

30-015-39142

OCCIDENTAL PERMIAN LTD.

Harroun Ranch Delaware
Eddy County, NM
Goodnight 27 Federal #4H
VH - Job #32K0212117

Survey: Gyro

SDI Standard Survey Report

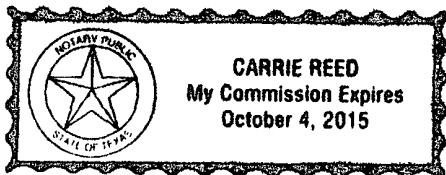
This survey is correct to the best of my knowledge and is supported by actual field data.

Kuharts

Notarized this date 14th of March, 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD	Local Co-ordinate Reference:	Well Goodnight 27, Federal #4H
Project:	Harroun Ranch Delaware	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Goodnight 27 Federal #4H	North Reference:	Grid
Wellbore:	VH - Job #32K0212117	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0212117	Database:	EDM-Regulatory

Project	Harroun Ranch Delaware		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Eddy County, NM		
Site Position:		Northing:	461,856.56 usft
From:	Lat/Long	Easting:	610,986.34 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 16' 9.300 N
		Longitude:	103° 58' 27.316 W
		Grid Convergence:	0.19 °

Well:	Goodnight 27, Federal #4H, Directional (unknown)		
Well Position	+N/-S	0.0 usft	Northing: 461,856.56 usft
	+E/-W	0.0 usft	Easting: 610,986.34 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 16' 9.300 N
		Longitude:	103° 58' 27.316 W
		Ground Level:	0.0 usft

Wellbore	VH - Job #32K0212117		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	2/4/2012	7.70
			Dip Angle
			60.14
			Field Strength
			48,560

Design	VH - Job #32K0212117		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			222.15

Survey Program	Date	3/13/2012		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
95.6	405.6	Gyro (VH - Job #32K0212117)	Keeper	Keeper Surface Readout

Survey								
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance	
(usft)	(°)	(°)	Depth	(usft)	(usft)	(°)	(usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
95.6	0.94	222.23	95.6	-0.6	-0.5	222.23	0.8	
126.7	1.06	223.73	126.7	-1.0	-0.9	222.56	1.3	
219.2	0.74	220.50	219.2	-2.0	-1.9	222.48	2.8	
304.5	0.59	219.96	304.5	-2.8	-2.5	221.89	3.8	
405.6	0.39	228.32	405.6	-3.4	-3.1	222.15	4.6	



Scientific Drilling
Directional Drilling Operations

Project: Harroun Ranch Delaware
Eddy County, NM
Well: Goodnight 27 Federal #4H
Wellbore: VH - Job #32K0212117
Design: VH - Job #32K0212117



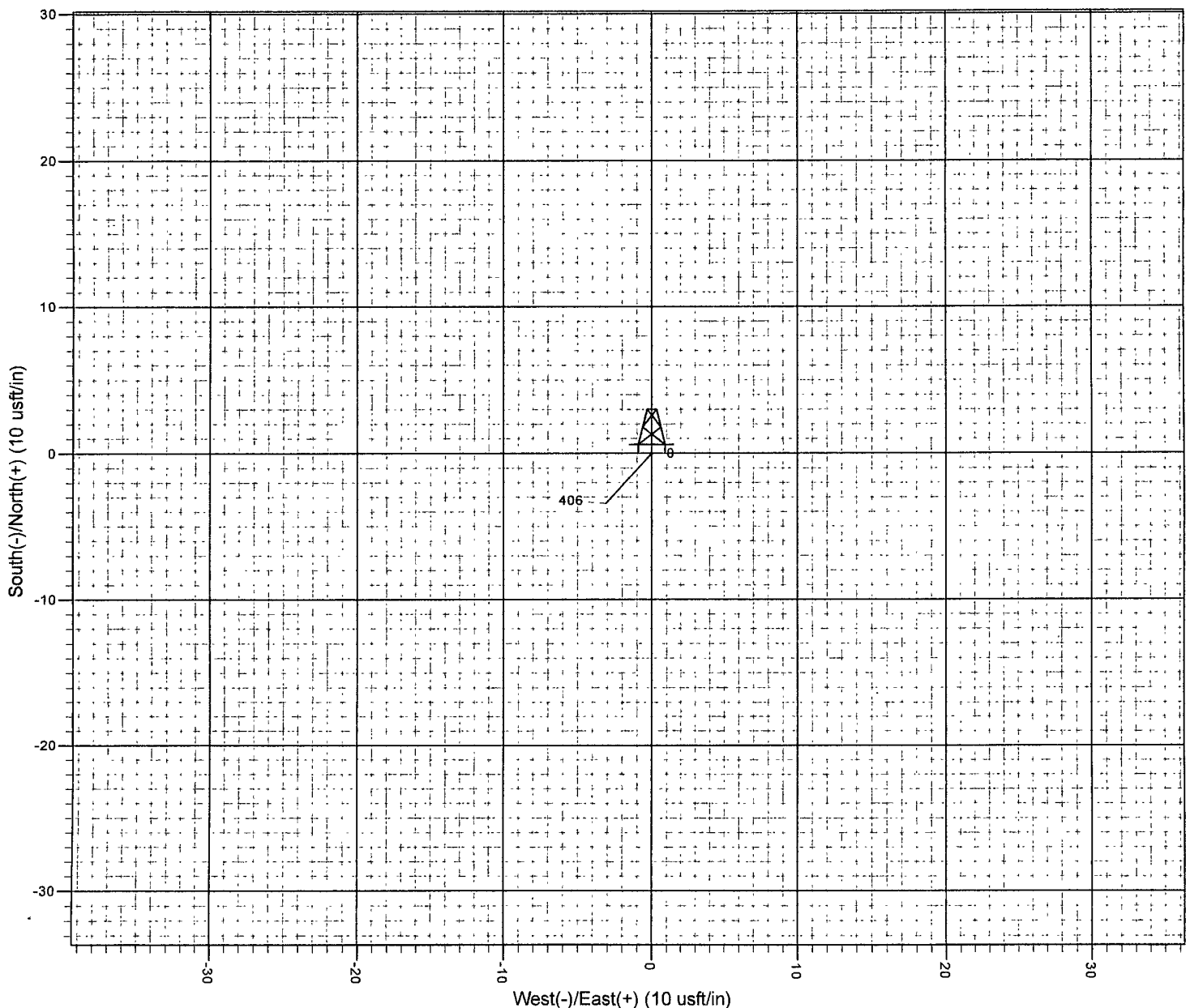
Azimuths to Grid North
True North: -0.19°
Magnetic North: 7.50°

