At surface SESE / 420 FSL / 1070 FEL / LAT 32.2113163				SEC 18 / T24S / R3	2E / NMP		
At proposed prod. zone NWSE / 2461 FSL / 1381 FEL / LAT 4. Distance in miles and direction from nearest town or post office*	32.231431	15 / LONG -103.70	97847	12. County or Parish	13. State		
26 miles 5 Distance from proposed*	16. No. of a	cres in lease	17 Spacin	LEA NM			
location to nearest 50 feet property or lease line, ft. (Also to nearest drig. unit line, if any)	651.15	cres in lease	240	ng Onn dedicated to this w	en		
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, 30 feet applied for, on this lease, ft.</li> </ol>	19. Proposed			BIA Bond No. on file			
1. Elevations (Show whether DF, KDB, RT, GL, etc.)		t / 17978 feet nate date work will star		23. Estimated duration			
3570 feet	06/04/201		n	20 days			
	24. Attac	hments					
he following, completed in accordance with the requirements of Onshore	e Oil and Gas	Order No.1, must be at	ttached to th	nis form:			
. Well plat certified by a registered surveyor. A Drilling Plan.		4. Bond to cover the Item 20 above).	he operation	ons unless covered by an o	existing bond on file (see		
A Surface Use Plan (if the location is on National Forest System I SUPO must be filed with the appropriate Forest Service Office).	ands, the	<ol> <li>Operator certific</li> <li>Such other site BLM.</li> </ol>		formation and/or plans as	may be required by the		
5. Signature	to be a second se	(Printed Typed)			Date		
(Electronic Submission)	David	Stewart / Ph: (713	3)366-571	6	06/13/2017		
Sr. Regulatory Advisor			5				
pproved by (Signature)		(Printed Typed)			Date		
(Electronic Submission)		Layton / Ph: (575)2	234-5959		10/30/2017		
itle Superviser Multiple Resources	Office	SBAD					
Supervisor Multiple Resources		SBAD	ts in the cul	hiertlease which would er	title the applicant to		
pplication approval does not warrant or certify that the applicant holds onduct operations thereon. onditions of approval, if any, are attached.	legal or equit	table title to those righ	ts in the sul	bject lease which would er	title the applicant to		

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AFMSS

Application for Permit to Drill

# **APD Package Report**

APD ID: 10400014805 APD Received Date: 06/13/2017 03:52 PM (1696) Operator: OXY USA INCORPORATED

APD Package Report Contents Poul 96229

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  - -- Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
  - -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  - -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  - -- Casing Design Assumptions and Worksheet(s): 5 file(s)
  - -- Hydrogen sulfide drilling operations plan: 2 file(s)
  - -- Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)

OCD Hobbs

- -- Other Facets: 3 file(s)
- SUPO Report
- SUPO Attachments
  - -- Existing Road Map: 1 file(s)
  - -- Attach Well map: 1 file(s)
  - -- Production Facilities map: 3 file(s)
  - -- Water source and transportation map: 2 file(s)
  - -- Well Site Layout Diagram: 1 file(s)
  - -- Other SUPO Attachment: 4 file(s)
- PWD Report
- PWD Attachments
  - -- None
- Bond Report
- Bond Attachments
- -- None

Date Printed: 10/31/2017 11:10 AM

Well Status: AAPD	(31am)
Well Name: MESA	(3/9731) VERDE 18-7 FEDERAI
Well Number: 5H	



Bureau-of-Land-Management

S: Department of the Interior

#### INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

# NOTÍCES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts. ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

(Form 3160-3, page 2)

# Additional Operator Remarks

#### Location of Well

1. SHL: SESE / 420 FSL / 1070 FEL / TWSP: 24S / RANGE: 32E / SECTION: 18 / LAT: 32.2113163 / LONG: -103.7087498 (TVD: 0 feet, MD: 0 feet) PPP: SWSE / 340 FSL / 1381 FEL / TWSP: 24S / RANGE: 32E / SECTION: 18 / LAT: 32.2110931 / LONG: -103.7097551 (TVD: 10495 feet, MD: 10862 feet) BHL: NWSE / 2461 FSL / 1381 FEL / TWSP: 24S / RANGE: 32E / SECTION: 7 / LAT: 32.2314315 / LONG: -103.7097847 (TVD: 10495 feet, MD: 17978 feet)

