

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.

HOBBS OGD

MAY 08 2018

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM66925
2. Name of Operator OXY USA INC		6. If Indian, Allottee or Tribe Name
Contact: DAVID STEWART E-Mail: david_stewart@oxy.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address P.O. BOX 50250 MIDLAND, TX 79710	3b. Phone No. (include area code) Ph: 432-685-5717	8. Well Name and No. MESA VERDE BS UNIT 7
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 17 T24S R32E SESW 280FSL 2626FWL 32.210987 N Lat, 103.696800 W Lon		9. API Well No. 30-025-44065
		10. Field and Pool or Exploratory Area MESA VERDE BONE SPRING
		11. County or Parish, State LEA 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	
	☐ 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 recompleate 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 recompletion 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.

OXY USA Inc. respectfully requests to amend the APD for the Mesa Verde BS Unit #7 - API No. 30-015-44065.

1. Amend the proposed TD to 20629'M 10560'V.
2. Amend the directional drilling plans, see attached.
3. Amend the intermediate casing @ 0-4721' and production casing @ 0-20629', see attached.
4. Amend the surface, intermediate and production casing cementing program. OXY also requests to pump a two stage production casing cement job with the first stage being pumped conventionally with the calculated TOC @ the Brushy Canyon and the second stage performed as a bradenhead squeeze with

well already drilled

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #403317 verified by the BLM Well Information System For OXY USA INC, sent to the Hobbs Committed to AFMSS for processing by JENNIFER SANCHEZ on 04/24/2018 ()	
Name (Printed/Typed) DAVID STEWART	Title SR. REGULATORY ADVISOR
Signature (Electronic Submission)	Date 02/05/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date _____
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.		
Office _____		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #403317 that would not fit on the form

32. Additional remarks, continued

planned cement from the top of the Brushy Canyon to surface, see attached.

5. Amend the mud program, depth and type, see attached.

Note: This well was originally permitted as the Mesa Verde 17-8 Federal Com 3H.

Unit Number: NMNM137096X

OXY USA Inc. - Mesa Verde BS Unit #7 – 30-025-44065 - Amended Drill Plan
Mesa Verde 17-8 Federal Com #3H

OXY USA Inc. respectfully requests approval for the following changes from the approved permit:

Casing Program

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	Buoyant Buoyant			
	From (ft)	To (ft)					SF Collapse	SF Burst	Body SF Tension	Joint SF Tension
17.5	0	969	13.375	54.5	J55	BTC	1.125	1.2	1.4	1.4
12.25	0	4721	9.625	47	J55	BTC	1.125	1.2	1.4	1.4
8.5	0	20629	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
SF Values will meet or Exceed										

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Cementing Program

Casing	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface	813	14.2	1.68	6.53	6:50	Class C Cement, Accelerator
Intermediate Casing	788	12.9	1.74	8.67	15:07	Pozzolan Cement, Retarder
	156	14.8	1.326	6.34	6:31	Class C Cement, Retarder, Dispersant, Salt
Production Casing 1st Stage	240	13.2	1.671	8.44	22:36	Class C Cement
	1764	13.2	1.65	8.59	16:22	Class H Cement, Retarder, Dispersant, Salt
Production Casing 2nd Stage (Bradenhead Squeeze)	1069	12.9	1.872	10.11	4:21	Class C Cement, Accelerator

Casing String	Top of Lead (ft)	Bottom of Lead (ft)	Top of Tail (ft)	Bottom of Tail (ft)	% Excess Lead	% Excess Tail
Surface	N/A	N/A	0	969	N/A	100%
Intermediate Casing	0	4221	4221	4721	75%	20%
1st Stage Production Casing	6911	8574	8574	20629	5%	5%
2nd Stage Production Casing (Bradenhead Squeeze)	0	6911	N/A	N/A	25%	N/A

OXY USA Inc. - Mesa Verde BS Unit #7 – 30-025-44065 - Amended Drill Plan
Mesa Verde 17-8 Federal Com #3H

Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	969	Water-Based Mud	8.4-8.6	40-60	N/C
969	4721	Brine	9.8-10.0	35-45	N/C
4721	20629	Oil-Based Mud	8.2-9.2	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

Total estimated cuttings volume: 1953.2 bbls.

