

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

30-015-40723

May 20, 2013

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046

Attention: Anthony T Tschacher

Re:

CLIENT: OXY

WELL: Piglet 21 State 16

FIELD: Piglet

RIG: Savanna 415

COUNTY: Eddy County

API NO: 30-015-40723

JOB NO: NM-OXY-0067

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>
David Cook FST-01	Piglet 21 State 16 Original Hole	580.00 Ft to 4757.00 Ft	May 12, 2013 to May 16, 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,

Nick Banschbach
Field Service Manager

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

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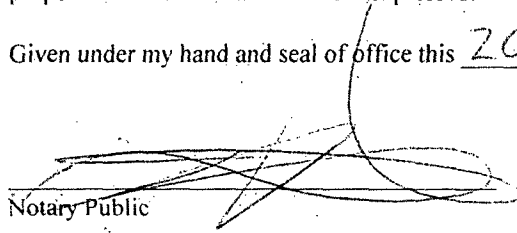
I, David Cook certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of May 12, 2013 through May 16, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 580.00 feet to a depth of 4757.00 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 Piglet 21 State 16 Well (Original Hole) API No. 30-015-40723 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.

David M. Cook

David Cook
FST-01

Before me, DAVID ANCHONDO, on this day personally appeared DAVID COOK, 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 20TH day of MAY, (year) 2013


Notary Public

David Anchondo
NOTARY PUBLIC
State of New Mexico
My Commission Expires 5/08/2017

Piglet 21 State 16 MWD 0' to 4756" Survey Report

(Def Survey)

Report Date: May 16, 2013 - 05:09 PM
 Client: NM, Eddy (NAD27) 2011
 Field: OXY (Piglet 21 State 16) Savanna 415 / Piglet 21 State 16
 Structure / Slot: Piglet 21 State 16
 Well: Original Hole
 Borehole: Unknown / 30-015-40723
 UWI / API#: Piglet 21 State 16 MWD 0' to 4756"
 Survey Name: May 16, 2013
 Survey Date: 11.356° / 45.457 ft / 2.713 / 0.010
 Tort / AHD / ODI / ERO Ratio: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Coordinate Reference System: N 32° 48' 50.76000", W 104° 11' 13.92000"
 Location Lat / Long: N 659911.668 NUS, E 544895.769 NUS
 Location Grid N/E Y/X:
 CRS Grid Convergence Angle: 0.07919198°
 Grid Scale Factor: 0.9999114

