

30-015-41048

OCCIDENTAL PERMIAN LTD.

Indian Basin
Eddy County, NM
Indian Basin "23" Federal Com #1H
VH - Job #320213-K-209



Survey: drop Gyro

SDI Standard Survey Report

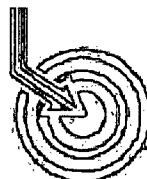
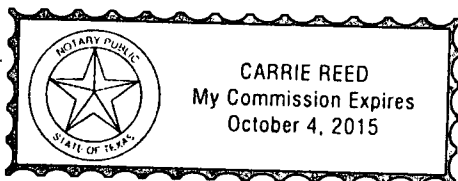
This survey is correct to the best of my knowledge and is supported by actual field data.

[Signature]

Notarized this date 1st of April, 2013.

[Signature]

Notary Signature
County of Midland
State of Texas



Scientific Drilling

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Indian Basin "23" Federal Com #1H
Project:	Indian Basin	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Indian Basin "23" Federal Com #1H	North Reference:	Grid
Wellbore:	VH - Job #320213-K-209	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #320213-K-209	Database:	EDM-Regulatory

Project	Indian Basin		
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:	530,790.17 usft
From:	Lat/Long	Easting:	441,379.16 usft
Position Uncertainty:	0.00 usft	Slot Radius:	0"
		Latitude:	32° 27' 32.800 N
		Longitude:	104° 31' 24.200 W
		Grid Convergence:	-0.10 °

Well	Indian Basin "23" Federal Com #1H, Directional		
Well Position	+N/-S	0.00 usft	Northing: 530,335.16 usft
	+E/-W	0.00 usft	Easting: 424,113.65 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 27' 27.948 N
		Longitude:	104° 34' 45.703 W
		Ground Level:	0.00 usft

Wellbore	VH - Job #320213-K-209				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	02/26/13	7.86	60.19	48,499

Design	VH - Job #320213-K-209			
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	180.26

Survey Program	Date	04/07/13		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
118.52	761.97	drop Gyro (VH - Job #320213-K-209)	Keeper	Keeper Surface Readout

Survey								
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance	
(usft)	(°)	(°)	Depth	(usft)	(usft)	(°)	(usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
118.52	0.54	147.37	118.52	-0.47	0.30	147.37	0.56	
210.48	0.72	178.44	210.47	-1.41	0.55	158.71	1.52	
302.44	0.49	173.34	302.43	-2.38	0.61	165.59	2.46	
394.40	0.48	182.60	394.38	-3.16	0.64	168.54	3.22	
486.36	0.59	177.92	486.34	-4.01	0.64	170.95	4.07	
578.32	0.44	188.46	578.30	-4.84	0.60	172.87	4.87	
670.28	0.46	210.83	670.25	-5.50	0.36	176.22	5.52	
761.97	0.52	209.28	761.94	-6.18	-0.03	180.26	6.18	