#### **BLM Point of Contact**

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Name: Cody Layton Title: Supervisor Multiple Resources Phone: 5752345959

Email: clayton@blm.gov

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#### (Form 3160-3, page 3)

#### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

(Form 3160-3, page 4)

# **FAFMSS**

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

## **Operator Certification**

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: David Stewart

Title: Sr. Regulatory Advisor

Street Address: 5 Greenway Plaza, Suite 110

City: Houston

State: TX

State: TX

**Zip**: 77046

Signed on: 06/13/2017

Phone: (713)366-5716

Email address: David\_stewart@oxy.com

### **Field Representative**

Representative Name: Jim Wilson Street Address: P.O. Box 50250

City: Midland

Zip: 79710

Phone: (575)631-2442

Email address: jim\_wilson@oxy.com

Refor Certification Data Report

# afmss

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# plication Data Report

10/31/2017

APD ID: 10400014805

**Operator Name: OXY USA INCORPORATED** 

Well Name: MESA VERDE 18-7 FEDERAL COM Well Type: OIL WELL

Submission Date: 06/13/2017 Well Number: 5H

Is the first lease penetrated for production Federal or Indian? FED

**Reservation:** 

Zip: 77046

Well Work Type: Drill

**Tie to previous NOS?** 

User: David Stewart

Lease Acres: 651.15

Federal or Indian agreement:

**APD Operator: OXY USA INCORPORATED** 

Allotted?

Highlighted data reflects the most recent changes

Show Final Text

8.11

Submission Date: 06/13/2017

Title: Sr. Regulatory Advisor

**Section 1 - General** 

APD ID: 10400014805 **BLM Office: CARLSBAD** 

Federal/Indian APD: FED

Lease number: NMNM66925

Surface access agreement in place?

Agreement in place? NO

Agreement number:

Agreement name:

Keep application confidential? NO

**Permitting Agent? NO** 

Operator letter of designation:

## **Operator Info**

**Operator Organization Name: OXY USA INCORPORATED** Operator Address: 5 Greenway Plaza, Suite 110

**Operator PO Box:** 

Operator City: Houston State: TX

**Operator Phone: (713)366-5716** 

**Operator Internet Address:** 

# Section 2 - Well Information

Well in Master Development Plan? NO

Well in Master SUPO? NO

Well in Master Drilling Plan? NO

Well Name: MESA VERDE 18-7 FEDERAL COM Field/Pool or Exploratory? Field and Pool

Mater Development Plan name: Master SUPO name:

Master Drilling Plan name:

Well Number: 5H

BONE SPRING

Well API Number:

