

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-104
Revised August 1, 2011

OCT 02 2019

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

RECEIVED

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address OXY USA INC. P.O. BOX 4294 HOUSTON, TX 77210		² OGRID Number 16696	
⁴ API Number 30-015-45231		³ Reason for Filing Code/ Effective Date - RT	
⁵ Pool Name COTTON DRAW; BONE SPRING		⁶ Pool Code 13367	
⁷ Property Code: 322245		⁸ Property Name: PLATINUM MDP1 34-3 FEDERAL COM	
		⁹ Well Number: 172H	

II. ¹⁰ Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
D	34	23S	31E		220	NORTH	1062	WEST	EDDY

¹¹ Bottom Hole Location

FTP: 259' FNL 792' FWL LTP: 119' FSL 804' FWL

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	24S	31E		21	SOUTH	803	WEST	EDDY

¹² Lse Code F	¹³ Producing Method Code: F	¹⁴ Gas Connection Date: TBD	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
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III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
237722	CENTURION PIPELINE L.P.	O
151618	ENTERPRISE FIELD SERVICES LLC	G

IV. Well Completion Data

²¹ Spud Date 05/30/2019	²² Ready Date 10/02/2019	²³ TD 11247'V/21405'M	²⁴ PBSD 11247'V/21392'M	²⁵ Perforations 11179'-21337'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8" 54.5# J55	605'	C 785		
12-1/4"	9-5/8" 40.0 HCLSD	4411'	C 1358		
8-1/2" 8.750"	7-5/8"	10638'	H 1031		
6-3/4"	5-1/2" 20.0 P110	21405'	H 816		

V. Well Test Data

³¹ Date New Oil	³² Gas Delivery Date	³³ Test Date	³⁴ Test Length	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil	³⁹ Water	⁴⁰ Gas		⁴¹ Test Method

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Sarah Chapman

Printed name:
SARAH CHAPMAN

Title:
REGULATORY SPECIALIST

E-mail Address:
sarah_chapman@oxy.com

Date: 09/30/2019 Phone: 713-350-4997

OIL CONSERVATION DIVISION

Approved by:

Raymond W. Todman

Title: Geologist

Approval Date: 10/16/19

Pending BLM approvals will subsequently be reviewed and scanned.

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 02 2019

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (505) 746-1283 Fax: (505) 746-9720
District III
1000 Rio Grande Road, Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

RECEIVED

☒ AMENDED REPORT
AS-DRIILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45231	Pool Code 13367	Pool Name Cotton Draw; Bone Spring
Property Code 322245	Property Name PLATINUM MDP1 "34-3" FEDERAL COM	Well Number 172H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3423.7'

Surface Location

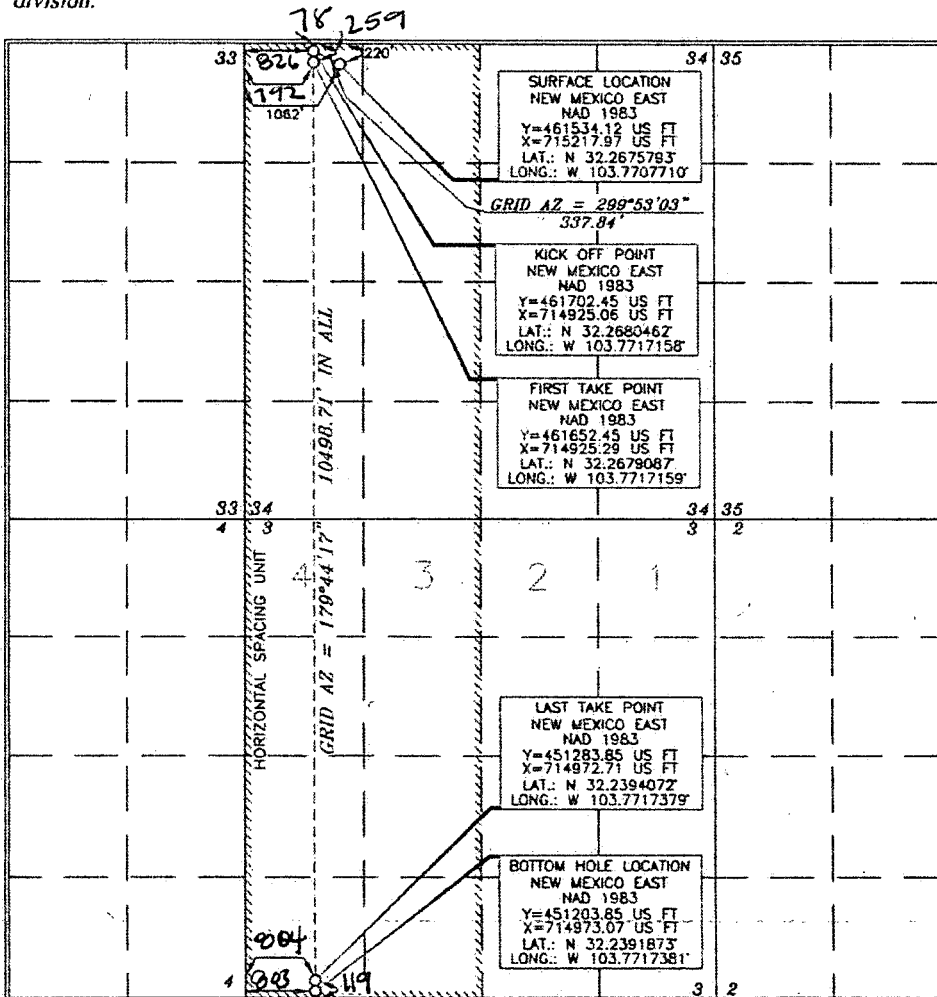
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	34	23 SOUTH	31 EAST, N.M.P.M.		220'	NORTH	1062'	WEST	EDDY

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
M	3	24 SOUTH	31 EAST, N.M.P.M.		21	SOUTH	803	WEST	EDDY

Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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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 undivided 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 as a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sarah Chapman 9/30/19
Signature Date
Sarah Chapman
Printed Name
Sarah-Chapman@oxy.com
E-mail Address

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.

