

Schlumberger

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

15-40861

May 2, 2013

Occidental Permian Ltd

5 Greenway Plaza Suite 110

Houston, Texas 77046

RECEIVED
JUL 08 2013
NMOCD ARTESIA

Attention: Anthony Tschacher

Re:

CLIENT: OXY
WELL: Piglet 21 State 24
FIELD: Artesian Lorette
RIG: Savanna 415
COUNTY: Eddy
API NO: 30-015-40861
JOB NO: NM-OXY-0062

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>
Troy Miller FST1	Piglet 21 State 24 Original Hole	0.00 Ft to 4773.00 Ft	April 21, 2013 to April 26, 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

State of New Mexico

Reservoir Development

Drilling & Measurements (Extreme Engineering)

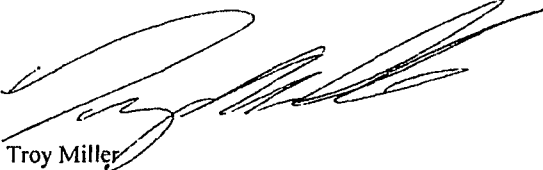
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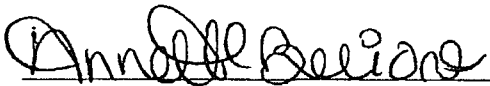
Fax: (817) 546-7551

I, Troy Miller certify that; I am employed by Drilling & Measurements (formerly Extreme), a division of Schlumberger Technology Corporation; that I did on the day(s) of April 21, 2013 through April 26, 2013, conduct or supervise the taking of the SlimPulse surveys from a depth of 0.00 feet to a depth of 4773.00 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 24 Well (Original Hole) API No. 30-015-40861 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.

Troy Miller
FSTI

Before me, Annette Briones, on this day personally appeared Troy Miller, 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 2nd day of May, 2013 (year).



Notary Public



OFFICIAL SEAL

ANNETTE BRIONES

NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires 02/01/15

Piglet 21 State 24 Survey Report

(Non-Def Survey)

Report Date: April 26, 2013 - 11:09 PM
 Client: OXY
 Field: NM, Eddy (NAD27) 2011
 Structure / Slot: OXY (Piglet 21 State 24) Savanna 415 / Piglet 21 State 24
 Well: Piglet 21 State 24
 Borehole: Original Hole
 UWI / API#: Unknown / 30-015-40981
 Survey Name: Piglet 21 State 24
 Survey Date: April 26, 2013
 Tilt / AHD / DDI / ERD Ratio: 9.362° / 53.721 ft / 2.702 / 0.011
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 48' 52.56000", W 104° 10' 22.44000"
 Location Grid N/E/X: N 660099.939 RUS, E 549288.810 RUS
 CRS Grid Convergence Angle: 0.06694258°
 Grid Scale Factor: 0.9991187

