

30-015-37920

OCCIDENTAL PERMIAN LTD.

Lost Tank Delaware, West

Eddy County, NM

Lost Tank 3 Federal #21

DH - Job #32D1010824

Survey: Actual

SDI Standard Survey Report

28 November, 2010

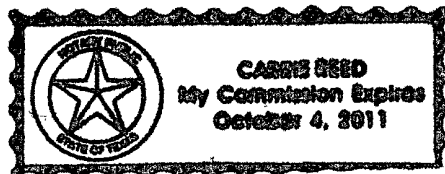
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notorized this date 29th of November 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.

SDI Standard Survey Report

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Lost Tank 3 Federal #21
Project:	Lost Tank Delaware, West	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Lost Tank 3 Federal #21	North Reference:	Grid
Wellbore:	VH - Job #32K1010828	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K1010828	Database:	EDM-Regulatory

Project:	Lost Tank Delaware, West		
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:	515,232.05 usft	Latitude: 32° 24' 54.705 N
From:	Lat/Long	Easting:	676,005.63 usft	Longitude: 103° 45' 46.737 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence: 0.31 °

Well:	Lost Tank 3 Federal #21, Vertical			
Well Position	+N/-S	0.0 usft	Northing:	517,203.48 usft
	+E/-W	0.0 usft	Easting:	672,947.55 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft
			Ground Level:	0.0 usft

Wellbore:	VH - Job #32K1010828				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2010	10/26/2010	7.83	60.36	48,840

Design:	VH - Job #32K1010828			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	22.22

Survey Program	Date	11/14/2010		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
60.0	630.0	Actual (VH - Job #32K1010828)	Keeper	Keeper Surface Readout

Survey								
Measured Depth	Inclination	Azimuth	True Vertical	North/South	East/West	Closure Azimuth	Closure Distance	
(usft)	(°)	(°)	Depth	(usft)	(usft)	(°)	(usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
60.0	0.26	20.49	60.0	0.1	0.0	20.49	0.1	
155.0	0.39	7.69	155.0	0.6	0.2	14.36	0.7	
250.0	0.37	17.84	250.0	1.3	0.3	13.52	1.3	
345.0	0.41	14.04	345.0	1.9	0.5	14.29	1.9	
440.0	0.27	36.15	440.0	2.4	0.7	16.18	2.5	
535.0	0.22	39.24	535.0	2.7	0.9	19.12	2.9	
630.0	0.30	46.40	630.0	3.0	1.2	22.22	3.3	

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SDI Standard Survey Report

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Lost Tank 3 Federal #21
Project:	Lost Tank Delaware, West	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Lost Tank 3 Federal #21	North Reference:	Grid
Wellbore:	DH - Job #32D1010824	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #32D1010824	Database:	EDM-Regulatory

Project		Lost Tank Delaware, West	
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:	515,232.05 usft	Latitude:	32° 24' 54.705 N
From:	Lat/Long	Easting:	676,005.63 usft	Longitude:	103° 45' 46.737 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.31 °

Well	Lost Tank 3 Federal #21, Directional					
Well Position	+N/-S	0.0 usft	Northing:	517,203.48 usft	Latitude:	32° 25' 14.373 N
	+E/-W	0.0 usft	Easting:	672,947.55 usft	Longitude:	103° 46' 22.290 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	0.0 usft

Wellbore		DH - Job #32D1010824			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	10/25/2010	7.83	60.36	48,840

Design					DH - Job #32D1010824							
Audit Notes:												
Version:		1.0		Phase:		ACTUAL		Tie On Depth:		630.0		
Vertical Section:		Depth From (TVD)			+N/-S			+E/-W			Direction	
		(usft)			(usft)			(usft)			(")	
		0.0			0.0			0.0			95.16	

Survey Program		Date	11/28/2010		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
60.0	630.0	Actual (VH - Job #32K1010828)	Keeper	Keeper Surface Readout	
689.0	4,024.0	Actual (DH - Job #32D1010824)	MWD	MWD	