TERY J. AS...
Date of Survey
Signature and Seal
Professional Surveyor

Terry J. As... 5/8/2019
Certificate Number 15079

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 02 2019

Intent ☐ As Drilled ☒

API # 30-015-45231		RECEIVED	
Operator Name: Oxy USA Inc.		Property Name: Platinum MDPI 34-3 Federal com	Well Number 172H

Kick Off Point (KOP)

UL D	Section 34	Township 23S	Range 31E	Lot	Feet 78	From N/S North	Feet 826	From E/W West	County EDDY
Latitude 32.26797					Longitude -103.77153			NAD NAD83	

First Take Point (FTP)

UL D	Section 34	Township 23S	Range 31E	Lot	Feet 259	From N/S North	Feet 792	From E/W West	County EDDY
Latitude 32.26747					Longitude -103.77164			NAD NAD83	

Last Take Point (LTP)

UL M	Section 3	Township 24S	Range 31E	Lot	Feet 119	From N/S South	Feet 804	From E/W West	County EDDY
Latitude 32.23946					Longitude -103.77178			NAD NAD83	

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #	
Operator Name:	Property Name:
Well Number	

KZ 06/29/2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM43744
2. Name of Operator OXY USA INCORPORATED Contact: SARAH CHAPMAN E-Mail: SARAH_CHAPMAN@OXY.COM		6. If Indian, Allottee or Tribe Name
3a. Address 5 GREENWAY PLAZA SUITE 110 HOUSTON, TX 77046-0521	3b. Phone No. (include area code) Ph: 713-350-4997	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 34 T23S R31E NWNW 220FNL 802FWL 32.267578 N Lat, 103.771614 W Lon		8. Well Name and No. PLATINUM MDP1 34-3 FEDERAL COM 1721
		9. API Well No. 30-015-45231-00-X1
		10. Field and Pool or Exploratory Area COTTON DRAW-BONE SPRING
		11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

7/9/19 MIRU, test BOP to 5000# high 250# low, good test. Test 13-3/8" csg to 1500# for 30 minutes, good test. RIH & drill new formation to 625', perform FIT test to EMW=19.5ppg 306psi, good test. Drill 12-1/4" hole to 4426'. RIH & set 9-5/8" 40# HCL-80 BTC csg @ 4411', pump 80bbl mudpush spacer then cmt w/ 1191sxs (364bbl) class C w/ additives 12.9ppg 1.73 yield followed by 167sxs (40bbl) class C w/ additives 14.8ppg 1.33 yield. Full returns throughout job, circ 150bbl cmt to surface. 7/16/19 MIRU, test BOP to 5000# high 250# low, good test. Test 9-5/8" csg to 2500# for 30 minutes, good test. RIH & drill new formation to 4436', perform FIT test to EMW=14.5ppg 699psi, good test. Drill 8-3/4" hole to 10658'. RIH & set 7-5/8" HCL-80 FJ/SF csg @ 10638', pump 40bbl spacer then cmt w/ 273sxs (78bbl) class H w/ additives 13.2ppg 1.61 yield followed by 752sxs class H w/ additives 12.8ppg 1.96 yield, no cmt to surface. Ran echometer, TOC @ 34', perform top job w/ 2bbl cmt. Full returns, cmt to surface. 7/25/19 D and rig release.

← weight?

14. I hereby certify that the foregoing is true and correct. Electronic Submission #479615 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 08/22/2019 (19PP3034SE)	
Name (Printed/Typed) SARAH CHAPMAN	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 08/21/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	JONATHON SHEPARD Title PETROLEUM ENGINEER	Date 08/22/2019
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Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime to knowingly make any false, fictitious or fraudulent statements or representations as to

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ****

Pending BLM approvals will subsequently be reviewed and scanned.

BLM REVISED **

Additional data for EC transaction #479615 that would not fit on the form

32. Additional remarks, continued

8/2/19 MIRU, test BOP to 5000# high 250# low, good test. Test 7/5-8" csg to 4000# for 30 minutes, good test. RIH & drill new formation to 10668', perform FIT test to EMW=15.0ppg 1765#, good test. Drill 6-3/4" hole to 11247'V/21405'M. RIH & set 5-1/2" 20# P-110 DQX/TORQ DQW @ 21405', pump 120bbl mudpush spacer then cmt w/ 816sxs (204bbl) class H w/ additives 13.2ppg 1.38 yield. Full returns throughout job, TOC @ ~10100'. 8/13/19 ND BOP, cut csg, install nightcap and rig release.

Revisions to Operator-Submitted EC Data for Sundry Notice #479615

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	DRG SR	DRG SR
Lease:	NMNM43744	NMNM43744
Agreement:		
Operator:	OXY USA INC. P.O. BOX 4294 HOUSTON, TX 77210 Ph: 713-497-2492	OXY USA INCORPORATED 5 GREENWAY PLAZA SUITE 110 HOUSTON, TX 77046-0521 Ph: 713.350.4816
Admin Contact:	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997
Tech Contact:	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	COTTON DRAW BONE SPRING	COTTON DRAW-BONE SPRING
Well/Facility:	PLATINUM MDP1 34-3 FEDERAL COM 172H Sec 34 T23S R31E NWNW 220FNL 802FWL 32.267578 N Lat, 103.771614 W Lon	PLATINUM MDP1 34-3 FEDERAL COM 172H Sec 34 T23S R31E NWNW 220FNL 802FWL 32.267578 N Lat, 103.771614 W Lon

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NNNM43744
2. Name of Operator OXY USA INC.		6. If Indian, Allottee or Tribe Name
3a. Address P.O. BOX 4294 HOUSTON, TX 77210		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 713-350-4997		8. Well Name and No. PLATINUM MDP1 34-3 FEDERAL COM 172
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 34 T23S R31E Mer NMP NWNW 220FNL 802FWL 32.267578 N Lat, 103.771614 W Lon		9. API Well No. 30-015-45231
		10. Field and Pool or Exploratory Area COTTON DRAW; BONE SPRING
		11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Hydraulic Fracture
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

RUPU 9/18/19, RIH & cleanout to PBTD @ 21392', pressure test csg to 9800# for 30 minutes, good test. RIH & perf from 21337-21218, 21178-21039, 21019-20880, 20860-20721, 20701-20562, 20542-20403, 20383-20244, 20224-20085, 20065-19929, 19906-19767, 19747-19608, 19588-19449, 19429-19290, 19270-19131, 19111-18972, 18952-18813, 18793-18654, 18634-18495, 18475-18336, 18316-18177, 18157-18018, 17998-17859, 17839-17700, 17680-17541, 17521-17382, 17362-17223, 17203-17064, 17044-16905, 16885-16746, 16726-16587, 16567-16428, 16408-16269, 16249-16110, 16090-15951, 15931-15792, 15772-15633, 15613-15474, 15454-15335, 15295.06-15156, 15136-14997, 14977-14888, 14818-14679, 14659-14520, 14500-14361, 14341-14202, 14182-14043, 14023-13884, 13864-13725, 13705.06-13566, 13546-13407, 13387-13248, 13228-13089, 13069-12930, 12910-12771, 12751-12612, 12592-12453, 12433-12294, 12274-12135, 12115-11976, 11956-11817, 11797-11658, 11638-11499, 11479-11340, 11320-11179. Frac in 64 stages w/ 12566274g slickwater and 21490288# sand. RD 9/29/19. Pump to clean up and turn well over to production.

