

**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 WOLFCAMP
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, produced gas, and carbon dioxide for purposes of enhanced oil recovery (“EOR”) within the Unitized Interval of the Mesa Verde Wolfcamp Resource Development Unit area. In support of this application, Oxy states:

1. The proposed Project Area is the same as the Mesa Verde Wolfcamp 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 Wolfcamp Unit (“Unit”) is a Resource Development Unit.

3. Oxy is the designated operator under the Resource Development Unit Agreement.
4. The Unitized Interval for the Unit includes the Wolfcamp formation as identified by the Gamma Ray log run in the Jack Tank 8 Federal 2 well (API: 30-025-32192) located in the SW/4 of NE/4 of Section 8, Township 24 South, Range 32 East, Lea County, New Mexico, with the top of the unitized interval being found at a depth of 11,882 feet below the surface and the base of the unitized interval being found at a depth of 13,400 feet below the surface.
5. The Unit has twenty-one (21) active horizontal wells completed in the Wolfcamp 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 intends to periodically inject water, produced gas and carbon dioxide into the Wolfcamp 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 request authority to inject produced gas, water, and carbon dioxide within the Unitized Interval up to the following maximum surface injection pressures in the respective Wolfcamp zones of the Wolfcamp XYA (“WCXYA”) and Wolfcamp B/C (“WCB/C”):

	Maximum Surface Injection Pressure (psi)		
Zone	Hydrocarbon Gas	Water	CO2
WCXYA	5,700	2,361	3,080
WCB/C	6,190	2,570	3,340

8. 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

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. Oxy requests authorization for injection to occur within two (2) years 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:  _____

Michael H. Feldewert
Adam G. Rankin
Paula M. Vance
Post Office Box 2208
Santa Fe, NM 87504
505-988-4421
mfeldewert@hollandhart.com
agrarkin@hollandhart.com
pmvance@hollandhart.com

ATTORNEYS FOR OXY USA INC.

CASE NO. ____: **Application of Oxy USA Inc. for Approval of Injection Authority for the Mesa Verde Wolfcamp Resource Development Unit for Enhanced Oil Recovery, Eddy and Lea Counties, New Mexico.** 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 Wolfcamp 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 Wolfcamp formation as identified by the Gamma Ray log run in the Jack Tank 8 Federal 2 well (API: 30-025-32192) located in the SW/4 of NE/4 of Section 8, Township 24 South, Range 32 East, Lea County, New Mexico, with the top of the unitized interval being found at a depth of 11,882 feet below the surface and the base of the unitized interval being found at a depth of 13,400 feet below the surface. The Unit has twenty-one (21) active horizontal wells completed in the Wolfcamp 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 requests authority to inject produced gas, water, and carbon dioxide within the Unitized Interval up to the following maximum surface injection pressures in the respective Wolfcamp zones of the Wolfcamp XYA (“WCXYA”) and Wolfcamp B/C (“WCB/C”):

Zone	Maximum Surface Injection Pressure (psi)		
	Hydrocarbon Gas	Water	CO2
WCXYA	5,700	2,361	3,080
WCB/C	6,190	2,570	3,340

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 Wolfcamp Resource Development Unit is approximately 5 miles west of Jal, New Mexico.

EXHIBIT A

February 2025

OXY REGULATORY



MESA VERDE WOLFCAMP 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: 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 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).

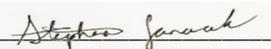
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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 Wolfcamp 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, water, and CO2 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. 15 injection wells in various zones in the Wolfcamp Pool.
 - Add additional injection wells administratively
 3. Approval to use hydrocarbon gas, water, and CO2 as injectant.
 4. Maximum Allowable Surface Pressure (“MASP”) for each zone and each injectant as seen in table below:

	Max Allowable Surface Pressure [PSI]		
Zone	Hydrocarbon Gas	Water	CO2
WCXYA	5,700	2,361	3,080
WCB/C	6,190	2,570	3,340



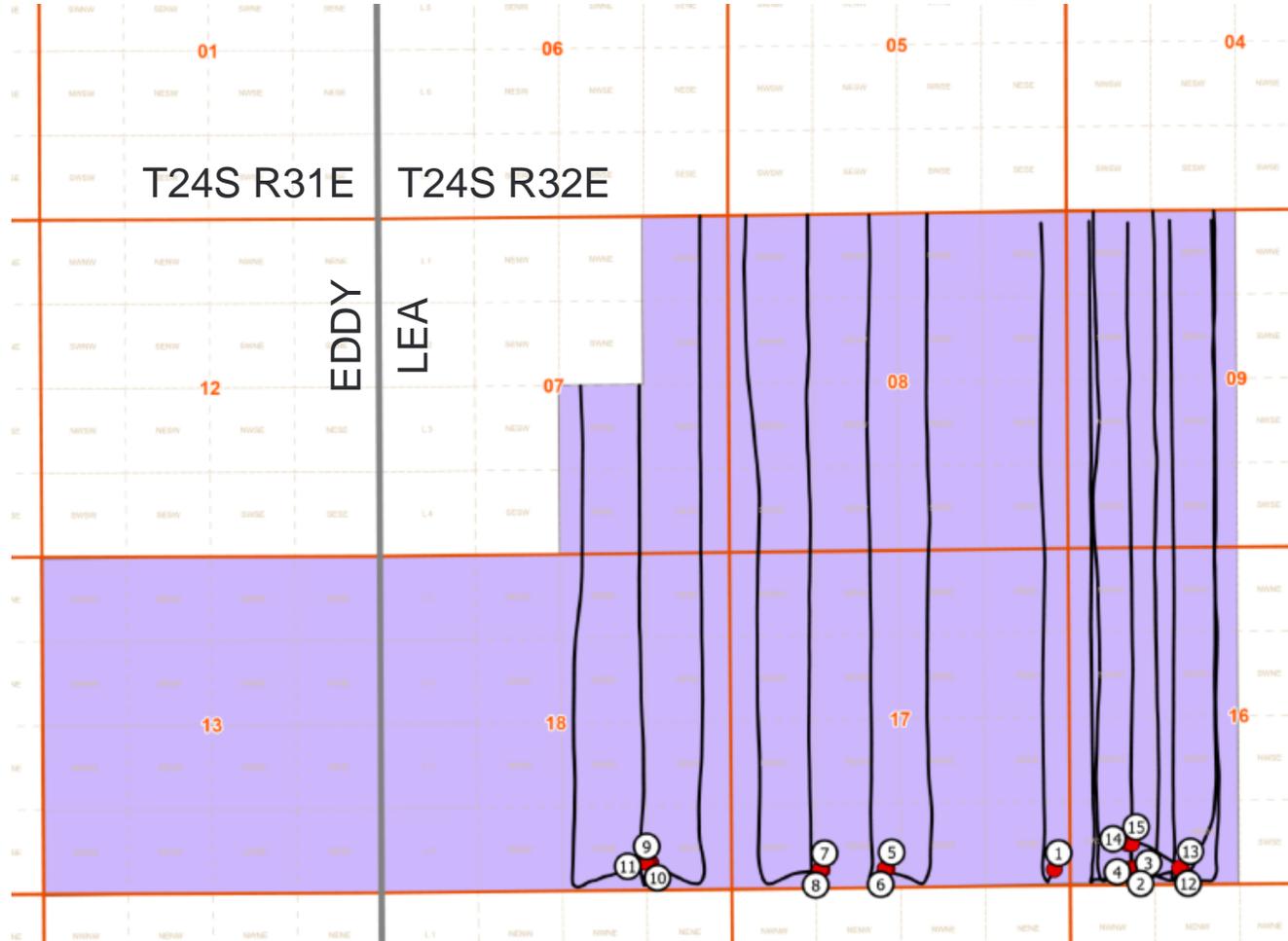
WELL LIST

AOR WELL ID	API	WELL_NAME	ZONE
1	3002544195	MESA VERDE WC UNIT 1H ST1	WCXYA
2	3002546110	MESA VERDE WC UNIT 2H	WCXYA
3	3002546111	MESA VERDE WC UNIT 3H	WCXYA
4	3002546112	MESA VERDE WC UNIT 4H	WCXYA
5	3002545862	MESA VERDE WC UNIT 5H	WCXYA
6	3002545863	MESA VERDE WC UNIT 6H	WCXYA
7	3002545920	MESA VERDE WC UNIT 7H	WCXYA
8	3002545921	MESA VERDE WC UNIT 8H	WCXYA
9	3002545871	MESA VERDE WC UNIT 9H	WCXYA
10	3002545872	MESA VERDE WC UNIT 10H	WCXYA
11	3002545873	MESA VERDE WC UNIT 11H	WCXYA
★ 12	3002548824	MESA VERDE WC UNIT 39H	WCB/C
★ 13	3002548825	MESA VERDE WC UNIT 40H	WCB/C
★ 14	3002548817	MESA VERDE WC UNIT 54H	WCB/C
★ 15	3002548863	MESA VERDE WC UNIT 55H	WCB/C

- Initially, not all unit wells are being permitted for injection. As of January 2025, there are 21 unit wells.
- The remaining unit wells will be added to the injection permit later.

★ Spud late 2024. Pending completion report filing.

PROJECT MAP



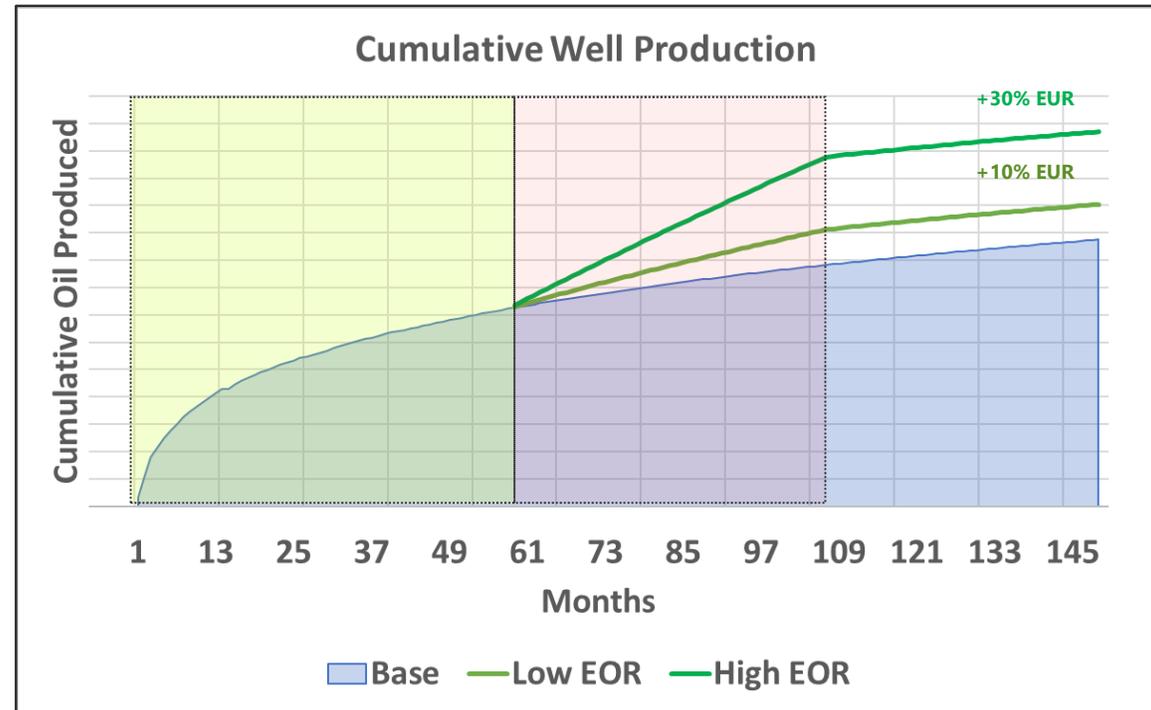
Key

- Mesa Verde Wolfcamp 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 **HOBBS OCD**
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

NOV 19 2018
RECEIVED

AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44195	Pool Code 98252	Pool Name Mesa Verde Wolfcamp
Property Code 320829	Property Name MESA VERDE WC UNIT	Well Number 1H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3559.2'

