STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

APPLICATION OF OXY USA INC. TO REOPEN CASE NO. 15616 FOR ADDITONAL REPORTING PURSUANT TO ORDER No. R-14322, EDDY COUNTY, NEW MEXICO.

CASE NO. 15616

APPLICATION OF OXY USA INC. FOR APPROVAL OF A PRESSURE MAINTENANCE PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NOS. 20193, 20194 and 20195

OXY'S CONSOLIDATED PRE-HEARING STATEMENT

This consolidated pre-hearing statement is submitted by OXY USA Inc. ("OXY") as

required by the Oil Conservation Division.

APPEARANCES

APPLICANT

ATTORNEY

OXY USA Inc.

Michael H. Feldewert Adam G. Rankin Jordan L. Kessler Julia Broggi Holland & Hart LLP Post Office Box 2208 Santa Fe, New Mexico 87504-2208 (505) 988-4421

OTHER INTERESTED PARTIES

MRC Permian Company and Matador Production Company

ATTORNEY

James Bruce Post Office Box 1056 Santa Fe, New Mexico 87504 (505) 982-2043

STATEMENT OF THE CASES

In **Case No. 15616**, the Division issued Order No. R-14322 on April 10, 2017, approving OXY's Cedar Canyon Pressure Maintenance Pilot Project. The project area was defined as the Bone Spring formation underlying all of Section 16, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. The Order approved a two-year period of injection of produced water and produced gas into the Cedar Canyon 16 State Well No. 7H (API No. 30-015-41251) and the Cedar Canyon 16 State Well No. 12H (API No. 30-015-42683). The Order required OXY to apply to the Division two years after commencement of injection to report on the results of the injection project. Oxy now seeks:

- to report the results of the injection project;
- to make permanent the injection authority authorized by the Division;
- to add carbon dioxide to the injection authority in addition to produced water and produced gas; and
- to authorize future injection wells in the project area by administrative application.

In **Case No. 20193**, Oxy seeks an order approving a similar pressure maintenance project in the Bone Spring formation (Pierce Crossing, Bone Spring, East Pool (96473)) underlying a project area comprised of the N/2 of Section 23 and the NW/4 of Section 24, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. Oxy seeks authority to inject produced gas, produced water and carbon dioxide into the Second Bone Spring interval through the existing **Cedar Canyon 23 Federal 4H well** (API No. 30-015-43281) at a total vertical depth of approximately 8850 feet to approximately 9002 feet along the horizontal portion of the wellbore. The proposed injection well is located in the S/2 N/2 of Section 23 and the S/2 NW/4 of Section 24. Oxy anticipates injection through this well will provide pressure maintenance support for the offsetting (i) Cedar Canyon 23 Federal 3H well (30-015-43290) dedicated to the S/2 N/2 of Section 23 and the S/2 NW/4 of Section 24, and (ii) the Cedar Canyon 23 Federal 5H well (30-015-43282) dedicated to the N/2 N/2 of Section 23 and the N/2 NW/4 of Section 24. Oxy seeks approval to inject at the following surface injection pressures:

Produced gas:	4,350 psi
Produced water:	1,770 psi
Carbon dioxide:	2300 psi

The source of the produced gas and produced water will be the Bone Spring and Delaware formations. The source of the carbon dioxide is unknown. Oxy also seeks authority to (a) place the packer in the vertical portion of the production casing which is more than 100 feet above the first perforations, and (b) to use unlined tubing in the injection well, which has previously been approved by the Division under Order R-14322 referenced above.

In **Case No. 20194**, Oxy seek an order approving a pressure maintenance project in the Bone Spring formation (Pierce Crossing, Bone Spring, East Pool (96473)) underlying a project area comprised of the S/2 of Section 27 and the S/2 of Section 28, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. Oxy seeks authority to inject produced gas, produced water and carbon dioxide into the Second Bone Spring interval through the existing **Cedar Canyon 27 Federal 6H well** (API No. 30-015-43232) at a total vertical depth of approximately 8718 feet to approximately 8778 feet and the **Cedar Canyon 28 Federal 6H well** (API No. 30-015-43234) at a total vertical depth of approximately 8619 feet to approximately 8697 feet along the horizontal portion of these wellbores. These proposed injection wells are located in the N/2 S/2 of Sections 27 and 28, respectively. Oxy anticipates injection through these wells will provide pressure maintenance support for the offsetting (i) Cedar Canyon 28-27 Federal Com 5H well (30-015-43645) dedicated to the N/2 S/2 of Section 28 and the N/2 S/2 of Section 27; (ii)