Field Name: MESA VERDE Pool Name: 2ND BONE SPRING

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

N

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

	cribe (																	
ls th	e proj	posed	well	in a H	elium	prod	luctio	n area?	'N Usel	Existing W	/ell Pa	<b>d?</b> NO	N	ew	surface	distur	bance	e?
Туре	e of W	ell Pa	<b>d:</b> ML	ILTIPL	E WE	ELL				<b>ple Well P</b> DE 18-7 FE				uml	<b>ber:</b> 6H			
Well	Class	: HOI	RIZON	ITAL						ber of Leg			1					
Well	Work	Туре	: Drill															
Well	ell Type: OIL WELL																	
Desc	cribe \	Nell T	ype:															
Well	sub-1	ype:	INFIL	L														
Desc	cribe s	sub-ty	vpe:															
Dista	Distance to town: 26 Miles Distance to r								nearest	well: 30 F1	Г	Dist	tance t	o le	ease line	: 50 F	Т	
Rese	eservoir well spacing assigned acres Measureme									cres								
Well	Well plat: MesaVerde18_7FdCom5H_C102_06-13-2017.pdf																	
Well	work	start	Date:	06/04	/2018				Durat	tion: 20 D	AYS							
·																		
L	Sec	tion	3 - 1	Vell	Loca	atior	n Ta	ble										
Surv	ey Ty	pe: Rl	ECTA	NGUL	AR													
Desc	ribe S	Burve	у Тур	e:														
Datu	m: NA	D83							Vertic	al Datum		088						
Surv	ey nu	mber:																
	NS-Foot	NS Indicator	EW-Foot	EW Indicator	sp	Range	Section	Aliquot/Lot/Tract	Latitude	ongitude	County	fe	Meridian	ease Type	Lease Number	Elevation		
·			<u> </u>		Twsp			-				State		<u> </u>			<u>D</u>	2
SHL Leg #1	420	FSL	107 0	FEL	245	32E	18	Aliquot SESE	32.21131 63	- 103.7087 498	LEA		NEW MEXI CO	F	NMNM 66925	357 0	0	0
KOP Leg #1	50	FSL	138 1	FEL	245	32E	18	Aliquot SWSE	32.21029 6	- 103.7097 539	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 66925	- 635 2	996 2	992 2
PPP Leg #1	340	FSL	138 1	FEL	24S	32E	18	Aliquot SWSE	32.21109 3 <u>1</u>	- 103.7097 551	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 66925	- 692 5	108 62	104 95

Operator Name: OXY USA INCORPORATED Well Name: MESA VERDE 18-7 FEDERAL COM

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Well Number: 5H

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	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT	230	FSL	138	FEL	24S	32E	7	Aliquot	32.23100	-	LEA	NEW	NEW	F	NMNM	-	178	104
Leg	4	ļ	1					NWSE	12	103.7097			MEXI		55953	692	21	95
#1:		ĺ						Sa pui		841		co	co			5		
BHL	246	FSL	138	FEL	24S	32E	7	Aliquot	32.23143	-	LEA	NEW	NEW	F	NMNM	-	179	104
Leg	1		1					NWSE	15	103.7097			MEXI		55953	692	78	95
#1										847		co	co			5		

Page 3 of 3

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#### Well Name: MESA VERDE 18-7 FEDERAL COM

#### Well Number: 5H

working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. A multibowl wellhead or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system will be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.

#### **Choke Diagram Attachment:**

MesaVerde18\_7FdCom5H\_ChkManifold\_5M\_\_06-01-2017.pdf

#### **BOP Diagram Attachment:**

MesaVerde18\_7FdCom5H\_BOP\_5M13\_58\_\_06-01-2017.pdf

MesaVerde18\_7FdCom5H\_FlexHoseCert\_06-01-2017.pdf

#### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.7 5	10.75	NEW	API	N	0	954	0	954			954	J-55	45.5	BUTT	8.91	1.75	BUOY	3.56	BUOY	3.51
	PRODUCTI ON	9.87 5	7.625	NEW	API	N	0	7500	0	7492			7500	L-80	29.7	BUTT	1.22	1.84	BUOY	2.16	BUOY	4.65
3	PRODUCTI ON	9.87 5	7.625	NEW	API	N	7500	9861	7492	9821			2361	HCL -80	29.7	BUTT	1.46	1.95	BUOY	2.15	BUOY	2.13
4	LINER	6.75	4.5	NEW.	API	N	9761	17978	9721	10495			8217	P- 110		OTHER - DQX	1.68	1.2	BUOY	2.28	BUOY	2.25