Magnetic Field
Strength: 48560.4snT
Dip Angle: 60.14°
Date: 2/4/2012
Model: IGRF2010

WELL DETAILS: Goodnight 27 Federal #4H
WELL @ 0.0usft (Original Well Elev)

Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	461856.56	610986.34	32° 16' 9.300 N	103° 58' 27.316 W	



PROJECT DETAILS: Harroun Ranch Delaware
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 16' 9.300 N
Longitude: 103° 58' 27.316 W
Positional Uncertainty: 0.0
Convergence: 0.19
Local North: Grid



Weatherford[®]

Evaluation, Drilling & Intervention
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Occidental Permian Ltd.
5 Greenway Plaza Suite 110
Houston Tx 77046

Date: February 29, 2012

Attention: Luis Tarazona

Re: Occidental Permian Ltd
Well: Goodnight 27 Federal #4H
Eddy County, New Mexico

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

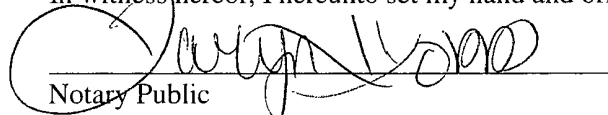
<u>Name & Title Of Surveyor</u>	<u>Well Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Joe Rivera MWD Supervisor	4H	612' MD 10959' MD	2/6/2012 2/29/2012	Measurement While Drilling

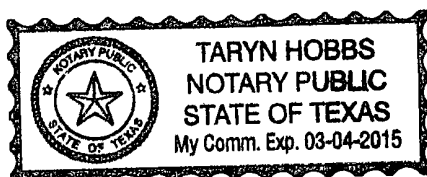
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


MWD Coordinator
Jesse Aguilar

On this, the 2nd day of MARCH, 2012, before me a notary public, the undersigned officer, personally appeared Jesse Aguilar, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.


Notary Public





Weatherford International Ltd.

WFT Survey Report



Weatherford

Company: Occidental Permian Ltd.	Date: 2/29/2012	Time: 07:11:51	Page: 1
Field: Eddy Co, NM (Nad 27)	Co-ordinate(NE) Reference: Well: Goodnight 27 Fed #4H, Grid North		
Site: Goodnight 27 Fed #4H	Vertical (TVD) Reference: SITE 3034.0		
Well: Goodnight 27 Fed #4H	Section (VS) Reference: Well: (0.00N,0.00E,358.84Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey: Wft Svy **Start Date:** 2/8/2012

Company: Weatherford International Ltd. **Engineer:** Patrick Rudolph
Tool: MWD:MWD - Standard **Tied-to:** From: Definitive Path

Field: Eddy Co, NM (Nad 27)

Map System: US State Plane Coordinate System 1927 **Map Zone:** New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866) **Coordinate System:** Well Centre
Sys Datum: Mean Sea Level **Geomagnetic Model:** IGRF2010

