

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTCarlsbad Field Office  
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.*Lease Serial No.  
NMNM66925

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**7. If Unit or CA/Agreement, Name and/or No.  
NMNM137096X

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.  
MESA VERDE BS UNIT 122. Name of Operator  
OXY USA INCORPORATEDContact: RYAN NEWPORT  
E-Mail: ryan\_newport@oxy.com9. API Well No.  
30-025-44186-00-X13a. Address  
P O BOX 4294  
HOUSTON, TX 77210-42943b. Phone No. (include area code)  
Ph: 713-366-515410. Field and Pool or Exploratory Area  
MESA VERDE

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 18 T24S R32E SESW 280FSL 2563FWL  
32.210911 N Lat, 103.714691 W Lon11. 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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Right of Way
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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.

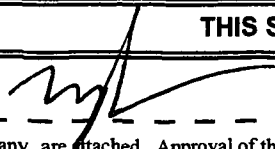
We need to re-route several of our approved flowline routes in our Mesa Verde unit in order to account for our upcoming CTB expansion & new wolfcamp pad. These routes were approved in several of our Mesa Verde APD's for wells in Section 18 & included 2 flowlines per well. The only portion of the route changing is the small section where the flowline enters the Mesa Verde CTB.

The first re-route is for the Mesa Verde BS Unit 10 & 11 wells to the Mesa Verde CTB. The new route is 30.0 feet in width, 831.9 feet in length, crossing BLM lands in Section 18, T24S-R32E, Lea County, NM as seen on the attached survey plat.

The second re-route is for the Mesa Verde BS Unit 12 & 13 wells to the Mesa Verde CTB. The new route is 30.0 feet in width, 3,209.0 feet in length, crossing BLM lands in Section 18, T24S-R32E, Lea County, NM as seen on the attached survey plat.

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #423759 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Hobbs Committed to AFMSS for processing by PRISCILLA PEREZ on 06/15/2018 (18PP1243SE)	
Name (Printed/Typed) RYAN NEWPORT	Title LANDMAN
Signature (Electronic Submission)	Date 06/13/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By 	Title AFM Resources	Date 21 Dec 2018
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 LNMPO2300 CARLSBAD	

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.

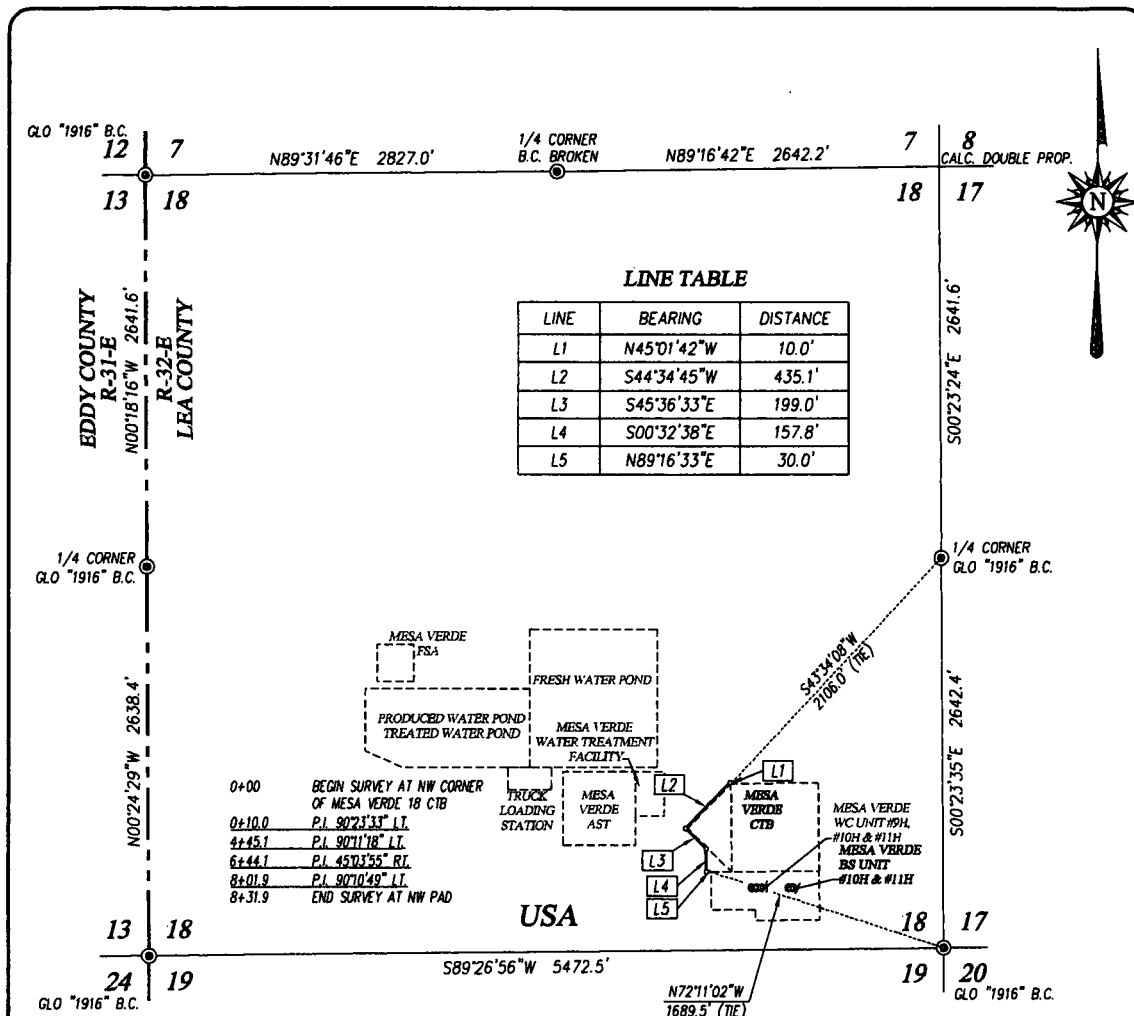
(Instructions on page 2)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

**Additional data for EC transaction #423759 that would not fit on the form**

**32. Additional remarks, continued**

The third re-route is for the Mesa Verde BS Unit 14 & 15 wells to the Mesa Verde CTB. The new route is 30.0 feet in width, 4,4070.8 feet in length, crossing BLM lands in Section 18, T24S-R32E, Lea County, NM as seen on the attached survey plat.



### DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 831.9 FEET OR 0.158 MILES IN LENGTH CROSSING USA LAND IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

### NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM, "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

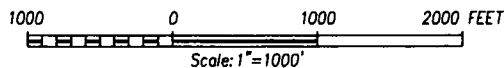
I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON

DATE: 03/22/2018

### LEGEND

⊙ DENOTES FOUND CORNER AS NOTED



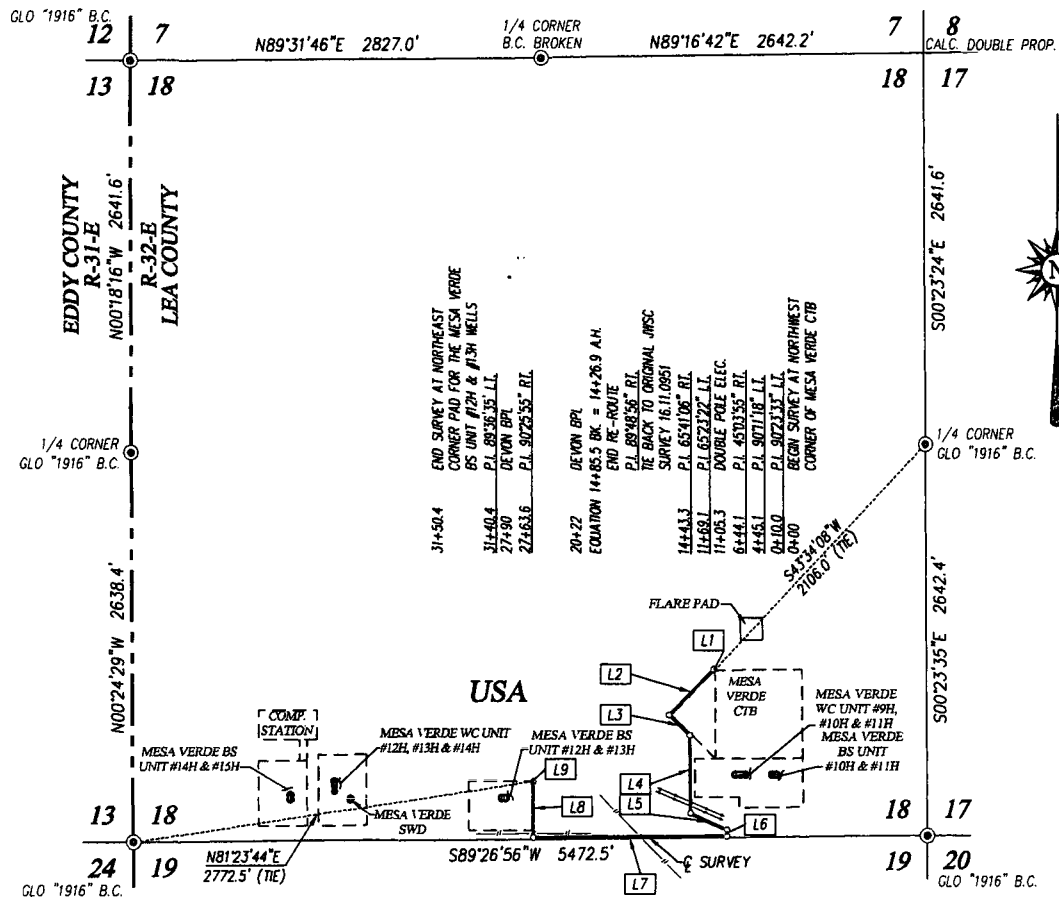
**OXY U.S.A. INC.**

**SURVEY FOR A FLOWLINE ROW TO THE MESA VERDE BS UNIT #10H & #11H CROSSING SECTION 18, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M. LEA COUNTY, NEW MEXICO**



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO HOBBS, N.M. 88240  
(575) 393-3117 www.jwsc.biz  
TBPLS# 10021000

Survey Date: 02/05/18	CAD Date: 03/22/18	Drawn By: LSL
W.O. No.: 18130367	Rev: 3/12/18	Rel. W.O.: 18110160
		Sheet 1 of 1



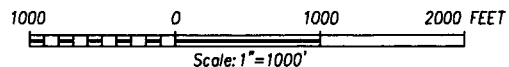
### DESCRIPTION

SURVEY FOR A STRIP OF LAND 30.0 FEET WIDE AND 3209.0 FEET OR 0.608 MILES IN LENGTH CROSSING USA LAND IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

LINE	BEARING	DISTANCE
L1	N45°01'42"W	10.0'
L2	S44°34'45"W	435.1'
L3	S45°36'33"E	199.0'
L4	S00°32'38"E	525.0'
L5	S65°56'00"E	274.2'
L6	S00°14'54"E	42.2'
L7	S89°34'02"W	1336.7'
L8	N00°00'03"W	376.8'
L9	N89°36'38"W	10.0'

### LEGEND

◎ DENOTES FOUND CORNER AS NOTED



### NOTE

BEARINGS SHOWN HEREON ARE MEASURED OR CALCULATED AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. CORRECTIONS ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY WAS PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON *Ronald J. Eidson*

DATE: 03/14/2018



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO HOBBS, N.M. 88240  
(575) 393-3117 www.jwsc.biz  
TBP15# 10021000

