

Schlumberger

Tigger 9 State 010

General Information:

Company Name: Oxy USA WTP LP
Field: Empire; Glorieta-Yeso, East
Well: Tigger 9 State 010
County: Eddy
State: New Mexico
Surface Location: 940' FSL & 1726' FEL
Latitude: 32.8443181 deg N
Longitude: 104.0763909 deg W
API Number: 30-015-40941
Logging Engineer: Alexander Woll
Processed By: Elizabeth Rosborough
Service Order Number: CR7Y-00031
Job Number: DSP-2014-15085
Date Logged: 30-April-2014
Date Processed: 08-May-2014

Bottom Hole Location:

Measured Depth	True Vertical Depth	North/South Drift	East/West Drift	Closure Distance	Closure Direction
Ft	Ft	Ft	Ft	Ft	Deg
5332.00	5331.47	31.56	7.42	32.42	13.24

Schlumberger

Schlumberger Technology Corporation
1325 S Dairy Ashford, Rm 5012
Houston, TX 77077
281-285-6262

Date: May 8, 2014

State of New Mexico
Oil Conservation Division
District 2 - ARTESIA
811 S. First St.
Artesia, NM 88210

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 08 2014

Attention: T.C. Shaffert

RECEIVED

Company Name: OXY USA WTP Limited Partnership
Well Name: Tigger 9 State 010
County: Eddy
State: New Mexico
API number: 30-015-40941

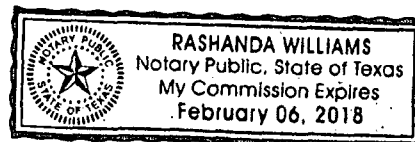
Enclosed please find the original copy of the Continuous Direction Survey performed by Schlumberger Wireline & Testing and Data Services, divisions of Schlumberger Technology Corporation (P-5 No. 754900). The Continuous Directional Survey was calculated from GPIT Survey data, and processed by Elizabeth Rosborough, PetroTechnical Services located in DS-Houston. 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>
Elizabeth Rosborough Geology Tech	1	0 ft - 5332 ft	May 8, 2014	GPIT

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address or call (281) 285-6262.

Elizabeth Rosborough

Elizabeth Rosborough
Geology Tech
Enclosures



Rashanda Williams
5/9/14

Schlumberger

GEOFRAME
PROCESSED
INTERPRETATION

Certified Directional Survey

0' MD - 5332' MD

*A Mark of Schlumberger

Using the following logs: GPIT

COMPANY: OXY USA WTP LIMITED PARTNERSHIP

WELL: Tigger 9 State 010

FIELD: Empire; Glorieta-Yeso, East

County: Eddy

State: New Mexico

COUNTRY: USA

Date Logged: 30-Apr-2014 Date Processed: 08-May-2014

Well Location: 940' FSL & 1726' FEL

Elevations: KB: 3582.7ft DF: 3581.7ft GL: 3568.7ft

API Number: 30-015-40941 Job Number: DSP-2014-15085

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The well name, location and borehole reference data were furnished by the customer.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Field Recording:	Location: Roswell	Software Version: 20C0-999	Engineer: Alexander Woll
Office Recording:	ICS Center: Houston	Baseline:	Log Analyst: E. Rosborough

