

Schlumberger

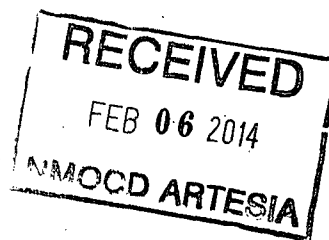
Schlumberger Technology Corporation
1325 S Dairy Ashford, Rm 5012
Houston, TX 77077
281-285-6262

Date: January 30, 2014

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

Attention: T.C. Shaffert

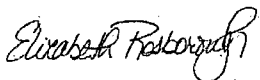
Company Name: Oxy USA Inc.
Well Name: Rogers 23 Fee 4
County: Eddy
State: New Mexico
API number: 30-015-40858

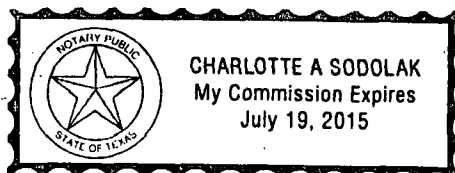


Enclosed please find the original copy of the Continuous Direction Survey performed by Schlumberger Wireline & Testing and Data Services, divisions of Schlumberger Technology Corporation (P-5 No. 754900). The Continuous Directional Survey was calculated from GPIT Survey data, and processed by Elizabeth 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 – 4013 ft	Jan. 30, 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
Geology Tech
Enclosures




Feb. 3, 2014

Schlumberger

Rogers "23" Fee 4

General Information:

Company Name: Oxy USA Inc.
Field: Yeso
Well: Rogers "23" Fee 4
County: Eddy
State: New Mexico
Surface Location: 1650' FNL & 2310' FEL
Latitude: 32.735933 deg N
Longitude: 104.35099 deg W
API Number: 30-015-440858
Logging Engineer: M. Preston/Leonid Grachev
Processed By: Elizabeth Rosborough
Service Order Number: CSJ2-00019
Job Number: DSP-2014-03031
Date Logged: 29-Jan-2014
Date Processed: 30-Jan-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
4013.00	4012.57	15.55	-45.89	48.45	288.72

Schlumberger

GEOFRAME PROCESSED INTERPRETATION

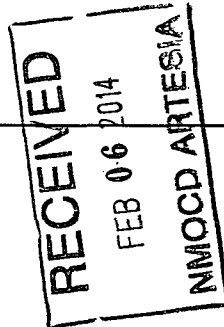
Certified Directional Survey

0' MD - 4013' MD

*A Mark of Schlumberger

Using the following logs: GPIT-F

COMPANY: Oxy USA Inc.
WELL: Rogers "23" Fee 4
FIELD: Yeso
County: Eddy
State: New Mexico
COUNTRY: USA
Date Logged: 29-Jan-2014 Date Processed: 30-Jan-2014
Well Location: 1650' FNL & 2310' FEL



Elevations: KB: 3328.4ft DF: 3327.4ft GL: 3314.4ft
API Number: 30-015-40858 Job Number: DSP-2014-03031

