

OCCIDENTAL PERMIAN LTD.

GJ

Eddy County, NM

Tigger "9" State #3

VH - Job #32K11121448

30-015-40074

Survey: Gyro

SDI Standard Survey Report

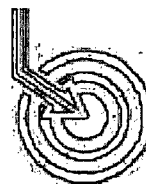
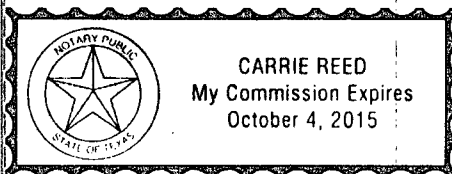
This survey is correct to the best of my knowledge and is supported by actual field data.

Robert

Notarized this date 17th of December, 2012.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling

Scientific Drilling International, Inc.
SDI Standard Survey Report



Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Tigger "9" State #3
Project:	GJ	TVD Reference:	WELL @ 0.00usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.00usft (Original Well Elev)
Well:	Tigger "9" State #3	North Reference:	Grid
Wellbore:	VH - Job #32K11121448	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K11121448	Database:	EDM-Regulatory

Project	GJ		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Eddy County, NM			
Site Position:		Northing:	670,397.91 usft	Latitude:	32° 50' 33.900 N
From:	Lat/Long	Easting:	578,212.29 usft	Longitude:	104° 4' 43.230 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.14 °

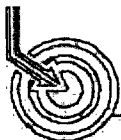
Well	Tigger "9" State #3, Vertical					
Well Position	+N/-S	0.00 usft	Northing:	671,765.68 usft	Latitude:	32° 50' 47.387 N
	+E/-W	0.00 usft	Easting:	580,162.62 usft	Longitude:	104° 4' 20.330 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	0.00 usft

Wellbore		VH - Job #32K11121448			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/30/12	7.69	60.64	48,815

Design		VH - Job #32K11121448		
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.14

Survey Program		Date	12/16/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	400.00	Gyro (VH - Job #32K11121448)	Keeper	Keeper Surface Readout	

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.47	178.51	100.00	-0.41	0.01	178.51	0.41
200.00	0.66	119.85	199.99	-1.11	0.52	154.80	1.22
300.00	1.27	187.47	299.98	-2.49	0.88	160.63	2.64
400.00	1.64	168.93	399.95	-5.00	1.01	168.60	5.10