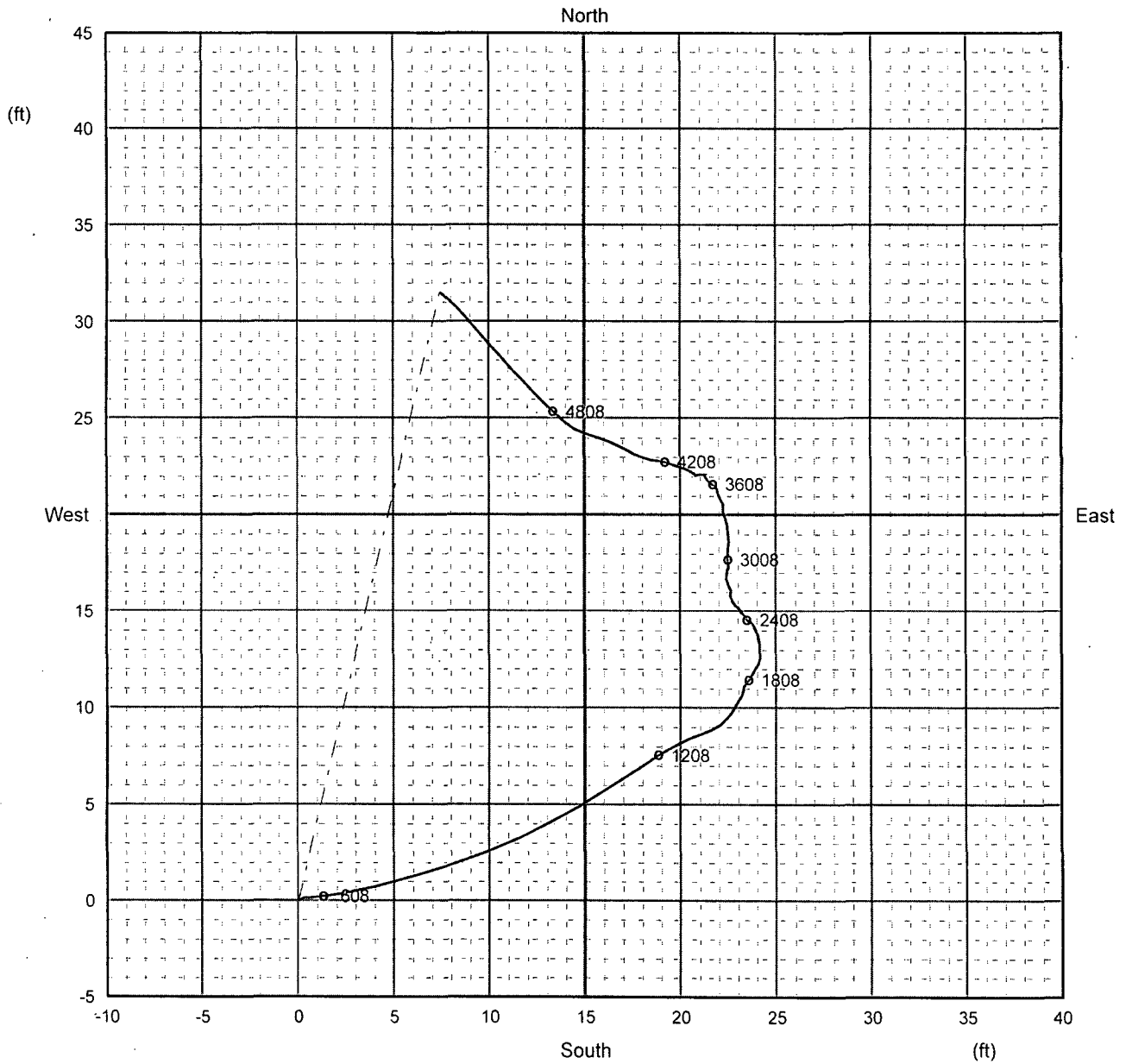
Mud and Borehole Measurements:

Rm @ Measured Temperature: 0.06ohm.m @ 71degF	BHT: 102degF	Bitsize: 7.875in
Rmf @ Measured Temperature: 0.05ohm.m @ 71degF	Type Fluid in Hole:	Cut Brine
Rmc @ Measured Temperature: @ 68degF	Mud Density: 9.95lbm/gal	

Remarks:

0' MD - 447' MD in Casing...Assumed Vertical
GPIT Data Good at 458' MD
Grid Convergence Angle = 0.501 (deg)