**OXY U.S.A. INC.**

**RE-ROUTE SURVEY FOR A FLOWLINE TO THE  
MESA VERDE BS UNIT #12H & #13H WELLS  
CROSSING SECTION 18, TOWNSHIP 24 SOUTH,  
RANGE 32 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO**

Rel. W.O.: 16110951

Survey Date: 02/05/18

CAD Date: 02/13/18

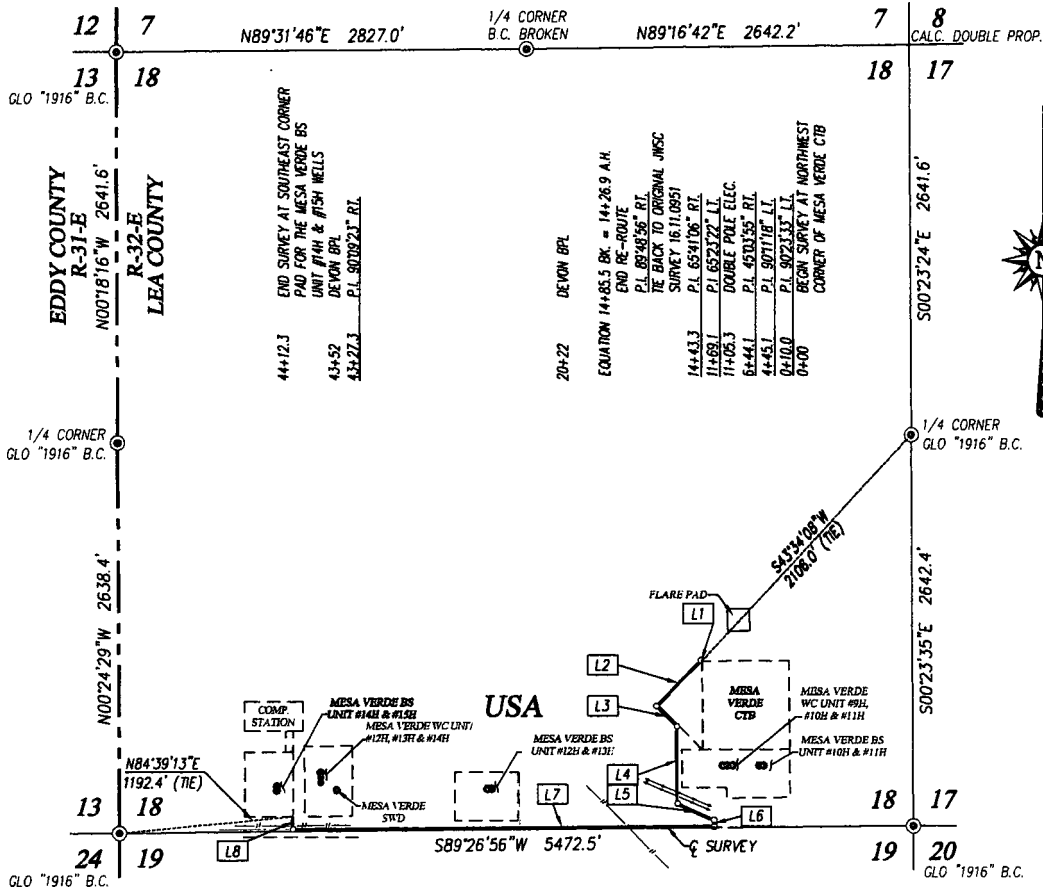
Drawn By: LSL

W.O. No.: 18110100

Rev: 3/09/18

Rel. W.O.: 16110950

Sheet 1 of 1



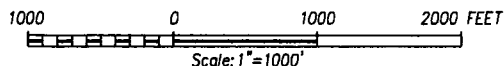
### DESCRIPTION

SURVEY FOR A STRIP OF LAND 30.0 FEET WIDE AND 4470.8 FEET OR 0.847 MILES IN LENGTH CROSSING USA LAND IN SECTION 18, TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

LINE	BEARING	DISTANCE
L1	N45°01'42"W	10.0'
L2	S44°34'45"W	435.1'
L3	S45°36'33"E	199.0'
L4	S00°32'38"E	525.0'
L5	S65°56'00"E	274.2'
L6	S00°14'54"E	42.2'
L7	S89°34'02"W	2900.3'
L8	N00°16'35"W	85.0'

### LEGEND

◎ DENOTES FOUND CORNER AS NOTED



### NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM, "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH THIS IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON

DATE: 03/16/2018



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO HOBBS, N.M. 88240  
(575) 393-3117 www.jwsc.biz  
TBPLS# 10021000

## COG OPERATING, LLC.

**SURVEY FOR A FLOW LINE TO THE MESA VERDE  
BS UNIT #14H & #15H WELLS CROSSING  
SECTION 18, TOWNSHIP 24 SOUTH,  
RANGE 32 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO**

Survey Date: 12/15/16	CAD Date: 1/16/17	Drawn By: ACK
W.O. No.: 18130291	Rev: 3/15/18	Rel. W.O.: 16110950
		Sheet 1 of 1

**BLM LEASE NUMBER:** NMNM66925  
**BLM UNIT NUMBER:** NMNM137096X  
**COMPANY NAME:** OXY USA Inc.  
**ASSOCIATED WELL NAME:** Mesa Verde BS Unit 12

### BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 *et seq.* (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
  - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
  - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- |  |  |
|--|--|
| <input type="checkbox"/> seed mixture 1                | <input type="checkbox"/> seed mixture 3          |
| <input type="checkbox"/> seed mixture 2                | <input type="checkbox"/> seed mixture 4          |
| <input checked="" type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

**Lesser Prairie-Chicken**

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration



other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

**Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:**

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

**Timing Limitation Exceptions:**

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

**Hydrology**

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, siting valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

### Exhibit A-1

Company: Oxy USA Inc.  
Lease #: NMNM66925  
Unit #: NMNM137096X  
Well name: Mesa Verde BS Unit 12

#### Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

NEPA Log No: IT4RM-P020-2018-0811-EA

Project Type: Sundry

Reference Number: --

Project Title: Mesa Verde BS Unit 12

Project Lead: Colleen Cepero Rios

Applicant: OXY USA INC

Recd Date: 06-20-2018

Routing Started: 06-20-2018

## NEPA Checklist

Resource/Activity	Not Present	Not Impacted	Maybe Impacted	Reviewer	COAs/Stps Req	Sign Off Date
Wastes, Hazardous or Solid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Public Health and Safety	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Environmental Justice	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
General Topography/Surface Geology	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Socio Economics	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Lands/Realty, ROW	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Access/Transportation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Vegetation/Forestry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Bradley Winger	<input type="checkbox"/>	07-05-2018
Livestock Grazing	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Invasive, Non-Native Species	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Soils	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Bradley Winger	<input type="checkbox"/>	07-05-2018
Air Quality	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Floodplains	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Chelsie Dugan	<input checked="" type="checkbox"/>	07-12-2018
Water Quality Surface/Ground	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Watershed	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Mineral Materials	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Potash	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Endangered Species	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cassandra Brooks	<input checked="" type="checkbox"/>	06-28-2018
Wetlands/Riparian Zones	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Special Status Species	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Wildlife Habitat	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Karst Resources	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
ACECs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cassandra Brooks	<input type="checkbox"/>	06-28-2018
Wild/Scenic Rivers	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Wilderness	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Outdoor Recreation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Visual Resources	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Native American Religious Concerns	<input checked="" type="radio"/>	Unknown		Elia Perez	<input type="checkbox"/>	12-11-2018
Cultural Resources	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Paleontology	<input checked="" type="radio"/>	Unknown				

NEPA Log No: IT4RM-P020-2018-0811-EA

Project Type: Sundry

Reference Number: --

Project Title: Mesa Verde BS Unit 21

Project Lead: Colleen Cepero Rios

Applicant: OXY USA INC

Recd Date: 06-20-2018

Routing Started: 06-20-2018

## NEPA Checklist

Resource/Activity	Not Present	Not Impacted	May be Impacted	Reviewer	COAs/Stps Req	Sign Off Date
Wastes, Hazardous or Solid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Public Health and Safety	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Enivronmental Justice	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
General Topography/Surface Geology	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Socio Economics	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Lands/Realty, ROW	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Access/Transportation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Vegetation/Forestry	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Bradley Winger	<input type="checkbox"/>	07-05-2018
Livestock Grazing	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Invasive, Non-Native Species	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Soils	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	Bradley Winger	<input type="checkbox"/>	07-05-2018
Air Quality	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Floodplains	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Chelsie Dugan	<input checked="" type="checkbox"/>	07-12-2018
Water Quality Surface/Ground	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Watershed	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Mineral Materials	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Potash	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Endangered Species	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cassandra Brooks	<input checked="" type="checkbox"/>	06-28-2018
Wetlands/Riparian Zones	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Special Status Species	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Wildlife Habitat	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Karst Resources	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
ACECs	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Cassandra Brooks	<input type="checkbox"/>	06-28-2018
Wild/Scenic Rivers	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	Colleen Cepero Rios	<input type="checkbox"/>	06-20-2018
Wilderness	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>			
Outdoor Recreation	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Visual Resources	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Native American Religious Concerns	<input checked="" type="radio"/>	Unknown		Elia Perez	<input type="checkbox"/>	12-11-2018
Cultural Resources	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>			
Paleontology	<input checked="" type="radio"/>	Unknown				

# United States Department of the Interior Bureau of Land Management

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Environmental Assessment DOI-BLM-NM-P020-2018-0663-EA

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**Oxy USA Inc.  
Mesa Verde BS Unit 21  
Lease No. NMNM114979  
Unit No. NMNM137096X  
Mesa Verde BS Unit 12  
Lease No. NMNM 66925  
Unit No. NMNM137096X  
Sundry for Buried Pipelines Re-route**

---

U.S. Department of the Interior  
Bureau of Land Management  
Pecos District  
Carlsbad Field Office  
620 E Greene Street  
Carlsbad, NM 88220  
Phone: (575) 887-6544  
FAX: (575) 885-9264

## **Confidentiality Policy**

Any comments, including names and street addresses of respondents, you submit may be made available for public review. Individual respondents may request confidentiality. If you wish to withhold your name or street address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

BLM

Carlsbad Field Office



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# 1. PURPOSE AND NEED FOR ACTION

## 1.1. Background

OXY USA Inc. (OXY) has submitted through a Sundry Notice requesting permission to construct, operate, and maintain buried pipeline re-routes from Mesa Verde Section 13 well pads and Mesa Verde Section 18 well pads to the Mesa Verde Section 18 CTB. The general location is approximately 22 miles south-east of Loving, NM. The legal land description of the proposed project is described as follows:

New Mexico Principal Meridian, Eddy/Lea County

Units 10 through 15: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

Units 16 through 21: **Section 13, T. 24 S., R 31 E., N.M.P.M., Eddy County**

Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

### Preparing Office:

Pecos District, Carlsbad Field Office

620 East Greene Street

Carlsbad, NM 88220

## 1.2. Purpose and Need for Action

The purpose of the action is to account for an upcoming CTB expansion that is located in Mesa Verde Section 18 and also for a future wolfcamp pad.

The need for the action is established by BLM's responsibility under the Mineral Leasing Act of 1920 as amended, the Mining and Minerals Policy Act of 1970, the Federal Land Policy and Management Act of 1976, the National Materials and Minerals Policy, Research and Development Act of 1980 and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 to allow reasonable access to develop a federal oil and gas lease.

## 1.3. Decision to be Made

The BLM Field Manager will decide whether to grant the sundry notice with appropriate mitigation measures, or whether to reject it.