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
630.0	0.30	46.40	630.0	3.0	1.2	22.22	3.3	
689.0	0.31	73.31	689.0	3.2	1.5	25.27	3.5	
748.0	0.34	77.37	748.0	3.3	1.8	29.21	3.7	
838.0	0.50	79.83	838.0	3.4	2.5	36.08	4.2	
928.0	0.35	79.93	928.0	3.5	3.1	41.72	4.7	
1,019.0	0.45	83.34	1,019.0	3.6	3.8	46.23	5.2	
1,109.0	0.40	100.83	1,109.0	3.6	4.4	50.96	5.7	
1,199.0	0.44	106.28	1,199.0	3.4	5.1	55.88	6.1	
1,289.0	0.54	116.32	1,289.0	3.1	5.8	61.43	6.6	
1,379.0	0.47	94.01	1,379.0	2.9	6.5	65.81	7.1	
1,469.0	0.39	81.28	1,469.0	2.9	7.2	67.70	7.8	

Scientific Drilling International, Inc.
SDI Standard Survey Report

Company:	OCCIDENTAL PERMIAN LTD.	Local Co-ordinate Reference:	Well Lost Tank 3 Federal #21
Project:	Lost Tank Delaware, West	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Lost Tank 3 Federal #21	North Reference:	Grid
Wellbore:	DH - Job #32D1010824	Survey Calculation Method:	Minimum Curvature
Design:	DH - Job #32D1010824	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,558.0	0.39	67.63	1,558.0	3.1	7.8	68.18	8.4	
1,648.0	0.38	63.51	1,648.0	3.4	8.3	68.01	9.0	
1,738.0	0.38	64.60	1,738.0	3.6	8.9	67.76	9.6	
1,828.0	0.40	64.34	1,828.0	3.9	9.4	67.57	10.2	
1,919.0	0.37	55.13	1,919.0	4.2	9.9	67.13	10.8	
2,009.0	0.44	49.72	2,009.0	4.6	10.4	66.31	11.4	
2,099.0	0.39	28.39	2,099.0	5.1	10.8	64.94	12.0	
2,189.0	0.47	29.10	2,189.0	5.7	11.2	63.11	12.5	
2,279.0	0.46	25.05	2,278.9	6.3	11.5	61.24	13.1	
2,369.0	0.50	10.75	2,368.9	7.0	11.7	59.08	13.7	
2,459.0	0.38	25.52	2,458.9	7.7	11.9	57.23	14.2	
2,549.0	0.48	342.27	2,548.9	8.3	11.9	55.18	14.6	
2,639.0	0.45	291.09	2,638.9	8.8	11.5	52.59	14.5	
2,729.0	0.30	272.07	2,728.9	8.9	10.9	50.76	14.1	
2,819.0	0.24	275.62	2,818.9	9.0	10.5	49.56	13.8	
2,909.0	0.11	50.74	2,908.9	9.0	10.4	49.01	13.8	
2,999.0	0.34	294.73	2,998.9	9.2	10.2	48.00	13.7	
3,089.0	0.53	275.62	3,088.9	9.4	9.6	45.63	13.4	
3,179.0	0.36	217.82	3,178.9	9.2	9.0	44.38	12.8	
3,269.0	0.53	165.61	3,268.9	8.5	8.9	46.18	12.3	
3,360.0	0.45	133.86	3,359.9	7.9	9.3	49.59	12.2	
3,450.0	0.69	87.88	3,449.9	7.7	10.1	52.71	12.6	
3,540.0	0.95	102.19	3,539.9	7.5	11.3	56.42	13.6	
3,630.0	0.98	111.77	3,629.9	7.1	12.8	61.00	14.6	
3,720.0	1.28	127.68	3,719.9	6.2	14.3	66.60	15.6	
3,810.0	1.68	150.86	3,809.8	4.4	15.7	74.32	16.3	
3,900.0	1.90	160.59	3,899.8	1.9	16.9	83.72	17.0	
3,990.0	1.61	162.84	3,989.8	-0.8	17.7	92.45	17.7	
4,024.0	1.45	162.15	4,023.8	-1.6	18.0	95.16	18.1	

Checked By: _____ Approved By: _____ Date: _____



Project: Lost Tank Delaware, West
Eddy County, NM
Well: Lost Tank 3 Federal #21
Wellbore: DH - Job #32D1010824
Design: DH - Job #32D1010824