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #485715 verified by the BLM Well Information System
For OXY USA INC., sent to the Carlsbad**

Name (Printed/Typed) SARAH CHAPMAN	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 09/30/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date _____
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Conditions of approval, if any, are attached. Approval of this notice does not warrant certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for anyone to make any false, fictitious or fraudulent statements or representations as to any matter.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR***Pending BLM approvals will
subsequently be reviewed and
scanned.*

or agency of the United

D **

Schlumberger

OXY

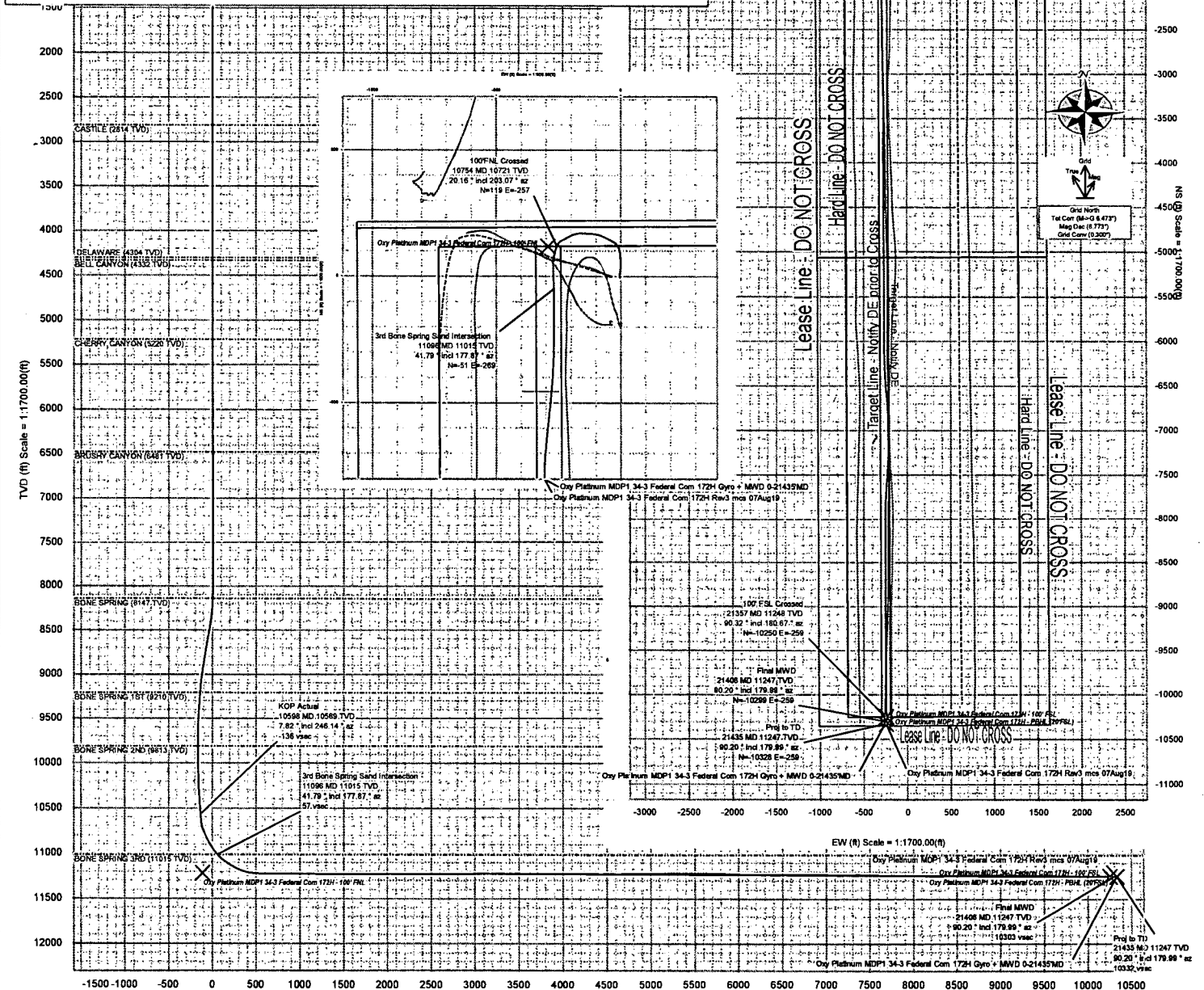


Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Platinum MDP1 34-3 Federal Com 172H	NM Eddy County (NAD 83)	Oxy Platinum MDP1 34-3 Federal Com 172H

Gravity & Magnetic Parameters				Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous	
Model: IFR1	Dip: 58.948°	Date: 30-Jul-2019		Lat: N 32 16 3.29	Northing: 461534.1281US	Grid Conv: 0.3003"		Slot: MDP1 34-3 Federal Com	TVD Ref: RKB(3448.71 above MSL)
MagDec: 6.773°	FS: 47954.6nT	Gravty FS: 998.447mgN (9.80665 Based)		Lon: W 103 48 14.78	Easting: 716217.9718US	Scale Fact: 0.99994372		Plan: Oxy Platinum MDP1 34-3 Federal Com 172H Gyro + MWD 0-21435MD	

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(°)/S(-)	E(°)/W(-)	DLS
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL	25.00	0.00	0.00	25.00	0.00	0.00	0.00	
Last Gyro	597.00	0.44	256.95	596.99	0.69	-0.64	-1.99	0.49
KOP Actual	10598.00	7.82	246.14	10568.83	-136.38	142.17	-236.09	0.70
100'FNL Crossed	10754.00	20.16	203.07	10720.88	-112.33	118.62	-257.32	15.70
3rd Bone Spring Sand Intersection	11096.06	41.79	177.87	11015.00	57.07	-50.53	-269.31	16.78
100' FSL Crossed	21357.00	90.32	180.67	11247.69	10253.70	-10250.44	-258.59	1.40
Final MWD	21408.00	90.20	179.99	11247.47	10302.69	-10299.44	-258.87	1.40
Proj to TD	21435.00	90.20	179.99	11247.36	10331.68	-10328.44	-258.86	0.00



Oxy Platinum MDP1 34-3 Federal Com 172H Gyro + MWD 0-21435'MD

Survey Geodetic Report

(Def Survey)



NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 02 2019

RECEIVED

Report Date: August 12, 2019 - 10:56 AM
Client: OXY
Field: NM Eddy County (NAD 83)
Structure / Slot: Oxy Platinum MDP1 34-3 Federal Com 172H / Oxy Platinum MDP1 34-3 Federal Com 172H
Well: Oxy Platinum MDP1 34-3 Federal Com 172H
Borehole: Original Borehole
UWI / API#: Unknown / 30-015-45231
Survey Name: Oxy Platinum MDP1 34-3 Federal Com 172H Gyro + MWD 0-21435'MD
Survey Date: June 25, 2019
Tort / AHD / DDI / ERD Ratio: 247.797' / 10876.906 ft / 6.711 / 0.967
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 3.28534", W 103° 46' 14.77562"
Location Grid N/E Y/X: N 461534.120 RUS, E 715217.970 RUS
CRS Grid Convergence Angle: 0.3003°
Grid Scale Factor: 0.99994372
Version / Patch: 2.10.760.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 181.394° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3448.700 ft above MSL
Seabed / Ground Elevation: 3423.700 ft above MSL
Magnetic Declination: 6.773°
Total Gravity Field Strength: 998.4475mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47954.500 nT
Magnetic Dip Angle: 59.948°
Declination Date: July 30, 2019
Magnetic Declination Model: IFR1
North Reference: Grid North
Grid Convergence Used: 0.3003°
Total Corr Mag North->Grid North: 6.4727°
Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (RUS)	Easting (RUS)	Latitude (NS ° ' '')	Longitude (EW ° ' '')
RKB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	461534.12	715217.97	N 32 16 3.29	W 103 46 14.78
SHL	25.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00	461534.12	715217.97	N 32 16 3.29	W 103 46 14.78
	99.90	0.10	151.49	99.90	0.06	-0.06	0.03	0.13	461534.06	715218.00	N 32 16 3.28	W 103 46 14.78
	127.30	0.22	262.45	127.30	0.09	-0.09	-0.01	0.99	461534.03	715217.96	N 32 16 3.28	W 103 46 14.78
	156.60	0.20	265.30	156.60	0.10	-0.10	-0.12	0.08	461534.02	715217.85	N 32 16 3.28	W 103 46 14.78
	185.70	0.22	254.49	185.70	0.12	-0.12	-0.22	0.15	461534.00	715217.75	N 32 16 3.28	W 103 46 14.78
	215.20	0.23	256.79	215.20	0.15	-0.14	-0.33	0.05	461533.98	715217.64	N 32 16 3.28	W 103 46 14.78
	241.70	0.26	266.01	241.70	0.17	-0.16	-0.44	0.19	461533.96	715217.53	N 32 16 3.28	W 103 46 14.78
	267.60	0.25	238.35	267.60	0.21	-0.19	-0.55	0.47	461533.93	715217.42	N 32 16 3.28	W 103 46 14.78
	299.20	0.22	253.59	299.20	0.26	-0.25	-0.67	0.22	461533.87	715217.30	N 32 16 3.28	W 103 46 14.78
	330.70	0.33	255.87	330.70	0.31	-0.29	-0.81	0.35	461533.83	715217.16	N 32 16 3.28	W 103 46 14.79
	362.20	0.28	255.47	362.20	0.35	-0.33	-0.98	0.16	461533.79	715216.99	N 32 16 3.28	W 103 46 14.79
	393.70	0.37	254.20	393.70	0.40	-0.38	-1.15	0.29	461533.74	715216.82	N 32 16 3.28	W 103 46 14.79
	425.20	0.41	255.81	425.20	0.46	-0.43	-1.36	0.13	461533.69	715216.61	N 32 16 3.28	W 103 46 14.79
	456.70	0.35	254.93	456.70	0.52	-0.48	-1.56	0.19	461533.64	715216.41	N 32 16 3.28	W 103 46 14.79
	488.20	0.48	97.02	488.20	0.56	-0.52	-1.52	2.59	461533.60	715216.45	N 32 16 3.28	W 103 46 14.79
	519.70	0.40	261.61	519.70	0.59	-0.56	-1.50	2.77	461533.56	715216.47	N 32 16 3.28	W 103 46 14.79
	551.20	0.34	263.48	551.19	0.62	-0.58	-1.70	0.19	461533.54	715216.27	N 32 16 3.28	W 103 46 14.80
	582.70	0.37	256.38	582.69	0.66	-0.62	-1.89	0.17	461533.50	715216.08	N 32 16 3.28	W 103 46 14.80
	597.00	0.44	256.95	596.99	0.69	-0.64	-1.99	0.49	461533.48	715215.98	N 32 16 3.28	W 103 46 14.80
	756.00	0.17	239.57	755.99	0.97	-0.90	-2.79	0.18	461533.22	715215.18	N 32 16 3.28	W 103 46 14.81
	848.00	0.08	314.36	847.99	0.99	-0.92	-2.95	0.18	461533.20	715215.02	N 32 16 3.28	W 103 46 14.81
	941.00	0.13	269.99	940.99	0.95	-0.88	-3.10	0.10	461533.24	715214.87	N 32 16 3.28	W 103 46 14.81
	1032.00	0.08	184.49	1031.99	1.02	-0.94	-3.21	0.16	461533.18	715214.76	N 32 16 3.28	W 103 46 14.81
	1213.00	0.13	239.42	1212.99	1.25	-1.17	-3.40	0.06	461532.95	715214.57	N 32 16 3.27	W 103 46 14.82
	1304.00	0.08	335.65	1303.99	1.25	-1.17	-3.51	0.18	461532.95	715214.46	N 32 16 3.27	W 103 46 14.82
	1491.00	0.13	189.46	1490.99	1.34	-1.26	-3.60	0.11	461532.86	715214.37	N 32 16 3.27	W 103 46 14.82
	1682.00	0.08	195.79	1681.99	1.69	-1.60	-3.67	0.03	461532.52	715214.30	N 32 16 3.27	W 103 46 14.82
	1872.00	0.08	227.60	1871.99	1.91	-1.82	-3.81	0.02	461532.30	715214.16	N 32 16 3.27	W 103 46 14.82