## 1.4. Conformance with Applicable Land Use Plan(s)

The 1988 Carlsbad Resource Management Plan, as amended by the 1997 Carlsbad Approved Resource Management Plan Amendment and the 2008 Special Status Species Approved Resource Management Plan Amendment have been reviewed, and it has been determined that the proposed action conforms with the land use plan terms and conditions as required by 43 CFR 1610.5.

Name of Plan: 1988 Carlsbad Resource Management Plan

Date Approved: September 1988

Decision: [Page 10] "In general, public lands are available for utility and transportation facility development..." [Page 13] "BLM will encourage and facilitate the development by private industry of public land mineral resources so that national and local needs are met, and environmentally sound exploration, extraction, and reclamation practices are used."

Name of Plan: 1997 Carlsbad Approved Resource Management Plan Amendment

Date Approved: October 1997

Goal: [Page 4] "Provide for leasing, exploration and development of oil and gas resources within the Carlsbad Resources Area." The proposed action aids in the development of oil and gas resources and complies with the Surface Use and Occupancy Requirements.

Name of Plan: 2008 Special Status Species Approved Resource Management Plan Amendment

Date Approved: April 2008

**Decision:** [Page 7] "The BLM will continue to require oil and gas lessees to conduct operations in a manner that will minimize adverse impacts to resources, land uses, and other uses. To that end, the BLM will continue to apply reasonable mitigation measures to all oil and gas activities." The proposed action will utilize best management practices when developing leases in Lesser Prairie-Chicken and Sand Dune Lizard Habitat. Special mitigation measures will be included into the Pecos District Conditions of Approval.

## **1.5. Relationship to Statutes, Regulations or Other Plans**

The following is a list of statutes that may apply to a proposed action:

- **Archaeological and Historic Preservation Act of 1974 (16 USC 469)** - Provides for the preservation of historical and archeological data (including relics and specimens) which might otherwise be irreparably lost or destroyed as the result of (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency or (2) any alteration of the terrain caused as a result of any Federal construction project or federally licensed activity or program.
- **Archaeological Resources Protection Act of 1979, as amended (16 USC 470 et seq.)** - Secures, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.
- **Clean Air Act of 1970, as amended (42 USC 7401 et seq.)** - Defines EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer.
- **Clean Water Act of 1977, as amended (30 USC 1251)** - Establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.
- **Endangered Species Act of 1973 (16 USC 1531 et seq.)** - Protects critically imperiled species from extinction as a consequence of economic growth and development untempered by adequate concern and conservation.
- **Federal Cave Resources Protection Act of 1988 (16 USC 4301 et seq.)** - Protects significant caves on federal lands by identifying their location, regulating their use, requiring permits for removal of their resources, and prohibiting destructive acts.
- **Lechuguilla Cave Protection Act of 1993** - Protects Lechuguilla Cave and other resources and values in and adjacent to Carlsbad Caverns National Park.
- **Migratory Bird Treaty Act of 1918 (16 USC 703-712)** - Implements the convention for the protection of migratory birds.
- **Mining and Mineral Policy Act of 1970, as amended (30 USC 21)** - Fosters and encourages private enterprise in the development of economically sound and stable industries, and in the orderly and economic development of domestic resources to help assure satisfaction of industrial, security, and environmental needs.
- **National American Graves Protection and Repatriation Act of 1990 (25 USC 301)** - Provides a process for museums and Federal agencies to return certain Native American cultural items such as human remains, funerary objects, sacred objects, or objects of cultural patrimony to lineal descendants, and culturally affiliated Indian tribes and Native Hawaiian organizations and includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on Federal and tribal lands, and penalties for noncompliance and illegal trafficking.
- **National Historic Preservation Act of 1966, as amended (16 USC 470)** - Preserves historical and archaeological sites.
- **Wild and Scenic Rivers Act of 1968, as amended (16 USC 1271 et seq.)** - Preserves certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations.
- **Wilderness Act of 1964 (16 USC 1131 et seq.)** - Secures for the American people of present and future generations the benefits of an enduring resource of wilderness.



## **1.6. Scoping, Public Involvement, and Issues**

The Carlsbad Field Office (CFO) publishes a NEPA log for public inspection. This log contains a list of proposed and approved actions in the field office. The log is located in the lobby of the CFO as well as on the BLM New Mexico website ([http://www.blm.gov/nm/st/en/prog/planning/nepa\\_logs.html](http://www.blm.gov/nm/st/en/prog/planning/nepa_logs.html)).

The CFO uses Geographic Information Systems (GIS) in order to identify resources that may be affected by the proposed action. A map of the project area is prepared to display the resources in the area and to identify potential issues.

The proposed action was circulated among CFO resource specialists in order to identify any issues associated with the project. The issues that were raised include:

How would air quality be impacted by the proposed action?

How would climate change be impacted by the proposed action?

How would range management be impacted by the proposed action?

How would soils be impacted by the proposed action?

How would vegetation be impacted by the proposed action?

How would wildlife be impacted by the proposed action?

How would special status species be impacted by the proposed action?

How would noxious weeds be impacted by the proposed action?

How would cultural resources be impacted by the proposed action?

How would Lesser Prairie Chicken Habitat be impacted by the proposed action?

How would watershed resources be impacted by the proposed action?

## **2. PROPOSED ACTION AND ALTERNATIVE(S)**

### **2.1. Proposed Action**

The BLM Carlsbad Field Office is proposing to allow OXY USA Inc. to re-route previously approved pipeline routes for upcoming wells in the Mesa Verde unit in order to account for an upcoming CTB expansion and future wolfcamp pad.

#### **Proposed Buried Pipeline:**

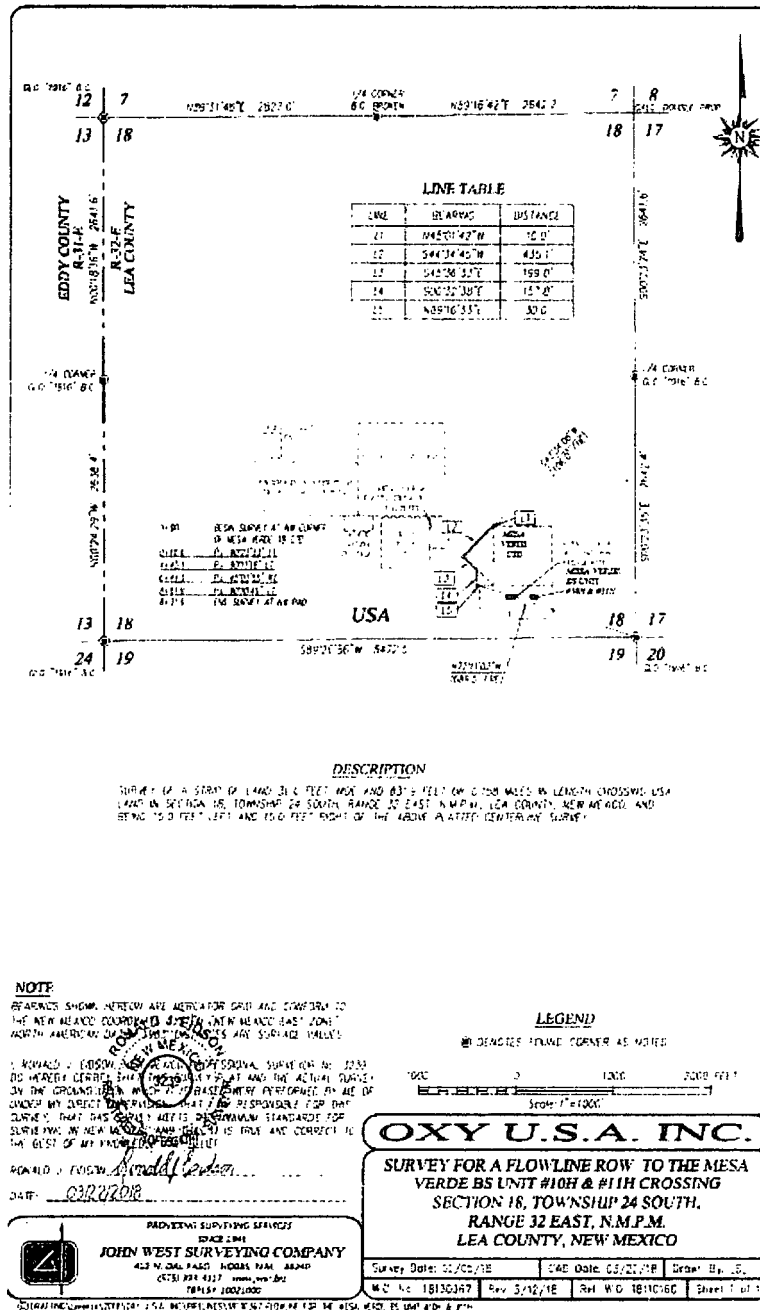
OXY plans to re-route a buried pipeline located on the Mesa Verde BS Unit 10 and 11 wells. The pipeline will exit from the northwest corner of the well location and travel west for 30 feet then turn and travel north for 157.8 feet and then turn northwest for 199 feet. The pipeline will then turn northeast for 445.1 feet where it will end at the northwest corner of the Mesa Verde CTB located in the southeast quarter of section 18 (Figure 1). The buried pipeline's full length is 831.9 ft. (0.158 mi.), and 30.0 ft. wide.

The legal lands description is located in Eddy/ Lea County, New Mexico and described as follows:

Unit 10 & 11: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

Figure 1 Mesa Verde Unit 10 and 11

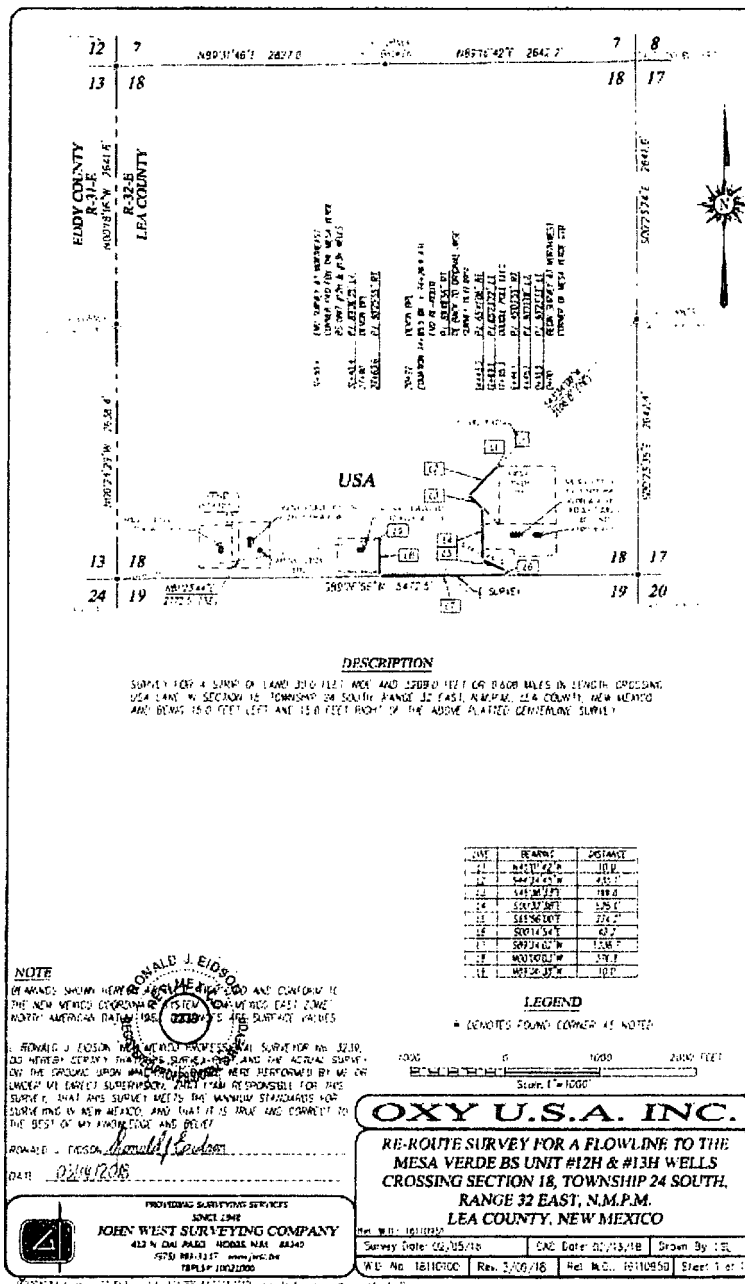


**Proposed Buried Pipeline:**

OXY plans to re-route a buried pipeline located on the Mesa Verde BS Unit 12 and 13 wells. The pipeline would exit off the northeast corner of the well location and travel south for 386.8 feet and then turn east and travel for 1,336.7 feet. The pipeline will turn north for 42.2 feet, then northwest for 274.2 feet, then back north for 525 feet and then back northwest for 199 feet. The pipeline will then turn northeast for 445.1 feet where it will end at the northwest corner of the Mesa Verde CTB located in the southeast quarter of section 18 (Figure 2). The buried pipeline's full length is 3,209.0 ft. (0.608 mi.), and 30.0 ft. wide.