Tigger 9 State 010



Projection on Horizontal Plane

Horizontal scale 1 in : 8 ft

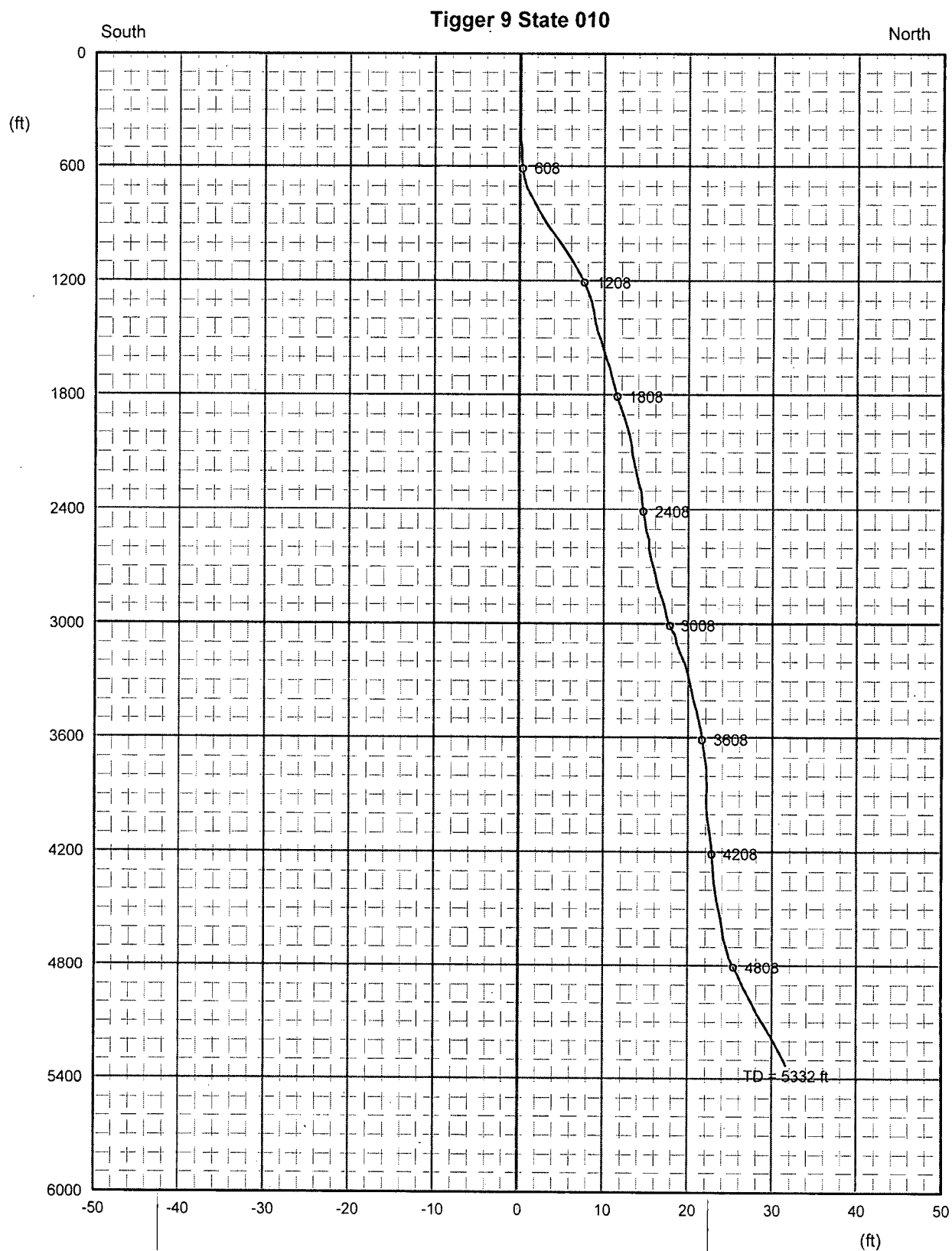
Minimum Curvature Method

Tie In Location

Measured Depth	447.00	ft
True Vertical Depth	447.00	ft
Distance North	0.00	ft
Distance East	0.00	ft