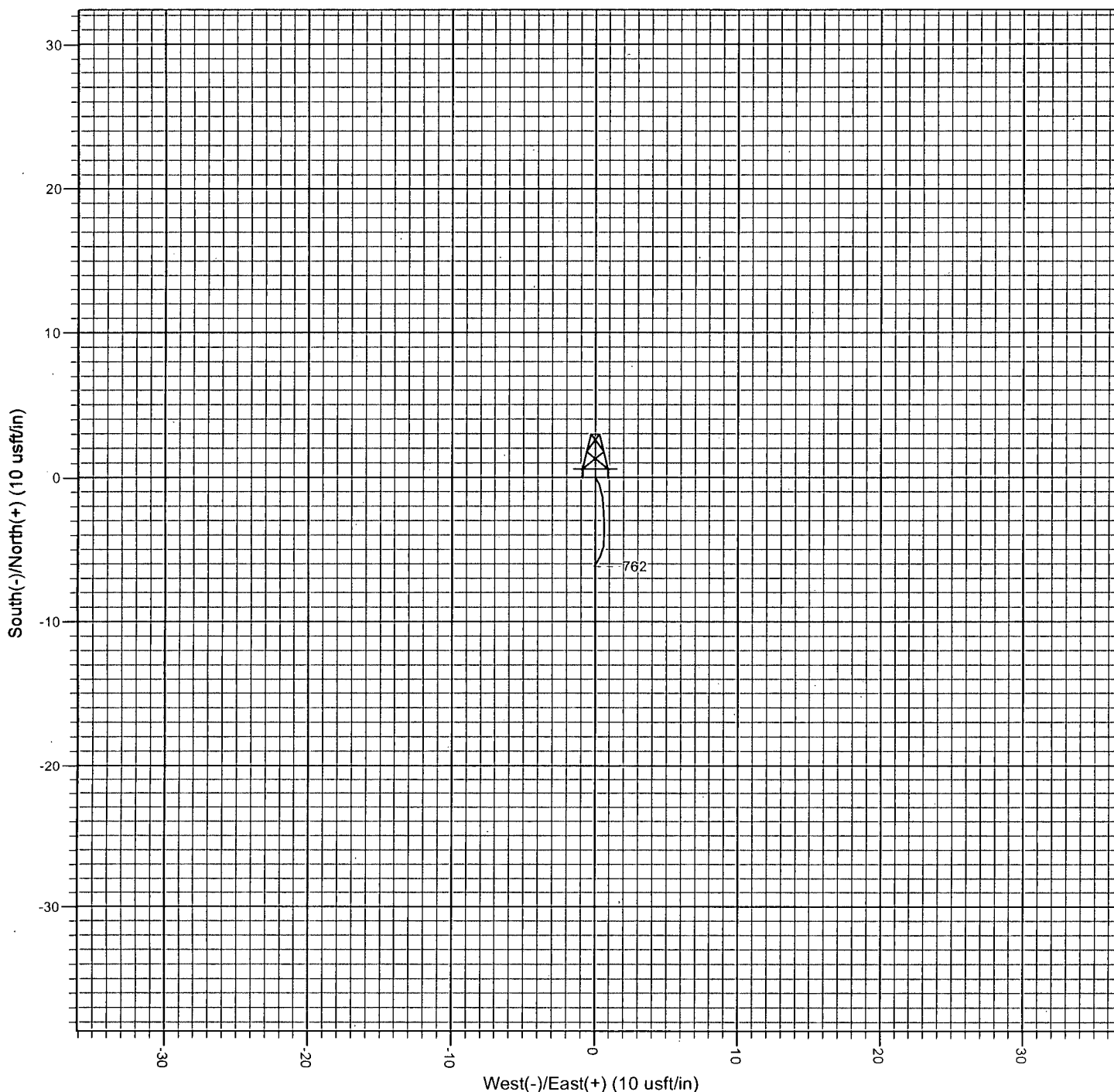


Scientific Drilling

Project: Indian Basin
Eddy County, NM
Well: Indian Basin "23" Federal Com #1H
Wellbore: VH - Job #320213-K-209
Design: VH - Job #320213-K-209

WELL DETAILS: Indian Basin "23" Federal Com #1H
WELL @ 0.00usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	530335.16	424113.65	32° 27' 27.948 N	104° 34' 45.703 W	



PROJECT DETAILS: Indian Basin	SITE DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 27' 32.800 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 104° 31' 24.200 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: -0.10
System Datum: Mean Sea Level	Local North: Grid

Schlumberger

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

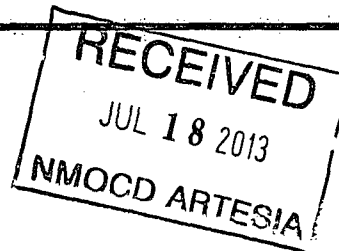
Fax: (817) 546-7551

March 29, 2013

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046



Attention: Anthony Tschacher

Re:

CLIENT: OXY Permian
WELL: INDIAN BASIN 23 FED COM 1H
FIELD: BONE SPRINGS
RIG: HP 344
COUNTY: Eddy
API NO: 30-015-41048
JOB NO: NM-OXY-0047

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation (P-5 No. 754900).

Other information required by your office is as follows.

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Tim Daws FST-1	INDIAN BASIN 23 FED COM 1H Original Hole	1168.00 Ft to 2903.00 Ft	February 24, 2013 to March 3, 2013	SlimPulse

A plat of the bottom hole location is oriented both to the surface location and to the lease lines (or until line in case of pooling), is attached to the survey report.

If any other information is required, please contact the undersigned at the above letterhead and phone number.