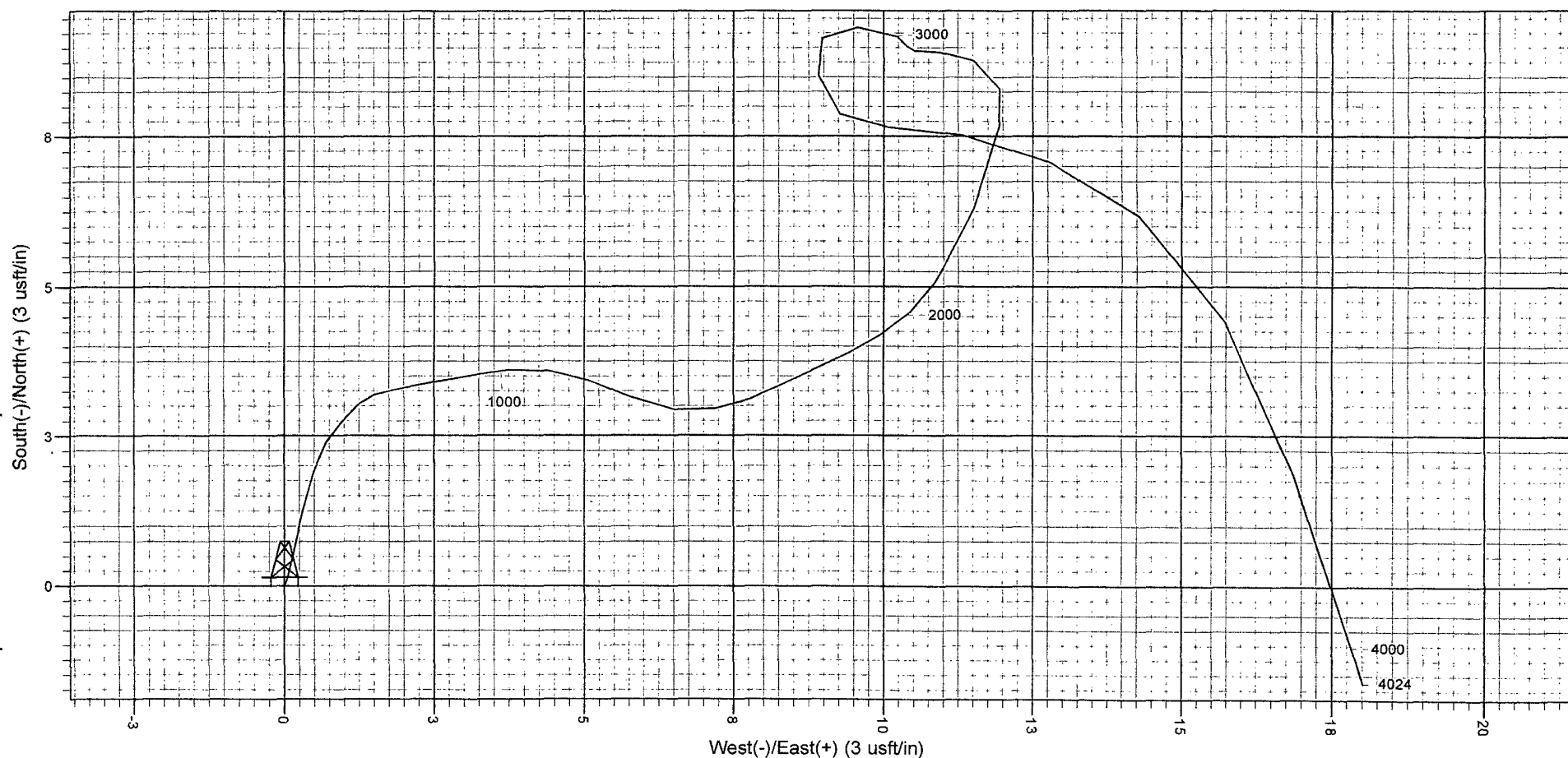


Azimuths to Grid North
True North: -0.30°
Magnetic North: 7.53°

Magnetic Field
Strength: 48840.1nT
Dip Angle: 60.36°
Date: 10/25/2010
Model: BGGM2010

WELL DETAILS: Lost Tank 3 Federal #21
WELL @ 0.0usft (Original Well Elev)
Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	517203.48	672947.55	32° 25' 14.373 N	103° 46' 22.290 W	



PROJECT DETAILS: Lost Tank Delaware, West
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 24' 54.705 N
Longitude: 103° 45' 46.737 W
Positional Uncertainty: 0.0
Convergence: 0.31
Local North: Grid

RAILROAD COMMISSION OF TEXAS OIL AND GAS DIVISION

Form W-12
DBC1297 (1-1-71)