Oxy Mesa Verde 17-8 Federal Com 3H Rev0 APS 04Jan18 Proposal

Geodetic Report

(Def Plan)



Report Date: January 08, 2018 - 03:47 PM
 Client: OXY
 Field: NM (Las County) (NAD 83)
 Structure / Sict: Oxy Mesa Verde 17-8 Federal Com 3H / Oxy Mesa Verde 17-8 Federal Com 3H
 Well: Oxy Mesa Verde 17-8 Federal Com 3H
 Borehole: Unknown / 30-025-4005
 UMI / AP#: Oxy Mesa Verde 17-8 Federal Com 3H Rev0 APS 04Jan18
 Survey Name: January 08, 2018
 Torf / AHD / DDI / ERD Ratio: 101.551 / 1.0725 590 ft / 6.328 / 1.016
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 12' 39.5543S, W 103° 41' 48.4815W
 Location Lat / Long: N 441074.180 NUTS, E 738203.680 NUTS
 CRS Grid Convergence Angle: 0.3393 °
 Grid Scale Factor: 0.9995348
 Version / Patch: 2.10.696.0

Survey / DLS Computation:
 Vertical Section Azimuth: 357.217 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 Minimum Curvature / Lubinski
 RKB-26.5
 3569.400 ft above MSL
 3569.900 ft above MSL
 6.856 °
 999.4317 mag (9.8065 Based)
 CARM
 48043.914 nT
 59.938 °
 January 08, 2018
 HDGM 2017
 Grid North
 0.3393 °
 6.5168 °
 Wall Head

Survey / DLS Computation:
 Vertical Section Azimuth: 357.217 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 Minimum Curvature / Lubinski
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 3569.400 ft above MSL
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 CARM
 48043.914 nT
 59.938 °
 January 08, 2018
 HDGM 2017
 Grid North
 0.3393 °
 6.5168 °
 Wall Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (NUTS)	Easting (NUTS)	Latitude (N 32° 12' 39.55 W 103° 41' 48.48)	Longitude (E 738203.68)
SHL	0.00	0.00	236.90	0.00	0.00	0.00	0.00	NA	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	100.00	0.00	236.90	100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	200.00	0.00	236.90	200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	300.00	0.00	236.90	300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	400.00	0.00	236.90	400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	500.00	0.00	236.90	500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	600.00	0.00	236.90	600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	700.00	0.00	236.90	700.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	800.00	0.00	236.90	800.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	900.00	0.00	236.90	900.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1000.00	0.00	236.90	1000.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1100.00	0.00	236.90	1100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1200.00	0.00	236.90	1200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1300.00	0.00	236.90	1300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1400.00	0.00	236.90	1400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1500.00	0.00	236.90	1500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1600.00	0.00	236.90	1600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1700.00	0.00	236.90	1700.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1800.00	0.00	236.90	1800.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	1900.00	0.00	236.90	1900.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2000.00	0.00	236.90	2000.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2100.00	0.00	236.90	2100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2200.00	0.00	236.90	2200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2300.00	0.00	236.90	2300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2400.00	0.00	236.90	2400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2500.00	0.00	236.90	2500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2600.00	0.00	236.90	2600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2700.00	0.00	236.90	2700.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2800.00	0.00	236.90	2800.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	2900.00	0.00	236.90	2900.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3000.00	0.00	236.90	3000.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3100.00	0.00	236.90	3100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3200.00	0.00	236.90	3200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3300.00	0.00	236.90	3300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3400.00	0.00	236.90	3400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3500.00	0.00	236.90	3500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3600.00	0.00	236.90	3600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3700.00	0.00	236.90	3700.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3800.00	0.00	236.90	3800.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	3900.00	0.00	236.90	3900.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4000.00	0.00	236.90	4000.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4100.00	0.00	236.90	4100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4200.00	0.00	236.90	4200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4300.00	0.00	236.90	4300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4400.00	0.00	236.90	4400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4500.00	0.00	236.90	4500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4600.00	0.00	236.90	4600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4700.00	0.00	236.90	4700.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4800.00	0.00	236.90	4800.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	4900.00	0.00	236.90	4900.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5000.00	0.00	236.90	5000.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5100.00	0.00	236.90	5100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5200.00	0.00	236.90	5200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5300.00	0.00	236.90	5300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5400.00	0.00	236.90	5400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5500.00	0.00	236.90	5500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5600.00	0.00	236.90	5600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5700.00	0.00	236.90	5700.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5800.00	0.00	236.90	5800.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	5900.00	0.00	236.90	5900.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6000.00	0.00	236.90	6000.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6100.00	0.00	236.90	6100.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6200.00	0.00	236.90	6200.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6300.00	0.00	236.90	6300.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6400.00	0.00	236.90	6400.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6500.00	0.00	236.90	6500.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68
	6600.00	0.00	236.90	6600.00	0.00	0.00	0.00	0.00	441074.18	738203.68	N 32° 12' 39.55 W 103° 41' 48.48	738203.68

