



Reservoir Development
Drilling & Measurements (Extreme Engineering)
 6724 Corporation Pkwy Suite 100
 Fort Worth, TX 76126
 Phone: (817) 717-1820
 Fax: (817) 546-7551

January 20, 2014

Occidental Permian Ltd
 5 Greenway Plaza Suite 110
 Houston, Texas 77046

Attention: Kacie Cruz

Re:

CLIENT: Oxy
 WELL: Yeso Viking Fed 9H
 FIELD: Glorieta Yeso
 RIG: Savanna 415
 COUNTY: Eddy
 API NO: 30-015-41261
 JOB NO: NM-OXY-0088

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>
Troy Miller FST2	Yeso Viking Fed 9H Original Hole	440.00 Ft to 4201.00 Ft	December 18, 2013 to December 25, 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,

Thomas Barker
 Field Service Manager

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

Reservoir Development

Drilling & Measurements (Extreme Engineering)

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I, Troy Miller certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of December 18, 2013 through December 25, 2013; conduct or supervise the taking of the SlimPulse surveys from a depth of 440.00 feet to a depth of 4201.00 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 for the Yeso Viking Fed 9H Well (Original Hole) API No. 30-015-41261 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.

Troy Miller
FST2

Before me, January 23rd, 2014, on this day personally appeared Troy Miller 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 23rd day of January, 2014 (year).

Notary Public

OFFICIAL SEAL
ESPERANZA A MUNOZ
NOTARY PUBLIC - STATE OF NEW MEXICO

My Commission Expires: July 12, 2017

Yeso Viking Fed 9H MWD 0' to 4450' Survey Geodetic Report

(Def Survey)

Report Date: December 25, 2013 - 11:24 AM
 Client: OXY
 Field: NM, Eddy (NAD27 E2) 2011
 Structure / Slot: OXY (Yeso Viking Fed 9H) Savanna 415 / Yeso Viking Fed 9H
 Well: Yeso Viking Fed 9H
 Borehole: Original Hole
 UWI / API#: NM-OXY-0088 / 30-015-41261
 Survey Name: Yeso Viking Fed 9H MWD 0' to 4450'
 Survey Date: December 25, 2013
 Tort / AHD / DDI / ERD Ratio: 6.475' / 38.437' ft / 2.396' / 0.009
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 31° 0' 0.32479", W 104° 20' 1.18767"
 Location Grid N/E Y/X: N 32.813 NUS, E 499895.766 ftUS
 CRS Grid Convergence Angle: -0.0002°
 Grid Scale Factor: 0.9999909
 Version / Patch: 2.7.998.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.000° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3553.000 ft above MSL
 Seabed / Ground Elevation: 3547.000 ft above MSL
 Magnetic Declination: 7.734°
 Total Gravity Field Strength: 998.4116mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 47522.890 nT
 Magnetic Dip Angle: 58.817°
 Declination Date: December 25, 2013
 Magnetic Declination Model: BGGM 2013
 North Reference: Grid North
 Total Corr. Mag North -> Grid North: 0.0484°
 Total Corr. Mag -> Grid North: 7.6856°
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	32.81	499895.77	N 31° 0' 0.32	W 104° 20' 1.20
Assumed	440.00	0.00	0.00	440.00	0.00	0.00	0.00	0.00	32.81	499895.77	N 31° 0' 0.32	W 104° 20' 1.20
Begin MWD	450.00	0.68	278.50	450.00	0.01	0.01	-0.06	6.80	32.82	499895.71	N 31° 0' 0.32	W 104° 20' 1.20
Survey's	670.00	0.48	302.86	669.99	0.70	0.70	-2.12	0.14	33.51	499893.64	N 31° 0' 0.33	W 104° 20' 1.22
	821.00	0.48	284.66	820.98	1.21	1.21	-3.27	0.10	34.02	499892.50	N 31° 0' 0.34	W 104° 20' 1.24
	943.00	0.40	311.85	942.98	1.62	1.62	-4.08	0.18	34.43	499891.69	N 31° 0' 0.34	W 104° 20' 1.24
	1091.00	0.48	304.97	1090.98	2.32	2.32	-4.97	0.06	35.13	499890.79	N 31° 0' 0.35	W 104° 20' 1.25
	1284.00	0.70	310.77	1283.97	3.42	3.42	-6.37	0.13	36.23	499889.40	N 31° 0' 0.36	W 104° 20' 1.27
	1496.00	0.62	288.13	1495.96	4.40	4.40	-8.05	0.16	37.21	499887.72	N 31° 0' 0.37	W 104° 20' 1.29
	1609.00	0.70	300.75	1608.94	5.23	5.23	-9.85	0.10	38.04	499885.92	N 31° 0' 0.38	W 104° 20' 1.31
	1825.00	0.70	300.75	1824.93	6.58	6.58	-12.11	0.00	39.39	499883.65	N 31° 0' 0.39	W 104° 20' 1.34
	1955.00	0.40	344.43	1954.92	7.42	7.42	-12.92	0.38	40.23	499882.85	N 31° 0' 0.40	W 104° 20' 1.35
	2171.00	0.22	313.75	2170.92	8.43	8.43	-13.42	0.11	41.25	499882.35	N 31° 0' 0.41	W 104° 20' 1.35
	2343.00	0.48	335.33	2342.92	9.32	9.32	-13.96	0.17	42.13	499881.81	N 31° 0' 0.42	W 104° 20' 1.36
	2516.00	0.31	313.67	2515.91	10.30	10.30	-14.60	0.13	43.11	499881.17	N 31° 0' 0.43	W 104° 20' 1.37
	2689.00	0.48	292.05	2688.91	10.89	10.89	-15.61	0.13	43.71	499880.16	N 31° 0' 0.43	W 104° 20' 1.38
	2862.00	0.88	257.77	2861.90	10.88	10.88	-17.58	0.32	43.70	499878.19	N 31° 0' 0.43	W 104° 20' 1.40
	3035.00	0.48	255.26	3034.88	10.42	10.42	-19.58	0.23	43.23	499876.19	N 31° 0' 0.43	W 104° 20' 1.42
	3207.00	0.48	255.78	3206.88	10.08	10.08	-20.97	0.00	42.87	499874.79	N 31° 0' 0.42	W 104° 20' 1.44
	3380.00	0.48	245.73	3379.87	9.64	9.64	-22.18	0.05	42.45	499873.59	N 31° 0' 0.42	W 104° 20' 1.45
	3553.00	0.70	268.14	3552.88	9.27	9.27	-24.10	0.16	42.08	499871.67	N 31° 0' 0.42	W 104° 20' 1.47
	3725.00	0.79	267.57	3724.85	9.18	9.18	-26.33	0.05	41.99	499869.44	N 31° 0' 0.42	W 104° 20' 1.50
	3898.00	0.40	266.56	3897.84	9.10	9.10	-28.12	0.23	41.91	499867.64	N 31° 0' 0.41	W 104° 20' 1.52
	4071.00	0.79	279.85	4070.83	9.26	9.26	-29.90	0.24	42.07	499865.87	N 31° 0' 0.42	W 104° 20' 1.54
	4201.00	0.62	313.05	4200.82	9.89	9.89	-31.30	0.34	42.70	499864.47	N 31° 0' 0.42	W 104° 20' 1.56
End MWD	4450.00	0.62	294.68	4449.80	11.37	11.37	-33.51	0.08	44.18	499862.28	N 31° 0' 0.44	W 104° 20' 1.58
Survey's												