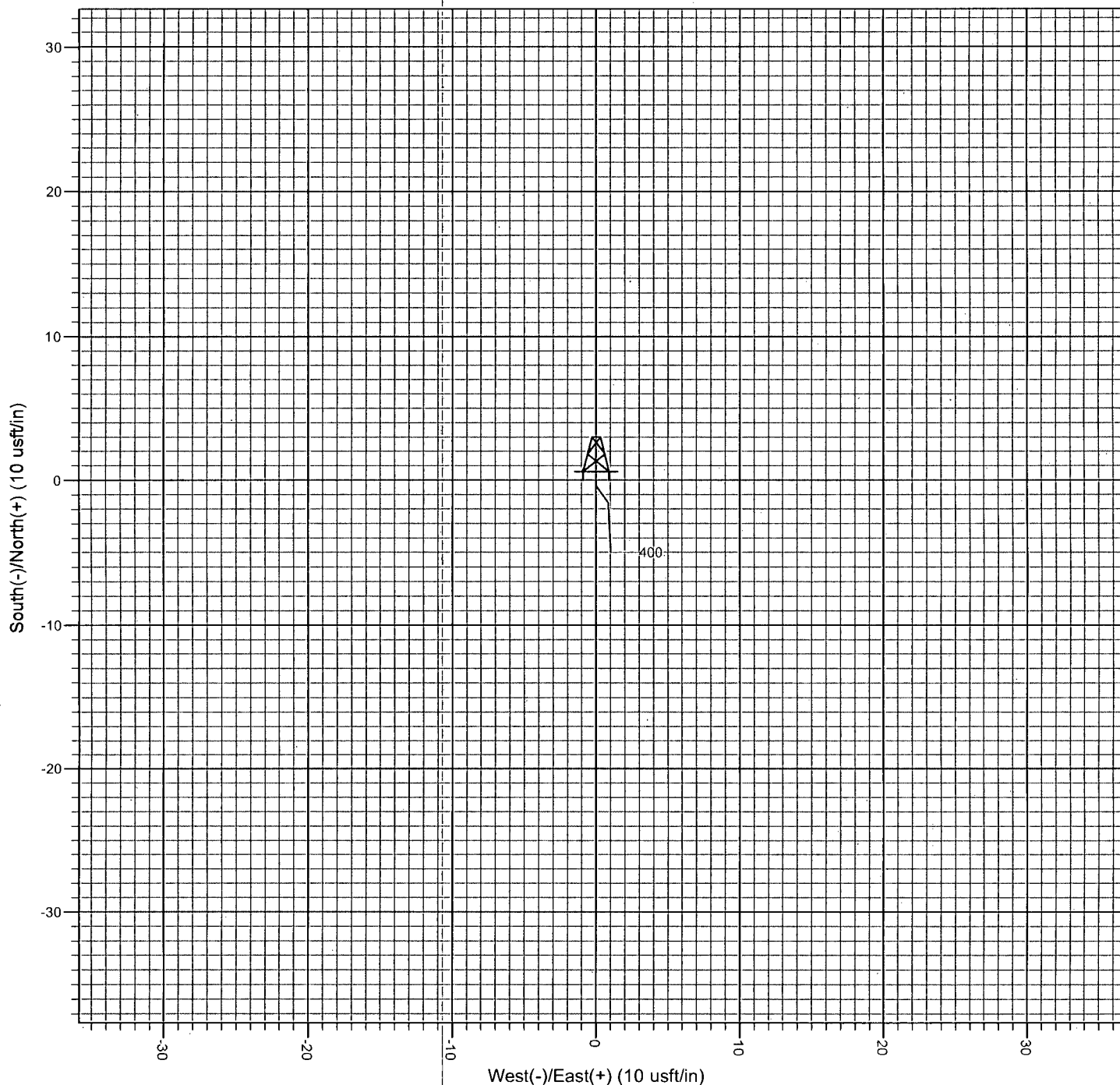


Scientific Drilling

Project: GJ
Eddy County, NM
Well: Tigger "9" State #3
Wellbore: VH - Job #32K11121448
Design: VH - Job #32K11121448

WELL DETAILS: Tigger "9" State #3
WELL @ 0.00usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	671765.68	580162.62	32° 50' 47.387 N	104° 4' 20.330 W	



PROJECT DETAILS: GJ	SITE DETAILS: Eddy County, NM
Geodetic System: US State Plane 1927 (Exact solution)	Site Centre Latitude: 32° 50' 33.900 N
Datum: NAD 1927 (NADCON CONUS)	Longitude: 104° 4' 43.230 W
Ellipsoid: Clarke 1866	Positional Uncertainty: 0.00
Zone: New Mexico East 3001	Convergence: 0.14
System Datum: Mean Sea Level	Local North: Grid

Reservoir Development

Drilling & Measurements (Extreme Engineering)

6724 Corporation Pkwy Suite 100

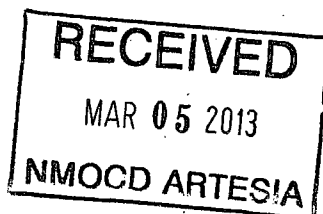
Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

December 9, 2012

Occidental Permian Ltd
5 Greenway Plaza Suite 110
Houston, Texas 77046



Attention: Anthony T Tschacher

Re:

CLIENT: Occidental Petroleum Corp
WELL: Tigger 9 State #3
FIELD: YESO
RIG: SAVANNA 415
COUNTY: EDDY
API NO: 30-015-40074
JOB NO: NM-OXY-0025

Enclosed, please find the original copy of the survey performed on the referenced well by Drilling & Measurements (formerly Extrême), 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>
Ty McFarlin FST-T	Tigger 9 State #3 Original Hole	499.00 Ft to 5192.00 Ft	December 1, 2012 to December 4, 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)

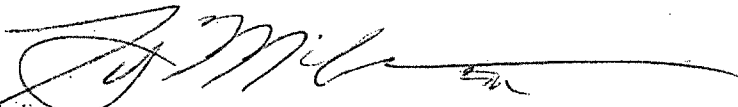
6724 Corporation Pkwy Suite 100

Fort Worth, TX 76126

Phone: (817) 717-1820

Fax: (817) 546-7551

I, Ty McFarlin 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 01, 2012 through December 04, 2012, conduct or supervise the taking of the SlimPulse surveys from a depth of 499.00 feet to a depth of 5192.00 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 Tigger 9 State #3 Well (Original Hole) API No. 30-015-40074 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.