Site: Goodnight 27 Fed #4H

Site Position:	Northing: 461856.60 ft	Latitude: 32 16 9.301 N
From: Map	Easting: 610986.40 ft	Longitude: 103 58 27.316 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3017.50 ft		Grid Convergence: 0.19 deg

Well: Goodnight 27 Fed #4H **Slot Name:**

Well Position: +N/-S 0.00 ft	Northing: 461856.60 ft	Latitude: 32 16 9.301 N
+E/-W 0.00 ft	Easting: 610986.40 ft	Longitude: 103 58 27.316 W
Position Uncertainty: 0.00 ft		

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 2/1/2012	Above System Datum: Mean Sea Level
Field Strength: 48561 nT	Declination: 7.70 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 60.14 deg
ft	+N/-S
	+E/-W
	Direction
	deg
0.00	0.00
0.00	0.00
	358.84

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
405.61	0.39	228.32	405.58	-3.43	-3.11	-3.37	0.00	0.00	0.00	Tie on Gyro
568.00	0.07	206.19	567.97	-3.89	-3.57	-3.82	0.20	-0.19	-13.63	Csg
612.00	0.04	110.54	611.97	-3.93	-3.56	-3.85	0.20	-0.08	-217.39	First Wft Svy
676.00	0.09	323.90	675.97	-3.89	-3.57	-3.82	0.20	0.08	-229.13	
770.00	0.09	214.60	769.97	-3.89	-3.66	-3.82	0.16	0.00	-116.28	
863.00	0.12	197.35	862.97	-4.05	-3.73	-3.97	0.05	0.03	-18.55	
958.00	0.17	230.52	957.97	-4.23	-3.87	-4.15	0.10	0.05	34.92	
1052.00	0.32	208.14	1051.97	-4.55	-4.10	-4.47	0.19	0.16	-23.81	
1147.00	0.54	217.14	1146.96	-5.14	-4.49	-5.05	0.24	0.23	9.47	
1242.00	0.71	225.42	1241.96	-5.91	-5.18	-5.81	0.20	0.18	8.72	
1336.00	0.56	227.04	1335.95	-6.63	-5.94	-6.51	0.16	-0.16	1.72	
1431.00	0.17	22.62	1430.95	-6.82	-6.22	-6.69	0.76	-0.41	163.77	
1526.00	0.50	26.84	1525.95	-6.32	-5.98	-6.20	0.35	0.35	4.44	
1620.00	0.45	8.01	1619.95	-5.59	-5.74	-5.47	0.17	-0.05	-20.03	
1715.00	0.45	351.86	1714.94	-4.85	-5.74	-4.73	0.13	0.00	-17.00	
1810.00	0.32	0.10	1809.94	-4.22	-5.80	-4.10	0.15	-0.14	8.67	
1905.00	0.45	356.63	1904.94	-3.58	-5.82	-3.46	0.14	0.14	-3.65	
1999.00	0.57	338.77	1998.94	-2.77	-6.01	-2.65	0.21	0.13	-19.00	
2094.00	0.75	328.36	2093.93	-1.80	-6.51	-1.67	0.23	0.19	-10.96	
2188.00	0.83	322.80	2187.92	-0.74	-7.24	-0.59	0.12	0.09	-5.91	
2282.00	0.38	11.19	2281.92	0.11	-7.59	0.26	0.68	-0.48	51.48	
2376.00	0.70	88.94	2375.91	0.43	-6.96	0.57	0.77	0.34	82.71	
2471.00	0.87	94.43	2470.90	0.38	-5.66	0.50	0.20	0.18	5.78	
2565.00	0.66	88.97	2564.89	0.34	-4.40	0.43	0.24	-0.22	-5.81	



Weatherford International Ltd.