Comments	MO	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northng	Eastng	Latitude	Longitude
	(M)	(°)	(°)	(M)	(M)	(M)	(M)	(1/1000)	(M/S)	(M/S)	(N-S)	(E-W)
	7600.00	7.50	236.80	7592.96	-58.18	-62.64	-66.55	0.00	441011.25	738107.14	N 32 12 38.94	W 103 41 48.61
	7700.00	7.50	236.80	7592.12	-64.17	-70.07	-70.48	0.00	441004.42	738082.50	N 32 12 38.94	W 103 41 48.61
	7800.00	7.50	236.80	7591.27	-70.30	-76.38	-76.80	0.00	440997.58	738063.80	N 32 12 38.94	W 103 41 48.61
	7900.00	7.50	236.80	7590.43	-77.36	-84.30	-84.72	0.00	440990.86	738045.10	N 32 12 38.73	W 103 41 48.90
	8000.00	7.50	236.80	7589.56	-84.54	-91.46	-91.90	0.00	440982.78	738026.39	N 32 12 38.73	W 103 41 49.12
	8100.00	7.50	236.80	7588.70	-91.13	-98.59	-99.03	0.00	440975.60	738007.68	N 32 12 38.52	W 103 41 50.25
	8200.00	7.50	236.80	7587.84	-97.72	-105.72	-106.17	0.00	440968.47	737988.97	N 32 12 38.52	W 103 41 50.25
	8300.00	7.50	236.80	7586.99	-104.31	-112.85	-113.11	0.00	440961.34	737970.26	N 32 12 38.52	W 103 41 50.25
	8400.00	7.50	236.80	7586.13	-110.90	-119.98	-120.11	0.00	440954.21	737951.55	N 32 12 38.52	W 103 41 50.25
	8500.00	7.50	236.80	7585.28	-117.49	-127.11	-127.11	0.00	440947.08	737932.84	N 32 12 38.52	W 103 41 50.25
	8600.00	7.50	236.80	7584.42	-124.08	-134.24	-134.24	0.00	440939.95	737914.13	N 32 12 38.52	W 103 41 50.25
	8700.00	7.50	236.80	7583.56	-130.67	-141.37	-141.37	0.00	440932.82	737895.42	N 32 12 38.52	W 103 41 50.25
	8800.00	7.50	236.80	7582.71	-137.26	-148.50	-148.50	0.00	440925.69	737876.71	N 32 12 38.52	W 103 41 50.25
	8900.00	7.50	236.80	7581.85	-143.85	-155.63	-155.63	0.00	440918.56	737858.00	N 32 12 38.52	W 103 41 50.25
	9000.00	7.50	236.80	7580.99	-150.44	-162.76	-162.76	0.00	440911.43	737839.29	N 32 12 38.52	W 103 41 50.25
	9100.00	7.50	236.80	7580.14	-157.03	-169.89	-169.89	0.00	440904.30	737820.58	N 32 12 38.52	W 103 41 50.25
	9200.00	7.50	236.80	7579.28	-163.62	-177.02	-177.02	0.00	440897.17	737801.87	N 32 12 38.52	W 103 41 50.25
	9300.00	7.50	236.80	7578.43	-170.21	-184.15	-184.15	0.00	440890.04	737783.16	N 32 12 38.52	W 103 41 50.25
	9400.00	7.50	236.80	7577.57	-176.81	-191.28	-191.28	0.00	440882.91	737764.45	N 32 12 38.52	W 103 41 50.25
	9500.00	7.50	236.80	7576.72	-183.40	-198.41	-198.41	0.00	440875.78	737745.74	N 32 12 38.52	W 103 41 50.25
	9600.00	7.50	236.80	7575.86	-189.99	-205.54	-205.54	0.00	440868.65	737727.03	N 32 12 38.52	W 103 41 50.25
	9700.00	7.50	236.80	7575.01	-196.58	-212.67	-212.67	0.00	440861.52	737708.32	N 32 12 38.52	W 103 41 50.25
	9800.00	7.50	236.80	7574.15	-203.17	-219.80	-219.80	0.00	440854.39	737689.61	N 32 12 38.52	W 103 41 50.25
	9900.00	7.50	236.80	7573.29	-209.76	-226.93	-226.93	0.00	440847.26	737670.90	N 32 12 38.52	W 103 41 50.25
