BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING AUGUST 12, 2025

CASE NO. 25222

MESA VERDE EOR BC

EDDY & LEA COUNTIES, NEW MEXICO

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. 25222

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- OXY Exhibit E-4: Huff and Puff Uplift Potential
- OXY Exhibit E-5: Surface Injection Pressure Calculations
- OXY Exhibit E-6: OXY Permian Basin Injection Experience
- OXY Exhibit E-7: EOR Breakthrough Mitigation Strategies

- **OXY Exhibit F:** Self-Affirmed Statement of Notice

- **OXY Exhibit G:** Affidavit of Publication

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. _____

APPLICATION

OXY USA Inc. ("Oxy" or "Applicant") (OGRID No. 16696), through its undersigned attorneys, files this application for an order authorizing the injection of water and produced gas for purposes of enhanced oil recovery ("EOR") within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. In support of this application, Oxy states:

1. The proposed Project Area is the same as the Mesa Verde Bone Spring Resource Development Unit area and consists of the following 3461.80 acres, more or less, of federal and state lands situated in Eddy and Lea County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.

Section 13: ALL

TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.

Section 7: SE/4, E/2 of NE/4
Section 8: ALL
Section 9: W/2
Section 16: W/2
Section 17: ALL
Section 18: ALL

2. The Mesa Verde Bone Spring Unit ("Unit") is a Resource Development Unit.

3. Oxy is the designated operator under the Resource Development Unit Agreement.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. A
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

4. The Unitized Interval for the Unit includes the Bone Spring formation as identified by the Gamma Ray log run in the Heavy Metal 14 Federal 1 well (API: 30-015-29603) located in the NE/4 of SE/4 of Section 14, Township 24 South, Range 31 East, Eddy County, New Mexico, with the top of the Unitized Interval being found at a depth of 8,445 feet below the surface and the base of the unitized interval being found at a depth of 11,830 feet below the surface.

5. The Unit has twenty-nine (29) active horizontal wells completed in the Bone Spring formation. Oxy seeks to convert seven (7) of these producing horizontal wells into injection wells to implement a "huff and puff" enhanced oil recovery project. Oxy intends to periodically inject water, produced gas and carbon dioxide into the Bone Spring formation within the Unitized Interval through one or more of these wells followed by a period of flowback and production.

6. Submitted with this application is a complete Form C-108 for these wells, attached as **Exhibit A**.

7. Oxy requests authority to inject produced gas, and water within the Unitized Interval at up to the following maximum surface injection pressures in the respective Bone Spring zones of the Avalon, First Bone Spring Sand ("1BSS"), Second Bone Spring Sand ("2BSS"), Third Bone Spring Sand ("3BSS"), and Third Bone Spring Lime ("3BSL"):

	Maximum Surface Injection Pressure (psi)	
Zone	Hydrocarbon Gas	Water
Avalon	4,510	1,813
1BSS	4,810	1,949
2BSS	4,980	2,022
3BSS & 3BSL	5,700	2,361

8. Oxy seeks authority to inject at the following maximum and average rates:

Injectant	Maximum Rate	Average Rate
Hydrocarbon Gas	45 MMSCFPD	22 MMSCFPD
Water	6,500 bwpd	5,000 bwpd

9. Due to facility costs and timing associated with implementing this "huff and puff" injection project, Oxy seeks an exception from 19.15.26.12.C NMAC, which requires actual injection to occur within one (1) year of approval.

10. Pursuant to 19.15.26.8.F(5) NMAC, Oxy requests that additional injection wells in the Unit Area be approved administratively, subject to the applicable notice requirements.

11. A copy of this Application has been provided to all affected parties as required by Division Rules and notice of the hearing on this application will be provided in a newspaper of general circulation in Eddy and Lea Counties.

12. Approval of this application is in the best interests of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing before an Examiner of the Oil Conservation Division on March 13, 2025, and that after notice and hearing this Application be approved.

Respectfully submitted,

HOLLAND & HART LLP

By: _____

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Adam G. Rankin
Paula M. Vance
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ATTORNEYS FOR OXY USA INC.

CASE NO. ____: **Application of Oxy USA Inc. for Approval of Injection Authority for the Mesa Verde Bone Spring Resource Development Unit for Enhanced Oil Recovery, Eddy and Lea Counties, New Mexico.** Applicant seeks an order authorizing the injection of water and produced gas for purposes of enhanced oil recovery ("EOR") within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. The Project Area is comprised of the following federal and state lands in Eddy and Lea County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
Section 13: ALL

TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
Section 7: SE/4, E/2 of NE/4
Section 8: ALL
Section 9: W/2
Section 16: W/2
Section 17: ALL
Section 18: ALL

The unitized interval consists of the Bone Spring formation as identified by the Gamma Ray log run in the Heavy Metal 14 Federal 1 well (API: 30-015-29603) located in the NE/4 of SE/4 of Section 14, Township 24 South, Range 31 East, Eddy County, New Mexico, with the top of the unitized interval being found at a depth of 8,445 feet below the surface and the base of the unitized interval being found at a depth of 11,830 feet below the surface. The Unit has twenty-nine (29) active horizontal wells completed in the Bone Spring formation. Oxy seeks to convert seven (7) of these producing horizontal wells into injection wells to implement a "huff and puff" enhanced oil recovery project. Oxy seeks approval to inject produced gas and water within the Unitized Interval at up to the following maximum surface injection pressures in the respective Bone Spring zones of the Avalon, First Bone Spring Sand ("1BSS"), Second Bone Spring Sand ("2BSS"), Third Bone Spring Sand ("3BSS"), and Third Bone Spring Lime ("3BSL"):

	Maximum Surface Injection Pressure (psi)	
Zone	Hydrocarbon Gas	Water
Avalon	4,510	1,813
1BSS	4,810	1,949
2BSS	4,980	2,022

3BSS & 3BSL	5,700	2,361

Oxy seeks authority to inject at the following maximum and average rates:

Injectant	Maximum Rate	Average Rate
Hydrocarbon Gas	45 MMSCFPD	22 MMSCFPD
Water	6,500 bwpd	5,000 bwpd

The Mesa Verde Bone Spring Resource Development Unit is approximately 5 miles west of Jal, New Mexico.

JULY 2025

OXY REGULATORY

MESA VERDE BONE SPRING UNIT EOR INJECTION PROJECT

EOR PROJECT

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____X____Secondary Recovery _____Pressure Maintenance _____Disposal _____Storage
Application qualifies for administrative approval? _____Yes _____No

II. OPERATOR: _____OXY USA INC._____

ADDRESS: _____PO BOX 4294, HOUSTON, TX, 77210-4294_____

CONTACT PARTY: ____STEPHEN JANACEK_____PHONE: __713-493-1986___

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary. SEE ATTACHED

IV. Is this an expansion of an existing project? _____Yes ____X_____No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. SEE ATTACHED.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. SEE ATTACHED.

VII. Attach data on the proposed operation, including: SEE ATTACHED.

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed; CLOSED
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. SEE ATTACHED.

IX. Describe the proposed stimulation program, if any. NO STIMULATION PLANNED AT TIME OF APPLICATION.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

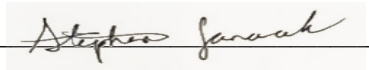
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: _____STEPHEN JANACEK_____TITLE: __REGULATORY ENGINEER_____

SIGNATURE: _____  _____DATE: _____1/10/2025_____

E-MAIL ADDRESS: ____STEPHEN_JANACEK@OXY.COM_____

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: File Electronically via OCD Permitting

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include: SEE ATTACHED.

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated. SEE ATTACHED.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

PROJECT OVERVIEW

- Description
  - The Mesa Verde Bone Spring Unit is a Resource Development Unit with wells initially drilled in 2017.
  - Various Enhanced Oil Recovery (“EOR”) techniques, such as Huff and Puff or Line Drive Injection will be applied with produced gas, and water as injectants to sweep the pore space of the depleted reservoir to recover additional hydrocarbon reserves.
- Benefits
  - No additional surface disturbances.
  - Prevents waste of resources.
- Estimated Timeline
  1. Install compressor and surface facilities 6 months
  2. Install injection equipment ½ month
  3. Begin injection in first phase wells

REQUESTED RELIEF

- Requested Relief:
  1. Approval of an Enhanced Oil Recovery (“EOR”) Project.
  2. 7 injection wells producing/injection from various zones in the Bone Spring Pool.
     - Add additional injection wells administratively
  3. Approval to use hydrocarbon gas and water as injectant.
  4. Maximum Allowable Surface Pressure (“MASP”) for each zone and each injectant as seen in table below:

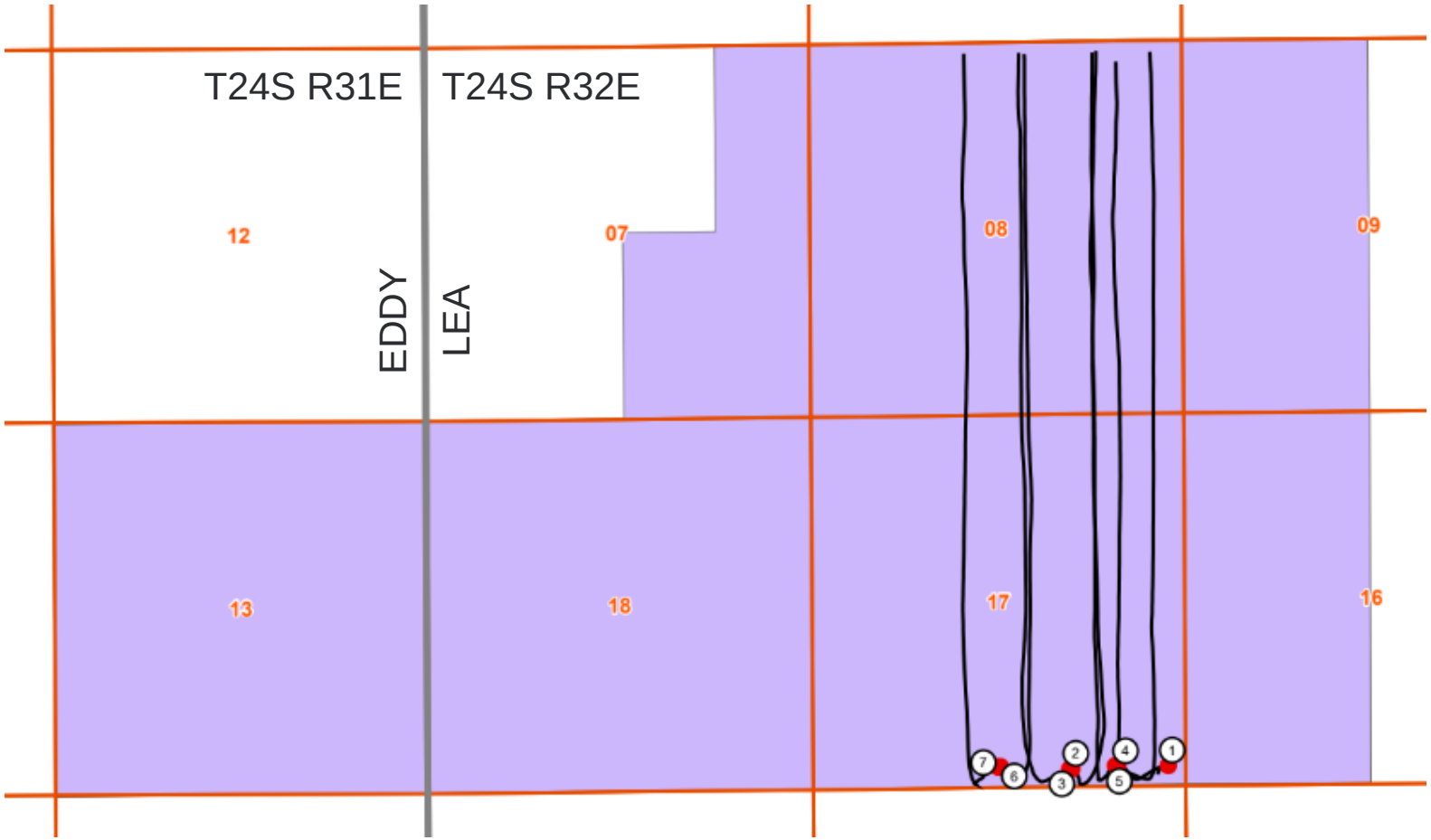
	Maximum Surface Injection Pressure (psi)	
Zone	Hydrocarbon Gas	Water
Avalon	4,510	1,813
1BSS	4,810	1,949
2BSS	4,980	2,022
3BSS & 3BSL	5,700	2,361

WELL LIST

AOR WELL ID	API	WELL_NAME	ZONE
1	3002544101	MESA VERDE BS UNIT 1H ST1	Avalon:
2	3002544196	MESA VERDE BS UNIT 2H	3BSS:
3	3002544183	MESA VERDE BS UNIT 3H	Avalon:
4	3002544064	MESA VERDE BS UNIT 4H	2BSS:
5	3002544185	MESA VERDE BS UNIT 5H	2BSS:
6	3002544042	MESA VERDE BS UNIT 6H	2BSS:
7	3002544065	MESA VERDE BS UNIT 7H	2BSS:

- Initially, not all unit wells are being permitted for injection. As of January 2025, there are 29 unit wells.
- The remaining unit wells will be added to the injection permit later.

PROJECT MAP

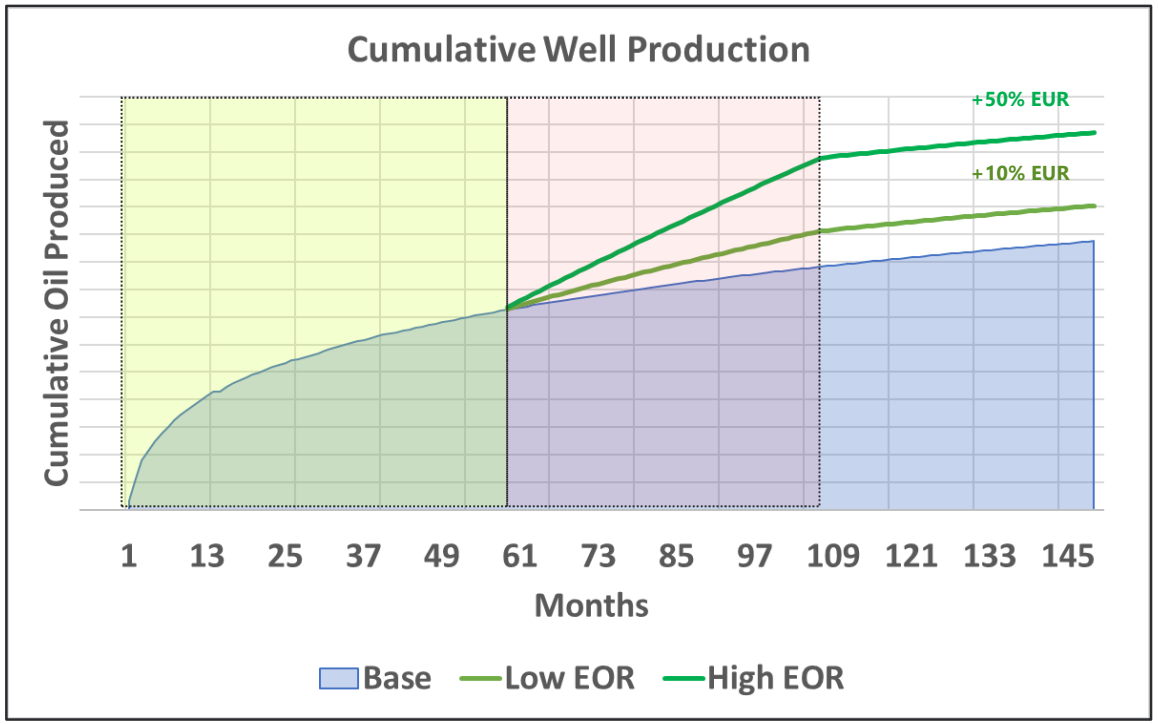


Key

- Mesa Verde Bone Spring Unit
- Surface Hole Location
- Well Trajectory
- AOR Well ID

EOR UPLIFT

- Primary production recovery factor is estimated to be 2-10% of OOIP(Original Oil in Place).
- Estimated Ultimate Recovery(EUR) can be improved by 10%-30+% using EOR injection.
- Miscible gas HnP has been demonstrated to increase production in unconventional wells in Midland Basin Texas
- Miscible HC Gas injection has potential in all target benches



District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☑ AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44101	96229	Mesa Verde Bone Spring

Property Code	Property Name	Well Number
320828	MESA VERDE BS UNIT	1H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3563.6'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	24 SOUTH	32 EAST, N.M.P.M.		271'	SOUTH	245'	EAST	LEA

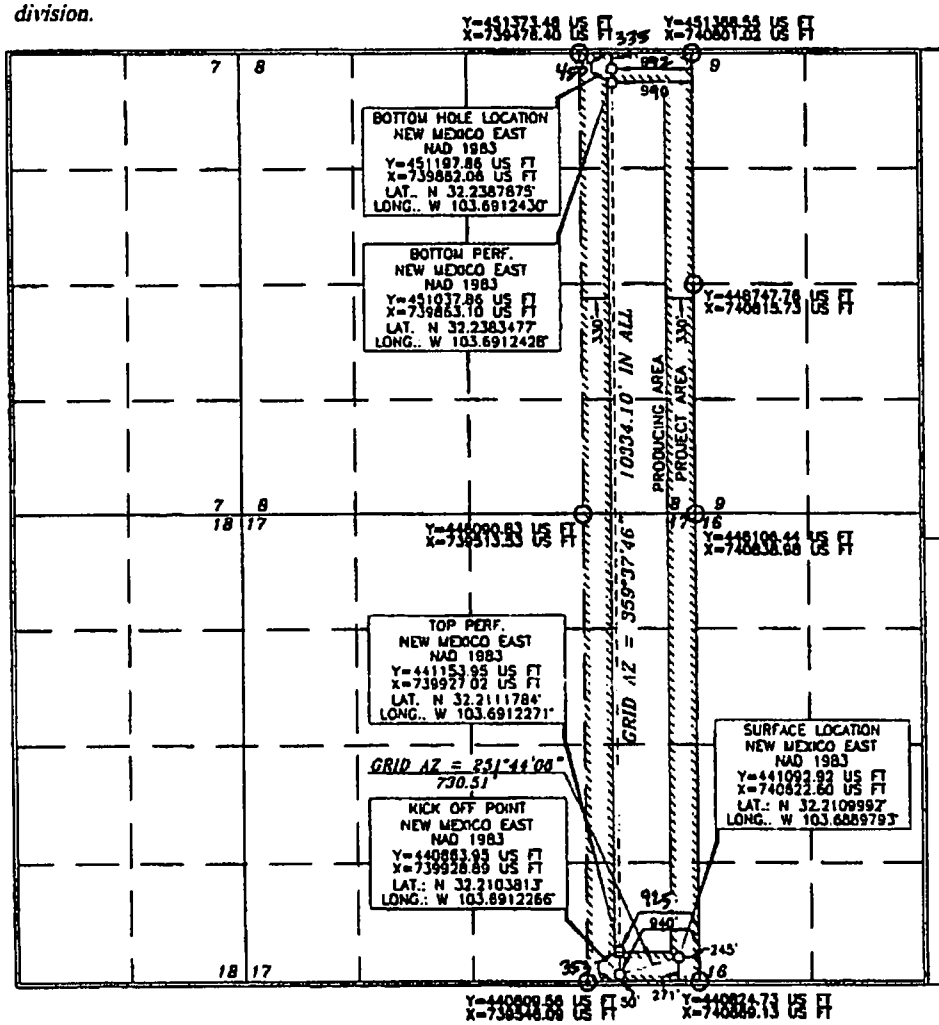
Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	24 SOUTH	32 EAST, N.M.P.M.		~~100'~~ 335	NORTH	~~810'~~ 992	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y		

LTP – 450 FNL 990 FEL
FTP – 353 FSL 925 FEL

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 8/16/18 Date

Jana Mendiola
Printed Name

janalyn_mendiola@oxy.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

15079
SEPTEMBER 28, 2016
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number 15079

WO# 1509JOWL-b-XY (Rev. C) (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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Revised August 1, 2011
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☑ AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44196	96229	Mesa Verde Bone Spring

Property Code	Property Name	Well Number
320828	MESA VERDE BS UNIT	2H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3557.4'

Surface Location

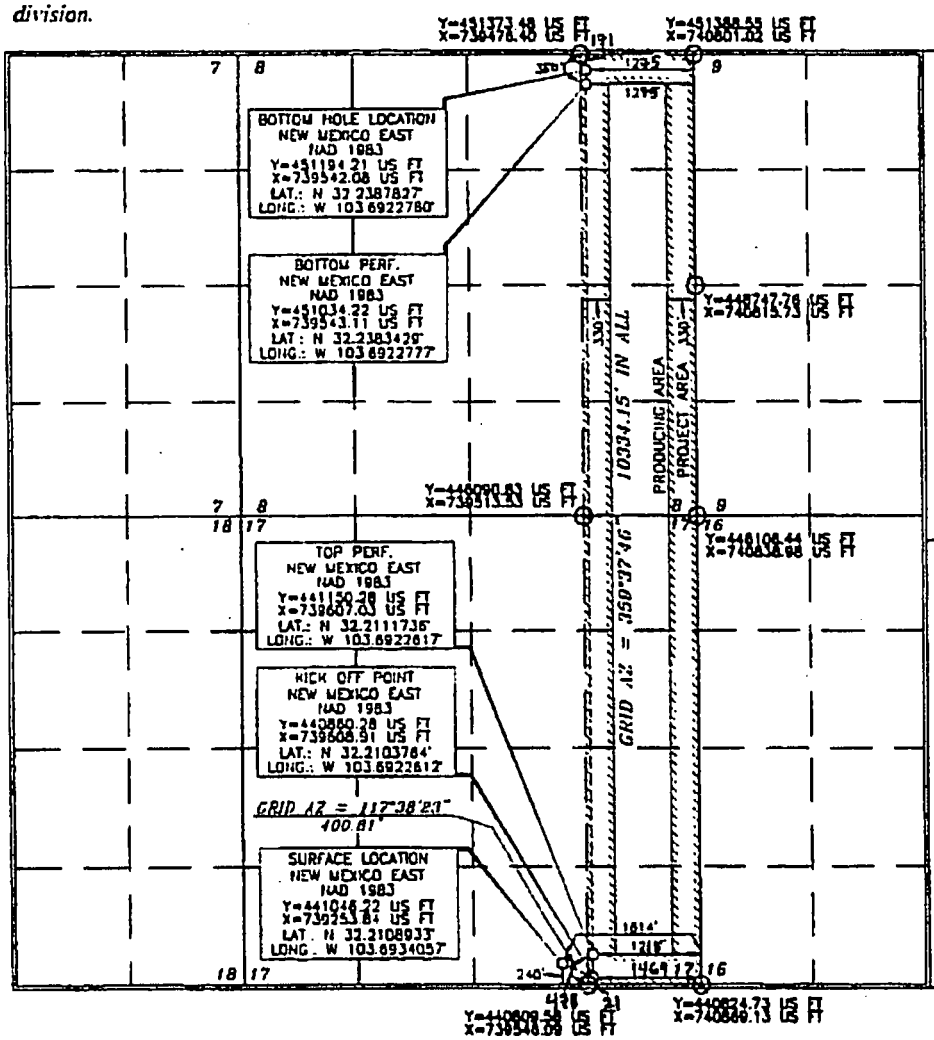
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	24 SOUTH	32 EAST, N.M.P.M		240'	SOUTH	1614'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	24 SOUTH	32 EAST, N.M.P.M		~~189~~ 171	NORTH	~~1260~~ 1275	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y		BP- 350 FNL 1275 FEL TP- 478 FSL 1215 FEL

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 7/26/18 Date

Jana Mendiola
Printed Name

janalyn_mendiola@oxy.com
Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JERRY J. ASH
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

OCTOBER 5, 2018
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number 15879

WO# 161005WL-b-XY (Rev. A) (KA)

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Revised August 1, 2011
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☑ AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44183	96229	Mesa Verde Bone Spring

Property Code	Property Name	Well Number
320828	MESA VERDE BS UNIT	3H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3557.7'

Surface Location

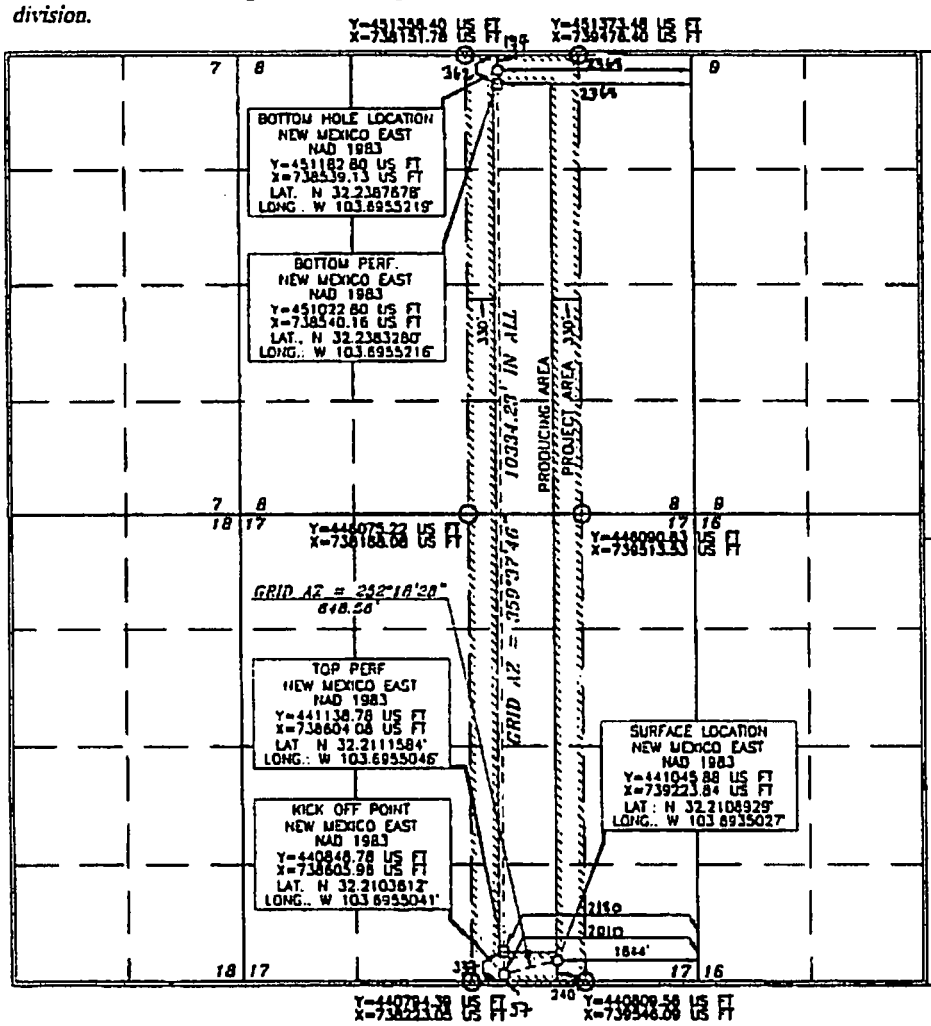
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	24 SOUTH	32 EAST, N.M.P.M.		240'	SOUTH	1644'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	24 SOUTH	32 EAST, N.M.P.M.		~~100'~~ 197	NORTH	~~2203'~~ 2368	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	~~Order No.~~
320	Y		BP- 362 FNL 2368 FEL TP- 337 FSL 2180 FEL

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

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Signature 7/26/18 Date

Jana Mendiola
Printed Name

janalyn_mendiola@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

OCTOBER 6, 2016
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number 15079

WO# 161005WL-a-XY (Rev B) (KA)

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☑ AMENDED REPORT
(As-Drilled Plat)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44064	96229	Mesa Verde Bone Spring

Property Code	Property Name	Well Number
320828	MESA VERDE BS Unit	4H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3560.5'

Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	965'	EAST	LEA

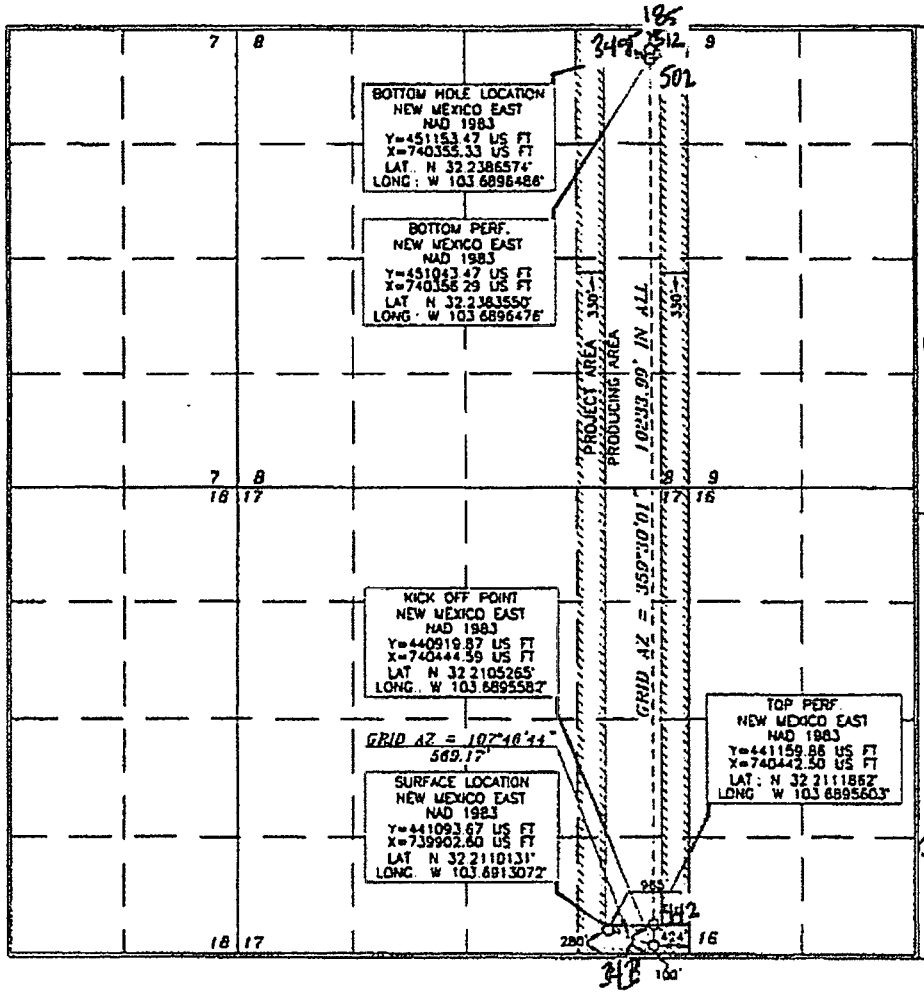
Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	24 SOUTH	32 EAST, N.M.P.M.		185	NORTH	512	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y		

Bottom Perf: 349' FNL & 502' FEL
Top Perf: 343' FSL & 442' FEL

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Sarah Chapman Date: 5/4/16

Sarah Chapman
Printed Name

sarah_chapman@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JERRY J. ASEL
15079
NEW MEXICO PROFESSIONAL LAND SURVEYOR

SEPTEMBER 28, 2015
Date of Survey

Signature and Seal of Professional Surveyor

Certificate Number 15079 9/23/2016

WO# 150928WL-c (Rev. A) (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☑ AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44185	96229	Mesa Verde Bone Spring

Property Code	Property Name	Well Number
320828	MESA VERDE BONE SPRING UNIT	5H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3560.5'

Surface Location

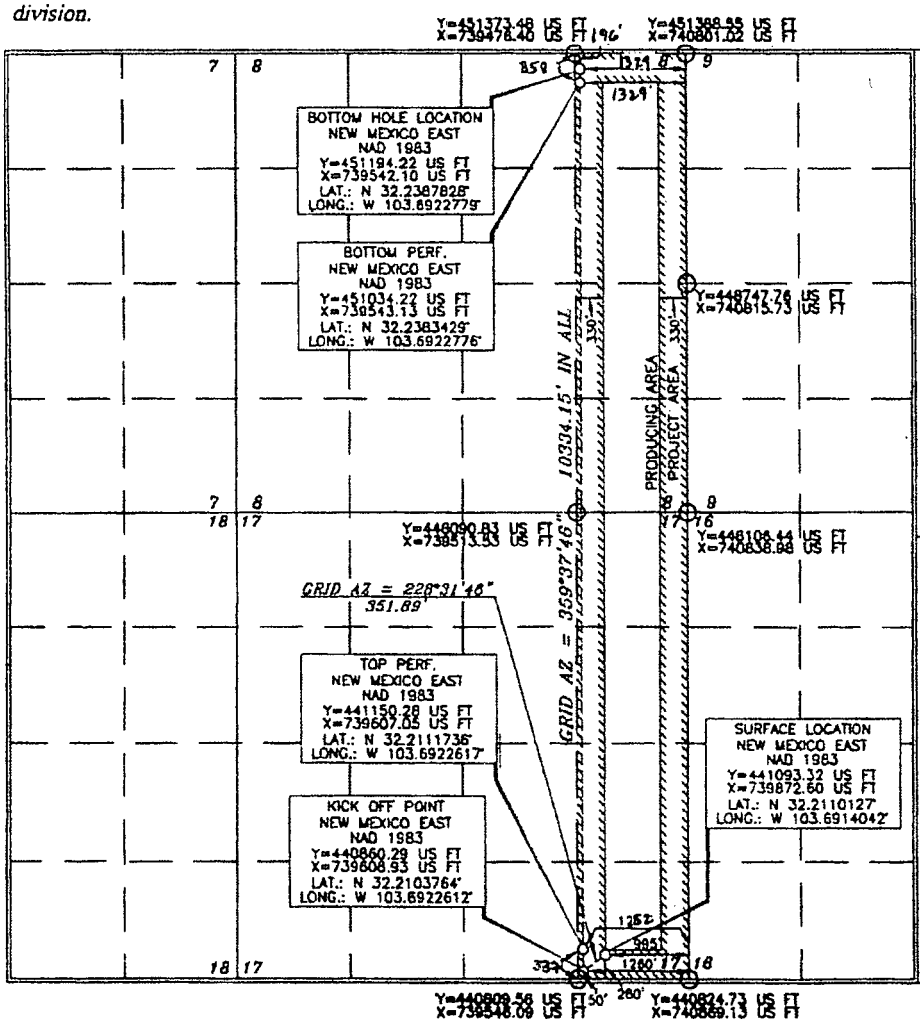
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	995'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	24 SOUTH	32 EAST, N.M.P.M.		~~180'~~ 196	NORTH	~~1860'~~ 1329	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	~~Order No.~~
320	Y		BP- 358 FNL 1329 FEL (B) TP- 337 FSL 1252 FEL (P)

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 5/8/18

Jana Mendiola
Printed Name

janalyn_mendiola@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JERRY J. ASE
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

SEPTEMBER 28, 2016
Date of Survey

Signature and Seal of Professional Surveyor

9/23/2016

15079
Certificate Number

WO# 150928WL-b-XY (Rev A) (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☑ AMENDED REPORT
(As-drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44042	96229	Mesa Verde ; Bone Spring

Property Code	Property Name	Well Number
319616	MESA VERDE ~~"17_8" FEDERAL COM~~ BS Unit	~~#1~~ 6H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3559.6'