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

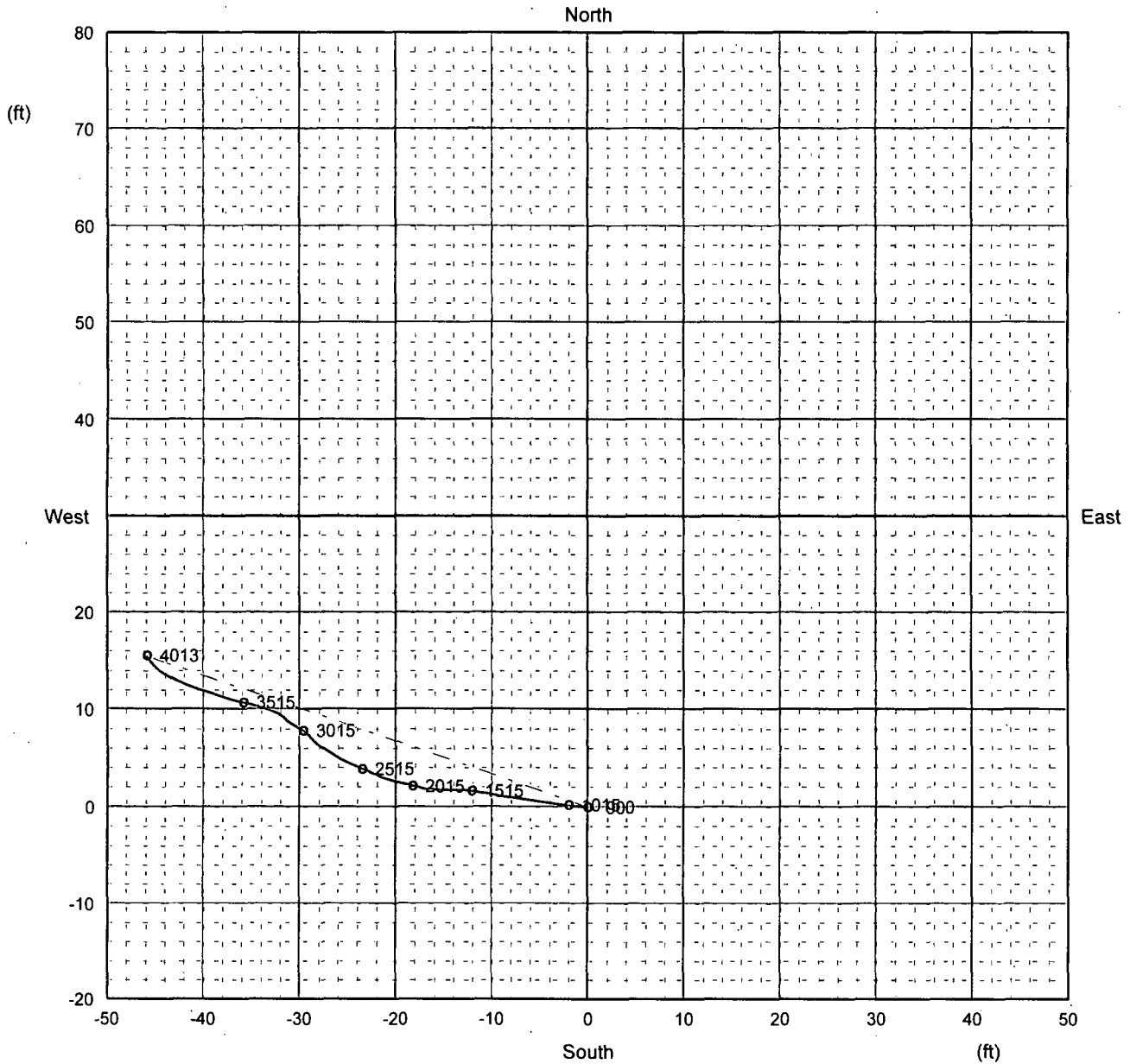
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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: Mark Preston/Leonid G
Office Recording:	ICS Center: Houston	Baseline:	Log Analyst: E. Rosborough
Mud and Borehole Measurements:			
Rm @ Measured Temperature: 0.067ohm.m @ 64degF	BHT:	95degF	Bitsize: 7.875in
Rmf @ Measured Temperature: 0.06ohm.m @ 64degF	Type Fluid in Hole:		Salt Brine
Rmc @ Measured Temperature: 0.09ohm.m @ 64degF	Mud Density:	9.4lbm/gal	

Remarks:

0' MD - 900' MD in Casing...Assumed Vertical
GPIT Data Good at 965' MD
Grid Convergence Angle = 0.351 deg