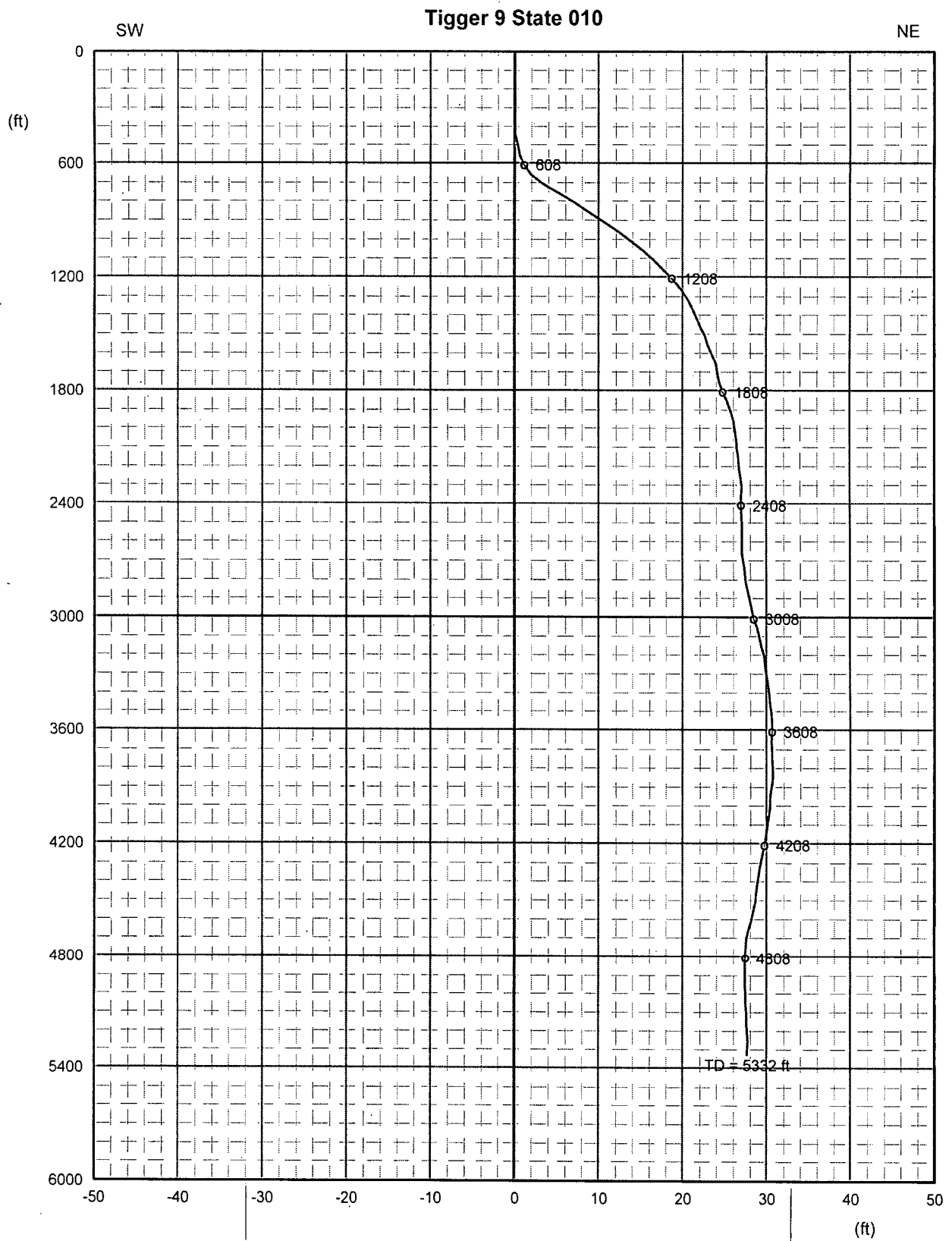
Bottom Hole Location

Measured Depth	5332.00	ft
True Vertical Depth	5331.47	ft
Distance North	31.56	ft
Distance East	7.42	ft
Closure Distance	32.42	ft
Closure Direction	13.24	deg