Surface Location

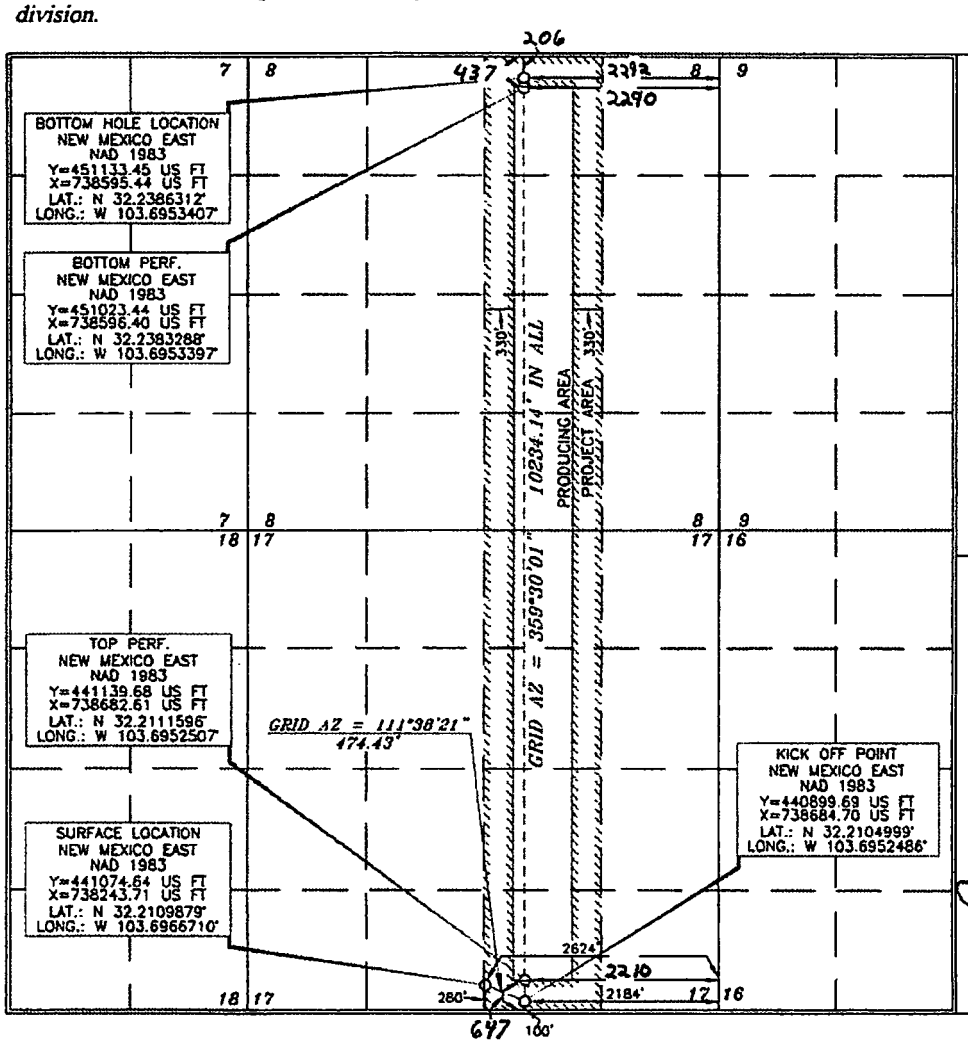
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	2624'	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	24 SOUTH	32 EAST, N.M.P.M.		~~230'~~ 206'	NORTH	~~2207'~~ 2292'	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y		FTP: 647' FSL 2210' FEL LTP: 437' FNL 2290' FEL

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 8/8/18

Justin Morris
Printed Name

Justin_Morris@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

15079
SEPTEMBER 28, 2016
Date of Survey

Signature and Seal of Professional Surveyor

GERRY J. ASEL — NEW MEXICO — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

11/17/2016

Certificate Number 15079

WO# 150928WL-o (Rev. A) (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
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State of New Mexico
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1220 South St. Francis Dr.
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Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☑ AMENDED REPORT
(As-drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-44065	96229	Mesa Verde ; Bone Spring

Property Code	Property Name	Well Number
319616	MESA VERDE ~~"17_8" FEDERAL COM~~ BS Unit	~~3H~~ 7H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3559.9'

Surface Location

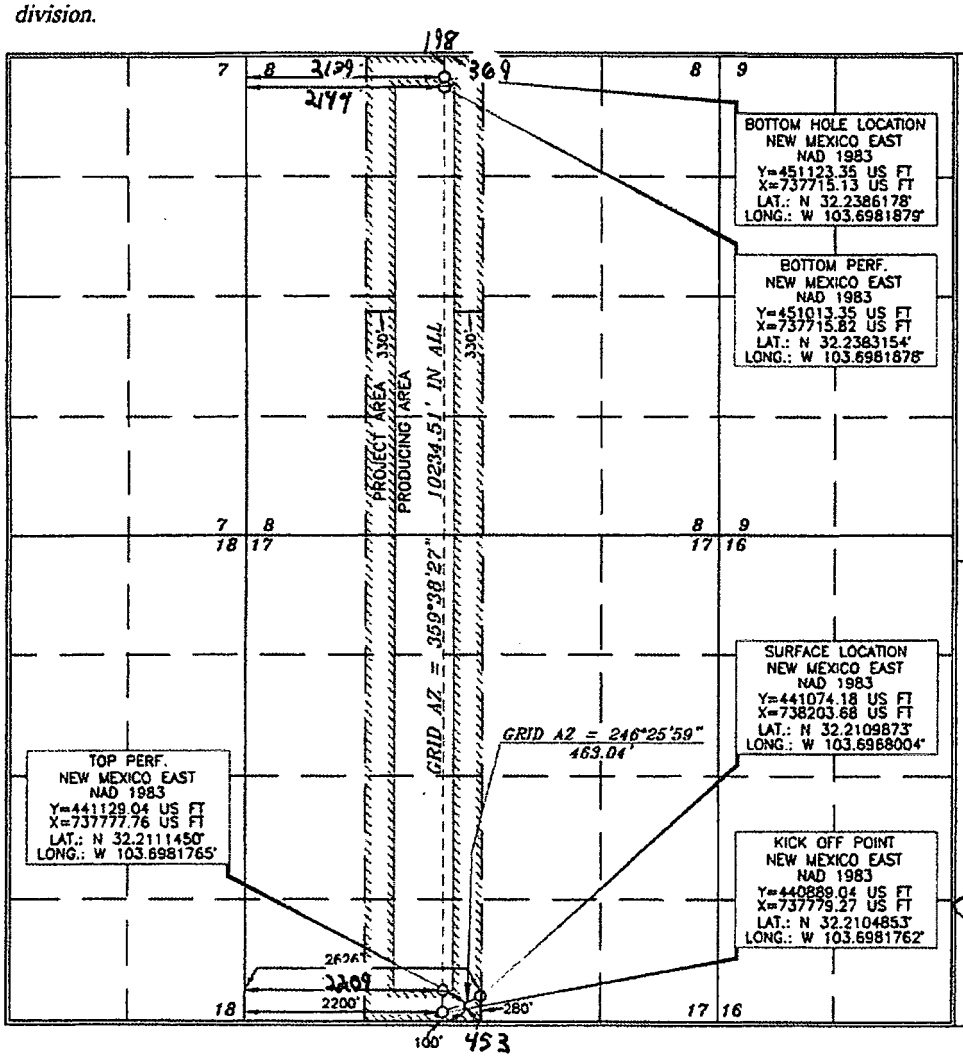
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	2626'	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	8	24 SOUTH	32 EAST, N.M.P.M.		~~990'~~ 198'	NORTH	~~2200'~~ 2139'	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y		FTP: 453' FSL 2209' FWL LTP: 369' FNL 2144' FWL

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 8/8/18

Printed Name: Justin Morris

E-mail Address: Justin_Morris@oxy.com

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NEW MEXICO — JERRY J. ASE — 15079 — REGISTERED PROFESSIONAL LAND SURVEYOR

SEPTEMBER 28, 2016
Date of Survey

Signature and Seal of Professional Surveyor

11/11/2016

Certificate Number 15079

WO# 150929WL-c (Rev. A) (KA)

Side 1

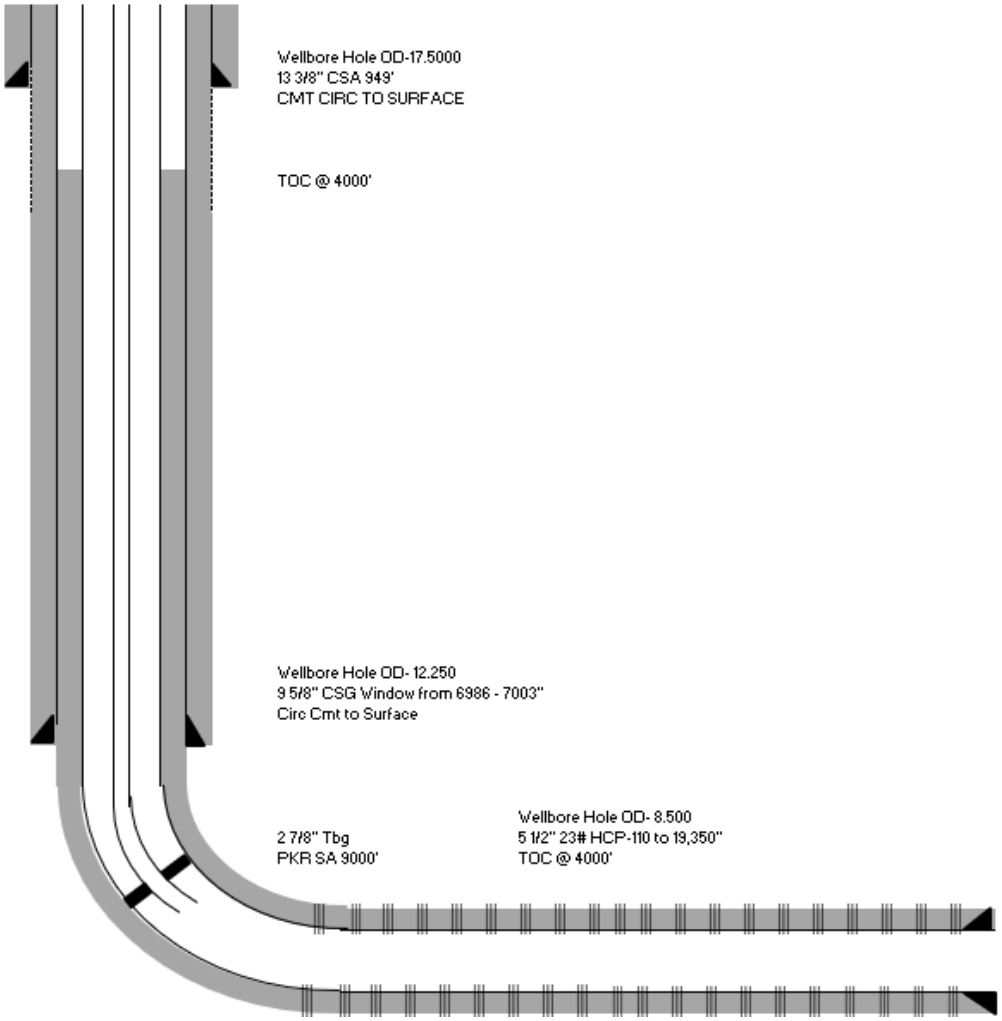
OPERATOR: OXY USA INC

WELL NAME & NUMBER: MESA VERDE BONE SPRING UNIT 1H API 30-025-44101

WELL LOCATION: 271' FSL 245' FEL | P | 17 | 24S | 32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13-3/8"

Cemented with: 1264 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 12.25" Casing Size: 9-5/8"

Cemented with: 5905 sx. ***or*** _____ ft^3

Top of Cement: 1985' Method Determined: CALC

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 2621 sx. ***or*** _____ ft^3

Top of Cement: 4000' Method Determined: CBL

Total Depth: 19,350' MD/9290' TVD

Injection Interval

9451' MD/9247' TVD feet to 19,251' MD/9290' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

Tubing Size: 2-7/8" Lining Material: _____

Type of Packer: ARROWSET PACKER 5.5"

Packer Setting Depth: 9065' MD/8970' TVD

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? _____Yes X No

   If no, for what purpose was the well originally drilled? PRODUCER-OIL

2. Name of the Injection Formation: AVALON

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: BRUSHY CANYON 6850' MD

   WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

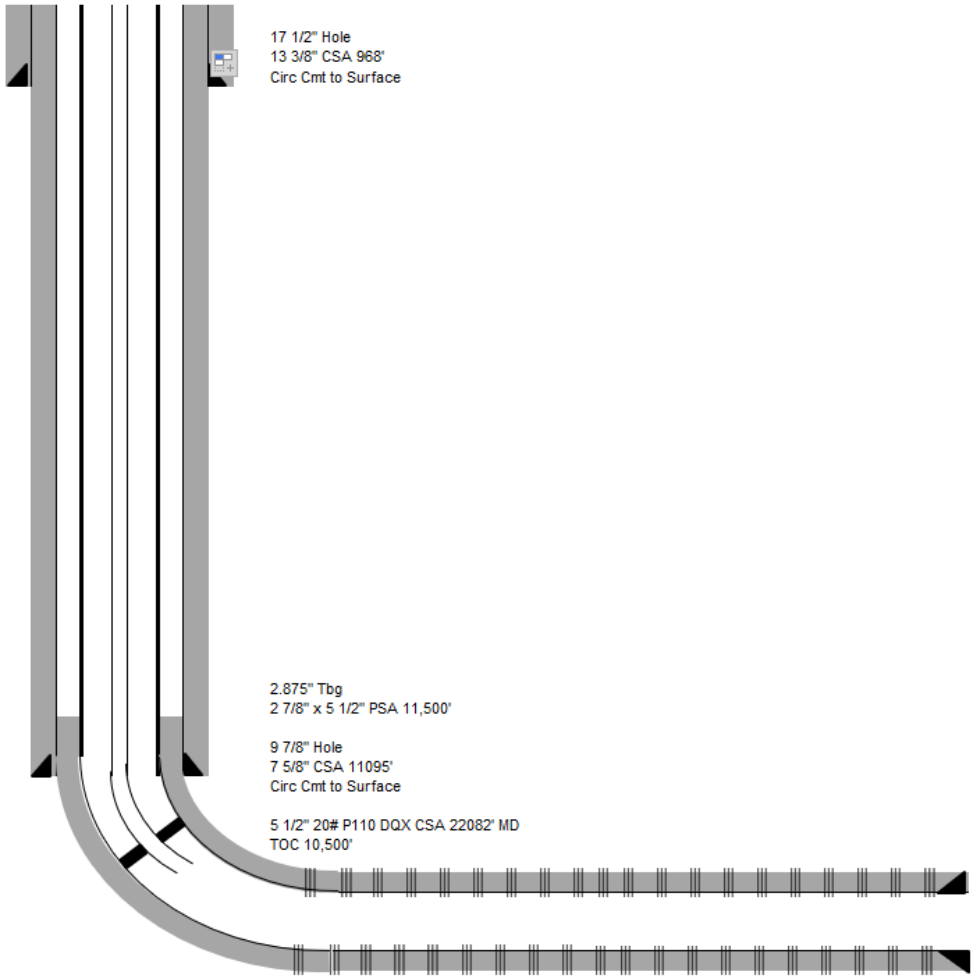
OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #2H API 30-025-44196

WELL LOCATION: SWSE/240 FSL / 1614 FEL | O | 17 | T24S | R32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1202 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2624 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 846 sx. *or* _____ ft³

Top of Cement: 10,500' Method Determined: Calc

Total Depth: 22,082 Total Vertical Depth: 11,860'

Injection Interval MD/TVD

12,165'MD /1 1,817' TVD feet to 21,915' MD / 11,860' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 11,500' MD / 11,593 TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? ____Yes X____No

   If no, for what purpose was the well originally drilled?
   Oil and Gas production

2. Name of the Injection Formation: 3RD BONE SPRING SAND

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.
   No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   OVERLYING: BRUSHY CANYON 6850' MD

   UNDERLYING: WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

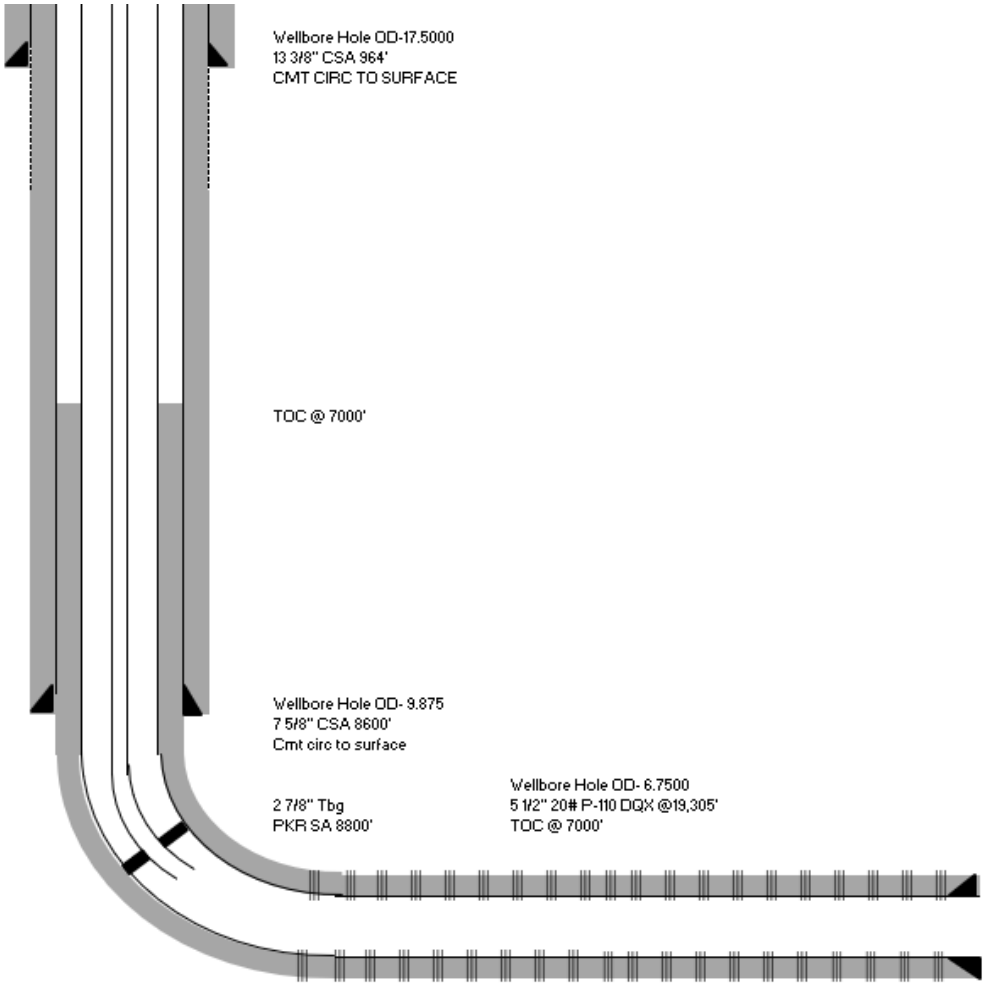
OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #3H API 30-025-44183

WELL LOCATION: 240 FSL / 1644 FEL | O | 17 | T24S | R32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1220 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2399 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 826 sx. *or* _____ ft³

Top of Cement: 7000' Method Determined: Calc

Total Depth: 19,305' Total Vertical Depth: 9,125'

Injection Interval MD/TVD

9,252' MD / 9,075' TVD feet to 19,155' MD / 9,125' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 8,800' MD / 8,750' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? ____Yes X____No

   If no, for what purpose was the well originally drilled?
   Oil and Gas production

2. Name of the Injection Formation: AVALON

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.
   No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   OVERLYING: BRUSHY CANYON 6850' MD

   UNDERLYING: WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

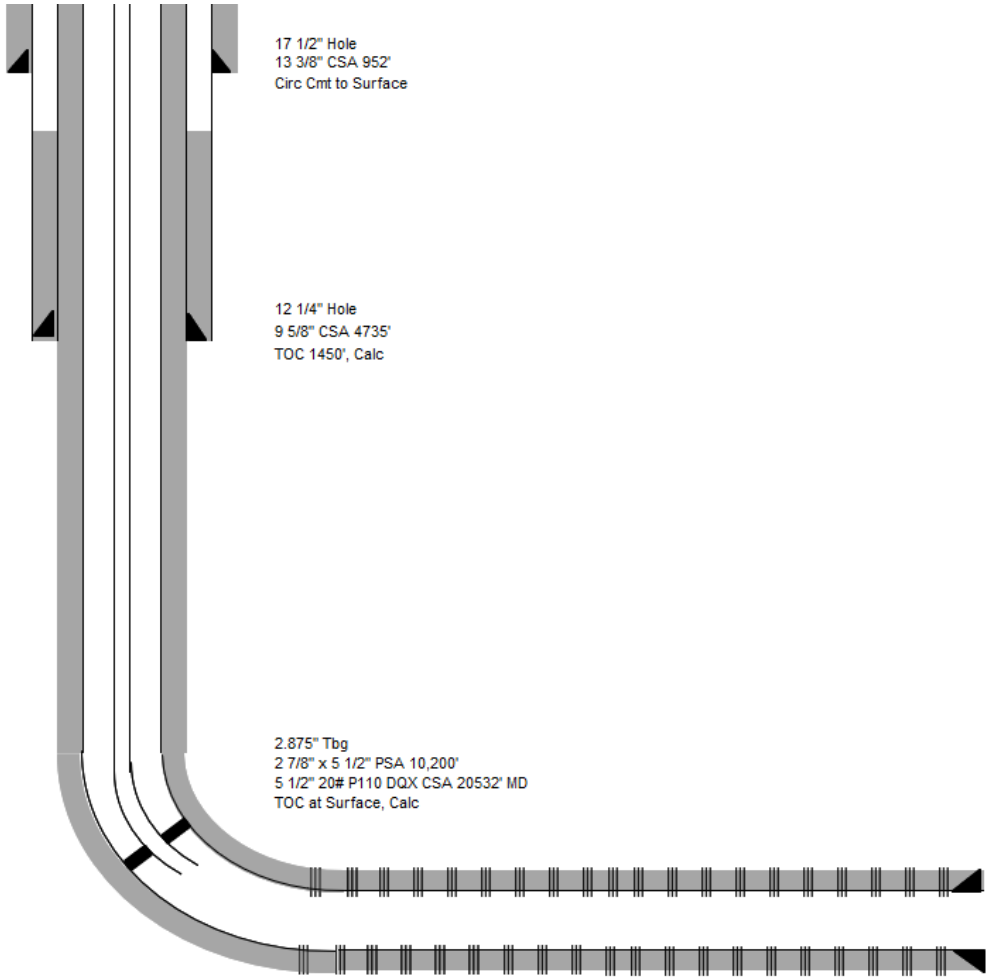
OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #4H API 30-025-44064

WELL LOCATION: 280 FSL / 965 FEL | O | 17 | T24S | R32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1712 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 2060 sx. *or* _____ ft³

Top of Cement: 1450 Method Determined: Calc

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 3050 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Calc

Total Depth: 20,490' Total Vertical Depth: 10,446'

Injection Interval MD/TVD

10,483' MD / 10,350' TVD feet to 20,385' MD / 10,447' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,200' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? _____Yes X No

   If no, for what purpose was the well originally drilled? Oil and Gas production

2. Name of the Injection Formation: 2ND BONE SPRING SAND

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   OVERLYING: BRUSHY CANYON 6850' MD

   UNDERLYING: WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

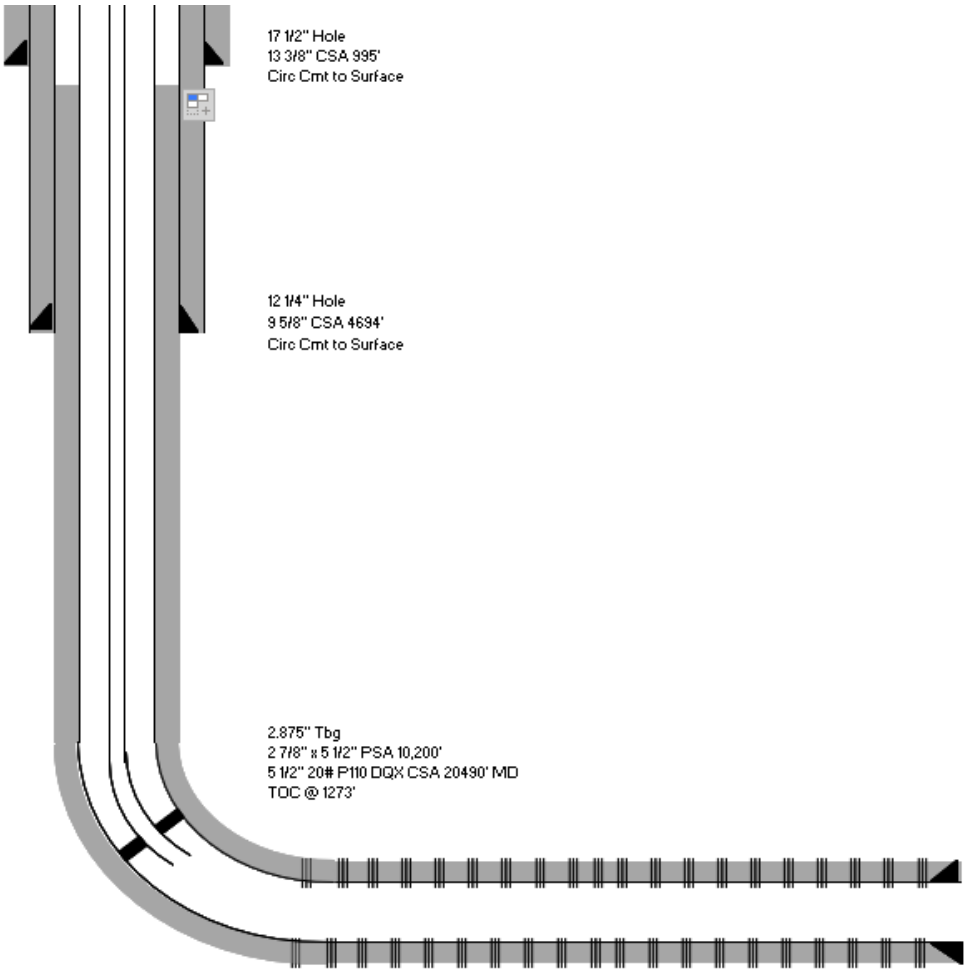
OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #5H API 30-025-44185

WELL LOCATION: 280 FSL / 995 FEL | p | 17 | T24S | R32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1245 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 1290 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2895 sx. *or* _____ ft³

Top of Cement: 1273' Method Determined: Echo Meter

Total Depth: 20,505' Total Vertical Depth: 10,449'

Injection Interval MD/TVD

10,441' MD / 10,342' TVD feet to 20,343' MD / 10,449' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,200' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? ____Yes X____No

   If no, for what purpose was the well originally drilled?
   Oil and Gas production

2. Name of the Injection Formation: 2ND BONE SPRING SAND

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.
   No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   OVERLYING: BRUSHY CANYON 6850' MD

   UNDERLYING: WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

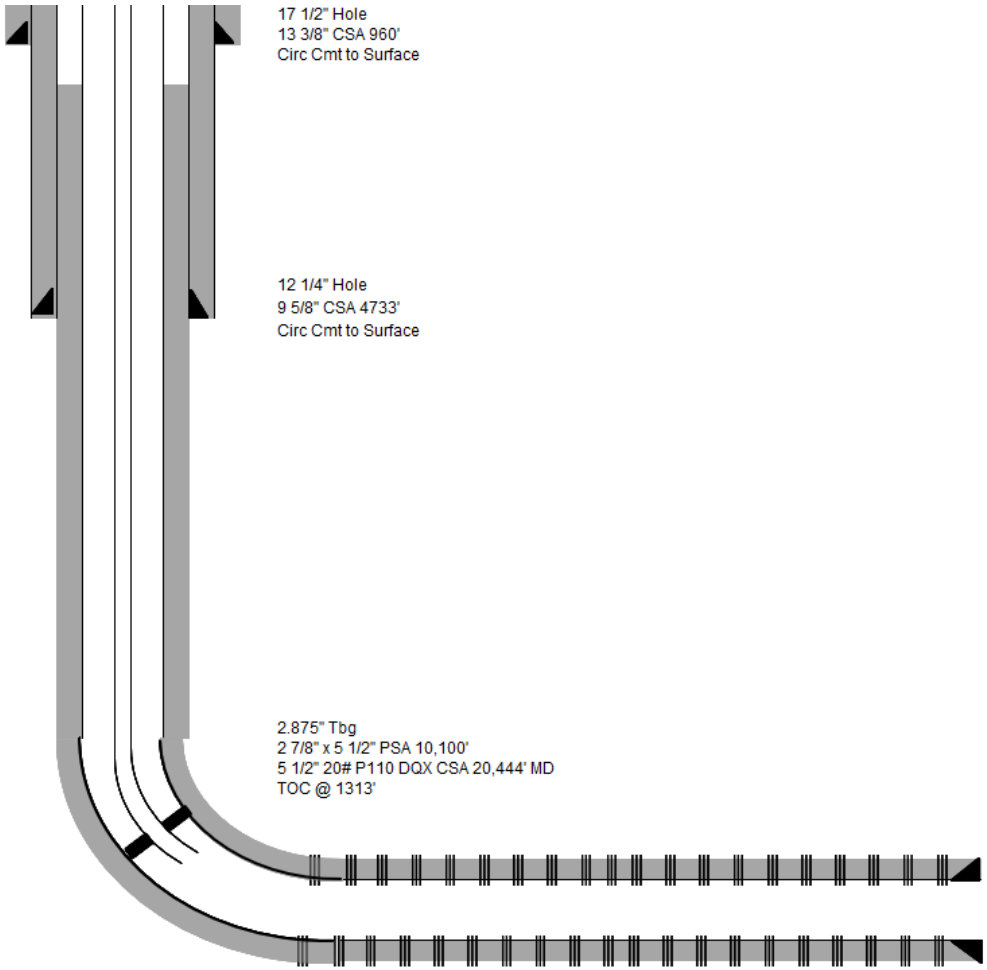
OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #6H API 30-025-44042

WELL LOCATION: 280 FSL / 2624 FEL | O | 17 | T24S | R32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1240 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 1300 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2970 sx. *or* _____ ft³

Top of Cement: 1312' Method Determined: Echo Meter

Total Depth: 20,444 Total Vertical Depth: 10,411'

Injection Interval MD/TVD

10,539' MD / 10,340' TVD feet to 20,224' MD / 10,000' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,100' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? _____Yes X No

   If no, for what purpose was the well originally drilled? Oil and Gas production

2. Name of the Injection Formation: 2ND BONE SPRING SAND

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   OVERLYING: BRUSHY CANYON 6850' MD

   UNDERLYING: WOLFCAMP 12150' MD

Side 1

INJECTION WELL DATA SHEET

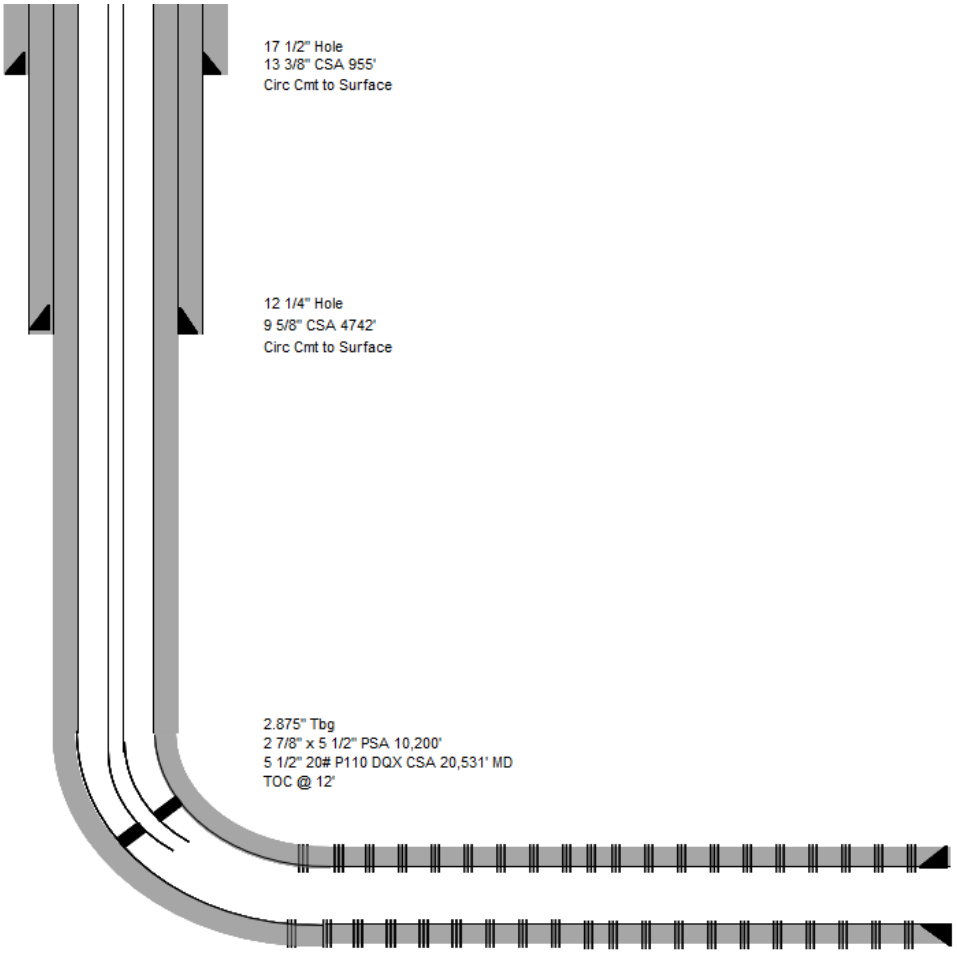
OPERATOR: Oxy USA

WELL NAME & NUMBER: Mesa Verde BS Unit #7H API 30-025-44065

WELL LOCATION: 280 FSL / 2626 FWL | N | 17 | T24S | R32E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 1240 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 1300 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2965 sx. *or* _____ ft³

Top of Cement: 12' Method Determined: Echo Meter

Total Depth: 20,531' Total Vertical Depth: 10,429'

Injection Interval MD/TVD

10,619 MD / 10,364' TVD feet to 20,371' MD / 10,428' TVD

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2.875" (proposed) Lining Material: Plastic Lined (proposed)

Type of Packer: 2.875" x 5.5" Nickle Coated (proposed)

Packer Setting Depth: 10,200' MD / 10,100' TVD (proposed) (MD/TVD)

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? _____Yes X No

   If no, for what purpose was the well originally drilled?
   Oil and Gas production

2. Name of the Injection Formation: 2ND BONE SPRING SAND

3. Name of Field or Pool (if applicable): [96229] MESA VERDE; BONE SPRING

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.
   No

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   OVERLYING: BRUSHY CANYON 6850' MD