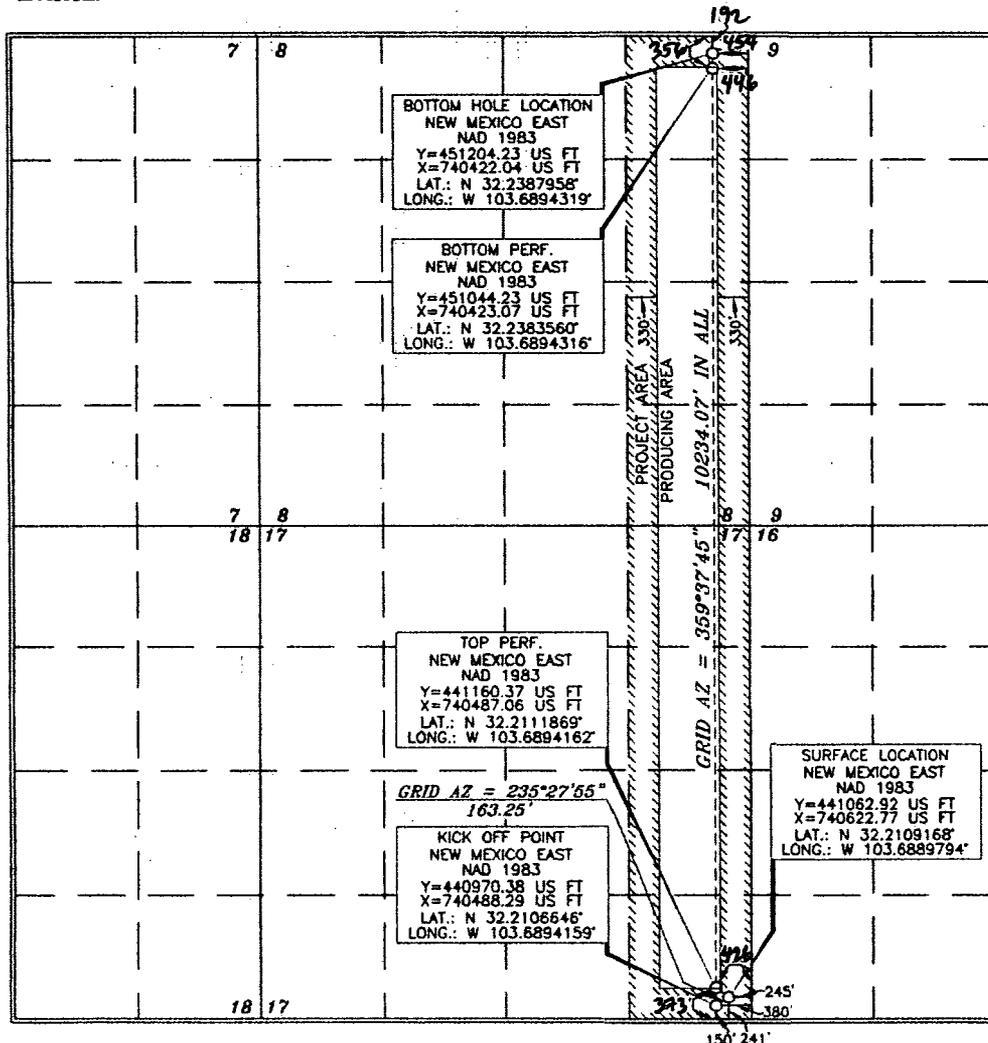
Surface Location

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.		241'	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.		192 192	NORTH	245 245	EAST	LEA
Dedicated Acres 320	Joint or Infill Y	Consolidation Code	Order No.	LTP - 356 FNL 446 FEL FTP - 373 FSL 426 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: *Jana Mendiola* Date: **8/16/18**
Printed Name: **Jana Mendiola**
E-mail Address: **jana@mendiola-oxy.com**

SURVEYOR CERTIFICATION

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

Date of Survey: **SEPTEMBER 26, 2016**
Signature and Seal of Professional Surveyor: *Terry J. ASE*
Certificate Number: **15079**

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 30-025-46110	Pool Code 98252	Pool Name MESA VERDE; WOLFCAMP	<i>KZ</i>
Property Code 320829	Property Name MESA VERDE WC UNIT		Well Number 2H
OGRID No. 16696	Operator Name OXY USA INC.		Elevation 3567.9'

Surface Location

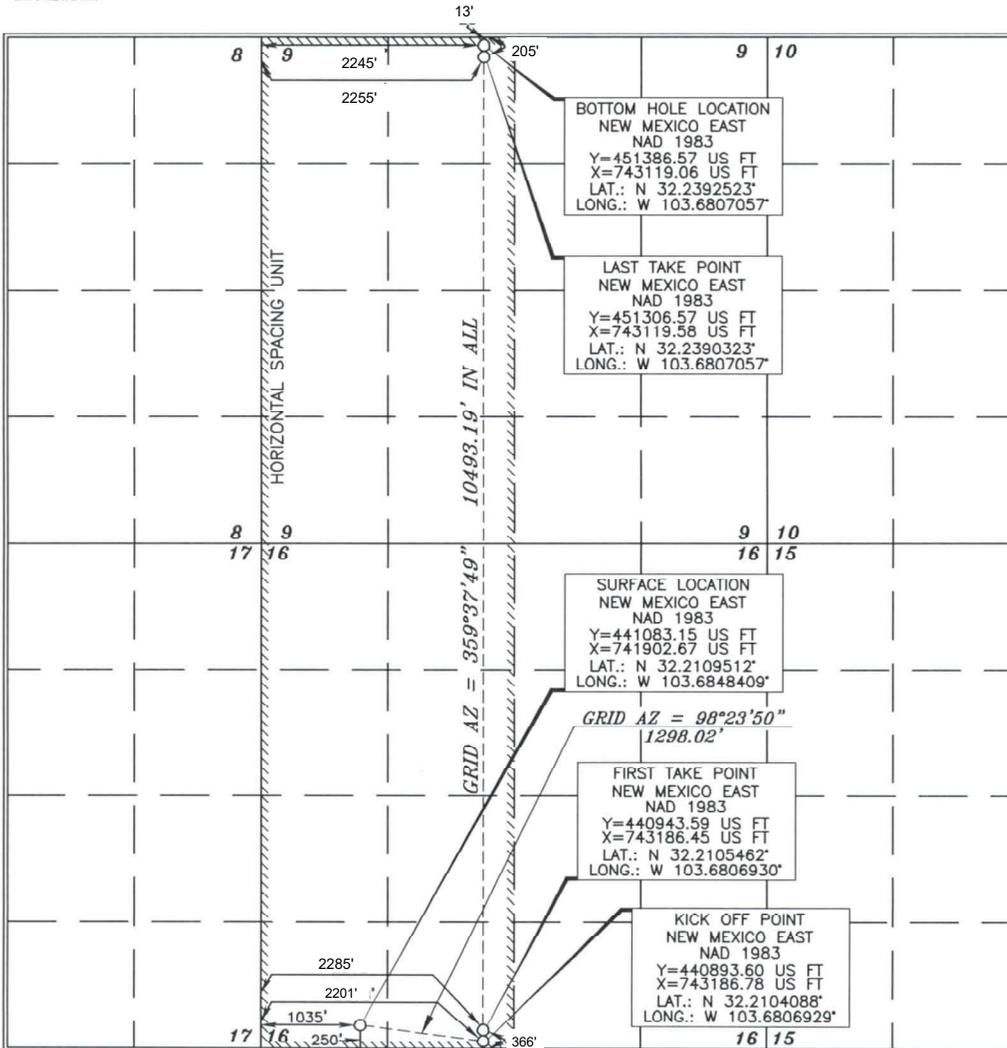
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	1035'	WEST	LEA

Bottom Hole Location If Different From Surface

SL

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	9	24 SOUTH	32 EAST, N.M.P.M.		13'	NORTH	2245'	WEST	LEA
Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.						

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.

Jana Mendiola 8/25/2020
Signature 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. Aspin
Date of Survey
Signature and Seal of
Professional Land Surveyor

Terry J. Aspin 11/15/2019
Certificate Number 15079

WO# 171116WL-c (Rev. A) (KA)

District I
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1220 South St. Francis Dr.
Santa Fe, NM 87505

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Revised August 1, 2011
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AMENDED REPORT
(AS-DRILLED)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-46112	Pool Code 98252	Pool Name MESA VERDE; WOLFCAMP	<i>Kz</i>
Property Code 320829	Property Name MESA VERDE WC UNIT		Well Number 4H
OGRID No. 16696	Operator Name OXY USA INC.		Elevation 3569.2'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 SOUTH	32 EAST, N.M.P.M.		250'	SOUTH	965'	WEST	LEA

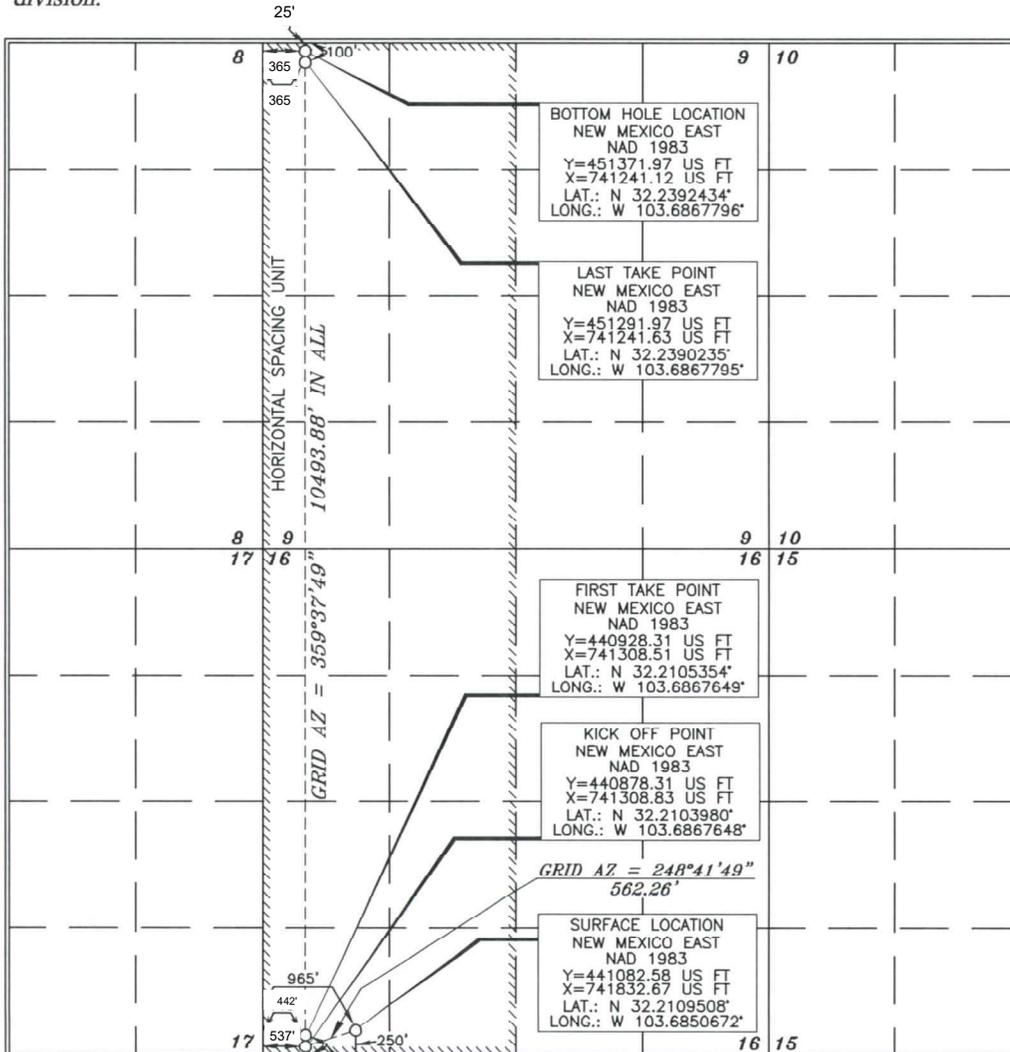
Bottom Hole Location If Different From Surface

SL

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	9	24 SOUTH	32 EAST, N.M.P.M.		25'	NORTH	365'	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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] 8/25/2020
Signature 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.

[Signature]
NOVEMBER 16, 2017
Date of Survey
Signature and Seal of Professional Surveyor

[Signature] 11/19/2019
Certificate Number 15079

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 399-0720
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811 S. First St., Aramis, NM 88210
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Phone: (505) 476-3462 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

HOBBS OCD
SEP 18th 2019
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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 30-025-45863	Pool Code 99252	Pool Name MESA VERDE WOLF CAMP
Property Code 320829	Property Name MESA VERDE WC UNIT	Well Number 6H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3560.2'

Surface Location

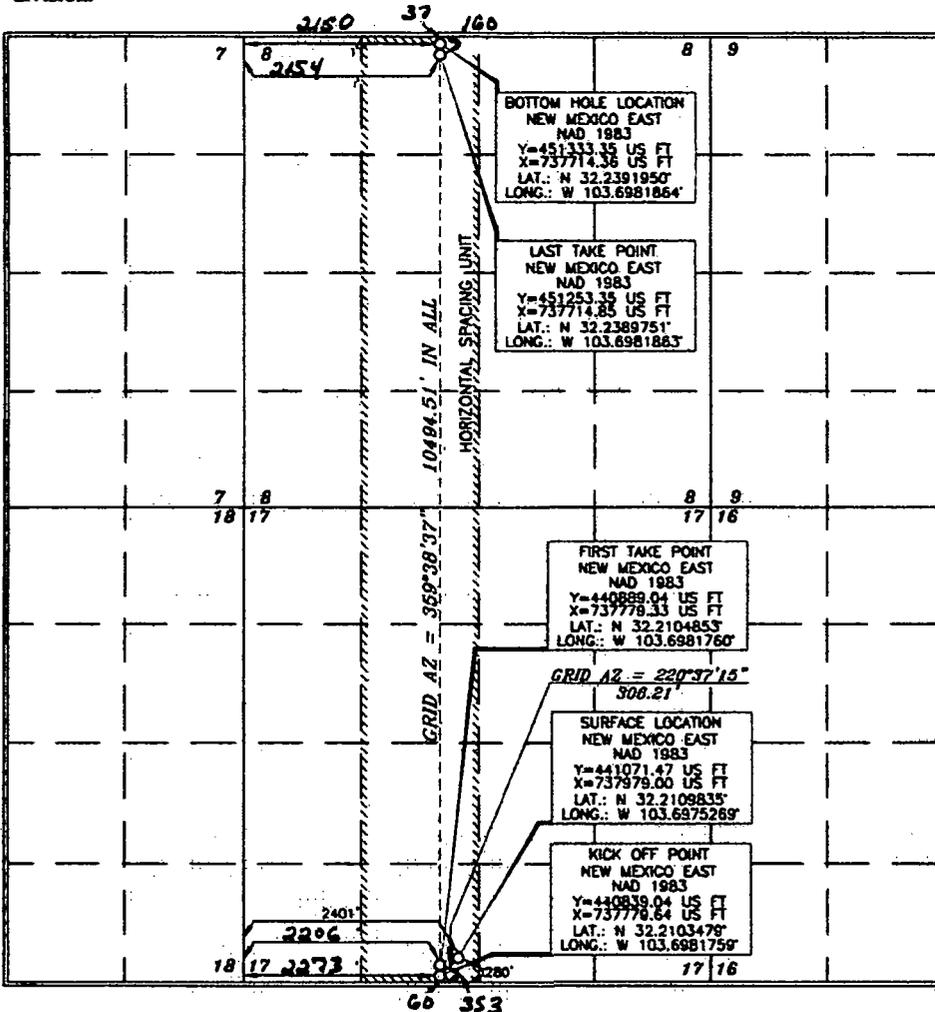
UL or Int no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	2401'	WEST	LEA

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.		37	NORTH	2150	WEST	LEA

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

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.

