Schlumberger

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

February 21, 2013

Occidental Permian Ltd
5 Greenway Plaza Suite 110
Houston, Texas77046

Attention: Anthony T Tschacher

Re:

CLIENT:	OXY
WELL:	Chris Robbins 20 Fed #11
FIELD:	YESO
RIG:	Sav 415
COUNTY:	Eddy
API NO:	30-015-40833
JOB NO:	NM-OXY-0044

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.

Name & Title of Surveyor	Drainhole Number	Surveyed Depths	Dates Performed	Type of Survey
Michael Putnam FST - 1	Chris Robbins 20 Fed #11 Original Hole	144.00 Ft to 4783.00 Ft	February 15, 2013 to February 21, 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
Enclosures: [2]
County of Eddy
State of New Mexico

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I, Michael Putnam 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 15, 2013 through February 21, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 144.00 feet to a depth of 4783.00 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 Chris Robbins 20 Fed #11 Well (Original Hole) API No. 30-015-40833 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.

Michael Putnam
FST - 1

Before me, MaryAnn Rodriguez, on this day personally appeared Michael Putnam, 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 22nd day of February, (year). 2013

Notary Public
April 21, 2014

Chris Robbins 20 Fed #11 MWD 0' to 4783' Survey Report

(Non-Def Survey)