#### **Casing Attachments**

Operator Name: OXY USA INCORPORATED	· · · · · · · · · · · · · · · · · · ·
Well Name: MESA VERDE 18-7 FEDERAL COM	Well Number: 5H <sup>3</sup> , 2007 (2007) (2007) (2007) (2007)
	and a second
Casing Attachments	a service and the s
Casing ID: 1 String Type: SURFACI	
Inspection Document: Spec Document:	
· · · · · · · · · · · · · · · · · · ·	
Tapered String Spec:	
	· * * ;
Casing Design Assumptions and Worksheet(s)	
MesaVerde18_7FdCom5H_CsgCriteria_06-	1-2017.pdf
Casing ID: 2 String Type:PRODUC	ION
Inspection Document:	21 A e
Spec Document:	
Tapered String Spec:	
Casing Design Assumptions and Worksheet(s)	
MesaVerde18_7FdCom5H_CsgCriteria_06-	1-2017.pdf
Casing ID: 3 String Type:PRODUC	ION
Inspection Document:	
Spec Document:	
Tapered String Spec:	
Casing Design Assumptions and Worksheet(s)	
MesaVerde18_7FdCom5H_CsgCriteria_06-	3-2017.pdf

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Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

#### **Casing Attachments**

Casing ID: 4

String Type: LINER

Inspection Document:

Spec Document:

**Tapered String Spec:** 

#### Casing Design Assumptions and Worksheet(s):

MesaVerde18\_7FdCom5H\_CsgCriteria\_06-01-2017.pdf

 $MesaVerde18\_7FdCom5H\_4.5\_11.6\_P110\_DQX\_06-13-2017.pdf$ 

Section	4 - Ce	emen	t	]	•						
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	954	488	1.68	14.2	820	50	Class C	Accelerator

PRODUCTION	Lead	4676	0	4176	770	1.85	12.9	1425	75	Class C	Accelerator, Retarder
PRODUCTION	Tail		4176	4676	182	1.33	14.8	242	125	Class C	none
PRODUCTION	Lead		0	8861	1045	3.05	10.2	3187	75	Pozzolan/C	Retarder
PRODUCTION	Tail		8861	9861	163	1.65	13.2	269	20	Class H	Retarder, Dispersant, Salt
LINER	Lead		9761	1797 8	802	1.63	13.2	1307	15	Class H	Retarder, Dispersant, Salt

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

#### Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements. 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 proposes to drill out the 10-3/4" surface casing shoe with a saturated brine system from 954-4676', which is the base of the salt system. At this point we will swap fluid systems to a high viscosity mixed metal hydroxide system. We will drill with this system to the Production Casing TD @ 9861'.

Describe the mud monitoring system utilized: PVT/MD Totco/Visual Monitoring

#### Circulating Medium Table

C Top Depth	56 Bottom Depth	adÁ L pnw WATER-BASED	A Min Weight (Ibs/gal)	🗭 Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (Ibs/100 sqft)	Н	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics	
0	554	MUD	0.4	0.0								
954	4676	OTHER : Brine	9.8	10								
4676	9861	WATER-BASED MUD	8.8	9.6								
9861	1797 8	OIL-BASED MUD	8.8	9.6								

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

#### Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

GR from TD to surface (horizontal well - vertical portion of hole). Mud Log from Surface Csg Shoe to TD.

List of open and cased hole logs run in the well: GR.MUDLOG

#### Coring operation description for the well:

No coring is planned at this time.

#### Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5240

Anticipated Surface Pressure: 2931.1

Anticipated Bottom Hole Temperature(F): 164

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

**Contingency Plans geoharzards description:** 

Contingency Plans geohazards attachment:

#### Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

MesaVerde18\_7FdCom5H\_H2S1\_06-01-2017.pdf MesaVerde18\_7FdCom5H\_H2S2\_06-01-2017.pdf

#### Section 8 - Other Information

#### Proposed horizontal/directional/multi-lateral plan submission:

MesaVerde18\_7FdCom5H\_DirectPlan\_06-13-2017.pdf MesaVerde18\_7FdCom5H\_DirectPlot\_06-13-2017.pdf

#### Other proposed operations facets description:

Well will be drilled with a walking/skidding operation. Plan to drill the two well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.