Sarah Chapman 9/10/19
Signature Date
Sarah Chapman
Print 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.

ERRY J. ASS...
15079
AUGUST 16, 2018
Date of Survey
Signature and Seal
Professional Surveyor
Certificate Number 15079

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Aramis, NM 88210
Phone: (575) 743-1283 Fax: (575) 748-9720
District III
7000 Rio Bosque Road, Aramis, 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

HOBBS OCD
SEP 13 2019
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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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45920	Pool Code 98252	Pool Name Mesa Verde Wolfcamp
Property Code 320829	Property Name MESA VERDE WC UNIT	Well Number 7H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3563.0'

Surface Location

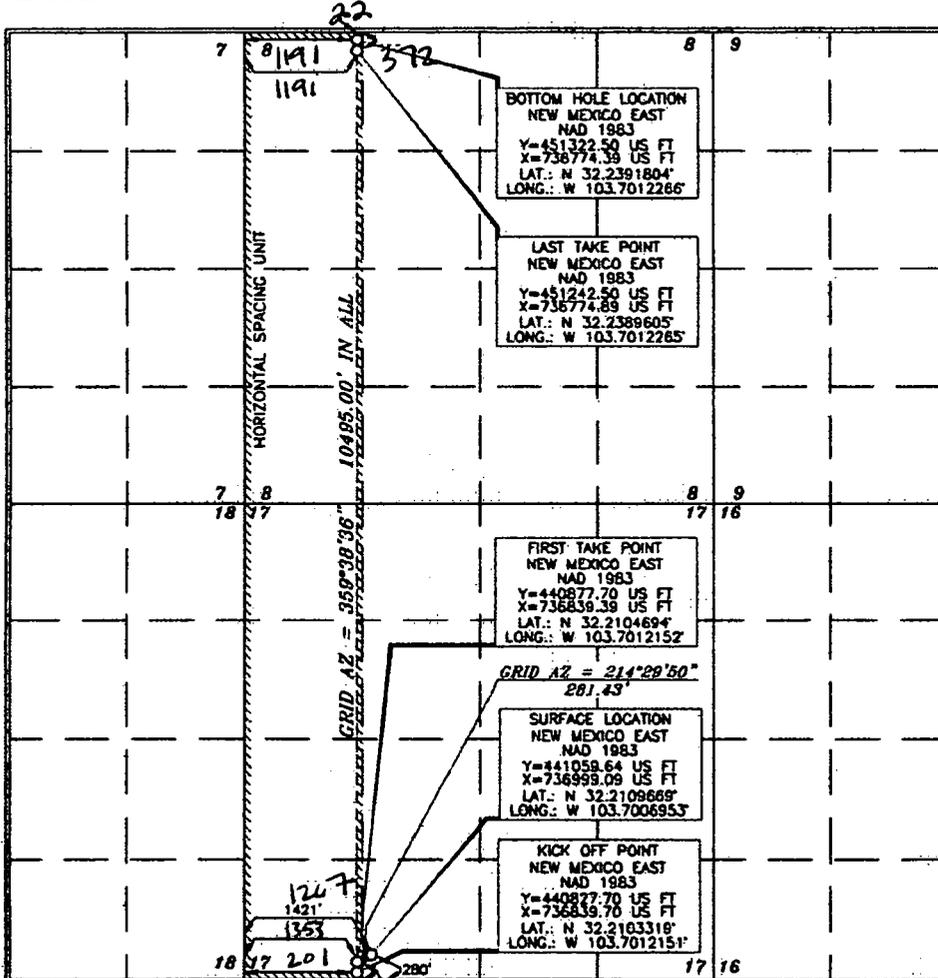
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	1421'	WEST	LEA

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
D	8	24 SOUTH	32 EAST, N.M.P.M.		22	NORTH	141	WEST	LEA

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

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 undivided 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.

Approved on behalf of the division:
Sarah Chopra 9/10/19
Signature Date

Sarah Chopra
Printed Name
Sarah.Chopra@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from the best of my knowledge and belief, and that the same is true and correct to the best of my belief.

15079
AUGUST 17, 2018
Date of Survey

Signature and Seal of
Professional Surveyor

Terry J. Paul 8/24/2018
Certificate Number 15079

WOP 180817WL-0 (N)

District I
1035 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
871 S. First St., Artesia, NM 88210
Phone: (575) 748-1280 Fax: (575) 748-9720
District III
1000 Rio Bureau 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

HOBBS OCD

Form C-102
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District Office

SEP 13 2019
RECEIVED

AMENDED REPORT
As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45921	Pool Code 90252	Pool Name Mesa Verde Wolfcamp
Property Code 320829	Property Name MESA VERDE WC UNIT	Well Number 8H
OGRID No. 14696	Operator Name OXY USA INC.	Elevation 3563.1'

Surface Location

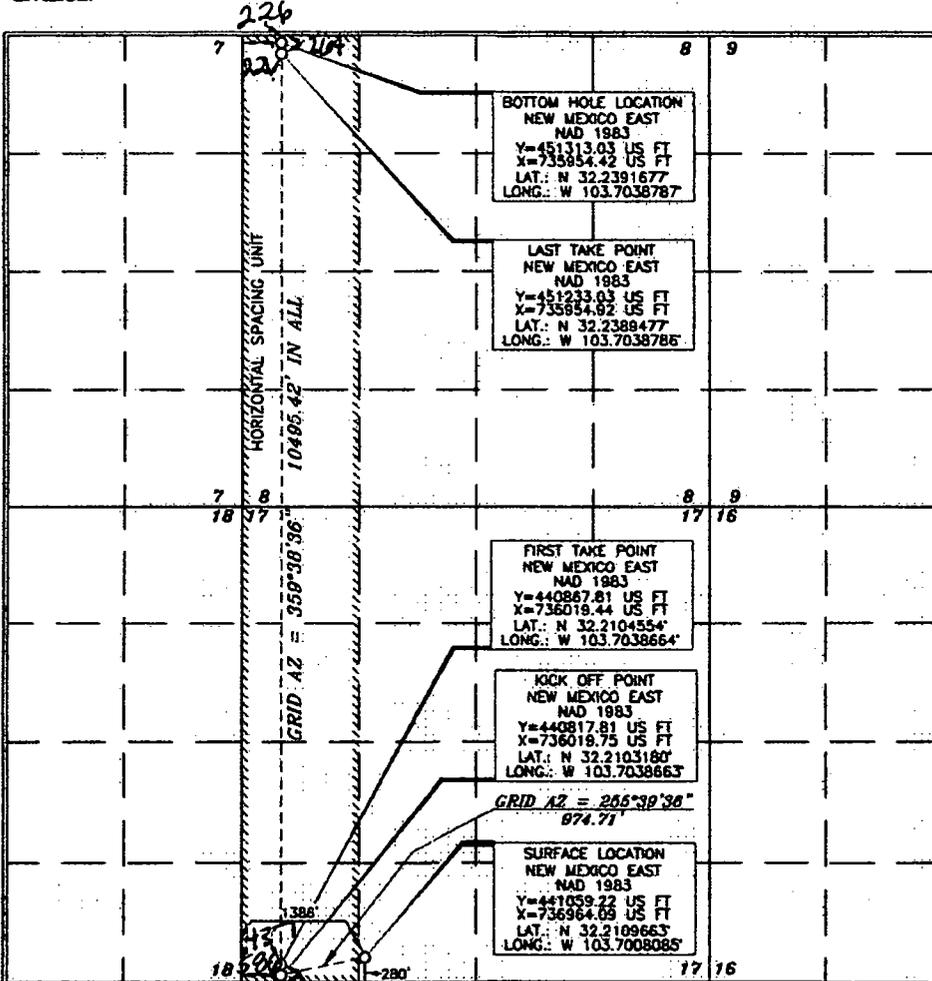
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	17	24 SOUTH	32 EAST, N.M.P.M.		280'	SOUTH	1386'	WEST	LEA

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
D	8	24 SOUTH	32 EAST, N.M.P.M.		35	NORTH	226	WEST	LEA

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

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 undivided 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.

Jack Chapin 9/10/19
Signature Date

Jack Chapin
Printed Name

jack-chapin@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from the original or 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. ASH
15079
AUGUST 17, 2018
Date of Survey

Terry J. Ash
Signature and Seal of Professional Surveyor

Terry J. Ash
Certificate Number 15079

WOL 180817WL-b (KA)

94 307

REC'D 10/6/2020 - NMOCD

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

Table with 3 columns: API Number (30-025-45871), Pool Code (98252), Pool Name (Mesa Verde; Wolfcamp), Property Code (320829), Property Name (MESA VERDE WC UNIT), Well Number (9H), OGRID No. (16696), Operator Name (OXY USA INC.), Elevation (3568.7')

Surface Location

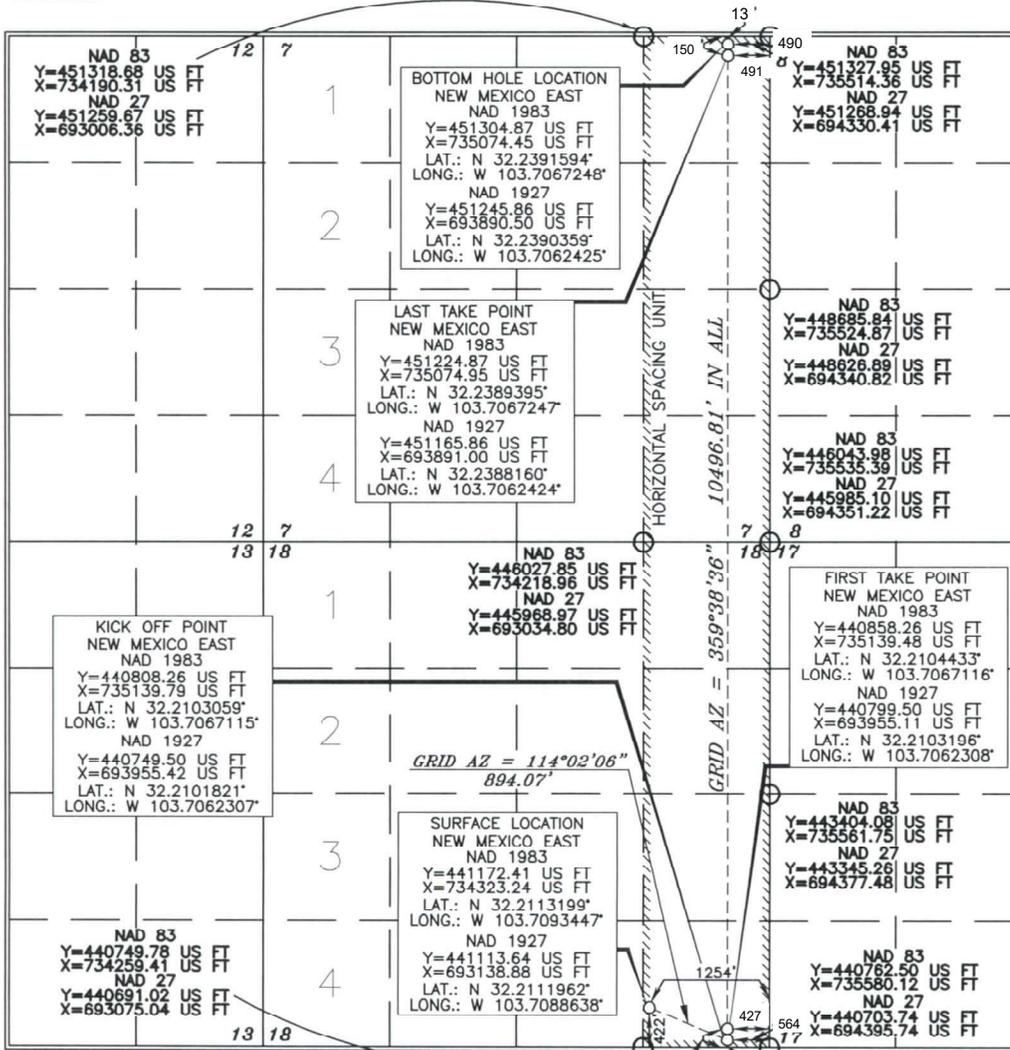
Table with 10 columns: UL or lot no. (P), Section (18), Township (24 SOUTH), Range (32 EAST, N.M.P.M.), Lot Idn, Feet from the (422'), North/South line (SOUTH), Feet from the (1254'), East/West line (EAST), County (LEA)

Bottom Hole Location If Different From Surface

Table with 10 columns: UL or lot no. (A), Section (7), Township (24 SOUTH), Range (32 EAST, N.M.P.M.), Lot Idn, Feet from the (13'), North/South line (NORTH), Feet from the (490'), East/West line (EAST), County (LEA)