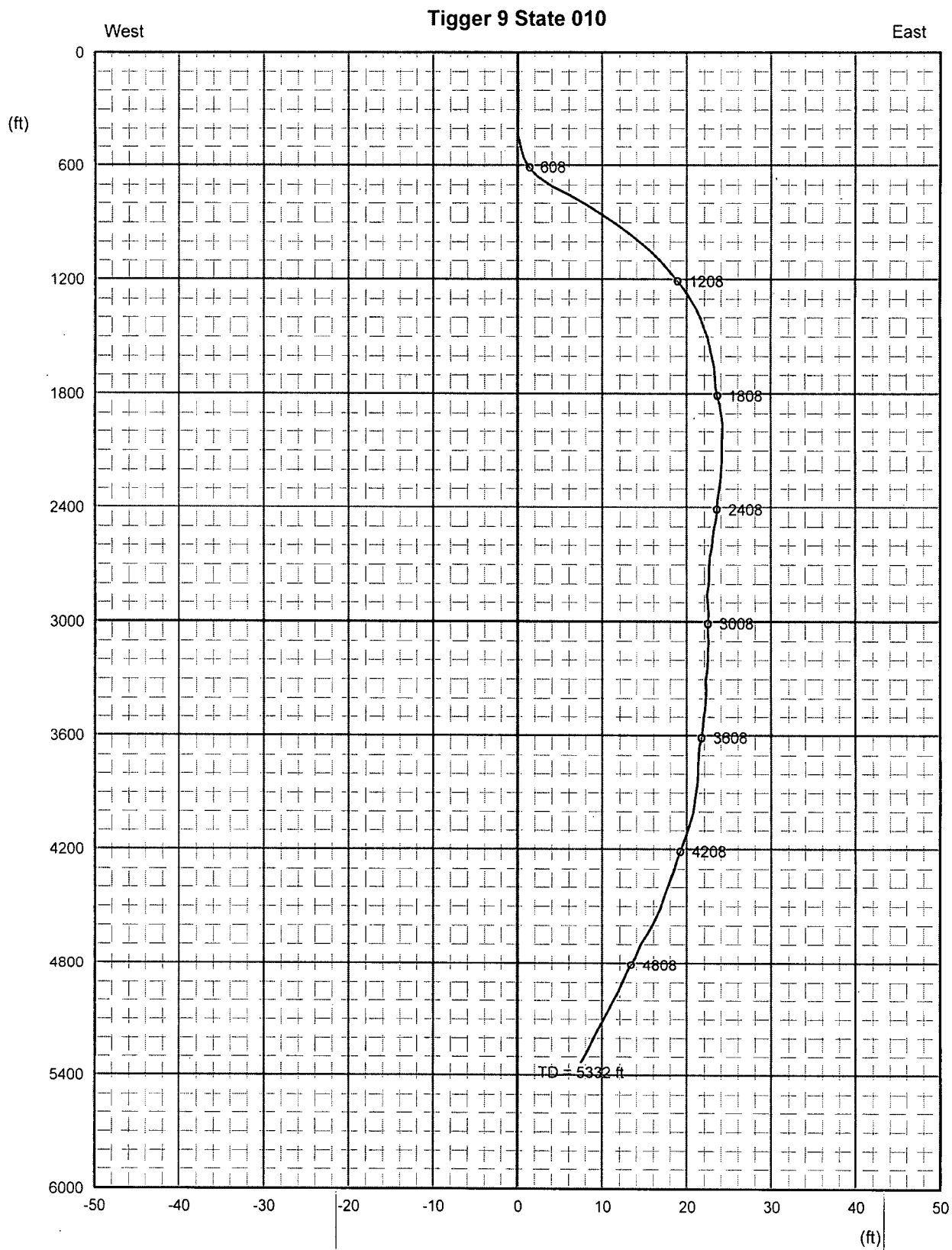
Projection on Vertical Plane

Vertical scale 1 in : 750 , Horizontal scale 1 in : 16 ft



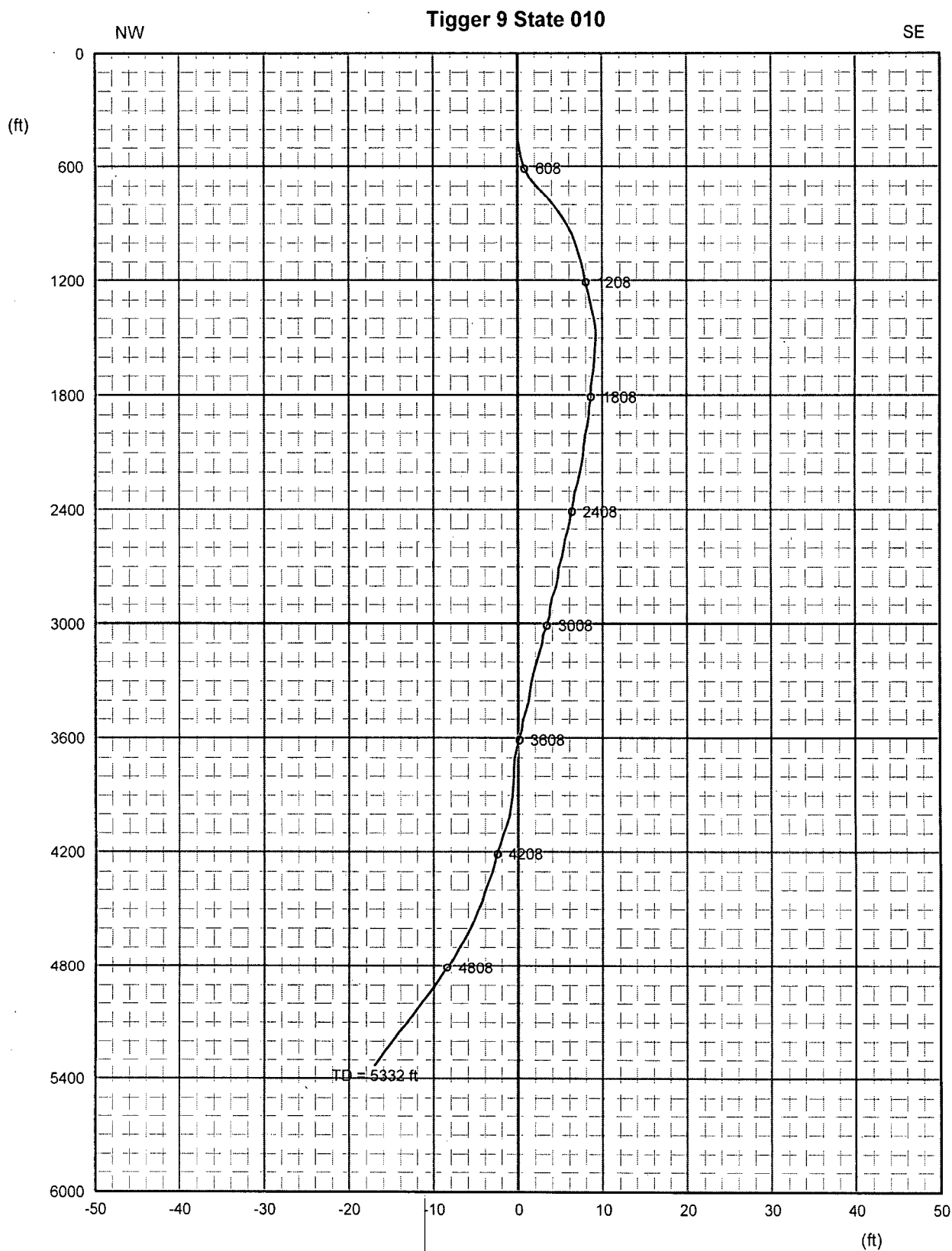
Projection on Vertical Plane

Vertical scale 1 in : 750 , Horizontal scale 1 in : 16 ft



Projection on Vertical Plane

Vertical scale 1 in : 750 , Horizontal scale 1 in : 16 ft



Projection on Vertical Plane

Vertical scale 1 in : 750 , Horizontal scale 1 in : 16 ft

MD (ft)	TVD (ft)	DEVI (deg)	AZIM (deg)	DX (ft)	DY (ft)
0.00	0.00	0.00	0.00	0.00	0.00
447.00	447.00	0.00	0.00	0.00	0.00
458.00	458.00	0.61	59.93	0.05	0.03
508.00	508.00	0.17	100.49	0.35	0.15
558.00	558.00	0.60	86.87	0.68	0.15
608.00	607.99	0.80	77.77	1.28	0.24
658.00	657.98	1.38	82.35	2.22	0.39
708.00	707.95	2.75	76.71	3.99	0.75
758.00	757.90	2.32	73.24	6.13	1.31
808.00	807.86	2.32	71.55	8.06	1.93
858.00	857.82	2.19	70.16	9.92	2.57