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 85.000% Confidence 2.7855 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	16.000	Act Sins	30.000	30.000	ZERO	Original Hole / Yeso Viking Fed 9H MWD 0' to 4450'
	1	16.000	440.000	1/98.425	30.000	30.000	ZERO	Original Hole / Yeso Viking Fed 9H MWD 0' to 4450'
	1	440.000	440.000	Act Sins	30.000	30.000	ZERO	Original Hole / Yeso Viking Fed 9H MWD 0' to 4450'
	1	440.000	4450.000	Act Sins	30.000	30.000	SLB_MWD-STD	Original Hole / Yeso Viking Fed 9H MWD 0' to 4450'

Occidental Oil & Gas Corp – Permian Primary – North NM/Terrell RMT

Well: Yeso Viking Federal #9

API: 30-015-41261

State: New Mexico

County: Eddy

T17S R27E, Sec 23

1150' FSL & 1150' FEL

Field: Empire

TD: 4,520'

PBTD: 4,477.3'

KB: 3,561' ASL

Casing Size:

Grade/Weight:

Depth:

Cement:

8-5/8"

J-55 LTC/ 24#

414'

210 sx, 54 sx circ'd to surf

5-1/2"

L-80 BTC/ 17#

4,520'

760 sx, 390 sx circ'd to surf

Surf Csg: 8-5/8" 24# J-55 LTC
Cement: 210 sx, 20 bbls circ'd to surf

Surf Csg @ 414'

KB: 3,561' ASL

Top Glorieta @ 3,074'

Top Paddock @ 3,143'

Paddock Base @ 3,407'

Top Blinbry @ 3,613'

Proposed Perforation Intervals

1a)	4413	-	4421.13
1b)	4246	-	4252.13
2a)	4032	-	4040.13
2b)	3944	-	3950.13
3a)	3702	-	3710.13
3b)	3640	-	3646.13
4a)	3388	-	3396.13
4b)	3320	-	3326.13
5a)	3263	-	3271.13
5b)	3170	-	3176.13

PBTD @ 4,477.3'

Prod Csg: 5-1/2" 17# L-80 BTC
Cement: 760 sx, 390 sx circ'd to surf

Prod Csg @ 4,520'
TD @ 4,520'