   UNDERLYING: WOLFCAMP 12150' MD

Area of Review Map
Updated 8/1/2025

T24S
R32E

Key
½ Mile AOR
Injection Candidate Well
Offset AOR well

Received by OCD: 8/5/2025 3:54:16 PM

Bone Spring AOR Table 2/6/2025

Red Text- Candidate EOR Injection well

AOR ID	API NUMBER	Current Operator	LEASE NAME	WELL NUMBER	Well Type:	Status:	Footages N/S	N/S	Footages E/W	E/W	Surface Location Unit	Surface Location Section	Surface Location TShip	Surface Location Range	Spud:	True Vertical Depth:	Current Completion	HOLE SIZE	CSG SIZE	SET AT	SX CMT	CMT TO	Top Of Cement How Measured	Comment	Pool
1	30-025-44101	OXY USA INC	MESA VERDE BONE SPRING UNIT	001H	Oil	Active	271	S	245	E	P	17	24S	32E	12/27/2017	9291	9451-19251	17.500	13.375	918	1264	Surf	Circ	Intermediate casing parted at 8608'. Plugs set and whipstock at 7013'.	[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	11062	5905	1985	Circ	Active CLGC well	
																		8.500	5.500	19350	2621	4000	Calc		
2	30-025-44196	OXY USA INC	MESA VERDE BONE SPRING UNIT	002H	Oil	Active	240	S	1614	E	O	17	24S	32E	2/3/2018	11861	12165-21916	17.500	13.375	938	1202	Surf	Circ	Permitted CLGC well	[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	11092	2624	Surf	Circ		
																		6.750	5.500	22082	846	10500	Calc		
3	30-025-44183	OXY USA INC	MESA VERDE BONE SPRING UNIT	003H	Oil	Active	240	S	1644	E	O	17	24S	32E	2/5/2018	9125	9253-19155	17.500	13.375	954	1220	Surf	Circ	Active CLGC well	[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	8600	2399	Surf	Circ		
																		6.750	5.500	19305	826	7000	Calc		
4	30-025-44064	OXY USA INC	MESA VERDE BONE SPRING UNIT	004H	Oil	Active	280	S	965	E	P	17	24S	32E	1/25/2018	10447	10483-20385	17.500	13.375	952	1712	Surf	Circ	Permitted CLGC well	[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4735	2060	1450	Calc		
																		8.500	5.500	20532	3050	Surf	Calc		
5	30-025-44185	OXY USA INC	MESA VERDE BONE SPRING UNIT	005H	Oil	Active	280	S	995	E	P	17	24S	32E	1/29/2018	10449	10441-20343	17.500	13.375	974	1245	Surf	Circ	Active CLGC well	[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4694	1290	Surf	Circ		
																		8.500	5.500	20290	2895	1273	Echometer		
6	30-025-44042	OXY USA INC	MESA VERDE BONE SPRING UNIT	006H	Oil	Active	280	S	2624	E	O	17	24S	32E	1/6/2018	10411	10739-20223	17.500	13.375	939	1240	Surf	Circ	Permitted CLGC well	[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4735	1300	Surf	Circ		
																		8.500	5.500	20444	2970	1312	Echometer		
7	30-025-44065	OXY USA INC	MESA VERDE BONE SPRING UNIT	007H	Oil	Active	280	S	2626	W	N	17	24S	32E	1/3/2018	10429	10619-20370	17.500	13.375	935	1240	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4742	1300	Surf	Circ		
																		8.500	5.500	20531	2965	12	Echometer		
8	30-025-44559	OXY USA INC	MESA VERDE BONE SPRING UNIT	022H	Oil	Active	250	S	1285	W	M	16	24S	32E	6/6/2018	10522	10565-20668	17.500	13.375	964	1254	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4721	1565	Surf	Circ		
																		8.500	5.500	20806	2980	1547	CBL		
9	30-025-44560	OXY USA INC	MESA VERDE BONE SPRING UNIT	023H	Oil	Active	250	S	1255	W	M	16	24S	32E	43259	10812	10648-21001	17.500	13.375	970	1254	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4741	1705	Surf	Circ		
																		8.500	5.500	21114	2965	330	Echometer		
10	30-025-44561	OXY USA INC	MESA VERDE BONE SPRING UNIT	024H	Oil	Active	250	S	1225	W	M	16	24S	32E	6/10/2018	10426	10338-20691	17.500	13.375	970	1254	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4725	1430	900	TS		
																		8.500	5.500	20810	3095	315	Echometer		
11	30-025-48814	OXY USA INC	MESA VERDE BONE SPRING UNIT	044H	Oil	Active	635	S	1140	W	M	16	24S	32E	10/12/2022	9326	9767-19993	14.750	10.750	949	1015	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	8889	2699	Surf	Circ		
																		6.750	5.500	20133	1353	7665	Echometer		
12	30-025-48815	OXY USA INC	MESA VERDE BONE SPRING UNIT	045H	Oil	Active	635	S	1175	W	M	16	24S	32E	10/14/2022	9287	9601-19827	14.750	10.750	951	990	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	8886	2691	Surf	Circ		
																		6.750	5.500	19984	817	7721	Echometer		
13	30-025-48816	OXY USA INC	MESA VERDE BONE SPRING UNIT	046H	Oil	Active	635	S	1210	W	M	16	24S	32E	10/15/2022	9742	10110-20336	14.750	10.750	979	1015	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	9274	2441	Surf	Circ		
																		6.750	5.500	20476	1177	5000	Calc		
14	30-025-48818	OXY USA INC	MESA VERDE BONE SPRING UNIT	073H	Oil	New	250	S	500	W	M	16	24S	32E	9/19/2024	9820	Not Yet Complete	14.750	10.750	964	806	Surf	Planned	Spud in late 2024. Completion report has not been filed.	[96229] MESA VERDE; BONE SPRING
																		9.875	9.625	10211	1515	Surf	Planned		
																		6.750	5.500	20654	620	9711	Planned		
15	30-025-48819	OXY USA INC	MESA VERDE BONE SPRING UNIT	074H	Oil	New	250	S	535	W	M	16	24S	32E	9/21/2024	11150	Not Yet Complete	14.750	10.750	1167	821	Surf	Planned	Spud in late 2024. Completion report has not been filed.	[96229] MESA VERDE; BONE SPRING
																		9.875	9.625	10760	1658	Surf	Planned		
																		6.750	5.500	22074	647	10260	Planned		
16	30-025-44195	OXY USA INC	MESA VERDE WOLFCAMP UNIT	001H	Oil	Active	241	S	245	E	P	17	24S	32E	12/30/2017	12054	12240-22116	17.500	13.375	922	1190	Surf	Circ	8.5" Vertical pilot hole to 14150' MD. 5.5" Production Liner. 5.5" frac string from 0'-10764'	[98252] MESA VERDE; WOLFCAMP
																		12.250	9.625	10933	3620	Surf	Circ		
																		8.500	5.500	10764-22271	2193	10764	Circ		
17	30-025-46110	OXY USA INC	MESA VERDE WOLFCAMP UNIT	002H	Oil	Active	250	S	1035	W	M	16	24S	32E	11/25/2019	12280	12395-22413	14.750	10.750	959	975	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11725	3015	190	Calc		
																		6.750	5.500	22585	855	5618	Calc		
18	30-025-46111	OXY USA INC	MESA VERDE WOLFCAMP UNIT	003H	Oil	Active	250	S	1000	W	M	16	24S	32E	11/29/2019	12087	12270-22288	14.750	10.750	890	975	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11420	2824	Surf	Circ		
																		6.750	5.500	22351	842	9031	Calc		
19	30-025-46112	OXY USA INC	MESA VERDE WOLFCAMP UNIT	004H	Oil	Active	250	S	965	W	M	16	24S	32E	12/1/2019	12225	12668-22488	14.750	10.750	941	975	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11600	2745	75	Calc		
																		6.750	5.500	22534	834	9269	Calc		
20	30-025-45862	OXY USA INC	MESA VERDE WOLFCAMP UNIT	005H	Oil	Active	280	S	2436	W	N	17	24S	32E	5/18/2019	12211	12327-22387	14.750	10.750	942	908	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11567	3988	Surf	Circ		
																		6.750	5.500	22445	840	11050	Calc		
21	30-025-45863	OXY USA INC	MESA VERDE WOLFCAMP UNIT	006H	Oil	Active	280	S	2401	W	N	17	24S	32E	5/16/2019	12067	12157-22218	14.750	10.750	942	908	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11278	1655	Surf	Circ		
																		6.750	5.500	22279	887	10775	Calc		
22	30-025-45920	OXY USA INC	MESA VERDE WOLFCAMP UNIT	007H	Oil	Active	280	S	1421	W	N	17	24S	32E	5/25/2019	12211	12047-22108	14.750	10.750	934	970	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11461	1530	Surf	Circ		
																		6.750	5.500	22433	805	10960	Calc		
23	30-025-45921	OXY USA INC	MESA VERDE WOLFCAMP UNIT	008H	Oil	Active	280	S	1386	W	N	17	24S	32E	5/26/2019	12016	12137-22108	14.750	10.750	950	970	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11445	1220	Surf	Circ		
																		6.750	5.500	22327	780	10940	Calc		
24	30-025-45871	OXY USA INC	MESA VERDE WOLFCAMP UNIT	009H	Oil	Active	422	S	1254	E	P	18	24S	32E	1/27/2020	12316	12427-22488	14.750	10.750	860	870	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11290	2540	Surf	Circ		
																		6.750	5.500	22605	905	10100	Calc		
25	30-025-45872	OXY USA INC	MESA VERDE WOLFCAMP UNIT	010H	Oil	Active	422	S	1289	E	P	18	24S	32E	1/28/2020	12064	12017-19438	14.750	10.750	861	870	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11356	2975	Surf	Circ		
																		6.750	5.500	19681	652	7865	Calc		
26	30-025-45873	OXY USA INC	MESA VERDE WOLFCAMP UNIT	011H	Oil	Active	422	S	1324	E	O	18	24S	32E	1/29/2020	12267	12258-19918	14.750	10.750	860	870	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11662	2242	Surf	Circ		
																		6.750	5.500	20015	648	11137	Calc		
27	30-025-48824	OXY USA INC	MESA VERDE WOLFCAMP UNIT	039H	Oil	New	250	S	1715	W	N	16	24S	32E	9/22/2024	12851	Not Yet Complete	14.750	10.750	1158	807	Surf	Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	12696	1851	Surf	Planned		
																		6.750	5.500	24030	620	12196	Planned		
28	30-025-48825	OXY USA INC	MESA VERDE WOLFCAMP UNIT	040H	Oil	New	250	S	1750	W	N	16	24S	32E	9/23/2024	12851	Not Yet Complete	14.750	10.750	1158	819	Surf	Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	12613	1827	Surf	Planned		
																		6.750	5.500	23957	620	12113	Planned		
29	30-025-48817	OXY USA INC	MESA VERDE WOLFCAMP UNIT	054H	Oil	New	635	S	865	W	M	16	24S	32E	9/25/2024	12950	Not Yet Complete	14.750	10.750	971	812	Surf	Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	12560	1831	Surf	Planned		
																		6.750	5.500	23149	626	12060	Planned		
30	30-025-48863	OXY USA INC	MESA VERDE WOLFCAMP UNIT	055H	Oil	New	635	S	1004	W	M	16	24S	32E	9/27/2024	12950	Not Yet Complete	14.750	10.750	1156	823	Surf	Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	12654	1843	Surf	Planned		
																		6.750	5.500	23242	626	12154	Planned		
31	30-025-32192	EOG RESOURCES INC	JACK TANK 8 FEDERAL	002	Oil	PA	2180	N	660	W	E	8	24S	32E	9/10/1993	15460	NA	26.000	20.000	598	932	Surf	Circ		NA
																		17.000	13.325	4521	4500	Surf	Circ		
																		12.250	9.625	12108	3625	4500	TS		
																		9.625	7.000	11768-14950	750	?	?		
																		9.625	4.500	14656-15452	200	?	?		
32	30-025-33195	OXY USA INC	NAFTA 8 FEDERAL	001	Oil	PA	1650	S	990	E	I	8	24S	32E	4/16/1997	10000	NA	17.500	13.375	650	725	Surf	Circ		NA
																		11.000	8.625	4580	1470	Surf	Circ		
																		7.875	5.500	10000	1340	6436	Calc		
33	30-025-42769	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL	005H	Oil	Active	314	N	472	W	D	20	24S	32E	9/27/2015	10740	11067-15034	17.500	13.375	885	960	Surf	Circ		[96556] COTTON DRAW; BONE SPRING, EAST
																		12.250	9.625	4576	1295	Surf	Circ		
																		8.750	5.500	15284	1860	689	?		
34	30-025-43159	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL	008H	Oil	Active	250	N	870	E	A	20	24S	32E	6/9/2017	10787	10930-15493	17.500	13.375	913	960	Surf	Circ		NA
																		12.250	9.625	4623	2060	Surf	Circ		
																		8.500	5.500	15630	1380	390	?		
35	30-025-37914	OXY USA INC	MESA VERDE 8 FEDERAL	002H	Oil	Active	660	S	330	E	P	8	24S	32E	8/1/2006	9764	10152-12710	17.500	13.375	850	745	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4600	2200	Surf	Circ		
																		8.500	5.500	12900	1350	7290	Echometer		
36	30-025-43449	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL	006Y	Oil	Active	250	N	1970	W	C	20	24S	32E	1/17/2018	10411	10656-14961	17.500	13.375	920	1205	Surf	Circ		[96556] COTTON DRAW; BONE SPRING, EAST
																		12.250	9.625	4608	1705	Surf	Circ		
																		8.75 and 8.5	5.500	15102	1560	2600	Calc		
37	30-025-42996	DEVON ENERGY PRODUCTION COMPANY, LP	REBEL 20 FEDERAL	007H	Oil	Active	230	N	1980	E	B	20	24S	32E	5/15/2017	10799	10982-15328	17.500	13.375	911	1040	Surf	Circ		[96556] COTTON DRAW; BONE SPRING, EAST
																		12.250	9.625	4623	1510	Surf	Circ		
																		8.75 and 8.5	5.500	15529	1715	3350	Calc		
38	30-025-42064	EOG RESOURCES INC	MASTIFF FEDERAL	003H	Oil	Active	190	N	1980	W	C	4	24S	32E	9/6/2015	10652	10757-14860	17.500	13.375	1263	1000	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4850	1580	Surf	Circ		
																		8.750	5.500	15020	2215	2140	Calc		
39	30-025-48459	DEVON ENERGY PRODUCTION COMPANY, LP	RIGHT MEOW 31 6 FEDERAL COM	626H	Oil	Active	350	N	1095	E	A	31	23S	32E	4/14/2021	12091	12250-22293	17.500	13.375	1067	910	Surf	Circ		[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.875	8.625	11357	1292	3412	Circ		
																		7.875	5.500	22307	3130	?	?		
40	30-025-33626	OXY USA INC	DIAGA 18 FEDERAL	001	Oil	PA	1980	S	1980	W	K	18	24S	32E	10/31/1996	8720	6873-7258	14.750	10.750	630	600	Surf	Circ		NA
																		9.875	7.625	4507	950	Surf	Circ		
																		6.750	4.500	8720	635	4650	CBL		
41	30-025-33345	EOG Y RESOURCES, INC.	HARACZ AMO FEDERAL	007	Oil	PA	1650	N	2310	W	F	19	24S	32E	3/21/1996	9900	8245-8274	17.500	13.375	766	725	Surf	Circ		NA
																		11.000	8.625	4477	1200	Surf	Circ		
																		7.875	5.500	9900	1125	Surf	?		
42	30-025-45874	OXY USA INC	MESA VERDE WOLFCAMP UNIT	012H	Oil	Active	365	S	1378	W	M	18	24S	32E	3/18/2021	11959	12443-16984	14.750	10.750	970	890	Surf	Circ		[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11248	2656	Surf	Circ		
																		6.750	5.500	17065	500	10748	Calc		
43	30-025-44186	OXY USA INC	MESA VERDE BONE SPRING UNIT	012H	Oil	Active	280	S	2563	W	N	18	24S	32E	3/18/2018	10700	10822-18007	14.750	10.750	950	1020	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	10125	1930	1395	Calc		
																		6.750	5.500	18151	1165	Surf	Circ		
44	30-025-44187	OXY USA INC	MESA VERDE BONE SPRING UNIT	011H	Oil	Active	420	S	1070	E	P	18	24S	32E	3/1/2018	10444	10292-17985	17.500	13.375	948	4558	Surf	Circ		[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	4702	1379	Surf	Circ		
																		8.500	5.500	18175	2729	509	Echometer		
45	30-025-43473	NGL WATER SOLUTIONS PERMIAN, LLC	STATION SWD	001	Salt Water Disposal	Active	2625	N	2315	W	F	7	24S	32E	5/6/2018	18264	16763-18264	26.000	20.000	925	1530	Surf	Circ		[97869] SWD; DEVONIAN-SILURIAN
																		17.500	13.375	4475	2460	Surf	Circ		
																		12.250	9.625	11924	1760	Surf	Circ		
																		8.500	7.625	16763	250	11405	Calc		
46	30-025-39444	HARVARD PETROLEUM COMPANY, LLC	MESA VERDE 7 FEDERAL	003	Oil	Active	330	S	1980	W	N	7	24S	32E	11/22/2009	8797	7222-8596	17.500	13.375	915	950	915	Circ		[96191] MESA VERDE; DELAWARE
																		11.000	8.625	4500	1345	4500	Circ		
																		7.875	5.500	4000-8797	825	3626	Calc		

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47	30-025-32398	DEVON ENERGY PRODUCTION COMPANY, LP	MESA VERDE 7 FEDERAL	001	Oil	PA	660	N	1980	E	B	7	24S	32E	5/28/1994	9880	7178-7205	14.750	11.750	610	425	Surf	Circ			NA
																		11.000	8.625	4450	1275	Surf	Circ			
																		7.875	5.500	9880	1179	3800	TS			
48	30-025-44192	OXY USA INC	MESA VERDE BONE SPRING UNIT	013H	Oil	Active	280	S	2533	W	N	18	24S	32E	3/20/2018	10383	10483-15055	14.750	10.750	950	1020	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	9954	2320	3976	Calc			
																		6.750	5.500	15196	890	250	Calc			
																		6.750	4.500	10404-15196	890	250	Calc			
49	30-025-45864	OXY USA INC	MESA VERDE WOLFCAMP UNIT	014H	Oil	Active	400	S	1378	W	M	18	24S	32E	3/19/2021	11929	12670-17211	14.750	10.750	957	890	Surf	Circ			[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11617	2816	Surf	Circ			
																		6.750	5.500	17286	485	10000	Calc			
50	30-025-45875	OXY USA INC	MESA VERDE WOLFCAMP UNIT	013H	Oil	Active	330	S	1378	W	M	18	24S	32E	3/16/2021	12075	12509-17050	14.750	10.750	960	890	Surf	Circ			[98252] MESA VERDE; WOLFCAMP
																		9.875	7.625	11365	2615	Surf	Circ			
																		6.125	5.500 x 4.5	11275	512	10200	Calc			
51	30-025-32482	BURLINGTON RESOURCES OIL & GAS CO	JACK TANK 7 FEDERAL	002	Oil	PA	330	N	660	E	A	7	24S	32E	11/10/1994	9900	PA	17.500	13.375	623	630	Surf	Circ	Dry hole. OH to 8546'.		NA
																		12.250	8.625	4509	1600	Surf	Circ			
																		7.875	NA	8546	NA	NA	NA			
52	30-025-44191	OXY USA INC	MESA VERDE BONE SPRING UNIT	014H	Oil	Active	310	S	1078	W	M	18	24S	32E	3/3/2018	10700	10689-15416	14.750	10.750	990	1351	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	9958	2880	Surf	Circ			
																		6.750	5.500	15556	375	8862	Calc			
53	30-025-44190	OXY USA INC	MESA VERDE BONE SPRING UNIT	015H	Oil	Active	280	S	1078	W	M	18	24S	32E	3/5/2018	10421	10483-15210	14.750	10.750	977	1010	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		9.875	7.625	9554	1860	Surf	Circ			
																		6.750	5.500	15345	370	8043	Calc			
54	30-025-47306	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	210H	Oil	Active	10	S	860	W	M	31	23S	32E	8/24/2020	10642	10778-21282	17.500	13.375	1004	928	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	8593	975	6900	Calc			
																		8.750	5.500	21294	2655	Surf	Circ			
55	30-025-47307	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	211H	Oil	Active	10	S	800	W	M	31	23S	32E	8/21/2020	10376	10600-20961	17.500	13.375	1004	780	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	7300	3165	Surf	Circ			
																		8.750	5.500	20973	2655	Surf	Circ			
56	30-025-47308	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	212H	Oil	Active	165	S	2225	W	N	31	23S	32E	7/24/2020	10425	10550-20913	17.500	13.375	974	835	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		12.250	9.625	8591	975	Surf	Circ			
																		8.750	5.500	20926	2625	Surf	Circ			
57	30-025-48486	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	711H	Oil	Active	150	S	800	W	M	31	23S	32E	5/4/2021	12131	12437-22787	17.500	13.375	999	630	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.625	8.625	11563	2295	7000	Calc			
																		7.875	5.500	22801	2700	Surf	Circ			
58	30-025-48485	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	623H	Oil	Active	315	S	2255	W	N	31	23S	32E	4/7/2021	12007	12277-22657	17.500	13.375	978	850	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.625	8.625	11197	1720	950	Circ			
																		7.875	5.500	22672	2609	Surf	Circ			
59	30-025-48487	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	713H	Oil	Active	315	S	2195	W	N	31	23S	32E	4/8/2021	12174	12379-22759	17.500	13.375	996	740	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.625	8.625	11601	1030	950	Circ			
																		7.875	5.500	22773	2860	Surf	Circ			
60	30-025-48460	DEVON ENERGY PRODUCTION COMPANY, LP	RIGHT MEOW 31 6 FEDERAL COM	716H	Oil	Active	350	N	1155	E	A	31	23S	32E	4/13/2021	12220	12355-22373	17.500	13.375	1067	910	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.625	8.625	11639	710	Surf	Circ			
																		7.875	5.500	22388	3130	Surf	Circ			
61	30-025-30746	COG OPERATING LLC	DOUBLE ABJ STATE	001	Gas	PA	660	N	1980	E	B	16	24S	32E	7/31/1990	15800	PA	17.500	13.375	511	525	Surf	Circ			NA
																		12.250	9.625	4975	2700	Surf	Circ			
																		8.750	7.000	13000	1225	6320	CBL			
																		7.875	4.500	12749-15798	350	12749	Circ			
62	30-025-48428	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	501H	Oil	New	220	S	1265	E	P	5	24S	32E	7/14/2022											[96229] MESA VERDE; BONE SPRING
63	30-025-48429	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	502H	Oil	New	220	S	1295	E	P	5	24S	32E	7/12/2022											[96229] MESA VERDE; BONE SPRING
64	30-025-48430	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	503H	Oil	New	220	S	1325	E	O	5	24S	32E												[96229] MESA VERDE; BONE SPRING
65	30-025-48431	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	504H	Oil	New	250	S	1325	W	N	5	24S	32E	7/29/2022											[96229] MESA VERDE; BONE SPRING
66	30-025-48432	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	505H	Oil	New	250	S	1295	W	M	5	24S	32E	7/20/2022											[96229] MESA VERDE; BONE SPRING
67	30-025-48433	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	506H	Oil	New	250	S	1265	W	M	5	24S	32E	7/16/2022											[96229] MESA VERDE; BONE SPRING
68	30-025-48434	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	701H	Oil	New	220	S	970	E	P	5	24S	32E	9/19/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
69	30-025-48436	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	703H	Oil	New	220	S	1030	E	P	5	24S	32E	9/22/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
70	30-025-48441	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	708H	Oil	New	250	S	970	W	M	5	24S	32E	10/8/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
71	30-025-48439	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	706H	Oil	New	250	S	1030	W	M	5	24S	32E	10/15/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
72	30-025-48440	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	707H	Oil	New	250	S	1000	W	M	5	24S	32E	10/13/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
73	30-025-48435	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	702H	Oil	New	220	S	1000	E	P	5	24S	32E	9/21/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
74	30-025-48437	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	704H	Oil	New	300	S	2625	E	O	5	24S	32E	10/8/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
75	30-025-48438	COG OPERATING LLC	GIN AND TECTONIC FEDERAL COM	705H	Oil	New	300	S	2620	W	N	5	24S	32E	10/10/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
76	30-025-51565	EOG RESOURCES INC	INGA 33 FEDERAL COM	615H	Oil	New	2332	S	2604	W	K	33	23S	32E	11/23/2023											[96229] MESA VERDE; BONE SPRING
77	30-025-50154	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	501H	Oil	New	363	S	537	W	M	28	24S	32E	6/6/2022				9.625	975	535	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																			7.625	11319	1395	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
78	30-025-49197	COG PRODUCTION, LLC	AZORES FEDERAL COM	706H	Oil	New	855	S	1255	W	M	29	24S	32E	8/6/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
79	30-025-49140	COG PRODUCTION, LLC	AZORES FEDERAL COM	705H	Oil	New	855	S	1285	W	M	29	24S	32E	8/6/2023											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
80	30-025-49139	COG PRODUCTION, LLC	AZORES FEDERAL COM	704H	Oil	New	855	S	2622	W	N	29	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
81	30-025-49137	COG PRODUCTION, LLC	AZORES FEDERAL COM	702H	Oil	New	855	S	650	E	P	29	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
82	30-025-49138	COG PRODUCTION, LLC	AZORES FEDERAL COM	703H	Oil	New	855	S	2630	E	O	29	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
83	30-025-49136	COG PRODUCTION, LLC	AZORES FEDERAL COM	701H	Oil	New	855	S	520	E	P	29	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
84	30-025-51393	COG PRODUCTION, LLC	AZORES FEDERAL COM	708H	Oil	New	855	S	1225	W	M	29	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
85	30-025-51392	COG PRODUCTION, LLC	AZORES FEDERAL COM	707H	Oil	New	855	S	680	E	P	29	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
86	30-025-52009	EOG RESOURCES INC	INGA 33 FEDERAL COM	614H	Oil	New	2254	S	392	W	L	33	23S	32E												[96229] MESA VERDE; BONE SPRING
87	30-025-50153	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	503H	Oil	New	393	S	538	W	M	28	24S	32E	6/7/2022			12.25	9.625	970	535	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																			7.625	10882	800	Surf	Circ			
88	30-025-50152	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	502H	Oil	New	423	S	538	W	M	28	24S	32E	6/7/2022			12.25	9.625	976	535	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		8.75	7.625	11155	1390					
																		6.75	5.5	22195	870					
89	30-025-50155	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	601H	Oil	New	333	S	537	W	M	28	24S	32E	6/5/2022			12.25	9.625	969	535	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		8.75	7.625	11712	1440					
																		6.75	5.5	22784	955					
90	30-025-50246	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	504H	Oil	New	361	S	1792	W	N	28	24S	32E	8/21/2022			12.25	9.625	968	470	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		8.75	7.625	11364	800	Surf	Circ			
91	30-025-48484	DEVON ENERGY PRODUCTION COMPANY, LP	CATTY SHACK 6 7 FEDERAL COM	621H	Oil	New	150	S	860	W	M	31	23S	32E	5/5/2021			17.5	13.375	999	630	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.875	8.625	11404	2236	Surf	Circ			
																		7.875	5.500	22561	2805	Surf	Circ			
92	30-025-48491	DEVON ENERGY PRODUCTION COMPANY, LP	RIGHT MEOW 31 7 FEDERAL COM	627H	Oil	New	200	N	1455	E	B	31	23S	32E	3/1/2021			17.5	13.375	1068	830	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.975	8.625	11373	690	Surf	Circ			
																		7.875	5.500	24902	1920	Surf	Circ			
93	30-025-48492	DEVON ENERGY PRODUCTION COMPANY, LP	RIGHT MEOW 31 7 FEDERAL COM	717H	Oil	New	200	N	1515	E	B	31	23S	32E	2/28/2021			17.5	13.375	1069	830	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		9.875	8.625	11578	690	Surf	Circ			
																		7.875	5.500	24993	1920	Surf	Circ			
94	30-025-51572	EOG RESOURCES INC	INGA 33 FEDERAL COM	612H	Oil	New	2308	S	1782	E	J	33	23S	32E	7/26/2023											[96229] MESA VERDE; BONE SPRING
95	30-025-47286	COG OPERATING LLC	DOUBLE ABJ 16 FEDERAL COM	502H	Oil	New	303	S	450	E	P	16	24S	32E												[96229] MESA VERDE; BONE SPRING
96	30-025-47109	COG OPERATING LLC	DOUBLE ABJ 16 FEDERAL COM	703H	Oil	New	469	S	1027	E	P	16	24S	32E	6/18/2022											[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
97	30-025-50245	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	603H	Oil	New	421	S	1792	W	N	28	24S	32E	8/22/2022				9.625	968	470	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																			7.625	11745	1305	Surf	Circ			
98	30-025-50244	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	505H	Oil	New	391	S	1792	W	N	28	24S	32E	8/21/2022				9.625	969	470	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																			7.625	11552	1335	Surf	Circ			
99	30-025-50250	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	604H	Oil	New	390	S	2165	E	O	28	24S	32E	8/11/2022				13.375	1167	1500	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																			9.625	11446	2365	Surf	Circ			
100	30-025-47167	COG OPERATING LLC	DOUBLE ABJ 16 FEDERAL COM	701H	Oil	New	436	S	1027	E	P	16	24S	32E												[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
101	30-025-50248	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	507H	Oil	New	360	S	2165	E	O	28	24S	32E	8/11/2022			17.5	13.375	1157	1500	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		12.25	9.625	11361	2240	Surf	Circ			
																		8.5	5.5	22296	2570	12212	Calc			
102	30-025-50247	XTO ENERGY, INC	OUTRIDER 28 FEDERAL	506H	Oil	New	330	S	2165	E	O	28	24S	32E	8/10/2022				13.375	1172	1500	Surf	Circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																			9.625	11544	2380	Surf	Circ			
																			5.500	22704	2845	10002	Theory			
																			5.000	22851	2845	10002	Theory			
103	30-025-47168	COG OPERATING LLC	DOUBLE ABJ 16 FEDERAL COM	702H	Oil	New	403	S	1027	E	P	16	24S	32E	6/12/2022			14.75	10.75	1200	618	Surf	circ			[98248] WC-025 G-08 S243217P; UPR WOLFCAMP
																		8.75	7.625	11611	1530	surf	Circ			
																		6.75	5.5	22427	1470	Surf	Circ			
104	30-025-47162	COG OPERATING LLC	DOUBLE ABJ 16 FEDERAL COM	501H	Oil	New	271	S	450	E	P	16	24S	32E	6/26/2022			17.5	13.375	1223	730	Surf	Circ			[96229] MESA VERDE; BONE SPRING
																		12.25	9.625	4811	1375	Surf	Circ			
																		8.75	5.5	20664	3535	5550	Calc			
105	30-025-47234	EOG RESOURCES INC	MODELO 10 FEDERAL COM	523H	Oil	New	200	N	335	E	A	10	24S	32E	1/4/2022											[96603] TRISTE DRAW; BONE SPRING

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Final Wellbore Diagram 2/2/2023

Diaga 18 Fed Com #1
API No. 30-025-33626

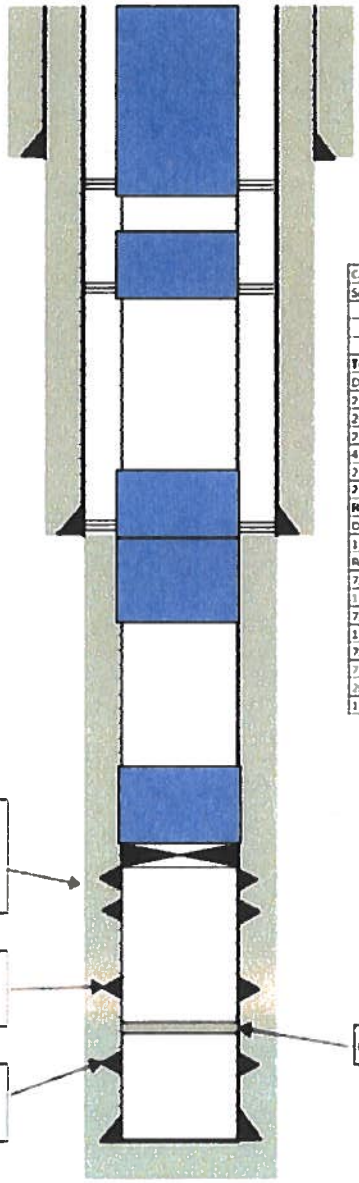
perf @ 680' - squeeze 135 sx class C cmt from 680' - 0', Top of with 15 sx at surface. (Verified Cement to Surface).

perf @ 1163' - squeeze 25 sx class C cmt from 1163' - 1020' (tag).

perf @ 4600' - squeeze 40 sx class C cmt from 4600' - 4380' (tag).

Balanced Plug, Pumped 60 sx class C cement from 5568' -4660' (Tag)

Set CIBP @ 6790'. Pumped 25 sx class H cement from 6775' -6460' (Tag)



Perfs: 7236', 7239', 7255-58', 7053-54', 7059', 6997-98', 6873', 6880', 6823-40' @ 2spf, acid (Sept-'97)

Perfs: 8300-38', 7860-88 @ 2 spf, acid (Mar-'97)

Perfs: 8590-8600' 2 spf, acid+frac (Dec-'96)

CIBP pushed from 8200' to 8500' (Aug-'00)

TD: 8720' MD
PBTD: 8676' MD

Casing Detail

Size (in)	Weight (lb/ft)	Grade	Depth (ft)	CMT (sx)	TOC (ft)
10.75	40.5		630	600	Surf
7.625	26.4		4507	950	Surf
4.5	11.6		8720	635	4650

Tubing Detail

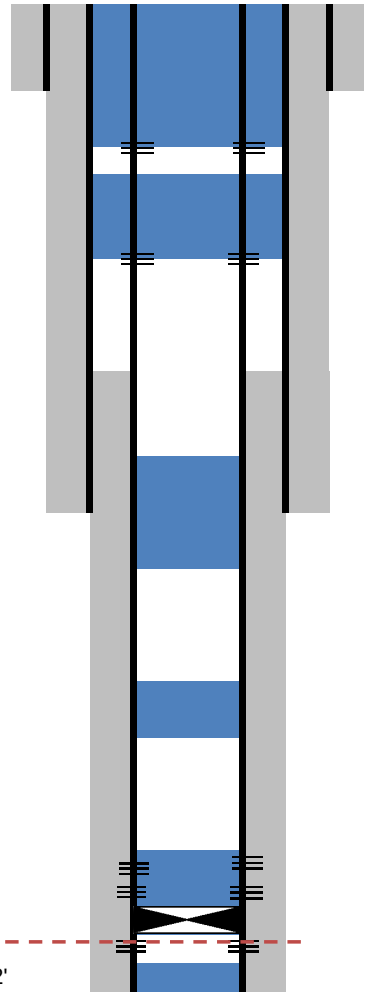
Description	Qty	Length (ft)	Top (ft)	Bottom (ft)	Comments
2-3/8" NSC 4.7# T&C	267	8373.12	14	8387.12	
2-3/8" Cup Seat Nipple	1	1.1	8387.12	8388.22	
2-3/8" Slotted Cup Seat Nipple	1	1.1	8388.22	8389.32	
4.5" Tubing Anchor	1	3	8389.32	8392.32	
2-3/8" Mud Anchor	1	30.9	8392.32	8423.22	
2-3/8" Bull Plug	1	62.35	8423.22	8485.57	

Rod Detail

Description	Qty	Length (ft)	Top (ft)	Bottom (ft)	Comments
1-1/4" C Polish Rod Liner	1	26	14	40	
Rod Sub	1	4	40	44	
7/8" D425 Rod	1	25	44	69	
1" SG x 37.5' Rod	132	4950	69	5019	
7/8" D425 Rod	133	3325	5019	8344	
1" Shear Tool	1	1	8344	8345	
7/8" D425 Rod	1	25	8345	8370	
7/8" Rod Sub	1	2	8370	8372	
20-125-RHBC-20-0 1-1/4" Insert Pump	1	20	8372	8392	
1" Strainer Nipple	1	3	8392	8395	

Received by OCD: 8/5/2025 3:54:16 PM
Released to Imaging: 8/6/2025 8:57:35 AM

EOG Y Resources, INC. P&A
Haracz Amo Federal #7
API No. 30-025-33345



Spud 03/21/1996

Perf'd @ 60". Squeezed 15sx Cmt to Surface

17.5" hole @ 766'
13.375" @ 766'
w/ 725 sx-TOC-Surf-Circ.