908.00	907.79	1.93	62.73	11.57	3.28
958.00	957.76	2.06	62.47	13.11	4.08
1008.00	1007.73	1.75	59.77	14.57	4.88
1058.00	1057.71	1.56	56.72	15.80	5.64
1108.00	1107.69	1.41	60.09	16.90	6.32
1158.00	1157.68	1.33	54.17	17.90	6.97
1208.00	1207.67	1.17	59.63	18.81	7.57
1258.00	1257.66	1.06	63.19	19.67	8.03
1308.00	1307.65	0.90	65.11	20.43	8.41
1358.00	1357.65	0.68	70.25	21.07	8.67
1408.00	1407.64	0.58	65.68	21.58	8.87
1458.00	1457.64	0.58	59.54	22.03	9.11
1508.00	1507.64	0.72	36.69	22.43	9.49
1558.00	1557.64	0.15	41.37	22.67	9.79
1608.00	1607.63	0.88	28.19	22.89	10.18
1658.00	1657.63	0.33	46.40	23.18	10.62
1708.00	1707.63	0.36	347.02	23.25	10.87
1758.00	1757.63	0.32	41.27	23.30	11.13
1808.00	1807.63	0.59	32.36	23.53	11.45
1858.00	1857.62	0.55	31.83	23.80	11.87
1908.00	1907.62	0.51	27.37	24.03	12.28
1958.00	1957.62	0.25	2.61	24.13	12.58
2008.00	2007.62	0.51	359.83	24.14	12.92
2058.00	2057.62	0.07	331.25	24.12	13.17