The legal lands description is located in Eddy/ Lea County, New Mexico and described as follows:  
 Unit 12 & 13: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**  
 Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

Figure 2 Mesa Verde Unit 12 and 13



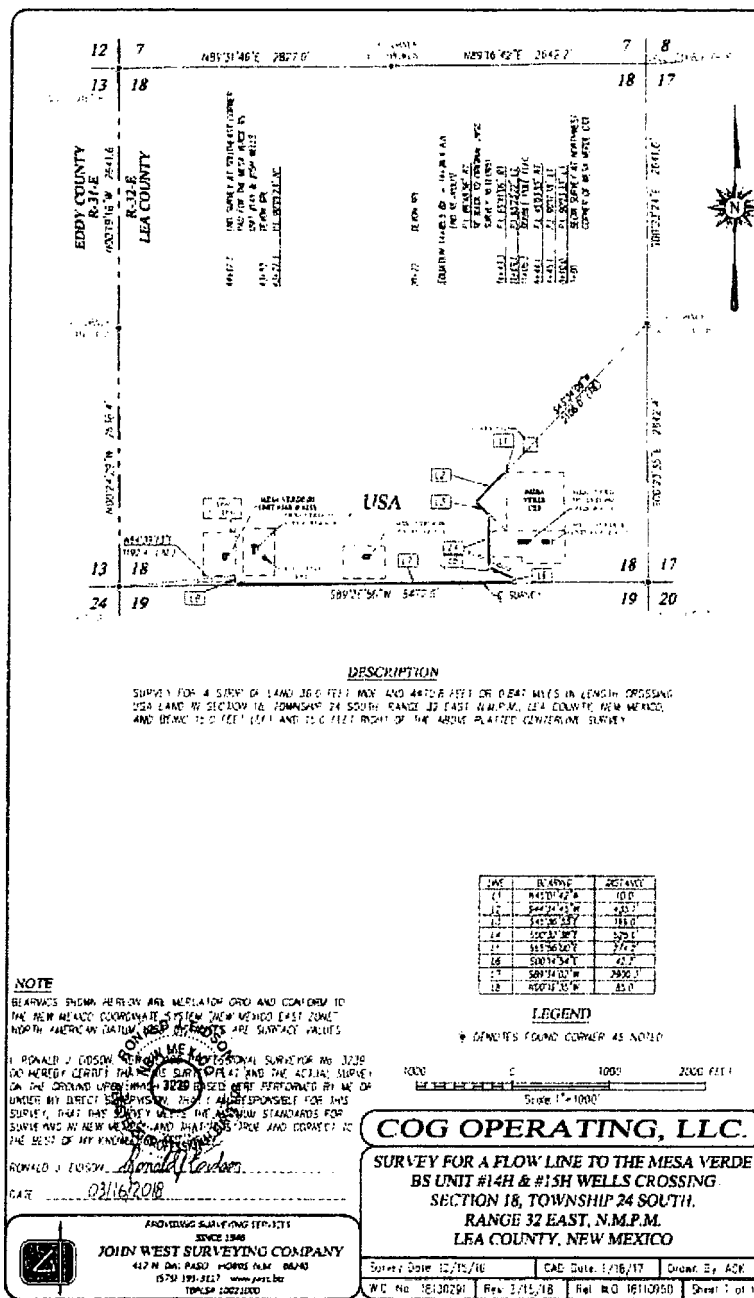
**Proposed Buried Pipeline:**

OXY plans to re-route a buried pipeline located on the Mesa Verde BS Unit 14 and 15 wells. The pipeline would exit off the southeast corner of the well location and travel south for 85.0 feet and then turn east

and travel for 2,900.3 feet. The pipeline will turn north for 42.2 feet, then northwest for 274.2 feet, then back north for 525 feet and then back northwest for 199 feet. The pipeline will then turn northeast for 445.1 feet where it will end at the northwest corner of the Mesa Verde CTB located in the southeast quarter of section 18 (Figure 3). The buried pipeline's full length is 4,470.8 ft. (0.847 mi.), and 30.0 ft. wide.

The legal lands description is located in Eddy/ Lea County, New Mexico and described as follows:  
 Unit 14 & 15: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**  
 Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

Figure 3 Mesa Verde Unit 14 and 15



**Proposed Buried Pipeline:**

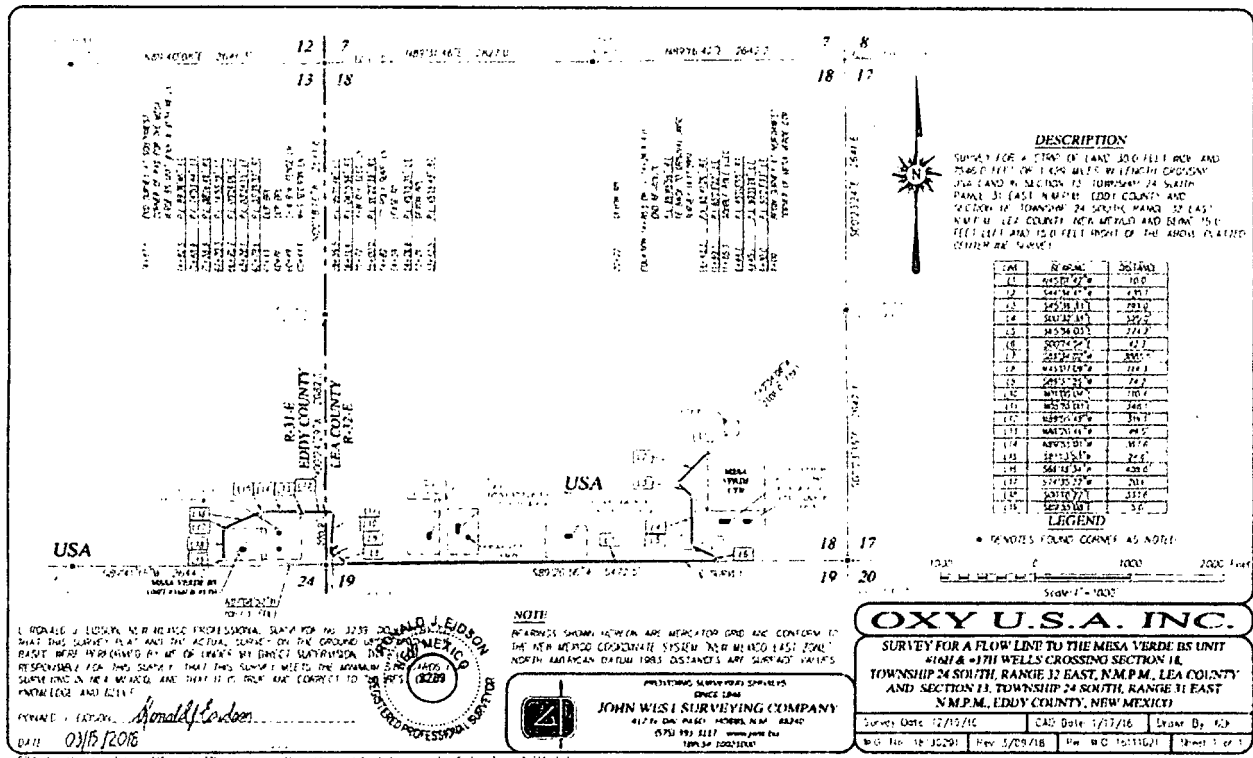
OXY plans to re-route a buried pipeline located on the Mesa Verde BS Unit 16 and 17 well. The pipeline would exit off the southwest corner of the well location and travel north for 338.6 feet and then slightly turn northeast for 428.6 feet. The pipeline would straighten out toward east and travel 736.2 feet then travel south for 458.5 feet. The pipeline will turn east and travel 74.2 feet, turn slightly southeast for 114.3 feet then turn east again for 3,885 feet. The pipeline will turn north for 42.2 feet, then northwest for 274.2 feet, then back north for 525 feet and then back northwest for 199 feet. The pipeline will then turn northeast for 445.1 feet where it will end at the northwest corner of the Mesa Verde CTB located in the southeast quarter of section 18 (Figure 4). The buried pipeline's full length is 7,546.0 ft. (1.429 mi.), and 30.0 ft. wide.

The legal lands description is located in Eddy/ Lea County, New Mexico and described as follows:

Unit 16 & 17: **Section 13, T. 24 S., R. 31 E., N.M.P.M., Eddy County**

Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

**Figure 4 Mesa Verde Unit 16 and 17**

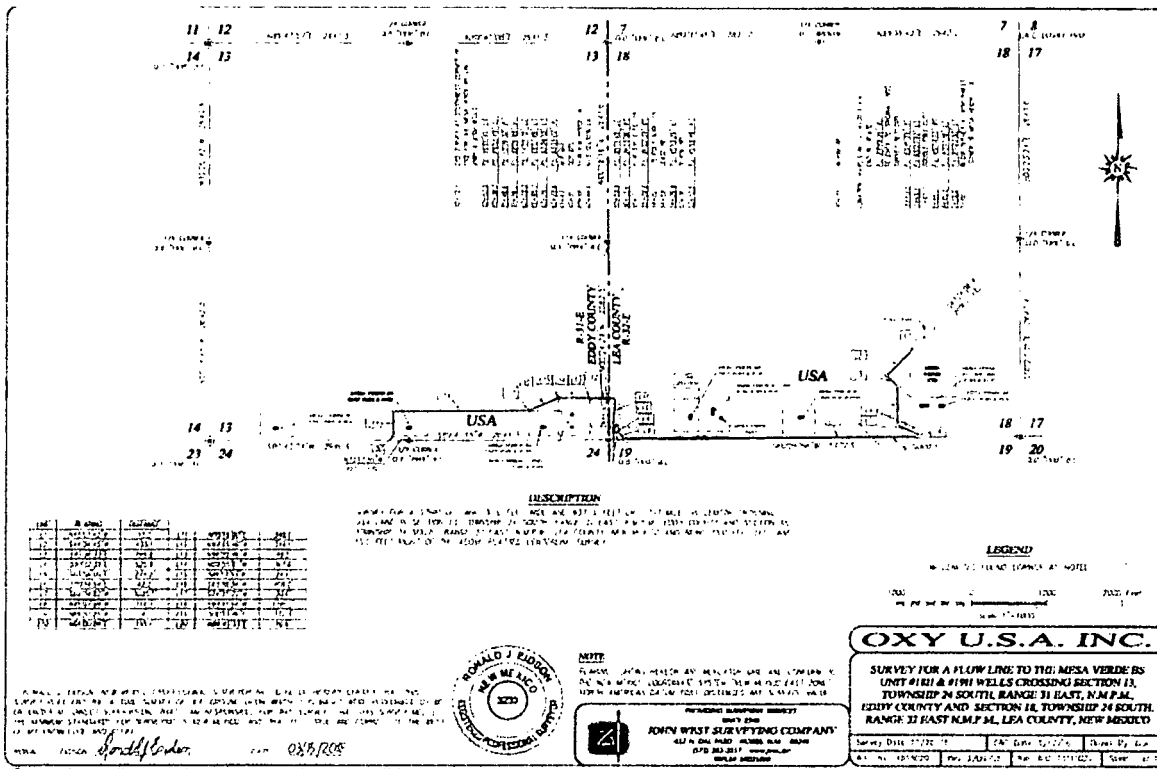


**Proposed Buried Pipeline:**

OXY plans to re-route a buried pipeline located on the Mesa Verde BS Unit 18 and 19 wells. The pipeline would exit off the southwest corner of the well location and travel north for 342 feet. The pipeline would turn east and travel for 1,781.3 feet and then slightly turn northeast for 453.2 feet. The pipeline would straighten out toward east again for 736.2 feet then travel south for 458.5 feet. The pipeline will turn east and travel 74.2 feet, turn slightly turn southeast for 114.3 feet then turn east again for 3,885 feet. The pipeline will turn north for 42.2 feet, then northwest for 274.2 feet, then back north for 525 feet and then back northwest for 199 feet. The pipeline will then turn northeast for 445.1 feet where it will end at the northwest corner of the Mesa Verde CTB located in the southeast quarter of section 18 (Figure 5). The buried pipeline's full length is 9,331.0 ft. (1.767 mi.), and 30.0 ft. wide.

The legal lands description is located in Eddy/ Lea County, New Mexico and described as follows:  
Unit 18 & 19: **Section 13, T. 24 S., R 31 E., N.M.P.M., Eddy County**  
Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

Figure 5Mesa Verde Unit 18 and 19

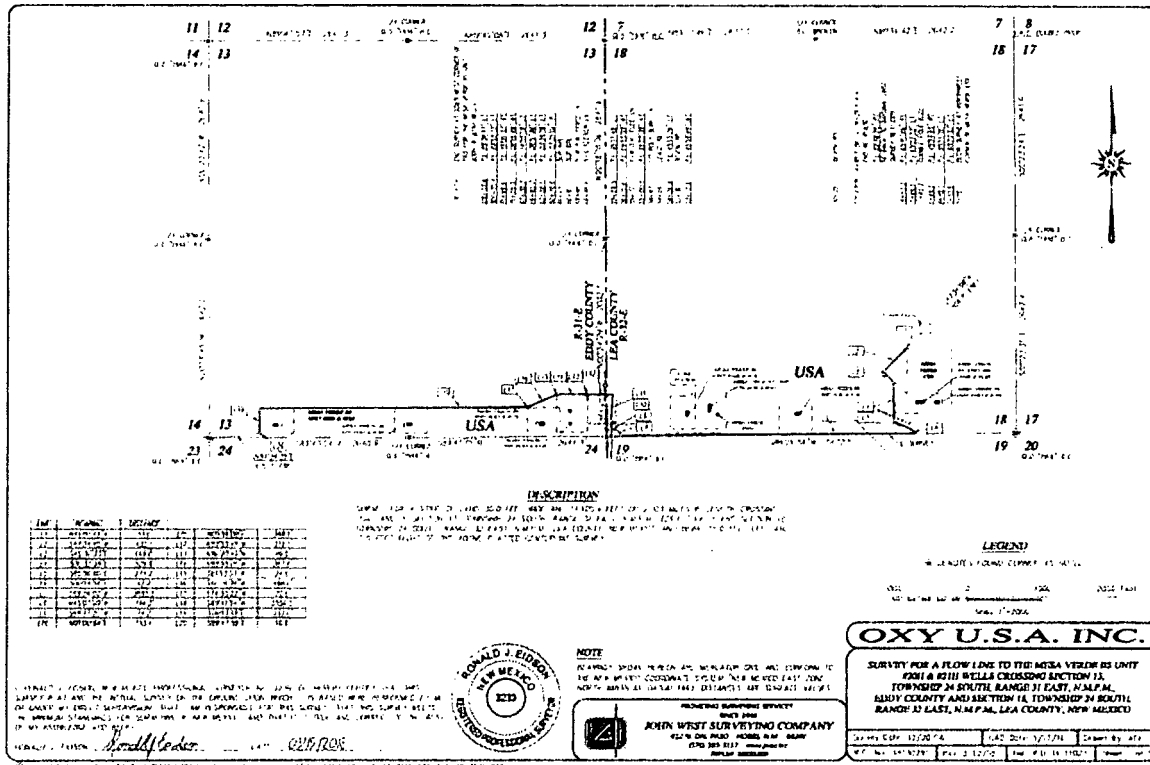


### **Proposed Buried Pipeline:**

OXY plans to re-route a buried pipeline located on the Mesa Verde BS Unit 20 and 21 wells. The pipeline would exit off the southwest corner of the well location and travel north for about 342 feet. The pipeline would turn east and travel for about 3,556.5 feet and then slightly turn northeast for 453.2 feet. The pipeline would straighten out toward east again for about 736.2 feet then turn south for about 458.5 feet. The pipeline will turn east for about 74.2 feet, turn slightly turn southeast for 114.3 feet then turn east again for about 3,885 feet. The pipeline will turn north for 42.2 feet, then northwest for about 274.2 feet, then back north for 525 feet and then back northwest for 199 feet. The pipeline will then turn northeast for about 445.1 feet where it will end at the northwest corner of the Mesa Verde CTB located in the southeast quarter of section 18 (Figure 6). The buried pipeline's full length is 11,105.9 ft. (2.103 mi.), and 30.0 ft. wide.

The legal lands description is located in Eddy/ Lea County, New Mexico and described as follows:  
Unit 20 & 21: **Section 13, T. 24 S., R 31 E., N.M.P.M., Eddy County**  
Mesa Verde CTB: **Section 18, T. 24 S., R. 32 E., N.M.P.M., Lea County**

**Figure 6 Mesa Verde Unit 20 and 21**



**Proposed Action Total Surface Disturbance:**

Action	Width	Length	Total Acreage of Surface Disturbance
Buried pipelines re-route from Wells 10 through 21	30	12,273.6	8.45

### Mitigation Measures:

The Pecos District Conditions of Approval including special requirements for installing buried pipelines, and Lesser Prairie Chicken Habitat.

## 2.2. No Action

Under this alternative, The BLM NEPA Handbook (H-1790-1) states that for Environmental Assessments (EAs) on externally initiated proposed actions, the No Action Alternative generally means that the proposed activity will not take place. This option is provided in 43 CFR 3162.3-1 (h) (2). This alternative would deny the approval of the proposed application, and the current land and resource uses would continue to occur in the proposed project area. No mitigation measures would be required.

## 2.3. Alternatives Considered but Eliminated from Detailed Study

There are no alternate routes that will have significantly fewer impacts or any clear advantages over the proposed action. Overall impacts to the natural resources, if an alternate route were required, would be substantially identical to the proposed action with only minor differences in disturbances to soil, vegetation, and wildlife occurring.

Field investigation of all areas of proposed surface disturbance for the Proposed Action were inspected to ensure that potential impacts to natural and cultural resources would be minimized through the

implementation of mitigation measures. These measures are described for all resources potentially impacted in Chapter 3 of this EA. Therefore, no additional alternative other than those listed above have been considered for this project.

### 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

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Projects requiring approval from the BLM such as right of way grants can be denied when the BLM determines that adverse effects to resources (direct or indirect) cannot be mitigated to reach a Finding of No Significant Impact (FONSI). Under the No Action Alternative, the proposed project would not be implemented and there would be no new impacts to natural or cultural resources from the proposed project. The No Action Alternative would result in the continuation of the current land and resource uses in the project area and is used as the baseline for comparison of environmental effects of the analyzed alternatives.

During the analysis process, the interdisciplinary team considered several resources and supplemental authorities. The interdisciplinary team determined that the resources discussed below would be affected by the proposed action.

#### 3.1. Air Resources

---

##### ***Affected Environment***

The two components of air resources are air quality and climate. This document summarizes the technical information related to air resources and climate change associated with oil and gas development and the methodology and assumptions used for analysis.

##### **Air Quality**

Air quality is determined by atmospheric pollutants and chemistry, dispersion meteorology and terrain, and also includes applications of noise, smoke management, and visibility. The area of the proposed action is within the Pecos River airshed and is classified as a Class II Air Quality Area. A Class II area allows moderate amounts of air quality degradation. The primary causes of air pollution in the project area are from motorized equipment and dust storms caused by strong winds during the spring. Particulates from nearby oil and gas production, agricultural burning, recreational and industrial vehicular traffic and ambient dust can also affect air quality. Air quality in the area near the proposed action is generally considered good, and the proposed action is not located in any of the areas designated by the Environmental Protection Agency (EPA) as “non-attainment areas” for any listed pollutants regulated by the Clean Air Act.

The EPA’s Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2012 found that in 2012, total U.S. GHG emissions were over 6 billion metric tons and that total U.S. GHG emissions have increased by 4% from 1990 to 2012. The report also noted that GHG emissions fell by 3% from 2011 to 2012. This decrease was, in part, attributed to the increased use of natural gas and other alternatives to burning coal in electric power generation (U.S. Environmental Protection Agency, 2014).

##### **Climate**

The 2013 Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) states that the atmospheric concentrations of well-mixed, long-lived greenhouse gases (GHGs), including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), have increased to levels unprecedented in at least the last 800,000 years. Further, human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. It is *extremely likely* (95 – 100% probability) that



human influence has been the dominant cause of the observed warming since the mid-20<sup>th</sup> century (Intergovernmental Panel on Climate Change, 2013).

Global mean surface temperatures have already increased 1.5 degrees F from 1880 to 2012. Additional near-term warming is inevitable due to the thermal inertia of the oceans and ongoing GHG emissions. Assuming there are no major volcanic eruptions or long-term changes in solar irradiance, global mean surface temperature increase for the period 2016 – 2035 relative to 1986-2005 will likely be in the range of 0.3 – 0.7°C (0.5 – 1.3°F). Global mean temperatures are expected to continue rising over the 21<sup>st</sup> century under all of the projected future RCP concentration scenarios. Global mean temperatures in 2081 – 2100 are projected to be between 0.3 – 4.8°C (0.5 – 8.6°F) higher relative to 1986 – 2005. The IPCC projections are consistent with reports from other organizations (e.g. NASA Goddard Institute for Space Studies, 2013; The National Academy of Sciences, 2005).