	1968.00	0.04	297.30	1967.99	1.94	-1.85	-3.89	0.08	461532.27	715214.08	N 32 16 3.27	W 103 46 14.82
	2158.00	0.04	330.78	2157.99	1.85	-1.76	-3.98	0.01	461532.36	715213.99	N 32 16 3.27	W 103 46 14.82
	2253.00	0.08	291.64	2252.99	1.80	-1.70	-4.06	0.06	461532.42	715213.91	N 32 16 3.27	W 103 46 14.82
	2444.00	0.08	249.59	2443.99	1.81	-1.70	-4.31	0.03	461532.42	715213.66	N 32 16 3.27	W 103 46 14.83
	2539.00	0.12	297.23	2538.99	1.79	-1.68	-4.46	0.09	461532.44	715213.51	N 32 16 3.27	W 103 46 14.83
	2634.00	0.10	82.47	2633.99	1.73	-1.62	-4.46	0.22	461532.50	715213.51	N 32 16 3.27	W 103 46 14.83
	2824.00	0.12	329.01	2823.99	1.54	-1.43	-4.40	0.10	461532.69	715213.57	N 32 16 3.27	W 103 46 14.83
	2919.00	0.12	286.10	2918.99	1.43	-1.32	-4.55	0.09	461532.80	715213.42	N 32 16 3.27	W 103 46 14.83
	3026.00	0.10	229.10	3025.99	1.46	-1.35	-4.73	0.10	461532.77	715213.24	N 32 16 3.27	W 103 46 14.83
	3110.00	0.04	318.43	3109.99	1.49	-1.37	-4.80	0.13	461532.75	715213.17	N 32 16 3.27	W 103 46 14.83
	3205.00	0.08	180.11	3204.99	1.53	-1.41	-4.82	0.12	461532.71	715213.15	N 32 16 3.27	W 103 46 14.83
	3301.00	0.08	87.00	3300.99	1.59	-1.48	-4.76	0.12	461532.64	715213.21	N 32 16 3.27	W 103 46 14.83
	3396.00	0.20	128.00	3395.99	1.69	-1.58	-4.56	0.16	461532.54	715213.41	N 32 16 3.27	W 103 46 14.83
	3598.00	0.08	103.28	3597.99	1.91	-1.81	-4.16	0.07	461532.31	715213.81	N 32 16 3.27	W 103 46 14.82
	3779.00	0.10	142.97	3778.99	2.07	-1.98	-3.93	0.03	461532.14	715214.04	N 32 16 3.27	W 103 46 14.82
	3874.00	0.08	316.33	3873.99	2.09	-2.00	-3.93	0.19	461532.12	715214.04	N 32 16 3.27	W 103 46 14.82
	3969.00	0.13	173.17	3968.99	2.15	-2.05	-3.96	0.21	461532.07	715214.01	N 32 16 3.27	W 103 46 14.82
	4065.00	0.08	8.06	4064.99	2.19	-2.10	-3.94	0.22	461532.02	715214.03	N 32 16 3.26	W 103 46 14.82
	4160.00	0.12	272.54	4159.99	2.12	-2.03	-4.03	0.16	461532.09	715213.94	N 32 16 3.27	W 103 46 14.82
	4299.00	0.08	226.74	4298.99	2.19	-2.09	-4.25	0.06	461532.03	715213.72	N 32 16 3.26	W 103 46 14.83
	4474.00	0.15	354.45	4473.99	2.05	-1.94	-4.36	0.12	461532.18	715213.61	N 32 16 3.27	W 103 46 14.83
	4568.00	0.17	222.84	4567.99	2.03	-1.92	-4.46	0.31	461532.20	715213.51	N 32 16 3.27	W 103 46 14.83
	4759.00	0.11	43.57	4758.99	2.11	-2.00	-4.53	0.15	461532.12	715213.44	N 32 16 3.27	W 103 46 14.83
	4959.00	0.18	290.27	4958.99	1.86	-1.75	-4.69	0.12	461532.37	715213.28	N 32 16 3.27	W 103 46 14.83
	5158.00	0.13	115.74	5157.99	1.85	-1.74	-4.78	0.16	461532.38	715213.19	N 32 16 3.27	W 103 46 14.83
	5198.00	0.20	45.98	5197.99	1.82	-1.71	-4.69	0.49	461532.41	715213.28	N 32 16 3.27	W 103 46 14.83
	5263.00	0.13	283.35	5262.99	1.73	-1.61	-4.68	0.45	461532.51	715213.29	N 32 16 3.27	W 103 46 14.83
	5358.00	0.14	202.74	5357.99	1.81	-1.70	-4.83	0.18	461532.42	715213.14	N 32 16 3.27	W 103 46 14.83
	5453.00	0.16	241.60	5452.98	1.99	-1.87	-4.99	0.11	461532.25	715212.98	N 32 16 3.27	W 103 46 14.83
	5549.00	0.13	122.36	5548.98	2.11	-1.99	-5.02	0.26	461532.13	715212.95	N 32 16 3.27	W 103 46 14.83
	5739.00	0.13	276.96	5738.98	2.20	-2.08	-5.05	0.13	461532.04	715212.92	N 32 16 3.27	W 103 46 14.83
	5834.00	0.16	124.07	5833.98	2.26	-2.14	-5.05	0.30	461531.98	715212.92	N 32 16 3.26	W 103 46 14.83
	5929.00	0.16	196.76	5928.98	2.46	-2.34	-4.98	0.20	461531.78	715212.99	N 32 16 3.26	W 103 46 14.83
	6025.00	0.17	115.72	6024.98	2.65	-2.53	-4.89	0.22	461531.59	715213.08	N 32 16 3.26	W 103 46 14.83
	6120.00	0.16	299.79	6119.98	2.64	-2.53	-4.88	0.35	461531.59	715213.09	N 32 16 3.26	W 103 46 14.83
	6310.00	0.16	8.58	6309.98	2.25	-2.13	-5.06	0.10	461531.99	715212.91	N 32 16 3.26	W 103 46 14.83
	6499.00	0.88	163.23	6498.98	3.37	-3.26	-4.60	0.54	461530.86	715213.37	N 32 16 3.25	W 103 46 14.83
	6688.00	0.19	174.13	6687.97	5.06	-4.96	-4.15	0.37	461529.16	715213.82	N 32 16 3.24	W 103 46 14.82
	6879.00	0.13	216.92	6878.97	5.55	-5.45	-4.25	0.07	461528.67	715213.72	N 32 16 3.23	W 103 46 14.83
	6973.00	0.16	316.97	6972.97	5.55	-5.44	-4.40	0.24	461528.68	715213.57	N 32 16 3.23	W 103 46 14.83
	7068.00	1.07	95.58	7067.96	5.52	-5.43	-3.61	1.26	461528.69	715214.36	N 32 16 3.23	W 103 46 14.82
	7162.00	0.11	106.10	7161.96	5.60	-5.54	-2.65	1.02	461528.58	715215.32	N 32 16 3.23	W 103 46 14.81
	7257.00	0.22	37.04	7256.96	5.48	-5.42	-2.45	0.22	461528.70	715215.52	N 32 16 3.23	W 103 46 14.80
	7352.00	0.29	12.48	7351.95	5.09	-5.04	-2.29					