WFT Survey Report



Weatherford

Company: Occidental Permian Ltd.	Date: 2/29/2012	Time: 07:11:51	Page: 2
Field: Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Goodnight 27 Fed #4H: Grid North	
Site: Goodnight 27 Fed #4H	Vertical (TVD) Reference:	SITE 3034.0	
Well: Goodnight 27 Fed #4H	Section (VS) Reference:	Well (0.00N,0.00E,358.84Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl. deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
2659.00	0.88	109.51	2658.89	0.10	-3.18	0.17	0.37	0.23	21.85	
2754.00	0.94	139.33	2753.88	-0.73	-1.99	-0.69	0.50	0.06	31.39	
2849.00	0.82	182.96	2848.86	-2.00	-1.51	-1.97	0.70	-0.13	45.93	
2944.00	0.34	250.88	2943.86	-2.77	-1.82	-2.73	0.80	-0.51	71.49	
3038.00	0.44	301.57	3037.86	-2.67	-2.39	-2.62	0.37	0.11	53.93	
3063.00	0.44	296.27	3062.86	-2.58	-2.56	-2.53	0.16	0.00	-21.20	
3149.00	0.47	279.25	3148.86	-2.38	-3.20	-2.31	0.16	0.04	-19.79	Csg
3188.00	0.50	272.54	3187.85	-2.34	-3.53	-2.27	0.16	0.07	-17.20	
3282.00	0.25	247.55	3281.85	-2.40	-4.13	-2.32	0.31	-0.27	-26.59	
3377.00	0.44	54.23	3376.85	-2.27	-4.03	-2.19	0.72	0.20	175.45	
3472.00	0.27	42.35	3471.85	-1.89	-3.58	-1.82	0.19	-0.18	-12.51	
3566.00	0.40	0.57	3565.85	-1.40	-3.43	-1.33	0.29	0.14	-44.45	
3661.00	0.60	351.72	3660.84	-0.58	-3.49	-0.50	0.23	0.21	-9.32	
3756.00	0.61	351.38	3755.84	0.42	-3.64	0.49	0.01	0.01	-0.36	
3851.00	0.46	347.04	3850.83	1.29	-3.80	1.36	0.16	-0.16	-4.57	
3946.00	0.42	339.68	3945.83	1.99	-4.01	2.07	0.07	-0.04	-7.75	
4040.00	0.40	329.28	4039.83	2.59	-4.30	2.68	0.08	-0.02	-11.06	
4135.00	0.33	330.73	4134.83	3.12	-4.60	3.21	0.07	-0.07	1.53	
4230.00	0.40	337.39	4229.83	3.66	-4.86	3.76	0.09	0.07	7.01	
4324.00	0.33	331.82	4323.82	4.20	-5.12	4.30	0.08	-0.07	-5.93	
4419.00	0.11	23.47	4418.82	4.53	-5.21	4.63	0.29	-0.23	54.37	
4513.00	0.15	11.70	4512.82	4.73	-5.15	4.83	0.05	0.04	-12.52	
4608.00	0.20	112.11	4607.82	4.79	-4.97	4.89	0.29	0.05	105.69	
4703.00	0.15	116.89	4702.82	4.67	-4.70	4.76	0.05	-0.05	5.03	
4798.00	0.11	99.64	4797.82	4.60	-4.50	4.69	0.06	-0.04	-18.16	
4892.00	0.05	64.60	4891.82	4.60	-4.38	4.69	0.08	-0.06	-37.28	
4985.00	0.05	30.52	4984.82	4.65	-4.32	4.74	0.03	0.00	-36.65	
5079.00	0.33	126.68	5078.82	4.53	-4.08	4.61	0.36	0.30	102.30	
5174.00	0.46	129.73	5173.82	4.12	-3.57	4.19	0.14	0.14	3.21	
5268.00	0.53	120.76	5267.82	3.66	-2.91	3.71	0.11	0.07	-9.54	
5363.00	0.46	131.98	5362.81	3.18	-2.24	3.22	0.13	-0.07	11.81	
5457.00	0.33	142.19	5456.81	2.71	-1.80	2.75	0.16	-0.14	10.86	
5552.00	0.11	119.28	5551.81	2.45	-1.55	2.48	0.24	-0.23	-24.12	
5647.00	0.11	255.55	5646.81	2.38	-1.56	2.41	0.21	0.00	143.44	
5742.00	0.18	228.33	5741.81	2.26	-1.76	2.30	0.10	0.07	-28.65	
5836.00	0.11	251.54	5835.81	2.13	-1.95	2.17	0.10	-0.07	24.69	
5850.00	0.25	242.62	5849.81	2.12	-1.99	2.16	1.02	1.00	-63.71	
5881.00	0.18	321.24	5880.81	2.12	-2.09	2.16	0.90	-0.23	253.61	
5913.00	0.79	341.19	5912.81	2.37	-2.19	2.41	1.95	1.91	62.34	
5945.00	2.40	349.54	5944.79	3.24	-2.38	3.29	5.07	5.03	26.09	
5976.00	4.00	351.64	5975.74	4.95	-2.66	5.00	5.17	5.16	6.77	
6008.00	5.42	356.06	6007.64	7.56	-2.92	7.62	4.58	4.44	13.81	
6040.00	7.28	356.49	6039.44	11.09	-3.15	11.15	5.81	5.81	1.34	
6071.00	9.31	355.71	6070.11	15.55	-3.46	15.62	6.56	6.55	-2.52	
6103.00	11.95	354.07	6101.56	21.43	-3.99	21.51	8.30	8.25	-5.12	
6135.00	14.39	354.09	6132.72	28.68	-4.75	28.77	7.63	7.62	0.06	
6166.00	16.68	354.18	6162.58	36.94	-5.59	37.04	7.39	7.39	0.29	
6197.00	19.40	354.18	6192.05	46.49	-6.57	46.61	8.77	8.77	0.00	
6228.00	21.71	351.55	6221.08	57.28	-7.93	57.43	8.02	7.45	-8.48	
6260.00	24.58	345.90	6250.50	69.60	-10.42	69.79	11.33	8.97	-17.66	
6291.00	27.31	341.45	6278.38	82.60	-14.26	82.87	10.81	8.81	-14.35	
6323.00	32.11	343.12	6306.17	97.70	-19.07	98.07	15.22	15.00	5.22	



Weatherford International Ltd.