2108.00	2107.62	0.14	358.44	24.11	13.25
2158.00	2157.62	0.43	350.27	24.07	13.50
2208.00	2207.62	0.10	347.36	24.03	13.73
2258.00	2257.62	0.66	337.17	23.91	14.04
2308.00	2307.62	0.17	328.73	23.76	14.37
2358.00	2357.62	0.24	278.44	23.61	14.45
2408.00	2407.61	0.29	339.68	23.47	14.59
2458.00	2457.61	0.12	306.09	23.38	14.74
2508.00	2507.61	0.57	319.94	23.18	14.96
2558.00	2557.61	0.17	328.47	22.98	15.21
2608.00	2607.61	0.15	277.86	22.88	15.28
2658.00	2657.61	0.52	326.21	22.69	15.48
2708.00	2707.61	0.37	4.75	22.58	15.83
2758.00	2757.61	0.20	18.02	22.62	16.07
2808.00	2807.61	0.48	321.35	22.51	16.32
2858.00	2857.61	0.54	357.71	22.37	16.72
2908.00	2907.60	0.39	23.15	22.43	17.11
2958.00	2957.60	0.11	6.37	22.50	17.31
3008.00	3007.60	0.80	347.40	22.43	17.70
3058.00	3057.60	0.64	17.81	22.44	18.31
3108.00	3107.60	0.12	338.23	22.50	18.62
MD (ft)	TVD (ft)	DEVI (deg)	AZIM (deg)	DX (ft)	DY (ft)