Sincerely,

Mike Johns
Field Service Manager

CC: OXY Permian
Enclosures: [2]
County of Eddy
State of New Mexico

Reservoir Development

Drilling & Measurements (Extrême Engineering)

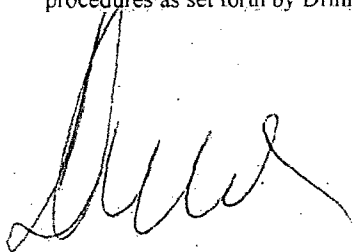
6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

I, Tim Daws certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of February 24, 2013 through March 03, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 1168.00 feet to a depth of 2903.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation; that I am authorized and qualified to make this report; that this survey was conducted at the request of OXY Permian for the INDIAN BASIN 23 FED COM 1H Well (Original Hole) API No. 30-015-41048 in New Mexico; and that I have reviewed this report and find that it conforms to the principals and procedures as set forth by Drilling & Measurements, a division of Schlumberger Technology Corporation.

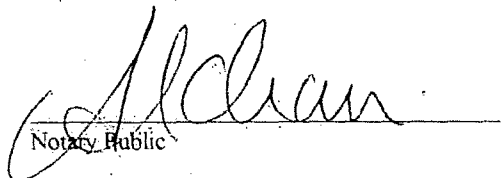


Tim Daws

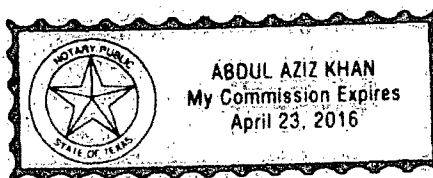
FST-1

Before me, Abdul Khan, on this day personally appeared Timothy Daws, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 29 day of March, 2013 (year).



Notary Public



Indian Basin 23 Fed Com 1H MWD 0' to 2903' Survey Report

(Def Survey)

Report Date: March 02, 2013 - 02:37 PM
 Client: Oxy
 Field: NM, Eddy Co (NAD27 EZ) 2012
 Structure / Slot: Oxy (Indian Basin 23 Fed Com 1H) HP 344 / Indian Basin 23 Fed Com 1H
 Well: Indian Basin 23 Fed Com 1H
 Borehole: Original Hole
 UWI / AP# : Unknown / 30-015-41048
 Survey Name: Indian Basin 23 Fed Com 1H MWD 0' to 2903'
 Survey Date: March 02, 2013
 Tool / AHD / DDI / ERD Ratio: 2.258' / 6.470' / 1.330' / 0.003
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 27' 28.06000" W 104° 34' 45.64000"
 Location Grid N/E: N 32° 27' 28.06000" W 104° 34' 45.64000"
 CRS Grid Convergence Angle: -0.19305622°
 Grid Scale Factor: 0.99991569

Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/1000)	North (ft)	East (ft)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	530348.54	424101.66	N 32° 27' 28.06"	W 104° 34' 45.84"
Assumed Vertical	1166.00	0.00	0.00	1166.00	0.00	0.00	0.00	0.00	530348.54	424101.66	N 32° 27' 28.06"	W 104° 34' 45.84"
Begin MWD	1166.00	0.00	91.11	1166.00	0.00	0.00	0.00	22.00	530348.54	424101.67	N 32° 27' 28.06"	W 104° 34' 45.84"
Surveys	1300.00	0.31	72.21	1300.00	0.10	0.10	0.59	0.09	530346.64	424102.56	N 32° 27' 28.06"	W 104° 34' 45.83"
	1461.00	0.40	65.18	1461.00	0.31	0.31	1.09	0.07	530346.65	424103.65	N 32° 27' 28.06"	W 104° 34' 45.82"
	1661.00	0.22	67.48	1660.96	0.31	0.31	2.88	0.11	530348.65	424104.92	N 32° 27' 28.06"	W 104° 34' 45.81"
	1700.00	0.09	109.79	1700.96	0.29	0.29	2.78	0.28	530348.65	424104.75	N 32° 27' 28.06"	W 104° 34' 45.81"
	1823.00	0.48	89.11	1823.96	0.32	0.32	3.34	0.35	530348.65	424105.30	N 32° 27' 28.06"	W 104° 34' 45.80"
	2003.00	0.40	92.06	2002.96	0.36	0.36	4.72	0.06	530348.65	424106.86	N 32° 27' 28.06"	W 104° 34' 45.78"
	2163.00	0.48	60.32	2162.96	0.36	0.36	6.10	0.05	530348.60	424108.06	N 32° 27' 28.06"	W 104° 34' 45.77"
	2363.00	0.40	106.80	2362.97	0.17	0.17	7.45	0.09	530348.71	424109.42	N 32° 27' 28.06"	W 104° 34' 45.75"
	2543.00	0.22	55.78	2542.97	0.18	0.18	8.34	0.17	530348.72	424110.31	N 32° 27' 28.06"	W 104° 34' 45.74"
	2723.00	0.22	15.00	2722.97	0.71	0.71	9.72	0.09	530349.25	424110.68	N 32° 27' 28.06"	W 104° 34' 45.74"
End MWD Surveys	2903.00	0.09	265.31	2902.97	1.53	1.53	8.97	0.15	530349.57	424110.63	N 32° 27' 23.06"	W 104° 34' 45.74"