Climate change will impact regions differently and warming will not be equally distributed. Both observations and computer model predictions indicate that increases in temperature are likely to be greater at higher latitudes, where the temperature increase may be more than double the global average. Warming of surface air temperature over land will very likely be greater than over oceans (Intergovernmental Panel on Climate Change, 2013). There is also high confidence that warming relative to the reference period will be larger in the tropics and subtropics than in mid-latitudes. Frequency of warm days and nights will increase and frequency of cold days and cold nights will decrease in most regions. Warming during the winter months is expected to be greater than during the summer, and increases in daily minimum temperatures are more likely than increases in daily maximum temperatures. Models also predict increases in duration, intensity, and extent of extreme weather events. The frequency of both high and low temperature events is expected to increase. Near- and long-term changes are also projected in precipitation, atmospheric circulation, air quality, ocean temperatures and salinity, and sea ice cover.

Several activities contribute to the phenomena of climate change, including emissions of GHGs (especially carbon dioxide and methane) from fossil fuel development, large wildland fires and activities using combustion engines; changes to the natural carbon cycle; and changes to radiative forces and reflectivity (albedo). It is important to note that GHGs will have a sustained climatic impact over different temporal scales. For example, recent emissions of carbon dioxide can influence climate for 100 years.

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## ***Impacts from the Proposed Action***

### **Air Quality**

The winds that frequent the southeastern part of New Mexico generally disperse odors and emissions, however, air quality would be impacted temporarily from exhaust emissions, chemical odors, dust caused by vehicles traveling to and from the project area and from motorized equipment used during construction. Impacts to air quality will diminish upon completion of the construction of the proposed action.

The EPA has the primary responsibility for regulating air quality, including seven nationally regulated ambient air pollutants. The state of New Mexico has an EPA-approved state implementation plan that regulates air quality throughout the state, except on tribal lands and within Bernalillo County. The New Mexico Air Quality Bureau's (NMAQB) mission is to protect the inhabitants and natural beauty of New Mexico by preventing the deterioration of air quality. The NMAQB is responsible for: ensuring air quality standards are met and maintained; issuing air quality Construction and Operating Permits; enforcing air quality regulations and permit conditions. Any emission source must comply with the NMAQB regulations.

Impacts to air quality on lands managed by BLM in southeastern New Mexico are reduced by the following standard practices which include: utilizing existing disturbance; minimizing surface disturbance; reclaiming and quickly establishing vegetation on areas not necessary for production; periodic watering of access roads during dry periods; removal and reuse of caliche for building other projects.

### **Climate Change**

Climate change analyses are comprised of several factors, including GHGs, land use management practices, and the albedo effect. The tools necessary to quantify incremental climatic impacts of specific activities associated with those factors are presently unavailable. As a consequence, impact assessment

of effects of specific anthropogenic activities cannot be performed. Additionally, specific levels of significance have not yet been established. Qualitative and/or quantitative evaluation of potential contributing factors within the project area is included where appropriate and practicable. When further information on the impacts to climate change in southeastern New Mexico is known, such information will be incorporated into the BLM's NEPA documents as appropriate.

Environmental and economic climate change impacts from commodity consumption are not effects of the proposed planning decisions and thus are not required to be analyzed under the NEPA. They are not direct effects, as defined by the Council on Environmental Quality (CEQ), because they do not occur at the same time and place as the action. Neither are they indirect effects because the proposed plan actions and resulting greenhouse gas emissions production are not a proximate cause of the emissions or other factors resulting from consumption. The BLM does not determine the destination of the resources produced from Federal lands. The effects from consumption are not only speculative, but beyond the scope of agency authority or control. Therefore, this document does not include analysis of the consumption of resources produced as a result of planning decisions.

## **Mitigation Measures and Residual Impacts**

None.

### **3.2. Range**

#### **3.2.1. Affected Environment**

The proposed action is within two different allotments: 77042 Twin Wells and 76038 Fairview. These allotments are a yearlong cow-calf deferred rotation operation. Range improvement projects such as windmills, water delivery systems (pipelines, storage tanks, and water troughs), earthen reservoirs, fences, and brush control projects are located within the allotment, but not located near the project vicinity. In general, an average rating of the range land within this area is 6 acres per Animal Unit Month (AUM). In order to support one cow, for one year, about 72 acres are needed. This equals about nine cows per section.

#### **3.2.2. Impacts from the Proposed Action**

##### **Direct and Indirect Effects**

The loss of 8.45 acres of vegetation would not affect the AUMs authorized for livestock use in this area. There are occasional livestock injuries or deaths due to accidents such as collisions with vehicles, falling into excavations, and ingesting plastic or other materials present at the work site. If further development occurs, the resulting loss of vegetation could reduce the AUMs authorized for livestock use in this area.

##### **Range Study**

The proposed action would not likely impact the range study, which is located about 100 feet south of the proposed access road.

##### **Livestock Water Pipeline**

Since the proposed buried pipelines would travel within 20 feet of a buried livestock water pipeline, the pipeline may be damaged during the life of the access road. The pipeline may be compressed or punctured during construction or heavy vehicle traffic, which would decrease the water flow to water troughs in the area that provide water for livestock.

##### **Fence Crossing - Infrastructure**

Cutting a fence line would degrade the integrity and functionality of the fence. The horizontal wires of the fence would slacken for several hundred feet near the entry through the fence. Degraded fences or openings in the fence during construction inactivity could allow livestock to cross the fence and disrupt the AUMs for the neighboring pasture. Following proper procedures for crossing a fence line would mitigate the impacts to the fence. Proper procedures for crossing a fence line would include bracing and tying off

on both sides of the passageway with H-braces prior to cutting the fence to protect the integrity of the fence near the opening. A wire gate would be installed in the fence opening during infrastructure installation to prevent livestock from crossing the fence. The gate would be in place during construction inactivity. Once the work is completed, the fence would be restored to its prior condition, or better. The operator would be required to notify the grazing allotment holder prior to crossing any fences.

Impacts to the ranching operation are reduced by standard practices such as utilizing existing surface disturbance, minimizing vehicular use, placing parking and staging areas on caliche surfaced areas, and quickly establishing vegetation on the reclaimed areas.

Avoiding existing range improvement projects, or moving them, would prevent them from being damaged by the proposed action.

## **Mitigation Measures**

### **Fence Requirement**

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

### **Livestock Watering Requirement**

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

-OR-

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

## **3.3. Soils**

### **3.3.1. Affected Environment**

The area of the proposed action is mapped half as PA Pajarito loamy fine sand with 0 to 3 percent slopes and eroded and PT Pyote loamy fine sand. These are sandy soils and are described as:

Typically, these soils are deep, well-drained to excessively drained, non-calcareous to weakly calcareous sands. They are found on undulating plains and low hills in the "sand country" east of the Pecos River. Permeability is moderate to very rapid, water-holding capacity is low to moderate, and little runoff occurs. These soils are susceptible to wind erosion and careful management is needed to maintain a cover of desirable forage plants and to control erosion. Reestablishing native plant cover could take 3-5 years due to unpredictable rainfall and high temperatures.

Low stability soils, such as the sandy and deep sands found on this area, typically contain only large filamentous cyanobacteria. Cyanobacteria, while present in some locations, are not significant. While they occur in the top 4 mm of the soil, this type of soil crust is important in binding loose soil particles together to stabilize the soil surface and reduce erosion. The cyanobacteria also function in the nutrient cycle by fixing atmospheric nitrogen, contributing to soil organic matter, and maintaining soil moisture. Cyanobacteria are mobile, and can often move up through disturbed sediments to reach light levels necessary for photosynthesis. Horizontally, they occur in nutrient-poor areas between plant clumps. Because they lack a waxy epidermis, they tend to leak nutrients into the surrounding soil. Vascular plants such as grasses and forbs can then utilize these nutrients.

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### **3.3.2. Impacts from the Proposed Action**

#### **Direct and Indirect Effects**

There is a potential for wind and water erosion due to the erosive nature of these soils once the cover is lost. There is always the potential for soil contamination due to spills or leaks. Soil contamination from spills or leaks can result in decreased soil fertility, less vegetative cover, and increased soil erosion.

Impacts to soil resources are reduced by standard practices such as utilizing existing surface disturbance, minimizing vehicular use, placing parking and staging areas on caliche surfaced areas, and quickly establishing vegetation on the reclaimed areas.

#### **Mitigation Measures**

Topsoil will be stockpiled to enhance reclamation.

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## **3.4. Vegetation**

### **3.4.1. Affected Environment**

Vegetation within this project area is dominated by warm season, short and midgrasses such as black grama, bush muhly, various dropseeds, and three-awns. Bluestems, bristlegrass, lovegrasses, and hooded windmillgrass make up some of the less common grasses. Shrubs include mesquite, shinnery oak, sand sagebrush, broom snakeweed, and yucca. A large variety of forbs occur and production fluctuates greatly from year to year, and season to season. Common forbs include bladderpod, dove weed, globemallow, annual buckwheat, and sunflower.

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### **3.4.2. Impacts from the Proposed Action**

#### **Direct and Indirect Effects**

Construction of the buried pipelines would remove about 8.45 acres of vegetation. This impact would last as long as the well is productive. However, interim reclamation, conducted within 6 months after a well is completed would reduce this area. When the well is plugged and abandoned, the rest of the pad would be reclaimed and potentially re-vegetate in 3-5 years, depending on timely rainfall. By using the proper seed mixture number 2 LPC Sand/Shinnery Sites, good seed bed preparation, and proper seeding techniques, this impact would be short term (two or three growing seasons).

Impacts to vegetation would be reduced by standard practices such as utilizing existing surface disturbance, minimizing the well pad and access road total surface disturbance, utilizing steel tanks instead of reserve pits, minimizing vehicular use, placing parking and staging areas on caliche surfaced areas, reclaiming the areas not necessary for production and quickly establishing vegetation on the reclaimed areas.

#### **Mitigation Measures**

None.

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## **3.5. Visual Resource Management**

### **3.5.1. Affected Environment**

The Visual Resource Management (VRM) program identifies visual values, establishes objectives in the RMP for managing those values, and provides a means to evaluate proposed projects to ensure that visual management objectives are met.

This project occurs within a Visual Resource Management Class IV zone. The objective of VRM Class IV is to provide management for activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities

may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic landscape elements of color, form, line and texture.

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### **3.5.2. Impacts from the Proposed Action**

#### **Direct and Indirect Effects**

This project will cause some short term and long-term visual impacts to the natural landscape. Short term impacts occur during construction operations. These include the presence of construction equipment and/or vehicle traffic.

Long term impacts are visible to the casual observer through the life of the pipeline. These include the visual evidence of piping which cause visible contrast to form, line, color, and texture. Those contrasts will be visible to visitors in the area.

After final abandonment, the pipeline and associated infrastructure will be removed, reclaimed, recontoured and revegetated, if necessary, thereby eliminating visual impacts.

Short and long term impacts are minimized by best management practices such as utilizing existing surface disturbance, no blading in the right-of-way, color selection and screening facilities with natural features and vegetation.

#### **Mitigation Measures**

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

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## **3.6. Wildlife**

### **3.6.1 Affected Environment**

This project occurs in the sand shinnery habitat type. Sand shinnery communities extend across the southern Great Plains occupying sandy soils in portions of north and west Texas, west Oklahoma, and southeast New Mexico. Portions of Eddy, Lea and Chaves counties consist largely of sand shinnery habitat and are intermixed with areas of mesquite to a lesser degree. The characteristic feature of these communities is co-dominance by shinnery oak and various species of grasses. In New Mexico Shinnery oak occurs in sandy soil areas, often including sand dunes.