Rogers "23" Fee 4



Projection on Horizontal Plane

Horizontal scale 1 in : 16 ft

Minimum Curvature Method

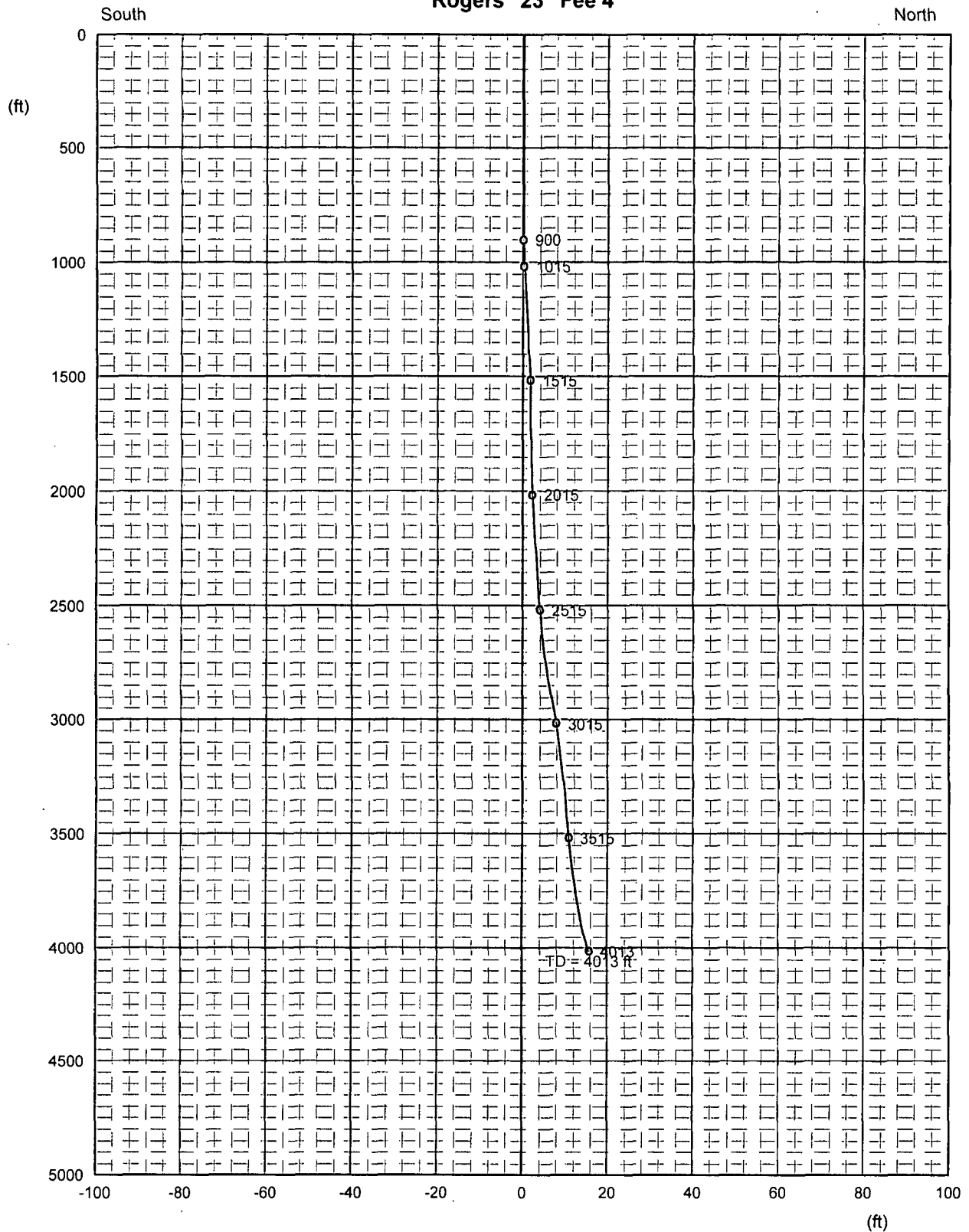
Tie In Location

Measured Depth	900.00	ft
True Vertical Depth	900.00	ft
Distance North	0.00	ft
Distance East	0.00	ft

Bottom Hole Location

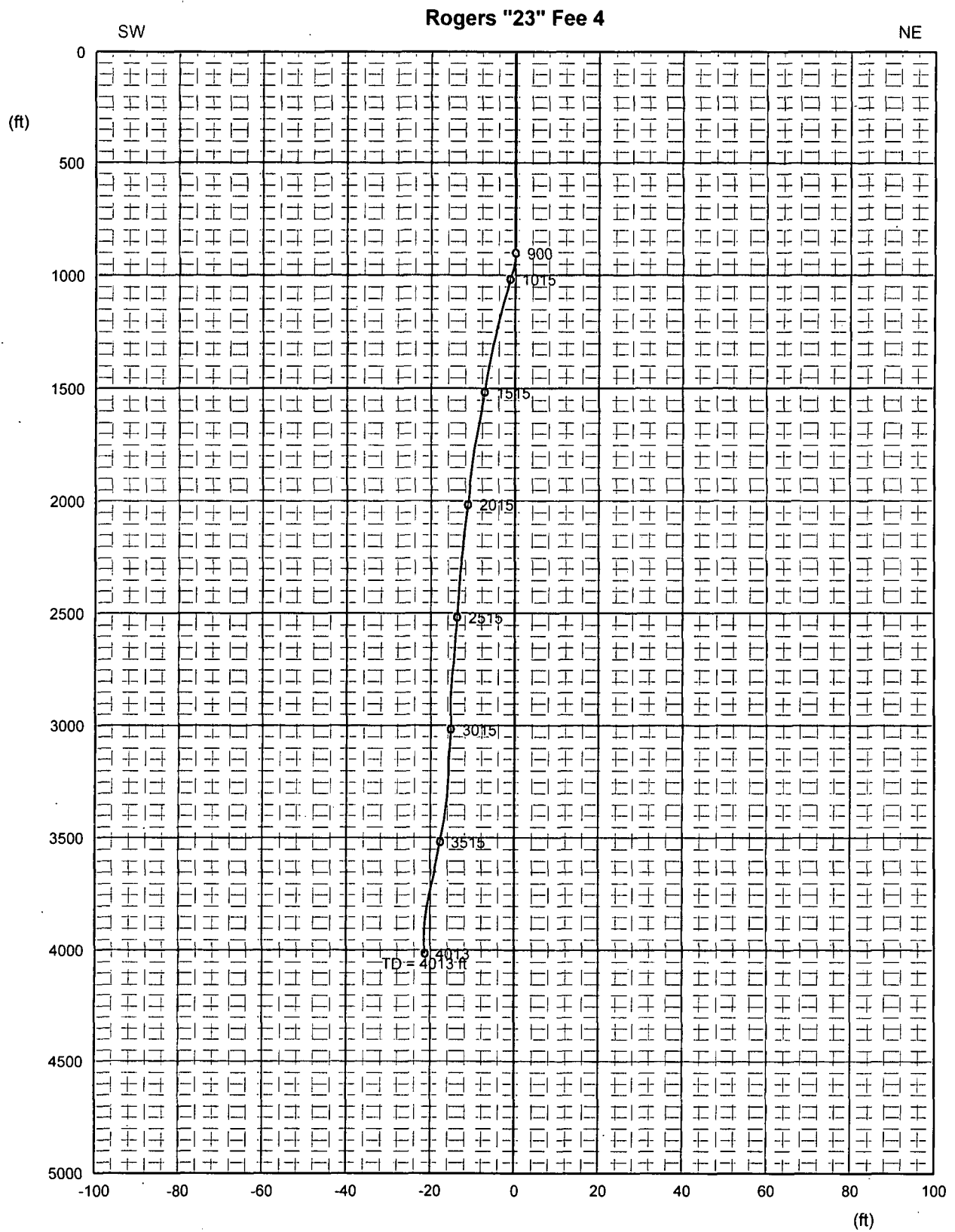
Measured Depth	4013.00	ft
True Vertical Depth	4012.57	ft
Distance North	15.55	ft
Distance East	-45.89	ft
Closure Distance	48.45	ft
Closure Direction	288.72	deg