Perf'd @ 830'. Squeezed 30sxCmt. Tagged TOC @ 680'.

11" hole @ 4477'
8.625" csg @ 4477'
w/1200sx-TOC-Surf-Circ.

Spot 30sx cmt @ 4650' TOC @ 4354'

7.875" hole @ 9900'
5.5" csg @ 9900'
w/ 1125sx - TOC @ ~3023' CBL
DV Tool @ 6668'

Spot 40sx cmt Tag TOC @ 6336'

Perfs 8245'-74', 8593-8609', 9028-9230', 9611-9752'

Tagged Exisitng CIBP @ 8200'. Pumped 30 sx Class H Cmt
WOC Tagged TOC @ 7962'.

CIBP @ 8200'

Top of Proposed Injection Interval 8514' (Bone Spring)

PBTD -9752'

TD - 9900'

Burlington Resources Oil & Gas CO - Dry Hole P&A
Jack Tank 7 Federal #2
API No. 30-025-32482

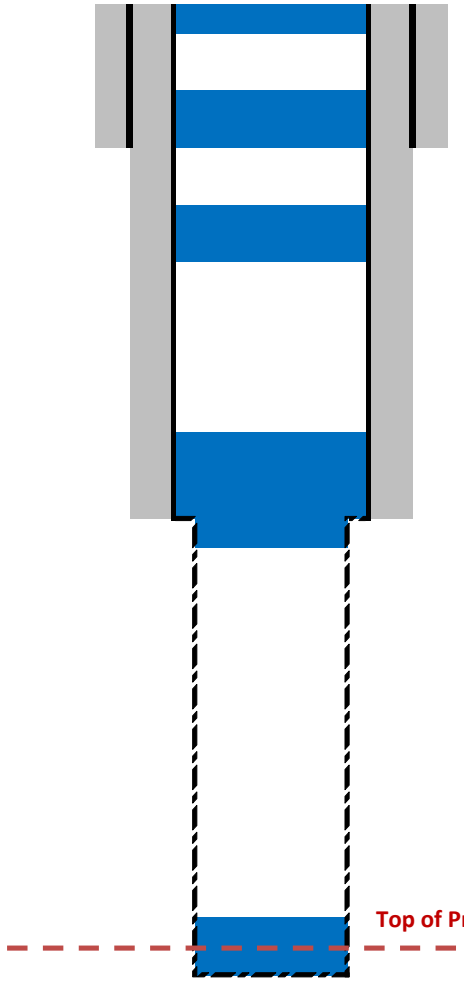
Set plug @ 63 to Surface' w/20sx Cmt

Set plug @ 673' - 573' w/35sx Cmt

Set plug @ 1050' - 1150' w/40sx Cmt

Set plug @ 4370' - 4690' w/150sx Cmt

Set Cmt Plug 8546' - 8360' w/60sx Cmt



Spud 11/10/1994

17.5" hole @ 623'
13.375" Csg @ 623'
Cmt w/630sx Circ to Surface

12.25" hole @ 4509'
8.625" csg @ 4509'
Cmt w/1600sx circ to surface

7.875" Open Hole to 8546'

Top of Proposed Injection Interval 8496' (Bone Spring)

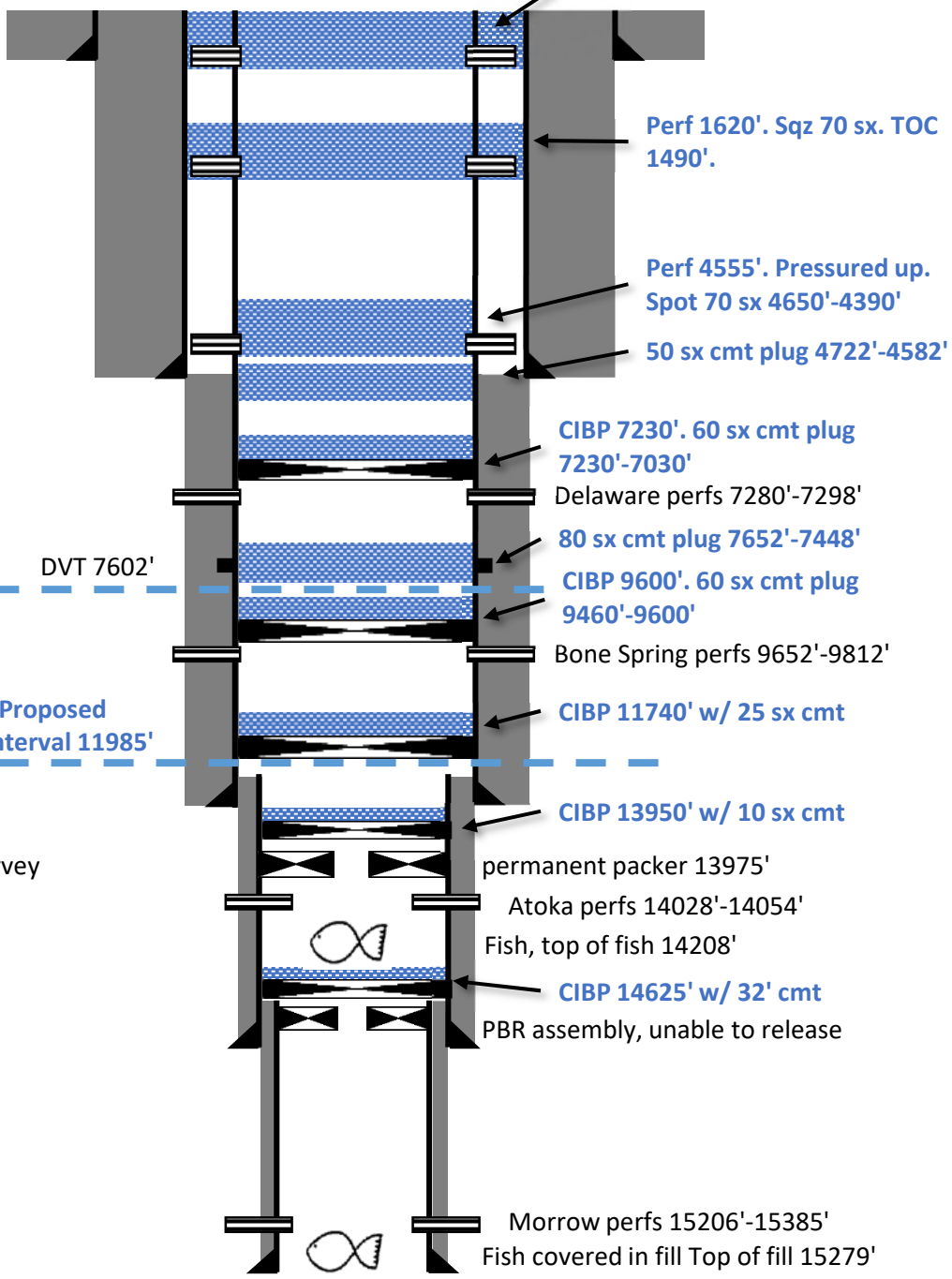
Current Wellbore

1/4/2021

Jack Tank 8 Federal #2

30-025-32192-0000

Lea



String 1
OD 20 in
TD 598 ft
TOC 0 ft
932 sx, circ

String 2
OD 13.375 in
TD 4521 ft
TOC 0 ft
4500 sx, circ

String 3
OD 9.625 in
TD 12108 ft
TOC 4500 ft
3625 sx, Temp Survey

String 4, liner
OD 7 in
11768'-14950'
750 sxs

String 5, liner
OD 4.5 in
14656'-15452'
200 sxs

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: MESA VERDE 7 FEDERAL 1	Field: MESA VERDE		
Location: 660' FNL & 1980' FEL; 7-24S-32E	County: LEA	State: NM	
Elevation: 3572' KB; 3556' GL; 16' KB to GL	Spud Date: 5/28/94	Compl Date: 6/30/94	
API#: 30-025-32398	Prepared by: Ronnie Slack	Date: 2/21/18	Rev:

PLUGGED & ABANDONED
2/20/18

Actual:
3. Cut wellhead off 3' bgl. Set BGL dry hole marker. *(2/20/18)*
2. Pmp 35 sx Cl C in/out to surface. *(2/20/18)*
1. Perf @ 140'. *(2/20/18)*

14-3/4" Hole
11-3/4", 42#, H40, @ 610'
Cmt'd w/425 sx, circ to surface

10# Mud

Actual:
3. Tagged TOC @ 509'. *(2/20/18)*
2. Pmp 165 sx (700') Cl C in/out @ 1,250'. *(2/19/18)*
1. Perf @ 1,250'. *(2/19/18)*
(T.Salt @ 1194')

10# Mud

TOC @ 3,800' TS

11" Hole
8-5/8", 32#, S80, @ 4,450'
Cmt'd w/1275 sx, circ to surface

Actual:
2. Tagged TOC @ 4,309'. *(2/19/18)*
1. Spot 40 sx (400') Cl C @ 4,673'. *(2/16/18)*
(T.Delaware @ 4623'; B.Salt @ 4371')

10# Mud

Actual:
2. Spot 25 sx Cl C @ 7,145' - 6,895'. *(2/16/18)*
2. Tagged CIBP @ 7,145'. Circ'd 10# salt gel. *(2/16/18)*
1. Set CIBP @ 7,145'. *(2/15/18).*

DELAWARE
7,178' - 7,205' *(6/24/94)*

DELAWARE
8,252' - 8,278' *(6/15/97)*

TOP OF PROPOSED INJECTION INTERVAL
(BONE SPRING) 8463' MD

7-7/8" Hole
5-1/2", 15.5# & 17#, J55 & N80 @ 9,880'
Cmt'd w/1179 sx. TOC @ 3800', TS.

9,880' MD

9,814' PBD

NAFTA 8 Federal 1

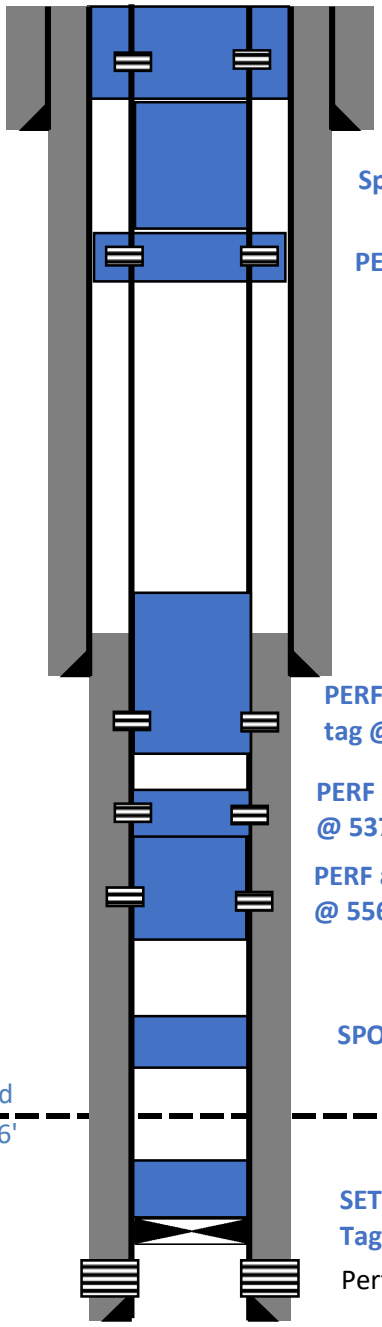
30-025-33195-0000

Lea

String 1
OD 13.375 in
TD 650 ft
TOC 0 ft, Circ

String 2
OD 8.625 in
TD 4578 ft
TOC 0 ft, Circ

String 3
OD 5.5 in
TD 10000 ft
TOC 13 ft , CBL
PBTD 10000 ft



Perf @ 316', spot 90 sx to surface

Spot 100 sx, tag @ 416'

PERF @ 1620', spot 45 sx, tag @ 1498'

PERF at 4762', Spot 120 sx cmt, tag @ 4187'

PERF at 5540', Spot 40 sx cmt, tag @ 5372'

PERF at 5640', Spot 55 sx cmt, tag @ 5565'

SPOT 35 SX CMT 6611-6956'.

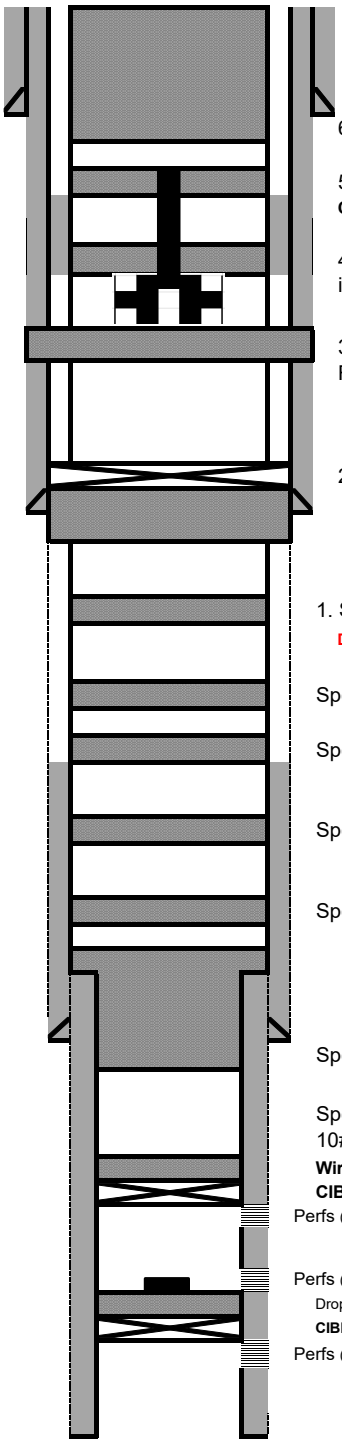
Top of Proposed Inj Interval 8576'

SET CIBP @ 9630'. Dump 35 sx cmt. Tag @9296'.

Perfs 9680-9820' (Bone Spring)

COG			Plugged
Author:	Abby @ JMR		
Well Name	Double ABJ State	Well No.	#1
Field	Und. Lea Strawn Gas	API #:	30-025-30746
County	Lea	Location	660 FNL & 1980 FEL
State	NM		Sec 16, T24S, R32E
Spud Date	5/1/1980	GL	3605

Description	O.D.	Grade	Weight	Depth	Hole	Cmt Sx	TOC
Surface Csg	13 3/8	K55	54.5#	511	17 1/2	300	0
Inter Csg	9 5/8	K55	36 to 32#	4,975	12 1/4	875	0
Prod Csg	7	P110	26#	13,000	8 3/4	1,225	6,320
Liner	4 1/2	P110	15.1 to 13.5#	12,749-15,798'	7 7/8	350	12,749



Formation Tops	

13 3/8 csg set @ 511 with 300 cmt sx

6. Spotted 75 sx class C cmt @ 310' & circulated to surface inside the 7".

5. Spotted 50 sx class C cmt @ 590-300'. WOC & tagged @ 310'.
Cut 2 3/8" tbg @ 590'. POH w/ tbg & cut jt.

4. Perf'd @ 1590'. Sqz'd 80 sx class C cmt @ 1590-1100'. RIH w/ wireline inside tbg, tagged plug @ 910'. RIH inside 7", tagged TOC @ 590'.

3. Perf'd @ 1600'. Sqz'd 84 sx class C cmt @ 1600-1400'. Pkr & tbg stuck @ 1600'. Could not fish out of hole. RIH w/ wireline in tbg, tagged @ 1600'. RIH w/ wireline in 7" annulus, tagged @ 592'.

2. Perf'd @ 5025'. Set 7" CICR @ 4567'. Sqz'd 300 sx class C cmt from 4567-5025'.

9 5/8 csg set 4,975 with 875 cmt sx

1. Spotted 57 sx class C cmt @ 5512-5150'. WOC & tagged @ 5159'.
Drilled down to 6632'. Ran CBL. CBL does not show cmt across the 9 5/8" shoe.

Spotted 30 sx class H cmt @ 7805' & displaced to 7649'.

Spotted 30 sx class H cmt @ 8679' & displaced to 8515'.

Spotted 30 sx class H cmt @ 10,365' & displaced to 10,201'.

Spotted 30 sx class H cmt @ 12,175' & displaced to 12,011'.

7 csg set @ 13,000 with 1,225 cmt sx

Spotted 40 sx class H cmt @ 13,050-12,639'. Tagged plug @ 12,639'.

Spotted 25 sx class H cmt @ 13,986' & displaced with 4 BBLs fresh brine H20 to 13,621'. Circ'd hole w/ 55 BBLs 10# brine H2O. WOC & Tagged plug @ 13,615'.
Wireline & ran CBL from 13,975' to surface. Found TOC @ 8300'.
CIBP @ 14,000'. Dump bailed 3 sx class H cmt. WOC & Tagged TOC @ 13,986'.
Perfs @ 14,050-14,158'

Perfs @ 14,373-14,384'
Dropped TCP GUN
CIBP @ 15,260' w 30' cmt on top
Perfs @ 15,332-15,404'

4 1/2 csg set @ 12,749-15,798' with 350 cmt sx

PROPOSED OPERATIONS- PRESSURES AND RATES

1. Calculated Maximum Allowable Surface Pressure for water based on 0.2 psi/ft gradient.
2. Calculated bottom hole pressure based on 0.2 psi/ft (OCD gradient), 0.433 psi/ft (freshwater gradient), and true vertical depth of top perforation.
3. Calculated Maximum Allowable Surface Pressure for hydrocarbon gas based on *PROSPER* model
   - Various inputs for fluid composition, downhole equipment, bottomhole temperature, and injection rate.

	Water				Hydrocarbon Gas			
Zone	Average Daily Injection Rate [BWPD]	Max Daily Injection Rate [BWPD]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]	Average Daily Injection Rate [MMSCFPD]	Max Daily Injection Rate [MMSCFPD]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]
Avalon	5000	6500	1813	1813	22	45	4510	4510
1BSS	5000	6500	1949	1949	22	45	4810	4810
2BSS	5000	6500	2022	2022	22	45	4980	4980
3BSS/3BLS	5000	6500	2361	2361	22	45	5700	5700

Mesa Verde Water Mixing Analysis

12/18/2024

An analysis was conducted to review scale risk due to water mixing from the Mesa Verde 18 CTB with the Avalon, 2nd Bone Spring, 3rd Bone Spring, Wolfcamp XY, and Wolfcamp A formation water from respective producing wells. To model the scale risks, ScaleSoftPitzer 2025 was used with its Mixing Two Wells function. Average water chemistry values from ChampionX were used for this analysis for all locations. The waters were mixed in the downhole conditions (temperature/pressure) for their respective formations. The Mixing Two Wells function allowed us to review the scale risk at various ratios of the two fluids being mixed.

Overall, there is little risk for scale to be formed when mixing Mesa Verde 18 CTB with formation waters downhole. The only scale that has slight risk for forming is Celestite (SrSO4) scale that increases as the ratio between the CTB and formation water increases, i.e. more CTB water, more scale risk. Realistically, the water mixing ratio in the formation would heavily lean towards more formation water but the contact point between the two fluids would likely have more CTB water.

- At a 10/90 ratio of CTB/formation water, Celestite SI peaked at 0.06 SI and Celestite mg/L peaked at 60 mg/L (20 PTB). Both values are relatively low.
- At a 50/50 ratio of CTB/formation water, Celestite SI peaked at 0.10 SI and Celestite mg/L peaked at 100 mg/L (33 PTB). Both values are low.
- At a 90/10 ratio of CTB/formation water, Celestite SI peaked at 0.12 SI and Celestite mg/L peaked at 140 mg/L (47 PTB). SI values are low, but mg/L starts to hit the moderate range.

If scale risk needs to be minimized further, it is possible to inject a scale inhibitor chemistry with the CTB injection water. We would need discuss with the chemical vendor to see what chemistries they would recommend and any lab testing as needed. With scale risk being low, I do not believe a scale inhibitor would be needed for this application.

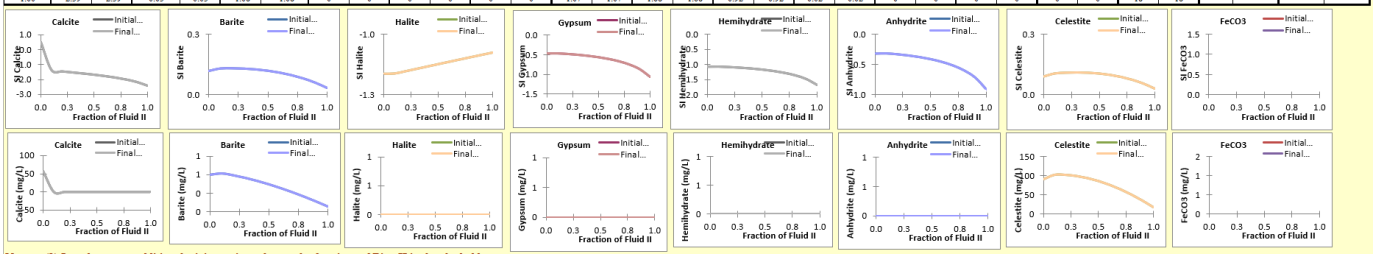
Below is supporting information and the SSP2025 results that were modeled. Additional files have the raw water chemistry information and the SSP2025 models that were ran.

Locations	Formation	Temperature (F)	Pressure (PSI)
Mesa Verde 18 CTB	CTB		
MV BS 1H-ST1	Avalon	135	5700
MV BS 4H	2nd Bone Spring	155	6400
MV BS 2H	3rd Bone Spring	170	7500
MV WC 5H	WCXY	170	7500
MV WC 7H	WCA	170	7500

Mesa Verde 18 CTB / MV BS 1H-ST1 (Avalon)

Mixing Two Wells
Well(s): Mesa Ver Date: 9/2/2022
Click this button to calculate SI values in mixed brinesof two produced fluids on Input sheet.

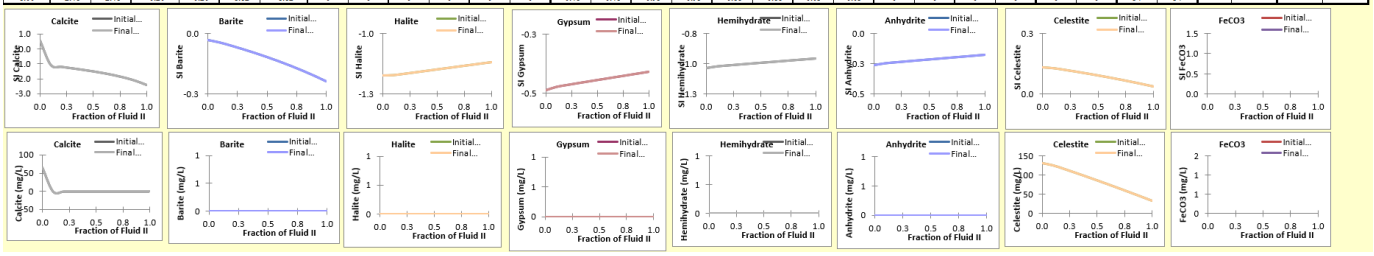
Produced	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate- SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO3 - SI		FeCO3 (mg/L)	
Fluids #2[1]	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)
0.00	0.47	0.47	0.10	0.10	-1.16	-1.16	56	56	1	1	0	0	-0.46	-0.46	-1.08	-1.08	-0.32	-0.32	0.07	0.07	0	0	0	0	0	0	91	91				
0.10	-1.37	-1.37	0.11	0.11	-1.16	-1.16	0	0	1	1	0	0	-0.46	-0.46	-1.08	-1.08	-0.32	-0.32	0.09	0.09	0	0	0	0	0	0	102	102				
0.20	-1.45	-1.45	0.11	0.11	-1.15	-1.15	0	0	0	0	0	0	-0.47	-0.47	-1.09	-1.09	-0.33	-0.33	0.09	0.09	0	0	0	0	0	0	102	102				
0.30	-1.52	-1.52	0.11	0.11	-1.14	-1.14	0	0	0	0	0	0	-0.49	-0.49	-1.11	-1.11	-0.35	-0.35	0.09	0.09	0	0	0	0	0	0	99	99				
0.40	-1.59	-1.59	0.10	0.10	-1.13	-1.13	0	0	0	0	0	0	-0.52	-0.52	-1.14	-1.14	-0.38	-0.38	0.09	0.09	0	0	0	0	0	0	94	94				
0.50	-1.67	-1.67	0.10	0.10	-1.12	-1.12	0	0	0	0	0	0	-0.56	-0.56	-1.17	-1.17	-0.41	-0.41	0.09	0.09	0	0	0	0	0	0	86	86				
0.60	-1.76	-1.76	0.09	0.09	-1.11	-1.11	0	0	0	0	0	0	-0.60	-0.60	-1.22	-1.22	-0.46	-0.46	0.08	0.08	0	0	0	0	0	0	76	76				
0.70	-1.86	-1.86	0.08	0.08	-1.10	-1.10	0	0	0	0	0	0	-0.66	-0.66	-1.28	-1.28	-0.52	-0.52	0.07	0.07	0	0	0	0	0	0	65	65				
0.80	-1.99	-1.99	0.07	0.07	-1.09	-1.09	0	0	0	0	0	0	-0.75	-0.75	-1.36	-1.36	-0.60	-0.60	0.06	0.06	0	0	0	0	0	0	51	51				
0.90	-2.15	-2.15	0.05	0.05	-1.09	-1.09	0	0	0	0	0	0	-0.87	-0.87	-1.48	-1.48	-0.72	-0.72	0.05	0.05	0	0	0	0	0	0	35	35				
1.00	-2.39	-2.39	0.03	0.03	-1.08	-1.08	0	0	0	0	0	0	-1.07	-1.07	-1.68	-1.68	-0.92	-0.92	0.02	0.02	0	0	0	0	0	0	18	18				



Mesa Verde 18 CTB / MV BS 4H (2nd Bone Spring)

Mixing Two Wells
Well(s): Mesa Ver Date: Avg
Click this button to calculate SI values in mixed brinesof two produced fluids on Input sheet.

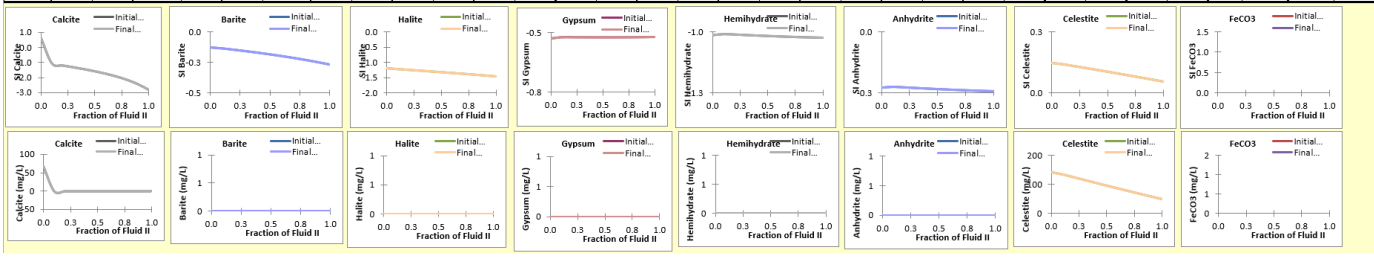
Produced	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate- SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO3 - SI		FeCO3 (mg/L)	
Fluids #2[1]	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)
0.00	0.56	0.56	-0.03	-0.03	-1.17	-1.17	65	65	0	0	0	0	-0.49	-0.49	-1.03	-1.03	-0.26	-0.26	0.11	0.11	0	0	0	0	0	0	132	132				
0.10	-1.07	-1.07	-0.04	-0.04	-1.17	-1.17	0	0	0	0	0	0	-0.47	-0.47	-1.02	-1.02	-0.24	-0.24	0.11	0.11	0	0	0	0	0	0	126	126				
0.20	-1.19	-1.19	-0.05	-0.05	-1.17	-1.17	0	0	0	0	0	0	-0.46	-0.46	-1.01	-1.01	-0.24	-0.24	0.10	0.10	0	0	0	0	0	0	117	117				
0.30	-1.29	-1.29	-0.07	-0.07	-1.16	-1.16	0	0	0	0	0	0	-0.46	-0.46	-1.00	-1.00	-0.23	-0.23	0.09	0.09	0	0	0	0	0	0	107	107				
0.40	-1.39	-1.39	-0.08	-0.08	-1.15	-1.15	0	0	0	0	0	0	-0.45	-0.45	-1.00	-1.00	-0.22	-0.22	0.09	0.09	0	0	0	0	0	0	97	97				
0.50	-1.50	-1.50	-0.10	-0.10	-1.15	-1.15	0	0	0	0	0	0	-0.44	-0.44	-0.99	-0.99	-0.21	-0.21	0.08	0.08	0	0	0	0	0	0	87	87				
0.60	-1.62	-1.62	-0.12	-0.12	-1.14	-1.14	0	0	0	0	0	0	-0.44	-0.44	-0.98	-0.98	-0.21	-0.21	0.07	0.07	0	0	0	0	0	0	77	77				
0.70	-1.76	-1.76	-0.13	-0.13	-1.14	-1.14	0	0	0	0	0	0	-0.43	-0.43	-0.98	-0.98	-0.20	-0.20	0.06	0.06	0	0	0	0	0	0	66	66				
0.80	-1.93	-1.93	-0.15	-0.15	-1.13	-1.13	0	0	0	0	0	0	-0.42	-0.42	-0.97	-0.97	-0.19	-0.19	0.05	0.05	0	0	0	0	0	0	55	55				
0.90	-2.14	-2.14	-0.18	-0.18	-1.13	-1.13	0	0	0	0	0	0	-0.42	-0.42	-0.96	-0.96	-0.18	-0.18	0.04	0.04	0	0	0	0	0	0	44	44				
1.00	-2.41	-2.41	-0.20	-0.20	-1.12	-1.12	0	0	0	0	0	0	-0.41	-0.41	-0.95	-0.95	-0.18	-0.18	0.03	0.03	0	0	0	0	0	0	34	34				



Mesa Verde 18 CTB / MV BS 2H (3rd Bone Spring)

Mixing Two Wells
Well(s): Mesa Ver Date: Avg
Click this button to calculate SI values in mixed brinesof two produced fluids on Input sheet.

Produced	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate- SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO3 - SI		FeCO3 (mg/L)	
Fluids #2[1]	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)
0.00	0.59	0.59	-0.13	-0.13	-1.18	-1.18	68	68	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.12	0.12	0	0	0	0	0	0	143	143				
0.10	-1.07	-1.07	-0.14	-0.14	-1.21	-1.21	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.12	0.12	0	0	0	0	0	0	136	136				
0.20	-1.20	-1.20	-0.15	-0.15	-1.24	-1.24	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.11	0.11	0	0	0	0	0	0	126	126				
0.30	-1.32	-1.32	-0.16	-0.16	-1.26	-1.26	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.10	0.10	0	0	0	0	0	0	116	116				
0.40	-1.45	-1.45	-0.17	-0.17	-1.29	-1.29	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.23	-0.23	0.09	0.09	0	0	0	0	0	0	106	106				
0.50	-1.59	-1.59	-0.18	-0.18	-1.31	-1.31	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.23	-0.23	0.09	0.09	0	0	0	0	0	0	96	96				
0.60	-1.75	-1.75	-0.20	-0.20	-1.34	-1.34	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.24	-0.24	0.08	0.08	0	0	0	0	0	0	86	86				
0.70	-1.93	-1.93	-0.21	-0.21	-1.37	-1.37	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.24	-0.24	0.07	0.07	0	0	0	0	0	0	77	77				
0.80	-2.16	-2.16	-0.23	-0.23	-1.40	-1.40	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.24	-0.24	0.06	0.06	0	0	0	0	0	0	67	67				
0.90	-2.44	-2.44	-0.25	-0.25	-1.43	-1.43	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.24	-0.24	0.06	0.06	0	0	0	0	0	0	58	58				
1.00	-2.82	-2.82	-0.27	-0.27	-1.45	-1.45	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.24	-0.24	0.05	0.05	0	0	0	0	0	0	49	49				

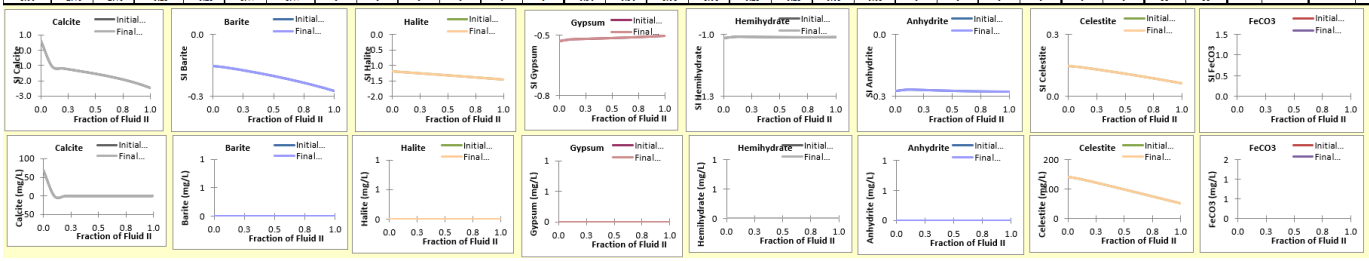


Mesa Verde 18 CTB / MV WC 5H (WCXY)

Mixing Two Wells
Well(s): Mesa Ver Date: 9/2/2022

Click this button to calculate SI values in mixed brinesof two produced fluids on Input sheet.