WFT Survey Report



Weatherford

Company: Occidental Permian Ltd. Date: 2/29/2012 Time: 07:11:51 Page: 3
 Field: Eddy Co, NM (Nad 27) Co-ordinate(NE) Reference: Well: Goodnight 27 Fed #4H, Grid North
 Site: Goodnight 27 Fed #4H Vertical (TVD) Reference: SITE 3034.0
 Well: Goodnight 27 Fed #4H Section (VS) Reference: Well: (0.00N,0.00E,358.84Azi)
 Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azimi deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
6354.00	35.77	344.25	6331.88	114.31	-23.92	114.77	11.98	11.81	3.65	
6386.00	39.01	347.46	6357.30	133.15	-28.65	133.70	11.81	10.12	10.03	
6418.00	42.25	349.01	6381.59	153.55	-32.88	154.18	10.60	10.12	4.84	
6449.00	45.66	348.11	6403.90	174.63	-37.16	175.35	11.18	11.00	-2.90	
6481.00	50.00	350.50	6425.38	197.93	-41.54	198.73	14.65	13.56	7.47	
6512.00	53.06	353.63	6444.67	221.97	-44.88	222.83	12.64	9.87	10.10	
6543.00	54.91	354.57	6462.89	246.91	-47.45	247.82	6.45	5.97	3.03	
6575.00	54.98	354.30	6481.27	272.98	-49.99	273.93	0.72	0.22	-0.84	
6607.00	55.57	354.99	6499.50	299.16	-52.44	300.16	2.56	1.84	2.16	
6638.00	57.62	355.80	6516.57	324.96	-54.52	325.99	6.96	6.61	2.61	
6670.00	60.32	356.74	6533.06	352.32	-56.30	353.39	8.80	8.44	2.94	
6702.00	62.82	358.09	6548.30	380.43	-57.57	381.51	8.65	7.81	4.22	
6733.00	65.18	358.95	6561.88	408.28	-58.28	409.37	8.01	7.61	2.77	
6765.00	66.67	358.61	6574.94	437.49	-58.91	438.59	4.76	4.66	-1.06	
6796.00	68.45	359.14	6586.77	466.13	-59.47	467.24	5.96	5.74	1.71	
6827.00	70.41	359.30	6597.66	495.15	-59.86	496.26	6.34	6.32	0.52	
6859.00	72.54	359.29	6607.83	525.49	-60.24	526.60	6.66	6.66	-0.03	
6891.00	73.95	358.79	6617.05	556.13	-60.75	557.24	4.65	4.41	-1.56	
6922.00	75.39	359.01	6625.25	586.02	-61.32	587.14	4.70	4.65	0.71	
6953.00	76.71	358.63	6632.72	616.10	-61.94	617.22	4.42	4.26	-1.23	
6984.00	78.20	358.83	6639.46	646.35	-62.61	647.48	4.85	4.81	0.65	
7016.00	81.61	358.93	6645.06	677.84	-63.23	678.98	10.66	10.66	0.31	
7048.00	84.64	359.17	6648.89	709.60	-63.76	710.75	9.50	9.47	0.75	
7079.00	87.17	359.28	6651.11	740.52	-64.17	741.67	8.17	8.16	0.35	
7111.00	89.62	359.32	6652.00	772.50	-64.56	773.65	7.66	7.66	0.12	
7206.00	90.60	359.87	6651.82	867.50	-65.24	868.64	1.18	1.03	0.58	
7301.00	90.66	358.28	6650.78	962.48	-66.77	963.63	1.67	0.06	-1.67	
7395.00	89.83	357.58	6650.37	1056.41	-70.16	1057.62	1.16	-0.88	-0.74	
7489.00	89.83	355.82	6650.65	1150.25	-75.58	1151.55	1.87	0.00	-1.87	
7584.00	89.12	357.42	6651.52	1245.08	-81.18	1246.47	1.84	-0.75	1.68	
7679.00	89.97	0.55	6652.28	1340.05	-82.86	1341.45	3.41	0.89	3.29	
7774.00	91.01	4.19	6651.47	1434.95	-78.93	1436.25	3.98	1.09	3.83	
7869.00	91.09	4.10	6649.72	1529.68	-72.07	1530.83	0.13	0.08	-0.09	
7964.00	91.16	3.68	6647.86	1624.44	-65.62	1625.44	0.45	0.07	-0.44	
8058.00	90.24	1.12	6646.71	1718.35	-61.69	1719.24	2.89	-0.98	-2.72	
8153.00	88.77	359.93	6647.53	1813.33	-60.82	1814.19	1.99	-1.55	-1.25	
8248.00	88.42	359.86	6649.86	1908.31	-60.99	1909.15	0.38	-0.37	-0.07	
8343.00	88.85	359.31	6652.12	2003.28	-61.68	2004.11	0.73	0.45	-0.58	
8438.00	89.90	359.17	6653.16	2098.26	-62.94	2099.10	1.12	1.11	-0.15	
8533.00	89.61	359.33	6653.57	2193.25	-64.18	2194.10	0.35	-0.31	0.17	
8627.00	90.52	358.29	6653.46	2287.23	-66.13	2288.10	1.47	0.97	-1.11	
8722.00	89.20	357.44	6653.69	2382.16	-69.67	2383.08	1.65	-1.39	-0.89	
8817.00	90.10	357.60	6654.27	2477.07	-73.78	2478.05	0.96	0.95	0.17	
8912.00	90.24	358.25	6653.99	2572.00	-77.22	2573.04	0.70	0.15	0.68	
9006.00	90.87	0.51	6653.08	2665.99	-78.24	2667.03	2.50	0.67	2.40	
9101.00	90.73	0.02	6651.75	2760.98	-77.80	2761.99	0.54	-0.15	-0.52	
9196.00	89.19	0.02	6651.82	2855.97	-77.77	2856.96	1.62	-1.62	0.00	
9290.00	91.36	0.53	6651.37	2949.97	-77.32	2950.93	2.37	2.31	0.54	
9385.00	89.47	359.88	6650.68	3044.96	-76.98	3045.89	2.10	-1.99	-0.68	
9480.00	88.92	358.58	6652.02	3139.94	-78.25	3140.88	1.49	-0.58	-1.37	
9575.00	87.37	357.99	6655.09	3234.84	-81.09	3235.82	1.75	-1.63	-0.62	
9670.00	88.56	359.07	6658.46	3329.75	-83.53	3330.76	1.69	1.25	1.14	
9765.00	90.60	0.09	6659.16	3424.74	-84.23	3425.74	2.40	2.15	1.07	