KOP, Build	9977.68	7.50	236.80	9950.31	-214.88	-232.47	-236.61	0.00	440841.72	737652.19	N 32 12 37.27	W 103 41 52.65
107100	10000.00	6.58	253.56	9927.46	-215.01	-233.63	-260.05	10.00	440840.57	737644.65	N 32 12 37.26	W 103 41 52.80
	10000.00	10.31	323.20	10077.57	-232.91	-258.15	-310.08	10.00	440846.04	737637.82	N 32 12 37.32	W 103 41 52.80
	10000.00	19.21	341.11	10168.27	-186.70	-205.45	-380.01	10.00	440848.75	737631.09	N 32 12 37.32	W 103 41 52.80
	10000.00	28.83	348.03	10259.48	-146.99	-166.19	-381.27	10.00	440850.08	737624.36	N 32 12 37.53	W 103 41 53.05
	10000.00	38.62	351.67	10342.56	-91.99	-111.59	-400.81	10.00	440852.80	737617.63	N 32 12 37.53	W 103 41 53.05
	10000.00	48.46	354.02	10414.94	-43.29	-43.29	-409.26	10.00	441030.80	737610.90	N 32 12 39.15	W 103 41 53.25
	10000.00	58.40	355.73	10477.43	5.67	36.62	-416.35	10.00	441110.80	737604.17	N 32 12 39.15	W 103 41 53.25
	10700.00	68.32	357.12	10519.21	146.05	125.72	-421.87	10.00	441199.89	737597.44	N 32 12 39.64	W 103 41 53.32
	10800.00	78.26	358.32	10561.93	241.70	320.45	-425.65	10.00	441295.46	737590.71	N 32 12 40.52	W 103 41 53.38
	10900.00	88.19	359.64	10595.71	340.84	320.45	-427.72	10.00	441394.62	737584.00	N 32 12 42.75	W 103 41 53.42
	11000.00	98.00	359.64	10626.00	440.75	420.45	-428.23	10.00	441494.61	737577.29	N 32 12 44.73	W 103 41 53.44
	11100.00	108.00	359.64	10656.00	540.66	520.44	-429.40	0.00	441594.60	737570.58	N 32 12 46.72	W 103 41 53.44
	11200.00	118.00	359.64	10686.00	640.57	620.44	-430.11	0.00	441694.59	737563.87	N 32 12 48.71	W 103 41 53.44
	11300.00	128.00	359.64	10716.00	740.48	720.44	-430.74	0.00	441794.58	737557.16	N 32 12 50.70	W 103 41 53.44
	11400.00	138.00	359.64	10746.00	840.39	820.44	-431.36	0.00	441894.57	737550.45	N 32 12 52.69	W 103 41 53.44
	11500.00	148.00	359.64	10776.00	940.30	920.44	-431.99	0.00	441994.57	737543.74	N 32 12 54.68	W 103 41 53.44
	11600.00	158.00	359.64	10806.00	1040.21	1020.44	-432.62	0.00	442094.57	737537.03	N 32 12 56.67	W 103 41 53.44
	11700.00	168.00	359.64	10836.00	1140.12	1120.43	-433.24	0.00	442194.56	737530.32	N 32 12 58.66	W 103 41 53.44
	11800.00	178.00	359.64	10866.00	1240.03	1220.43	-433.87	0.00	442294.55	737523.61	N 32 12 58.66	W 103 41 53.44
	11900.00	188.00	359.64	10896.00	1339.94	1320.43	-434.50	0.00	442394.55	737516.90	N 32 12 58.66	W 103 41 53.44
	12000.00	198.00	359.64	10926.00	1439.85	1420.43	-435.12	0.00	442494.54	737510.19	N 32 12 58.66	W 103 41 53.44
	12100.00	208.00	359.64	10956.00	1539.76	1520.43	-435.75	0.00	442594.53	737503.48	N 32 12 58.66	W 103 41 53.44
	12200.00	218.00	359.64	10986.00	1639.67	1620.42	-436.38	0.00	442694.52	737496.77	N 32 12 58.66	W 103 41 53.44
	12300.00	228.00	359.64	11016.00	1739.58	1720.42	-437.01	0.00	442794.51	737490.06	N 32 12 58.66	W 103 41 53.44
	12400.00	238.00	359.64	11046.00	1839.49	1820.42	-437.64	0.00	442894.50	737483.35	N 32 12 58.66	W 103 41 53.44