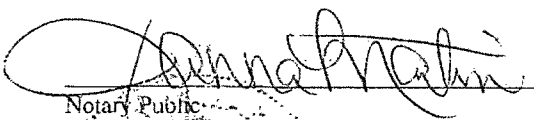


Ty McFarlin
FST-T

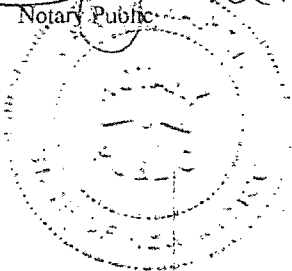
Janna Martin

Before me, Ty McFarlin, on this day personally appeared Ty McFarlin, 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 (year) 2012



Notary Public



NM-OXY-0025 TIGGER 9 STATE 3 MWD 0' to 5192' Survey Report

(Def Survey)

Report Date: December 04, 2012 - 07:21 PM
 Client: OXY
 Field: NM, Eddy (NAD27) 2011
 Structure / Slot: OXY (TIGGER 9 STATE 3) SAVANNA 415 / TIGGER 9 STATE 3
 Well: TIGGER 9 STATE 3
 Borehole: Original Hole
 UWI / API#: Unknown / 30-015-40074
 Survey Name: TIGGER 9 STATE 3 MWD 0' to 5192'
 Survey Date: December 04, 2012
 Tort / AHD / DDI / ERD Ratio: 10 256' / 73.196 ft / 2.676 / 0.014
 Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 50' 47.40300", W 104° 4' 20.28000"
 Location Grid N/E Y/X: N 671766.965 ftUS, E 580186.851 ftUS
 CRS Grid Convergence Angle: 0.14158263 °
 Grid Scale Factor: 0.99991645