Produced	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate- SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO3 - SI		FeCO3 (mg/L)	
Fluids #2[1]	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)
0.00	0.61	0.61	-0.13	-0.13	-1.18	-1.18	69	69	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.12	0.12	0	0	0	0	0	0	143	143				
0.10	-1.04	-1.04	-0.13	-0.13	-1.21	-1.21	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.22	-0.22	0.12	0.12	0	0	0	0	0	0	137	137				
0.20	-1.18	-1.18	-0.14	-0.14	-1.24	-1.24	0	0	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.22	-0.22	0.11	0.11	0	0	0	0	0	0	128	128				
0.30	-1.29	-1.29	-0.15	-0.15	-1.27	-1.27	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.10	0.10	0	0	0	0	0	0	119	119				
0.40	-1.41	-1.41	-0.16	-0.16	-1.29	-1.29	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.10	0.10	0	0	0	0	0	0	110	110				
0.50	-1.53	-1.53	-0.17	-0.17	-1.32	-1.32	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.09	0.09	0	0	0	0	0	0	100	100				
0.60	-1.67	-1.67	-0.18	-0.18	-1.35	-1.35	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.08	0.08	0	0	0	0	0	0	91	91				
0.70	-1.82	-1.82	-0.19	-0.19	-1.38	-1.38	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.08	0.08	0	0	0	0	0	0	82	82				
0.80	-2.00	-2.00	-0.20	-0.20	-1.41	-1.41	0	0	0	0	0	0	-0.51	-0.51	-1.01	-1.01	-0.23	-0.23	0.07	0.07	0	0	0	0	0	0	72	72				
0.90	-2.20	-2.20	-0.22	-0.22	-1.44	-1.44	0	0	0	0	0	0	-0.50	-0.50	-1.01	-1.01	-0.23	-0.23	0.06	0.06	0	0	0	0	0	0	63	63				
1.00	-2.46	-2.46	-0.23	-0.23	-1.47	-1.47	0	0	0	0	0	0	-0.50	-0.50	-1.01	-1.01	-0.23	-0.23	0.05	0.05	0	0	0	0	0	0	53	53				

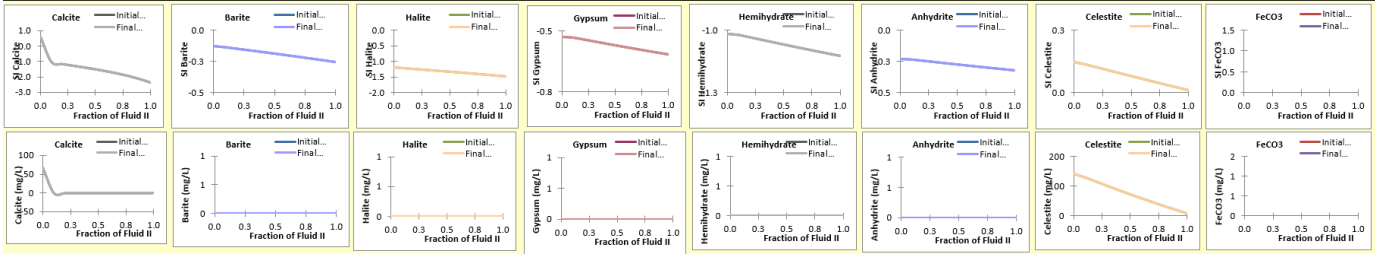


Mesa Verde 18 CTB / MV WC 7H (WCA)

Mixing Two Wells
Well(s): Mesa Ver Date: 9/2/2022

Click this button to calculate SI values in mixed brinesof two produced fluids on Input sheet.

Produced	Calcite - SI		Barite - SI		Halite - SI		Calcite (mg/L)		Barite (mg/L)		Halite (mg/L)		Gypsum - SI		hemihydrate- SI		Anhydrite - SI		Celestite - SI		Gypsum (mg/L)		Hemihydrate (mg/L)		Anhydrite (mg/L)		Celestite (mg/L)		FeCO3 - SI		FeCO3 (mg/L)	
Fluids #2[1]	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)	Initial (T,P)	Final (T,P)
0.00	0.58	0.58	-0.13	-0.13	-1.18	-1.18	67	67	0	0	0	0	-0.52	-0.52	-1.01	-1.01	-0.23	-0.23	0.12	0.12	0	0	0	0	0	0	143	143				
0.10	-1.04	-1.04	-0.14	-0.14	-1.21	-1.21	0	0	0	0	0	0	-0.53	-0.53	-1.02	-1.02	-0.23	-0.23	0.11	0.11	0	0	0	0	0	0	131	131				
0.20	-1.17	-1.17	-0.15	-0.15	-1.24	-1.24	0	0	0	0	0	0	-0.53	-0.53	-1.03	-1.03	-0.24	-0.24	0.10	0.10	0	0	0	0	0	0	116	116				
0.30	-1.27	-1.27	-0.16	-0.16	-1.27	-1.27	0	0	0	0	0	0	-0.54	-0.54	-1.04	-1.04	-0.25	-0.25	0.09	0.09	0	0	0	0	0	0	102	102				
0.40	-1.38	-1.38	-0.17	-0.17	-1.30	-1.30	0	0	0	0	0	0	-0.55	-0.55	-1.05	-1.05	-0.26	-0.26	0.08	0.08	0	0	0	0	0	0	88	88				
0.50	-1.50	-1.50	-0.19	-0.19	-1.33	-1.33	0	0	0	0	0	0	-0.56	-0.56	-1.06	-1.06	-0.27	-0.27	0.07	0.07	0	0	0	0	0	0	74	74				
0.60	-1.62	-1.62	-0.20	-0.20	-1.36	-1.36	0	0	0	0	0	0	-0.57	-0.57	-1.07	-1.07	-0.28	-0.28	0.05	0.05	0	0	0	0	0	0	60	60				
0.70	-1.77	-1.77	-0.21	-0.21	-1.39	-1.39	0	0	0	0	0	0	-0.57	-0.57	-1.08	-1.08	-0.29	-0.29	0.04	0.04	0	0	0	0	0	0	47	47				
0.80	-1.93	-1.93	-0.22	-0.22	-1.42	-1.42	0	0	0	0	0	0	-0.58	-0.58	-1.09	-1.09	-0.30	-0.30	0.03	0.03	0	0	0	0	0	0	34	34				
0.90	-2.12	-2.12	-0.24	-0.24	-1.45	-1.45	0	0	0	0	0	0	-0.59	-0.59	-1.09	-1.09	-0.31	-0.31	0.02	0.02	0	0	0	0	0	0	22	22				
1.00	-2.35	-2.35	-0.25	-0.25	-1.48	-1.48	0	0	0	0	0	0	-0.60	-0.60	-1.10	-1.10	-0.32	-0.32	0.01	0.01	0	0	0	0	0	0	10	10				



Atchafalaya Measurement Inc

416 East Main Street, Artesia NM 88210 575-746-3481

Sample Information

	Sample Information
Sample Name	OXY__Mesa Verde 2H__GC2-41619-10
Station Number	15504T
Lease Name	Mesa Verde 2H
Analysis For	OXY USA
Producer	OXY USA
Field Name	Basin
County/State	Eddy,NM
Frequency/Spot Sample	Quarterly
Sampling Method	Fill Empty
Sample Deg F	86.5
Atmos Deg F	60
Flow Rate	1575.9771
Line PSIG	112.4
Date Sampled/Time Sampled	4-11-19
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Victor Urias
Analysis By	Pat Silvas
Verified/Calibrated Date	4-15-19
Report Date	2019-04-16 14:03:56

Component Results

Component Name	Ret. Time	Peak Area	Norm%	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	22.960	21911.2	1.6270	0.000	
H2S	0.000	0.0	0.0000	0.000	
Methane	23.740	732471.0	71.9846	0.000	
Carbon Dioxide	27.640	44300.2	2.8176	0.000	
Ethane	36.960	211191.6	12.5633	3.354	
Propane	77.160	149546.1	6.7228	1.849	
i-Butane	29.820	71692.4	0.8789	0.287	
n-Butane	32.080	168721.6	2.0529	0.646	
i-Pentane	39.180	40565.8	0.4290	0.157	
n-Pentane	41.980	44912.8	0.4623	0.167	
C6's	50.750	26514.0	0.2401	0.099	
C7's	67.000	19009.0	0.1657	0.076	
C8's	84.000	5233.0	0.0486	0.025	
C9's	102.000	1531.0	0.0051	0.003	
C10 Plus	146.000	557.0	0.0021	0.001	
Total:			100.0000	6.664	

Results Summary

Result	Dry	Sat. (Base)	
Total Raw Mole% (Dry)	100.9186		
Pressure Base (psia)	14.650		
Temperature Base	60.00		
Gross Heating Value (BTU / Ideal cu.ft.)	1269.9	1247.7	
Gross Heating Value (BTU / Real cu.ft.)	1275.0	1253.2	
Relative Density (G), Ideal	0.7862	0.7833	
Relative Density (G), Real	0.7891	0.7865	
Compressibility (Z) Factor	0.9960	0.9955	

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Certificate of Analysis

Number: 6030-20110021-001A

Nov. 05, 2020

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Field:	Mesa Verde	Sampled By:	Scott Beasley
Station Name:	Mesa Verde East CGL	Sample Of:	Gas Spot
Station Number:	N/A	Sample Date:	10/30/2020 10:00
Sample Point:	Inlet to Dehy	Sample Conditions:	1290 psig, @ 60 °F Ambient: 45 °F
Meter Number:		Effective Date:	10/30/2020 10:00
County:	Lea	Method:	GPA 2286
Type of Sample:	Spot-Cylinder	Cylinder No:	1111-002316
Heat Trace Used:	N/A	Instrument:	6030_GC2 (Agilent GC-7890B)
Sampling Method:	Fill and Purge	Last Inst. Cal.:	08/25/2020 8:12 AM
Sampling Company:	OXY	Analyzed:	11/05/2020 08:47:32 by PGS

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.206	1.189	1.495		GPM TOTAL C2+	6.645
Methane	75.248	74.177	53.401		GPM TOTAL C3+	3.314
Carbon Dioxide	1.152	1.136	2.244		GPM TOTAL iC5+	0.562
Ethane	12.654	12.474	16.832	3.331		
Propane	6.662	6.567	12.995	1.806		
Iso-butane	0.889	0.876	2.285	0.286		
n-Butane	2.126	2.096	5.467	0.660		
Iso-pentane	0.443	0.437	1.415	0.159		
n-Pentane	0.488	0.481	1.557	0.174		
Hexanes Plus	0.575	0.567	2.309	0.229		
	101.443	100.000	100.000	6.645		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7722	3.1348
Calculated Molecular Weight	22.28	90.79
Compressibility Factor	0.9960	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1298	4897
Water Sat. Gas Base BTU	1275	4811
Ideal, Gross HV - Dry at 14.65 psia	1292.6	4896.9
Ideal, Gross HV - Wet	1270.0	0.000
Net BTU Dry Gas - real gas	1179	
Net BTU Wet Gas - real gas	1158	

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Certificate of Analysis

Number: 6030-20110021-001A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Nov. 05, 2020

Field:	Mesa Verde	Sampled By:	Scott Beasley
Station Name:	Mesa Verde East CGL	Sample Of:	Gas Spot
Station Number:	N/A	Sample Date:	10/30/2020 10:00
Sample Point:	Inlet to Dehy	Sample Conditions:	1290 psig, @ 60 °F
Meter Number:		Method:	GPA 2286
County:	Lea	Cylinder No:	1111-002316
Type of Sample:	Spot-Cylinder	Analyzed:	11/05/2020 14:31:50 by PGS
Heat Trace Used:	N/A	Sampling Company:	OXY
Sampling Method:	Fill and Purge		

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.189	1.495		GPM TOTAL C2+	6.645
Methane	74.177	53.401		GPM TOTAL C3+	3.314
Carbon Dioxide	1.136	2.244		GPM TOTAL iC5+	0.562
Ethane	12.474	16.832	3.331		
Propane	6.567	12.995	1.806		
Iso-Butane	0.876	2.285	0.286		
n-Butane	2.096	5.467	0.660		
Iso-Pentane	0.437	1.415	0.159		
n-Pentane	0.481	1.557	0.174		
Hexanes	0.260	1.017	0.107		
Heptanes Plus	0.307	1.292	0.122		
	100.000	100.000	6.645		

Calculated Physical Properties	**Total**	**C7+**
Relative Density Real Gas	0.7722	3.3040
Calculated Molecular Weight	22.28	95.69
Compressibility Factor	0.9960	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1298	5090
Water Sat. Gas Base BTU	1275	5000
Ideal, Gross HV - Dry at 14.65 psia	1292.6	5089.5
Ideal, Gross HV - Wet	1270.0	NIL

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Certificate of Analysis

Number: 6030-20110021-001A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Nov. 05, 2020

Field:	Mesa Verde	Sampled By:	Scott Beasley
Station Name:	Mesa Verde East CGL	Sample Of:	Gas Spot
Station Number:	N/A	Sample Date:	10/30/2020 10:00
Sample Point:	Inlet to Dehy	Sample Conditions:	1290 psig, @ 60 °F
Meter Number:		Method:	GPA 2286
County:	Lea	Cylinder No:	1111-002316
Type of Sample:	Spot-Cylinder	Analyzed:	11/05/2020 14:31:50 by PGS
Heat Trace Used:	N/A	Sampling Company:	OXY
Sampling Method:	Fill and Purge		

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.65 psia
Nitrogen	1.189	1.495	
Methane	74.177	53.401	
Carbon Dioxide	1.136	2.244	
Ethane	12.474	16.832	3.331
Propane	6.567	12.995	1.806
Iso-Butane	0.876	2.285	0.286
n-Butane	2.096	5.467	0.660
Iso-Pentane	0.437	1.415	0.159
n-Pentane	0.481	1.557	0.174
i-Hexanes	0.161	0.616	0.065
n-Hexane	0.099	0.401	0.042
Benzene	0.019	0.064	0.005
Cyclohexane	0.059	0.227	0.021
i-Heptanes	0.101	0.415	0.040
n-Heptane	0.026	0.119	0.012
Toluene	0.001	0.002	NIL
i-Octanes	0.077	0.352	0.034
n-Octane	0.005	0.026	0.003
Ethylbenzene	0.001	0.004	NIL
Xylenes	0.005	0.020	0.002
i-Nonanes	0.009	0.047	0.004
n-Nonane	0.002	0.009	0.001
i-Decanes	NIL	0.002	NIL
n-Decane	0.001	0.002	NIL
Undecanes	0.001	0.003	NIL
Dodecanes	NIL	NIL	NIL
Tridecanes	NIL	NIL	NIL
Tetradecanes Plus	NIL	NIL	NIL
	100.000	100.000	6.645

GPM TOTAL C2+ 6.645

Certificate of Analysis

Number: 6030-20110021-001A

Artesia Laboratory
200 E Main St.
Artesia, NM 88210
Phone 575-746-3481

Chandler Montgomery
Occidental Petroleum
1502 W Commerce Dr.
Carlsbad, NM 88220

Nov. 05, 2020

Field:	Mesa Verde	Sampled By:	Scott Beasley
Station Name:	Mesa Verde East CGL	Sample Of:	Gas Spot
Station Number:	N/A	Sample Date:	10/30/2020 10:00
Sample Point:	Inlet to Dehy	Sample Conditions:	1290 psig, @ 60 °F
Meter Number:		Method:	GPA 2286
County:	Lea	Cylinder No:	1111-002316
Type of Sample:	Spot-Cylinder	Analyzed:	11/05/2020 14:31:50 by PGS
Heat Trace Used:	N/A	Sampling Company:	OXY
Sampling Method:	Fill and Purge		

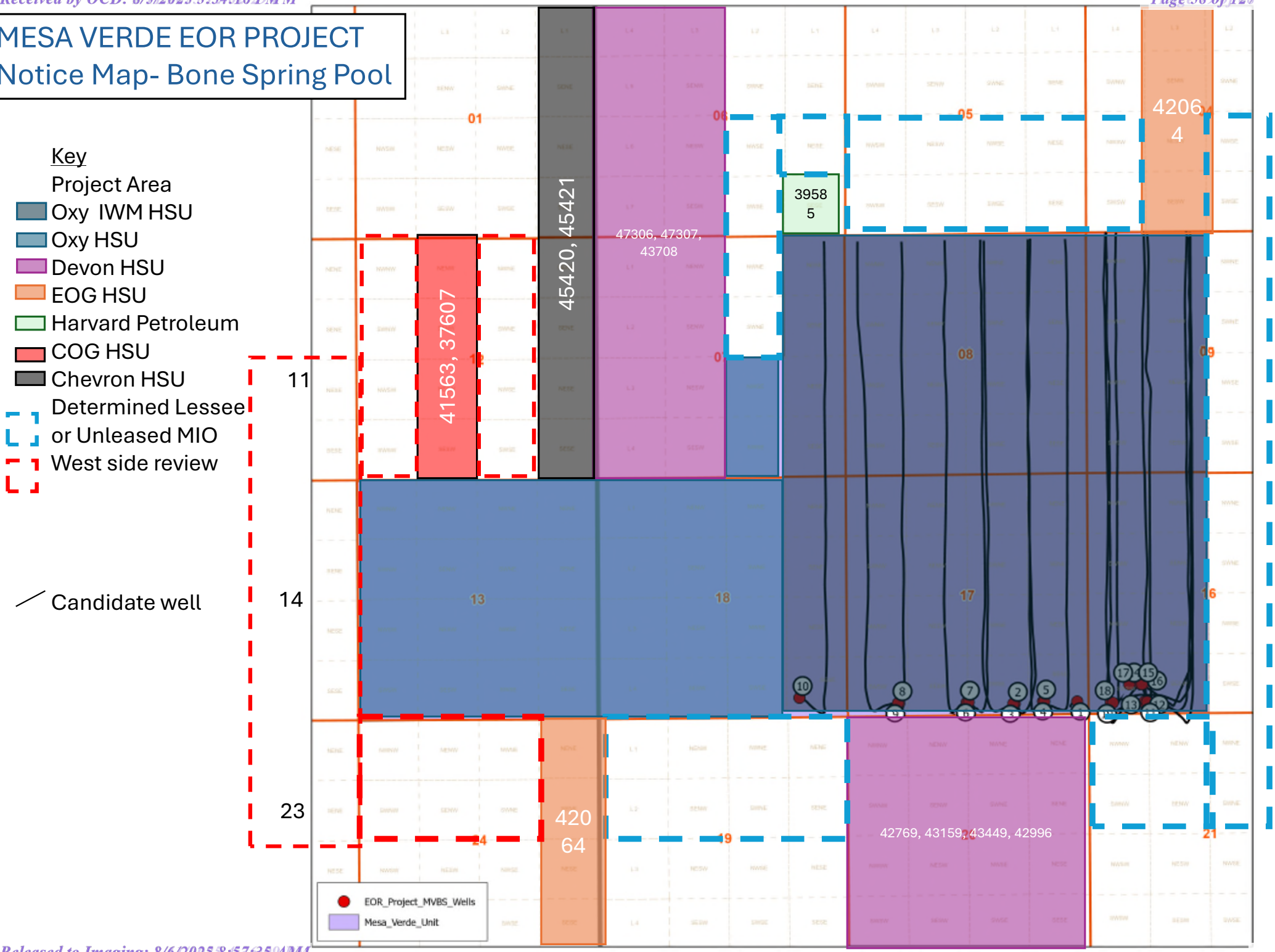
Calculated Physical Properties	**Total**
Calculated Molecular Weight	22.284
GPA 2172 Calculation:	
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F	
Real Gas Dry BTU	1297.8
Water Sat. Gas Base BTU	1275.1
Relative Density Real Gas	0.7722
Compressibility Factor	0.9960

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

MESA VERDE EOR PROJECT
Notice Map- Bone Spring Pool



Mesa Verde BS EOR Project- Notice List
2/10/2025

Party	Address
Agencies and Surface Owners	
Bureau of Land Mangment- Carlsbad Field Office	620 E. Greene Street Carlsbad, New Mexico 88220-6292
State Land Office	P.O. Box 1148 Santa Fe, NM 87504
Offset Operators	
BURLINGTON RESOURCES OIL & GAS CO	P.O. Box 51810 Midland, TX 79710
BURLINGTON RESOURCES OIL & GAS COMPANY LP	600 W. Illinois Avenue Midland, TX 79701
CHEVRON U S A INC	6301 Deauville Blvd Midland, TX 79706
COG OPERATING LLC	600 W. Illinois Avenue Midland, TX 79701
COG PRODUCTION, LLC	600 W. Illinois Avenue Midland, TX 79701
DEVON ENERGY PRODUCTION COMPANY, LP	333 West Sheridan Avenue Oklahoma City, OK 73102
DEVON SFS OPERATING INC	20 N. Broadway Suite 1500 Oklahoma City, OK 73102
EOG RESOURCES INC	5509 Champions Drive Midland, TX 79706
EOG Y RESOURCES, INC.	104 S. 4th Street Artesia, NM 88210
HARVARD PETROLEUM COMPANY, LLC	P.O. Box 936 Roswell, NM 88202
MESQUITE SWD, INC	P.O Box 1479 Carlsbad, NM 88221
NGL WATER SOLUTIONS PERMIAN, LLC	865 North Albion Street Suite 500 Denver, CO 80220
TAP ROCK OPERATING, LLC	523 Park Point Drive Suite 200 Golden, CO 80401
XTO ENERGY, INC	6401 Holiday Hill Road Building #5 Midland, TX 79707
Other Affected Persons and Parties	
28TwentyEight Energy LLC	5790 Saintsbury Drive The Colony, TX 75056

3 Knights Operating LLC	6404 County Road 1440 Lubbock, TX 79407
3XT Holding LLC	5325 County Road 7560 Lubbock, TX 79424
Abo Petroleum	P.O. Box 900 Artesia, NM 88211
Burlington Resources Oil & Gas Company LP	P.O. Box 51810 Midland, TX 79710
Chevron USA Inc.	1400 Smith Street Houston, TX 77002
COG Operating LLC	600 W. Illinois Avenue Midland, TX 79701
Devon Energy Production Company, LP	333 W. Sheridan Avenue Oklahoma City, OK 73102
EOG Resources	1111 Bagby Street Sky Lobby 2 Houston, TX 77002
Hilcorp Energy	1000 Louisiana #3760 Houston, TX 77002
LMS Limited Liability Company	Box 621402 Littleton, CO 80162
Mersereau Enterprises LLC	132 Castillo Avenue San Antonio, TX 78210
Oxy Y-1 Company	5 Greenway Plaza, Suite 110 Houston, TX 77046
Panada Pipe & Equipment	P.O. Box 3721 Midland, TX 79702
PXP Producing Company LLC	717 Texas Street Suite 2100 Houston, TX 77002
Sabine Oil & Gas Corporation	1415 Louisiana Street Suite 1600 Houston, TX 77002
T E F Corporation	P.O. Box 3721 Midland, TX 79702
Tempo Energy Inc.	P.O. Box 1034 Midland, TX 79702
Thomas E. Jennings	P.O. Box 1797 Roswell, NM 88202
Timothy Z. Jennings	P.O. Box 1797 Roswell, NM 88202
Vladin LLC	P.O. Box 100 Artesia, NM 88211
XTO Holdings LLC	22777 Springwoods Village Parkway Spring, TX 77389

Part VIII- Geologic Information for Mesa Verde – Avalon

Table 1. Mesa Verde Avalon Laterals (2).

Well Name	API
MESA VERDE BS UNIT 1H ST1	3002544101
MESA VERDE BS UNIT 3H	3002544183

The Mesa Verde Avalon lateral wells (Table 1) will be injecting into the Avalon Formation of the Bone Spring Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -5500 to -5700 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a reservoir composed of kerogen-rich mudrock. The reservoir rock has porosity of 3-15% with an average porosity of 10%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.0009 millidarcies, ranging from 0.0000001 to 0.00655 millidarcies.

Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (30-025-32192) in Mesa Verde with a total thickness of 640 to 800 ft. above the injection zone with tight carbonates and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbons. Above that, the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 ft. and the deep aquifers found just above the Salado at the base of the Rustler are saline water. The top of Rustler Formation is at about 930 ft. The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area. Water wells drilled in the area typically have not reached this depth. Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow water wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

_____ 7/21/25

Stephanie Noonan
Geologist Staff Sr.

Date

Part VIII- Geologic Information for Mesa Verde – First Bone Spring Sandstone

The Mesa Verde "huff and puff" injection program may include injection into lateral wells drilled in the First Bone Spring Sandstone Formation in later phases of the unconventional enhanced oil recovery projects in the unit. Information on the First Bone Spring Sandstone formation is included below to facilitate future administrative additions to the projects.

The Mesa Verde First Bone Spring lateral wells have a subsea true vertical depth (SSTVD) of approximately -6200 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 2-13% with an average porosity of 6%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.0001489 millidarcies, ranging from 0.0000013 to 0.0005076 millidarcies.

Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (30-025-32192) in Mesa Verde with a total thickness of 1,000 ft. above the injection zone with tight carbonates and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbons. Above that, the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 ft. and the deep aquifers found just above the Salado at the base of the Rustler are saline water. The top of Rustler Formation is at about 930 ft. The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area. Water wells drilled in the area typically have not reached this depth. Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow water wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

_____ 7/21/25

Stephanie Noonan
Geologist Staff Sr.

Date

Part VIII- Geologic Information for Mesa Verde Second Bone Spring Sandstone Lateral Wells:

Table 1. Mesa Verde 2nd Bone Sandstone Laterals (7).

Well Name	API
MESA VERDE BS UNIT 4H	3002544064
MESA VERDE BS UNIT 5H	3002544185
MESA VERDE BS UNIT 6H	3002544042
MESA VERDE BS UNIT 7H	3002544065

The Mesa Verde Second Bone Spring Sandstone lateral wells (Table 1) will be injecting into the Second Bone Spring Sandstone of the Bone Spring Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -6700 ft. to -7100 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 2-11% with an average porosity of 7%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.0002106 millidarcies, ranging from 0.0000003 to 0.0014078 millidarcies.

Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (30-025-32192) in Mesa Verde with a total thickness of 1,800 ft. above the injection zone, with carbonate mudstones and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbon gas. Above that, the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 ft. and the deep aquifers found just above the Salado at the base of the Rustler are saline water. The top of Rustler Formation is at about 930 ft. The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area. Water wells drilled in the area typically have not reached this depth. Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

_____ ___7/21/25_____

Stephanie Noonan Date

Geologist Staff Sr.

Part VIII- Geologic Information for Mesa Verde – Third Bone Spring Limestone Mesa Verde BS 74H Well

The Mesa Verde "huff and puff" injection program may include injection into lateral wells drilled in the Third Bone Spring Limestone Formation in later phases of the unconventional enhanced oil recovery projects in the unit. Information on the Third Bone Spring Limestone formation is included below to facilitate future administrative additions to the projects.

The Third Bone Spring Limestone lateral wells have a subsea true vertical depth (SSTVD) of approximately -7560 ft. with a lateral length of approximately 10,000 ft. It will be injecting into a reservoir composed of tight siltstone. The reservoir rock has porosity of 2-10% with an average porosity of 5%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.002 millidarcies, ranging from 0.0000003 to 0.0053 millidarcies.

Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.

The top of the Bone Spring Formation measures at 8,482 MD depth at the Jack Tank Federal 2 well (API #30-025-32192) in Mesa Verde with a total thickness of 2,500 ft. above the injection zone, with carbonate mudstones and shales acting as permeability baffles to upward migration of injected gas. These low-permeability barriers acted as seals above and below the reservoir to historically trap hydrocarbon gas. Above that, the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 2,000 ft. thick barrier of salt. The top of the Salado is at 1,285 ft. and the deep aquifers found just above the Salado at the base of the Rustler are saline water. The top of Rustler Formation is at about 930 ft. The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area. Water wells drilled in the area typically have not reached this depth. Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow water wells has found freshwater wells within a two mile radius of Mesa Verde.

I hereby certify that the information presented above is true and correct to the best of my knowledge and belief.

Stephanie Noonan

Stephanie Noonan — 7/21/25

Stephanie Noonan — Date

Geologist Staff Sr.

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. 25222

SELF-AFFIRMED STATEMENT OF STEPHEN JANACEK

1. My name is Stephen Janacek, and I am employed by OXY USA Inc. ("OXY") as a petroleum engineer.

2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum engineering.

3. I am familiar with the application filed by OXY in this case, and the Division rules regarding enhanced oil recovery projects ("EOR" Project), such as this one. I also prepared or oversaw the preparation of the exhibits included in support of the filed application to OXY's application in this case (***Exhibit A*** to the Application).

4. In this case, OXY seeks an order authorizing the injection of water and produced gas[1] for purposes of EOR within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. *See* Application. Along with the application filed, OXY submitted a completed Form C-108, including the required attachments. *Id*.

[1] OXY's application initially requested to include carbon dioxide but is currently only seeking to inject water and produced gas.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

5. The proposed Project Area is the same as the Mesa Verde Bone Spring Resource Development Unit area and consists of the following 3,461.80 acres, more or less, of federal and state lands situated in Eddy and Lea County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.

Section 13: ALL

TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.

Section 7: SE/4, E/2 of NE/4
Section 8: ALL
Section 9: W/2
Section 16: W/2
Section 17: ALL
Section 18: ALL

6. The Mesa Verde Bone Spring Unit ("Unit") is a Resource Development Unit.

7. Oxy is the designated operator under the Resource Development Unit Agreement.

8. The Unitized Interval for the Unit includes the Bone Spring formation as identified by the Gamma Ray log run in the Heavy Metal 14 Federal 1 well (API: 30-015-29603) located in the NE/4 SE/4 of Section 14, Township 24 South, Range 31 East, Eddy County, New Mexico, with the top of the Unitized Interval being found at a depth of 8,445 feet below the surface and the base of the unitized interval being found at a depth of 11,830 feet below the surface.

9. A locator map identifying the general location of OXY's proposed Mesa Verde EOR Project is included in ***Exhibit A*** to the Revised Application, page 13.

10. Due to facility costs and timing associated with implementing this "huff and puff" injection project, Oxy seeks an exception from 19.15.26.12.C NMAC, which requires actual injection to occur within one (1) year of approval. Oxy requests authorization for injection to occur within two (2) years of approval.

11. Pursuant to 19.15.26.8F(5) NMAC, OXY also requests that additional injection wells in the Unit area be approved administratively, subject to the applicable notice requirements.

12. A summary overview of the EOR project is in ***Exhibit A*** to the Revised Application, page 10.

13. Within the proposed project area, OXY seeks authority to inject produced gas and water for purposes of EOR into the following seven (7)[2] Bone Spring formation wells, as identified on the project locator map that is included in ***Exhibit A*** to the Revised Application, pages 12 & 13:

- The **Mesa Verde BS Unit 1H** (API No. 30-025-44101) with a surface hole location 271 feet FSL and 245 feet FEL (Unit P) in Section 17, Township 24 South, Range 32 East, and a bottom hole location 335 feet FNL and 992 feet FEL (Unit A) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico;
- The **Mesa Verde BS Unit 2H** (API No. 30-025-44196) with a surface hole location 240 feet FSL and 1,614 feet FEL (Unit O) in Section 17, Township 24 South, Range 32 East, and a bottom hole location 171 feet FNL and 1,275 feet FEL (Unit A) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico;
- The **Mesa Verde BS Unit 3H** (API No. 30-025-44183) with a surface hole location 240 feet FSL and 1,644 feet FEL (Unit O) in Section 17, Township 24 South, Range 32 East, and a bottom hole location 197 feet FNL and 2,368 feet FEL (Unit B) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico;
- The **Mesa Verde BS Unit 4H** (API No. 30-025-44064) with a surface hole location 280 feet FSL and 965 feet FEL (Unit P) in Section 17, Township 24 South, Range

[2] OXY's application initially requested fifteen (15) wells but is currently only seeking to include seven (7) wells as part of the initial phase of the project.

32 East, and a bottom hole location 185 feet FNL and 512 feet FEL (Unit A) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico;

- The **Mesa Verde BS Unit 5H** (API No. 30-025-44185) with a surface hole location 280 feet FSL and 995 feet FEL (Unit P) in Section 17, Township 24 South, Range 32 East, and a bottom hole location 146 feet FNL and 1,329 feet FEL (Unit B) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico;
- The **Mesa Verde BS Unit 6H** (API No. 30-025-44042) with a surface hole location 280 feet FSL and 2,624 feet FEL (Unit O) in Section 17, Township 24 South, Range 32 East, and a bottom hole location 206 feet FNL and 2,292 feet FEL (Unit B) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico; and
- The **Mesa Verde BS Unit 7H** (API No. 30-025-44065) with a surface hole location 280 feet FSL and 2,626 feet FWL (Unit N) in Section 17, Township 24 South, Range 32 East, and a bottom hole location 198 feet FNL and 2,139 feet FWL (Unit C) in Section 8, Township 24 South, Range 32 East, NMPM, Lea, New Mexico.

See also ***Exhibit A*** to the Revised Application, pages 15-21.

14. Injection along the horizontal portion of the wellbores will be at the following approximate true vertical depths:

- The **Mesa Verde BS Unit 1H**: between 9,247 feet and 9,290 feet;
- The **Mesa Verde BS Unit 2H**: between 11,817 feet and 11,860 feet;
- The **Mesa Verde BS Unit 3H**: between 9,075 feet and 9,125 feet;
- The **Mesa Verde BS Unit 4H**: between 10,350 feet and 10,447 feet;
- The **Mesa Verde BS Unit 5H**: between 10,342 feet and 10,449 feet;
- The **Mesa Verde BS Unit 6H**: between 10,340 feet and 10,000 feet; and

- The **Mesa Verde BS Unit 7H**: between 10,364 feet and 10,428 feet.

*See **Exhibit A*** to the Revised Application, pages 22-35.

15. Information on the as-drilled wells, including wellbore diagrams, identification and location information, casing and cementing details, tubing details, packers, perforation depths, and formation tops, are shown in tabular format (***Exhibit A*** to the Revised Application, at pages 37-38) and in diagram format (*See **Exhibit A*** to the Revised Application, at pages 22-35).

16. Oxy requests authority to inject water and produced gas within the Unitized Interval at up to the following maximum surface injection pressures in the respective Bone Spring zones of the Avalon, First Bone Spring Sand ("1BSS"), Second Bone Spring Sand ("2BSS"), Third Bone Spring Sand ("3BSS"), and Third Bone Spring Lime ("3BSL"):

	Maximum Surface Injection Pressure (psi)	
Zone	Hydrocarbon Gas	Water
Avalon	4,510	1,813
1BSS	4,810	1,949
2BSS	4,980	2,022
3BSS & 3BSL	5,700	2,361

17. OXY seeks authority to add EOR wells to the proposed project by administrative approval if the well is within the Area of Review ("AOR") previously completed, including wells that are in the First Bone Spring Sand ("1BSS") and Third Bone Spring Lime ("3BSL").

18. OXY seeks authority to inject at the following maximum and average rates:[3]

Injectant	Maximum Rate	Average Rate

[3] OXY revised the maximum injection rates for both water and produced gas from its original filing of the application and removed CO2 from the application.

Hydrocarbon Gas	45 MMSCFPD	22 MMSCFPD
Water	6,500 bwpd	5,000 bwpd

19. In addition to ***Exhibit A*** to the Application, I have also prepared the additional exhibits included with this statement.

20. **OXY Exhibit B-1** is a list of wells included in the EOR Project that are currently associated with an approved Closed Loop Gas Capture ("CLGC") order (Division Order R-22106). OXY proposes to drop these wells from the CLGC pilot project once EOR injection commences.

21. **OXY Exhibit B-2** is a 2-mile AOR map for the Bone Spring that shows that the application includes both federal and state lands.

22. A gunbarrel view of the wells in both Mesa Verde Units is included in **OXY Exhibit B-3**.

23. **OXY Exhibit B-4** is a locator map that outlines OXY's Mesa Verde Unit and identifies the Mesa Verde Central Tank Battery ("CTB"), along with the source gas and water to be used for the EOR Project. Each of OXY's proposed EOR Project wells are operated by OXY and are permitted for surface commingling under PLC-799. OXY prepared an analysis of the composition of the source gas for injection and a water mixing analysis. *See* ***Exhibit A*** to the Revised Application, at pages 47-54. H2S is not found in any of the gas analyses. CO2 is found in all the analyses at various amounts.

24. **OXY Exhibit B-5** is an overview of OXY's three (3) variance requests for its proposed EOR operations due to the nature of "huff and puff" cycling: (1) OXY requests that injection packers be set at a minimum of 100 feet below the top of the confining interval; (2) OXY proposes installing gas lift mandrels with 10,000 psi check valves in the injection assembly; and (3) OXY proposes treated, dry gas will be present in the annulus between the production casing

and injection tubing during injection cycles. OXY Exhibit B-5 also includes a diagram demonstrating OXY's proposed "huff and puff" EOR operations for the project.

