

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: October 12, 2012

Attention: Anar Khalilov

Re: Occidental Permian Ltd
Well: Goodnight 27 #5H
Eddy County, New Mexico

15-39431

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:

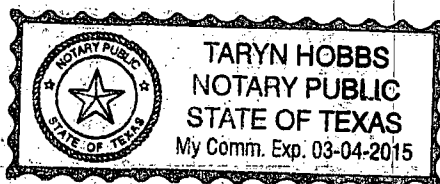
Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Seth Cash MWD Supervisor	3H	2910' MD 10349' MD	9-23-2012 10-11-2012	Measurement While Drilling

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.

Jesus Aguilar
MWD Coordinator

On this, the 10th day of October, 2012, before me a notary public, the undersigned officer, personally appeared Jesus 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 hereof, I hereunto set my hand and official seal.

Notary Public

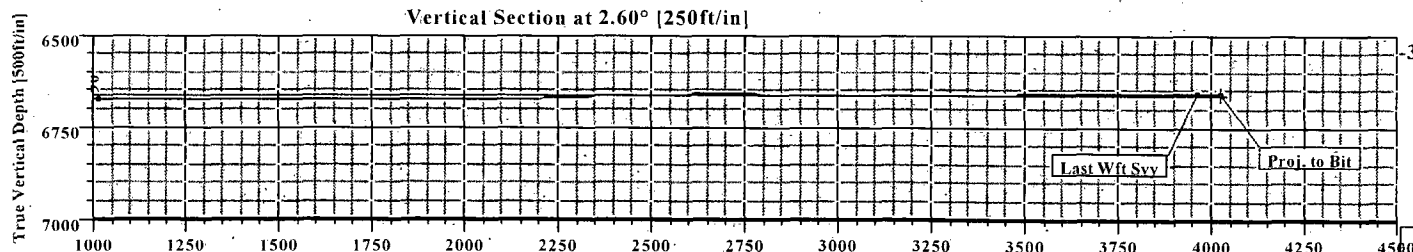
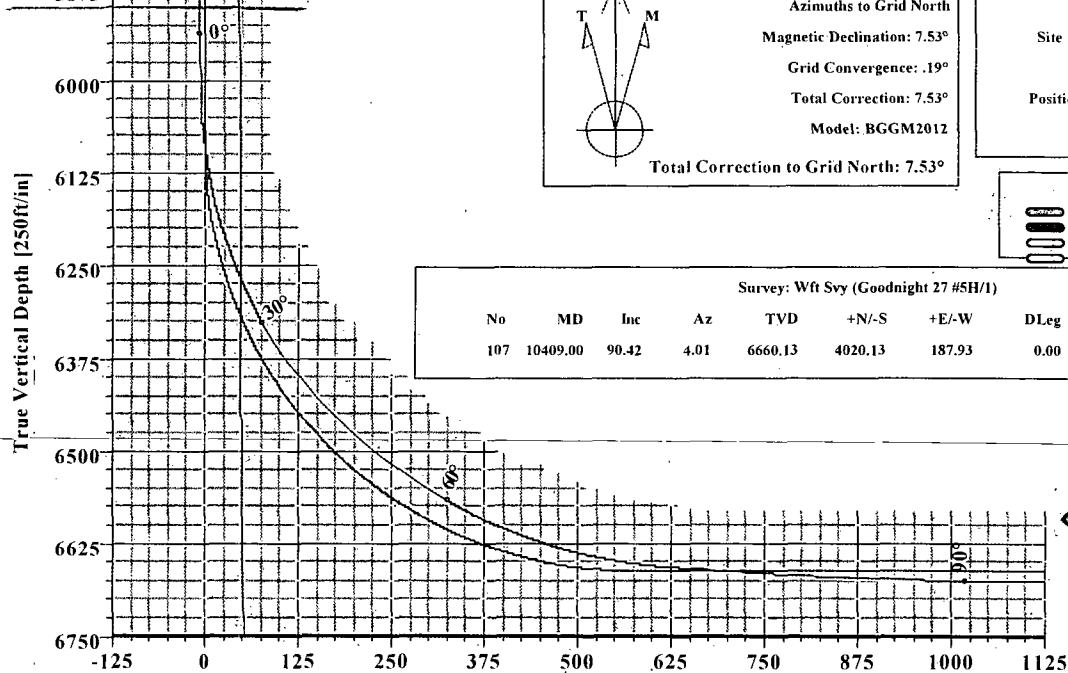