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: 3582.000 ft above MSL
 Seabed / Ground Elevation: 3568.000 ft above MSL
 Magnetic Declination: 8.005 °
 Total Field Strength: 48771.502 nT
 Magnetic Dip Angle: 60.589 °
 Declination Date: December 04, 2012
 Magnetic Declination Model: BGM 2011
 North Reference: Grid North
 Grid Convergence Used: 0.142 °
 Total Corr Mag North->Grid North: 7.863 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/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	671766.96	580186.85	N 32 50 47.40	W 104 4 20.28
Begin Scientific Survey	100.00	0.47	178.51	100.00	-0.41	-0.41	0.01	0.47	671766.55	590166.86	N 32 50 47.40	W 104 4 20.28
	203.00	0.88	119.85	199.89	-1.11	-1.11	0.52	0.58	671765.86	580167.37	N 32 50 47.39	W 104 4 20.27
	300.00	1.27	187.47	299.88	-2.49	-2.49	0.88	1.19	671764.47	580167.73	N 32 50 47.38	W 104 4 20.27
Final Scientific Survey	400.00	1.64	158.93	399.95	-5.00	-5.00	1.01	0.59	671761.87	580167.86	N 32 50 47.35	W 104 4 20.27
Begin Extreme MWD Surveys	499.00	2.02	163.92	498.90	-8.06	-8.06	1.76	0.42	671758.90	580168.61	N 32 50 47.32	W 104 4 20.28
	683.00	2.29	148.32	682.77	-14.31	-14.31	4.59	0.35	671752.88	580171.44	N 32 50 47.26	W 104 4 20.23
	741.00	2.29	142.30	740.73	-18.21	-18.21	5.91	0.41	671750.76	580172.76	N 32 50 47.24	W 104 4 20.21
	890.00	2.20	138.19	889.81	-20.53	-20.53	9.71	0.17	671746.34	580176.56	N 32 50 47.20	W 104 4 20.17
	1042.00	1.80	130.52	1041.52	-24.29	-24.29	13.54	0.29	671742.88	580180.39	N 32 50 47.18	W 104 4 20.12
	1220.00	1.19	121.69	1219.46	-27.07	-27.07	17.24	0.37	671739.89	580184.09	N 32 50 47.13	W 104 4 20.08
	1405.00	0.79	118.90	1404.43	-28.66	-28.66	20.01	0.22	671738.31	580186.88	N 32 50 47.12	W 104 4 20.05
	1603.00	0.48	78.31	1602.42	-29.11	-29.11	22.04	0.26	671737.88	580188.89	N 32 50 47.11	W 104 4 20.02
	1793.00	0.48	60.48	1792.41	-28.55	-28.55	23.51	0.08	671738.41	580190.36	N 32 50 47.12	W 104 4 20.01
	1951.00	0.62	37.72	1950.40	-27.36	-27.36	24.82	0.14	671739.60	580191.67	N 32 50 47.13	W 104 4 19.99
	2172.00	0.62	333.20	2171.39	-25.62	-25.62	24.99	0.35	671741.34	580191.84	N 32 50 47.15	W 104 4 19.99
	2230.00	0.62	333.20	2229.39	-25.06	-25.06	24.71	0.00	671741.90	580191.55	N 32 50 47.15	W 104 4 19.99
	2406.00	0.70	327.39	2405.38	-23.31	-23.31	23.70	0.06	671743.66	580190.54	N 32 50 47.17	W 104 4 20.00
	2534.00	0.70	330.24	2533.37	-21.97	-21.97	22.89	0.03	671745.00	580189.74	N 32 50 47.18	W 104 4 20.01
	2684.00	0.88	331.46	2683.36	-20.40	-20.40	22.02	0.14	671748.56	580188.86	N 32 50 47.20	W 104 4 20.02
	2817.00	0.70	352.40	2816.34	-18.44	-18.44	21.33	0.22	671748.52	580188.18	N 32 50 47.22	W 104 4 20.03
	3003.00	0.62	349.50	3002.33	-16.33	-16.33	21.00	0.05	671750.64	580187.85	N 32 50 47.24	W 104 4 20.03
	3201.00	0.62	343.61	3200.32	-14.25	-14.25	20.50	0.03	671752.72	580187.35	N 32 50 47.26	W 104 4 20.04
	3398.00	0.70	347.51	3397.31	-12.05	-12.05	19.94	0.05	671754.92	580186.79	N 32 50 47.28	W 104 4 20.05
	3595.00	0.70	344.78	3594.29	-9.71	-9.71	19.36	0.02	671757.25	580186.21	N 32 50 47.30	W 104 4 20.05
	3654.00	0.88	343.25	3653.28	-8.93	-8.93	19.14	0.31	671758.03	580185.99	N 32 50 47.31	W 104 4 20.06
	3828.00	0.62	341.81	3827.27	-6.76	-6.76	18.46	0.15	671760.21	580185.31	N 32 50 47.33	W 104 4 20.06
	4018.00	0.62	320.40	4017.28	-4.99	-4.99	17.48	0.12	671761.98	580184.33	N 32 50 47.35	W 104 4 20.08
	4216.00	0.40	309.89	4215.25	-3.72	-3.72	16.27	0.12	671763.24	580183.12	N 32 50 47.36	W 104 4 20.09
	4307.00	0.40	301.99	4306.25	-3.35	-3.35	15.76	0.06	671763.62	580182.61	N 32 50 47.37	W 104 4 20.10
	4502.00	0.31	349.02	4501.25	-2.47	-2.47	15.08	0.15	671764.49	580181.93	N 32 50 47.38	W 104 4 20.10
	4698.00	0.31	32.30	4697.24	-1.50	-1.50	15.26	0.12	671765.46	580182.11	N 32 50 47.38	W 104 4 20.10
	4864.00	0.40	49.00	4863.24	-0.74	-0.74	15.94	0.08	671766.22	580182.79	N 32 50 47.39	W 104 4 20.09
	4994.00	0.22	54.58	4993.24	-0.30	-0.30	16.48	0.14	671766.67	580183.33	N 32 50 47.40	W 104 4 20.09
Final MWD Survey	5192.00	0.22	68.21	5191.24	0.06	0.06	17.15	0.03	671767.03	580184.00	N 32 50 47.40	W 104 4 20.08

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 / TIGGER 9 STATE 3 MWD 0' to 5192'
	14.000	14.000	Act Stns	SLB_UNKNOWN-Depth Only	Original Hole / TIGGER 9 STATE 3 MWD 0' to 5192'
	14.000	400.000	Act Stns	SLB_UNKNOWN	Original Hole / TIGGER 9 STATE 3 MWD 0' to 5192'
	400.000	5192.000	Act Stns	SLB_MWD-STD	Original Hole / TIGGER 9 STATE 3 MWD 0' to 5192'