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 0.000° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 R
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3645.000 ft above MSL
 Seabed / Ground Elevation: 3631.000 ft above MSL
 Magnetic Declination: 7.820°
 Total Field Strength: 48717.801 nT
 Magnetic Dip Angle: 60.583°
 Declination Date: April 26, 2013
 Magnetic Declination Model: IGRF2010/IGRF-11
 North Reference: Grid North
 Grid Convergence Used: 0.066°
 Total Corr Mag North-Grid North: 7.734°
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azimuth (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Surface	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	660099.94	549288.81	N 32 48 52.56	W 104 10 22.44
Begin MWD Surveys	153.20	1.01	200.54	153.19	-1.26	-1.26	-0.47	0.86	660098.87	549288.34	N 32 48 52.55	W 104 10 22.45
	204.48	1.49	182.97	204.48	-2.35	-2.35	-0.87	1.19	660097.58	549288.14	N 32 48 52.54	W 104 10 22.45
	298.83	1.01	180.94	298.58	-4.41	-4.41	-0.74	0.51	660095.53	549288.07	N 32 48 52.52	W 104 10 22.45
	395.63	1.49	183.84	395.57	-6.52	-6.52	-0.84	0.50	660093.42	549287.97	N 32 48 52.50	W 104 10 22.45
	515.60	1.41	189.86	515.50	-8.53	-8.53	-1.20	0.14	660090.41	549287.61	N 32 48 52.47	W 104 10 22.45
	729.11	1.10	200.88	728.95	-14.03	-14.03	-2.37	0.18	660085.91	549288.44	N 32 48 52.42	W 104 10 22.47
	940.87	0.88	187.58	940.48	-17.54	-17.54	-3.30	0.15	660082.40	549285.51	N 32 48 52.39	W 104 10 22.48
	1072.87	0.70	204.76	1072.67	-19.28	-19.28	-3.78	0.22	660080.06	549285.03	N 32 48 52.37	W 104 10 22.48
	1159.91	0.79	183.87	1159.71	-20.37	-20.37	-4.04	0.33	660079.57	549284.77	N 32 48 52.36	W 104 10 22.49
	1363.82	0.70	188.94	1363.60	-23.00	-23.00	-4.32	0.06	660076.94	549284.48	N 32 48 52.33	W 104 10 22.49
	1593.46	0.48	170.06	1593.22	-25.33	-25.33	-4.38	0.12	660074.61	549284.43	N 32 48 52.31	W 104 10 22.49
	1797.36	0.31	188.94	1797.12	-28.72	-28.72	-4.33	0.10	660073.22	549284.48	N 32 48 52.30	W 104 10 22.49
	1970.84	0.62	163.37	1970.59	-28.08	-28.08	-4.13	0.21	660071.86	549284.68	N 32 48 52.28	W 104 10 22.49
	2189.33	0.82	198.85	2189.07	-30.35	-30.35	-4.14	0.18	660069.59	549284.77	N 32 48 52.26	W 104 10 22.49
	2413.61	0.48	208.28	2413.34	-32.34	-32.34	-4.94	0.08	660067.80	549283.87	N 32 48 52.24	W 104 10 22.50
	2780.42	0.82	223.88	2780.13	-34.97	-34.97	-8.92	0.06	660064.97	549281.89	N 32 48 52.21	W 104 10 22.52
	2934.24	0.62	215.05	2933.95	-36.42	-36.42	-8.11	0.05	660063.52	549280.70	N 32 48 52.20	W 104 10 22.54
	3084.46	0.31	198.06	3084.18	-37.34	-37.34	-8.81	0.28	660062.80	549280.20	N 32 48 52.19	W 104 10 22.54
	3268.72	0.40	232.58	3268.42	-38.30	-38.30	-9.33	0.12	660061.84	549279.48	N 32 48 52.18	W 104 10 22.55
	3442.35	0.22	215.05	3442.04	-38.95	-38.95	-10.00	0.12	660061.00	549278.81	N 32 48 52.17	W 104 10 22.56
	3638.51	0.31	163.86	3638.20	-39.78	-39.78	-10.07	0.12	660060.16	549278.74	N 32 48 52.17	W 104 10 22.56
	3788.59	0.70	203.27	3788.28	-40.83	-40.83	-10.29	0.39	660059.11	549278.52	N 32 48 52.18	W 104 10 22.58
	3885.78	0.79	231.74	3885.43	-42.99	-42.98	-11.99	0.17	660058.97	549278.82	N 32 48 52.13	W 104 10 22.58
	4072.27	0.48	265.85	4071.94	-43.37	-43.37	-12.62	0.55	660056.57	549275.99	N 32 48 52.13	W 104 10 22.59
	4112.70	0.48	272.04	4112.36	-43.38	-43.38	-13.18	0.13	660056.58	549275.08	N 32 48 52.13	W 104 10 22.59
	4257.68	0.82	280.44	4257.32	-43.49	-43.49	-14.54	0.12	660056.48	549274.28	N 32 48 52.13	W 104 10 22.61
	4503.04	0.48	298.06	4502.68	-43.22	-43.22	-16.75	0.15	660056.72	549272.08	N 32 48 52.13	W 104 10 22.64
	4878.91	0.62	276.74	4878.54	-42.77	-42.77	-18.33	0.14	660057.17	549270.48	N 32 48 52.14	W 104 10 22.66
End MWD Surveys	4773.59	0.48	250.77	4773.33	-42.84	-42.84	-19.23	0.29	660057.10	549269.58	N 32 48 52.14	W 104 10 22.67

Survey Type: Non-Def Survey

Survey Error Model: ISCWBA 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	14.000	1/14.000	SLB_MWD-STD-Depth Only	Original Hole / Piglet 21 State 24
14.000	2413.609	2413.609	1/2398.609	SLB_MWD-STD	Original Hole / Piglet 21 State 24
2413.609	2780.418	1598.425		SLB_MWD-STD	Original Hole / Piglet 21 State 24
2780.418	4773.684	1/2013.276		SLB_MWD-STD	Original Hole / Piglet 21 State 24