Various bird, mammal, reptile and invertebrate species inhabit the sand shinnery ecosystem in New Mexico. Herbivorous mammals include mule deer, pronghorn, and numerous rodent species. Carnivores include coyote, bobcat, badger, striped skunk, and swift fox. Two upland game bird species, scaled quail and mourning dove, are prevalent throughout the sand shinnery in New Mexico. Many species of songbirds nest commonly, with a much larger number that use the habitat during migration or for non-nesting activities. Common avian predators include northern harrier, Swainson's hawk, red-tailed hawk, kestrel, burrowing owl, and Chihuahuan raven. Numerous snake and lizard species have been recorded, including the sand dune lizard, the only vertebrate species restricted entirely to sand shinnery habitat.

#### **Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)**

In New Mexico, the lesser prairie-chicken (LPC) formerly occupied a range that encompassed the easternmost one-third of the state, extending to the Pecos River, and 48 km west of the Pecos near Fort Sumner. This covered about 38,000 km<sup>2</sup>. By the beginning of the 20<sup>th</sup> Century, populations still existed in nine eastern counties (Union, Harding, Chaves, De Baca, Quay, Curry, Roosevelt, Lea, and Eddy). The last reliable records from Union County are from 1993. Currently, populations exist only in parts of Lea, Eddy, Curry, Chaves, and Roosevelt counties, comprising about 23% of the historical range.

LPC are found throughout dry grasslands that contained shinnery oak or sand sage. Currently, they most commonly are found in sandy-soiled, mixed-grass vegetation, sometimes with short-grass habitats with clayey or loamy soils interspersed. They occasionally are found in farmland and smaller fields, especially in winter. Shinnery oak shoots are used as cover and produce acorns, which are important food for LPC and many other species of birds, such as the scaled quail, northern bobwhite, and mourning dove. Current geographic range of shinnery oak is nearly congruent with that of the lesser prairie-chicken, and these species sometimes are considered ecological partners. Population densities of LPC are greater in shinnery oak habitat than in sand sage habitat.

LPC use a breeding system in which males form display groups. These groups perform mating displays on arenas called leks. During mating displays male vocalizations called booming, attract females to the lek. Leks are often on knolls, ridges, or other raised areas, but in New Mexico leks are just as likely to be on flat areas such as roads, abandoned oil drill pads, dry playa lakes or at the center of wide, shallow depressions. Leks may be completely bare, covered with short grass, or have scattered clumps of grass or short tufts of plants. An important physical requirement for location of leks is visibility of surroundings, but the most important consideration is proximity of suitable nesting habitat, breeding females and the ability to hear male vocalizations.

In the late 1980s, there were 35 documented active booming grounds known to exist within the CFO. Due to population decreases and unpredictable weather cycles the LPC is currently proposed for federal listing, and potentially may become extirpated from Eddy and southern Lea counties. The last documented sighting within the Carlsbad field office boundaries was on March 15<sup>th</sup> 2011.

In June 1998, the US Fish and Wildlife Service (USFWS) issued a statement regarding their status review of the lesser prairie-chicken. It stated, "Protection of the lesser prairie-chicken under the Federal Endangered Species Act (ESA) is warranted but precluded which means that other species in greater need of protection must take priority in the listing process." Given the current Federal Candidate status of this species, the Bureau of Land Management is mandated to carry out management consistent with the principles of multiple use, for the conservation of candidate species and their habitats, and shall ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as Threatened or Endangered (Bureau Manual 6840.06). On December 11, 2012 the USFWS proposed to list the lesser prairie-chicken as a threatened species under the ESA of 1973, as amended. On March 27, 2014 the USFWS in response to the rapid and severe decline of the lesser prairie-chicken announced the final listing of the species as threatened under the ESA, as well as a final special rule under section 4(d) of the ESA that will limit regulatory impacts on landowners and business from the listing. Currently, the USFWS has not determined or designated critical habitat regarding the lesser prairie-chicken. The final rule to list the lesser prairie-chicken as threatened was published in the *Federal Register* on April 10, 2014, and will be effective on May 12, 2014. On July 20, 2016 the U.S. Fish and Wildlife Service formally removed the lesser prairie chicken from protection under the Endangered Species Act. Prescribed management for the species still follows BLM Resource Management Plan guidelines.

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### **3.6.1 Impacts from the Proposed Action**

#### **Direct and Indirect Impacts**

Impacts of the proposed action to wildlife in the localized area may include but are not limited to: possible mortality, habitat degradation and fragmentation, avoidance of habitat during construction and drilling activities and the potential loss of burrows and nests.

Standard practices and elements of the proposed action minimize these impacts to wildlife. These include: the NTL-RDO 93-1(modification of open-vent exhaust stacks to prevent perching and entry from birds and bats), nets on open top production tanks, interim reclamation, closed loop systems, exhaust mufflers, berming collection facilities, minimizing cut and fill, road placement, and avoidance of wildlife waters, stick nests, drainages, playas and dunal features. These practices reduce mortality to wildlife and allow habitat to be available in the immediate surrounding area thus reducing stressors on wildlife populations at a localized level. Impacts to local wildlife populations are therefore expected to be minimal.

## Special Status Species

### Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)

Impacts of the proposed action to LPC in the localized area may include but are not limited to: disruptions in breeding cycles, habitat degradation and fragmentation, avoidance of habitat during construction and drilling activities and potential loss of nests. Noise and human activity generated from construction activity could impact the LPC by reducing the establishment of seasonal "booming grounds" or leks, thus possibly reducing reproductive success in the species. It is believed that the noise generated by construction activity and human presence could mask or disrupt the booming of the male prairie-chicken and thus inhibiting the females from hearing the booming. In turn, female LPC would not arrive at the booming ground, and subsequently, there would be decreased courtship interaction and possibly decreased reproduction. Decreased reproduction and the loss of recruitment into the local population would result in an absence of younger male LPC to replace mature male LPC once they expire, eventually causing the lek to disband and become inactive. Additionally, habitat fragmentation caused by development could possibly decrease the habitat available for nesting, brooding and feeding activities.

The CFO takes every precaution to ensure that active booming grounds and nesting habitats are protected by applying a timing and noise condition of approval within portions of suitable and occupied habitat for the LPC. It is not known at this time whether active booming grounds or nest locations are associated with this specific location. Only after survey efforts during the booming season are conducted, will it be known whether an active lek is in close proximity (within 1.5 miles) of the proposed location or not.

Exceptions to timing and noise requirements will be considered in emergency situations such as mechanical failures, however, these exceptions will not be granted if BLM determines, on the basis of biological data or other relevant facts or circumstances, that the grant of an exception would disrupt LPC booming activity during the breeding season. Requests for exceptions on a non-emergency basis may also be considered, but these exceptions will not be granted if BLM determines that there are prairie-chicken sightings, historic leks and or active leks within 1.5 miles of the proposed location, or any combination of the above mentioned criteria combined with suitable habitat.

In light of the circumstances under which exceptions may be granted, minimal impacts to the LPC are anticipated as a result of the grant of exceptions to the timing limitation for LPC Condition of Approval. On account of these requirements and mitigation measures as below, minimal impacts to the LPC are anticipated as a result of oil and gas activity.

## Mitigation Measures and Residual Impacts

In May 2008, the Pecos District Special Status Species Resource Management Plan Amendment (RMPA) was approved and is being implemented. In addition to the standard practices that minimize impacts, as listed above, the following COA will apply:

- Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken, to minimize noise associated impacts which could disrupt breeding and nesting activities.

## **3.7. Noxious Weeds and Invasive Plants**

### **3.7.1 Affected Environment**

There are four plant species within the CFO that are identified in the New Mexico Noxious Weed List Noxious Weed Management Act of 1998. These species are African rue, Malta starthistle, Russian olive, and salt cedar. African rue and Malta starthistle populations have been identified throughout the Carlsbad Field Office and mainly occur along the shoulders of highway, state and county roads, lease roads and

well pads (especially abandoned well pads). The CFO has an active noxious weed monitoring and treatment program, and partners with county, state and federal agencies and industry to treat infested areas with chemical and monitor the counties for new infestations.

Currently there are no known populations of invasive, non-native species within the proposed project vicinity.

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### **3.7.2 Impacts from the Proposed Action**

#### **Direct and Indirect Impacts**

Any surface disturbance could increase the possibility of establishment of new populations of invasive, non-native species. The construction of the proposed action may contribute to the establishment and spread of African rue and Malta starthistle. The main mechanism for seed dispersion would be by equipment and vehicles that were previously used and/or driven across noxious weed infested areas. Noxious weed seed could be carried to and from the project area by construction equipment and transport vehicles.

#### **Mitigation Measures and Residual Impacts**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

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## **3.8. Cultural and Historical Resources**

### **3.8.1. Affected Environment**

The project falls within the Southeastern New Mexico Archaeological Region. This region contains the following cultural/temporal periods: Paleoindian (ca. 11,500 – 7,000 B.C.), Archaic (ca. 6,000 B.C. – A.D. 500), Ceramic (ca. A.D. 500 – 1400), Post Formative Native American (ca. A.D. 1400 – present), and Historic Euro-American (ca. A.D. 1865 to present). Sites representing any or all of these periods are known to occur within the region. A more complete discussion can be found in *Permian Basin Research Design 2016-2026 Volume I: Archaeology and Native American Cultural Resource* published in 2016 by SWCA Environmental Consultants, Albuquerque, New Mexico.

#### Native American Religious Concerns

The BLM conducts Native American consultation regarding Traditional Cultural Places (TCP) and Sacred Sites during land-use planning and its associated environmental impact review. In addition, during the oil & gas lease sale process, Native American consultation is conducted to identify TCPs and sacred sites whose management, preservation, or use would be incompatible with oil and gas or other land-use authorizations. With regard to Traditional Cultural Properties, the BLM has very little knowledge of tribal sacred or traditional use sites, and these sites may not be apparent to archaeologists performing surveys in advance of drilling.

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### **3.8.2. Impacts from the Proposed Action**

#### **Direct and Indirect Effects**

The project falls within the area covered by the Permian Basin Programmatic Agreement (PA). The Permian Basin PA is an optional method of compliance with Section 106 of the National Historic Preservation Act for energy related projects in a 28 quadrangle area of the Carlsbad Field Office. The PA is a form of off-site mitigation which allows industry to design projects to avoid known NRHP eligible cultural resources and to contribute to a mitigation fund in lieu of paying for additional archaeological inventory in this area that has received adequate previous survey. Funds received from the Permian



Basin PA will be utilized to conduct archaeological research and outreach in Southeastern New Mexico. Research will include archaeological excavation of significant sites, predictive modeling, targeted research activities, as well as professional and public presentations on the results of the investigations.

The proponent chose to participate in the Permian Basin PA by planning to avoid all known NRHP eligible and potentially eligible cultural resources. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any skeletal remains that might be human or funerary objects are discovered by any activities, the project proponent will cease activities in the area of discovery and notify the BLM within 24 hours as required by the Permian Basin PA.

Cultural resources on public lands, including archaeological sites and historic properties, are protected by federal law and regulations (Section 106 of the National Historic Preservation Act and the National Environmental Policy Act). Class III cultural surveys will be conducted of the area of effect for realty or oil and gas projects proposed on these lands prior to the approval of any ground disturbing activities to identify any resources eligible for listing on the National Register of Historic Places. Cultural resource inventories minimize impacts to cultural sites and artifacts by avoiding these resources prior to construction of the proposed project. If unanticipated or previously unknown cultural resources are discovered at any time during construction, all construction activities shall halt and the BLM authorized officer will be immediately notified. Work shall not resume until a Notice to Proceed is issued by the BLM.

