

Schlumberger

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

RECEIVED

MAY 24 2013

NMOCD ARTESIA

30-015-40708

February 28, 2013

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046

Attention: Anthony T Tschacher

Re:

CLIENT: OXY

WELL: PIGLET 21 FED #11

FIELD: YESO

RIG: SAV 415

COUNTY: EDDY

API NO: 30-015-40708

JOB NO: NM-OXY-0046

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>
Michael Putnam FST 1	PIGLET 21 FED #11 Original Hole	0.00 Ft to 4816.00 Ft	February 22, 2013 to February 28, 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

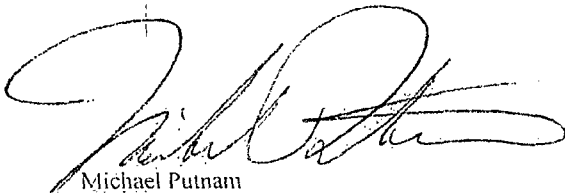
Enclosures: [2]

County of EDDY

State of New Mexico

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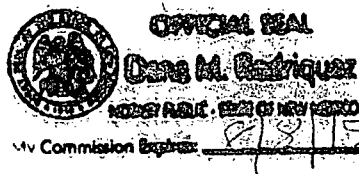
I, Michael Putnam certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of February 22, 2013 through February 28, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 0.00 feet to a depth of 4816.00 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 FED #11 Well (Original Hole) API No. 30-015-40708 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, Dana M 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 28th day of Feb, (year). 2013

Dana M Rodriguez
Notary Public



Piglet 21 Fed #11 Survey Report (Def Survey)

Report Date: February 28, 2013 - 09:47 AM
Client: OXY
Field: NM Eddy (NAD27) 2011
Structure / Slot: OXY (Piglet 21 Fed #11) SAV 415 / Piglet 21 Fed #11
Well: Piglet 21 Fed #11
Borehole: Original Hole
UWI / API#: Unknown / 30-015-40708
Survey Name: Piglet 21 Fed #11
Survey Date: February 28, 2013
Tort / AHD / DDM / ERD Ratio: 12.246 / 27.593 ft / 2.529 / 0.006
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 49' 20.63640" W 104° 10' 53.37120"
Location Grid N/E/Y/X: N 662933.353 ftUS, E 546645.072 ftUS
CRS Grid Convergence Angle: 0.08230372°
Grid Scale Factor: 0.99991158