Occidental Permian Ltd.
Goodnight 27 #5H
Eddy Co, NM

RECEIVED

JAN 22 2013

NMOOD ARTESIA
KB ELEV: 3035
606 ELEV: 3011



SECTION DETAILS

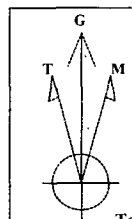
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	2.60	0.00	0.00	0.00	0.00	0.00	0.00	
2	6090.04	0.00	2.60	6090.04	0.00	0.00	0.00	0.00	0.00	
3	6990.04	90.00	2.60	6663.00	572.37	26.01	10.00	2.60	572.96	
4	10441.33	90.00	2.60	6663.00	4020.10	182.70	0.00	0.00	4024.25	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Goodnight 27 #5H	0.00	0.00	462473.80	609449.70	32°16'15.459N	103°58'45.190W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	6663.00	4020.10	182.70	466493.90	609632.40	Point



Azimuths to Grid North
Magnetic Declination: 7.53°
Grid Convergence: .19°
Total Correction: 7.53°
Model: BGGM2012
Total Correction to Grid North: 7.53°

SITE DETAILS

Goodnight 27 #5H
Site Centre Northing: 462473.80
Easting: 609449.70
Ground Level: 3011.00
Positional Uncertainty: 0.00
Convergence: 0.19

LEGEND

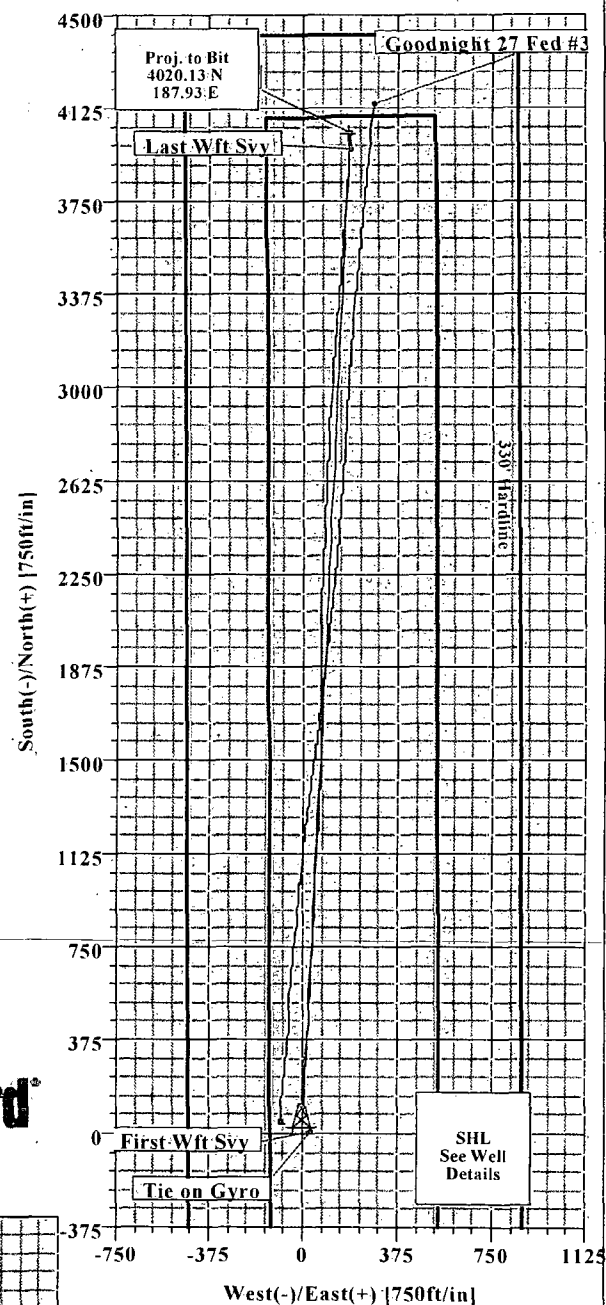
Goodnight 27 #5H, I Plan #4
Goodnight 27 Fed #3H (1)
Wft Svy

Survey: Wft Svy (Goodnight 27 #5H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
107	10409.00	90.42	4.01	6660.13	4020.13	187.93	0.00	180.00	4024.52



Weatherford



Survey: Wft Svy (Goodnight 27 #5H/1)