MD (ft)	TVD (ft)	DEVI (deg)	AZIM (deg)	DX (ft)	DY (ft)
3158.00	3157.60	0.77	354.61	22.45	19.00
3208.00	3207.59	0.31	6.52	22.44	19.47
3258.00	3257.59	0.57	327.00	22.32	19.81
3308.00	3307.59	0.21	13.64	22.21	20.11
3358.00	3357.59	0.39	355.34	22.21	20.37
3408.00	3407.59	0.14	354.52	22.19	20.60
3458.00	3457.59	0.58	327.27	22.05	20.88
3508.00	3507.59	0.20	355.61	21.91	21.18
3558.00	3557.59	0.31	347.93	21.87	21.39
3608.00	3607.59	0.47	291.91	21.65	21.60
3658.00	3657.58	0.17	342.35	21.44	21.75
3708.00	3707.58	0.40	320.24	21.31	21.96
3758.00	3757.58	0.04	69.49	21.21	22.10
3808.00	3807.58	0.01	53.12	21.23	22.10
3858.00	3857.58	0.15	301.39	21.18	22.14
3908.00	3907.58	0.36	244.24	20.99	22.11
3958.00	3957.58	0.15	323.33	20.81	22.09
4008.00	4007.58	0.31	295.43	20.65	22.20
4058.00	4057.58	0.47	298.45	20.34	22.36
4108.00	4107.58	0.47	287.51	19.96	22.52
4158.00	4157.58	0.49	287.51	19.56	22.64
4208.00	4207.58	0.46	286.22	19.17	22.76
4258.00	4257.57	0.43	277.27	18.79	22.84
4308.00	4307.57	0.45	277.71	18.41	22.89
4358.00	4357.57	0.55	288.55	17.99	23.00
4408.00	4407.57	0.49	296.35	17.57	23.17
4458.00	4457.57	0.47	298.21	17.19	23.36
4508.00	4507.56	0.58	299.02	16.79	23.58
4558.00	4557.56	0.60	291.46	16.33	23.80
4608.00	4607.56	0.75	286.60	15.77	23.99
4658.00	4657.55	0.87	287.95	15.09	24.20
4708.00	4707.55	0.75	299.78	14.45	24.48
4758.00	4757.54	0.81	309.62	13.89	24.87
4808.00	4807.54	0.88	313.49	13.34	25.35
4858.00	4857.53	0.91	313.21	12.78	25.89
4908.00	4907.53	0.82	316.62	12.24	26.42
4958.00	4957.52	0.94	317.31	11.72	26.98
5008.00	5007.52	0.98	315.48	11.14	27.59
5058.00	5057.51	0.94	318.25	10.57	28.20
5108.00	5107.50	1.03	319.17	10.00	28.85
5158.00	5157.49	1.07	317.47	9.39	29.53
5208.00	5207.49	0.91	320.27	8.82	30.18
5258.00	5257.48	0.89	317.61	8.31	30.77
5308.00	5307.47	0.93	308.98	7.73	31.31
5332.00	5331.47	0.93	308.98	7.42	31.56
MD (ft)	TVD (ft)	DEVI (deg)	AZIM (deg)	DX (ft)	DY (ft)

COMPANY:	OXY USA WTP LIMITED PARTNERSHIP				
WELL:	Tigger 9 State 010				
FIELD:	Empire; Glorieta-Yeso, East				
STATE:	New Mexico				
COUNTRY:	USA				
Date Logged:	30-Apr-2014	Date Processed: 08-May-2014			
Well Location:	940' FSL & 1726' FEL				
Elevations:	KB: 3582.7 ft	DF: 3581.7 ft	GL: 3568.7 ft		
API Number:	30-015-40941	Job Number: DSP-2014-1508			