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 180.000° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3614.000 ft above MSL
 Seabed / Ground Elevation: 3600.000 ft above MSL
 Magnetic Declination: 7.846°
 Total Field Strength: 48677.967 nT
 Magnetic Dip Angle: 60.539°
 Declination Date: May 16, 2013
 Magnetic Declination Model: BGGM 2012
 North Reference: Grid North
 Grid Convergence Used: 0.079°
 Total Corr Mag North->Grid North: 7.767°
 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	659911.67	544895.77	N 32° 48' 50.76"	W 104° 11' 13.92"
Begin MWD Surveys	77.47	0.31	6.76	77.47	-0.21	0.21	0.02	0.40	659911.88	544895.79	N 32° 48' 50.76"	W 104° 11' 13.92"
	197.82	0.77	9.87	197.81	-1.33	1.33	0.20	0.38	659913.00	544895.97	N 32° 48' 50.77"	W 104° 11' 13.92"
	369.36	0.88	6.76	369.34	-3.77	3.77	0.55	0.07	659915.44	544896.32	N 32° 48' 50.80"	W 104° 11' 13.91"
	490.30	0.62	94.38	490.27	-4.64	4.64	1.32	0.87	659916.31	544897.08	N 32° 48' 50.81"	W 104° 11' 13.90"
	580.76	0.62	112.35	580.72	-4.42	4.42	2.26	0.21	659916.09	544898.03	N 32° 48' 50.80"	W 104° 11' 13.89"
	673.28	0.48	4.86	673.24	-4.62	4.62	2.75	0.96	659916.28	544898.52	N 32° 48' 50.81"	W 104° 11' 13.89"
	764.85	0.48	137.44	764.81	-4.72	4.72	3.04	0.96	659916.38	544898.81	N 32° 48' 50.81"	W 104° 11' 13.88"
	915.77	0.40	134.54	915.73	-3.88	3.88	3.85	0.06	659915.55	544899.62	N 32° 48' 50.80"	W 104° 11' 13.87"
	1005.73	0.31	120.74	1005.68	-3.54	3.54	4.28	0.14	659915.20	544900.05	N 32° 48' 50.79"	W 104° 11' 13.87"
	1195.63	0.62	142.45	1195.58	-2.46	2.46	5.35	0.18	659914.13	544901.12	N 32° 48' 50.78"	W 104° 11' 13.86"
	1308.00	0.70	165.88	1307.94	-1.31	1.31	5.89	0.25	659912.98	544901.65	N 32° 48' 50.77"	W 104° 11' 13.85"
	1459.31	0.70	151.07	1459.24	0.39	-0.39	6.56	0.12	659911.27	544902.33	N 32° 48' 50.76"	W 104° 11' 13.84"
	1656.04	0.70	201.08	1655.96	2.57	-2.57	6.71	0.30	659909.10	544902.48	N 32° 48' 50.73"	W 104° 11' 13.84"
	1843.32	0.70	158.27	1843.22	4.70	-4.70	6.72	0.27	659906.97	544902.49	N 32° 48' 50.71"	W 104° 11' 13.84"
	2014.39	0.79	174.58	2014.28	6.84	-6.84	7.22	0.13	659904.83	544902.99	N 32° 48' 50.69"	W 104° 11' 13.84"
	2187.24	0.62	201.08	2187.12	8.90	-8.90	6.99	0.21	659902.77	544902.76	N 32° 48' 50.67"	W 104° 11' 13.84"
	2362.08	0.48	198.04	2361.95	10.48	-10.48	6.43	0.08	659901.19	544902.20	N 32° 48' 50.66"	W 104° 11' 13.84"
	2533.23	0.31	197.87	2533.09	11.60	-11.60	6.06	0.10	659900.07	544901.83	N 32° 48' 50.65"	W 104° 11' 13.85"
	2707.89	0.31	192.55	2707.75	12.51	-12.51	5.82	0.02	659899.16	544901.58	N 32° 48' 50.64"	W 104° 11' 13.85"
	2879.51	0.31	196.86	2879.37	13.41	-13.41	5.58	0.01	659898.26	544901.35	N 32° 48' 50.63"	W 104° 11' 13.85"
	3053.51	0.31	201.78	3053.37	14.30	-14.30	5.27	0.02	659897.37	544901.04	N 32° 48' 50.62"	W 104° 11' 13.86"
	3226.23	-0.40	112.48	3226.08	14.96	-14.96	5.65	0.29	659896.71	544901.42	N 32° 48' 50.61"	W 104° 11' 13.85"
	3398.36	0.40	220.68	3398.21	15.65	-15.65	5.82	0.38	659896.02	544901.58	N 32° 48' 50.61"	W 104° 11' 13.85"
	3529.62	0.48	196.36	3529.47	16.52	-16.52	5.36	0.15	659895.15	544901.13	N 32° 48' 50.60"	W 104° 11' 13.86"
	3684.82	0.09	276.88	3684.67	17.13	-17.13	5.06	0.31	659894.54	544900.83	N 32° 48' 50.59"	W 104° 11' 13.86"
	3855.41	0.48	263.87	3855.25	17.19	-17.19	4.22	0.23	659894.48	544899.98	N 32° 48' 50.58"	W 104° 11' 13.87"
	4029.41	0.88	252.97	4029.24	17.66	-17.66	2.21	0.24	659894.01	544897.98	N 32° 48' 50.59"	W 104° 11' 13.89"
	4203.14	1.19	256.45	4202.94	18.47	-18.47	-0.82	0.18	659893.19	544894.95	N 32° 48' 50.58"	W 104° 11' 13.93"
	4350.14	1.10	273.98	4349.91	18.73	-18.73	-3.71	0.24	659892.93	544892.06	N 32° 48' 50.57"	W 104° 11' 13.96"
	4539.47	0.70	238.56	4539.22	19.21	-19.21	-6.51	0.35	659892.46	544889.26	N 32° 48' 50.57"	W 104° 11' 14.00"
	4634.63	0.48	241.77	4634.38	19.70	-19.70	-7.36	0.23	659891.97	544888.41	N 32° 48' 50.57"	W 104° 11' 14.01"
End MWD Surveys	4756.99	0.62	241.07	4756.73	20.27	-20.27	-8.39	0.11	659891.40	544887.38	N 32° 48' 50.56"	W 104° 11' 14.02"

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_MWD-STD-Depth Only	Original Hole / Piglet 21 State 16 MWD 0' to 4756"
	14.000	14.000	Act Stns	SLB_MWD-STD-Depth Only	Original Hole / Piglet 21 State 16 MWD 0' to 4756"
	14.000	4756.990	Act Stns	SLB_MWD-STD	Original Hole / Piglet 21 State 16 MWD 0' to 4756"