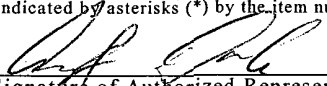
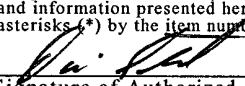
INCLINATION REPORT (One Copy Must Be Filed With Each Completion Report.)		
1. FIELD NAME (as per RRC Records or Wildcat) Lost Tank Delaware West	2. LEASE NAME Lost Tank 3 Federal	6. RRC District 2
3. OPERATOR Occidental Permian OXY USA Inc.		7. RRC Lease Number. (Oil completions only) 304875
4. ADDRESS P.O. Box 4294 Houston, TX 72210-4294		8. Well Number 21
5. LOCATION (Section, Block, and Survey) Sec 3 T22S R31E Eddy Cty.		9. RRC Identification Number (Gas completions only)
		10. County Eddy

RECORD OF INCLINATION

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per Hundred Feet (Sine of Angle X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
75	0.75	1	1.75	1.31	1.31
689	6.14	.31	0.54	3.32	4.63
729	0.40	.3	0.52	0.21	4.84
748	0.19	.34	0.59	0.11	4.95
2189	14.41	.47	0.82	11.82	16.77
2279	0.90	.46	0.80	0.72	17.49
2369	0.90	.5	0.87	0.78	18.27
2459	0.90	.38	0.66	0.59	18.86
2549	0.90	.48	0.84	0.76	19.62
2639	0.90	.45	0.79	0.71	20.33
2819	1.80	.24	0.42	0.76	21.09
2909	0.90	.11	0.19	0.17	21.26
2999	0.90	.34	0.59	0.53	21.79
3089	0.90	.53	0.92	0.83	22.62
3990	9.01	1.61	2.81	25.32	47.94
4024	0.34	1.45	2.53	0.86	48.80

If additional space is needed, use the reverse side of this form.

17. Is any information shown on the reverse side of this form? ☒ yes ☐ no
18. Accumulative total displacement of well bore at total depth of 8098.00 feet = 167.29 feet.
- *19. Inclination measurements were made in - ☐ Tubing ☐ Casing ☐ Open hole ☒ Drill Pipe
20. Distance from surface location of well to the nearest lease line _____ feet.
21. Minimum distance to lease line as prescribed by field rules _____ feet.
22. Was the subject well at any time intentionally deviated from the vertical in any manner whatsoever? _____
- (If the answer to the above question is "yes", attach written explanation of the circumstances.)

INCLINATION DATA CERTIFICATION	OPERATOR CERTIFICATION
I declare under penalties prescribed in Sec. 91-143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of the inclination data and facts placed on both sides of this form and that such data and facts are true, correct, and complete to the best of my knowledge. This certification covers all data as indicated by asterisks (*) by the item numbers on this form.  Signature of Authorized Representative Andy Dale, Administrator Name of Person and Title (type or print) Helmerich & Payne, IDC Name of Company Telephone: <u>(432) 563-5757</u> Area Code	I declare under penalties prescribed in Sec. 91-143, Texas Natural Resources Code, that I am authorized to make this certification, that I have personal knowledge of all information presented in this report, and that all data presented on both sides of this form are true, correct, and complete to the best of my knowledge. This certification covers all data and information presented herein except inclination data as indicated by asterisks (*) by the item numbers on this form.  Signature of Authorized Representative David Stewart Sr. Reg. Analyst Name of Person and Title (type or print) OXY USA Inc. Operator Telephone: <u>432 685-5717</u> Area Code

Railroad Commission Use Only:

Approved By: _____ Title: _____ Date: _____

* Designates items certified by company that conducted the inclination surveys.

RECORD OF INCLINATION (Continued from reverse side)

[illegible]

If additional space is needed, attach separate sheet and check here. ☐

REMARKS:

- INSTRUCTIONS -

An inclination survey made by persons or concerns approved by the Commission shall be filed on a form prescribed by the Commission for each well drilled or deepened with rotary tools or when, as a result of any operation, the course of the well is changed. No inclination survey is required on wells that are drilled and completed as dry holes that are plugged and abandoned. (Inclination surveys are required on re-entry of abandoned wells.) Inclination surveys must be made in accordance with the provisions of Statewide Rule 11.

This report shall be filed in the District Office of the Commission for the district in which the well is drilled, by attaching one copy to each appropriate completion for the well. (except Plugging Report)

The Commission may require the submittal of the original charts, graphs, or discs, resulting from the surveys.