Schlumberger

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

15-40671

January 3, 2013

Occidental Permian Ltd
5 Greenway Plaza Suite 110
Houston, Texas77046

Attention: Anthony T Tschacher

Re:

CLIENT: OXY
WELL: Chris Robin 20 Federal #5
FIELD: Yeso
RIG: Savanna 415
COUNTY: Eddy County
API NO: 30-015-40671
JOB NO: NM-OXY-0033

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
Christopher Fili FST-1	Chris Robin 20 Federal #5 Original Hole	66.00 Ft 4800.00 Ft	to	December 24, 2012 December 29, 2012	to	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 County
State of New Mexico

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I, Christopher Fili 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 24, 2012 through December 29, 2012, conduct or supervise the taking of the SlimPulse surveys from a depth of 66.00 feet to a depth of 4800.00 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 Robin 20 Federal #5 Well (Original Hole) API No. 30-015-40671 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.

Christopher Fili
FST-1

Before me, Tracey Ornelas, on this day personally appeared Christopher Fili, 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 3 day of Jan, (year). 2013

Tracey Ornelas
Notary Public

TRACEY ORNELAS
NOTARY PUBLIC
STATE OF TEXAS
EXPIRES
5-25-2015

Chris Robin 20 Federal #5 MWD 0' to 4800' Survey Report

(Def Survey)