OXY requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool will be run in case a contingency second stage is required for cement to reach surface. If cement circulated to surface during first stage we will drop a cancellation cone and not pump the second stage.

OXY requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that OXY would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.

#### Cement Top and Liner Overlap

1. OXY is requesting permission to have minimum fill of cement behind the 4-1/2" production liner to be 100'

# Well Name: MESA VERDE 18-7 FEDERAL COM

into previous casing string. The reason for this is so that we can come back and develop shallower benches from the same 7-5/8" mainbore in the future.

2. Our plan is to use a whipstock for our exit through the mainbore. Based on our lateral target, we are planning a whipstock cased/hole exit so that kick-off point will allow for roughly 10deg/100' doglegs needed for the curve.

3. Cement will be brought to the top of this liner hanger.

4. See attached for additional casing tie-back information.

#### Other proposed operations facets attachment:

MesaVerde18\_7FdCom5H\_SpudRigData\_06-01-2017.pdf MesaVerde18\_7FdCom5H\_DrillPlan\_06-13-2017.pdf

MesaVerde18\_7FdCom5H\_CsgTieBackDetail\_06-13-2017.pdf Other Variance attachment:

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Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

Existing Wells description:

#### Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

**Production Facilities description:** a. In the event the well is found productive, the Mesa Verde Federal central tank battery would be utilized and the necessary production equipment will be installed at the well site. See proposed facilities layout diagram. b. All flow lines will adhere to API standards. They will consist of 2 – 4" composite flowlines operating 75% MAWP on surface. Survey of a strip of land 30' wide and 879.9' in length crossing USA Land in Section 18 T24S R32E NMPM, Lea County, NM and being 15' left and 15' right of the centerline survey. c. Electric line will follow a route approved by the BLM. Survey of a strip of land 30' wide and 229.8' in length crossing USA Land in Section 18 T24S R32E NMPM, Lea County, NM and being 15' left and 15' right of the centerline survey, see attached. d. See attached for additional information on the Mesa Verde Development Surface Production Facilities.

Production Facilities map:

MesaVerde18\_7FdCom5H\_FacilityPLEL\_06-02-2017.pdf MesaVerde18\_7FdCom5H\_MVSurfFac\_06-02-2017.pdf MesaVerde18\_7FdCom5H\_MVFWPond\_06-13-2017.pdf

### Section 5 - Location and Types of Water Supply

#### Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING, Water so OTHER, SURFACE CASING Describe type:

Source latitude:

Source datum:

Water source permit type: WATER WELL

Source land ownership: COMMERCIAL

Water source transport method: PIPELINE, TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 2000

Source volume (acre-feet): 0.25778618

Source volume (gal): 84000

Water source and transportation map:

MesaVerde18\_7FdCom5H\_GRRWtrSource\_06-02-2017.pdf

MesaVerde18\_7FdCom5H\_MesqWtrSrc\_06-02-2017.pdf

Water source comments: This well will be drilled using a combination of water mud systems. It will be obtained from commercial water stations (Gregory Rockhouse, Mesquite) in the area and will be hauled to location by transport truck using existing and proposed roads.

New water well? NO

New Water Well Info

Water source type: GW WELL

Source longitude:

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness	s of aquifer:
Aquifer comments:		
Aquifer documentation:		
Well depth (ft):	Well casing typ	e:
Well casing outside diameter (in.):	Well casing ins	ide diameter (in.):
New water well casing?	Used casing so	urce:
Drilling method:	Drill material:	
Grout material:	Grout depth:	
Casing length (ft.):	Casing top dep	th (ft.):
Well Production type:	Completion Me	thod:
Water well additional information:		
State appropriation permit:		
Additional information attachment:		
Section 6 - Construction	n Materials	