Created By: Patrick Rudolph

Date: 10/12/2012



Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: Occidental Permian Ltd. Field: Eddy Co, NM (Nad 27) Site: Goodnight 27 #5H Well: Goodnight 27 #5H Wellpath: 1				Date: 10/12/2012 Time: 06:58:06 Page: 1 Co-ordinate(NE) Reference: Well: Goodnight 27 #5H, Grid North Vertical (TVD) Reference: SITE 3035.0 Section (VS) Reference: Well (0.00N,0.00E,2.60Azi) Survey Calculation Method: Minimum Curvature Db: Sybase						
Survey: Wft Svy Company: Weatherford International Ltd. Tool: MWD;MWD - Standard				Start Date: 9/30/2012 Engineer: Patrick Rudolph Tied-to: User Defined						
Site: Goodnight 27 #5H										
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 3011.00 ft		Northing: 462473.80 ft Easting: 609449.70 ft		Latitude: 32 16 15.459 N Longitude: 103 58 45.190 W North Reference: Grid Grid Convergence: 0.19 deg						
Well: Goodnight 27 #5H				Slot Name:						
Well Position: +N/-S 0.00 ft Position Uncertainty: 0.00 ft		Northing: 462473.80 ft Easting: 609449.70 ft		Latitude: 32 16 15.459 N Longitude: 103 58 45.190 W						
Wellpath: 1 Current Datum: SITE Magnetic Data: 10/1/2012 Field Strength: 48481 nT Vertical Section: Depth From (TVD) ft				Height 3035.00 ft +N/-S ft +E/-W ft		Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.72 deg Mag Dip Angle: 60.09 deg Direction deg				
0.00				0.00		0.00		2.60		
Survey										
MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
2891.00	1.02	175.17	2890.64	10.63	30.67	0.00	12.01	462484.43	609480.37	Tie on Gyro First Wft Svy
2910.00	0.97	196.25	2909.64	10.31	30.64	1.93	11.69	462484.11	609480.34	
2977.00	1.03	222.13	2976.63	9.32	30.08	0.67	10.67	462483.12	609479.78	
3075.00	1.21	253.87	3074.61	8.38	28.49	0.65	9.66	462482.18	609478.19	
3138.00	1.11	251.55	3137.60	8.00	27.27	0.18	9.23	462481.80	609476.97	
3233.00	1.13	249.87	3232.58	7.38	25.52	0.04	8.53	462481.18	609475.22	
3328.00	1.09	252.42	3327.56	6.79	23.78	0.07	7.86	462480.59	609473.48	
3422.00	1.02	255.55	3421.55	6.31	22.12	0.10	7.31	462480.11	609471.82	
3517.00	1.14	256.15	3516.53	5.87	20.38	0.13	6.79	462479.67	609470.08	
3611.00	1.14	255.71	3610.51	5.42	18.57	0.01	6.26	462479.22	609468.27	
3706.00	1.12	256.47	3705.49	4.97	16.75	0.03	5.72	462478.77	609466.45	
3800.00	1.16	256.19	3799.47	4.53	14.93	0.04	5.20	462478.33	609464.63	
3895.00	1.07	259.30	3894.45	4.13	13.13	0.11	4.72	462477.93	609462.83	
3989.00	1.09	255.26	3988.44	3.74	11.40	0.08	4.25	462477.54	609461.10	
4084.00	1.19	258.53	4083.42	3.31	9.56	0.13	3.75	462477.11	609459.26	
4179.00	1.15	260.36	4178.40	2.96	7.65	0.06	3.30	462476.76	609457.35	
4273.00	1.13	257.12	4272.38	2.59	5.82	0.07	2.86	462476.39	609455.52	
4368.00	1.14	253.30	4367.36	2.11	4.00	0.08	2.29	462475.91	609453.70	
4462.00	1.17	254.27	4461.34	1.58	2.18	0.04	1.68	462475.38	609451.88	
4557.00	0.36	240.03	4556.33	1.17	0.99	0.87	1.22	462474.97	609450.69	
4652.00	0.41	220.78	4651.33	0.77	0.51	0.15	0.79	462474.57	609450.21	
4746.00	0.44	228.58	4745.33	0.27	0.02	0.07	0.27	462474.07	609449.72	
4841.00	0.49	214.88	4840.33	-0.30	-0.49	0.13	-0.32	462473.50	609449.21	
4935.00	0.56	212.63	4934.32	-1.02	-0.97	0.08	-1.06	462472.78	609448.73	
5030.00	0.63	207.33	5029.32	-1.87	-1.46	0.09	-1.94	462471.93	609448.24	
5125.00	0.60	206.10	5124.31	-2.78	-1.91	0.03	-2.87	462471.02	609447.79	
5219.00	0.56	193.19	5218.31	-3.67	-2.24	0.15	-3.77	462470.13	609447.46	
5314.00	0.63	194.26	5313.30	-4.63	-2.47	0.07	-4.74	462469.17	609447.23	
5408.00	0.63	196.10	5407.30	-5.63	-2.74	0.02	-5.75	462468.17	609446.96	
5503.00	0.60	191.53	5502.29	-6.62	-2.98	0.06	-6.75	462467.18	609446.72	



Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: Occidental Permian Ltd	Date: 10/12/2012	Time: 06:58:06	Page: 2
Field: Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference: Well: Goodnight 27 #5H. Grid North		
Site: Goodnight 27 #5H	Vertical(TVD) Reference: SITE 3035.0		
Well: Goodnight 27 #5H	Section (VS) Reference: Well(0.00N,0.00E,2.60Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl. deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
5597.00	0.22	309.38	5596.29	-6.99	-3.22	0.78	-7.12	462466.81	609446.48	
5692.00	0.16	359.23	5691.29	-6.74	-3.37	0.18	-6.88	462467.06	609446.33	
5787.00	0.10	4.25	5786.29	-6.52	-3.36	0.06	-6.67	462467.28	609446.34	
5881.00	0.10	93.71	5880.29	-6.45	-3.27	0.15	-6.59	462467.35	609446.43	
5937.00	0.00	139.62	5936.29	-6.45	-3.22	0.18	-6.59	462467.35	609446.48	
5994.00	0.30	22.80	5993.29	-6.31	-3.17	0.53	-6.45	462467.49	609446.53	
6025.00	1.97	1.32	6024.28	-5.70	-3.12	5.47	-5.84	462468.10	609446.58	
6057.00	4.39	357.23	6056.23	-3.93	-3.17	7.59	-4.07	462469.87	609446.53	
6088.00	7.02	357.98	6087.07	-0.85	-3.29	8.49	-1.00	462472.95	609446.41	
6120.00	9.61	358.80	6118.73	3.77	-3.42	8.10	3.62	462477.57	609446.28	
6151.00	12.14	0.71	6149.17	9.62	-3.43	8.24	9.46	462483.42	609446.27	
6183.00	15.04	2.93	6180.28	17.13	-3.18	9.21	16.97	462490.93	609446.52	
6214.00	17.70	4.74	6210.02	25.85	-2.58	8.74	25.71	462499.65	609447.12	
6246.00	20.05	5.53	6240.29	36.16	-1.65	7.39	36.05	462509.96	609448.05	
6277.00	23.07	4.14	6269.12	47.51	-0.70	9.88	47.43	462521.31	609449.00	
6309.00	26.37	2.63	6298.19	60.86	0.08	10.50	60.81	462534.66	609449.78	
6340.00	29.77	1.31	6325.54	75.44	0.57	11.15	75.39	462549.24	609450.27	
6372.00	33.03	0.20	6352.85	92.11	0.78	10.35	92.05	462565.91	609450.48	
6403.00	36.34	359.44	6378.33	109.75	0.72	10.77	109.67	462583.55	609450.42	
6435.00	39.75	359.93	6403.53	129.46	0.62	10.70	129.36	462603.26	609450.32	
6467.00	42.89	1.02	6427.56	150.59	0.80	10.07	150.47	462624.39	609450.50	
6498.00	45.42	2.07	6449.80	172.17	1.38	8.50	172.06	462645.97	609451.08	
6530.00	47.34	2.73	6471.88	195.32	2.36	6.18	195.22	462669.12	609452.06	
6561.00	49.69	2.94	6492.41	218.51	3.51	7.60	218.44	462692.31	609453.21	
6593.00	52.45	3.31	6512.52	243.36	4.86	8.67	243.33	462717.16	609454.56	
6624.00	55.40	3.46	6530.77	268.37	6.34	9.52	268.38	462742.17	609456.04	
6656.00	57.55	3.72	6548.44	295.00	8.01	6.75	295.06	462768.80	609457.71	
6687.00	59.66	4.36	6564.59	321.39	9.88	7.03	321.51	462795.19	609459.58	
6719.00	62.11	4.91	6580.16	349.25	12.14	7.80	349.44	462823.05	609461.84	
6750.00	64.78	5.28	6594.01	376.87	14.60	8.68	377.14	462850.67	609464.30	
6782.00	67.61	4.97	6606.93	406.03	17.22	8.89	406.39	462879.83	609466.92	
6813.00	70.17	4.73	6618.09	434.84	19.66	8.29	435.29	462908.64	609469.36	
6845.00	72.73	4.50	6628.27	465.08	22.10	8.03	465.60	462938.88	609471.80	
6876.00	75.51	3.54	6636.75	494.82	24.19	9.45	495.41	462968.62	609473.89	
6908.00	78.38	2.83	6643.98	525.94	25.92	9.23	526.57	462999.74	609475.62	
6939.00	80.31	2.72	6649.71	556.37	27.40	6.24	557.04	463030.17	609477.10	
6971.00	82.77	3.01	6654.42	587.98	28.98	7.74	588.69	463061.78	609478.68	
7002.00	85.24	3.17	6657.66	618.76	30.64	7.98	619.51	463092.56	609480.34	
7034.00	86.50	3.28	6659.96	650.63	32.44	3.95	651.43	463124.43	609482.14	
7065.00	86.78	3.22	6661.78	681.52	34.19	0.92	682.37	463155.32	609483.89	
7128.00	86.43	3.26	6665.51	744.31	37.75	0.56	745.26	463218.11	609487.45	
7223.00	87.97	2.48	6670.15	839.08	42.50	1.82	840.14	463312.88	609492.20	
7317.00	87.90	2.32	6673.54	932.93	46.43	0.19	934.08	463406.73	609496.13	
7412.00	90.28	2.54	6675.05	1027.83	50.46	2.52	1029.06	463501.63	609500.16	
7507.00	90.07	2.51	6674.76	1122.74	54.64	0.22	1124.06	463596.54	609504.34	
7601.00	90.63	3.02	6674.18	1216.62	59.18	0.81	1218.06	463690.42	609508.88	
7696.00	90.28	2.46	6673.43	1311.51	63.72	0.70	1313.05	463785.31	609513.42	
7790.00	89.86	2.07	6673.31	1405.44	67.43	0.61	1407.05	463879.24	609517.13	
7885.00	90.70	2.18	6672.85	1500.37	70.96	0.89	1502.04	463974.17	609520.66	
7980.00	88.74	0.59	6673.31	1595.33	73.25	2.66	1597.01	464069.13	609522.95	
8074.00	90.07	0.42	6674.29	1689.32	74.08	1.43	1690.94	464163.12	609523.78	
8169.00	88.67	358.92	6675.33	1784.31	73.53	2.16	1785.81	464258.11	609523.23	



Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: Occidental Permian Ltd	Date: 10/12/2012	Time: 06:58:06	Page: 3
Field: Eddy Co. NM (Nad 27)	Co-ordinate(NE) Reference:	Well: Goodnight 27 #5H	Grid North
Site: Goodnight 27 #5H	Vertical (TVD) Reference:	SITE 3035.0	
Well: Goodnight 27 #5H	Section (VS) Reference:	Well (0.00N,0.00E,2.60Azi)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
8263.00	90.28	359.59	6676.20	1878.29	72.31	1.86	1879.64	464352.09	609522.01	
8358.00	90.00	358.68	6675.96	1973.28	70.88	1.00	1974.47	464447.08	609520.58	
8453.00	90.70	0.27	6675.38	2068.27	70.01	1.83	2069.32	464542.07	609519.71	
8547.00	91.61	2.89	6673.49	2162.21	72.60	2.95	2163.28	464636.01	609522.30	
8642.00	92.24	2.80	6670.30	2257.04	77.31	0.67	2258.22	464730.84	609527.01	
8736.00	92.52	2.57	6666.39	2350.85	81.71	0.39	2352.14	464824.65	609531.41	
8831.00	90.49	2.79	6663.90	2445.71	86.15	2.15	2447.10	464919.51	609535.85	
8925.00	90.98	2.45	6662.69	2539.61	90.45	0.63	2541.09	465013.41	609540.15	
9020.00	91.33	2.31	6660.78	2634.50	94.39	0.40	2636.07	465108.30	609544.09	
9115.00	88.95	2.74	6660.55	2729.40	98.58	2.55	2731.07	465203.20	609548.28	
9209.00	88.74	2.46	6662.44	2823.29	102.84	0.37	2825.05	465297.09	609552.54	
9304.00	89.51	3.66	6663.89	2918.14	107.91	1.50	2920.03	465391.94	609557.61	
9398.00	89.44	3.58	6664.75	3011.95	113.84	0.11	3014.01	465485.75	609563.54	
9493.00	89.65	4.41	6665.51	3106.71	120.46	0.90	3108.98	465580.51	609570.16	
9587.00	90.70	4.94	6665.22	3200.40	128.12	1.25	3202.92	465674.20	609577.82	
9682.00	90.63	4.46	6664.12	3295.07	135.91	0.51	3297.85	465768.87	609585.61	
9776.00	90.35	3.96	6663.31	3388.82	142.81	0.61	3391.80	465862.62	609592.51	
9871.00	92.03	4.27	6661.34	3483.55	149.62	1.80	3486.75	465957.35	609599.32	
9965.00	90.91	3.68	6658.93	3577.29	156.14	1.35	3580.69	466051.09	609605.84	
10060.00	89.72	4.19	6658.41	3672.06	162.66	1.36	3675.66	466145.86	609612.36	
10155.00	89.16	4.27	6659.34	3766.80	169.66	0.60	3770.62	466240.60	609619.36	
10249.00	89.51	4.16	6660.43	3860.54	176.57	0.39	3864.57	466334.34	609626.27	
10344.00	90.28	4.06	6660.60	3955.29	183.38	0.82	3959.54	466429.09	609633.08	
10349.00	90.42	4.01	6660.57	3960.28	183.73	2.97	3964.54	466434.08	609633.43	Last Wft Svy
10409.00	90.42	4.01	6660.13	4020.13	187.93	0.00	4024.52	466493.93	609637.63	Proj. to Bit