Comments	MD (R)	Incl (°)	Azim Grid (°)	TVD (R)	VSEC (R)	NS (R)	EW (R)	DLS (°/100ft)	Northing (RUS)	Easting (RUS)	Latitude (N/S ° °')	Longitude (E/W ° °')
	7921.00	0.76	287.94	7920.94	3.70	-3.63	-2.66	0.54	461530.49	715218.31	N 32 16 3.25 W 103 46 14.81	
	8001.00	0.83	259.32	8000.93	3.67	-3.58	-3.74	0.50	461530.54	715214.23	N 32 16 3.25 W 103 46 14.82	
	8097.00	1.12	335.08	8096.92	2.97	-2.86	-4.81	1.27	461531.26	715213.16	N 32 16 3.26 W 103 46 14.83	
	8192.00	2.48	350.64	8191.87	0.12	0.01	-5.54	1.51	461534.13	715212.43	N 32 16 3.29 W 103 46 14.84	
	8288.00	5.48	12.00	8287.63	-6.43	6.55	-4.92	3.43	461540.67	715213.05	N 32 16 3.35 W 103 46 14.83	
	8383.00	8.16	8.55	8381.95	-17.58	17.65	-2.98	2.85	461551.77	715214.99	N 32 16 3.46 W 103 46 14.81	
	8478.00	9.73	3.79	8475.79	-32.29	32.33	-1.45	1.83	461566.45	715216.52	N 32 16 3.61 W 103 46 14.79	
	8574.00	11.05	1.98	8570.22	-49.59	49.62	-0.59	1.42	461583.74	715217.38	N 32 16 3.78 W 103 46 14.78	
	8669.00	9.55	353.96	8663.69	-66.51	66.56	-1.11	2.18	461600.68	715216.86	N 32 16 3.94 W 103 46 14.78	
	8763.00	8.93	355.83	8756.47	-81.51	81.59	-2.46	0.73	461615.71	715215.51	N 32 16 4.09 W 103 46 14.80	
	8859.00	8.99	350.14	8851.30	-96.28	96.41	-4.28	0.92	461630.53	715213.69	N 32 16 4.24 W 103 46 14.82	
	8953.00	10.46	340.71	8943.95	-111.47	111.70	-8.36	2.30	461645.82	715209.61	N 32 16 4.39 W 103 46 14.87	
	9049.00	10.76	315.77	9038.36	-125.90	126.36	-17.50	4.76	461660.47	715200.48	N 32 16 4.54 W 103 46 14.97	
	9141.00	10.09	299.09	9128.86	-135.65	136.43	-30.53	3.35	461670.54	715187.44	N 32 16 4.64 W 103 46 15.12	
	9239.00	9.03	297.26	9225.50	-142.99	144.13	-44.87	1.13	461678.24	715173.10	N 32 16 4.71 W 103 46 15.29	
	9334.00	9.68	294.74	9319.24	-149.41	150.89	-56.75	0.81	461685.00	715159.22	N 32 16 4.78 W 103 46 15.45	
	9429.00	12.00	292.98	9412.54	-156.21	158.09	-75.10	2.47	461692.20	715142.88	N 32 16 4.85 W 103 46 15.64	
	9525.00	11.84	283.79	9506.47	-162.00	164.33	-93.85	1.98	461698.44	715124.12	N 32 16 4.92 W 103 46 15.86	
	9620.00	10.62	275.49	9599.66	-164.72	167.49	-112.03	2.13	461701.60	715105.94	N 32 16 4.95 W 103 46 16.07	
	9715.00	9.78	270.84	9693.16	-165.26	168.45	-128.82	1.24	461702.56	715089.16	N 32 16 4.96 W 103 46 16.27	
	9811.00	8.92	273.68	9787.88	-165.48	169.04	-144.40	1.02	461703.15	715073.58	N 32 16 4.97 W 103 46 16.45	
	9905.00	7.61	271.90	9880.91	-165.83	169.72	-157.89	1.42	461703.83	715060.09	N 32 16 4.97 W 103 46 16.60	
	10001.00	7.02	261.56	9976.13	-164.88	169.07	-170.05	1.50	461703.18	715047.93	N 32 16 4.97 W 103 46 16.75	
	10095.00	6.03	256.45	10069.52	-162.63	167.07	-180.53	1.22	461701.18	715037.45	N 32 16 4.95 W 103 46 16.87	
	10191.00	5.07	255.57	10165.07	-160.17	164.83	-189.54	1.00	461698.94	715028.44	N 32 16 4.93 W 103 46 16.97	
	10286.00	5.47	245.19	10259.67	-157.03	161.88	-197.72	1.09	461695.99	715020.27	N 32 16 4.90 W 103 46 17.07	
	10381.00	8.22	242.00	10353.98	-151.69	156.78	-207.82	2.92	461690.90	715010.16	N 32 16 4.85 W 103 46 17.19	
	10477.00	9.02	241.33	10448.90	-144.55	149.96	-220.49	0.84	461684.07	714997.50	N 32 16 4.78 W 103 46 17.33	
	10571.00	7.83	244.76	10541.88	-137.99	143.70	-232.74	1.37	461677.81	714985.24	N 32 16 4.72 W 103 46 17.48	
	10598.00	7.82	246.14	10568.63	-136.38	142.17	-236.09	0.70	461676.28	714981.90	N 32 16 4.70 W 103 46 17.52	
	10682.00	10.93	228.70	10651.51	-128.54	134.60	-247.30	4.97	461668.71	714970.68	N 32 16 4.63 W 103 46 17.65	
KOP Actual	10754.00	20.16	203.07	10720.88	-112.33	118.62	-257.32	15.70	461652.74	714960.66	N 32 16 4.47 W 103 46 17.77	
100'FNL Crossed	10777.00	23.49	199.28	10742.23	-104.28	110.65	-260.39	15.70	461644.76	714957.59	N 32 16 4.39 W 103 46 17.80	
	10872.00	24.62	188.72	10829.02	-66.62	73.20	-269.65	4.68	461607.31	714948.34	N 32 16 4.02 W 103 46 17.91	
	10966.00	35.11	179.91	10910.46	-20.02	26.66	-272.58	12.07	461560.78	714845.40	N 32 16 3.56 W 103 46 17.95	
	11061.00	36.05	175.81	10987.73	35.12	-28.55	-270.50	2.70	461505.57	714947.49	N 32 16 3.02 W 103 46 17.93	
3rd Bone Spring Sand Intersection	11096.06	41.79	177.87	11015.00	57.07	-50.53	-269.31	16.78	461483.59	714948.68	N 32 16 2.80 W 103 46 17.92	
	11156.00	51.66	180.51	11056.04	100.62	-94.10	-268.78	16.78	461440.02	714949.21	N 32 16 2.37 W 103 46 17.91	