**Construction Materials description:** Primary - All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM/State/Fee approved pit or from prevailing deposits found on the location. Will use BLM recommended extra caliche from other locations close by for roads, if available. Secondary - The secondary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cubic yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel: a. The top 6" of topsoil is pushed off and stockpiled along the side of the location. b. An approximate 120' X 120' area is used within the proposed well site to remove caliche. c. Subsoil is removed and piled alongside the 120' X 120' within the pad site. d. When caliche is found, material will be stockpiled within the pad site to build the location and road. e. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road. f. Once the well is drilled the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad. Caliche will be provided from the following pit located in Sections 6, T24S R32E. Water will be provided from the following pit located in Sections 6, T24S R32E. **Construction Materials source location attachment:** 

# Section 7 - Methods for Handling Waste

#### Waste type: DRILLING

Waste content description: Water-Based Cuttings, Water-Based Mud, Oil-Based Cuttings, Oil-Based Mud, Produced Water

Amount of waste: 1404.5 barrels

Waste disposal frequency : Daily

Safe containment description: Haul-Off Bins

Safe containmant attachment:

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY

Disposal type description:

**Disposal location description:** An approved facility that can process drill cuttings, drill fluids, flowback water, produced water, contaminated soils, and other non-hazardous wastes.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

**Cuttings Area** 

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location A closed loop system will be utilized consisting of above ground steel tanks and haul-off bins. Disposal of liquids, drilling fluids and cuttings will be disposed of at an approved facility. Cuttings area length (ft.) Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

**Section 8 - Ancillary Facilities** 

Are you requesting any Ancillary Facilities?: NO

**Ancillary Facilities attachment:** 

Comments:

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

#### Section 9 - Well Site Layout

Well Site Layout Diagram:

MesaVerde18\_7FdCom5H\_WellSiteCL\_06-02-2017.pdf

Comments: V-Door-East - CL Tanks-North - 330' X 440' - Two Well Pad

### Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

Drainage/Erosion control construction: Reclamation to be wind rowed as needed to control erosion

Drainage/Erosion control reclamation: Reclamation to be wind rowed as needed to control erosion

Wellpad long term disturbance (acres): 2.12	Wellpad short term disturbance (acres): 3.33
Access road long term disturbance (acres): 0	Access road short term disturbance (acres): 0
Pipeline long term disturbance (acres): 0.20199725	Pipeline short term disturbance (acres): 0.6059917
Other long term disturbance (acres): 0	Other short term disturbance (acres): 0.16
Total long term disturbance: 2.3219972	Total short term disturbance: 4.0959916

**Reconstruction method:** If the well is deemed commercially productive, caliche from the areas of the pad site not required for operations will be reclaimed. The original topsoil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The original topsoil will again be returned to the pad and contoured, as close as possible, to the original topography, and the area will be seeded with an approved BLM mixture to re-establish vegetation.

Topsoil redistribution: The original topsoil will be returned to the area of the drill pad not necessary to operate the well.

Soil treatment: To be determined by the BLM.

Existing Vegetation at the well pad: To be determined by the BLM at Onsite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: To be determined by the BLM at Onsite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: To be determined by the BLM at Onsite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: To be determined by the BLM at Onsite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

Seed source:

Source address:

Last Name: WILSON

Email: jim\_wilson@oxy.com

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed	Management

Seed Table

Seed type:

Seed name:

Source name:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary		Total pounds/Acre:
Seed Type	Pounds/Acre	

#### Seed reclamation attachment:

#### **Operator Contact/Responsible Official Contact Info**

First Name: JIM

Phone: (575)631-2442

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: To be determined by the BLM.

Weed treatment plan attachment:

Monitoring plan description: To be determined by the BLM.

Monitoring plan attachment:

Success standards: To be determined by the BLM.

