	9,400	8.80
5,855	2.50	9,432	8.40
6,166	2.25	9,463	7.80
6,476	3.00	9,495	7.50
6,659	3.25	9,527	6.90
6,876	3.50	9,558	6.70
7,062	3.75	9,590	6.60
7,187	4.25	9,622	6.90
7,346	3.50	9,653	6.90
7,468	3.25	9,685	6.90
7,657	2.00	9,717	7.30
7,912	1.50	9,749	7.40
8,198	1.00	9,780	7.00
8,600	6.00	9,812	7.00
8,640	7.00	9,844	7.20
8,713	9.30	9,875	7.70
8,745	9.50	9,970	7.70
8,776	9.60		
8,808	10.10		
8,840	10.00		
8,871	9.90		
8,903	9.60		

BY: Steve Moore

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Moore on behalf of Patterson - UTI Drilling Company, LP, LLLP.

October 26, 2005, by Steve

J Robertson
Notary Public for Midland County, Texas
My Commission Expires: 8/23/07

J ROBERTSON
Notary Public, State of Texas
My Commission Expires:
August 23, 2007