Table with 4 columns: Dedicated Acres (320), Joint or Infill, Consolidation Code, Order No. (FTP- 393' FSL 427' FEL, LTP- 150' FNL 491' 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: JANA MENDIOLA
Date: 10/5/20
E-mail Address: janalyn_mendiola@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.
Signature and Seal of Professional Surveyor: Terry J. Asch
Date of Survey: DECEMBER 27, 2017
Certificate Number: 15079
WO# 171227WL-c (Rev. A) (KA)

REC'D 10/7/2020 - NMOC

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
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1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
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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 30-025-45872	Pool Code 98252	Pool Name Mesa Verde; Wolfcamp
Property Code 320829	Property Name MESA VERDE WC UNIT	Well Number 10H
OGRID No. 16696	Operator Name OXY USA INC.	Elevation 3568.3'

Surface Location

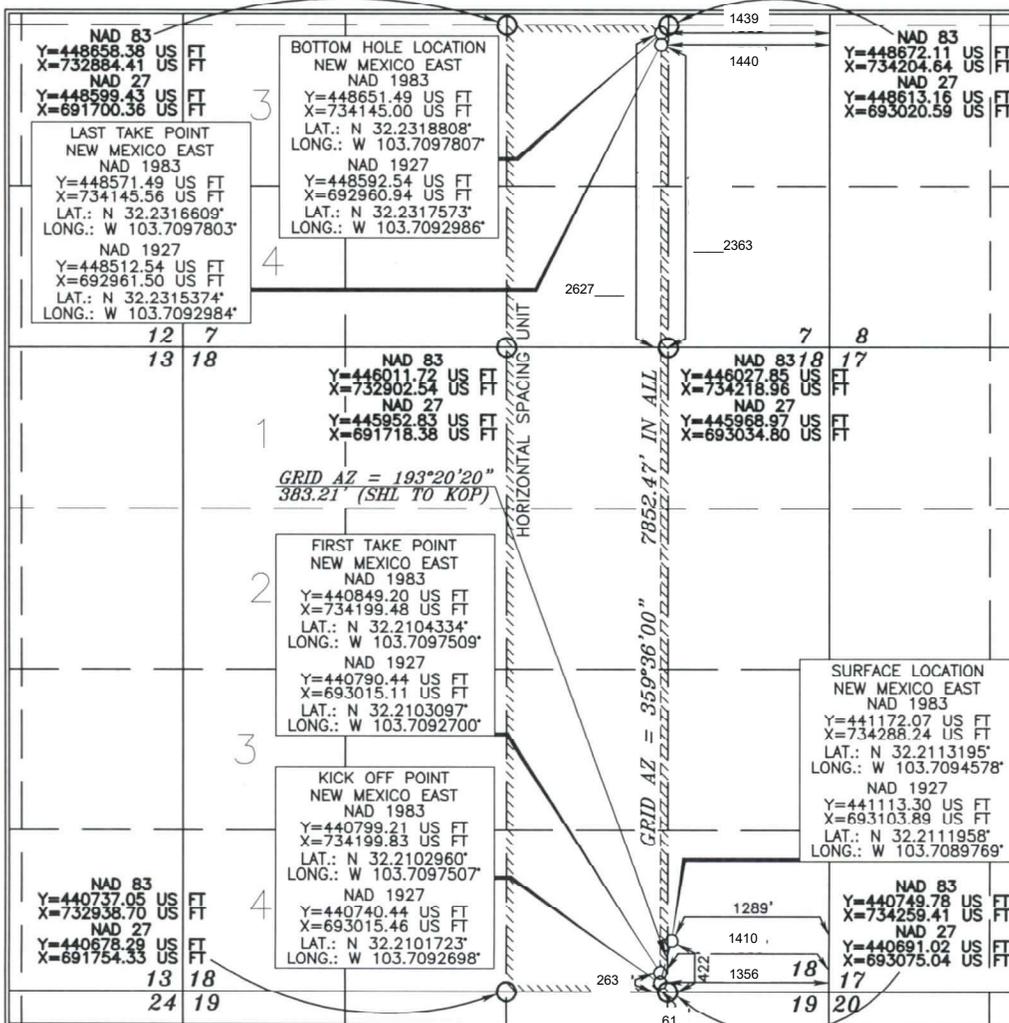
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	18	24 SOUTH	32 EAST, N.M.P.M.		422'	SOUTH	1289'	EAST	LEA

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
J	7	24 SOUTH	32 EAST, N.M.P.M.		2627'	SOUTH	1439'	EAST	LEA

Dedicated Acres 240	Joint or Infill	Consolidation Code	Order No. FTP- 263' FSL 1410' FEL LTP- 2363' FSL 1440' 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] 10/7/2020
Signature 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.

[Signature]
Date of Survey
Signature and Seal of Professional Surveyor

15079
DECEMBER 27, 2015
Certificate Number 15079

WO# 171227WL-b (Rev. A) (AS)

REC'D 10/7/2020 - NMOCD

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

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

AMENDED REPORT
(AS-DRILLED)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-45873		Pool Code 98252	Pool Name Mesa Verde; Wolfcamp
Property Code 320829	Property Name MESA VERDE WC UNIT		Well Number 11H
OGRID No. 16696	Operator Name OXY USA INC.		Elevation 3568.0'

Surface Location

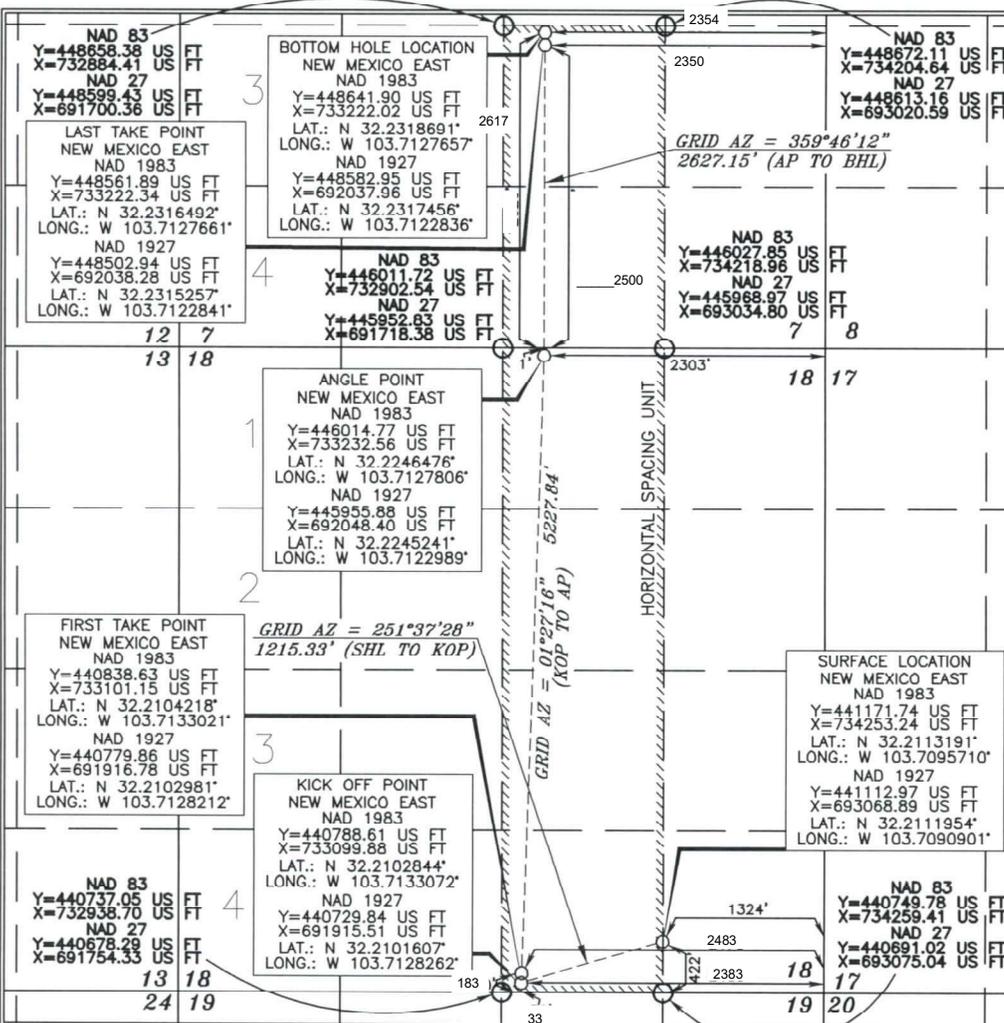
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	18	24 SOUTH	32 EAST, N.M.P.M.		422'	SOUTH	1324'	EAST	LEA

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
J	7	24 SOUTH	32 EAST, N.M.P.M.		2617	SOUTH	2354	EAST	LEA

Dedicated Acres 240	Joint or Infill	Consolidation Code	Order No. FTP- 183' FSL 2483' FEL LTP- 2500' FSL 2350' 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] 10/7/2020
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.

15079
DECEMBER 27 2017
Date of Survey

[Signature]
Signature and Seal of Professional Surveyor

Certificate Number 15079

WO# 171227WL-a (Rev. B) (KA)

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

AMENDED REPORT

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

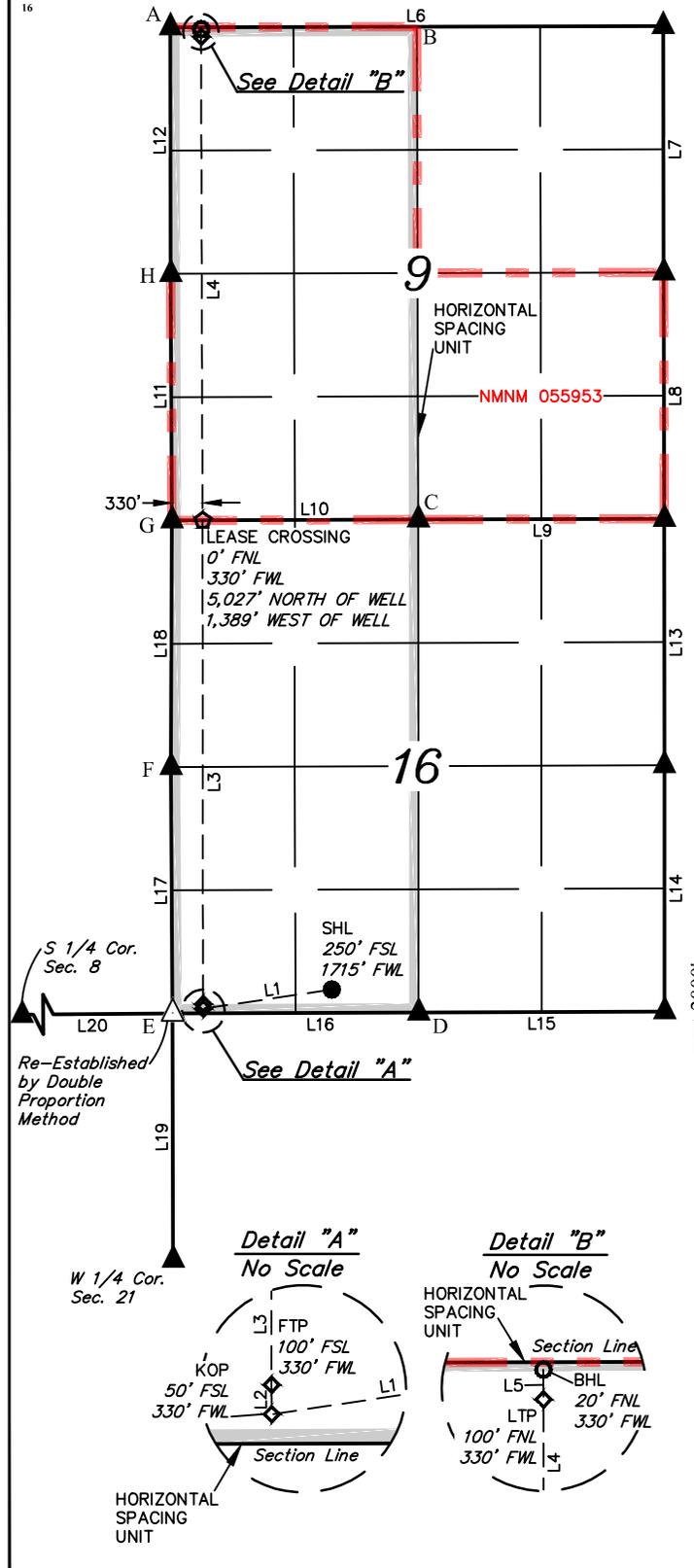
WELL LOCATION AND ACREAGE DEDICATION PLAT

Table with 9 columns: 1 API Number, 2 Pool Code, 3 Pool Name, 4 Property Code, 5 Property Name, 6 Well Number, 7 OGRID No., 8 Operator Name, 9 Elevation.

10 Surface Location table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County.

11 Bottom Hole Location If Different From Surface table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County. Includes 12 Dedicated Acres, 13 Joint or Infill, 14 Consolidation Code, 15 Order No.

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.



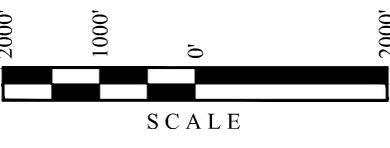
LINE TABLE with columns: LINE, DIRECTION, LENGTH. Lists lines L1 through L20 with their respective bearings and lengths.