Annotation

MD ft	TVD ft	
2891.00	2890.64	Tie on Gyro
2910.00	2909.64	First Wft Svy
10349.00	6660.57	Last Wft Svy
10409.00	6660.13	Proj. to Bit

OCCIDENTAL PERMIAN LTD.

Harroun Ranch Delaware
Eddy County, NM
Goodnight 27 Federal #5H
VH - Job #32K09121222

Survey: Gyro

SDI Standard Survey Report

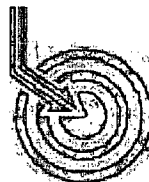
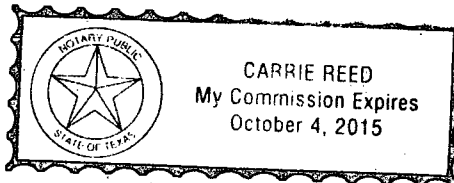
This survey is correct to the best of my knowledge and is supported by actual field data.

Rubart

Notarized this date 8th of October, 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling

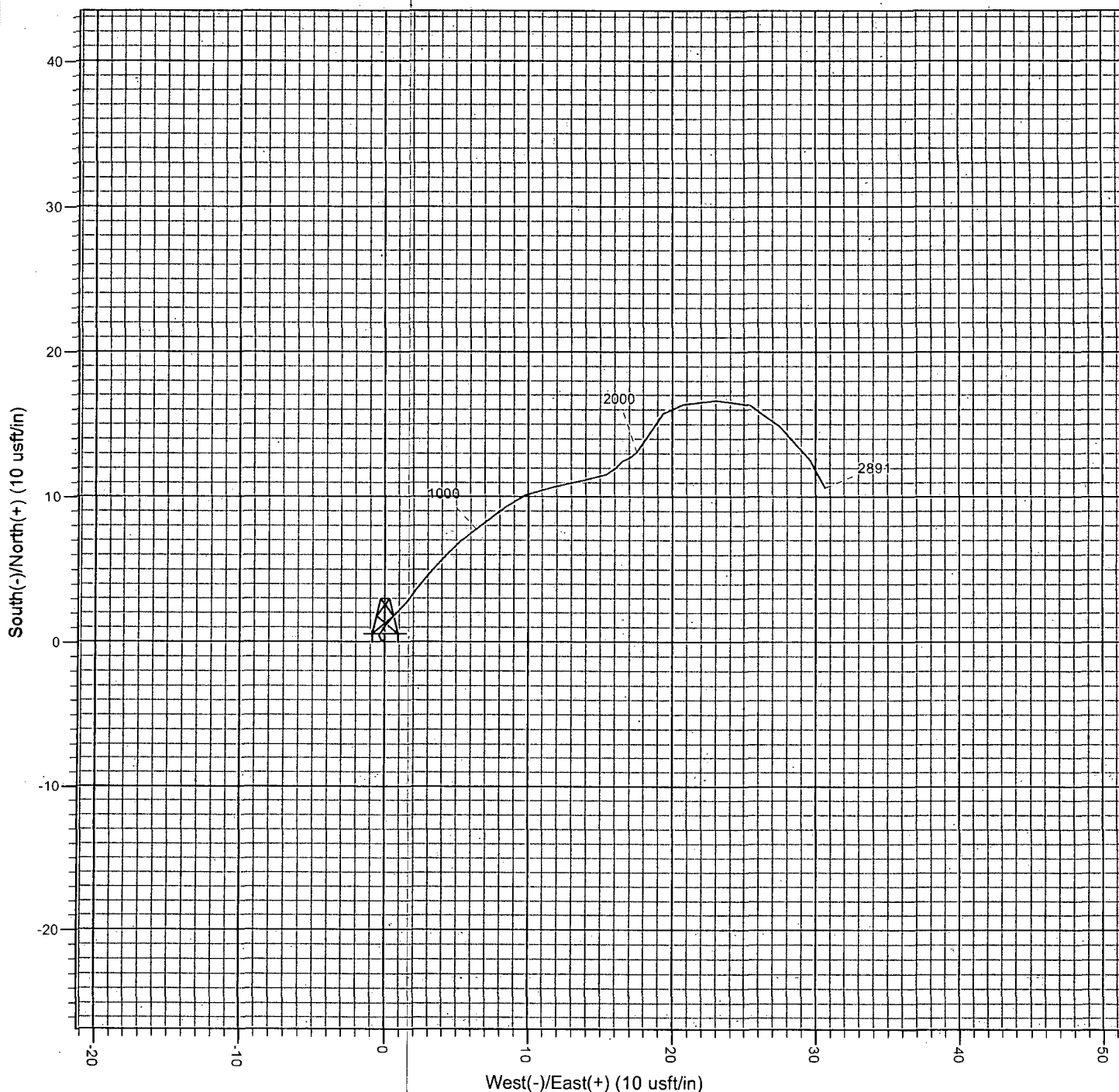


Scientific Drilling

Project: Harroun Ranch Delaware
Eddy County, NM
Well: Goodnight 27 Federal #5H
Wellbore: VH - Job #32K09121222
Design: VH - Job #32K09121222

WELL DETAILS: Goodnight 27 Federal #5H
WELL @ 0.00usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	462473.85	609449.67	32° 16' 15.460 N	103° 58' 45.190 W	



PROJECT DETAILS: Harroun Ranch Delaware	SITE DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 16' 9.300 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 103° 58' 27.316 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: 0.19
System Datum: Mean Sea Level	Local North: Grid

Scientific Drilling International, Inc.

SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well: Goodnight 27 Federal #5H
Project:	Harroun Ranch Delaware	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Goodnight 27 Federal #5H	North Reference:	Grid
Wellbore:	VH - Job #32K09121222	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K09121222	Database:	EDM-Regulatory