	12500.00	248.00	359.64	11076.00	1939.40	1920.42	-438.27	0.00	442994.49	737476.64	N 32 12 58.66	W 103 41 53.44
	12600.00	258.00	359.64	11106.00	2039.31	2020.41	-438.88	0.00	443094.48	737469.93	N 32 13 0.65	W 103 41 53.44
	12700.00	268.00	359.64	11136.00	2139.22	2120.41	-439.51	0.00	443194.47	737463.22	N 32 13 0.65	W 103 41 53.44
	12800.00	278.00	359.64	11166.00	2239.13	2220.41	-440.14	0.00	443294.46	737456.51	N 32 13 0.65	W 103 41 53.44
	12900.00	288.00	359.64	11196.00	2339.04	2320.41	-440.76	0.00	443394.45	737449.80	N 32 13 0.65	W 103 41 53.44
	13000.00	298.00	359.64	11226.00	2438.95	2420.41	-441.39	0.00	443494.44	737443.09	N 32 13 0.65	W 103 41 53.44
	13100.00	308.00	359.64	11256.00	2538.86	2520.41	-442.02	0.00	443594.43	737436.38	N 32 13 0.65	W 103 41 53.44
	13200.00	318.00	359.64	11286.00	2638.77	2620.40	-442.64	0.00	443694.42	737429.67	N 32 13 0.65	W 103 41 53.44
	13300.00	328.00	359.64	11316.00	2738.68	2720.40	-443.27	0.00	443794.41	737422.96	N 32 13 0.65	W 103 41 53.44
	13400.00	338.00	359.64	11346.00	2838.59	2820.40	-443.90	0.00	443894.40	737416.25	N 32 13 0.65	W 103 41 53.44
	13500.00	348.00	359.64	11376.00	2938.50	2920.40	-444.52	0.00	443994.39	737409.54	N 32 13 0.65	W 103 41 53.44
	13600.00	358.00	359.64	11406.00	3038.41	3020.40	-445.15	0.00	444094.38	737402.83	N 32 13 0.65	W 103 41 53.44
	13700.00	368.00	359.64	11436.00	3138.32	3120.39	-445.78	0.00	444194.37	737396.12	N 32 13 0.65	W 103 41 53.44
	13800.00	378.00	359.64	11466.00	3238.23	3220.39	-446.40	0.00	444294.36	737389.41	N 32 13 0.65	W 103 41 53.44
	13900.00	388.00	359.64	11496.00	3338.14	3320.38	-447.03	0.00	444394.35	737382.70	N 32 13 0.65	W 103 41 53.44
	14000.00	398.00	359.64	11526.00	3438.05	3420.38	-447.66	0.00	444494.34	737376.00	N 32 13 0.65	W 103 41 53.44
	14100.00	408.00	359.64	11556.00	3537.96	3520.38	-448.28	0.00	444594.33	737369.29	N 32 13 0.65	W 103 41 53.44
	14200.00	418.00	359.64	11586.00	3637.87	3620.38	-448.91	0.00	444694.32	737362.58	N 32 13 0.65	W 103 41 53.44
	14300.00	428.00	359.64	11616.00	3737.78	3720.38	-449.54	0.00	444794.31	737355.87	N 32 13 0.65	W 103 41 53.44
	14400.00	438.00	359.64	11646.00	3837.69	3820.38	-450.17	0.00	444894.30	737349.16	N 32 13 0.65	W 103 41 53.44
	14500.00	448.00	359.64	11676.00	3937.60	3920.38	-450.79	0.00	444994.29	737342.45	N 32 13 0.65	W 103 41 53.44
	14600.00	458.00	359.64	11706.00	4037.51	4020.38	-451.42	0.00	445094.28	737335.74	N 32 13 0.65	W 103 41 53.44
	14700.00	468.00	359.64	11736.00	4137.42	4120.37	-452.04	0.00	445194.27	737329.03	N 32 13 0.65	W 103 41 53.44
	14800.00	478.00	359.64	11766.00	4237.33	4220.37	-452.67	0.00	445294.26	737322.32	N 32 13 0.65	W 103 41 53.44
	14900.00	488.00	359.64	11796.00	4337.24	4320.37	-453.30	0.00	445394.25			