Rogers "23" Fee 4



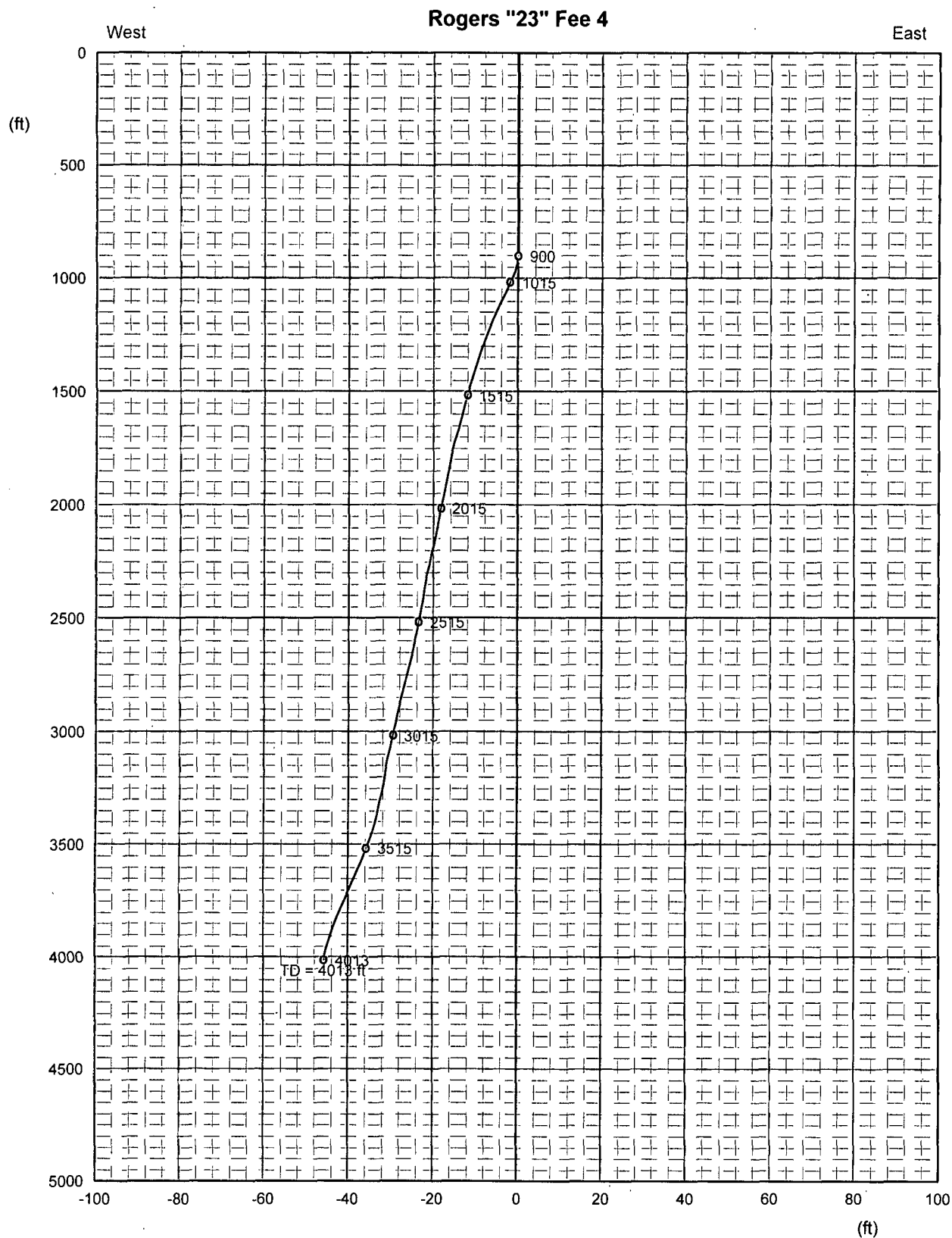
Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 ft