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: 3636.000 ft above MSL
Seabed / Ground Elevation: 3622.000 ft above MSL
Magnetic Declination: 7.875°
Total Field Strength: 48710.568 nT
Magnetic Dip Angle: 60.554°
Declination Date: February 28, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.073°
Total Corr Mag North - Grid North: 7.802°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azimi 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	662933.35	546645.07	N 32° 49' 20.64" W 104° 10' 53.37"	
Assumed Vertical	50.00	0.00	0.00	50.00	0.00	0.00	0.00	0.00	662933.35	546645.07	N 32° 49' 20.64" W 104° 10' 53.37"	
Begin MWD	144.00	0.70	104.69	144.00	-0.15	-0.15	0.56	0.74	662933.21	546645.63	N 32° 49' 20.63" W 104° 10' 53.36"	
Surveys	326.00	0.79	70.19	325.96	0.00	0.00	2.81	0.25	662933.35	546647.88	N 32° 49' 20.64" W 104° 10' 53.34"	
	464.00	1.19	272.78	463.97	0.39	0.39	2.27	1.41	662933.74	546647.95	N 32° 49' 20.64" W 104° 10' 53.34"	
	642.00	0.79	112.78	641.96	0.00	0.00	1.56	1.10	662933.36	546646.83	N 32° 49' 20.64" W 104° 10' 53.35"	
	772.00	0.62	113.79	771.95	-0.63	-0.63	3.03	0.13	662932.73	546649.10	N 32° 49' 20.63" W 104° 10' 53.34"	
	893.00	0.62	110.97	892.95	-1.12	-1.12	4.24	0.03	662932.23	546649.31	N 32° 49' 20.63" W 104° 10' 53.32"	
	1007.00	0.40	118.80	1006.84	-1.54	-1.54	5.16	0.20	662931.82	546650.24	N 32° 49' 20.62" W 104° 10' 53.31"	
	1120.00	0.22	130.49	1119.94	-1.87	-1.87	5.68	0.17	662931.48	546650.75	N 32° 49' 20.62" W 104° 10' 53.30"	
	1228.00	0.31	146.09	1227.94	-2.25	-2.25	6.00	0.11	662931.11	546651.07	N 32° 49' 20.61" W 104° 10' 53.30"	
	1314.00	0.31	118.88	1313.94	-2.55	-2.55	6.33	0.17	662930.80	546651.40	N 32° 49' 20.61" W 104° 10' 53.30"	
	1445.00	0.09	143.98	1444.94	-2.81	-2.81	6.70	0.18	662930.55	546651.77	N 32° 49' 20.61" W 104° 10' 53.29"	
	1619.00	0.22	118.58	1618.94	-3.08	-3.08	7.07	0.08	662930.28	546652.15	N 32° 49' 20.61" W 104° 10' 53.29"	
	1748.00	0.31	187.39	1747.94	-3.54	-3.54	7.25	0.24	662929.81	546652.32	N 32° 49' 20.60" W 104° 10' 53.29"	
	1880.00	0.09	295.59	1879.94	-3.85	-3.85	7.11	0.26	662929.50	546652.19	N 32° 49' 20.60" W 104° 10' 53.29"	
	2050.00	0.22	135.58	2049.94	-4.02	-4.02	7.22	0.18	662929.33	546652.29	N 32° 49' 20.60" W 104° 10' 53.29"	
	2223.00	0.09	279.59	2222.93	-4.21	-4.21	7.12	0.24	662929.15	546652.19	N 32° 49' 20.59" W 104° 10' 53.29"	
	2397.00	0.09	255.38	2396.93	-4.19	-4.19	6.66	0.08	662929.17	546651.73	N 32° 49' 20.59" W 104° 10' 53.29"	
	2483.00	0.31	288.78	2482.93	-4.13	-4.13	6.37	0.28	662929.23	546651.45	N 32° 49' 20.60" W 104° 10' 53.30"	
	2611.00	0.09	345.60	2610.93	-3.92	-3.92	6.02	0.21	662929.43	546651.09	N 32° 49' 20.60" W 104° 10' 53.30"	
	2784.00	0.22	340.50	2783.93	-3.47	-3.47	5.88	0.08	662929.88	546650.95	N 32° 49' 20.60" W 104° 10' 53.30"	
	2915.00	0.31	325.29	2914.93	-2.95	-2.95	5.59	0.09	662930.41	546650.66	N 32° 49' 20.61" W 104° 10' 53.31"	
	3044.00	0.48	328.68	3043.93	-2.20	-2.20	5.11	0.13	662931.16	546650.18	N 32° 49' 20.61" W 104° 10' 53.31"	
	3217.00	0.40	10.78	3216.92	-0.99	-0.99	4.85	0.19	662932.37	546649.92	N 32° 49' 20.63" W 104° 10' 53.31"	
	3348.00	0.79	57.89	3347.92	-0.06	-0.06	5.70	0.45	662933.30	546650.77	N 32° 49' 20.64" W 104° 10' 53.30"	
	3522.00	0.70	56.79	3521.90	1.16	1.16	7.60	0.05	662934.52	546652.67	N 32° 49' 20.65" W 104° 10' 53.28"	
	3695.00	0.48	312.29	3694.90	2.23	2.23	7.95	0.54	662935.58	546653.02	N 32° 49' 20.66" W 104° 10' 53.28"	
	3927.00	0.48	12.89	3926.89	3.83	3.83	7.45	0.21	662937.18	546652.52	N 32° 49' 20.67" W 104° 10' 53.28"	
	4001.00	0.31	340.19	4000.89	4.32	4.32	7.45	0.37	662937.67	546652.52	N 32° 49' 20.68" W 104° 10' 53.28"	
	4168.00	0.09	325.71	4167.89	4.86	4.86	7.22	0.13	662938.21	546652.29	N 32° 49' 20.68" W 104° 10' 53.29"	
	4340.00	0.22	53.98	4339.88	5.18	5.18	7.41	0.14	662938.51	546652.49	N 32° 49' 20.69" W 104° 10' 53.28"	
	4511.00	0.09	40.88	4510.89	5.46	5.46	7.77	0.08	662938.81	546652.84	N 32° 49' 20.69" W 104° 10' 53.28"	
	4642.00	0.09	5.11	4641.89	5.64	5.64	7.64	0.04	662938.99	546652.92	N 32° 49' 20.69" W 104° 10' 53.28"	
End MWD Surveys	4816.00	0.22	7.79	4815.88	6.10	6.10	7.90	0.07	662939.48	546652.97	N 32° 49' 20.70" W 104° 10' 53.28"	

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_BUND-TREND-Depth Only	Original Hole / Piglet 21 Fed #11
	14.000	14.000	Act Stns	SLB_BUND-TREND-Depth Only	Original Hole / Piglet 21 Fed #11
	14.000	50.000	Act Stns	SLB_BUND-TREND	Original Hole / Piglet 21 Fed #11
	50.000	4816.000	Act Stns	SLB_MWD-STD	Original Hole / Piglet 21 Fed #11