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Operator Name: OXY USA INCORPORATED	the south of the second second second
Well Name: MESA VERDE 18-7 FEDERAL COM	Well Number: 5H
	<u></u>
Pit closure description: NA	the for a marked of the state of the state of
Pit closure attachment:	in white by the west in the start of a second of the second of the
	and the second
Section 11 - Surface Ownership	and the second secon
Disturbance type: EXISTING ACCESS ROAD	
Describe:	an an an the second and the second
Surface Owner: BUREAU OF LAND MANAGEMENT	
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office:	
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	a second s
USFS Forest/Grassland:	USFS Ranger District:
Disturbance type: WELL PAD	and the second secon
Describe:	
Surface Owner: BUREAU OF LAND MANAGEMENT	
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	ದೆ ವರ್ಷದ ಕೆಲೆ ಕೆಲೆ ಕೆಲೆ ಕೆಲೆ ಕೆಲೆ ಕೆಲೆ ಕೆಲೆ ಕೆಲ
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office:	
Military Local Office:	
USFWS Local Office:	

Page 7 of 10

•.

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

Other Local Office:

USFS Region:

USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: PIPELINE

**Describe:** 

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

Other Local Office:

USFS Region:

**USFS Forest/Grassland:** 

**USFS Ranger District:** 

Disturbance type: OTHER Describe: Electric Line Surface Owner: BUREAU OF LAND MANAGEMENT Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office: NPS Local Office:

Well Name: MESA VERDE 18-7 FEDERAL COM

Well Number: 5H

State Local Office: Military Local Office: USFWS Local Office: Other Local Office: USFS Region: USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other Information

Right of Way needed? YESUse APD as ROW? YESROW Type(s): 285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,289001 ROW- O&G Well Pad

**ROW Applications** 

**SUPO Additional Information:** Permian Basin MOA - see attached SUPO and to be determined by BLM. GIS Shapefiles furnished upon request.

Use a previously conducted onsite? NO

Previous Onsite information:

## Other SUPO Attachment

MesaVerde18\_7FdCom5H\_StakeNotice\_06-02-2017.pdf MesaVerde18\_7FdCom5H\_MiscSvyPlats\_06-02-2017.pdf MesaVerde18\_7FdCom5H\_GasCapPlan\_06-13-2017.pdf MesaVerde18\_7FdCom5H\_SUPO\_06-13-2017.pdf

#### **Section 3 - Unlined Pits**

#### Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

**Unlined Produced Water Pit Estimated percolation:** 

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

#### **Section 4 - Injection**

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

PWD disturbance (acres):

PWD disturbance (acres):

Injection well type: Injection well number: Assigned injection well API number? Injection well new surface disturbance (acres): Minerals protection information: Mineral protection attachment: Underground Injection Control (UIC) Permit? UIC Permit attachment:

### Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Injection well name:

Injection well API number:

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PWD disturbance (acres):

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**PWD disturbance (acres):** 

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Produced Water Disposal (PWD) Location: PWD surface owner:

Surface discharge PWD discharge volume (bbl/day): Surface Discharge NPDES Permit? Surface Discharge NPDES Permit attachment: Surface Discharge site facilities information: Surface discharge site facilities map:

# Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location: PWD surface owner: Other PWD discharge volume (bbl/day): Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met? Other regulatory requirements attachment:

# VAFMSS

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# **Bond Information**

Federal/Indian APD: FED

BLM Bond number: ESB000226

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Bond Info Data Report

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

**Reclamation bond number:** 

**Reclamation bond amount:** 

Reclamation bond rider amount:

Additional reclamation bond information attachment:



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Section 1 - General

Would you like to address long-term produced water disposal? NO

# Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO Produced Water Disposal (PWD) Location: **PWD** surface owner: Lined pit PWD on or off channel: Lined pit PWD discharge volume (bbl/day): Lined pit specifications: Pit liner description: Pit liner manufacturers information: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Lined pit precipitated solids disposal schedule: Lined pit precipitated solids disposal schedule attachment: Lined pit reclamation description: Lined pit reclamation attachment: Leak detection system description: Leak detection system attachment: Lined pit Monitor description: Lined pit Monitor attachment: Lined pit: do you have a reclamation bond for the pit? Is the reclamation bond a rider under the BLM bond? Lined pit bond number: Lined pit bond amount: Additional bond information attachment:

# PWD Data Report

PWD disturbance (acres):