Survey Type: Def Survey

Survey Error Model: ISCWSEA Rev. 0 *** 3.0 85.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
	0.000	16.500	1/16.500	SLB, BLIND-TREND-Depth Only	Original Hole / Indian Basin 23 Fed Com 1H MWD 0' to 2903'
	16.500	1166.000	1/66.425	SLB, BLIND-TREND	Original Hole / Indian Basin 23 Fed Com 1H MWD 0' to 2903'
	1166.000	2903.000	1/1735.000	SLB, BLIND-TREND SLB, MWD-STD	Original Hole / Indian Basin 23 Fed Com 1H MWD 0' to 2903'

HALLIBURTON

3950 Interwood S. Pkwy • Houston, TX 77032

PHONE 281.986.4400 • FAX 281.986.4499



State of New Mexico, Eddy County

I, Jean' Eymard, certify that I am employed by Halliburton Energy Services, Inc. (AKA Sperry Drilling) and that on the dates of 2 March 13 through 15 March 13, I did conduct or supervise the taking of a DGWD Directional Survey for the Indian Basin 23 Fed Com 1H well from a depth of 1481' MD to a depth of 6570' MD. This data is true, correct, complete and within the limitations of the tools as set forth by Halliburton Energy Services, Inc. (AKA Sperry Drilling). I am authorized and qualified to make this report and this survey was conducted at the request of Occidental Oil & Gas Corp. for the Indian Basin 23 Fed Com 1H well API No. 30-015-41048 well in Eddy County, NM. I have reviewed this report and find that it conforms to the principles and procedures as set forth by Halliburton Energy Services, Inc. (AKA Sperry Drilling).

A handwritten signature in black ink, appearing to read "Jean' Eymard", written over a horizontal line.

Field Engineer

Occidental Permian LTD

Indian Basin 23 Fed Com 1H

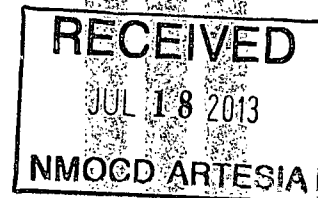
Eddy County, NM

H&P 344

API# 30-015-41048

March 2, 2013- March 15, 2013

HD-MJ-00900217021



Sperry Drilling Services Survey Report

Submitted by Jean' Eymard

3950 Interwood South Parkway

Houston, TX 77032

Ph: 281.986.4400

HALLIBURTON

**Drilling and Formation
Evaluation**

Survey Report for Occidental Permian LTD

Rig : H&P 344
Well Name : Indian Basin 23 Fed Com #1H
Field Name : Yeso
Country : USA
Job Number : HD-XX-0900217021
Job Start Date : 03-Mar-13
API Number : 30-015-41048