Report Date:	December 30, 2012 - 03:14 PM	**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 Robin 20 Federal #5) Savanna 415 / Chris Robin 20 Federal #5	**TVD Reference Datum:**	RKB
Well:	Chris Robin 20 Federal #5	**TVD Reference Elevation:**	3626.000 ft above MSL
Borehole:	Original Hole	**Seabed / Ground Elevation:**	3612.000 ft above MSL
UWI / API#:	NM-OXY-0033 / 30-015-40671	**Magnetic Declination:**	7.888 °
Survey Name:	Chris Robin 20 Federal #5 MWD 0' to 4800'	**Total Field Strength:**	48732.697 nT
Survey Date:	December 30, 2012	**Magnetic Dip Angle:**	60.561 °
Tort / AHD / DDI / ERD Ratio:	15.666 ° / 53.990 ft / 2.927 / 0.011	**Declination Date:**	December 30, 2012
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Declination Model:**	BGGM 2012
Location Lat / Long:	N 32° 49' 32.88000", W 104° 11' 24.36000"	**North Reference:**	Grid North
Location Grid N/E Y/X:	N 664166.962 ftUS, E 543999.049 ftUS	**Grid Convergence Used:**	0.078 °
CRS Grid Convergence Angle:	0.07764499 °	**Total Corr Mag North->Grid North:**	7.810 °
Grid Scale Factor:	0.99991131	**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	664166.96	543999.05	N 32 49 32.88	W 104 11 24.36
Begin MWD Surveys	66.00	0.62	246.92	66.00	-0.14	-0.14	-0.33	0.94	664166.82	543998.72	N 32 49 32.88	W 104 11 24.36
	282.00	1.19	343.99	281.98	1.56	1.56	-2.02	0.65	664168.52	543997.03	N 32 49 32.90	W 104 11 24.38
	436.00	1.32	339.03	435.94	4.75	4.75	-3.10	0.11	664171.71	543995.95	N 32 49 32.93	W 104 11 24.40
	813.00	1.10	250.52	812.92	6.09	6.09	-5.43	0.86	664173.05	543993.62	N 32 49 32.94	W 104 11 24.42
	797.00	1.01	338.32	796.89	7.01	7.01	-7.69	0.80	664173.97	543991.36	N 32 49 32.95	W 104 11 24.45
	979.00	1.54	169.53	978.88	6.09	6.09	-7.84	1.39	664173.05	543991.21	N 32 49 32.94	W 104 11 24.45
	1170.00	1.32	213.74	1169.82	1.74	1.74	-8.60	0.57	664168.70	543990.45	N 32 49 32.90	W 104 11 24.46
	1301.00	1.19	348.61	1300.81	1.82	1.82	-9.70	1.77	664168.78	543989.35	N 32 49 32.90	W 104 11 24.47
	1478.00	0.62	327.51	1477.79	4.43	4.43	-10.58	0.37	664171.39	543988.47	N 32 49 32.92	W 104 11 24.48
	1602.00	0.62	354.41	1601.78	5.66	5.66	-11.01	0.23	664172.62	543988.04	N 32 49 32.94	W 104 11 24.49
	1774.00	0.40	5.92	1773.77	7.18	7.18	-11.04	0.14	664174.15	543988.01	N 32 49 32.95	W 104 11 24.49
	1905.00	0.62	358.80	1904.77	8.35	8.35	-11.00	0.17	664175.31	543988.05	N 32 49 32.96	W 104 11 24.49
	2079.00	0.48	21.39	2078.76	9.97	9.97	-10.76	0.15	664176.93	543988.29	N 32 49 32.98	W 104 11 24.49
	2252.00	0.62	10.80	2251.75	11.56	11.56	-10.32	0.10	664178.52	543988.73	N 32 49 32.99	W 104 11 24.48
	2426.00	0.70	16.73	2425.74	13.50	13.50	-9.84	0.06	664180.47	543989.21	N 32 49 33.01	W 104 11 24.48
	2601.00	0.62	39.41	2600.73	15.26	15.26	-8.93	0.15	664182.22	543990.12	N 32 49 33.03	W 104 11 24.46
	2769.00	0.70	50.22	2768.72	16.62	16.62	-7.56	0.09	664183.58	543991.49	N 32 49 33.04	W 104 11 24.45
	2943.00	0.79	54.83	2942.70	17.99	17.99	-5.76	0.06	664184.95	543993.29	N 32 49 33.06	W 104 11 24.43
	3116.00	0.79	64.10	3115.69	19.20	19.20	-3.72	0.07	664186.16	543995.33	N 32 49 33.07	W 104 11 24.40
	3287.00	0.88	68.41	3286.67	20.20	20.20	-1.43	0.06	664187.16	543997.61	N 32 49 33.08	W 104 11 24.38
	3331.00	0.79	58.83	3330.66	20.48	20.48	-0.86	0.38	664187.44	543998.19	N 32 49 33.08	W 104 11 24.37
	3505.00	0.79	62.52	3504.65	21.65	21.65	1.23	0.03	664188.61	544000.28	N 32 49 33.09	W 104 11 24.35
	3600.00	0.62	81.51	3599.64	22.03	22.03	2.32	0.30	664188.99	544001.37	N 32 49 33.10	W 104 11 24.33
	3717.00	0.40	116.62	3716.64	21.94	21.94	3.31	0.32	664188.90	544002.36	N 32 49 33.10	W 104 11 24.32
	3892.00	0.31	118.42	3891.63	21.44	21.44	4.27	0.05	664188.40	544003.32	N 32 49 33.09	W 104 11 24.31
	4077.00	0.22	137.88	4076.63	20.94	20.94	4.95	0.07	664187.90	544004.00	N 32 49 33.09	W 104 11 24.30
	4262.00	0.18	149.22	4261.63	20.43	20.43	5.34	0.03	664187.39	544004.39	N 32 49 33.08	W 104 11 24.30
	4412.00	0.09	167.99	4411.63	20.11	20.11	5.48	0.07	664187.07	544004.53	N 32 49 33.08	W 104 11 24.30
	4600.00	0.32	176.47	4599.63	19.44	19.44	5.55	0.12	664186.40	544004.59	N 32 49 33.07	W 104 11 24.29
End MWD Surveys	4800.00	0.40	200.82	4799.62	18.23	18.23	5.33	0.09	664185.19	544004.38	N 32 49 33.06	W 104 11 24.30

Survey Type: 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 (ft)	Survey Tool Type	Borehole / Survey
	0.000	14.000	Act Stns	SLB_UNKNOWN-Depth Only	Original Hole / Chris Robin 20 Federal #5 MWD 0' to 4800'
	14.000	14.000	Act Stns	SLB_UNKNOWN-Depth Only	Original Hole / Chris Robin 20 Federal #5 MWD 0' to 4800'
	14.000	1301.000	Act Stns	SLB_UNKNOWN	Original Hole / Chris Robin 20 Federal #5 MWD 0' to 4800'
	1301.000	1478.000	Act Stns	ZERO	Original Hole / Chris Robin 20 Federal #5 MWD 0' to 4800'
	1478.000	4800.000	Act Stns	SLB_MWD-STD	Original Hole / Chris Robin 20 Federal #5 MWD 0' to 4800'