Weatherford International Ltd.

WFT Survey Report

**Weatherford**

Company: Occidental Permian Ltd. Date: 2/29/2012 Time: 07:11:51 Page: 4
Field: Eddy Co, NM, (Nad.27) Co-ordinate(NE) Reference: Well: Goodnight 27 Fed #4H, Grid: North
Site: Goodnight 27 Fed #4H Vertical (TVD) Reference: SITE 3034.0
Well: Goodnight 27 Fed #4H Section (VS) Reference: Well (0.00N 0.00E, 358.84Azi)
Wellpath: 1 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
9859.00	88.42	359.32	6659.96	3518.73	-84.71	3519.72	2.46	-2.32	-0.82	
9953.00	89.83	359.16	6661.40	3612.70	-85.96	3613.70	1.51	1.50	-0.17	
10048.00	90.80	359.14	6660.88	3707.69	-87.37	3708.70	1.02	1.02	-0.02	
10143.00	90.10	358.40	6660.13	3802.66	-89.40	3803.70	1.07	-0.74	-0.78	
10237.00	88.98	357.72	6660.89	3896.61	-92.59	3897.68	1.39	-1.19	-0.72	
10332.00	90.53	358.53	6661.29	3991.55	-95.69	3992.67	1.84	1.63	0.85	
10427.00	89.76	358.71	6661.05	4086.52	-97.98	4087.67	0.83	-0.81	0.19	
10521.00	89.62	358.63	6661.56	4180.50	-100.16	4181.67	0.17	-0.15	-0.09	
10616.00	90.31	0.77	6661.62	4275.49	-100.66	4276.65	2.37	0.73	2.25	
10711.00	89.33	0.63	6661.92	4370.48	-99.50	4371.60	1.04	-1.03	-0.15	
10806.00	90.80	0.93	6661.81	4465.47	-98.21	4466.54	1.58	1.55	0.32	
10900.00	90.18	1.68	6661.01	4559.44	-96.07	4560.45	1.04	-0.66	0.80	
10959.00	90.17	0.91	6660.82	4618.42	-94.73	4619.39	1.31	-0.02	-1.31	Last Wft Svy
11018.00	90.17	0.91	6660.65	4677.42	-93.80	4678.36	0.00	0.00	0.00	Proj. to Bit