TABLE OF CONTENTS

1. Directional Survey Data

DIRECTIONAL SURVEY DATA

Tie-in

0.00

0.00

0.00

0.00

0.00 N

0.00 E

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
118.52	0.50	147.37	118.52	0.44 S	0.28 E	-0.44	0.42
210.48	0.70	178.44	210.47	1.33 S	0.51 E	1.35	0.41
302.44	0.50	173.34	302.43	2.30 S	0.57 E	-2.31	0.22
394.40	0.50	182.60	394.39	3.09 S	0.60 E	-3.11	0.09
486.36	0.60	177.92	486.34	3.98 S	0.60 E	-3.99	0.12
578.32	0.40	188.46	578.30	4.78 S	0.57 E	-4.79	0.24
670.28	0.50	210.83	670.25	5.44 S	0.32 E	-5.44	0.22
761.97	0.50	209.28	761.94	6.13 S	0.08 W	-6.12	0.01
1169.00	0.20	91.11	1,168.97	7.69 S	0.24 W	-7.68	0.15
1300.00	0.30	72.21	1,299.97	7.59 S	0.31 E	-7.60	0.10
1481.00	0.40	85.18	1,480.96	7.39 S	1.39 E	-7.44	0.07
1540.00	1.32	355.43	1,539.96	6.70 S	1.55 E	-6.75	2.33
1571.00	5.11	351.64	1,570.90	4.98 S	1.32 E	-5.02	12.23
1602.00	8.08	352.63	1,601.69	1.45 S	0.84 E	-1.48	9.61
1632.00	9.00	352.30	1,631.36	2.97 N	0.25 E	2.96	3.06
1662.00	9.21	351.67	1,660.98	7.67 N	0.41 W	7.68	0.77
1692.00	9.91	353.51	1,690.56	12.61 N	1.05 W	12.64	2.56
1720.00	11.91	357.51	1,718.06	17.89 N	1.45 W	17.93	7.62
1752.00	15.49	0.59	1,749.14	25.47 N	1.55 W	25.51	11.42
1782.00	18.29	0.89	1,777.84	34.19 N	1.43 W	34.21	9.34
1812.00	20.15	359.03	1,806.17	44.06 N	1.45 W	44.09	6.53
1843.00	22.07	357.71	1,835.09	55.22 N	1.77 W	55.25	6.38
1873.00	22.76	357.12	1,862.82	66.65 N	2.29 W	66.69	2.40
1901.00	23.74	357.46	1,888.55	77.69 N	2.81 W	77.74	3.54
1932.00	27.07	358.25	1,916.55	90.98 N	3.30 W	91.04	10.80
1962.00	29.31	359.01	1,942.98	105.15 N	3.64 W	105.21	7.57
1992.00	30.60	359.35	1,968.98	120.13 N	3.85 W	120.19	4.34
2022.00	32.80	359.43	1,994.50	135.89 N	4.02 W	135.95	7.34
2052.00	35.38	0.23	2,019.34	152.70 N	4.07 W	152.76	8.73
2082.00	36.11	0.32	2,043.69	170.23 N	3.98 W	170.27	2.42
2129.00	37.90	359.47	2,081.22	198.51 N	4.04 W	198.54	3.95
2174.00	39.97	359.04	2,116.23	226.79 N	4.41 W	226.81	4.65
2219.00	42.51	358.51	2,150.06	256.44 N	5.05 W	256.47	5.70
2264.00	45.50	358.04	2,182.42	287.69 N	5.99 W	287.73	6.69
2309.00	48.65	358.32	2,213.07	320.62 N	7.04 W	320.68	7.02
2352.00	51.79	358.20	2,240.57	353.65 N	8.04 W	353.72	7.30
2397.00	55.57	359.64	2,267.22	389.89 N	8.71 W	389.97	8.79
2442.00	58.98	0.54	2,291.55	427.74 N	8.65 W	427.80	7.76
2486.00	63.41	0.26	2,312.74	466.29 N	8.38 W	466.31	10.09
2531.00	68.29	359.54	2,331.15	507.34 N	8.46 W	507.34	10.93
2576.00	72.12	359.88	2,346.38	549.67 N	8.67 W	549.66	8.55