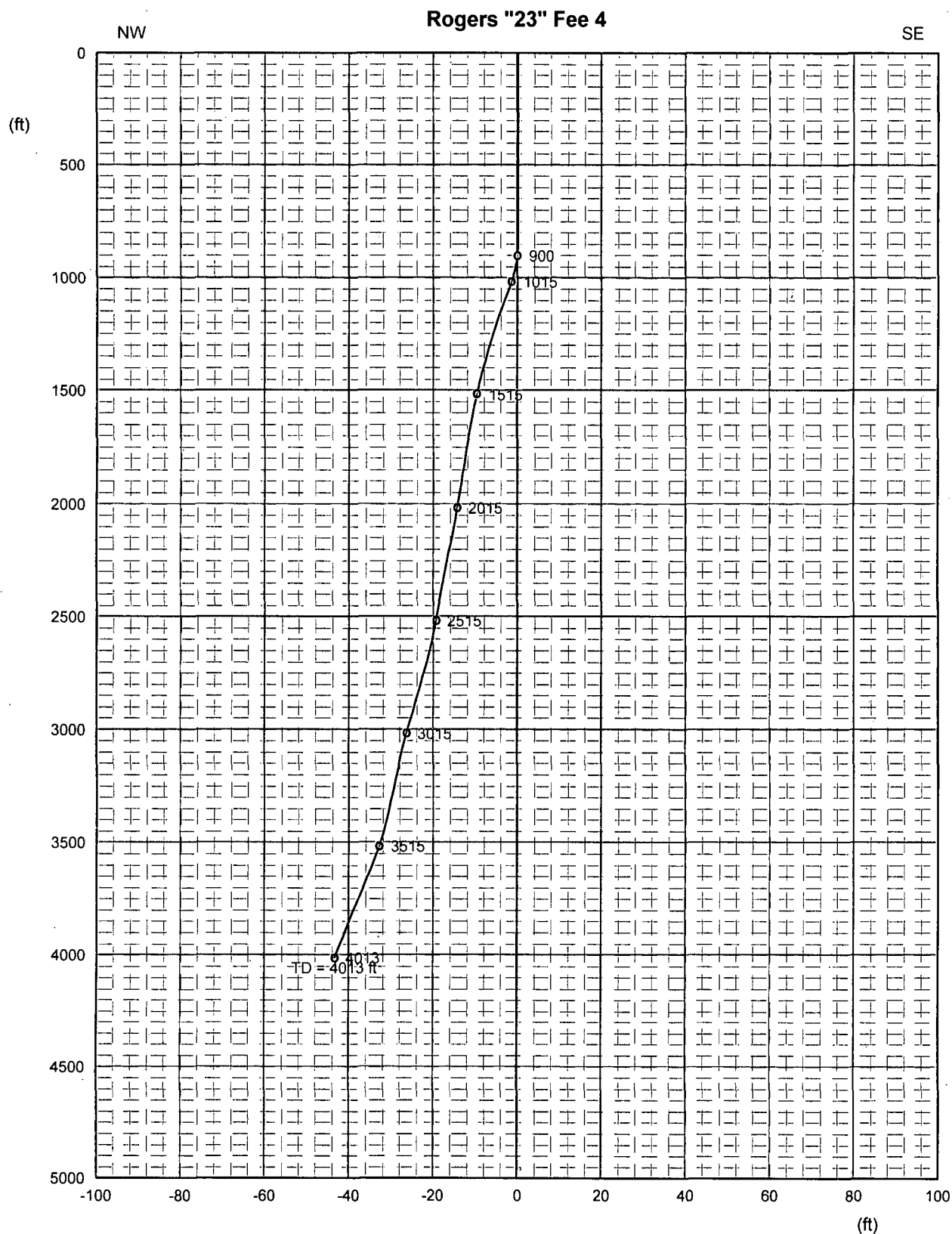
Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 ft



Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 ft



Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 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
900.00	900.00	0.00	0.00	0.00	0.00
965.00	964.99	1.44	276.19	-0.81	0.09
1015.00	1014.98	1.37	274.84	-2.03	0.21
1065.00	1064.96	1.40	276.30	-3.23	0.32
1115.00	1114.95	1.37	277.94	-4.43	0.47
1165.00	1164.93	1.37	278.73	-5.62	0.65
1215.00	1214.92	1.27	278.45	-6.76	0.82
1265.00	1264.91	1.15	278.13	-7.80	0.97
1315.00	1314.90	1.11	278.18	-8.78	1.11
1365.00	1364.89	0.99	278.83	-9.68	1.25
1415.00	1414.88	0.95	279.56	-10.52	1.38
1465.00	1464.88	0.92	280.61	-11.33	1.53
1515.00	1514.87	0.90	278.92	-12.11	1.66
1565.00	1564.87	0.81	273.27	-12.85	1.74
1615.00	1614.86	0.78	267.37	-13.54	1.75
1665.00	1664.86	0.83	270.46	-14.25	1.73
1715.00	1714.85	0.76	271.68	-14.95	1.75
1765.00	1764.85	0.70	276.17	-15.59	1.79
1815.00	1814.84	0.63	271.79	-16.17	1.83
1865.00	1864.84	0.62	276.72	-16.71	1.87
1915.00	1914.84	0.58	282.24	-17.23	1.96
1965.00	1964.84	0.61	282.80	-17.73	2.07
2015.00	2014.83	0.62	281.33	-18.26	2.18
2065.00	2064.83	0.64	282.93	-18.79	2.29
2115.00	2114.83	0.65	283.61	-19.34	2.42
2165.00	2164.82	0.70	284.80	-19.91	2.57
2215.00	2214.82	0.71	288.03	-20.50	2.74
2265.00	2264.82	0.67	286.59	-21.07	2.92
2315.00	2314.81	0.62	290.38	-21.61	3.10
2365.00	2364.81	0.60	294.12	-22.10	3.30
2415.00	2414.81	0.57	294.41	-22.57	3.51
2465.00	2464.80	0.62	294.60	-23.04	3.72
2515.00	2514.80	0.61	291.70	-23.53	3.93
2565.00	2564.80	0.69	292.68	-24.06	4.15
2615.00	2614.79	0.74	293.32	-24.63	4.39
2665.00	2664.79	0.82	296.90	-25.25	4.68
2715.00	2714.78	0.86	300.79	-25.89	5.04
2765.00	2764.78	0.91	301.78	-26.55	5.44
2815.00	2814.77	0.92	301.08	-27.23	5.86
2865.00	2864.77	0.88	305.10	-27.89	6.28
2915.00	2914.76	0.86	314.54	-28.47	6.77
2965.00	2964.75	0.89	315.78	-29.01	7.31
3015.00	3014.75	0.88	304.00	-29.60	7.81

3065.00	3064.74	0.74	301.53	-30.19	8.19
3115.00	3114.74	0.74	299.41	-30.75	8.52
3165.00	3164.74	0.62	307.42	-31.25	8.84
3215.00	3214.73	0.70	311.60	-31.69	9.21
3265.00	3264.73	0.74	300.35	-32.20	9.58
3315.00	3314.72	0.73	290.49	-32.78	9.85
3365.00	3364.72	0.75	286.58	-33.39	10.05
3415.00	3414.71	0.87	284.89	-34.07	10.25
3465.00	3464.71	1.05	284.58	-34.88	10.46
3515.00	3514.70	1.21	285.81	-35.83	10.72
3565.00	3564.69	1.31	286.40	-36.89	11.02
3615.00	3614.67	1.38	287.16	-38.01	11.36
3665.00	3664.66	1.40	287.53	-39.16	11.72
3715.00	3714.64	1.42	289.17	-40.33	12.11
3765.00	3764.63	1.42	290.08	-41.50	12.52
3815.00	3814.61	1.37	292.72	-42.63	12.97
3865.00	3864.60	1.24	299.84	-43.66	13.47
3915.00	3914.59	1.14	306.62	-44.53	14.04
3965.00	3964.58	1.21	321.76	-45.26	14.75
4013.00	4012.57	1.21	321.76	-45.89	15.55
MD (ft)	TVD (ft)	DEVI (deg)	AZIM (deg)	DX (ft)	DY (ft)

COMPANY: Oxy USA Inc.
 WELL: Rogers "23" Fee 4
 FIELD: Yeso
 STATE: New Mexico
 COUNTRY: USA
 Date Logged: 29-Jan-2014 Date Processed: 30-Jan-2014
 Well Location: 1650' FNL & 2310' FEL

Elevations: K.B. 3328.4 ft D.F. 3327.4 ft G.L. 3314.4 ft
 API Number: 30-015-40858 Job Number: DSP-2014-03031

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name ROGERS "23" FEE	Well Number 4
OGRID No.	Operator Name OXY USA INC.	Elevation 3314.4'