Comments	MD (ft)	Incl (°)	Adm Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S+°)	Longitude (E/W+°)
	18200.00	90.00	359.64	10560.00	7634.30	7620.31	-473.35	0.00	448694.12	731730.35	N 32 13 54.98	W 103 41 53.47
	18300.00	90.00	359.64	10560.00	7634.21	7620.30	-473.98	0.00	448694.11	731728.73	N 32 13 55.97	W 103 41 53.47
	18400.00	90.00	359.64	10560.00	7634.12	7620.30	-474.60	0.00	448694.10	731726.10	N 32 13 56.96	W 103 41 53.47
	18500.00	90.00	359.64	10560.00	7634.03	7620.30	-475.22	0.00	448694.09	731723.48	N 32 13 57.95	W 103 41 53.47
	18600.00	90.00	359.64	10560.00	8033.62	8620.30	-475.85	0.00	448694.08	731720.85	N 32 13 58.93	W 103 41 53.47
	18700.00	90.00	359.64	10560.00	8133.85	8120.30	-476.48	0.00	448194.08	731722.22	N 32 13 59.93	W 103 41 53.47
	18800.00	90.00	359.64	10560.00	8233.76	8220.29	-477.11	0.00	448294.07	731726.59	N 32 14 0.92	W 103 41 53.47
	18900.00	90.00	359.64	10560.00	8333.67	8320.29	-477.74	0.00	448394.06	731725.97	N 32 14 1.91	W 103 41 53.47
	19000.00	90.00	359.64	10560.00	8433.59	8420.29	-478.36	0.00	448494.06	731725.34	N 32 14 2.90	W 103 41 53.47
	19100.00	90.00	359.64	10560.00	8533.50	8520.29	-478.99	0.00	448594.05	731724.71	N 32 14 3.89	W 103 41 53.47
	19200.00	90.00	359.64	10560.00	8633.41	8620.29	-479.62	0.00	448694.05	731724.08	N 32 14 4.88	W 103 41 53.47
	19300.00	90.00	359.64	10560.00	8733.32	8720.28	-480.24	0.00	448794.04	731723.46	N 32 14 5.87	W 103 41 53.47
	19400.00	90.00	359.64	10560.00	8833.23	8820.28	-480.87	0.00	448894.03	731722.83	N 32 14 6.86	W 103 41 53.47
	19500.00	90.00	359.64	10560.00	8933.14	8920.28	-481.50	0.00	448994.02	731722.21	N 32 14 7.85	W 103 41 53.47
	19600.00	90.00	359.64	10560.00	9033.05	9020.28	-482.12	0.00	449094.02	731721.58	N 32 14 8.84	W 103 41 53.47
	19700.00	90.00	359.64	10560.00	9132.96	9120.28	-482.75	0.00	450194.01	731720.95	N 32 14 9.83	W 103 41 53.47
	19800.00	90.00	359.64	10560.00	9232.87	9220.27	-483.38	0.00	450294.01	731720.33	N 32 14 10.82	W 103 41 53.47
	19900.00	90.00	359.64	10560.00	9332.78	9320.27	-484.00	0.00	450394.01	731719.70	N 32 14 11.81	W 103 41 53.47
	20000.00	90.00	359.64	10560.00	9432.69	9420.27	-484.63	0.00	450493.99	731719.07	N 32 14 12.80	W 103 41 53.47
	20100.00	90.00	359.64	10560.00	9532.60	9520.27	-485.26	0.00	450593.99	731718.45	N 32 14 13.79	W 103 41 53.47
	20200.00	90.00	359.64	10560.00	9632.51	9620.27	-485.88	0.00	450693.98	731717.82	N 32 14 14.78	W 103 41 53.47
	20300.00	90.00	359.64	10560.00	9732.42	9720.26	-486.51	0.00	450793.97	731717.19	N 32 14 15.76	W 103 41 53.48
	20400.00	90.00	359.64	10560.00	9832.33	9820.26	-487.14	0.00	450893.97	731716.57	N 32 14 16.75	W 103 41 53.48
	20500.00	90.00	359.64	10560.00	9932.24	9920.26	-487.76	0.00	450993.96	731715.94	N 32 14 17.74	W 103 41 53.48
	20600.00	90.00	359.64	10560.00	10032.15	10020.26	-488.39	0.00	451093.95	731715.31	N 32 14 18.73	W 103 41 53.48
Mesa Verde 17- 8 Federal Com 3H PBHL	20629.40	90.00	359.64	10560.00	10061.53	10049.66	-488.57	0.00	451123.35	731715.13	N 32 14 19.02	W 103 41 53.48