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (%/100')
2621.00	74.96	1.08	2,359.13	592.82 N	8.31 W	592.78	6.80
2666.00	77.66	0.86	2,369.78	636.53 N	7.57 W	636.44	6.04
2712.00	80.42	0.15	2,378.52	681.68 N	7.17 W	681.56	6.18
2757.00	82.92	359.98	2,385.04	726.21 N	7.12 W	726.05	5.56
2802.00	84.97	0.34	2,389.79	770.95 N	6.99 W	770.77	4.63
2835.00	87.01	0.60	2,392.10	803.87 N	6.72 W	803.66	6.23
2880.00	88.92	0.82	2,393.70	848.83 N	6.16 W	848.59	4.27
2925.00	88.83	1.07	2,394.58	893.82 N	5.42 W	893.52	0.58
2970.00	89.20	1.30	2,395.35	938.80 N	4.49 W	938.45	0.97
3015.00	89.11	1.21	2,396.02	983.79 N	3.51 W	983.38	0.30
3060.00	89.35	1.31	2,396.62	1,028.77 N	2.52 W	1028.31	0.59
3105.00	90.15	1.33	2,396.82	1,073.76 N	1.48 W	1073.24	1.78
3150.00	90.86	1.35	2,396.42	1,118.75 N	0.43 W	1118.17	1.58
3195.00	91.11	1.46	2,395.64	1,163.72 N	0.68 E	1163.09	0.60
3240.00	91.70	1.25	2,394.54	1,208.70 N	1.74 E	1208.01	1.39
3285.00	91.79	1.01	2,393.17	1,253.67 N	2.63 E	1252.92	0.57
3330.00	92.00	0.81	2,391.69	1,298.64 N	3.34 E	1297.85	0.65
3375.00	92.22	0.32	2,390.03	1,343.61 N	3.79 E	1342.78	1.20
3420.00	92.28	0.14	2,388.26	1,388.57 N	3.97 E	1387.71	0.41
3465.00	92.28	359.99	2,386.47	1,433.53 N	4.02 E	1432.65	0.33
3510.00	92.31	0.09	2,384.66	1,478.50 N	4.05 E	1477.59	0.24
3555.00	92.43	359.65	2,382.80	1,523.46 N	3.95 E	1522.53	1.02
3600.00	92.59	359.40	2,380.83	1,568.42 N	3.58 E	1567.47	0.66
3645.00	92.77	359.52	2,378.73	1,613.36 N	3.15 E	1612.41	0.50
3690.00	90.83	358.65	2,377.31	1,658.33 N	2.44 E	1657.38	4.72
3735.00	88.15	357.72	2,377.71	1,703.30 N	1.01 E	1702.37	6.31
3780.00	87.72	357.37	2,379.34	1,748.23 N	0.92 W	1747.34	1.24
3825.00	88.31	357.20	2,380.90	1,793.16 N	3.05 W	1792.31	1.36
3870.00	88.61	356.95	2,382.11	1,838.08 N	5.35 W	1837.29	0.88
3915.00	88.64	357.12	2,383.18	1,883.01 N	7.68 W	1882.26	0.39
3960.00	89.11	357.37	2,384.07	1,927.95 N	9.84 W	1927.25	1.17
4005.00	88.95	357.61	2,384.83	1,972.90 N	11.81 W	1972.24	0.63
4050.00	88.98	357.86	2,385.64	2,017.85 N	13.59 W	2017.23	0.56
4095.00	88.95	358.18	2,386.45	2,062.82 N	15.14 W	2062.23	0.72
4140.00	88.92	358.04	2,387.29	2,107.79 N	16.63 W	2107.22	0.31
4185.00	90.00	357.66	2,387.71	2,152.75 N	18.31 W	2152.21	2.54
4230.00	89.88	357.94	2,387.76	2,197.72 N	20.04 W	2197.21	0.68
4275.00	89.72	357.86	2,387.91	2,242.69 N	21.69 W	2242.21	0.39
4320.00	89.66	357.71	2,388.16	2,287.66 N	23.42 W	2287.21	0.36
4365.00	89.75	357.80	2,388.39	2,332.62 N	25.18 W	2332.21	0.29
4411.00	89.78	357.97	2,388.57	2,378.59 N	26.88 W	2378.21	0.37
4456.00	89.75	357.86	2,388.75	2,423.56 N	28.52 W	2423.21	0.25
4501.00	89.66	358.20	2,388.98	2,468.53 N	30.06 W	2468.21	0.77
4546.00	89.63	358.27	2,389.26	2,513.51 N	31.45 W	2513.21	0.18
4591.00	89.51	358.23	2,389.60	2,558.49 N	32.82 W	2558.20	0.29