Report Date:	February 21, 2013 - 09:12 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:		**Vertical Section Azimuth:**	0.000 ° (Grid North)
Field:	NM, Eddy (NAD27) 2011	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	*OXY (Chris Robbins 20 Fed #11) Sec 415 / Chris Robbins 20 Fed #11*	*TVD Reference Datum:*	RKB
Well:	Chris Robbins 20 Fed #11	**TVD Reference Elevation:**	3668.000 ft above MSL
Borehole:	Original Hole	**Seabed / Ground Elevation:**	3654.000 ft above MSL
UWI / API#:	Unknown / 30_015-40833	**Magnetic Declination:**	7.864 °
Survey Name:	Chris Robbins 20 Fed #11 MWD 0' to 4783'	**Total Field Strength:**	48711.122 nT
Survey Date:	February 21, 2013	**Magnetic Dip Angle:**	60.553 °
Tort / AHD / DDI / ERD Ratio:	11.431 ° / 70.353 ft / 2.905 / 0.015	**Declination Date:**	February 21, 2013
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Declination Model:**	BGGM 2012
Location Lat / Long:	N 32° 49' 26.76000", W 104° 12' 10.80000"	**North Reference:**	Grid North
Location Grid N/E Y/X:	*N 663543.366 ftUS, E 540037.129 ftUS*	*Grid Convergence Used:*	*0.073 °*
CRS Grid Convergence Angle:	0.07064880 °	**Total Corr Mag North->Grid North:**	7.791 °
Grid Scale Factor:	0.99991093	**Local Coord Referenced To:**	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/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	663543.37	540037.13	N 32 49 26.76	W 104 12 10.80
Marker MudLine	*14.00*	*0.00*	*0.00*	*14.00*	*0.00*	*0.00*	*0.00*	*0.00*	*663543.37*	*540037.13*	*N 32 49 26.76*	*W 104 12 10.80*
Assumed Vertical	40.00	0.00	0.00	40.00	0.00	0.00	0.00	0.00	663543.37	540037.13	N 32 49 26.76	W 104 12 10.80
Begin MWD Surveys	144.00	0.70	259.20	144.00	-0.12	-0.12	-0.62	0.67	663543.25	540036.51	N 32 49 26.76	W 104 12 10.81
	319.00	1.49	230.59	318.97	-1.76	-1.76	-3.43	0.54	663541.60	540033.70	N 32 49 26.74	W 104 12 10.84
	476.00	1.41	236.79	475.92	-4.12	-4.12	-6.63	0.11	663539.25	540030.50	N 32 49 26.72	W 104 12 10.88
	648.00	1.32	246.37	647.87	-6.07	-6.07	-10.21	0.14	663537.30	540026.92	N 32 49 26.70	W 104 12 10.92
	826.00	0.79	230.59	825.84	-7.67	-7.67	-13.04	0.34	663535.69	540024.09	N 32 49 26.68	W 104 12 10.95
	984.00	0.88	154.39	983.82	-9.46	-9.46	-13.35	0.65	663533.91	540023.78	N 32 49 26.67	W 104 12 10.96
	1158.00	0.79	236.79	1157.81	-11.32	-11.32	-13.78	0.63	663532.05	540023.35	N 32 49 26.65	W 104 12 10.96
	1328.00	0.79	239.91	1327.79	-12.55	-12.55	-15.77	0.03	663530.82	540021.36	N 32 49 26.64	W 104 12 10.99
	1458.00	0.70	254.98	1457.78	-13.20	-13.20	-17.32	0.17	663530.16	540019.81	N 32 49 26.63	W 104 12 11.00
	1631.00	0.79	246.59	1630.77	-13.95	-13.95	-19.43	0.08	663529.42	540017.70	N 32 49 26.62	W 104 12 11.03
	1762.00	0.79	246.50	1761.76	-14.67	-14.67	-21.09	0.00	663528.70	540016.04	N 32 49 26.62	W 104 12 11.05
	1934.00	0.79	245.09	1933.74	-15.64	-15.64	-23.25	0.01	663527.72	540013.88	N 32 49 26.61	W 104 12 11.07
	2108.00	0.62	248.00	2107.73	-16.50	-16.50	-25.21	0.10	663526.87	540011.92	N 32 49 26.60	W 104 12 11.10
	2279.00	0.48	246.98	2278.72	-17.13	-17.13	-26.73	0.08	663526.24	540010.40	N 32 49 26.59	W 104 12 11.11
	2453.00	0.88	252.70	2452.71	-17.81	-17.81	-28.68	0.23	663525.56	540008.46	N 32 49 26.58	W 104 12 11.14
	2627.00	0.62	260.70	2626.69	-18.36	-18.36	-30.88	0.16	663525.01	540006.25	N 32 49 26.58	W 104 12 11.16
	2713.00	0.70	250.19	2712.69	-18.61	-18.61	-31.83	0.17	663524.76	540005.30	N 32 49 26.58	W 104 12 11.17
	2886.00	0.79	251.91	2885.67	-19.34	-19.34	-33.96	0.05	663524.03	540003.17	N 32 49 26.57	W 104 12 11.20
	3060.00	0.70	253.49	3059.66	-20.02	-20.02	-36.12	0.05	663523.35	540001.01	N 32 49 26.56	W 104 12 11.22
	3233.00	0.70	223.30	3232.64	-21.08	-21.08	-37.86	0.21	663522.28	539999.27	N 32 49 26.55	W 104 12 11.24
	3403.00	0.79	232.17	3402.63	-22.56	-22.56	-39.50	0.09	663520.81	539997.64	N 32 49 26.54	W 104 12 11.26
	3575.00	1.19	239.91	3574.60	-24.18	-24.18	-41.98	0.24	663519.19	539995.15	N 32 49 26.52	W 104 12 11.29
	3749.00	1.19	282.40	3748.57	-24.70	-24.70	-45.31	0.50	663518.67	539991.83	N 32 49 26.52	W 104 12 11.33
	3922.00	1.32	274.01	3921.53	-24.17	-24.17	-49.05	0.13	663519.19	539988.08	N 32 49 26.52	W 104 12 11.38
	4095.00	1.10	212.88	4094.50	-25.43	-25.43	-51.94	0.72	663517.94	539985.19	N 32 49 26.51	W 104 12 11.41
	4267.00	0.79	263.90	4266.47	-26.94	-26.94	-54.01	0.50	663516.43	539983.12	N 32 49 26.49	W 104 12 11.43
	4441.00	0.79	260.70	4440.46	-27.26	-27.26	-56.39	0.03	663516.10	539980.74	N 32 49 26.49	W 104 12 11.46
	4572.00	0.70	242.19	4571.45	-27.78	-27.78	-57.99	0.20	663515.59	539979.14	N 32 49 26.49	W 104 12 11.48
	4702.00	0.62	268.87	4701.44	-28.17	-28.17	-59.40	0.24	663515.20	539977.74	N 32 49 26.48	W 104 12 11.50
End MWD Surveys	4783.00	0.70	257.71	4782.43	-28.28	-28.28	-60.32	0.19	663515.09	539976.82	N 32 49 26.48	W 104 12 11.51

Survey Type: Non-Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq	Survey Tool Type	Borehole / Survey
	0.000	14.000	Act Stns	SLB_BLIND+TREND-Depth Only	Original Hole / Chris Robbins 20 Fed #11 MWD 0' to 4783'
	14.000	14.000	Act Stns	SLB_BLIND+TREND-Depth Only	Original Hole / Chris Robbins 20 Fed #11 MWD 0' to 4783'
	14.000	40.000	Act Stns	SLB_BLIND+TREND	Original Hole / Chris Robbins 20 Fed #11 MWD 0' to 4783'
	40.000	4783.000	Act Stns	SLB_MWD-STD	Original Hole / Chris Robbins 20 Fed #11 MWD 0' to 4783'