	11250.00	57.61	180.24	11110.43	177.22	-170.72	-269.27	6.33	461363.41	714948.71	N 32 16 1.61 W 103 46 17.92	
	11345.00	62.51	180.12	11157.82	259.50	-253.02	-269.53	5.16	461281.11	714948.46	N 32 16 0.80 W 103 46 17.93	
	11439.00	72.84	182.34	11193.64	346.27	-339.77	-271.45	10.99	461194.37	714946.53	N 32 15 59.94 W 103 46 17.96	
	11534.00	80.98	184.65	11215.30	438.62	-432.00	-277.12	9.09	461102.14	714940.87	N 32 15 59.03 W 103 46 18.03	
	11628.00	88.62	186.66	11223.82	531.90	-525.09	-286.34	8.40	461009.07	714931.64	N 32 15 58.10 W 103 46 18.14	
	11652.00	88.57	186.08	11224.40	555.80	-548.93	-289.01	2.42	460985.22	714928.98	N 32 15 57.87 W 103 46 18.17	
	11786.00	89.33	185.39	11226.90	691.38	-684.22	-302.59	0.75	460849.94	714915.39	N 32 15 56.53 W 103 46 18.34	
	11883.00	90.27	180.37	11227.23	786.32	-779.07	-307.37	5.38	460755.09	714910.62	N 32 15 55.59 W 103 46 18.40	
	11978.00	90.13	180.29	11226.90	881.30	-874.07	-307.91	0.17	460660.10	714910.08	N 32 15 54.65 W 103 46 18.41	
	12072.00	89.46	179.98	11227.23	975.28	-969.07	-308.13	0.79	460566.11	714909.85	N 32 15 53.72 W 103 46 18.42	
	12166.00	89.27	180.37	11228.27	1069.25	-1062.06	-308.42	0.46	460472.12	714909.57	N 32 15 52.79 W 103 46 18.43	
	12260.00	89.26	179.22	11229.46	1163.21	-1156.05	-308.08	1.22	460378.13	714909.90	N 32 15 51.86 W 103 46 18.43	
	12359.00	89.46	179.28	11230.54	1252.13	-1255.04	-306.79	0.18	460279.15	714911.20	N 32 15 50.88 W 103 46 18.42	
	12453.00	89.39	179.36	11231.48	1356.06	-1349.03	-305.67	0.11	460185.17	714912.31	N 32 15 49.95 W 103 46 18.42	
	12547.00	89.84	177.63	11232.11	1449.94	-1442.99	-303.20	1.90	460091.22	714914.78	N 32 15 49.02 W 103 46 18.39	
	12642.00	89.80	176.71	11232.41	1544.79	-1537.84	-300.17	1.14	459996.27	714917.82	N 32 15 48.08 W 103 46 18.35	
	12736.00	91.02	179.55	11231.74	1638.71	-1631.92	-298.74	1.58	459902.29	714919.24	N 32 15 47.15 W 103 46 18.35	
	12831.00	90.13	177.91	11230.78	1733.60	-1726.88	-296.64	1.96	459807.33	714921.35	N 32 15 46.21 W 103 46 18.34	
	12925.00	90.74	179.96	11230.07	1827.50	-1820.87	-294.89	2.28	459713.36	714923.10	N 32 15 45.28 W 103 46 18.32	
	13020.00	90.17	179.68	11229.31	1922.46	-1915.86	-294.59	0.67	459618.37	714923.39	N 32 15 44.34 W 103 46 18.32	
	13114.00	90.16	178.36	11229.04	2016.38	-2009.85	-292.98	1.40	459524.39	714925.00	N 32 15 43.41 W 103 46 18.31	
	13214.00	89.79	178.70	11229.09	2111.26	-2104.81	-290.55	0.53	459429.43	714927.44	N 32 15 42.47 W 103 46 18.29	
	13304.00	90.30	180.00	11229.01	2206.20	-2199.81	-289.47	1.47	459334.44	714928.52	N 32 15 41.53 W 103 46 18.28	
	13398.00	89.85	178.86	11228.89	2300.14	-2293.80	-288.54	1.30	459240.45	714929.60	N 32 15 40.60 W 103 46 18.28	
	13493.00	90.07	179.35	11228.95	2395.06	-2388.79	-287.05	0.57	459145.47	714930.94	N 32 15 39.66 W 103 46 18.26	
	13582.00	89.80	179.40	11229.17	2583.95	-2577.78	-284.99	0.15	458956.49	714933.00	N 32 15 37.79 W 103 46 18.25	
	13672.00	89.83	178.91	11229.78	2773.80	-2767.75	-282.19	0.26	458766.53	714935.80	N 32 15 35.91 W 103 46 18.23	
	13766.00	91.14	178.79	11228.99	2867.70	-2861.73	-280.30	1.40	458672.56	714937.69	N 32 15 34.98 W 103 46 18.21	
	14061.00	91.13	178.17	11227.10	2962.56	-2956.68	-277.78	0.65	458577.62	714940.20	N 32 15 34.04 W 103 46 18.19	
	14155.00	90.02	179.26	11226.16	3056.45	-3050.64	-275.67	1.65	458483.65	714942.31	N 32 15 33.11 W 103 46 18.17	
	14249.00	89.83	178.16	11226.28	3150.34	-3144.62	-273.56	1.19	458389.68	714944.43	N 32 15 32.18 W 103 46 18.15	
	14344.00	90.12	178.64	11226.33	3245.21	-3239.58	-270.91	0.59	458294.73	714947.08	N 32 15 31.24 W 103 46 18.13	
	14438.00	89.53	179.34	11226.61	3339.13	-3333.57	-269.25	0.97	458200.75	714948.74	N 32 15 30.31 W 103 46 18.11	
	14532.00	90.78	179.36	11226.36	3433.07	-3427.56	-268.18	1.33	458106.76	714949.80	N 32 15 29.38 W 103 46 18.11	
	14627.00	90.68	178.46	11225.15	3527.97	-3522.53	-266.37	0.95	458011.79	714951.61	N 32 15 28.44 W 103 46 18.09	
	14721.00	90.36	178.77	11224.30	3621.86	-3616.50	-264.10	0.47	457917.83	714953.88	N 32 15 27.51 W 103 46 18.07	
	14803.00	89.52	179.31	11224.49	3803.70	-3798.47	-261.05	0.55	457735.87	714956.93	N 32 15 25.71 W 103 46 18.05	
	14898.00	89.67	179.03	11225.16	3896.63	-3893.46	-259.68	0.33	457640.89	714958.31	N 32 15 24.77 W 103 46 18.04	
	15187.00	90.02	179.54	11225.67	4087.50	-4082.						