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100')
4636.00	89.60	357.87	2,389.95	2,603.46 N	34.35 W	2603.20	0.82
4681.00	89.85	357.80	2,390.17	2,648.43 N	36.05 W	2648.20	0.57
4726.00	89.78	357.69	2,390.31	2,693.39 N	37.83 W	2693.20	0.27
4771.00	89.78	357.51	2,390.48	2,738.35 N	39.71 W	2738.20	0.41
4802.00	89.54	357.55	2,390.67	2,769.32 N	41.05 W	2769.20	0.81
4832.00	89.29	357.49	2,390.97	2,799.29 N	42.35 W	2799.19	0.85
4863.00	89.75	357.05	2,391.23	2,830.26 N	43.83 W	2830.19	2.05
4893.00	89.85	356.78	2,391.34	2,860.21 N	45.44 W	2860.18	0.95
4924.00	89.78	356.58	2,391.44	2,891.16 N	47.23 W	2891.17	0.68
4954.00	89.45	356.74	2,391.64	2,921.11 N	48.98 W	2921.16	1.25
4984.00	89.51	357.00	2,391.91	2,951.06 N	50.62 W	2951.15	0.91
5013.00	90.00	357.01	2,392.04	2,980.02 N	52.14 W	2980.15	1.69
5044.00	89.63	356.77	2,392.14	3,010.98 N	53.82 W	3011.14	1.41
5075.00	89.54	357.14	2,392.36	3,041.93 N	55.46 W	3042.13	1.23
5105.00	89.51	357.41	2,392.61	3,071.90 N	56.89 W	3072.13	0.88
5136.00	89.35	357.41	2,392.92	3,102.86 N	58.29 W	3103.12	0.50
5167.00	89.23	357.46	2,393.30	3,133.83 N	59.68 W	3134.12	0.43
5196.00	89.60	357.39	2,393.60	3,162.80 N	60.98 W	3163.11	1.30
5227.00	89.78	357.15	2,393.77	3,193.76 N	62.46 W	3194.11	0.96
5258.00	89.57	356.99	2,393.94	3,224.72 N	64.04 W	3225.10	0.87
5289.00	89.63	357.13	2,394.16	3,255.68 N	65.63 W	3256.10	0.49
5379.00	89.54	357.24	2,394.81	3,345.57 N	70.05 W	3346.08	0.16
5424.00	89.45	357.14	2,395.21	3,390.51 N	72.25 W	3391.07	0.30
5469.00	89.57	357.19	2,395.60	3,435.46 N	74.48 W	3436.07	0.30
5514.00	90.22	357.00	2,395.68	3,480.40 N	76.76 W	3481.06	1.50
5559.00	90.28	357.54	2,395.49	3,525.35 N	78.90 W	3526.05	1.21
5604.00	90.12	357.59	2,395.33	3,570.31 N	80.81 W	3571.05	0.36
5649.00	89.97	357.76	2,395.30	3,615.27 N	82.64 W	3616.05	0.51
5694.00	90.03	357.81	2,395.30	3,660.24 N	84.38 W	3661.05	0.17
5739.00	89.91	357.83	2,395.32	3,705.20 N	86.09 W	3706.05	0.28
5784.00	89.69	357.92	2,395.48	3,750.17 N	87.76 W	3751.05	0.52
5830.00	89.48	358.10	2,395.81	3,796.14 N	89.36 W	3797.04	0.61
5875.00	90.03	357.93	2,396.01	3,841.12 N	90.92 W	3842.04	1.29
5920.00	89.94	358.13	2,396.02	3,886.09 N	92.47 W	3887.04	0.50
5965.00	89.91	358.21	2,396.08	3,931.07 N	93.90 W	3932.04	0.18
6010.00	89.69	358.27	2,396.24	3,976.04 N	95.29 W	3977.04	0.50
6055.00	89.51	358.07	2,396.55	4,021.02 N	96.72 W	4022.04	0.62
6100.00	89.29	357.83	2,397.02	4,065.99 N	98.33 W	4067.04	0.70
6145.00	88.77	357.94	2,397.78	4,110.95 N	99.99 W	4112.03	1.19
6190.00	88.51	357.72	2,398.85	4,155.91 N	101.70 W	4157.02	0.75
6235.00	88.92	357.31	2,399.86	4,200.85 N	103.65 W	4202.00	1.29
6280.00	88.77	357.35	2,400.77	4,245.80 N	105.74 W	4246.99	0.35
6325.00	89.54	356.85	2,401.43	4,290.73 N	108.02 W	4291.98	2.03
6370.00	89.63	357.12	2,401.76	4,335.67 N	110.38 W	4336.97	0.63
6415.00	89.44	356.70	2,402.12	4,380.60 N	112.81 W	4381.96	1.04

DIRECTIONAL SURVEY DATA

Measured Depth (ft)	Inclination (deg)	Direction (deg)	Vertical Depth (ft)	Latitude (ft)	Departure (ft)	Vertical Section (ft)	Dogleg (°/100)
6460.00	89.60	357.30	2,402.50	4,425.54 N	115.16 W	4426.95	1.40
6505.00	89.38	357.40	2,402.90	4,470.49 N	117.24 W	4471.94	0.52
6570.00	89.07	357.25	2,403.77	4,535.41 N	120.28 W	4536.93	0.53
6626.00	89.07	357.25	2,404.68	4,591.34 N	122.96 W	4592.91	0.01