17 OPERATOR CERTIFICATION. I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief... Roni Mathew 12/5/2023

Signature: Roni Mathew, Date: 12/5/2023. Printed Name: Roni Mathew. E-mail Address: roni_mathew@oxy.com

18 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... March 16, 2023

Date of Survey: March 16, 2023. Signature and Seal of Professional Surveyor: Paul Buchele, 23782, 09-19-23. Certificate Number: [Blank]



DRAWN BY: N.D.T. 03-22-23 REV: 1 09-19-23 C.D. (UPDATE WELLBORE)

NOTE: Distances referenced on plat to section lines are perpendicular. Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W 103°53'00" (NAD 83)

HSU COORDINATES table with columns: POINT, NAD 27 N.M. STATE PLANE, EAST ZONE, NAD 83 N.M. STATE PLANE, EAST ZONE, NORTHING, EASTING.

- = SURFACE HOLE LOCATION
◆ = KICK OFF POINT/TAKE POINTS
⬠ = LEASE CROSSING.
○ = BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)
— = LEASE LINE.

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°12'39.44" (32.210955°)
LONGITUDE = -103°40'57.55" (-103.682654°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°12'38.99" (32.210831°)
LONGITUDE = -103°40'55.83" (-103.682174°)
STATE PLANE NAD 83 (N.M. EAST)
N: 441088.51' E: 742579.05'
STATE PLANE NAD 27 (N.M. EAST)
N: 441029.75' E: 701394.66'

NAD 83 (KICK OFF POINT)
LATITUDE = 32°12'37.43" (32.210397°)
LONGITUDE = -103°41'13.66" (-103.687129°)
NAD 27 (KICK OFF POINT)
LATITUDE = 32°12'36.99" (32.210274°)
LONGITUDE = -103°41'11.93" (-103.686648°)
STATE PLANE NAD 83 (N.M. EAST)
N: 440877.43' E: 741196.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 440818.68' E: 700011.96'

NAD 83 (FIRST TAKE POINT)
LATITUDE = 32°12'37.93" (32.210535°)
LONGITUDE = -103°41'13.66" (-103.687129°)
NAD 27 (FIRST TAKE POINT)
LATITUDE = 32°12'37.48" (32.210411°)
LONGITUDE = -103°41'11.94" (-103.686649°)
STATE PLANE NAD 83 (N.M. EAST)
N: 440927.41' E: 741195.85'
STATE PLANE NAD 27 (N.M. EAST)
N: 440868.66' E: 700011.46'

NAD 83 (LEASE CROSSING)
LATITUDE = 32°13'29.20" (32.224778°)
LONGITUDE = -103°41'13.61" (-103.687115°)
NAD 27 (LEASE CROSSING)
LATITUDE = 32°13'28.75" (32.224654°)
LONGITUDE = -103°41'11.88" (-103.686634°)
STATE PLANE NAD 83 (N.M. EAST)
N: 446108.85' E: 741169.02'
STATE PLANE NAD 27 (N.M. EAST)
N: 446049.98' E: 699984.84'

NAD 83 (LAST TAKE POINT)
LATITUDE = 32°14'20.48" (32.239022°)
LONGITUDE = -103°41'13.69" (-103.687136°)
NAD 27 (LAST TAKE POINT)
LATITUDE = 32°14'20.03" (32.238899°)
LONGITUDE = -103°41'11.95" (-103.686654°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451290.79' E: 741131.48'
STATE PLANE NAD 27 (N.M. EAST)
N: 451231.80' E: 699947.53'

NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°14'21.27" (32.239242°)
LONGITUDE = -103°41'13.69" (-103.687136°)
NAD 27 (BOTTOM HOLE LOCATION)
LATITUDE = 32°14'20.83" (32.239118°)
LONGITUDE = -103°41'11.95" (-103.686654°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451370.78' E: 741131.04'
STATE PLANE NAD 27 (N.M. EAST)
N: 451311.78' E: 699947.08'

District I
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Phone: (505) 476-3460 Fax: (505) 476-3462

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

Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

Table with 3 columns: API Number, Pool Code, Pool Name, Property Code, Property Name, Well Number, OGRID No., Operator Name, Elevation.

Surface Location

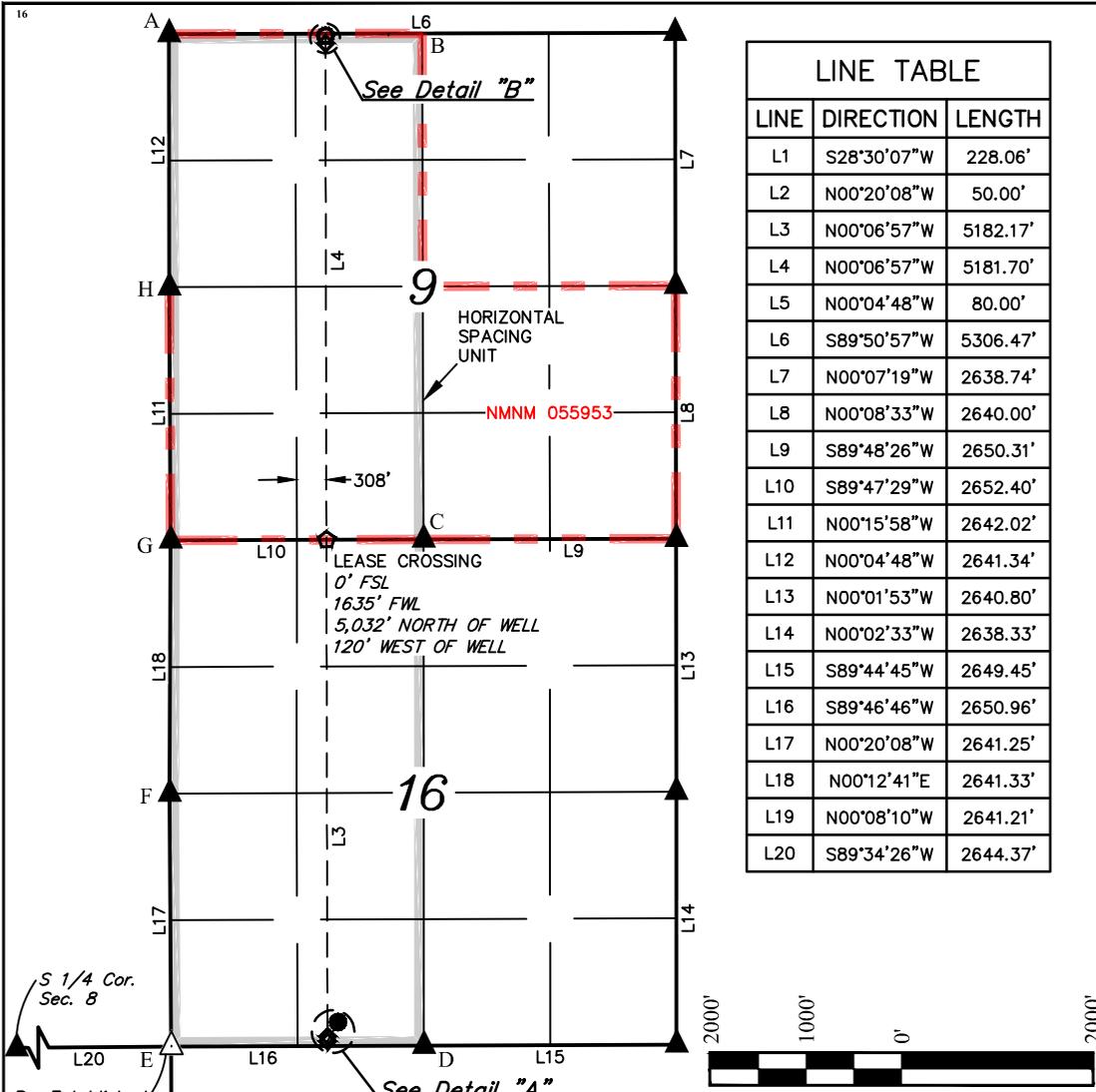
Table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County.

Bottom Hole Location If Different From Surface

Table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County.

Table with 4 columns: Dedicated Acres, Joint or Infill, Consolidation Code, Order No.

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.



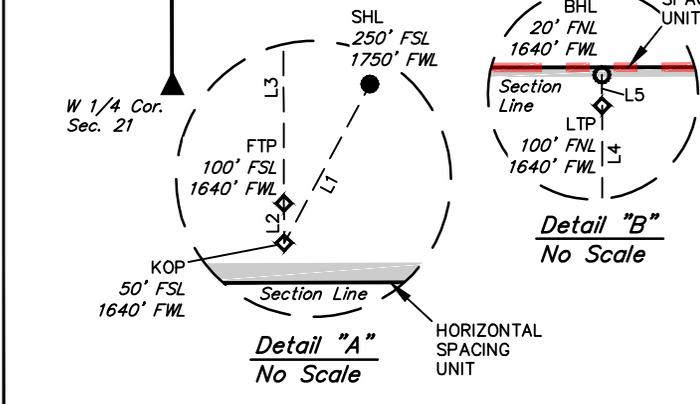
LINE TABLE with columns: LINE, DIRECTION, LENGTH. Lists 20 lines with bearings and distances.

OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief...
Signature: Roni Mathew 8/8/2024

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...
Date of Survey: March 16, 2023



SCALE
DRAWN BY: N.D.T. 03-22-23
REV: 2 07-10-24 T.I.R.
(UPDATE WELLBORE)



HSU COORDINATES table with columns: POINT, NORTHING, EASTING for NAD 27 and NAD 83.

- Legend for symbols: SURFACE HOLE LOCATION, KICK OFF POINT/TAKE POINTS, LEASE CROSSING, BOTTOM HOLE LOCATION, SECTION CORNER LOCATED, SECTION CORNER RE-ESTABLISHED, LEASE LINE.

Table of coordinates for various well locations: NAD 83 (SURFACE HOLE LOCATION), NAD 27 (SURFACE HOLE LOCATION), NAD 83 (FIRST TAKE POINT), NAD 27 (FIRST TAKE POINT), NAD 83 (LAST TAKE POINT), NAD 27 (LAST TAKE POINT).

Table of coordinates for various well locations: NAD 83 (KICK OFF POINT), NAD 27 (KICK OFF POINT), NAD 83 (LEASE CROSSING), NAD 27 (LEASE CROSSING), NAD 83 (BOTTOM HOLE LOCATION), NAD 27 (BOTTOM HOLE LOCATION).

District I
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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

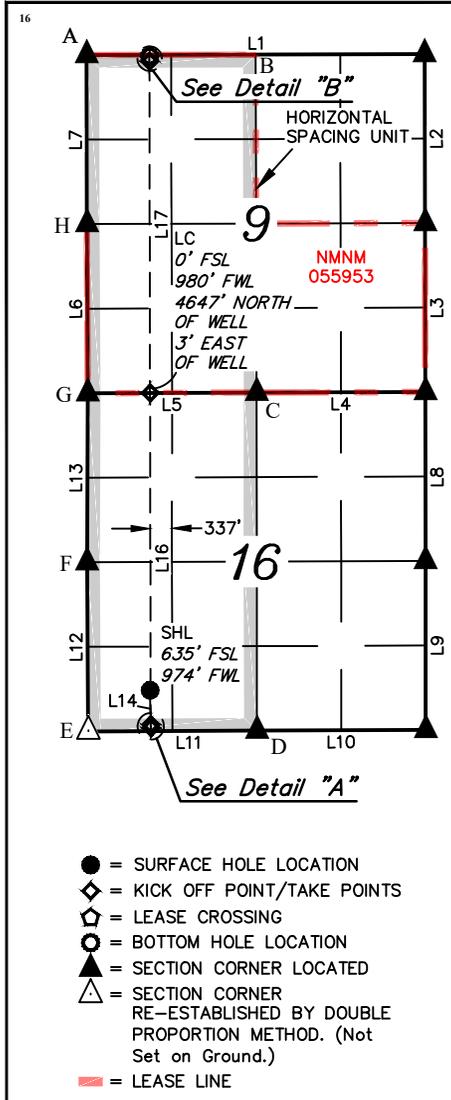
WELL LOCATION AND ACREAGE DEDICATION PLAT

Table with 3 columns: 1 API Number (30-025-48817), 2 Pool Code (98252), 3 Pool Name (MESA VERDE; WOLFCAMP), 4 Property Code (320829), 5 Property Name (MESA VERDE WC UNIT), 6 Well Number (54H), 7 OGRID No. (16696), 8 Operator Name (OXY USA INC.), 9 Elevation (3571.1')

10 Surface Location table with columns: UL or lot no. (M), Section (16), Township (24S), Range (32E), Lot Idn, Feet from the (635), North/South line (SOUTH), Feet from the (974), East/West line (WEST), County (LEA)

11 Bottom Hole Location If Different From Surface table with columns: UL or lot no. (D), Section (9), Township (24S), Range (32E), Lot Idn, Feet from the (20), North/South line (NORTH), Feet from the (985), East/West line (WEST), County (LEA). Includes 12 Dedicated Acres (640), 13 Joint or Infill, 14 Consolidation Code, 15 Order No.

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.



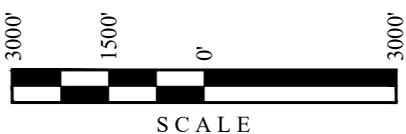
LINE TABLE with columns: LINE, DIRECTION, LENGTH. Lists lines L1 through L9 with their respective bearings and lengths.

LINE TABLE with columns: LINE, DIRECTION, LENGTH. Lists lines L10 through L18 with their respective bearings and lengths.

17 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.
Roni Mathew 8/6/2024
Signature Date
Roni Mathew
Printed Name
roni_mathew@oxy.com
E-mail Address

18 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.
March 14, 2023
Date of Survey
Signature and Seal of Professional Surveyor:
PAUL BUCHELE
NEW MEXICO
23782
07-09-24
PROFESSIONAL SURVEYOR
Certificate Number:

NOTE:
• Distances referenced on plat to section lines are perpendicular.
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
• Section breakdown information for this plat may be obtained from Uintah Engineering & Land Surveying.