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ft)	Easting (ft)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	18023.00	89.37	179.86	11234.42	6920.87	-6917.48	-223.64	0.72	454617.05	714994.34	N 32 14 54.85 W	103 46 17.80
	18117.00	89.54	178.47	11235.31	7014.79	-7011.46	-222.27	1.48	454523.07	714995.71	N 32 14 53.92 W	103 46 17.79
	18212.00	89.78	178.12	11235.87	7109.65	-7106.42	-219.45	0.45	454428.12	714998.54	N 32 14 52.98 W	103 46 17.76
	18307.00	90.19	178.10	11235.90	7204.49	-7201.36	-216.31	0.43	454333.18	715001.67	N 32 14 52.04 W	103 46 17.73
	18401.00	90.34	180.05	11235.46	7298.41	-7295.35	-214.80	2.08	454239.20	715003.19	N 32 14 51.11 W	103 46 17.72
	18496.00	90.00	180.22	11235.18	7393.39	-7390.34	-215.02	0.40	454144.21	715002.96	N 32 14 50.17 W	103 46 17.73
	18590.00	88.55	180.32	11236.37	7487.36	-7484.33	-215.46	1.55	454050.22	715002.52	N 32 14 49.24 W	103 46 17.74
	18779.00	88.83	180.42	11240.69	7676.28	-7673.28	-216.68	0.16	453861.29	715001.30	N 32 14 47.37 W	103 46 17.77
	18873.00	89.52	180.43	11242.05	7770.26	-7767.27	-217.38	0.73	453767.31	715000.60	N 32 14 46.44 W	103 46 17.78
	18968.00	90.20	180.73	11242.28	7865.25	-7862.26	-218.34	0.78	453672.32	714999.64	N 32 14 45.50 W	103 46 17.80
	19062.00	89.61	180.78	11242.43	7959.24	-7956.25	-219.58	0.63	453578.33	714998.40	N 32 14 44.57 W	103 46 17.82
	19157.00	89.48	180.72	11243.19	8054.23	-8051.24	-220.82	0.15	453483.35	714997.16	N 32 14 43.63 W	103 46 17.84
	19251.00	89.14	180.38	11244.32	8148.21	-8145.23	-221.73	0.51	453389.36	714996.26	N 32 14 42.70 W	103 46 17.85
	19345.00	90.39	179.97	11244.71	8242.19	-8239.23	-222.01	1.40	453295.37	714995.97	N 32 14 41.77 W	103 46 17.86
	19439.00	90.42	180.38	11244.04	8336.17	-8333.22	-222.30	0.44	453201.38	714995.68	N 32 14 40.84 W	103 46 17.87
	19534.00	91.02	179.69	11242.85	8431.13	-8428.22	-222.36	0.96	453106.40	714995.62	N 32 14 39.90 W	103 46 17.88
	19628.00	90.90	179.44	11241.27	8525.07	-8522.20	-221.65	0.29	453012.42	714996.34	N 32 14 38.97 W	103 46 17.88
	19723.00	90.94	179.59	11239.75	8620.01	-8617.18	-220.84	0.16	452917.44	714997.14	N 32 14 38.03 W	103 46 17.87
	19817.00	91.32	180.28	11237.89	8713.96	-8711.16	-220.73	0.84	452823.46	714997.25	N 32 14 37.10 W	103 46 17.88
	19912.00	89.74	180.78	11237.01	8808.94	-8806.15	-221.61	1.74	452728.48	714996.41	N 32 14 36.16 W	103 46 17.89
	20006.00	90.85	181.09	11236.53	8902.93	-8900.14	-223.15	1.23	452634.50	714994.84	N 32 14 35.23 W	103 46 17.92
	20101.00	90.08	181.75	11235.76	8997.93	-8995.10	-225.50	1.07	452539.54	714992.48	N 32 14 34.29 W	103 46 17.95
	20195.00	89.99	182.15	11235.70	9091.92	-9089.05	-228.70	0.44	452445.60	714989.28	N 32 14 33.36 W	103 46 17.99
	20290.00	89.75	183.00	11235.92	9186.90	-9183.95	-232.97	0.93	452350.70	714985.02	N 32 14 32.42 W	103 46 18.05
	20385.00	88.50	182.56	11237.37	9281.86	-9278.83	-237.57	1.39	452255.83	714980.41	N 32 14 31.48 W	103 46 18.11
	20480.00	89.81	182.06	11238.77	9376.84	-9373.74	-241.40	1.48	452160.93	714976.58	N 32 14 30.55 W	103 46 18.16
	20574.00	88.48	181.81	11240.17	9470.82	-9467.67	-244.58	1.44	452067.00	714973.41	N 32 14 29.62 W	103 46 18.20
	20669.00	89.07	181.29	11242.20	9565.80	-9562.61	-247.15	0.83	451972.06	714970.84	N 32 14 28.68 W	103 46 18.24
	20763.00	88.64	181.44	11244.08	9659.78	-9656.57	-249.38	0.48	451878.11	714968.60	N 32 14 27.75 W	103 46 18.27
	20857.00	89.25	180.50	11245.81	9753.76	-9750.54	-250.98	1.19	451784.15	714967.01	N 32 14 26.82 W	103 46 18.29
	20952.00	88.78	180.50	11247.45	9848.73	-9845.52	-251.80	0.49	451689.17	714966.18	N 32 14 25.88 W	103 46 18.31
	21047.00	89.49	181.18	11248.88	9943.71	-9940.50	-253.20	1.03	451594.20	714964.79	N 32 14 24.94 W	103 46 18.33
	21141.00	90.57	180.38	11248.83	10037.71	-10034.49	-254.48	1.43	451500.22	714963.51	N 32 14 24.01 W	103 46 18.35
	21236.00	90.11	181.54	11248.27	10132.70	-10129.47	-256.07	1.31	451405.24	714961.92	N 32 14 23.07 W	103 46 18.37
	21330.00	90.39	181.04	11247.86	10226.70	-10223.44	-258.18	0.61	451311.27	714959.80	N 32 14 22.14 W	103 46 18.41
100' FSL	21357.00	90.32	180.67	11247.69	10253.70	-10250.44	-258.59	1.40	451284.28	714959.40	N 32 14 21.87 W	103 46 18.41
Crossed												
Final MWD	21406.00	90.20	179.99	11247.47	10302.69	-10299.44	-258.87	1.40	451235.28	714959.12	N 32 14 21.39 W	103 46 18.42
Proj to TD	21435.00	90.20	179.99	11247.36	10331.68	-10328.44	-258.86	0.00	451206.28	714959.12	N 32 14 21.10 W	103 46 18.42

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	25.000	1/98.425	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H Gyro + MWD 0-21435' MD
	1	25.000	25.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT-Depth Only	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H Gyro + MWD 0-21435' MD
	1	25.000	597.000	Act Stns	30.000	30.000	NAL_NSG+MSHOT	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H
	1	597.000	4299.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H
	1	4299.000	4959.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H
	1	4959.000	7638.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H
	1	7638.000	7921.000	Act Stns	30.000	30.000	NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H
	1	7921.000	21435.000	Act Stns	30.000	30.000	NAL_MWD_IFR1+MS	Original Borehole / Oxy Platinum MDP1 34-3 Federal Com 172H