25. OXY plans to monitor injection and operational parameters for the EOR Project using an automated supervisory control and data acquisition (SCADA) system with pre-set alarms and automatic shut-in safety valves that will prevent injection pressures from exceeding the maximum surface injection pressure and flow rates. **OXY Exhibit B-6** provides an overview of the EOR Project SCADA System and includes a wellhead diagram. The SCADA components currently in place for gas lift operations will be utilized. Additional SCADA components will be installed on the wellhead similar to OXY's Closed Loop Gas Capture ("CLGC") projects. These additional components are (1) a pressure transducer for the annular space between the surface casing and the intermediate casing, and (2) a pressure transducer for the annular space between the intermediate casing and the production casing. The exhibit also includes OXY's proposed shutdown set points and alarms for its SCADA plan. These are similar to recent CLGC orders. Additionally, OXY will monitor and track various operational parameters at the CTB and EOR compressor.

26. I also conducted an analysis of the half-mile AOR. A map depicting wells and their trajectories within the half-mile area of review are on page 36 of ***Exhibit A*** to the Revised Application. The map on page 36 of ***Exhibit A*** to the Revised Application depicts all wells identified with completed laterals all or partially within the half-mile area of review. It assigns a well identification number to each well within the area of review that may be cross referenced in the following well data tabulation chart on pages 37-38 of ***Exhibit A*** to the Revised Application. The well data tabulation chart provides detailed information for identification, location, drilling, casing, cement, current completion, and current producing pool of each well. Following the data

tabulation chart, are wellbore schematics for wells that are plugged and abandoned or temporarily abandoned. *See* ***Exhibit A*** to the Revised Application, at 39-45.

27. Additionally, an updated AOR map that also includes all "new" wells in the AOR is on page 36 of ***Exhibit A*** to the Revised Application. The operators of the new wells received notice of the application.

28. Working with OXY's in-house land department, I also prepared a list of affected parties required to receive notice of this application. The map on page 55 of ***Exhibit A*** to the Revised Application depicts the notice map. Pages 56-57 of ***Exhibit A*** to the Revised Application identifies all leasehold operators and other affected persons within any tract wholly or partially contained within one-half mile of the completed interval of the wellbores for each of the proposed EOR wells entitled to notice in accordance with Division regulations, including the Bureau of Land Management as the surface owner where each EOR well is located.

29. It is my opinion that OXY undertook a good faith effort to locate and identify the correct parties and valid addresses required for notice within the half-mile area of review. To the best of my knowledge the addresses used for notice purposes are valid and correct. There were no unlocatable parties for whom we were unable to locate a valid address.

30. I provided the law firm of Holland & Hart LLP a list of names and addresses of the affected parties identified on pages 56-57 of ***Exhibit A*** to the Revised Application for purposes of providing notice.

31. As reflected in this hearing packet, notice of this application was provided in accordance with 19.15.26.8(B)(2) NMAC. Notice was also published in the Hobbs Daily News.

32. **OXY Exhibit B-1 through B-6** was either prepared by me or compiled under my direction and supervision.

33. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.

8/5/2025

Stephen Janacek Date

Released to Imaging: 8/6/2025 8:57:35 AM

Received by OCD: 8/5/2025 3:54:16 PM

OXY ZERO IN™

MESA VERDE

REGULATORY

Released to Imaging: 8/6/2025 8:57:35 AM
Received by OCD: 8/5/2025 3:54:16 PM

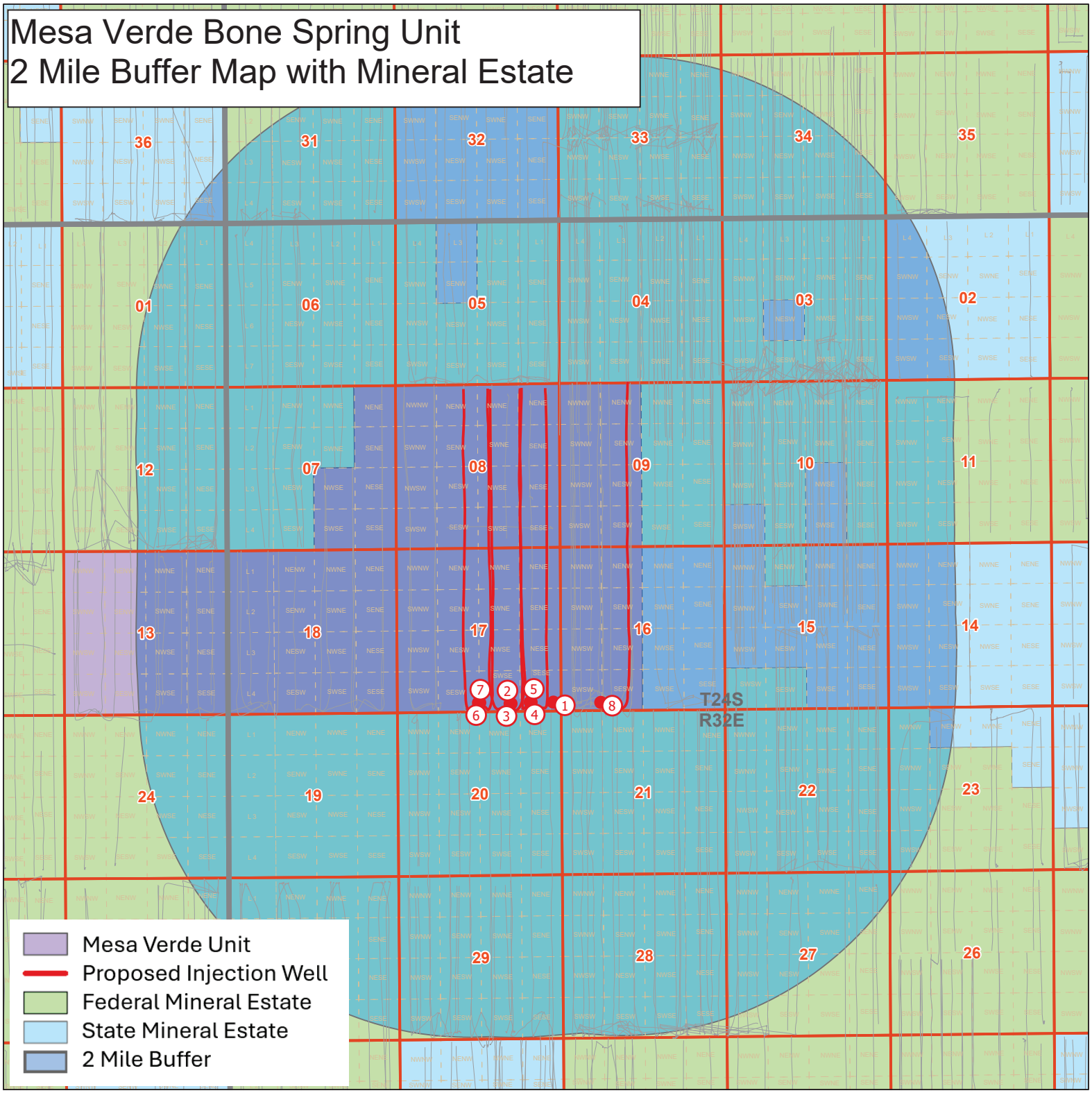
WELLS IN EXISTING CLGC INJECTION ORDER

- Closed Loop Gas Capture ("CLGC") pilot project
  - 6 wells are associated with a CLGC pilot project and 3 are active CLGC storage wells (green highlight below).
  - Case 22087
  - Injection Order R-22106

CLGC wells in R-22106		
API10	**Well Name**	**Status**
30025441830000	MV-BS-3H	7. Approved and active CLGC well
30025441010100	MV-BS-1H-ST1	7. Approved and active CLGC well
30025441960000	MV-BS-2H	3. Injection order approved and well permitted
30025440640000	Mesa Verde BS Unit 4H	3. Injection order approved and well permitted
30025441850000	Mesa Verde BS Unit 5H	7. Approved and active CLGC well
30025440420000	Mesa Verde BS Unit 6H	3. Injection order approved and well permitted

- After EOR injection commences, gas storage operations will not be necessary. Oxy proposes order R-22106 be terminated at this juncture.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B-1
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B-2
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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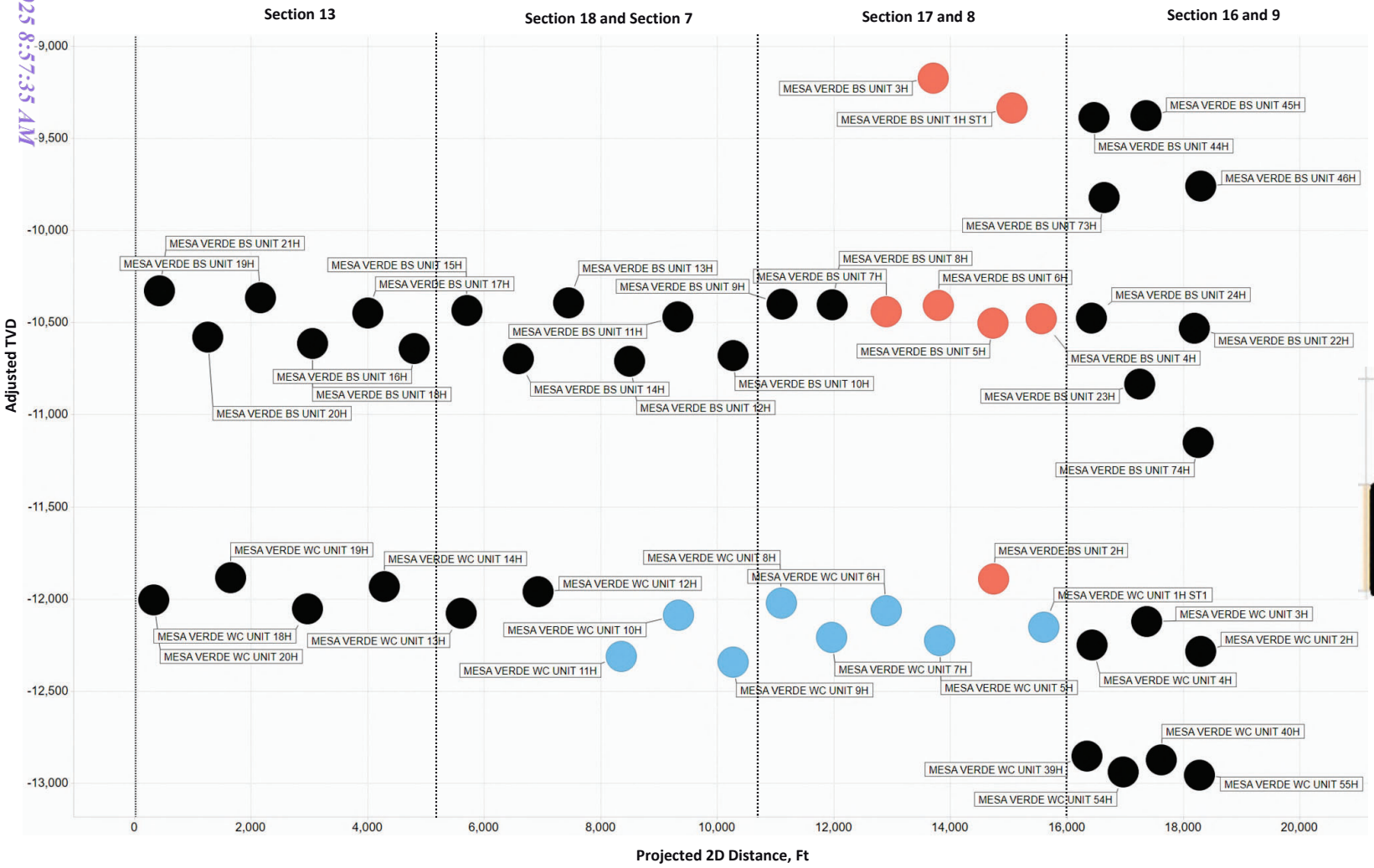
MESA VERDE GUN BARREL PLOT



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B-3
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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INJECTION FLUIDS AND SOURCES

- All BS and WC Unit wells produce to the Mesa Verde CTB, PLC 799
- Dehydrated Produced Gas
  - ★ From the Mesa Verde CTB
- Treated Water
  - ★ From the Mesa Verde CTB

Key
- Unit Outline
- Mesa Verde CTB
- ★ Gas Source
- ★ Water Source

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B-4
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
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VARIANCE REQUESTS DURING OPERATIONS

- Variance requests to standard injection requirements:
  1. Injection packers to be set at a minimum of 100 ft below the top of the confining interval.
  2. Install gas lift mandrels with 10,000 psi check valves in injection assembly.
     - If not, production equipment (gas lift valves) would need to be installed before every production cycle to help artificially lift production and reduce the downtime between cycles.
     - Establishing well control by killing the well and performing a workover before every production cycle will negatively impact the EOR recovery.
     - The project will not be economical due to additional operational costs to pull equipment with a workover rig between injection/production cycles.
  3. Packer fluid will be present in the tubing/casing annulus during the initial gas injection cycle. When gas lift operations begin, packer fluid will be displaced from the annulus with dehydrated produced gas. This gas will be present in the annulus after each injection/production cycle.
     - Produced gas has no H2S content. See gas analysis.
     - Produced gas will be dehydrated.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B-5
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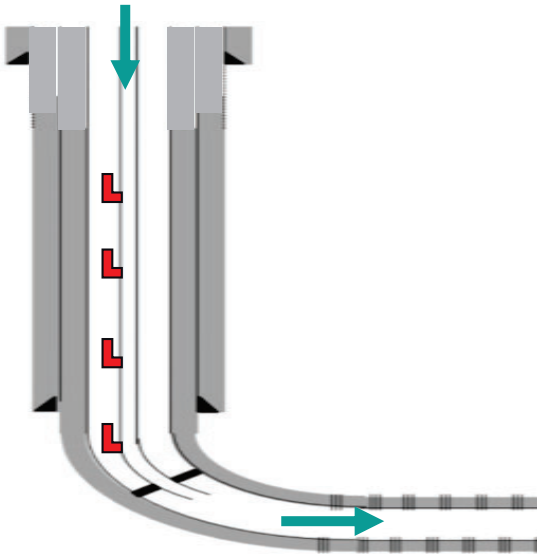
VARIANCE REQUESTS DURING OPERATIONS- DIAGRAMS

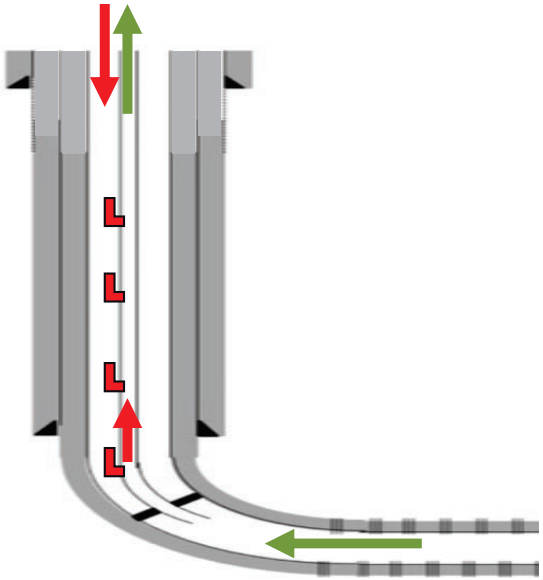
Injection Cycle

- Gas or water injected down tubing.
- Check valves isolate tubing pressure from casing pressure.



Production Cycle

- Gas lift gas injected down casing tubing annulus and through gas lift check valves.
- Producing fluids flow up tubing with gas lift gas.



Key

- Gas Lift Check Valves
- EOR Injection Flow
- Production Flow
- Gas Lift Flow

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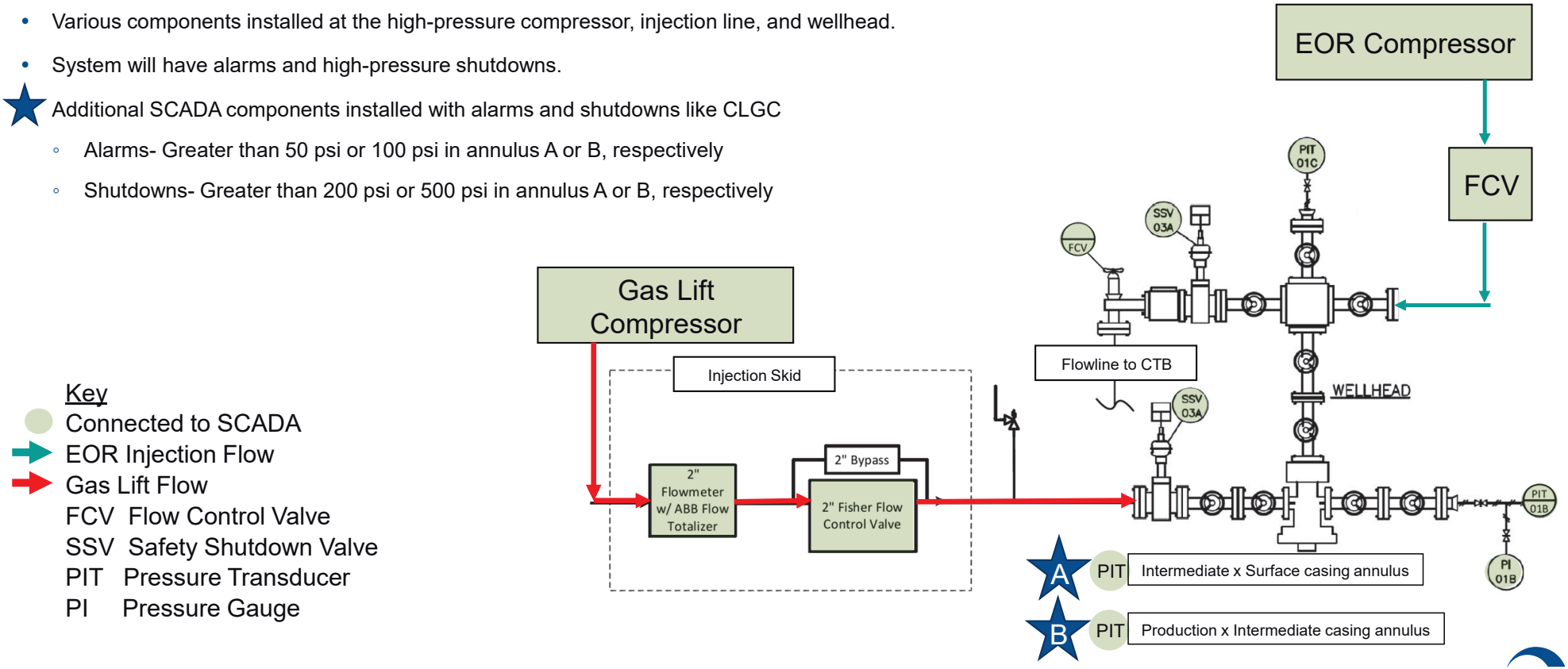
SCADA SYSTEM AND WELLHEAD DIAGRAM

- Upgrade wellheads to 10,000 psi components before injection commences.
- Various components installed at the high-pressure compressor, injection line, and wellhead.
- System will have alarms and high-pressure shutdowns.
- ★ Additional SCADA components installed with alarms and shutdowns like CLGC
  - Alarms- Greater than 50 psi or 100 psi in annulus A or B, respectively
  - Shutdowns- Greater than 200 psi or 500 psi in annulus A or B, respectively



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B-6
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

NM MESA VERDE
SCADA PLAN

SCADA Plan

WELLSITE

Oxy USA Inc. (Oxy) will monitor the following items on wellsite via SCADA system:

- Injection flow rate and volume
  - Instantaneous Rate
  - Total Injected by Day (volume)
- Gas Lift flow rate and volume
  - Instantaneous Rate
  - Total Injected by Day (volume
- Tubing Pressure
- Casing Pressure
- Bradenhead Pressures
- Safety devices
  - Pressure kills have an automated kill sequence that is initiated by SCADA system readings.
  - Injection pressure kills on production stream for injection
  - Relief Valves for both production and injection streams to prevent overpressure (not monitored via SCADA other than pressure trend)
  - Control of injection rate and pressures via control valve
  - Control of production stream via automated choke valves to ensure controlled production and prevent over pressurization of flowline

CENTRAL TANK BATTERY (CTB)

Oxy will monitor the following items at the CTB via SCADA system:

- Production Rates
  - Oil
  - Gas
  - Water

HIGH-PRESSOR COMPRESSOR

Oxy will monitor the following items at the High-Pressure Compressor via SCADA system:

- Safety devices
  - Discharge/injection pressure kills of each compressor and for the station
  - Relief Valves on 3rd stage of compressors, to prevent over pressurization (not monitored via SCADA other than pressure trend)
  - Station recycle valves (that recycle discharge pressure back to suction) if the pressure is getting too high for the compressor or station. (not all control valves are capable of remote monitoring of valve position; but still monitored in some sense of the pressure trend for the station)

SUPERVISORY CONTROL AND DATA ACQUISTION (SCADA) DETAILS

Oxy SCADA system consists of PLCs at wellsite, CTB, and High-Pressure Compressor.

- The Programmable Logic Controller (PLCs) will act immediately (within seconds or minutes) as programmed to automatically safe the system as required; for the system and certain device shut down(s).

- The High Alarms and High-High Alarms will be logged and registered in the SCADA system. Also the call center will take the High Alarm and make the physical phone call notification to the production techs to acknowledge the alarm & take action.

ENVIRONMENTAL/SPILL RESPONSE

Oxy will report and track any spill recordable or non-recordable via our CDR system

- Any spill or gas release will be reported by operations calling in to our Call Center to make the report of spill/release. The fluid type and release amount will be disclosed along with location details; and if it's a recordable or non-recordable spill.
- Liquids will be contained and isolated and vacuum trucks will be called in to recover the liquid and will also report the amount of liquid recovered on the same CDR spill form.
    - Additional reclamation will be coordinated to ensure proper recovery of contaminated soil and liquid.

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. 25222

SELF-AFFIRMED STATEMENT OF LESLIE MULLIN

1. My name is Leslie Mullin, and I am employed by OXY USA Inc. ("OXY") as a land negotiator.

2. I have not previously testified before the New Mexico Oil Conservation Division ("Division") as an expert witness in petroleum land matters. I have included a copy of my resume as **OXY Exhibit C-1** for the Division to review and respectfully request that my credentials be accepted as a matter of record, and that I be tendered as an expert in land matters.

3. I am familiar with the application filed by OXY in this case.

4. In support of preparing the application for filing, I reviewed the title for the subject lands to identify parties entitled to notice.

5. Parties entitled to notice were identified based on a determination of the title of lands and interests as recorded in the records of Eddy and Lea County, as found in the online BLM Mineral & Land Records System, or from a review of New Mexico Oil Conservation Division and Bureau of Land Management ("BLM") operator records as of the time the application was filed or from OXY's internal records (division orders). *See* ***Exhibit A*** to the Revised Application, pages 56 and 57.

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BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. C
Submitted by: OXY USA INC
Hearing Date: August 12, 2025
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6. **OXY Exhibit C-2** is a mineral land overview that provides a breakdown of OXY's working interest ownership and/or control in the Mesa Verde Unit ("Unit"), as well as the federal and state interest comprising the Unit. Additionally, Exhibit C-2 outlines communications between OXY and BLM and New Mexico State Land Office ("NMSLO").

7. **OXY Exhibit C-3** is a surface ownership map. The Unit surface ownership is comprised entirely of federal lands.

8. **OXY Exhibit C-4** is a mineral ownership map. The Unit mineral ownership is comprised of both state and federal interests.

9. **OXY Exhibit C-1 through C-4** was either prepared by me or compiled under my direction and supervision.

10. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.

Leslie Mullin — 8/5/25

Leslie Mullin — Date

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OXY ZERO IN™

MESA VERDE

LAND

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LESLIE MULLIN CV

- Work Experience
  - Advisor Land Negotiator – Occidental Petroleum – Houston, Texas — 4/2024 – Present
  - Senior Landman – Apache Corporation – Houston, Texas — 9/2018 – 4/2024
  - Landman II – Apache Corporation – Houston, Texas — 7/2016 – 9/2018
  - Landman I – Apache Corporation – Tulsa, Oklahoma — 3/2014 – 7/2016
  - Land Analyst – Apache Corporation – Tulsa, Oklahoma — 4/2012 – 3/2014

- Education
  - Master of Business Administration – The University of Tulsa – Tulsa, Oklahoma — 5/2008
  - Bachelor of Arts – The University of Tulsa – Tulsa, Oklahoma — 12/2001
    - Major – Political Science
    - Major – Elementary Education

- Professional Certification
  - Certified Professional Landman – American Association of Professional Landmen — 10/2022 – Present
  - Registered Professional Landman – American Association of Professional Landmen — 1/2020 – 10/2022

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. C-1
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Case No. 25222

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MINERAL LAND OVERVIEW

- BLM Resource Development Units (2017)
  - 1 for Bone Spring and 1 for Wolfcamp
    - Identical Working, Royalty and ORRI Interests
- 3461.8 acres
  - 3141.8 BLM acres (90.76%)
  - 320 SLO acres (9.24%)
- BLM provides approval through annual Plan of Development (POD) process required by Unit Agreements
  - Submitted with 2025 POD Supplements 3/4/2025 to both BLM and NMSLO
  - Informal meetings held with both BLM and NMSLO
- Unit Operating Agreements provide for secondary recovery and pressure maintenance
  - Oxy entities are ~90.07% Working Interest
  - All Working Interest Owners are subject to Operating Agreements

BEFORE THE OIL CONSERVATION DIVISION
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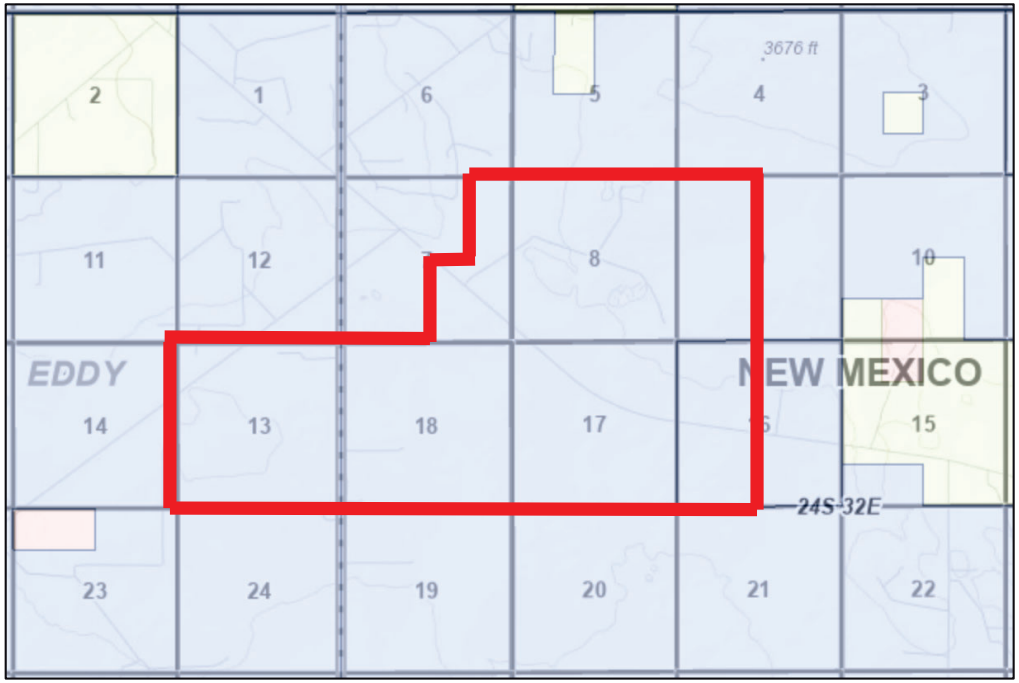
SURFACE OWNERSHIP MAP



BLM

NMSLO

Private

Mesa Verde Unit Boundary

BEFORE THE OIL CONSERVATION DIVISION
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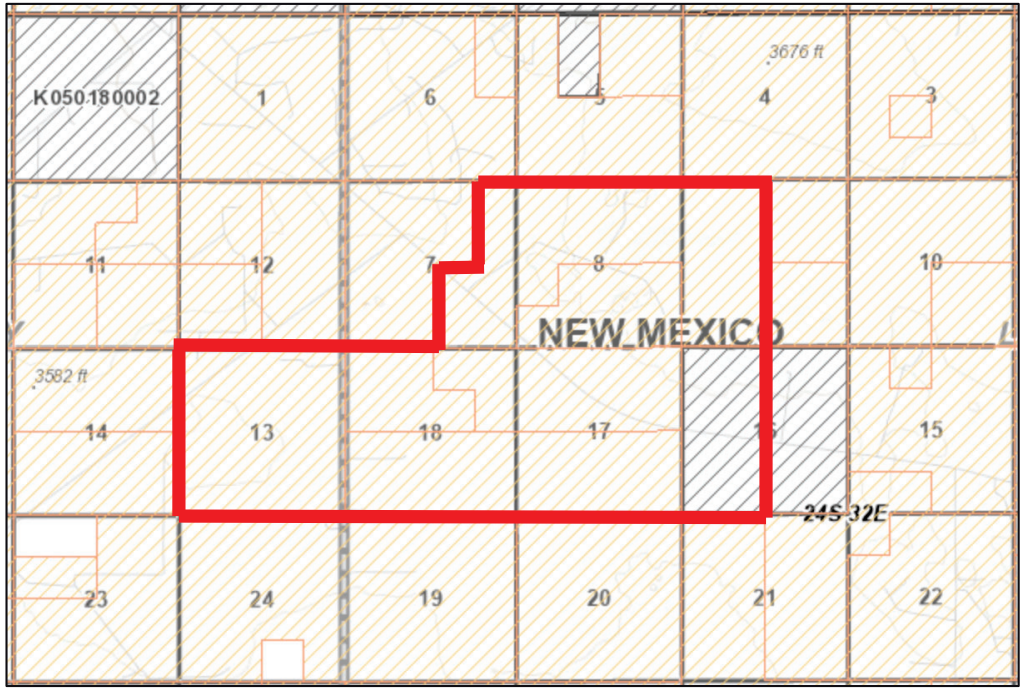
MINERAL OWNERSHIP MAP



BLM

NMSLO

Private

Mesa Verde Unit Boundary

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. C-4
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. 25222

SELF-AFFIRMED STATEMENT OF STEPHANIE NOONAN

1. My name is Stephanie Noonan, and I am employed by OXY USA Inc. ("OXY") as a petroleum geologist.

2. I have previously testified before the New Mexico Oil Conservation Division as an expert witness in petroleum geology.

3. I am familiar with the application filed by OXY in this case.

4. In support of preparing the application for filing, I conducted a geologic review of the subject lands and provided the geologic data on pages 58-63 of ***Exhibit A*** to the Revised Application.

5. **OXY Exhibit D-1** describes the different confining layers from the top of the Bone Spring formation to the lowest level fresh water source in the area. There is 7,500 feet of subsurface strata between the top of the Bone Spring formation and the lowest level freshwater source in the area, with at least 3000 feet of impermeable rock layers between the aquifer and the Bone Spring. The injected gas will be contained laterally by the tight low-permeability reservoir and the production from the adjacent wells. OXY Exhibit D-1 also includes an area type log, which shows the proposed injection zones and confining layers described in the narrative.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. D
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

6. On the lower left-hand side of **OXY Exhibit D-2** is a line of cross-section through the Mesa Verde Unit from B to B'. I chose the logs from these wells to create the cross-section because they penetrate the targeted injection zones, are of good quality and have been subjected to petrophysical analysis. In my opinion, these well logs are representative of the geology in the subject area. On the right-hand side is a stratigraphic cross-section that I prepared using the logs from the representative wells. Each well on the cross-section contains gamma ray, resistivity, and porosity logs. The target injection zones are indicated by the yellow arrows and the grey shading represents the confining zones.

7. **OXY Exhibit D-3** are two subsea structure maps that I prepared. The map on the left-hand side is prepared from off the top of the Bone Spring with a contour interval of 30 feet. The map on the right-hand side is prepared from off the base of the Bone Spring with a contour interval of 50 feet. The structure maps show that the Bone Spring dips to the southeast. Additionally, the structure map on the right-hand side shows a fault that extends below the top of the Wolfcamp. The fault does not extend above the top of the Bone Spring and does not extend below the base of the Wolfcamp.

8. **OXY Exhibit D-4** shows a map of the active groundwater wells within a two-mile radius of the project area, along with a list of the wells.

9. **OXY Exhibit D-5** shows a map of the seismic response area in relation to the Mesa Verde Project area.

10. **OXY Exhibit D-1 through D-5** was either prepared by me or compiled under my direction and supervision.

11. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be

used as written testimony in this case. This statement is made on the date next to my signature below.