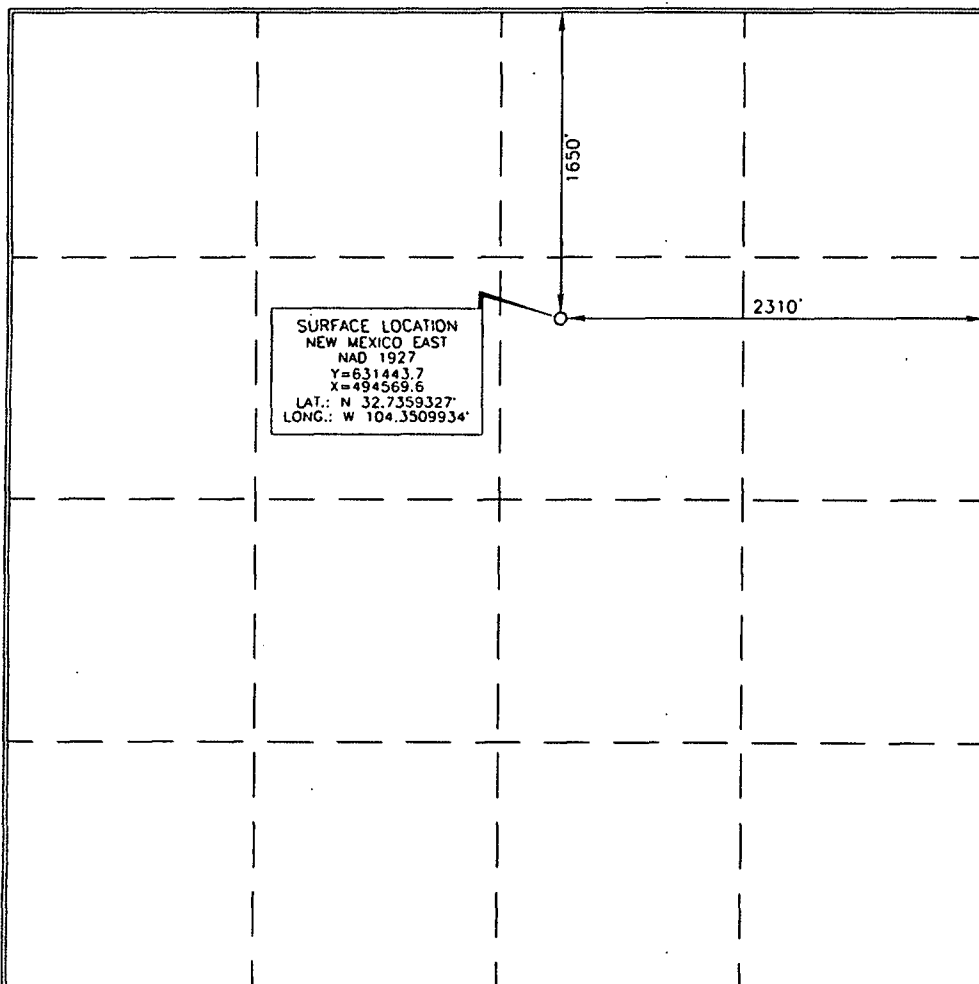
Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	23	18 SOUTH	26 EAST, N.M.P.M.		1650'	NORTH	2310'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____

Printed Name _____

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

15079
OCTOBER 26 2011
Date of Survey

Signature and Seal of Professional Surveyor

Terry Altsch 11/14/2011
Certificate Number 15079

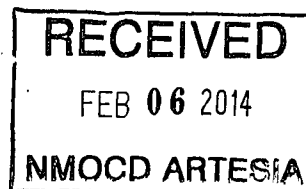
WO# 111026WL-d (KA)

Schlumberger

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

January 30, 2014

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



Attention: T.C. Shaffert

I, Elizabeth Rosborough, certify that I am employed by Schlumberger Technology Corporation; that I did on the day of 30 January, 2014 conduct or supervise the computation of a CONTINUOUS DIRECTIONAL SURVEY. The Continuous Directional Survey was conducted from a depth of 0 feet to a depth of 4013 feet. I certify that the data is true, correct, complete and within the limitations of the tool as set forth by Schlumberger Technology Corporation. I am authorized and qualified to make this report; and this survey was conducted at the request of Oxy USA Inc.. for the well Rogers 23 Fee 4, API Number 30-015-40858, located in Eddy County, New Mexico. I have reviewed this report and find that it conforms to the principles and procedures as set forth by Schlumberger Technology Corporation.

Signature: Elizabeth Rosborough

Name: Elizabeth Rosborough

Job Title: Geology Tech.

