

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

December 17, 2012

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046

Attention: Anthony T Tschacher

Re:

CLIENT: Occidental Petroleum Corp

WELL: PIGLET 21 STATE #15

FIELD: YESO

RIG: Savanna 415

COUNTY: EDDY

API NO: 30-015-40721

JOB NO: NM-OXY-0029

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>
TyMcFarlin FST-T	PIGLET 21 STATE #15 Original Hole	89.00 Ft to 4840.00 Ft	December 12, 2012 to December 17, 2012	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: Occidental Petroleum Corp

Enclosures: [2]

County of EDDY

State of New Mexico

Reservoir Development

Drilling & Measurements (Extreme Engineering)

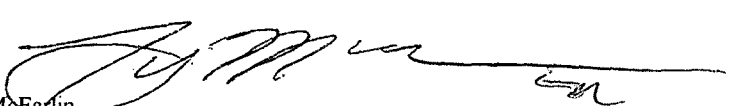
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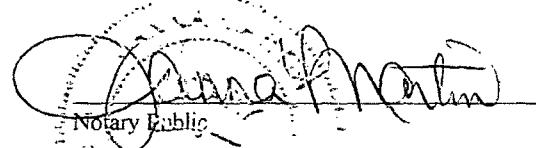
I, TyMcFarlin certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of December 12, 2012 through December 17, 2012, conduct or supervise the taking of the SlimPulse surveys from a depth of 89.00 feet to a depth of 4840.00 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 Occidental Petroleum Corp for the PIGLET 21 STATE #15 Well (Original Hole) API No. 30-015-40721 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.



TyMcFarlin
FST-T

Before me, Jann Martin, on this day personally appeared TyMcFarlin, 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 18th day of December, 2012



Notary Public

Eddy Co, New Mexico

My Commission expires 10-13-2015

PIGLET 21 STATE #15 MWD 0' to 4840' Survey Report

(Def Survey)