SURVEY FOOTER

SURVEYS CALCULATED USING SHORT COLLAR METHOD
 TIE-ON SURVEY ASSUMED VERTICAL AT SURFACE
 SURVEYS FROM 118.52' MD TO 1300' MD PROVIDED BY SCIENTIFIC DRILLING
 SURVEYS FROM 1481' MD TO 6570' MD PROVIDED BY SPERRY DRILLING
 SURVEY AT 6570' MD HAS BEEN PROJECTED TO TD AT 6626' MD
 SPERRY ENGINEERS: J. EYMARD, L. SMITH

DIRECTIONAL SURVEY DATA NOTES

- Calculation based on minimum curvature method.
- Survey coordinates relative to well system reference point.
- TVD values given relative to drilling measurement point.
- Vertical section relative to well head.
- Vertical section is computed along a direction of 358.14 degrees (Grid)
- A total correction of 8.09 deg from Magnetic north to Grid north has been applied
- Horizontal displacement is relative to the well head.
- Horizontal displacement (closure) at 6,626.00 feet is 4,592.99 feet along 358.47 degrees (Grid)

WARRANTY

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Halliburton / Sperry Drilling
3950 Interwood S. Parkway
Houston, Tx. 77032
Phone: 281.986.4400
Fax: 281.986.4498



Oper.: OXY OPL

Well: Indian Basin 23-1H

API # 30-015-41048

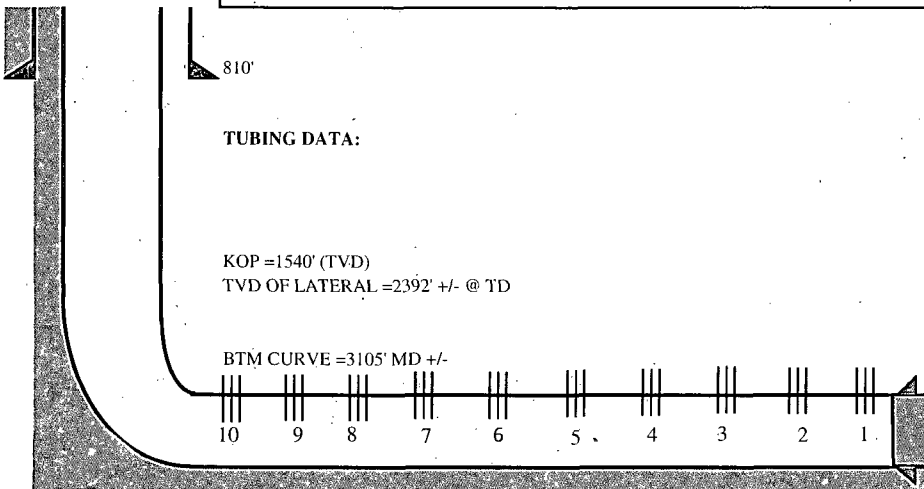
Loc: 350 FSL 530 FWL Sec 23

County/State: Eddy County, NM

Spud Date: 2/24/2013

GL: 3852.6' KB = 3869.1'

8.625" 24# J-55 STC CSG @ 810' W/ CMT CIRC TO SFC
(11" HOLE SIZE)



5.5" 17# L-80 LTC CSG W/ CMT CIRC to surface
(7.875" HOLE SIZE)

ID = 4.892" - DID = 4.767" - BURST = 7740 PSI - COLLAPSE = 6290 PSI
.0232 bbl/ft - .9764 gal/ft

TD @ 6,626'
PBTD @ 6,543'
Casing Shoe @ 6626'

Stage 1: 6400-5926 (158' spacing) Stage 2: 5768-5294 (158' spacing) Stage 3: 5100-4860 (80' spacing) Stage 4: 4780-4540 (80' spacing) Stage 5: 4460-4220 (80' spacing) Stage 6: 4140-3900 (80' spacing) Stage 7: 3820-3580 (80' spacing) Stage 8: 3500-3260 (80' spacing) Stage 9: 3180-2940 (80' spacing) Stage 10: 2860-2620 (80' spacing); 6SPF 60 deg phasing (400 holes); 0.39" EHD; 4 entry points per stage

Fluid - 1,278,769 gals of Slickwater; 30,000 gals 15% HCL; Sand - 194,738 lbs 100 mesh; 450,228 lbs 30/50 white SD; 406,322 lbs 30/50 Garnet RC

TR 12/22/12