Submit 1 Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

WELL API NO. 30-015-40858
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Rogers
8. Well Number 4
9. OGRID Number 16696
10. Pool name or Wildcat ATOKA; GLORIETA-YESO (3250)

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator OXY USA INC	
3. Address of Operator PO BOX 4294; HOUSTON, TX 77210	
4. Well Location Unit Letter <u>G</u> 1650 feet from the <u>NORTH</u> line and 2310 feet from the <u>EAST</u> line Section <u>23</u> Township <u>18S</u> Range <u>26E</u> NMPM <u>EDDY</u> County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3314	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

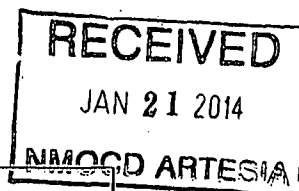
NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

OXY USA INC respectfully request permission to make changes to the surface casing shoe. Please see the attached for your use and review. Should you have any questions, please feel free to contact us at any time.

Spud Date:

Rig Release Date:



I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jennifer Duarte TITLE Regulatory Specialist DATE 01/17/2013

Type or print name Jennifer Duarte E-mail address: jennifer_duarte@oxy.com PHONE: 713-513-6640

For State Use Only

APPROVED BY: J. C. Shepard TITLE "Geologist" DATE 1-21-2014

Conditions of Approval (if any):

OXY USA Inc

ROGERS 23 FEE 4 SUNDRY NOTICE

Oxy, respectfully requests a dispensation from the approved permit as follows:

GREATEST PROJECTED TD: 4000 MD/ TVD OBJECTIVE: Yeso

1. REVISED CASING PROGRAM

Surface Casing ran in a 11" hole filled with 8.4 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
11	900	8.625	24	J55	STC	8.097*	New	2950	1370	1.42	4.48	2.06

Production Casing ran in a 7.875" hole filled with 9.8 ppg mud

Hole Size (in)	Interval (ft)	OD (in)	Wt (ppf)	Grade	Conn	ID (in)	Condition	Burst (psi)	Collapse (psi)	Burst SF	Coll SF	Ten SF
7.875	4000	5.500	17	L80	BTC	4.892	New	7740	6290	1.29	3.03	2.52

*SPECIAL DRIFT TO 7.875"

Casing Design Assumptions:

Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from section TD to surface

CSG Test (Intermediate)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from the Intermediate hole TD to Surface CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

CSG Test (Production)

- Internal: Displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Intermediate CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Gas Kick (Surface/Intermediate)

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section (e.g. Gas Kick while drilling the production hole section is a burst load used to design the intermediate CSG)
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Stimulation (Production)

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the Intermediate CSG shoe and 8.5 ppg MWE to surface

Collapse Loads

Lost Circulation (Surface/Intermediate)

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the intermediate CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone

- External: MW of the drilling mud that was in the hole when the CSG was run

Cementing (Surface/Intermediate/Production)

- Internal: Displacement Fluid
- External: Cement Slurries to TOC, MW to surface

Full Evacuation (Production)

- Internal: Atmospheric Pressure
- External: MW of the drilling mud that was in the hole when the CSG was run.

Tension Loads

Running CSG (Surface/Intermediate/Production)

- Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

Green Cement (Surface/Intermediate/Production)

- Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement pressure + 500 psi)

2. REVISED CEMENT PROGRAM

Surface Interval

Type	Amount	Ft of Fill	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
1st Lead Cement plus Thixotropic Cmt						
94 lbm Premium Plus Cement, 10 lbm Cal-Seal 60, 10 lbm Kol-Seal, 1 % Calcium Chloride, 0.25 lbm Poly-E-Flake, 7.44 Gal FRESH WATER	150 sks	-	7.44	14.2	1.668	798
2nd Lead Cement: 0 – 500' with 150% Excess						
94 lbm Premium Plus Cement, 0.25 lbm Poly-E-Flake, 4 % Bentonite, 2 % Calcium Chloride – Flake, 9.16 Gal FRESH WATER	190 sks	500	9.16	13.5	1.745	547
Tail Cement: 500 – 900' with 150% Excess						
94 lbm Premium Plus Cement, 2 % Calcium Chloride – Flake, 6.39 Gal FRESH WATER	210 sks	400	6.39	14.8	1.347	1275

Production Casing

Type	Amount	Ft of Fill	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Lead Cement: 0 – 2200' with 100% Excess						
Halliburton Light Premium Plus, 5 % Salt, 3 lbm Kol-Seal, 0.1250 lbm Poly-E-Flake, 9.97 Gal FRESH WATER	340 sks	2200	9.97	12.9	1.892	633
Tail Cement: 2200 – 4000' with 50% Excess						
50/50 Poz Premium Plus, 3 % Salt, 0.40 % Halad(R)-322, 0.1250 lbm Poly-E-Flake, 5.64 Gal FRESH WATER	390 sks	1800	5.64	14.5	1.241	985

The volumes indicated above may be revised depending on caliper measurement.