Report Date:	December 17, 2012 - 06:22 AM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	OXY	Vertical Section Azimuth:	0.000 ° (Grid North)
Field:	NM, Eddy (NAD27) 2011	Vertical Section Origin:	0.000 ft, 0.000 ft
Structure / Slot:	OXY (PIGLET 21 STATE #15) SAVANNA 415 / PIGLET 21 STATE #15	TVD Reference Datum:	RKB
Well:	PIGLET 21 STATE #15	TVD Reference Elevation:	3838.000 ft above MSL
Borehole:	Original Hole	Seabed / Ground Elevation:	3824.000 ft above MSL
UWI / API#:	Unknown / 30-015-40721	Magnetic Declination:	7.895 °
Survey Name:	PIGLET 21 STATE #15 MWD 0' to 4840'	Total Field Strength:	48732.659 nT
Survey Date:	December 17, 2012	Magnetic Dip Angle:	80.556 °
Tort / AHD / DDI / ERD Ratio:	11.820 ° / 75.524 ft / 2.943 / 0.016	Declination Date:	December 17, 2012
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Declination Model:	BGGM 2012
Location Lat / Long:	N 32° 49' 1.56000", W 104° 11' 1.32000"	North Reference:	Grid North
Location Grid NIE YIX:	N 661004.585 nUS, E 545969.511 nUS	Grid Convergence Used:	0.081 °
CRS Grid Convergence Angle:	0.08109527 °	Total Corr Mag North->Grid North:	7.814 °
Grid Scale Factor:	0.99991151	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 ° ' ")
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	661004.58	545969.51	N 32 49 1.56 W 104 11	1.32
Assumed Vertical	60.00	0.00	0.00	80.00	0.00	0.00	0.00	0.00	661004.58	545969.51	N 32 49 1.56 W 104 11	1.32
Begin MWD Surveys	89.00	0.48	259.39	89.00	-0.01	-0.01	-0.04	5.33	661004.58	545969.47	N 32 49 1.56 W 104 11	1.32
	227.00	2.90	267.81	226.93	-0.85	-0.85	-4.02	1.75	661003.73	545965.49	N 32 49 1.55 W 104 11	1.37
	316.00	2.90	279.09	315.82	-0.95	-0.95	-8.44	1.24	661003.64	545961.07	N 32 49 1.55 W 104 11	1.42
	387.00	3.80	280.81	388.70	0.15	0.15	-12.29	1.32	661004.73	545957.22	N 32 49 1.58 W 104 11	1.46
	485.00	3.38	291.47	484.56	1.86	1.86	-18.72	0.29	661006.44	545952.79	N 32 49 1.58 W 104 11	1.52
	654.00	3.12	291.29	653.26	5.77	5.77	-26.70	0.14	661010.35	545942.82	N 32 49 1.62 W 104 11	1.63
	830.00	2.20	288.17	829.06	8.56	8.56	-34.37	0.53	661013.14	545935.14	N 32 49 1.65 W 104 11	1.72
	951.00	1.89	286.46	949.99	9.91	9.91	-38.47	0.26	661014.50	545931.04	N 32 49 1.66 W 104 11	1.77
	1130.00	1.58	288.31	1128.90	11.63	11.63	-43.61	0.17	661016.21	545925.90	N 32 49 1.68 W 104 11	1.83
	1327.00	1.01	298.90	1325.85	13.32	13.32	-47.71	0.31	661017.60	545921.80	N 32 49 1.69 W 104 11	1.88
	1521.00	0.70	303.07	1519.83	14.79	14.79	-50.20	0.16	661019.37	545919.32	N 32 49 1.71 W 104 11	1.91
	1630.00	0.70	290.37	1628.82	15.39	15.39	-51.38	0.14	661019.97	545918.13	N 32 49 1.71 W 104 11	1.92
	1824.00	0.62	271.47	1822.81	15.83	15.83	-53.54	0.12	661020.41	545915.97	N 32 49 1.72 W 104 11	1.95
	1998.00	0.46	287.69	1998.60	16.07	16.07	-55.18	0.12	661020.65	545914.34	N 32 49 1.72 W 104 11	1.97
	2196.00	0.48	293.40	2194.80	16.65	16.65	-56.73	0.02	661021.24	545912.79	N 32 49 1.73 W 104 11	1.98
	2394.00	0.48	301.88	2392.79	17.42	17.42	-58.20	0.04	661022.00	545911.32	N 32 49 1.73 W 104 11	2.00
	2591.00	0.40	310.88	2589.78	18.31	18.31	-59.42	0.05	661022.69	545910.10	N 32 49 1.74 W 104 11	2.02
	2789.00	0.48	307.99	2787.78	19.27	19.27	-60.59	0.04	661023.65	545908.93	N 32 49 1.75 W 104 11	2.03
	2887.00	0.31	240.87	2885.78	19.39	19.39	-61.15	0.47	661023.98	545908.37	N 32 49 1.75 W 104 11	2.04
	3031.00	0.22	189.60	3029.77	18.93	18.93	-61.53	0.17	661023.51	545907.89	N 32 49 1.75 W 104 11	2.04
	3228.00	0.22	236.67	3228.77	18.35	18.35	-61.91	0.09	661022.93	545907.61	N 32 49 1.74 W 104 11	2.05
	3419.00	0.31	176.99	3417.77	17.63	17.63	-62.19	0.14	661022.21	545907.33	N 32 49 1.74 W 104 11	2.05
	3617.00	0.31	182.31	3615.77	16.56	16.56	-62.18	0.01	661021.14	545907.33	N 32 49 1.72 W 104 11	2.05
	3911.00	0.22	198.45	3909.77	15.53	15.53	-62.31	0.02	661020.26	545907.21	N 32 49 1.72 W 104 11	2.05
	4009.00	0.31	220.32	4007.76	14.91	14.91	-62.76	0.07	661019.49	545906.75	N 32 49 1.71 W 104 11	2.06
	4206.00	0.40	246.21	4204.78	14.25	14.25	-63.75	0.10	661018.83	545905.77	N 32 49 1.70 W 104 11	2.07
	4368.00	0.48	284.09	4364.78	14.20	14.20	-64.92	0.18	661018.78	545904.80	N 32 49 1.70 W 104 11	2.08
	4540.00	0.05	260.34	4538.75	14.37	14.37	-65.70	0.25	661018.95	545903.82	N 32 49 1.70 W 104 11	2.09
	4642.00	0.40	212.65	4640.75	14.06	14.06	-65.93	0.36	661018.64	545903.58	N 32 49 1.70 W 104 11	2.09
End MWD Surveys	4840.00	0.48	204.37	4838.75	12.72	12.72	-68.65	0.05	661017.30	545902.87	N 32 49 1.69 W 104 11	2.10

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_BLIND+TREND-Depth Only	Original Hole / PIGLET 21 STATE #15 MWD 0' to 4840'
	14.000	14.000	Act Stns	SLB_BLIND+TREND-Depth Only	Original Hole / PIGLET 21 STATE #15 MWD 0' to 4840'
	14.000	80.000	Act Stns	SLB_BLIND+TREND	Original Hole / PIGLET 21 STATE #15 MWD 0' to 4840'
	80.000	4840.000	Act Stns	SLB_MWD-STD	Original Hole / PIGLET 21 STATE #15 MWD 0' to 4840'