Project:	Harroun Ranch Delaware	System Datum:	Mean Sea Level
Map System:	US State Plane 1927 (Exact solution)		
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:	0.00 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 #5H, Directional (Weatherford)					
Well Position	+N-S	0.00 usft	Northing:	462,473.85 usft	Latitude:	32° 16' 15.460 N
	+E-W	0.00 usft	Easting:	609,449.67 usft	Longitude:	103° 58' 45.190 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	0.00 usft

Wellbore:	VH - Job #32K09121222				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	09/29/12	7.62	60.13	48,496

Design:	VH - Job #32K09121222				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/S	+E/W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	70.90	

Survey Program:	Date:	10/21/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	2,891.00	Gyro (VH - Job #32K09121222)	Keeper	Keeper Surface Readout

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.31	296.94	100.00	0.12	-0.24	296.94	0.27	
200.00	0.21	30.39	200.00	0.40	-0.39	315.98	0.56	
300.00	0.59	30.55	300.00	1.00	-0.04	357.99	1.01	
400.00	0.64	50.35	399.99	1.80	0.66	19.99	1.92	
500.00	0.81	40.27	499.98	2.70	1.54	29.75	3.11	
600.00	0.95	34.66	599.97	3.92	2.47	32.22	4.64	
700.00	0.77	46.91	699.96	5.06	3.43	34.15	6.12	
800.00	0.77	41.34	799.95	6.03	4.37	35.94	7.44	
900.00	0.66	53.44	899.94	6.87	5.27	37.50	8.66	
1,000.00	0.92	51.21	999.93	7.72	6.36	39.50	10.00	
1,100.00	0.67	55.33	1,099.92	8.55	7.47	41.13	11.36	

Scientific Drilling International, Inc.