Survey Type:

Def Plan

Survey Error Model:
Survey Program: ISCWSA Rev 0 ---3-D 95.000% Confidence 2.7855 Sigma

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	26.500	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Oxy Mesa Verde 17-8 Federal Com 3H
	1	26.500	20629.400	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Revd APS Oklahoma Original Borehole / Oxy Mesa Verde 17-8 Federal Com 3H



OXY



Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Mesa Verde 17-8 Federal Com 3H	NM Lea County (NAD 83)	Oxy Mesa Verde 17-8 Federal Com 3H

Gravity & Magnetic Parameters	Surface Location	Miscellaneous
Model: HDGM 2017 Dip: 59.338° Date: 08-Jan-2018 Gravity PS: 998.432mg (8.80666 Based)	NAD83 New Mexico State Plane, Eastern Zone, US Feet Lat: N 32 12 39.55 Northing: 441074.18RUS Grid Conv: 0.3393 Lon: W 103 41 48.48 Easting: 738203.88RUS Scale Fact: 0.99995348	000011 Mesa Verde Slot: 17-8 Federal Com TVD Ref: RKB=26.5'(3586.4ft above MSL) Plan: Oxy Mesa Verde 17-8 Federal Com 3H Rev0 APS 04Jan18

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(°)S(°)	E(°)W(°)	DLS
SHL	0.00	0.00	236.90	0.00	0.00	0.00	0.00	0.00
Rustler	919.00	0.00	236.90	919.00	0.00	0.00	0.00	0.00
Salado	1007.00	0.00	236.90	1007.00	0.00	0.00	0.00	0.00
Castle	3300.00	0.00	236.90	3300.00	0.00	0.00	0.00	0.00
Delaware	4670.00	0.00	236.90	4670.00	0.00	0.00	0.00	0.00
Bell Canyon	4685.00	0.00	236.90	4685.00	0.00	0.00	0.00	0.00
Cherry Canyon	5543.00	0.00	236.90	5543.00	0.00	0.00	0.00	0.00
Build 2'/100'	6530.00	0.00	236.90	6530.00	0.00	0.00	0.00	0.00
Hold	6905.10	7.50	236.90	6904.03	-12.38	-13.39	-20.54	2.00
Brushy Canyon	6912.13	7.50	236.90	6911.00	-12.84	-13.89	-21.31	0.00
Bone Spring	8517.88	7.50	236.90	8503.00	-118.67	-128.38	-196.94	0.00
KOP, Build 10'/100'	9977.68	7.50	236.90	9950.31	-214.88	-232.47	-356.61	0.00
Planned Top Perf Cross	10521.24	60.51	359.05	10485.22	75.08	54.96	-417.66	10.00
Landing Point	10918.18	90.00	359.64	10560.00	359.00	338.63	-427.72	10.00
Planned Bottom Perf Cross	20519.39	90.00	359.64	10560.00	9951.62	9939.65	-487.88	0.00
Mesa Verde 17-8 Federal Com 3H PBHL	20629.40	90.00	359.64	10560.00	10061.53	10049.66	-488.57	0.00