Multiple Class III cultural resource inventories (Report Nos. 14-0301, 15-0428, 15-0562) were conducted and no historic properties were identified within the area of potential effect.

## **Mitigation Measures**

As currently proposed, there are no mitigation measures required for this project.

## **3.9. Paleontology**

### ***Affected Environment***

Paleontological resources are any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth. Fossil remains may include bones, teeth, tracks, shells, leaves, imprints, and wood. Paleontological resources include not only the actual fossils but also the geological deposits that contain them and are recognized as nonrenewable scientific resources protected by federal statutes and policies.

The primary federal legislation for the protection and conservation of paleontological resources occurring on federally administered lands are the Paleontological Resources Preservation Act of 2009 (PRPA), the Federal Land Policy and Management Act of 1976 (FLPMA), and the National Environmental Policy Act of 1970 (NEPA). BLM has also developed policy guidelines for addressing potential impacts to paleontological resources (BLM, 1998a, b; 2008, 2009). In addition, paleontological resources on state trust lands are protected by state policy from unauthorized appropriation, damage, removal, or use.

The Potential Fossil Yield Classification (PFYC) is a tool that allows the BLM to predict the likelihood of a geologic unit to contain paleontological resources. The PFYC is based on a numeric system of 1-5, with PFYC 1 having little likelihood of containing paleontological resources, whereas a PFYC 5 value is a geologic unit that is known to contain abundant scientifically significant paleontological resources. The fossil resources of concern in this area are the remains of vertebrates, which include species of fish, amphibians, and mammals.

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## ***Impacts from the Proposed Action***

### **Direct and Indirect Effects**

Direct impacts would result in the immediate physical loss of scientifically significant fossils and their contextual data. Impacts indirectly associated with ground disturbance could subject fossils to damage or destruction from erosion, as well as creating improved access to the public and increased visibility, potentially resulting in unauthorized collection or vandalism. However, not all impacts of construction are detrimental to paleontology. Ground disturbance can reveal significant fossils that would otherwise remain buried and unavailable for scientific study. In this manner, ground disturbance can result in beneficial impacts. Such fossils can be collected properly and curated into the museum collection of a qualified repository making them available for scientific study and education.

The location of the proposed project is within a PFYC 2, where management concern is negligible. A pedestrian survey for paleontological resources was not necessary and there should be no impacts to paleontological resources.

### **Mitigation Measures**

There are no mitigation measures for this project, as currently proposed.

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## **3.10. Watershed**

### ***3.4.1. Affected Environment***

The area of the proposed action drains in a southeastern direction into an unnamed drainage, and is within the Upper Pecos-Black Watershed as defined by the 8-digit Hydraulic Unit Code (HUC) 13070001, and the Lower Pecos-Red Bluff Res Watershed as defined by the 8-digit Hydraulic Unit Code (HUC) 13060011. Overland flow occurs in this area during times of heavy rain, and it is likely a source of groundwater recharge. The ground water recharge is from local precipitation entering through playas, sinkholes and swallets. Water quality and quantity is influenced by physical, chemical, and biological reactions that occur as water moves over and through the land surface toward streams and into aquifers. The rate at which water moves through the watershed strongly affects these reactions.

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### ***3.4.2. Impacts from the Proposed Action***

#### **Direct and Indirect Effects**

Ephemeral surface water from local rain events will wash down-slope through the area of the proposed action. Localized decreases in vegetative surface cover could result in decreased infiltration rates and increased runoff volume and velocity. This causes increased erosion, top soil loss, and sedimentation.

Water quality can be adversely affected following the occurrence of an undesirable event such as a leak or spill.

Standard practices or design features of the proposed project that minimize impacts to the watershed and water quality include: utilizing existing surface disturbance, minimizing vehicular use, surfacing parking and staging areas with caliche and reclaiming the areas not necessary for production and quickly reestablishing vegetation on the reclaimed areas.

#### **Mitigation Measures**

- Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

### **3.11. Cumulative Impacts**

Cumulative impacts are the combined effect of past projects, specific planned projects, and other reasonably foreseeable future actions within the project study area to which oil and gas exploration and development may add incremental impacts. This includes all actions, not just oil and gas actions, that may occur in the area including foreseeable non-federal actions.

The combination of all land use practices across a landscape has the potential to change the visual character, disrupt natural water flow and infiltration, disturb cultural sites, cause minor increases in greenhouse gas emissions, fragment wildlife habitat and contaminate groundwater. However, the likelihood of these impacts occurring is minimized through standard mitigation measures, special Conditions of Approval and ongoing monitoring studies.

All resources are expected to sustain some level of cumulative impacts over time, however these impacts fluctuate with the gradual abandonment and reclamation of wells. As new wells are being drilled, there are others being abandoned and reclaimed. As the oil field plays out, the cumulative impacts will lessen as more areas are reclaimed and less are developed.

## **4. SUPPORTING INFORMATION**

### **4.1. List of Preparers**

Prepared by: Anissa Duarte, Natural Resource Specialist Intern, BLM-CFO

Date: 06/20/2018

The following individuals aided in the preparation of this document:

Elia Perez, Archaeologist, BLM-CFO

Cassandra Brooks, Wildlife Biologist, BLM-CFO

Jesse Bassett Natural Resource Specialist Intern, BLM-CFO

### **4.2. References**

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**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

Pecos District  
Carlsbad Field Office  
620 E Greene Street  
Carlsbad, NM 88220

**Finding of No Significant Impact**

**[Mesa Verde BS Unit 21 ]  
NEPA No. DOI-BLM-NM-P020-2018-0663-EA**

**FINDING OF NO SIGNIFICANT IMPACT:**

I have determined that the proposed action, as described in the EA will not have any significant impact, individually or cumulatively, on the quality of the human environment. Because there would not be any significant impact, an environmental impact statement is not required.

In making this determination, I considered the following factors:

1. The activities described in the proposed action do not include any significant beneficial or adverse impacts (40 CFR 1508.27(b)(1)). The EA includes a description of the expected environmental consequences of OXY USA Inc. (OXY) has submitted through a Sundry Notice requesting permission to construct, operate, and maintain buried pipeline re-routes from Mesa Verde Section 13 well pads and Mesa Verde Section 18 well pads to the Mesa Verde Section 18 CTB. The general location is approximately 22 miles south-east of Loving, NM.
2. The activities included in the proposed action would not significantly affect public health or safety (40 CFR 1508.27(b)(2)).
3. The proposed activities would not significantly affect any unique characteristics (40 CFR 1508.27(b)(3)) of the geographic area such as prime and unique farmlands, caves, wild and scenic rivers, designated wilderness areas, wilderness study areas, or areas of critical concern.
4. The activities described in the proposed action do not involve effects on the human environment that are likely to be highly controversial (40 CFR 1508.27(b)(4)).
5. The activities described in the proposed action do not involve effects that are highly uncertain or involve unique or unknown risks (40 CFR 1508.27(b)(5)).
6. My decision to implement these activities does not establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration (40 CFR 1508.27(b)(6)).
7. The effects of *[OXY USA Inc. (OXY) has submitted through a Sundry Notice requesting permission to construct, operate, and maintain buried pipeline re-routes from Mesa Verde Section 13 well pads and Mesa Verde Section 18 well pads to the Mesa Verde Section 18 CTB. The general location is approximately 22 miles south-east of Loving, NM.]* would not be significant, individually or cumulatively, when considered with the effects of other actions (40 CFR 1508.27(b)(7)). The EA discloses that there are no other connected or cumulative actions that would cause significant cumulative impacts.
8. I have determined that the activities described in the proposed action will not adversely affect or cause loss or destruction of scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places (40 CFR 1508.27(b)(8)). Cultural resource surveys

a) Pages 21-23

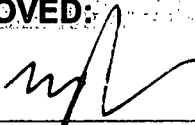
9. The proposed activities are not likely to adversely affect any endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (40 CFR 1508.27(b)(9)).


a) Pages 17-21

10. The proposed activities will not knowingly threaten any violation of Federal, State, or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10)).

Pages 3-5

**APPROVED:**

  
\_\_\_\_\_  
The Field Manager  
Carlsbad Field Office

  
\_\_\_\_\_  
Date

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

Pecos District  
Carlsbad Field Office  
620 E Greene Street  
Carlsbad, NM 88220

**DECISION RECORD**

for the

**[Mesa Verde BS Unit 21]**

**NEPA No. DOI-BLM-NM-P020-2018-0663-EA**

**I. Decision**

I have decided to select the proposed action for implementation as described in the [12-11-2018 Mesa Verde BS Unit 21]. Based on my review of the Environmental Assessment (EA) and project record, I have concluded that the proposed action was analyzed in sufficient detail to allow me to make an informed decision.

**II. Finding of No Significant Impact**

I have reviewed the direct, indirect and cumulative effects of the proposed activities documented in the EA for the [Mesa Verde BS Unit 21]. I have also reviewed the project record for this analysis. The effects of the proposed action are disclosed in the Environmental Consequences sections of the EA. I have determined that the proposed action as described in the EA will not significantly affect the quality of the human environment. Accordingly, I have determined that the preparation of an Environmental Impact Statement is not necessary.

**III. Other Alternatives Considered**

No reasonable action alternative was substantially different in design or effects from the proposed action for this project. Therefore no other alternative was considered or analyzed.

Other action alternatives were substantially similar in design and had sustainably similar effects to the proposed action alternative analyzed in the EA. Therefore no other alternative was considered or analyzed.

**IV. Public Involvement**

The Carlsbad Field Office (CFO) publishes a NEPA log for public inspection. This log contains a list of proposed and approved actions in the field office. The log is located in the lobby of the CFO as well as on the BLM New Mexico website ([http://www.blm.gov/nm/st/en/prog/planning/nepa\\_logs.html](http://www.blm.gov/nm/st/en/prog/planning/nepa_logs.html)).

**V. Appeals**

This decision may be appealed to the Interior Board of Land Appeals (IBLA), Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. Any appeal must be filed within 30 days of this decision. Any notice of appeal must be filed with George MacDonell, Carlsbad Field Manager, at 620 E. Greene St., Carlsbad, NM 88220. The appellant shall serve a copy of the notice of appeal and any statement of reasons, written arguments, or briefs on each

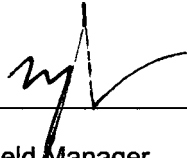
adverse party named in the decision, not later than 15 days after filing such document (see 43 CFR 4.413(a)). Failure to serve within the time required will subject the appeal to summary dismissal (see 43 CFR 4.413(b)). If a statement of reasons for the appeal is not included with the notice, it must be filed with the IBLA, Office of Hearings and Appeals, U. S. Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the IBLA, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St., Suite 300 Arlington, VA 22203 within 30 days after the notice of appeal is filed with George MacDonell, Carlsbad Field Manger.

Notwithstanding the provisions of 43 CFR 4.21(a)(1), filing a notice of appeal under 43 CFR Part 4 does not automatically suspend the effect of the decision. If you wish to file a petition for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal.

A petition for a stay is required to show sufficient justification based on the following standards:

- (1) The relative harm to the parties if the stay is granted or denied;
- (2) The likelihood of the appellant's success on the merits;
- (3) The likelihood of immediate and irreparable harm if the stay is not granted; and
- (4) Whether the public interest favors granting the stay.

In the event a request for stay or an appeal is filed, the person/party requesting the stay or filing the appeal must serve a copy of the appeal on the Office of the Field Solicitor, 1100 Old Santa Fe Trail, Santa Fe, NM 87505.

  
\_\_\_\_\_  
The Field Manager

Date

21 Dec 2018