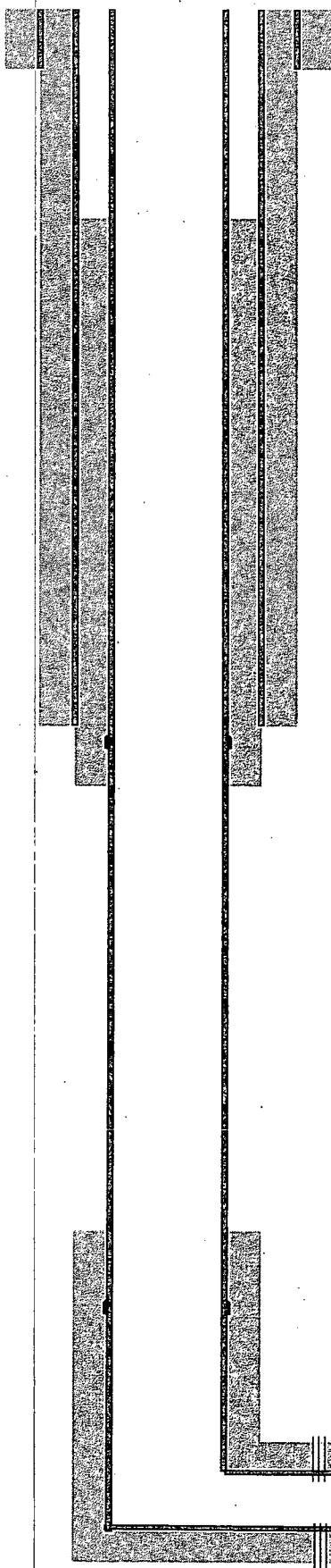
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Goodnight 27, Federal #5H
Project:	Harroun Ranch Delaware	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Goodnight 27, Federal #5H	North Reference:	Grid
Wellbore:	VH - Job #32K09121222	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K09121222	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,200.00	0.84	50.76	1,199.91	9.35	8.52	42.33	12.65
1,300.00	0.95	69.65	1,299.90	10.10	9.86	44.31	14.12
1,400.00	1.36	76.19	1,399.88	10.67	11.79	47.85	15.91
1,500.00	1.13	78.35	1,499.86	11.16	13.91	51.27	17.83
1,600.00	0.64	71.76	1,599.85	11.53	15.41	53.19	19.24
1,700.00	0.44	35.87	1,699.84	12.02	16.16	53.37	20.14
1,800.00	0.29	50.70	1,799.84	12.49	16.58	53.02	20.76
1,900.00	0.32	85.33	1,899.84	12.67	17.06	53.39	21.25
2,000.00	0.49	28.86	1,999.84	13.07	17.54	53.32	21.88
2,100.00	0.67	42.02	2,099.83	13.88	18.14	52.58	22.84
2,200.00	0.62	23.97	2,199.83	14.81	18.75	51.71	23.89
2,300.00	0.69	42.91	2,299.82	15.74	19.38	50.92	24.97
2,400.00	1.12	80.95	2,399.81	16.34	20.76	51.80	26.41
2,500.00	1.52	83.48	2,499.78	16.64	23.04	54.16	28.42
2,600.00	1.32	114.11	2,599.75	16.32	25.41	57.29	30.20
2,700.00	1.68	135.12	2,699.72	14.81	27.49	61.69	31.23
2,800.00	1.88	138.39	2,799.67	12.55	29.62	67.04	32.17
2,891.00	1.02	175.17	2,890.64	10.62	30.68	70.90	32.46

OXY USA Inc.
Goodnight 27 Federal #5H
API No. 30-015-39431



17-1/2" hole @ 290'
13-3/8" csg @ 290'
w/ 430sx-TOC-Surf-Circ

12-1/4" hole @ 3031'
9-5/8" csg @ 3031'
w/ 1110sx-TOC-Surf-Circ

8-1/2" hole @ 10409'
5-1/2" csg @ 10380'
DVT-5775' POST-3075'
w/ 1980sx-TOC-990'-CBL

Perfs @ 7400-10200'

TD - 10409'M 6661'V