Annotation

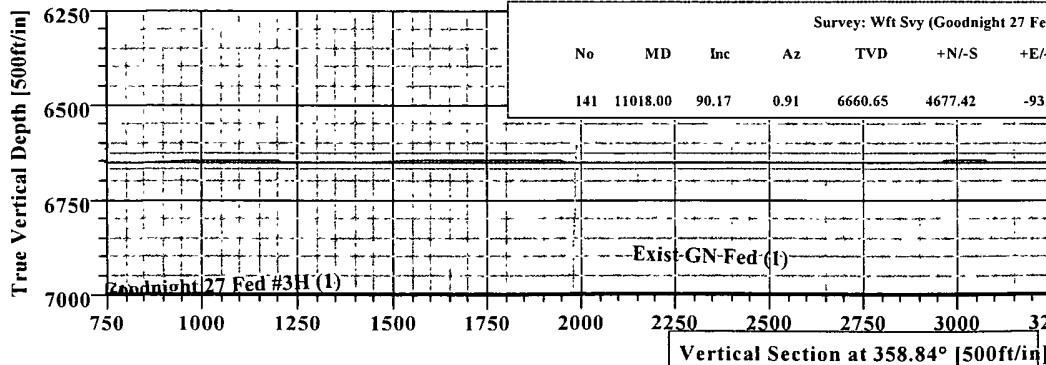
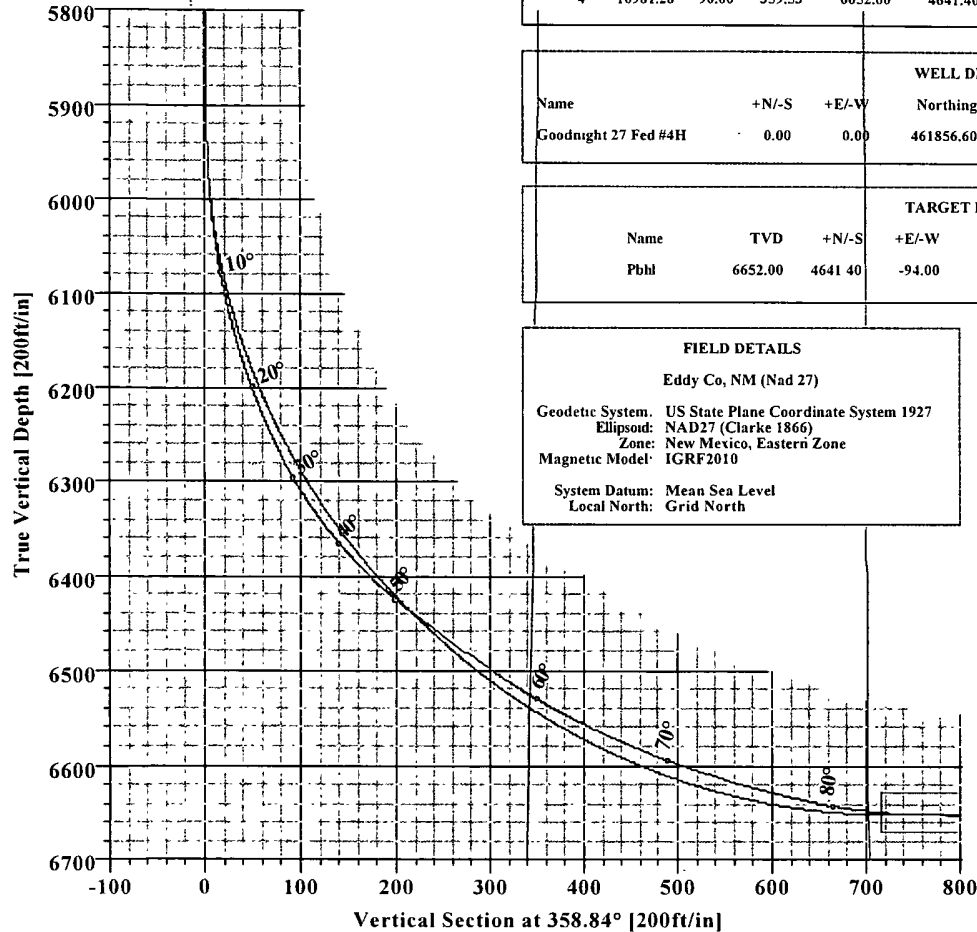
MD ft	TVD ft	
405.61	405.58	Tie on Gyro
612.00	611.97	First Wft Svy
10959.00	6660.82	Last Wft Svy
11018.00	6660.65	Proj. to Bit



Occidental Permian Ltd.