DRAWN BY: N.R. 03-16-23
REV: 2 07-09-24 T.I.R.
(UPDATE WELLBORE)

Coordinates for NAD 83 and NAD 27 for Surface Hole Location, Kick Off Point, and First Take Point.

Coordinates for NAD 83 and NAD 27 for Lease Crossing, Last Take Point, and Bottom Hole Location.

HSU COORDINATES table with columns: POINT, NORTHING, EASTING for NAD 27 N.M. STATE PLANE, EAST ZONE and NAD 83 N.M. STATE PLANE, EAST ZONE.

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

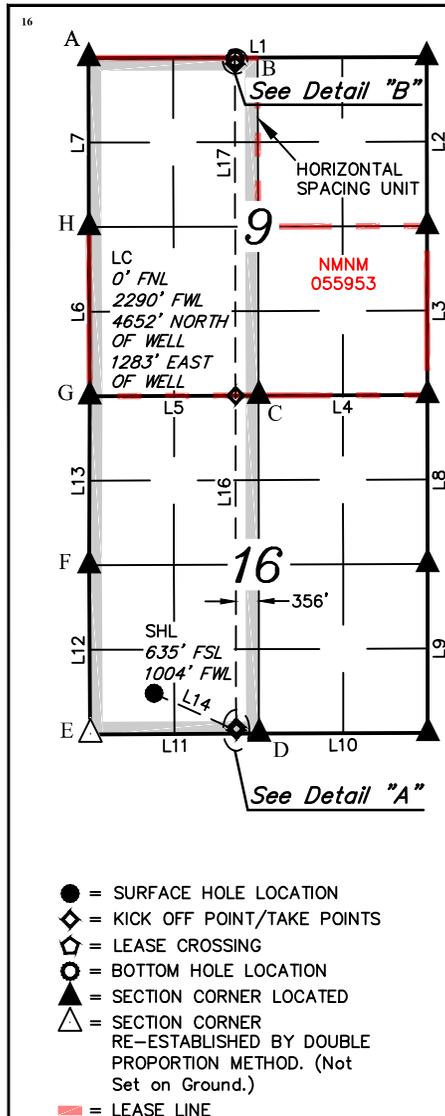
WELL LOCATION AND ACREAGE DEDICATION PLAT

Table with 3 columns: API Number, Pool Code, Pool Name, Property Code, Property Name, Well Number, OGRID No., Operator Name, Elevation.

Table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County.

Table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County. Includes sub-tables for Dedicated Acres, Joint or Infill, Consolidation Code, Order No.

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.

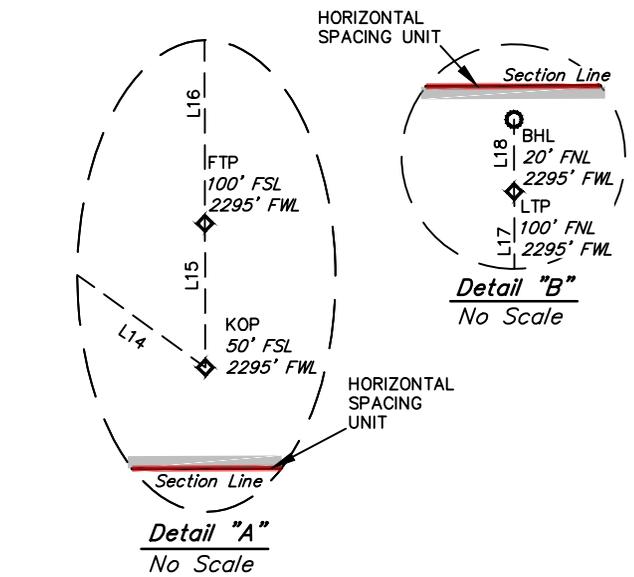


LINE TABLE with columns: LINE, DIRECTION, LENGTH. Lists lines L1 through L9.

LINE TABLE with columns: LINE, DIRECTION, LENGTH. Lists lines L10 through L18.

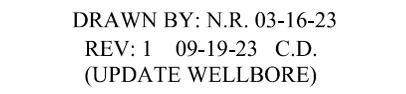
OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief...
Signature: Roni Mathew
Date: 12/5/2023

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...
Date of Survey: March 14, 2023
Signature and Seal of Professional Surveyor: Paul Buchele



- Legend for symbols: SURFACE HOLE LOCATION, KICK OFF POINT/TAKE POINTS, LEASE CROSSING, BOTTOM HOLE LOCATION, SECTION CORNER LOCATED, SECTION CORNER RE-ESTABLISHED BY DOUBLE PROPORTION METHOD, LEASE LINE.

NOTE:
Distances referenced on plat to section lines are perpendicular.
Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)
Section breakdown information for this plat may be obtained from Uintah Engineering & Land Surveying.



DRAWN BY: N.R. 03-16-23
REV: 1 09-19-23 C.D.
(UPDATE WELLBORE)

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°12'43.23" (32.212009°)
LONGITUDE = -103°41'05.84" (-103.684956°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°12'42.79" (32.211885°)
LONGITUDE = -103°41'04.11" (-103.684476°)
STATE PLANE NAD 83 (N.M. EAST)
N: 441467.71' E: 741864.73'
STATE PLANE NAD 27 (N.M. EAST)
N: 441408.95' E: 700680.36'

NAD 83 (LEASE CROSSING)
LATITUDE = 32°13'29.23" (32.224787°)
LONGITUDE = -103°40'50.81" (-103.680779°)
NAD 27 (LEASE CROSSING)
LATITUDE = 32°13'28.79" (32.224664°)
LONGITUDE = -103°40'49.07" (-103.680298°)
STATE PLANE NAD 83 (N.M. EAST)
N: 446124.19' E: 743128.26'
STATE PLANE NAD 27 (N.M. EAST)
N: 446065.32' E: 701944.08'

NAD 83 (KICK OFF POINT)
LATITUDE = 32°12'37.47" (32.210408°)
LONGITUDE = -103°40'50.80" (-103.680776°)
NAD 27 (KICK OFF POINT)
LATITUDE = 32°12'37.02" (32.210284°)
LONGITUDE = -103°40'49.07" (-103.680296°)
STATE PLANE NAD 83 (N.M. EAST)
N: 440893.21' E: 743160.93'
STATE PLANE NAD 27 (N.M. EAST)
N: 440834.47' E: 701976.54'

NAD 83 (LAST TAKE POINT)
LATITUDE = 32°14'20.49" (32.239026°)
LONGITUDE = -103°40'50.81" (-103.680782°)
NAD 27 (LAST TAKE POINT)
LATITUDE = 32°14'20.05" (32.238903°)
LONGITUDE = -103°40'49.08" (-103.680300°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451304.20' E: 743096.08'
STATE PLANE NAD 27 (N.M. EAST)
N: 451245.20' E: 701912.12'

NAD 83 (FIRST TAKE POINT)
LATITUDE = 32°12'37.96" (32.210546°)
LONGITUDE = -103°40'50.80" (-103.680777°)
NAD 27 (FIRST TAKE POINT)
LATITUDE = 32°12'37.52" (32.210422°)
LONGITUDE = -103°40'49.07" (-103.680297°)
STATE PLANE NAD 83 (N.M. EAST)
N: 440943.20' E: 743160.43'
STATE PLANE NAD 27 (N.M. EAST)
N: 440884.45' E: 701976.04'

NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°14'21.29" (32.239246°)
LONGITUDE = -103°40'50.81" (-103.680782°)
NAD 27 (BOTTOM HOLE LOCATION)
LATITUDE = 32°14'20.84" (32.239123°)
LONGITUDE = -103°40'49.08" (-103.680300°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451384.18' E: 743095.64'
STATE PLANE NAD 27 (N.M. EAST)
N: 451325.19' E: 701911.68'

HSU COORDINATES table with columns: POINT, NORTHING, EASTING for NAD 27 and NAD 83.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

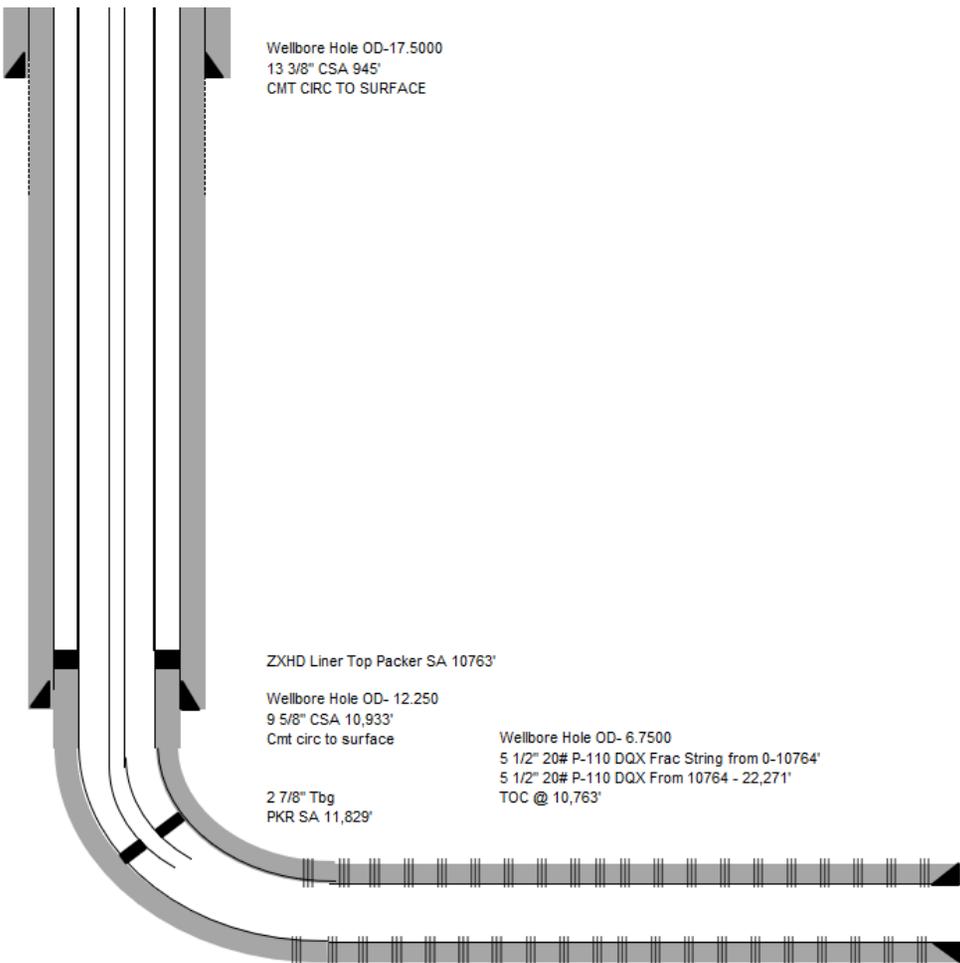
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #001H API 30-025-44195

WELL LOCATION: 241 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: 13.375"

Cemented with: 1190 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12.25" Casing Size: 9.625"

Cemented with: 3620 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2193 sx. *or* _____ ft³

Top of Cement: 10,764' Method Determined: Circulated

Total Depth: 22,281' Total Vertical Depth: 12,054'

Injection Interval MD/TVD

12,240' MD / 12112.2' TVD feet to 22,116' MD / 12,057.3' 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: 12,000' MD / 11,957' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #002H API 30-025-46110

WELL LOCATION: 250 FSL / 1035 FWL M 16 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10.75"
 Cemented with: 975 sx. **or** _____ ft³
 Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"
 Cemented with: 3015 sx. **or** _____ ft³
 Top of Cement: 190' Method Determined: Theory

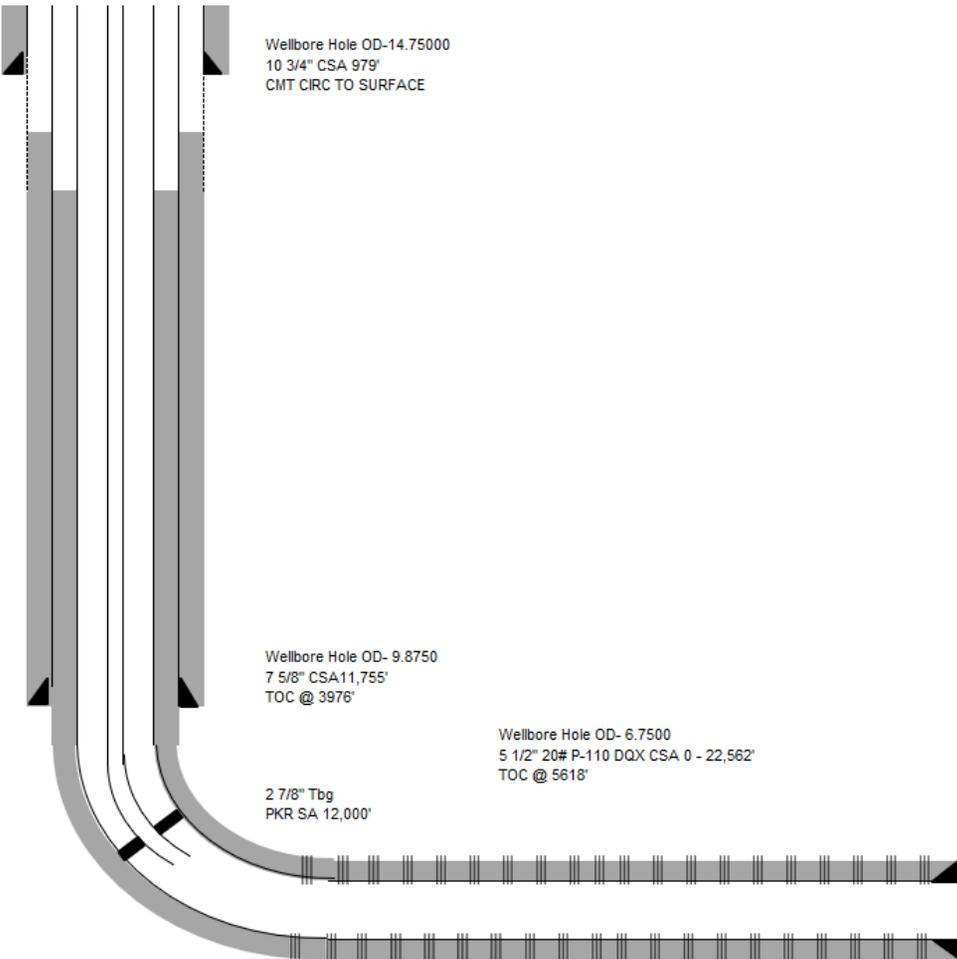
Production Casing

Hole Size: 6.75" Casing Size: 5.5"
 Cemented with: 855 sx. **or** _____ ft³
 Top of Cement: 5618' Method Determined: Theory
 Total Depth: 22,566' Total Vertical Depth: 12275.3'