Stephanie Noonan

Stephanie Noonan

8/4/25

Date

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OXY ZERO IN™

MESA VERDE

GEOLOGY

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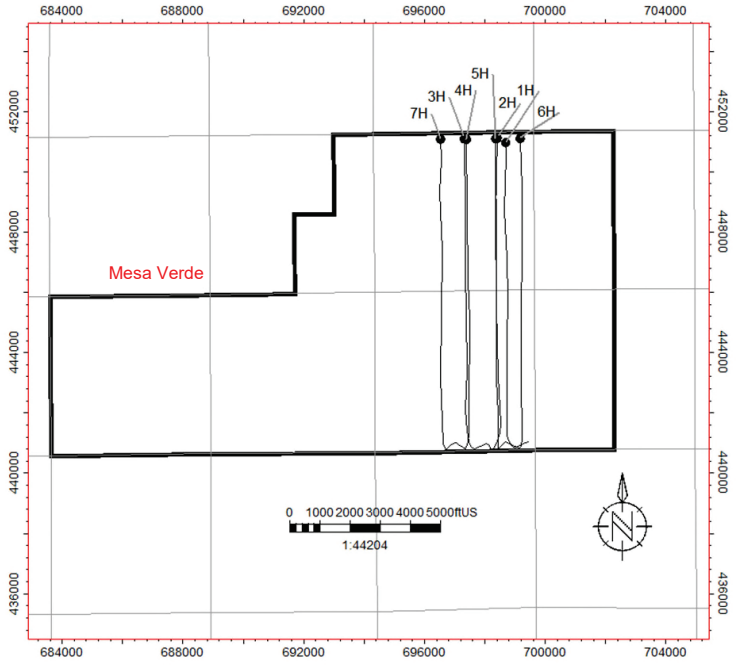
BONE SPRING UNIT GEOLOGIC STATEMENT

- The Mesa Verde Bone Spring lateral wells (Table 1) will be injecting into the Avalon, Second Bone Spring Sandstone, and 3rd Bone Spring Sandstone formations. The top of the Bone Spring Formation is at 8,482 TVD with over 500 ft. of carbonate mudstones and shales above the shallowest injection zone acting as additional permeability barriers to upward migration of injected gas. The Mesa Verde "huff and puff" injection program may include injection into lateral wells drilled in the First Bone Spring Sandstone and Third Bone Spring Limestone Formation in later phases of the unconventional enhanced oil recovery projects.
  - Above that the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick.
  - Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids.
  - The Salado overlies the Castile and forms a 1,000 ft. thick barrier of salt. The top of the Salado is at 877 ft. and the deep aquifers found just above the Salado at the base of the Rustler are saline water.
  - The top of Rustler Formation is at about 930 ft. The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area.
  - Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.
- Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the producing well. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.
- There are faults in the area identified in seismic data which show these faults extend to Bone Spring and Wolfcamp but do not extend above the Bone Spring, or to the confining zone at the Ochoan (Rustler, Castille, and Salado Formations), or to the Pennsylvanian or deeper

Table 1 – Bone Spring Lateral Wells

API	WELL_NAME	ZONE
3002544101	MESA VERDE BS UNIT 1H ST1	Avalon
3002544196	MESA VERDE BS UNIT 2H	Third Bone Spring Sandstone
3002544183	MESA VERDE BS UNIT 3H	Avalon
3002544064	MESA VERDE BS UNIT 4H	Second Bone Spring Sandstone
3002544185	MESA VERDE BS UNIT 5H	Second Bone Spring Sandstone
3002544042	MESA VERDE BS UNIT 6H	Second Bone Spring Sandstone
3002544065	MESA VERDE BS UNIT 7H	Second Bone Spring Sandstone



- S. Noonan 2/14/25

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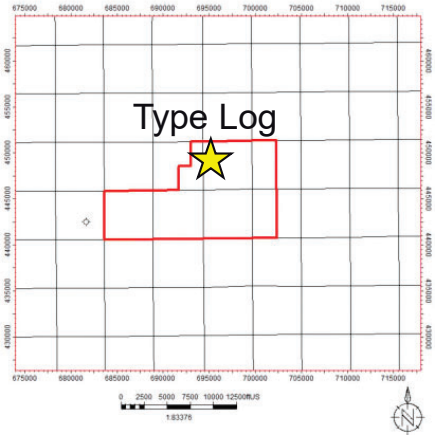
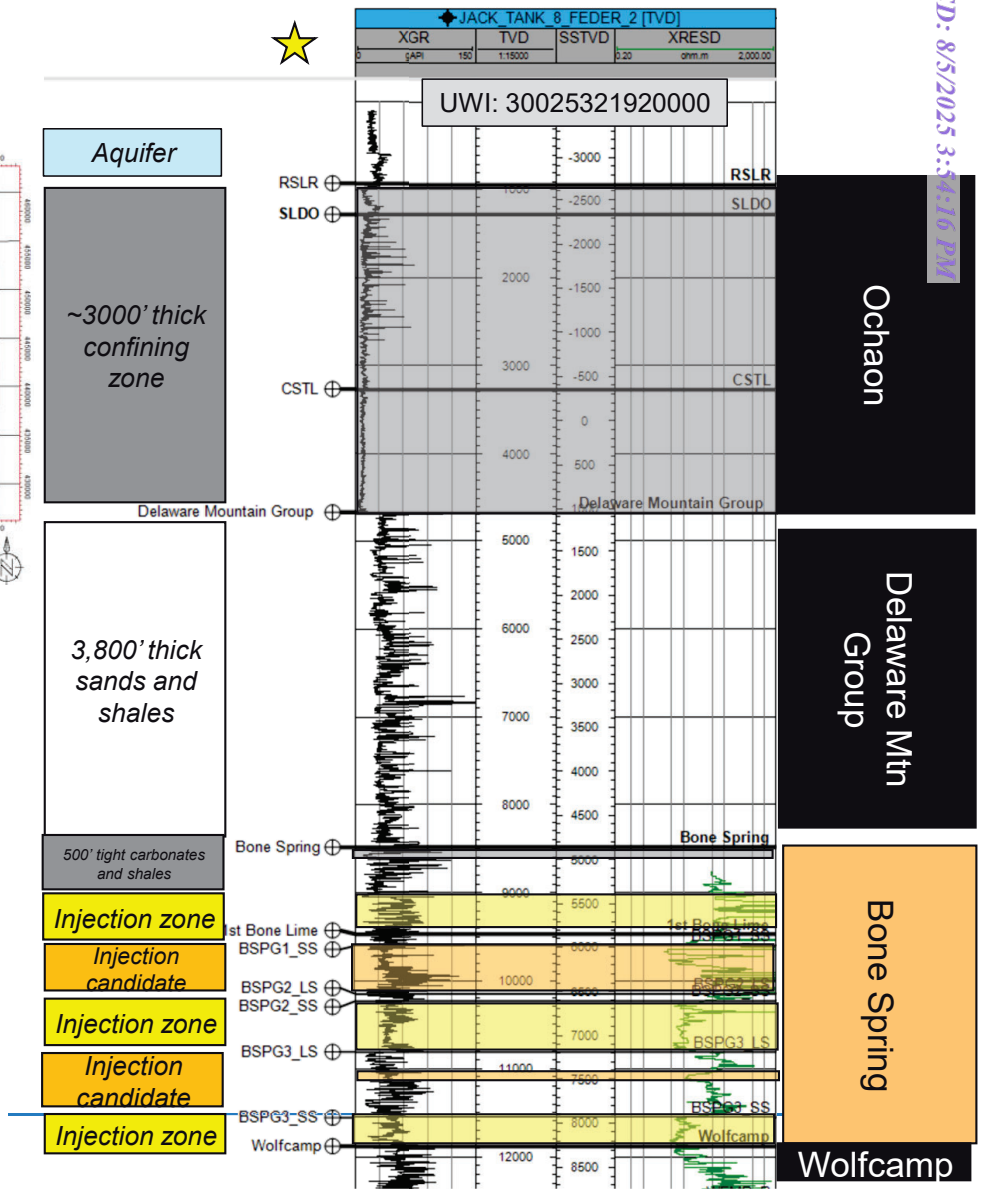
AREA TYPE LOG – BONE SPRING



- The top of the Bone Spring Formation is at 8,482 (TVD) with over 500 ft. of carbonate mudstones and shales above the shallowest injection zone acting as additional permeability barriers to upward migration of injected gas.
- Above that the Delaware Mountain Group consists of connate-water bearing and hydrocarbon-bearing sands, with minor limestone and shale intervals and is over 3,800 ft. thick.
- Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,400 ft. thick barrier to upward movement of fluids.
- The Salado overlies the Castile and forms a 1,000 ft. thick barrier of salt. The top of the Salado is at 1,285 ft. (TVD) and the deep aquifers found just above the Salado at the base of the Rustler are saline water.
- The top of Rustler Formation is at about 930 ft. (TVD) The Rustler top is a continuous anhydrite layer that acts as another permeability barrier creating a perched aquifer above it that is the lowest level where fresh water is known in the area. Because of the thickness of multiple impermeable rock layers above the injection reservoir there is no possible path for migration upward into freshwater aquifers where they exist.



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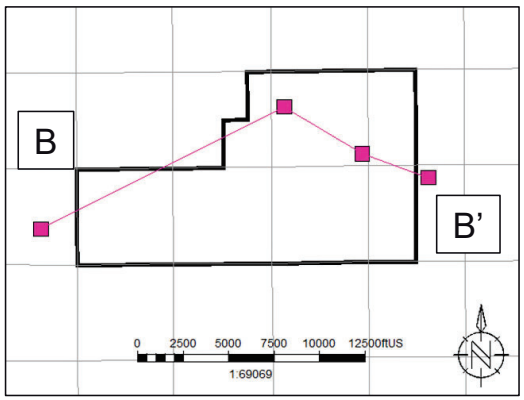
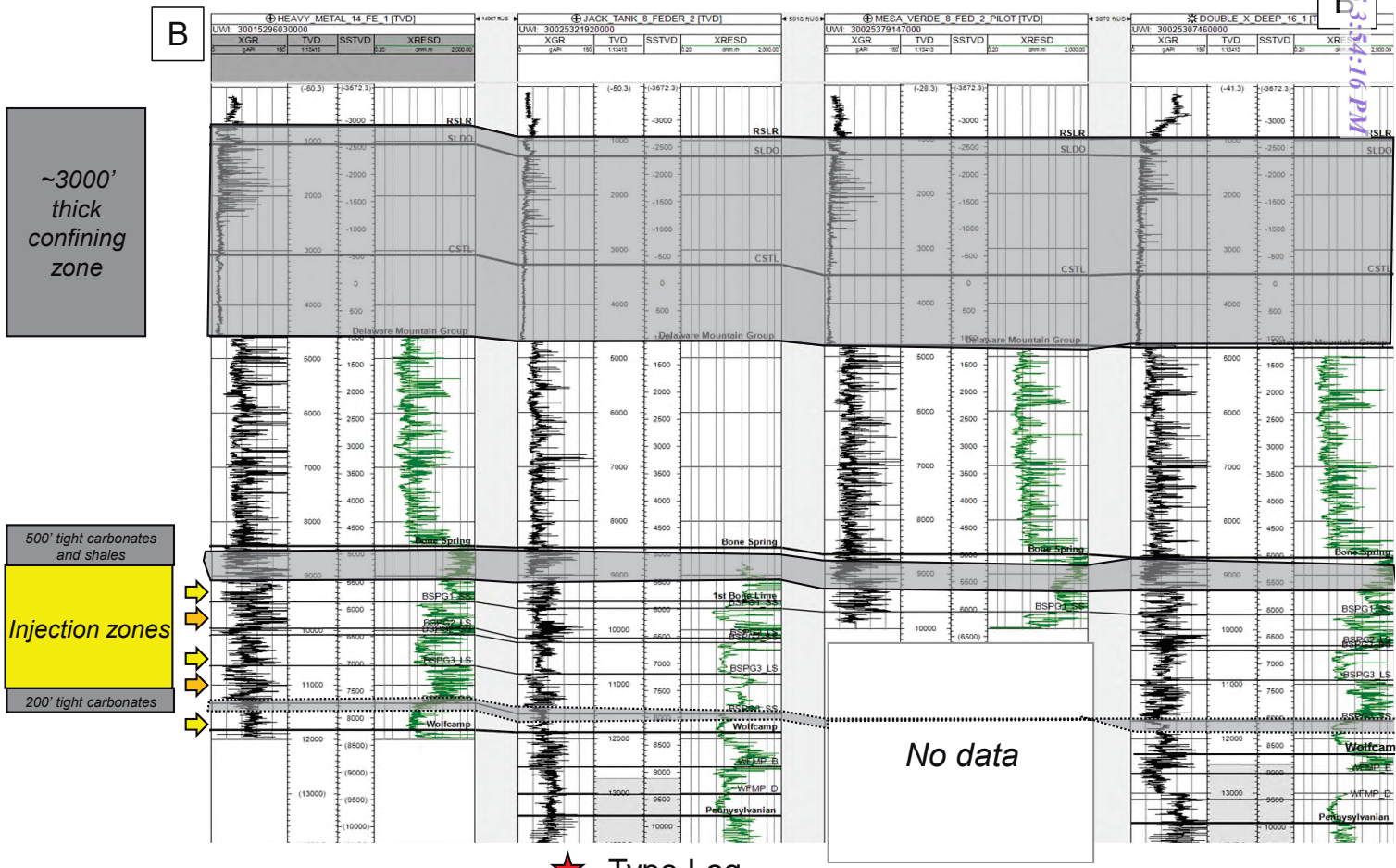
CROSS SECTION – BONE SPRING UNIT

- Continuous confining zones
- Continuous beds of carbonates and shales above injection zone





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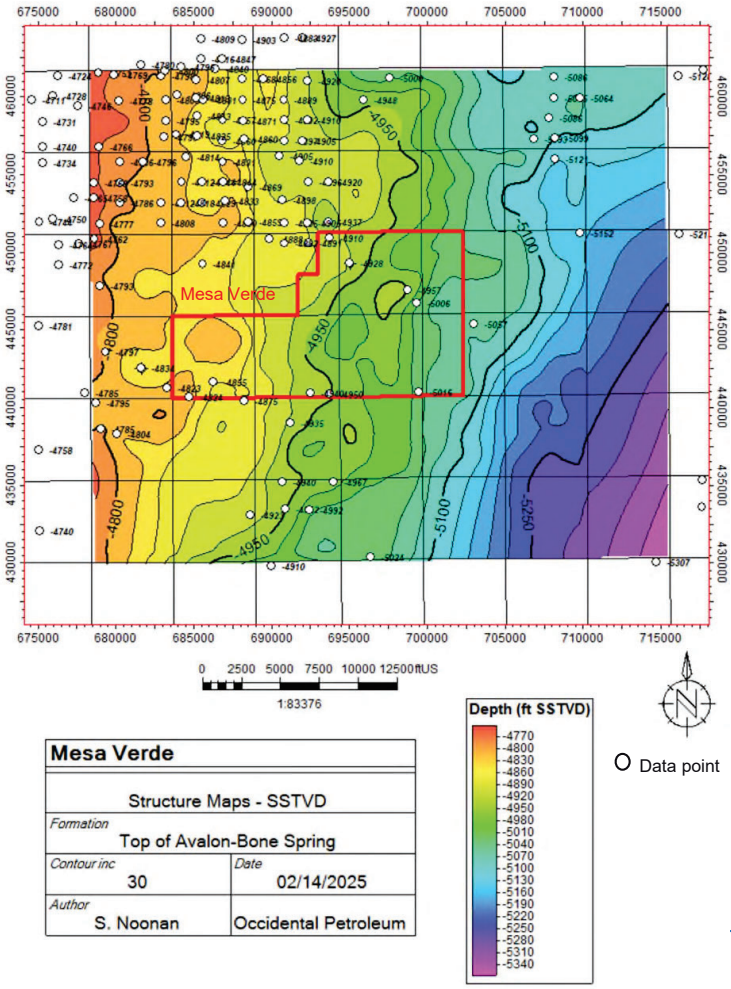
MESA VERDE BONE SPRING UNIT STRUCTURE MAPS

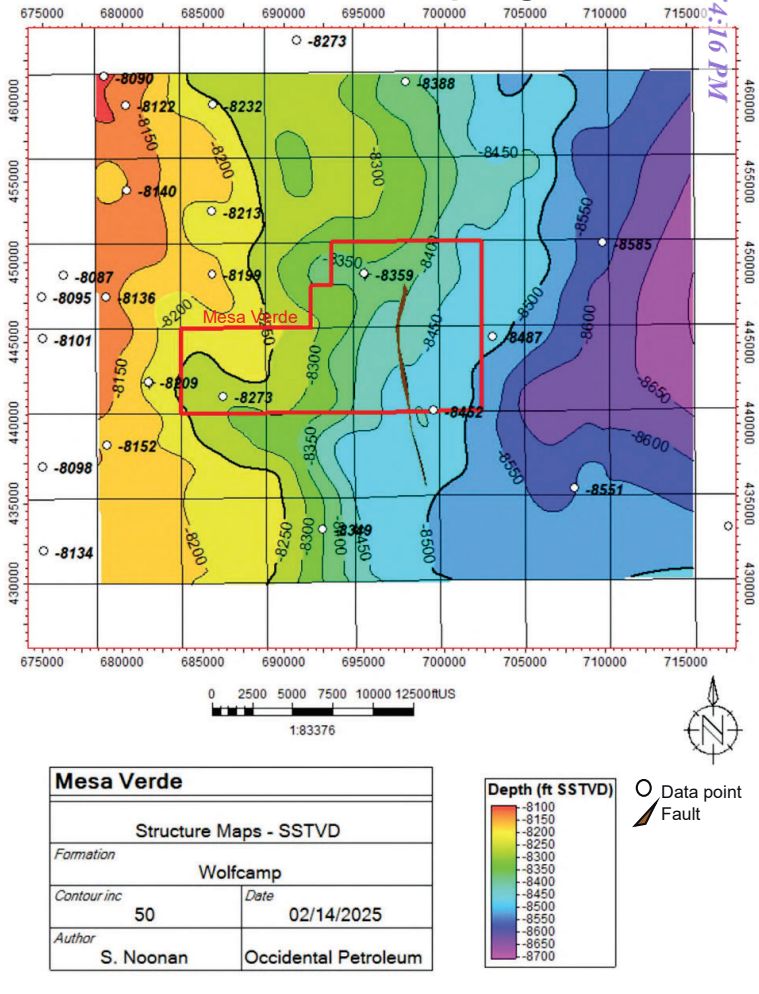
- Mesa Verde structure dips to the southeast
- Fault identified in seismic data extends below the top of the Wolfcamp but does not extend above the top of the Bone Spring

Top of Bone Spring Unit



Mesa Verde	
Structure Maps - SSTVD	
Formation: Top of Avalon-Bone Spring	
Contour inc: 30	Date: 02/14/2025
Author: S. Noonan	Occidental Petroleum

Base of Bone Spring Unit



Mesa Verde	
Structure Maps - SSTVD	
Formation: Wolfcamp	
Contour inc: 50	Date: 02/14/2025
Author: S. Noonan	Occidental Petroleum

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Case No. 25222

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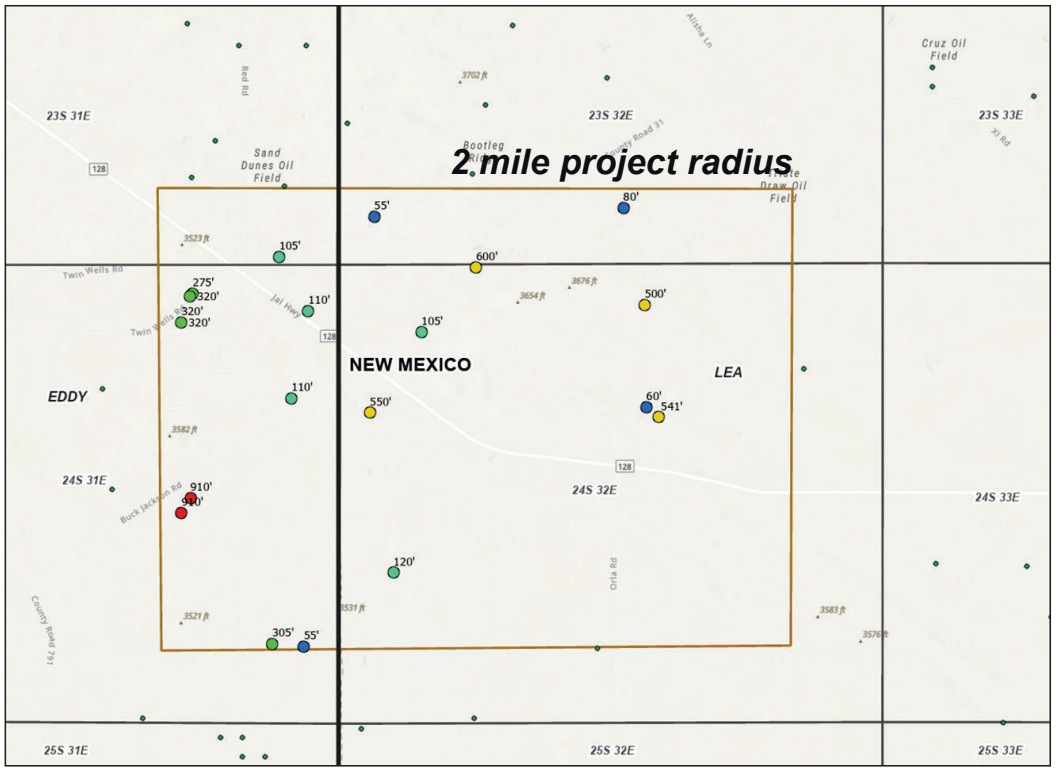
ACTIVE GROUNDWATER WELLS

- Active groundwater wells are inside the project area.
- These are shown on map with TD annotated.



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. D-4
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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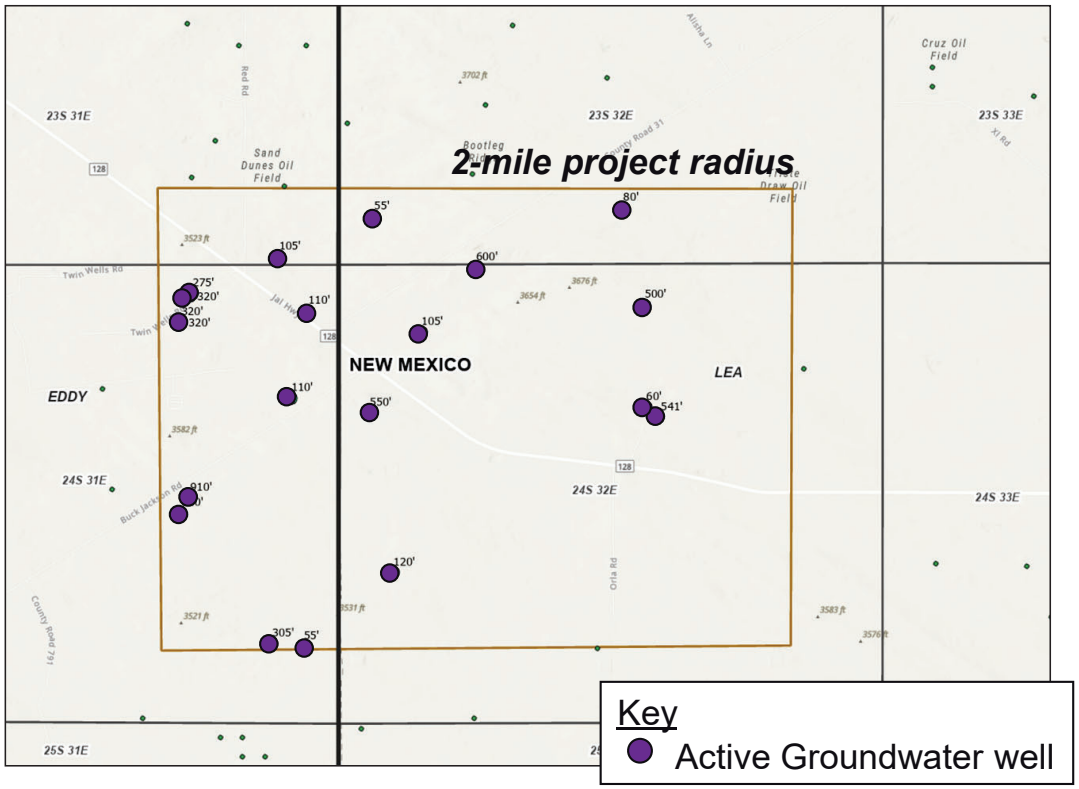
ACTIVE GROUNDWATER WELLS

OBJECTID_1	pod_file	own_lname
74278	C-02405	Texaco Exploration & Prod. Ind
94614	C-02350	Limestone Livestock Llc
180207	C-02460	Sonat Exploration
180208	C-02460-POD2	Sonat Exploration
180210	C-02464	Commissioner Of Public Lands
189629	C-03527-POD1	Mccloy
189630	C-03528-POD1	Ngl North Ranch Llc
190303	C-03530-POD1	Mccloy
195569	C-03555-POD1	Ngl North Ranch Llc
243276	C-04388-POD1	Twin Wells Ranch Llc
252009	C-04576-POD1	Twin Wells Ranch Llc
254828	C-04643-POD1	Valenzuela
255213	C-04654-POD1	Devon Energy
255763	C-04665	Cog Operating Llc
256099	C-04672-POD 1	Ensolum Llc
257098	C-04687-POD1	Oxy Usa Inc
257824	C-04712-POD1	Vertex Resources
259105	C-04746-POD1	Devon Energy Resources
260571	C-04775-POD1	Devon Energy Resources
260750	C-04780-POD1	Eog Resources



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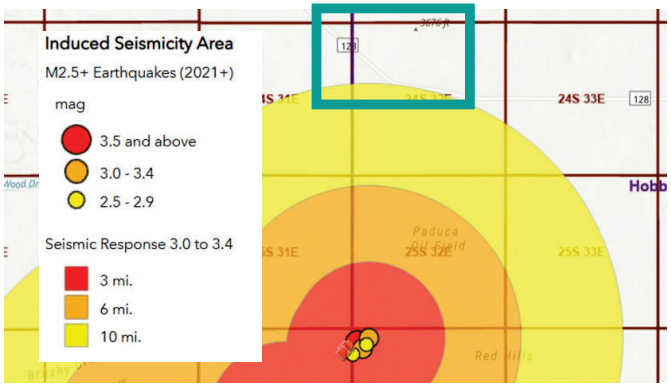
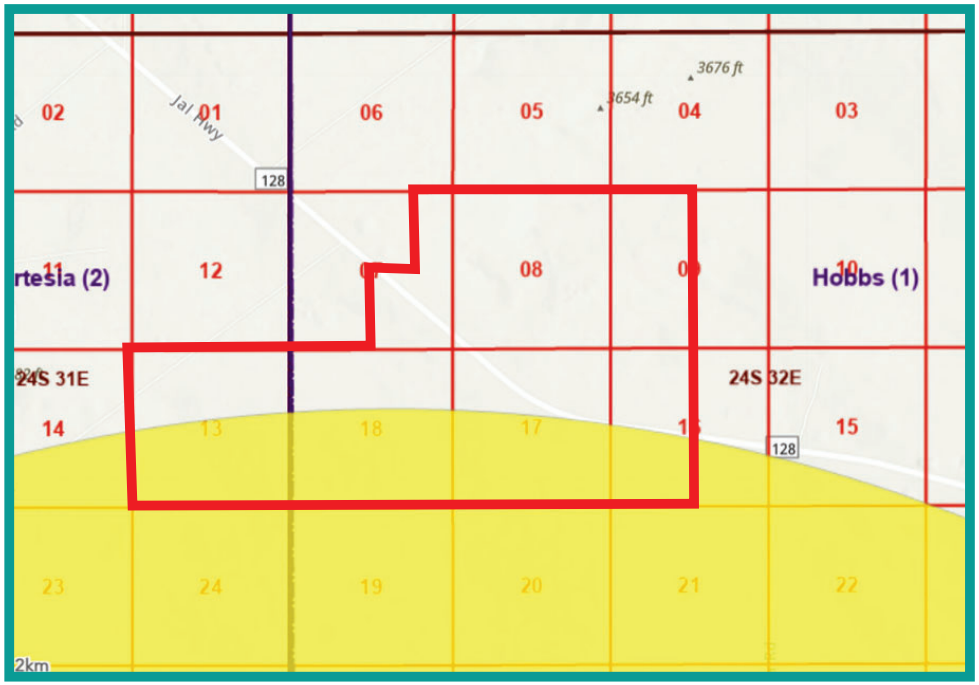
SEISMIC RESPONSE AREA

- Seismic response area and Mesa Verde Unit





Mesa Verde Unit Outlines

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. D-5
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. 25222

SELF-AFFIRMED STATEMENT OF DANIEL SALAMANDER

1. My name is Daniel Salamander, and I am employed by OXY USA Inc. ("OXY") as a reservoir engineer.

2. I have not previously testified before the New Mexico Oil Conservation Division ("Division") as an expert witness in reservoir engineering matters. I have included a copy of my resume as **OXY Exhibit E-1** for the Division to review and respectfully request that my credentials be accepted as a matter of record, and that I be tendered as an expert in reservoir engineering matters.

3. I am familiar with the application filed by OXY in this case.

4. In support of preparing the application for filing, I conducted an engineering study of the reservoir to evaluate the potential effects of the proposed enhanced oil recovery program ("EOR") on the reservoir and future production.

5. **OXY Exhibit E-2** is an overview of OXY's proposed plans, which also includes a comparison between conventional EOR line drive recovery and OXY's proposed unconventional EOR "huff and puff" plan. OXY Exhibit E-2 also includes a step-by-step description of how OXY plans to carry out its proposed "huff and puff" operations.

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BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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6. On the left-hand side of **OXY Exhibit E-3** is a chart showing the cycling plan (6-10 injection cycles) for OXY's proposed "huff and puff" process and the production responses expected during the injection and flowback periods. On the right-hand side is a narrative explaining the cycling plan.

7. **OXY Exhibit E-4** outlines the expected results of OXY's proposed EOR program, which shows that OXY anticipates that the estimated ultimate recovery ("EUR") can be improved by 10%-50% per well. This is based off of OXY's experience conducting similar operations in the Delaware and Midland Basins of Texas.

8. **OXY Exhibit E-5** shows the surface injection pressure limit calculations for both water and gas injection, consistent with the NMOCD UIC Manual Section III.A.2 pressure gradient guidance.

9. **OXY Exhibit E-6** lists OXY's previous unconventional EOR projects in the Permian Basin that are comparable to the proposed project.

10. **OXY Exhibit E-7** discusses the general concepts of gas breakthrough and impacts and also provides an overview of OXY's breakthrough mitigation strategies for the proposed project. Additionally, the exhibit includes a map, which shows the surrounding offset operators and their developments.

11. **OXY Exhibit E-1 through E-7** was either prepared by me or compiled under my direction and supervision.

12. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.

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Daniel Salamander

8/5/2025

Daniel Salamander

Date

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OXY ZERO IN™

MESA VERDE

RESERVOIR

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DANIEL SALAMANDER CV

- Work Experience
  - Staff Senior Reservoir Engineer – Occidental Petroleum – Houston, TX 3/2024 - Present
  - Senior Reservoir Engineer – Occidental Petroleum – Houston, TX 7/2022 – 3/2024
  - Senior Reservoir Engineer – Occidental Petroleum – Denver, CO 3/2021 – 7/2022
  - Staff Reservoir Engineer – Occidental Petroleum – Denver, CO 4/2019 – 3/2021
  - Staff Reservoir Engineer – Anadarko Petroleum – Denver, CO 9/2018 – 4/2019
  - Staff Drilling Engineer – Anadarko Petroleum – Denver, CO 4/2017 – 9/2018
  - Drilling Engineer – Anadarko Petroleum – Denver, CO 4/2015 – 4/2017

- Education
  - Bachelor of Science, Petroleum Engineering – University of Oklahoma – Norman, OK 12/2014

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-1
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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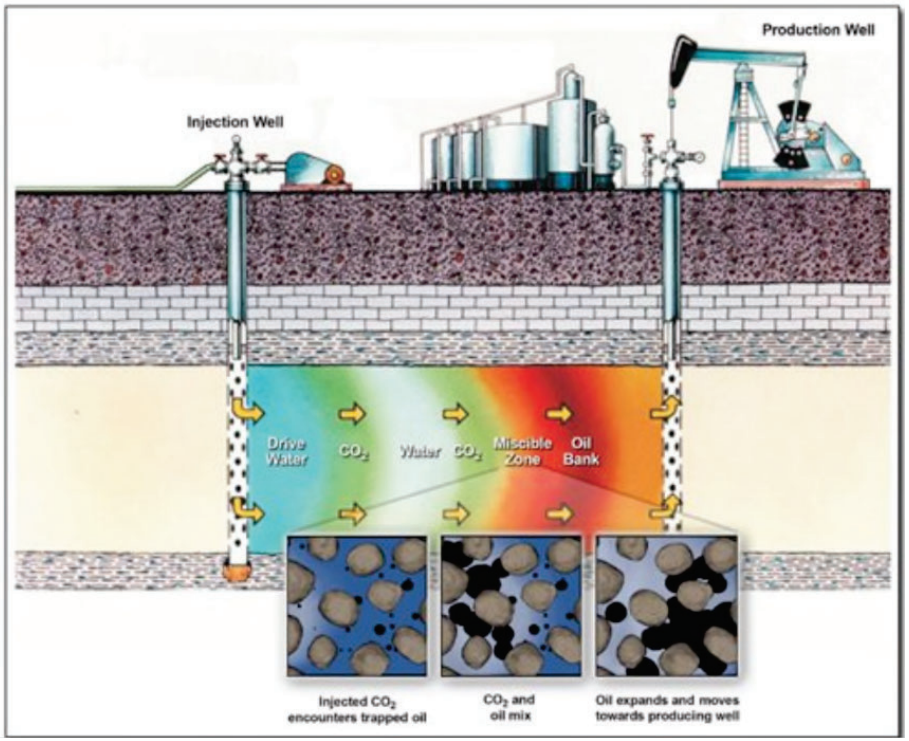
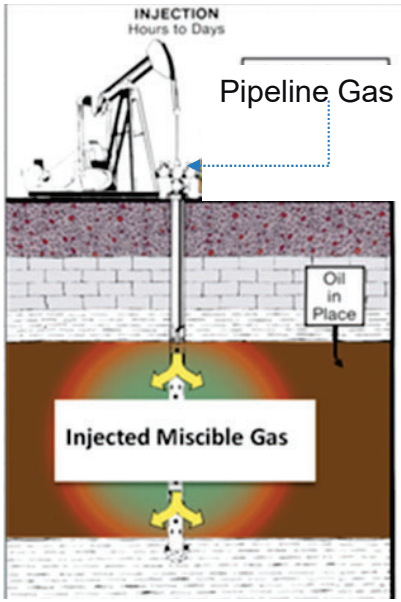
CONVENTIONAL VS. UNCONVENTIONAL EOR PROCESS

Conventional EOR
Line Drive

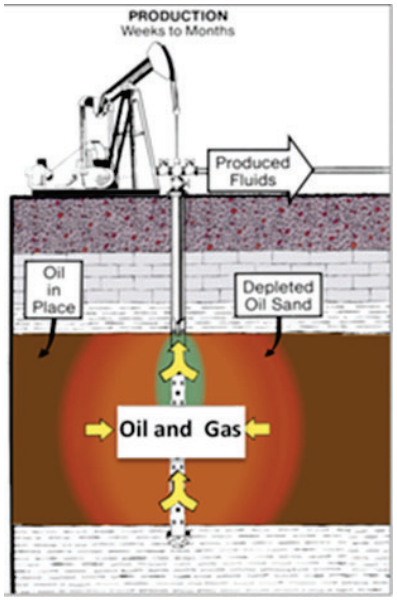


- High Permeability (milliDarcy - Darcy)
- Distinct injectors and producers in a field
- Drive miscible gas/water towards producers, some remains in reservoir
- When a field is converted to EOR, typically it remains that way until the end of well life

Unconventional EOR
Huff-n-Puff



Huff Cycle
(Injection)



Puff Cycle
(Flowback)

- Low Permeability (nanoDarcy – microDarcy)
- All wells are both injectors and producers
- Goal is to keep injected gas near wellbore, injected gas comes back through injection well and offset wells
- 6-10 total injection cycles, followed by production cycles. After injection cycles, well is back on primary production.
  - Could push this to end of well life

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-2
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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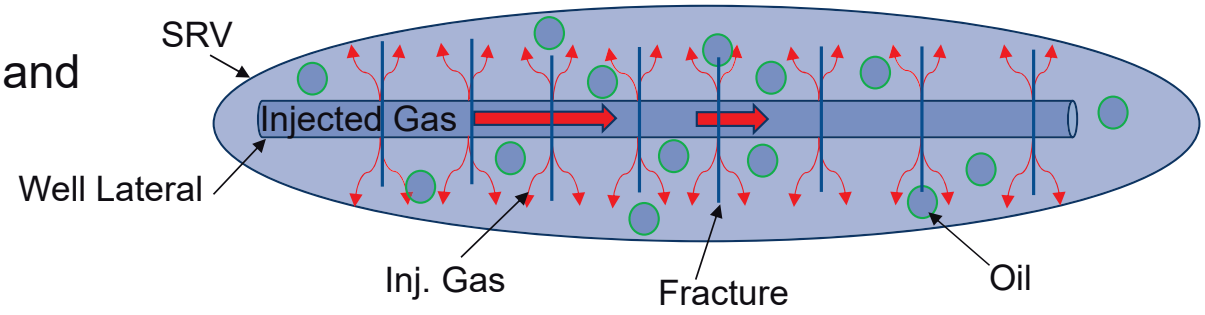
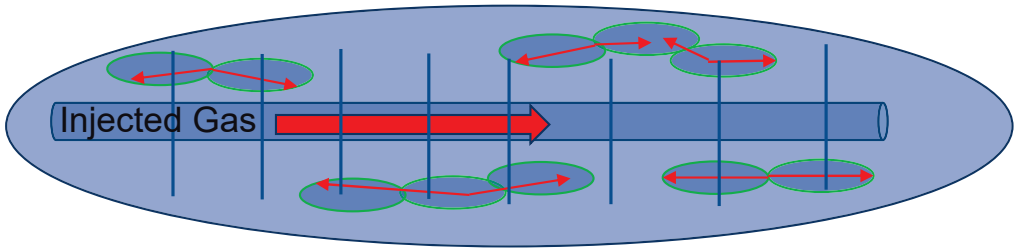
HUFF-N-PUFF MECHANISM FOR HORIZONTAL WELLS

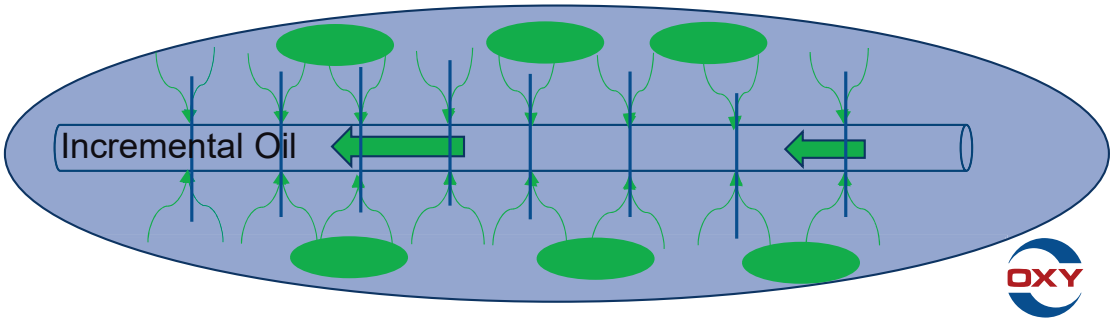
Step 1 : Injected gas enters fractures and pressurizes SRV (Stimulated Rock Volume).