Cedar Canyon 27 Federal 7H well (30-015-43233) dedicated to the S/2 S/2 of Section 27; and (iii) Cedar Canyon 28 Federal 7H well (30-015-43238) dedicated to the S/2 S/2 of Section 28. Oxy seeks approval to inject at the following surface injection pressures:

Produced gas:	4,350 psi
Produced water:	1,720 psi
Carbon dioxide:	2300 psi

The source of the produced gas and produced water will be the Bone Spring and Delaware formations. The source of the carbon dioxide is unknown. Oxy also seeks authority to (a) place the packer in the vertical portion of the production casing which is more than 100 feet above the first perforations, and (b) to use unlined tubing in the injection wells, which has previously been approved by the Division under Order R-14322 referenced above.

In Case No. 20195, Oxy seek an order approving a pressure maintenance project in the Bone Spring formation (Cedar Canyon Bone Spring Pool (Pool Code 11520)) underlying Section 34, Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. Oxy seeks authority to inject produced gas, produced water and carbon dioxide into the First Bone Spring interval through the existing Cypress 34 Federal 3H well (API No. 30-015-35692) at a total vertical depth of approximately 7896 feet to approximately 7949 feet and into the Second Bone Spring interval through the Cypress 34 Federal 8H well (API No. 30-015-39430) at a total vertical depth of approximately 8658 feet to approximately 8910 feet along the horizontal portion of these wellbores. The Cypress 34 Federal 3H well is located in the N/2 SE/4 and the NE/4 SW/4 of Section 34 and completed in the 1st Bone Spring interval. Oxy anticipates injection through this well will provide pressure maintenance support for the offsetting (i) Cypress 34 Federal 1 well (30-015-35053) dedicated to the S/2 N/2 of Section 34, and (ii) Cypress 34 Federal 2 well (30-015-35413) dedicated to the S/2 NE/4 and the SE/4 NW/4 of Section 34, both of which are completed in the 1st Bone Spring interval. The <u>Cypress 34 Federal</u> <u>8H well</u> is located in the W/2 E/2 of Section 34 and completed in the 2nd Bone Spring interval. Oxy anticipates injection through this well will provide pressure maintenance support for the offsetting (i) Cypress 34 Federal 9H well (30-015-42088) dedicated to the E/2 E/2 of Section 34, and (ii) Cypress 34 Federal 11H well (30-015-42920) dedicated to the E/2 W/2 of Section 34, both of which are completed in the 2nd Bone Spring interval. Oxy seeks approval to inject at the following surface injection pressures:

Cypress 34 Federal 3H (First BS)		Cypress 34 Federal 8H (Second BS)	
Produced gas:	3850 psi	Produced gas:	4350 psi
Produced water:	1,580 psi	Produced water:	1730 psi
Carbon dioxide:	2000 psi	Carbon dioxide:	2300 psi

The source of the produced gas and produced water will be the Bone Spring and Delaware formations. The source of the carbon dioxide is unknown. Oxy also seeks authority to (a) place the packer in the vertical portion of the production casing which is more than 100 feet above the first perforations, and (b) to use unlined tubing in the injection wells, which has previously been approved by the Division under Order R-14322 referenced above.

APPLICANT'S PROPOSED EVIDENCE

WITNESS Name and Expertise	ESTIMATED TIME	EXHIBITS
Peter Van Liew, Landman	Approx. 20 minutes	Approx. 10
Shunhua Liu, Petroleum Engineer	Approx. 45 minutes	Approx. 15
Spencer Gunderson, Petroleum Geologist	Approx. 20 minutes	Approx. 9
Rick Foppiano or Kelley Montgomery, Engineers	Approx. 30 minutes	Approx. 5

PROCEDURAL MATTERS

Oxy intends to consolidate these four cases for presentation to the Division Examiners.

Respectfully submitted,

HOLLAND & HART LLP

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ATTORNEYS FOR OXY USA INC.

CERTIFICATE OF SERVICE

I hereby certify that on January 3, 2019, I served a copy of the foregoing document to the

following via electronic mail to:

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Michael H. Feldewert