Injection Interval MD/TVD

12,395' MD / 12,153.2' TVD feet to 22,413' MD / 12271.7' 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: 12,000' MD / 11,957' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

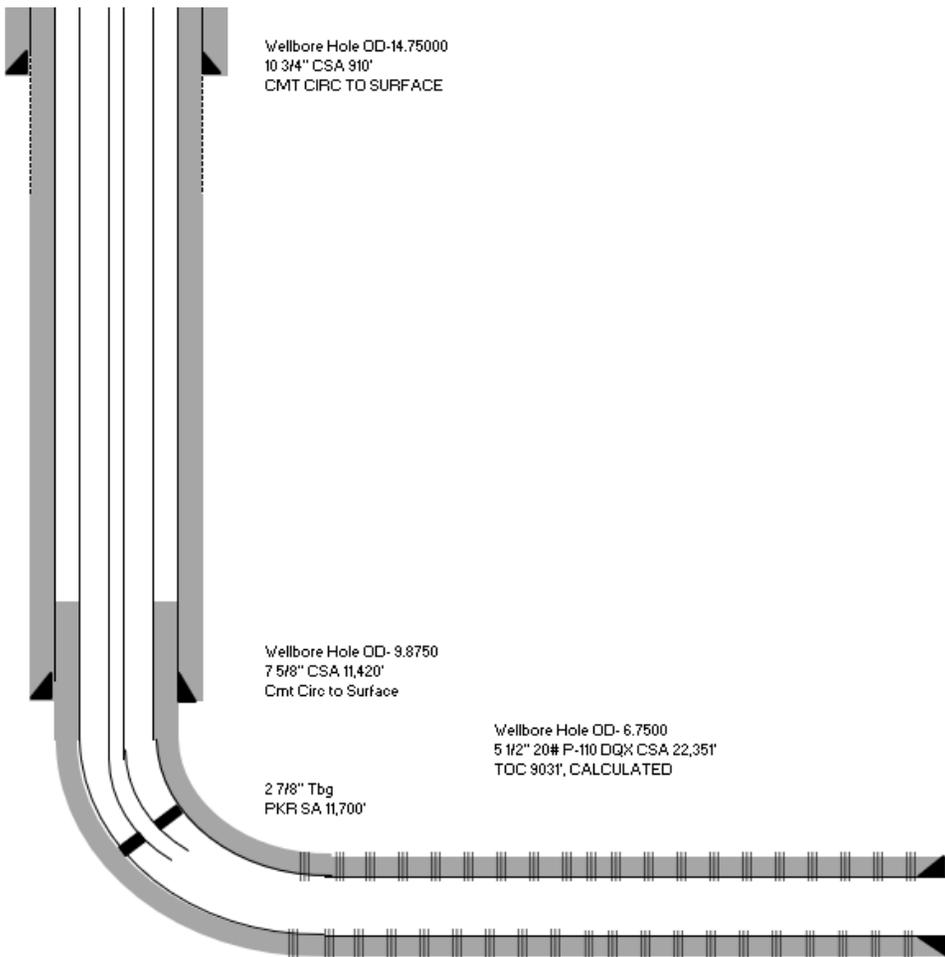
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #003H API 30-025-46111

WELL LOCATION: 250 FSL / 1000 FWL M 16 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 975 sx. **or** _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2824 sx. **or** _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 842 sx. **or** _____ ft³

Top of Cement: 9031' Method Determined: Theory

Total Depth: 22,351' MD Total Vertical Depth: 12,088.1' TVD

Injection Interval MD/TVD

12,269' MD / 12,068' TVD feet to 22,236' MD / 12,090.9' 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: 11,800' MD / 11,764.1' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

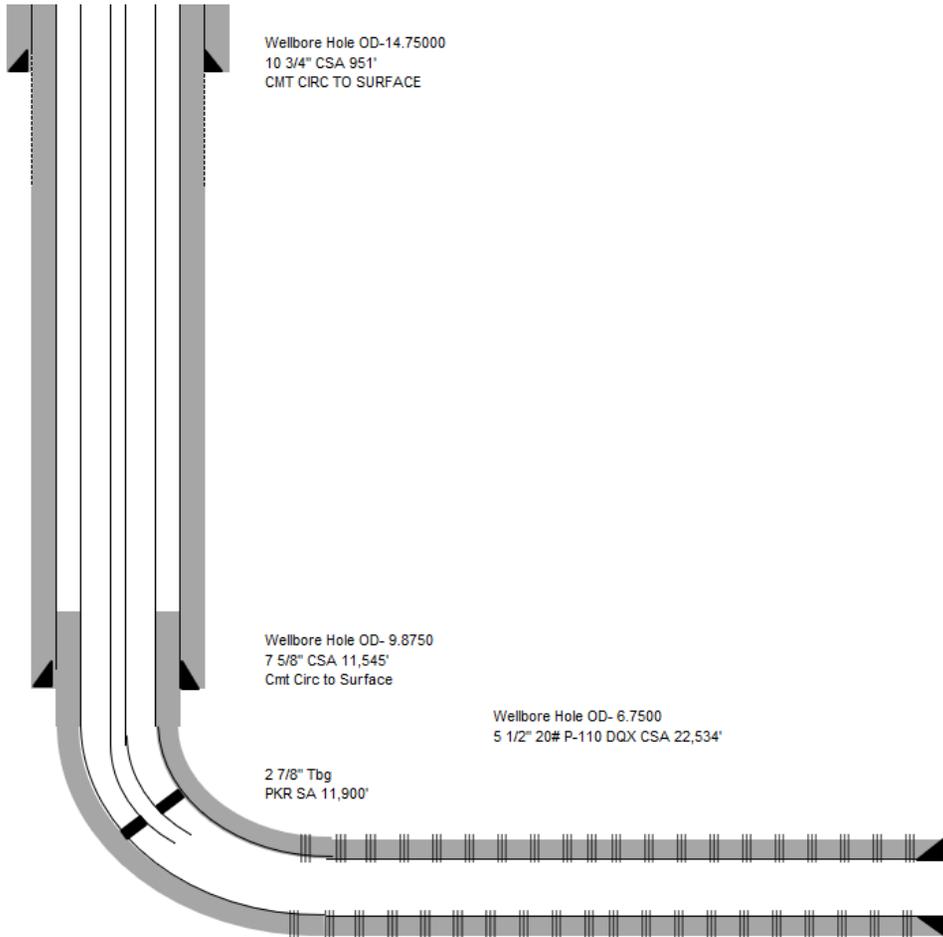
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #004H API 30-025-46112

WELL LOCATION: 250 FSL / 965 FWL M 16 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 975 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2745 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 834 sx. *or* _____ ft³

Top of Cement: 9,269' Method Determined: Theory

Total Depth: 22,522' Total Vertical Depth: 12,224.07'

Injection Interval MD/TVD

12,668' MD / 12,259.3' TVD feet to 22,488' MD / 12224.5' TVD

(Perforated or Open Hole; indicate which)

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #005H API 30-025-45862

WELL LOCATION: 280 FSL / 2436 FWL N 17 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

Wellbore Hole OD-14.75000
 10 3/4" CSA 967'
 CMT CIRC TO SURFACE

Wellbore Hole OD- 9.8750
 7 5/8" CSA 11,567'
 CMT CIRC TO SURFACE

Wellbore Hole OD- 6.7500
 5 1/2" 20# P-110 DQX CSA 0 - 22,435'
 TOC 11050', Calc

PKR SA 11,900'

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 908 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 3988 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 840 sx. *or* _____ ft³

Top of Cement: 11,050' Method Determined: Calc

Total Depth: 22,479' MD Total Vertical Depth: 12,211.03' TVD

Injection Interval MD/TVD

12,327' MD / 12,161.5' TVD feet to 22,387' MD / 12,212.5' 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: 12,000' MD / 11,915' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

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: 11,800' MD / 11,746' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

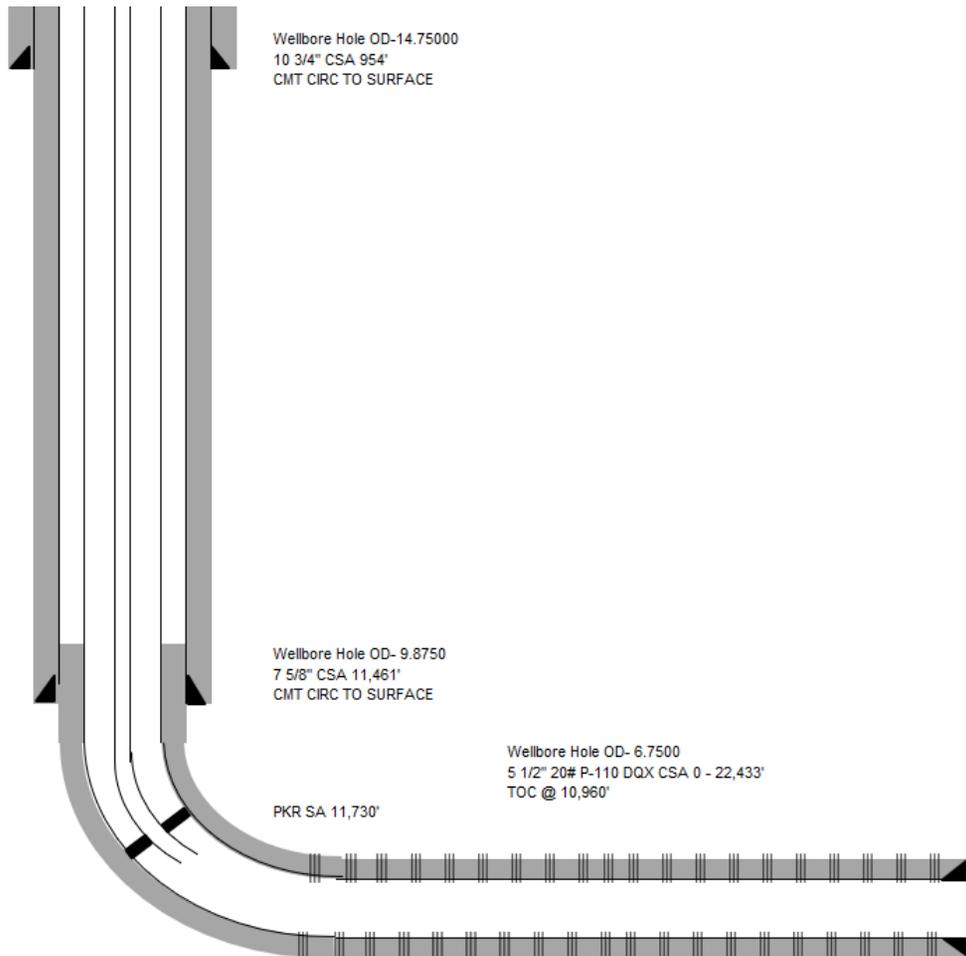
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #007H API 30-025-45920

WELL LOCATION: 280 FSL / 1421 FWL N 17 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 970 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 1530 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 805 sx. *or* _____ ft³

Top of Cement: 10,960' Method Determined: Calc

Total Depth: 22,458' Total Vertical Depth: 12,211'

Injection Interval MD/TVD

12,047' MD / 11,976.4' TVD feet to 22,108' MD / 12,208.8' 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: 11,900' MD / 11,860.9' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