Step 2 : High Pressure creates miscibility and swells oil.



Step 3 : Mobilized Oil is produced in production cycle.



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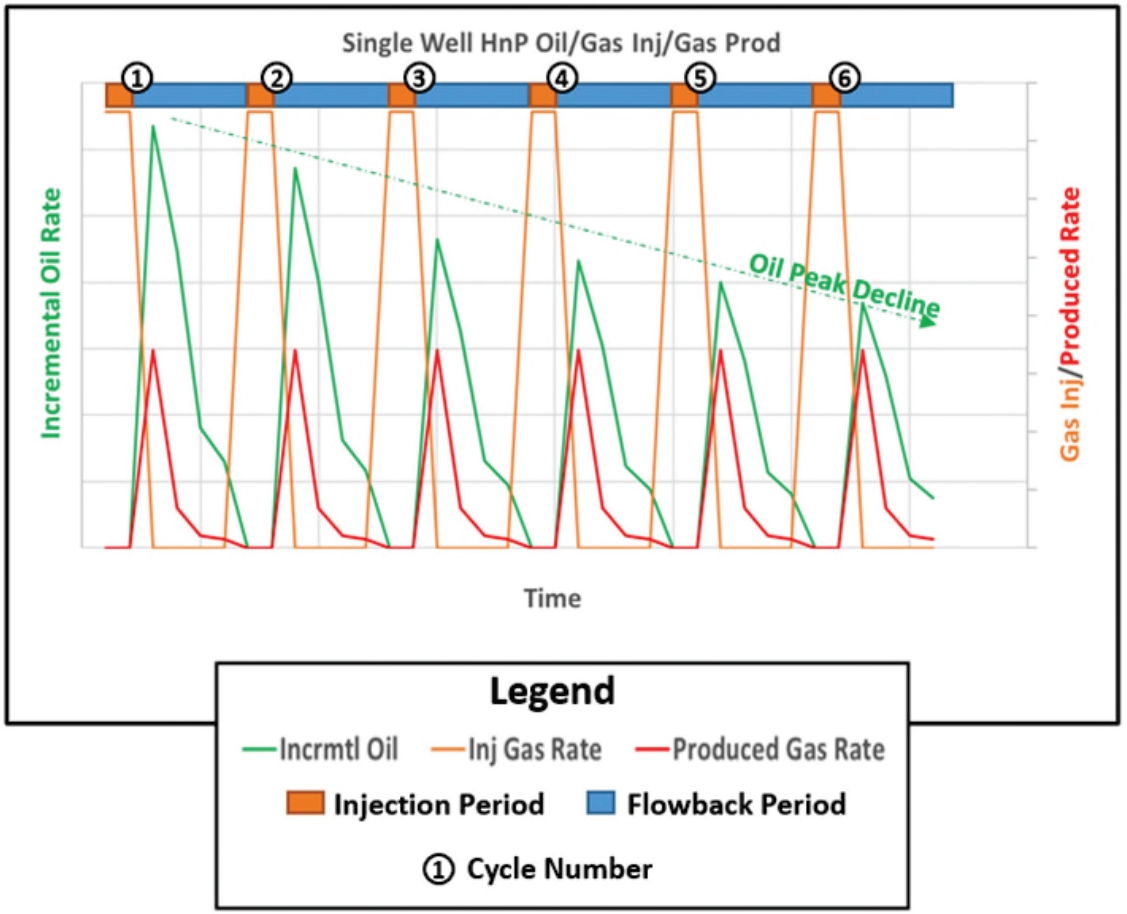
HUFF-N-PUFF CYCLING PLAN



Preliminary Plan:

- Inject Gas into well for injection period (~few weeks to multiple months).
- Short to no soak period (injection period is the soak period)
- Flowback well for period of time (~few weeks to multiple months).
- Targeting 6-10 cycles/well, but can adjust the strategy based on results.
- Simultaneous well injection
- Including water injection as an option for conformance

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-3
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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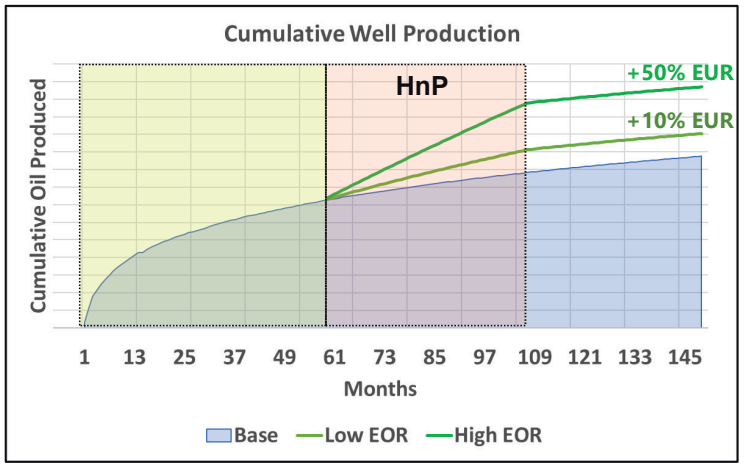
HUFF-N-PUFF UPLIFT POTENTIAL

- Primary production recovery factor is estimated to be 2-10% of OOIP(Original Oil in Place)
- Estimated Ultimate Recovery(EUR) can be improved by 10%-50+% using miscible hydrocarbon(HC) gas
- Miscible gas HnP has been demonstrated to increase production in unconventional wells in the Delaware and Midland Basins in Texas
- Miscible HC Gas injection has potential in all target benches



- Gas HnP is estimated to last 3 – 6 years of well's life
- Post-HnP well will continue to produce
- HnP not expected to impact well's remaining producing life

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-4
Submitted by: OXY USA INC.
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CALCULATION FOR SURFACE INJECTION PRESSURE LIMIT 2ND BONE SPRING EXAMPLE

For Water Injection: 2,022 psi

The calculation for surface pressure limit: 0.2 (psi/ft) * 10,112 (ft TVD to top perforation) = 2,022 psi
Based on "The permitted injection pressure is limited to 0.2 psi/ft. to the uppermost perforation" (NMOCD UIC Manual Section III.A.2)

For Produced Gas Injection: 4,980 psi

The calculation procedure is shown below:

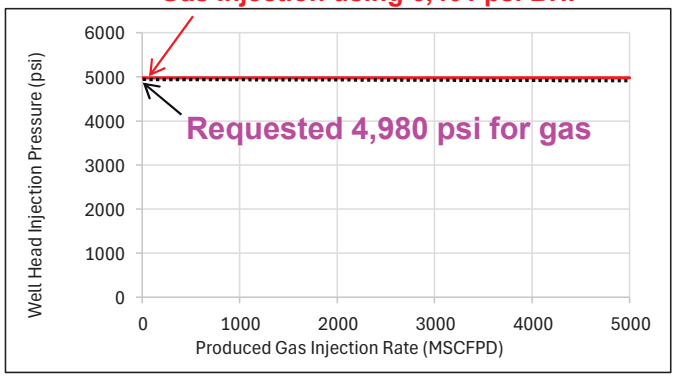
1. Based on the surface pressure limit for water and assuming fresh water gradient (0.433 psi/ft). The Bottom Hole Pressure Limit is 2,022 + 0.433 * 10,112 = 6,401 psi (or 0.633 psi/ft)

2. The composition of the proposed injection gas is shown in the following table.

Component	Mol (%)
C1	76.1
C2	10.9
C3	5.08
IC4	0.74
NC4	1.7
IC5	0.39
NC5	0.43
C6+	0.44
CO2	2.51
N2	1.71

3. A Petroleum Expert Prosper ® Model was used to calculate the surface pressure with 2.875" tubing (2.441" ID), reservoir depth, injection gas composition and the BHP limit calculated in the step 1.
* Prosper Model is industrial standard nodal analysis software for pressure calculation includes phase behavior change, friction loss.

Model Output: Surface Pressure of Gas Injection using 6,401 psi BHP



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-5
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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OXY, PERMIAN BASIN: PAST UNCONVENTIONAL INJECTION PROJECTS

- Previous Projects
  1. Delaware Basin, New Mexico, HC gas
  2. Delaware Basin, Texas, HC gas
  3. Midland Basin, Texas, CO2
- All project incremental oil uplift forecasts are consistent with a range of 10-50%

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-6
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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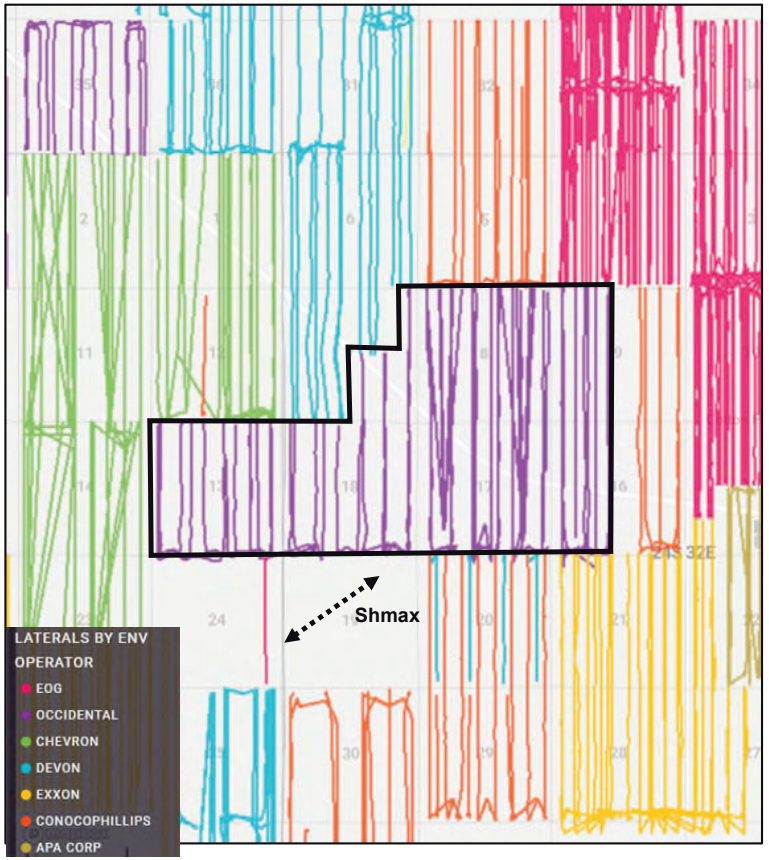
BREAKTHROUGH MITIGATION STRATEGIES

- Offset Operator Breakthrough is defined by a notable rise in gas or water rates with a drop in oil rate.
- Observed gas communication effects include added gas and sometimes oil and less gas lift needed for liquids lifting
  - No reduction in oil rate has been observed
- Management strategies involve maintaining buffer wells, adjusting gas injection, switching injectors, temporary water injection, monitoring surrounding drilling and completion operations, and reviewing gas processing agreements.



BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. E-7
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

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

APPLICATION OF OXY USA INC. FOR APPROVAL OF INJECTION AUTHORITY FOR THE MESA VERDE BONE SPRING RESOURCE DEVELOPMENT UNIT FOR ENHANCED OIL RECOVERY, EDDY AND LEA COUNTY, NEW MEXICO.

CASE NO. 25222

SELF-AFFIRMED STATEMENT OF PAULA M. VANCE

1. I am attorney in fact and authorized representative of OXY USA Inc. ("Oxy"), the Applicant herein. I have personal knowledge of the matter addressed herein and am competent to provide this self-affirmed statement.

2. The above-referenced application and notice of the hearing on this application was sent by certified mail to the locatable affected parties on the date set forth in the letter attached hereto.

3. The spreadsheet attached hereto contains the names of the parties to whom notice was provided.

4. The spreadsheet attached hereto contains the information provided by the United States Postal Service on the status of the delivery of this notice as of August 5, 2025.

5. I caused a notice to be published to all parties subject to these proceedings. An affidavit of publication from the publication's legal clerk with a copy of the notice of publication is attached herein.

6. I affirm under penalty of perjury under the laws of the State of New Mexico that the foregoing statements are true and correct. I understand that this self-affirmed statement will be used as written testimony in this case. This statement is made on the date next to my signature below.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. F
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

Paula M. Vance

08/05/2025
Date

Adam G. Rankin
Phone (505) 988-4421
Email agrankin@hollandhart.com

Holland & Hart

February 21, 2025

VIA CERTIFIED MAIL
CERTIFIED RECEIPT REQUESTED

TO: ALL AFFECTED PARTIES

Re: Application of Oxy USA Inc. for Approval of Injection Authority for the Mesa Verde Bone Spring Resource Development Unit for Enhanced Oil Recovery, Eddy and Lea Counties, New Mexico.

Ladies & Gentlemen:

This letter is to advise you that OXY USA Inc. has filed the enclosed application with the New Mexico Oil Conservation Division. A hearing has been requested before a Division Examiner on March 13, 2025, and the status of the hearing can be monitored through the Division's website at https://www.emnrd.nm.gov/ocd/.

It is anticipated that hearings will be held in a hybrid format with both in-person and virtual participation options. The meeting will be held in the Pecos Hall Hearing Room at the Wendall Chino Building, 1st Floor, 1220 South St. Francis Dr., Santa Fe, New Mexico. To participate virtually in the hearing, see the instructions posted on the OCD Hearings website: https://www.emnrd.nm.gov/ocd/hearing-info/.

You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date. Parties appearing in cases are required to file a Pre-hearing Statement four business days in advance of a scheduled hearing that complies with the provisions of NMAC 19.15.4.13.B.

If you have any questions about this matter, please contact Leslie Mullin at (713) 627-6880, or Leslie_Mullin@oxy.com.

Sincerely,

Adam G. Rankin
ATTORNEY FOR OXY USA INC.

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OXY - Mesa Verde EOR BS and WC Wells - Case nos. 25222 and 25225
Postal Delivery Report

9402811898765456363937	28TwentyEight Energy LLC	5790 Saintsbury Dr	The Colony	TX	75056-5397	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765456363975	3 Knights Operating LLC	6404 County Road 1440	Lubbock	TX	79407-1106	Your item was returned to the sender on February 27, 2025 at 11:28 am in SANTA FE, NM 87501 because it could not be delivered as addressed.
9402811898765456363616	3XT Holding LLC	5325 County Road 7560	Lubbock	TX	79424-6575	Your item has been delivered to the original sender at 12:21 pm on March 19, 2025 in SANTA FE, NM 87504.
9402811898765456363654	Abo Petroleum	PO Box 900	Artesia	NM	88211-0900	Your item has been delivered and is available at a PO Box at 7:57 am on February 26, 2025 in ARTESIA, NM 88210.
9402811898765456363623	Bettis Brothers Inc.	500 W Texas Ave Ste 830	Midland	TX	79701-4276	Your item was delivered to an individual at the address at 2:39 pm on February 25, 2025 in MIDLAND, TX 79701.
9402811898765456363692	Bulington Resources Oil & Gas Company LP	600 W Illinois Ave	Midland	TX	79701-4882	Your item was picked up at a postal facility at 7:53 am on February 26, 2025 in MIDLAND, TX 79701.
9402811898765456363630	Bureau of Land Mangment- Carlsbad Field Office	620 E Greene St	Carlsbad	NM	88220-6292	Your item was delivered to the front desk, reception area, or mail room at 11:21 am on February 26, 2025 in CARLSBAD, NM 88220.
9402811898765456363111	Burlington Resources Oil & Gas CO	PO Box 51810	Midland	TX	79710-1810	This is a reminder to pick up your item before March 11, 2025 or your item will be returned on March 12, 2025. Please pick up the item at the MIDLAND, TX 79710 Post Office.
9402811898765456363128	Burlington Resources Oil & Gas Company LP	600 W Illinois Ave	Midland	TX	79701-4882	Your item was picked up at a postal facility at 7:53 am on February 26, 2025 in MIDLAND, TX 79701.

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OXY - Mesa Verde EOR BS and WC Wells - Case nos. 25222 and 25225
Postal Delivery Report

9402811898765456363142	Burlington Resources Oil & Gas Company LP	PO Box 51810	Midland	TX	79710-1810	This is a reminder to pick up your item before March 11, 2025 or your item will be returned on March 12, 2025. Please pick up the item at the MIDLAND, TX 79710 Post Office.
9402811898765456363173	Chevron U S A Inc.	6301 Deauville Attn Land Dept	Midland	TX	79706-2964	Your item was delivered to an individual at the address at 12:12 pm on February 25, 2025 in MIDLAND, TX 79706.
9402811898765456363357	Chevron USA Inc.	1400 Smith St	Houston	TX	77002-7311	Your item has been delivered to an agent. The item was picked up at USPS at 1:51 pm on February 24, 2025 in HOUSTON, TX 77002.
9402811898765456363302	COG Operating LLC	600 W Illinois Ave	Midland	TX	79701-4882	Your item was picked up at a postal facility at 7:54 am on February 26, 2025 in MIDLAND, TX 79701.
9402811898765456363340	COG Production, LLC	600 W Illinois Ave	Midland	TX	79701-4882	Your item was picked up at a postal facility at 7:53 am on February 26, 2025 in MIDLAND, TX 79701.
9402811898765456363371	Devon Energy Production Company, LP	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item was picked up at a postal facility at 7:21 am on February 24, 2025 in OKLAHOMA CITY, OK 73102.
9402811898765456363029	Devon SFS Operating Inc	20 N Broadway Ste 1500	Oklahoma City	OK	73102-9213	Your item has been delivered to the original sender at 11:39 am on March 4, 2025 in SANTA FE, NM 87501.
9402811898765456363098	EOG Resources	1111 Bagby St Lbby 2	Houston	TX	77002-2589	Your item has been delivered to an agent. The item was picked up at USPS at 1:54 pm on February 24, 2025 in HOUSTON, TX 77002.
9402811898765456363081	EOG Resources Inc.	5509 Champions Dr	Midland	TX	79706-2843	Your item has been delivered to an agent. The item was picked up at USPS at 8:23 am on February 26, 2025 in MIDLAND, TX 79706.
9402811898765456363074	EOG Y Resources Inc.	104 S 4th St	Artesia	NM	88210-2123	Your item has been delivered to the original sender at 2:21 pm on March 27, 2025 in SANTA FE, NM 87501.

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OXY - Mesa Verde EOR BS and WC Wells - Case nos. 25222 and 25225
Postal Delivery Report

9402811898765456363456	EP Energy E&P Company LP	6333 N State Highway 161 Ste 500	Irving	TX	75038-2282	Your item was delivered to the front desk, reception area, or mail room at 10:15 am on February 24, 2025 in IRVING, TX 75038.
9402811898765456363463	Harvard Petroleum Company, LLC	PO Box 936	Roswell	NM	88202-0936	Your item was picked up at the post office at 10:36 am on February 26, 2025 in ROSWELL, NM 88201.
9402811898765456363449	Hilcorp Energy	1000 Louisiana St Ste 3760	Houston	TX	77002-5008	Your item is being processed at our USPS facility in HOUSTON, TX 77002 on March 5, 2025 at 9:26 am.
9402811898765456363432	Javelina Partners	616 Texas St	Fort Worth	TX	76102-4612	Your item was delivered to the front desk, reception area, or mail room at 1:28 pm on February 25, 2025 in FORT WORTH, TX 76102.
9402811898765456363555	LMS Limited Liability Company	PO Box 621402	Littleton	CO	80162-1402	We were unable to deliver your package at 9:58 am on February 24, 2025 in SANTA FE, NM 87501 because the business was closed. We will redeliver on the next business day. No action needed.
9402811898765456363524	McLeod Holdings LLLP	600 N Grant St Ste 850	Denver	CO	80203-3527	Your item was delivered to an individual at the address at 9:37 am on February 22, 2025 in DENVER, CO 80203.
9402811898765456363593	Merit Energy Partners	13727 Noel Rd Ste 500	Dallas	TX	75240-7312	Your item was delivered to an individual at the address at 10:57 am on February 25, 2025 in DALLAS, TX 75240.
9402811898765456363586	Merit Energy Partners II, LP	13727 Noel Rd Ste 500	Dallas	TX	75240-7312	Your item was delivered to the front desk, reception area, or mail room at 10:27 am on February 25, 2025 in DALLAS, TX 75254.
9402811898765456363579	Merit Energy Partners III, LP	13727 Noel Rd Ste 500	Dallas	TX	75240-7312	Your item was delivered to an individual at the address at 10:57 am on February 25, 2025 in DALLAS, TX 75240.
9402811898765456364255	Merit Energy Partners IV, LP	13727 Noel Rd Ste 500	Dallas	TX	75240-7312	Your item was delivered to an individual at the address at 10:57 am on February 25, 2025 in DALLAS, TX 75240.

Released to Imaging: 8/6/2025 8:57:35 AM
Received by OCD: 8/5/2025 3:54:16 PM

OXY - Mesa Verde EOR BS and WC Wells - Case nos. 25222 and 25225
Postal Delivery Report

9402811898765456364224	Mersereau Enterprises LLC	132 Castillo Ave	San Antonio	TX	78210-2810	Your item is being processed at our USPS facility in SANTA FE, NM 87501 on March 8, 2025 at 5:00 am.
9402811898765456364293	Mesquite SWD, Inc	PO Box 1479	Carlsbad	NM	88221-1479	Your item was picked up at the post office at 1:20 pm on February 27, 2025 in CARLSBAD, NM 88220.
9402811898765456364286	NGL Water Solutions Permian, LLC	865 Albion St Ste 500	Denver	CO	80220-4809	This is a reminder to arrange for redelivery of your item or your item will be returned to sender.
9402811898765456364859	Oxy Y-1 Company	5 Greenway Plz Ste 110	Houston	TX	77046-0521	Your item has been delivered to an agent at the front desk, reception, or mail room at 12:07 pm on February 24, 2025 in HOUSTON, TX 77046.
9402811898765456364828	Panada Pipe & Equipment	PO Box 3721	Midland	TX	79702-3721	Your item was picked up at the post office at 1:33 pm on March 7, 2025 in MIDLAND, TX 79701.
9402811898765456364897	PXP Producing Company LLC	717 Texas St Ste 2100	Houston	TX	77002-2753	Your item was picked up at a postal facility at 10:02 pm on March 10, 2025 in SANTA FE, NM 87501.
9402811898765456364835	Sabine Oil & Gas Corporation	1415 Louisiana St Ste 1600	Houston	TX	77002-7490	Your item was delivered to an individual at the address at 2:35 pm on February 24, 2025 in HOUSTON, TX 77002.
9402811898765456364712	SMC Oil & Gas Inc.	PO Box 50907	Midland	TX	79710-0907	Your item has been delivered and is available at a PO Box at 6:57 am on February 25, 2025 in MIDLAND, TX 79705.
9402811898765456364767	New Mexico State Land Office	PO Box 1148	Santa Fe	NM	87504-1148	Your item was picked up at a postal facility at 7:44 am on February 25, 2025 in SANTA FE, NM 87501.
9402811898765456364705	T E F Corporation	PO Box 3721	Midland	TX	79702-3721	Your item was picked up at the post office at 1:33 pm on March 7, 2025 in MIDLAND, TX 79701.
9402811898765456364743	Tap Rock Operating, LLC	523 Park Point Dr Ste 200	Golden	CO	80401-9387	Your item was delivered to an individual at the address at 11:03 am on February 24, 2025 in GOLDEN, CO 80401.

Released to Imaging: 8/6/2025 8:57:35 AM
Received by OCD: 8/5/2025 3:54:16 PM

OXY - Mesa Verde EOR BS and WC Wells - Case nos. 25222 and 25225
Postal Delivery Report

9402811898765456364736	Tempo Energy Inc.	PO Box 1034	Midland	TX	79702-1034	This is a reminder to pick up your item before March 20, 2025 or your item will be returned on March 21, 2025. Please pick up the item at the MIDLAND, TX 79702 Post Office.
9402811898765456364910	Thomas E. Jennings	PO Box 1797	Roswell	NM	88202-1797	Your item was picked up at the post office at 10:30 am on February 26, 2025 in ROSWELL, NM 88201.
9402811898765456364965	Timothy Z. Jennings	PO Box 1797	Roswell	NM	88202-1797	Your item was picked up at the post office at 10:30 am on February 26, 2025 in ROSWELL, NM 88201.
9402811898765456364903	Vladin LLC	PO Box 100	Artesia	NM	88211-0100	Your item has been delivered and is available at a PO Box at 7:57 am on February 26, 2025 in ARTESIA, NM 88210.
9402811898765456364941	XTO Energy, Inc.	6401 Holiday Hill Rd Bldg 5	Midland	TX	79707-2157	Your item was delivered to the front desk, reception area, or mail room at 10:20 am on February 25, 2025 in MIDLAND, TX 79707.
9402811898765456364613	XTO Holdings LLC	22777 Springwoods Village Pkwy	Spring	TX	77389-1425	Your item was delivered to an individual at the address at 11:26 am on February 24, 2025 in SPRING, TX 77389.

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
February 26, 2025
and ending with the issue dated
February 26, 2025.

Publisher

Sworn and subscribed to before me this 26th day of February 2025.

Business Manager

My commission expires
January 29, 2027

(Seal) STATE OF NEW MEXICO
NOTARY PUBLIC
GUSSIE RUTH BLACK
COMMISSION # 1087526
COMMISSION EXPIRES 01/29/2027

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said publication has been made.

LEGAL LEGAL LEGAL LEGAL

LEGAL NOTICE
February 26, 2025

Case No. 25222: Application of Oxy USA Inc. for Approval of Injection Authority for the Mesa Verde Bone Spring Resource Development Unit for Enhanced Oil Recovery, Eddy and Lea Counties, New Mexico. Notice to all affected interest owners, including all heirs, devisees and successors of 28TwentyEight Energy LLC; 3 Knights Operating LLC; 3XT Holding LLC; Abo Petroleum; Bettis Brothers Inc.; Bulington Resources Oil & Gas Company LP; Bureau of Land Management - Carlsbad Field Office; Burlington Resources Oil & Gas CO; Burlington Resources Oil & Gas Company LP; Burlington Resources Oil & Gas Company LP; Chevron USA Inc.; COG Operating LLC; COG Production, LLC; Devon Energy Production Company, LP; Devon SFS Operating Inc.; EOG Resources; EOG Resources Inc.; EOG Y Resources Inc.; EP Energy E&P Company LP; Harvard Petroleum Company, LLC; Hilcorp Energy; Javelina Partners; LMS Limited Liability Company; McLeod Holdings LLLP; Merit Energy Partners; Merit Energy Partners II, LP; Merit Energy Partners III LP; Merit Energy Partners IV, LP; Mersereau Enterprises LLC; Mesquite SWD, Inc.; NGL Water Solutions Permian, LLC; Oxy Y-1 Company; Panada Pipe & Equipment; PXP Producing Company LLC; Sabine Oil & Gas Corporation; SMC Oil & Gas Inc.; New Mexico State Land Office; T E P Corporation; Tap Rock Operating, LLC; Tempo Energy Inc.; Thomas E. Jennings; Timothy Z Jennings; Vladin LLC; XTO Energy, Inc.; XTO Holdings LLC. The State of New Mexico, Energy Minerals and Natural Resources Department, Oil Conservation Division ("Division") hereby gives notice that the Division will hold public hearing 8:30 a.m. on March 13, 2025, to consider this application. The hearing will be conducted in a hybrid fashion, both in-person at the Energy, Minerals, Natural Resources Department Wendell Chino Building, Pecos Hall, 1220 South St. Francis Drive, 1st Floor, Santa Fe, NM 87505 and via the WebEx virtual meeting platform. To participate in the hearings electronically, see the instructions posted on the docket for the hearing date: https://www.emnrd.nm.gov/ocd/hearing-info/ or contact Freya Tschantz at Freya.Tschantz@emnrd.nm.gov. Applicant seeks an order authorizing the injection of water, produced gas and carbon dioxide for purposes of enhanced oil recovery ("EOR") within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. The Project Area is comprised of the following federal and state lands in Eddy and Lea County, New Mexico:

TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
Section 13: ALL

TOWNSHIP 24 SOUTH, RANGE 32 EAST, N.M.P.M.
Section 7: SE/4, E/2 of NE/4
Section 8: ALL
Section 9: W/2
Section 16: W/2
Section 17: ALL
Section 18: ALL

The unitized interval consists of the Bone Spring formation as identified by the Gamma Ray log run in the Heavy Metal 14 Federal 1 well (API: 30-015-29603) located in the NE/4 of SE/4 of Section 14, Township 24 South, Range 31 East, Eddy County, New Mexico, with the top of the unitized interval being found at a depth of 8,445 feet below the surface and the base of the unitized interval being found at a depth of 11,830 feet below the surface.

The Unit has twenty-nine (29) active horizontal wells completed in the Bone Spring formation. Oxy seeks to convert fifteen (15) of these producing horizontal wells into injection wells to implement a "huff and puff" enhanced oil recovery project. Oxy requests authorization for injection to occur within two (2) years of approval. Oxy seeks approval to inject produced gas, water, and carbon dioxide within the Unitized Interval at up to the following maximum surface injection pressures in the respective Bone Spring zones of the Avalon, First Bone Spring Sand ("1BSS"), Second Bone Spring Sand ("2BSS"), Third Bone Spring Sand ("3BSS"), and Third Bone Spring Lime ("3BSL"):

	Maximum Surface Injection Pressure (psi)		
Zone	Hydrocarbon Gas	Water	CO2
Avalon	4,510	1,813	2,490
1BSS	4,810	1,949	2,630
2BSS	4,980	2,022	2,700
3BSS & 3BSL	5,700	2,361	3,080

Oxy seeks authority to inject at the following maximum and average rates:

Injectant	Maximum Rate	Average Rate
Hydrocarbon Gas	50 MMSCFPD	22 MMSCFPD
Water	10,000 bwpd	5,000 bwpd
CO2	50 MMSCFPD	22 MMSCFPD

The Mesa Verde Bone Spring Resource Development Unit is approximately 5 miles west of Jal, New Mexico.
#00298570

67100754

00298570

HOLLAND & HART LLC
110 N GUADALUPE ST., STE. 1
SANTA FE, NM 87501

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. G
Submitted by: OXY USA INC.
Hearing Date: August 12, 2025
Case No. 25222

AFFIDAVIT OF PUBLICATION

CARLSBAD CURRENT-ARGUS
PO BOX 507
HUTCHINSON, KS 67504-0507

STATE OF NEW MEXICO } SS
COUNTY OF EDDY }

Account Number:	1232
Ad Number:	36350
Description:	Mesa Verde EOR BS 25222
Ad Cost:	$251.31

Sherry Groves, being first duly sworn, says:

That she is the Agent of the the Carlsbad Current-Argus, a Weekly newspaper of general circulation, printed and published in Carlsbad, Eddy County, New Mexico; that the publication, a copy of which is attached hereto, was published in said newspaper on the following dates:

February 27, 2025

That said newspaper was regularly issued and circulated on those dates.
SIGNED:

Sherry Groves

Agent

Subscribed to and sworn to me this 5th day of August 2025.

Leanne Kaufenberg

Leanne Kaufenberg, Notary Public, Redwood County Minnesota

KARI REESE
HOLLAND & HART LLP
420 L STREET, SUITE 550
ANCHORAGE, AK 99501
klreese@hollandhart.com

LEANNE JOY KAUFENBERG
Notary Public
State of Minnesota
My Commission Expires
January 31, 2030

PUBLIC NOTICE

Case No. 25222: Application of Oxy USA Inc. for Approval of Injection Authority for the Mesa Verde Bone Spring Resource Development Unit for Enhanced Oil Recovery, Eddy and Lea Counties, New Mexico. Notice to all affected interest owners, including all heirs, devisees and successors of: 28TwentyEight Energy LLC; 3 Knights Operating LLC; 3XT Holding LLC; Abo Petroleum; Bettis Brothers Inc.; Bulington Resources Oil & Gas Company LP; Bureau of Land Management - Carlsbad Field Office; Burlington Resources Oil & Gas CO; Burlington Resources Oil & Gas Company LP; Burlington Resources Oil & Gas Company LP; Chevron USA Inc.; COG Operating LLC; COG Production, LLC; Devon Energy Production Company, LP; Devon SFS Operating Inc.; EOG Resources; EOG Resources Inc.; EOG Y Resources Inc.; EP Energy E&P Company LP; Harvard Petroleum Company, LLC; Hilcorp Energy; Javelina Partners; LMS Limited Liability Company; McLeod Holdings LLLP; Merit Energy Partners; Merit Energy Partners II, LP; Merit Energy Partners III, LP; Merit Energy Partners IV, LP; Mersereau Enterprises LLC; Mesquite SWD, Inc.; NGL Water Solutions Permian, LLC; Oxy Y-1 Company; Panada Pipe & Equipment; PXP Producing Company LLC; Sabine Oil & Gas Corporation; SMC Oil & Gas Inc.; New Mexico State Land Office; T E F Corporation; Tap Rock Operating, LLC; Tempo Energy Inc.; Thomas E. Jennings; Timothy Z. Jennings; Vladin LLC; XTO Energy, Inc.; XTO Holdings LLC. The State of New Mexico, Energy Minerals and Natural Resources Department, Oil Conservation Division ("Division") hereby gives notice that the Division will hold public hearing 8:30 a.m. on March 13, 2025, to consider this application. The hearing will be conducted in a hybrid fashion, both in-person at the Energy, Minerals, Natural Resources Department, Wendell Chino Building, Pecos Hall, 1220 South St. Francis Drive, 1st Floor, Santa Fe, NM 87505 and via the WebEx virtual meeting platform. To participate in the hearings electronically, see the instructions posted on the docket for the hearing date: https://www.emnrd.nm.gov/ocd/hearing-info/ or contact Freya Tschantz, at Freya.Tschantz@emnrd.nm.gov. Applicant seeks an order authorizing the injection of water, produced gas and carbon dioxide for purposes of enhanced oil recovery ("EOR") within the Unitized Interval of the Mesa Verde Bone Spring Resource Development Unit area. The Project Area is comprised of the following federal and state lands in Eddy and Lea County, New Mexico:

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The Mesa Verde Bone Spring Resource Development Unit is approximately 5 miles west of Jal, New Mexico.

Published in the Carlsbad Current-Argus February 27, 2025.
#36350