Goodnight 27 Fed #4H Eddy Co, NM

KB ELEV: 3034.0
GL ELEV: 3017.5



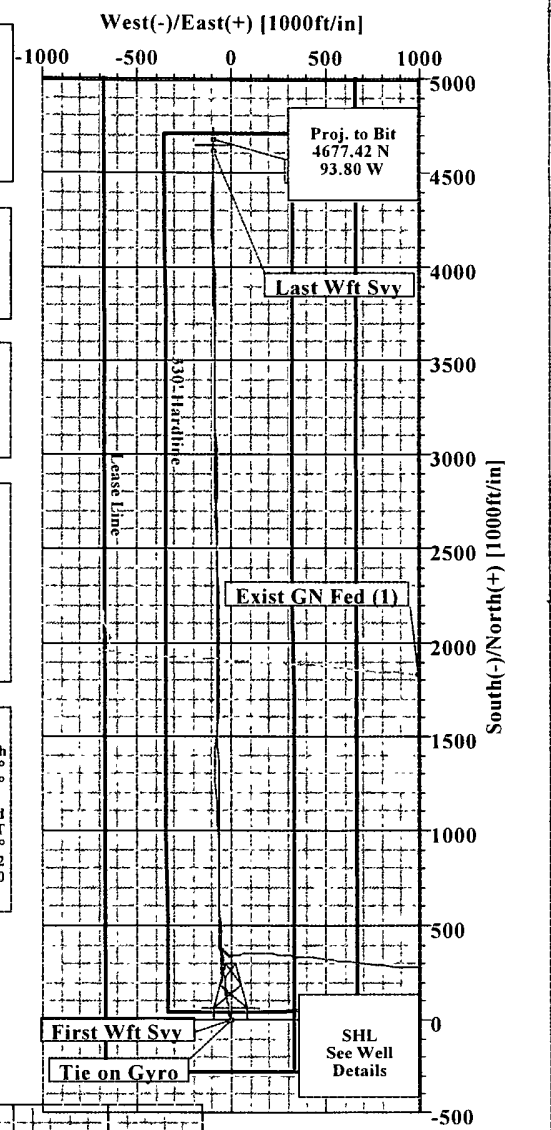
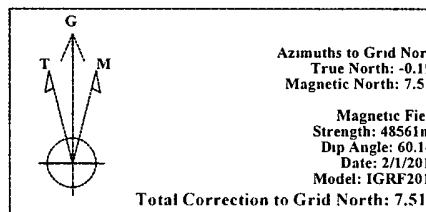
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	5976.00	4.00	351.64	5975.74	4.95	-2.66	0.00	0.00	5.00	
2	6431.08	40.00	351.64	6390.78	170.85	-27.04	7.91	360.00	171.36	
3	7068.43	90.00	359.53	6652.00	728.70	-61.72	7.92	10.25	729.80	
4	10981.26	90.00	359.53	6652.00	4641.40	-94.00	0.00	0.00	4642.35	Pbhl

WELL DETAILS							
Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Goodnight 27 Fed #4H	0.00	0.00	461856.60	610986.40	32°16'09.301N	103°58'27.316W	N/A

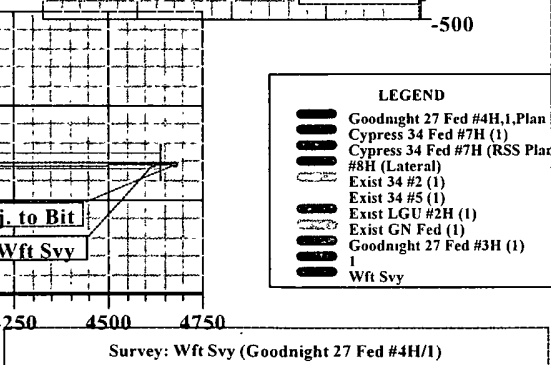
TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	
Pbhl	6652.00	4641.40	-94.00	466498.00	610892.40	Rectangle (3927x0)	

FIELD DETAILS	
Eddy Co, NM (Nad 27)	
Geodetic System: US State Plane Coordinate System 1927	
Ellipsoid: NAD27 (Clarke 1866)	
Zone: New Mexico, Eastern Zone	
Magnetic Model: IGRF2010	
System Datum: Mean Sea Level	
Local North: Grid North	

SITE DETAILS	
Goodnight 27 Fed #4H	
Site Centre Northing:	461856.60
Easting:	610986.40
Ground Level:	3017.50
Positional Uncertainty:	0.00
Convergence:	0.19



Survey: Wft Svy (Goodnight 27 Fed #4H/1)										
No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	
141	11018.00	90.17	0.91	6660.65	4677.42	-93.80	0.00	0.00	4678.36	



LEGEND	
	Goodnight 27 Fed #4H, 1 Plan
	Cypress 34 Fed #7H (1)
	Cypress 34 Fed #7H (RSS Plan)
	#8H (Lateral)
	Exist 34 #2 (1)
	Exist 34 #5 (1)
	Exist LGU #2H (1)
	Exist GN Fed (1)
	Goodnight 27 Fed #3H (1)
	Wft Svy