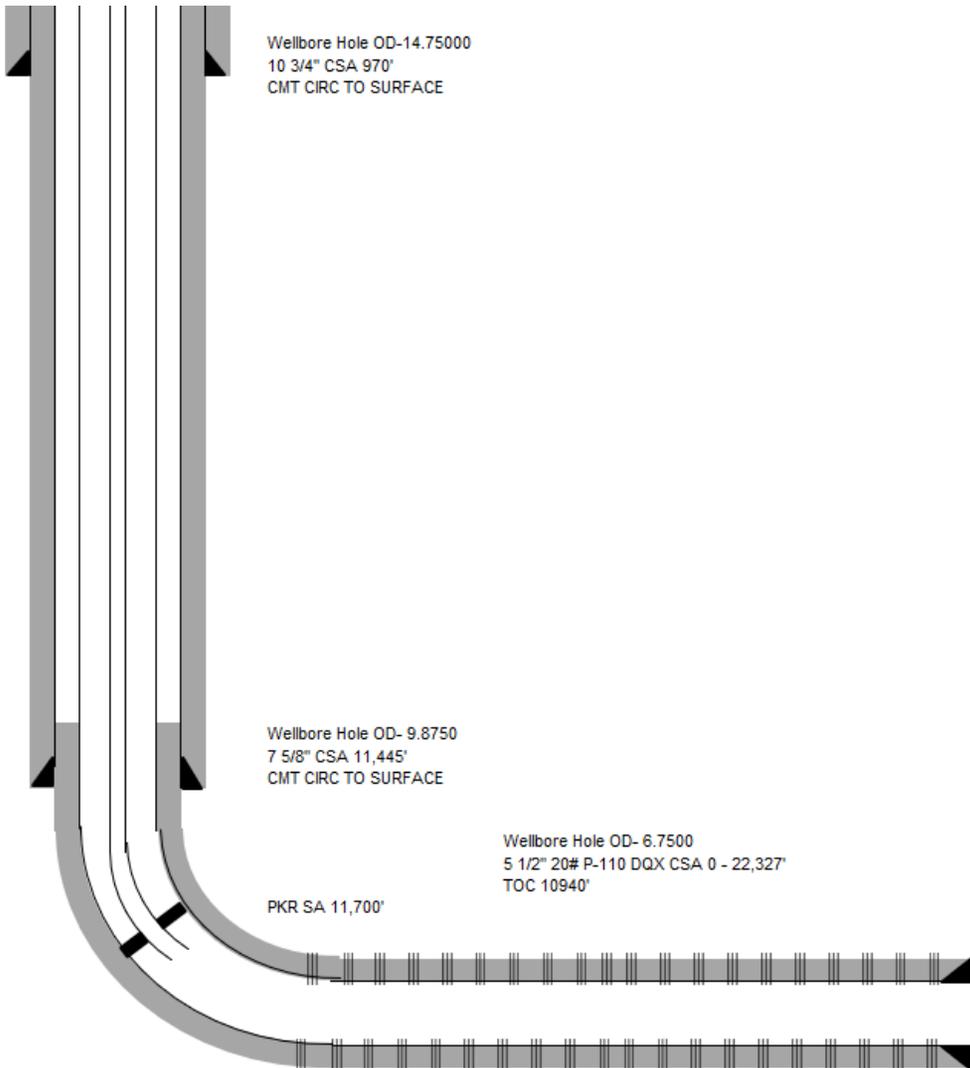
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #008H API 30-025-45921

WELL LOCATION: 280 FSL / 1386 FWL N 17 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 970 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 1220 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 780 sx. *or* _____ ft³

Top of Cement: 10940' Method Determined: _____

Total Depth: 22,317' Total Vertical Depth: 12,009'

Injection Interval MD/TVD

12,137' MD / 11,904' TVD feet to 22,239' MD / 12,016' 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: 11,800' MD / 11,671' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

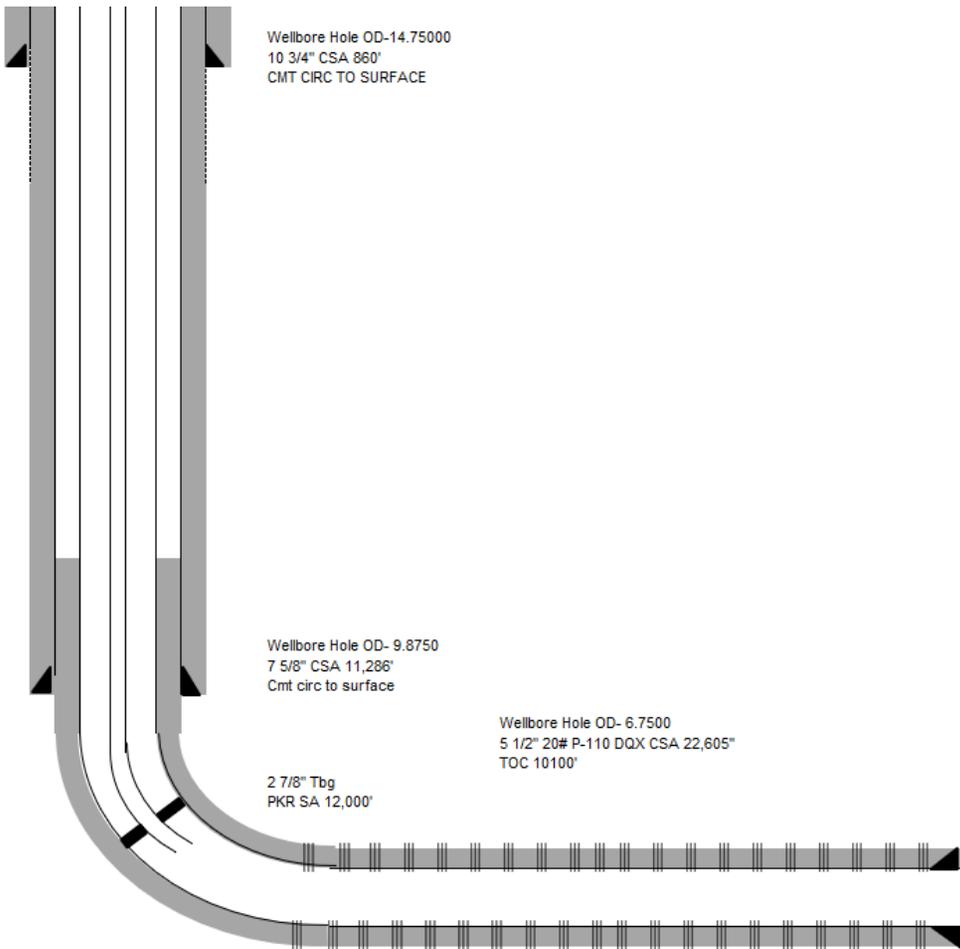
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #009H API 30-025-45871

WELL LOCATION: 422 FSL / 1254 FEL P 18 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 870 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2540 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 905 sx. *or* _____ ft³

Top of Cement: 10100' Method Determined: Calc

Total Depth: 22,488' MD Total Vertical Depth: 12,312'

Injection Interval MD/TVD

12,427' MD / 12,247.8' TVD feet to 22,488' MD / 12312' 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: 12,000' MD / 11,917' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #010H API 30-025-45872

WELL LOCATION: 422 FSL / 1289 FEL P 18 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Wellbore Hole OD-14.75000
 10 3/4" CSA 881'
 CMT CIRC TO SURFACE

Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 870 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2975 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 652 sx. *or* _____ ft³

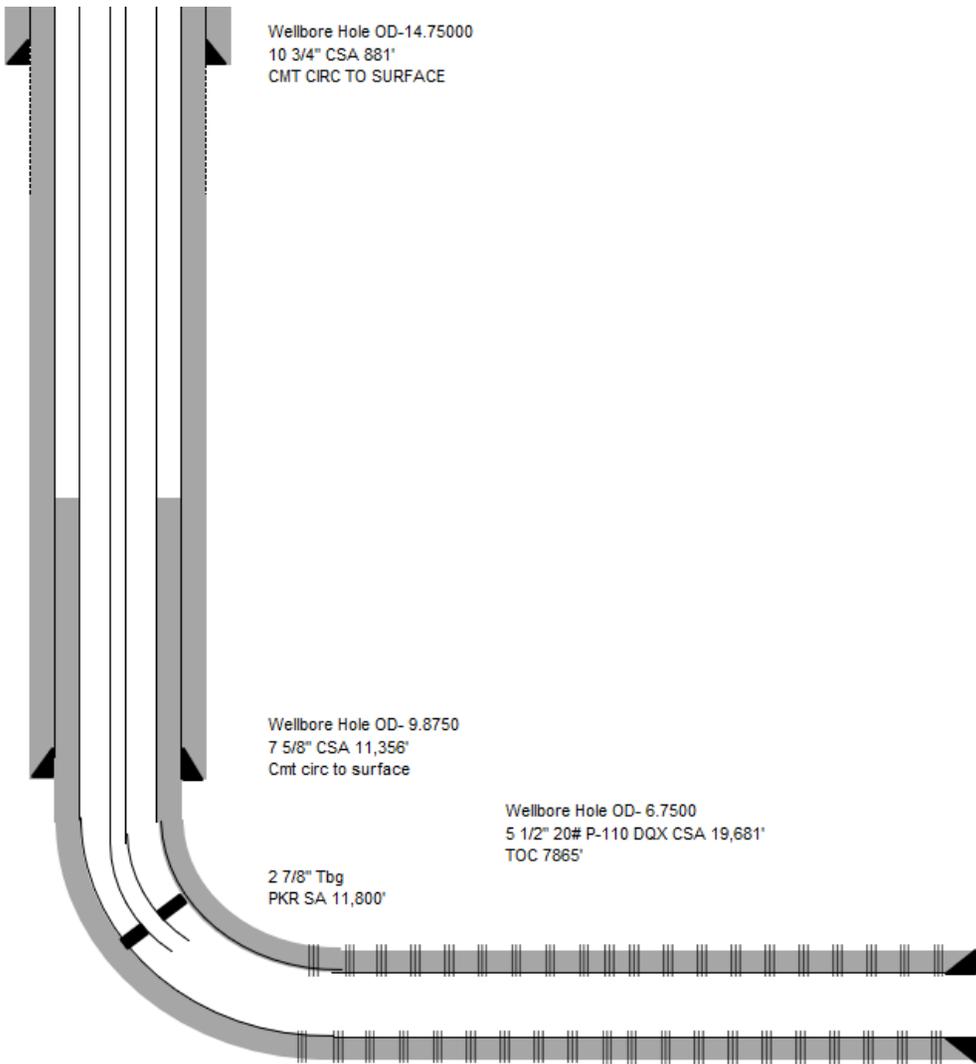
Top of Cement: 7865' Method Determined: Calc

Total Depth: 19,702' Total Vertical Depth: 12,064'

Injection Interval MD/TVD

12,017' MD / 11,925.6' TVD feet to 19,438' MD / 12,066' 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: 11,800' MD / 11,755' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

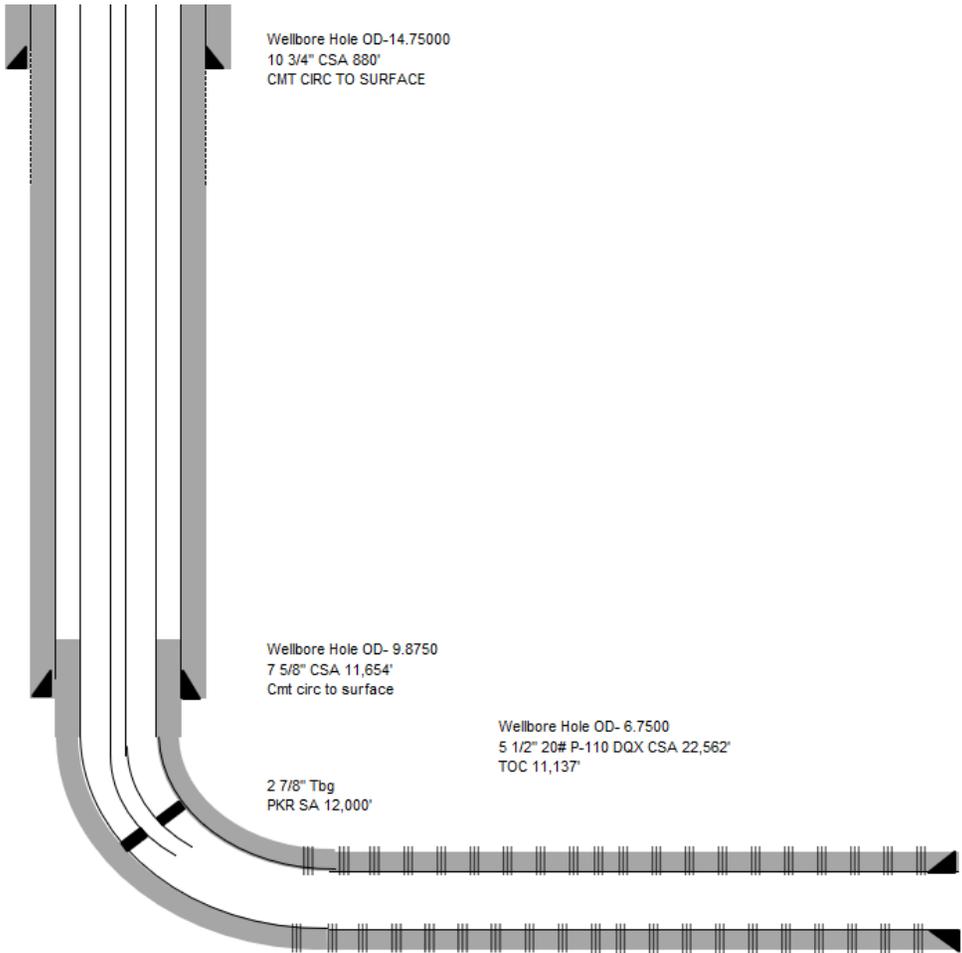
WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #011H API 30-025-45873

WELL LOCATION: 422 FSL / 1324 FEL O 18 24S 32E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 870 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 2242 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 648 sx. *or* _____ ft³

Top of Cement: 11,137' Method Determined: Calc

Total Depth: 20,035' Total Vertical Depth: 12,267.5'

Injection Interval MD/TVD

12,258' MD / 12,110.6' TVD feet to 19,918' MD / 12,268.6' 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: 12,000' MD / 11,800' 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 No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

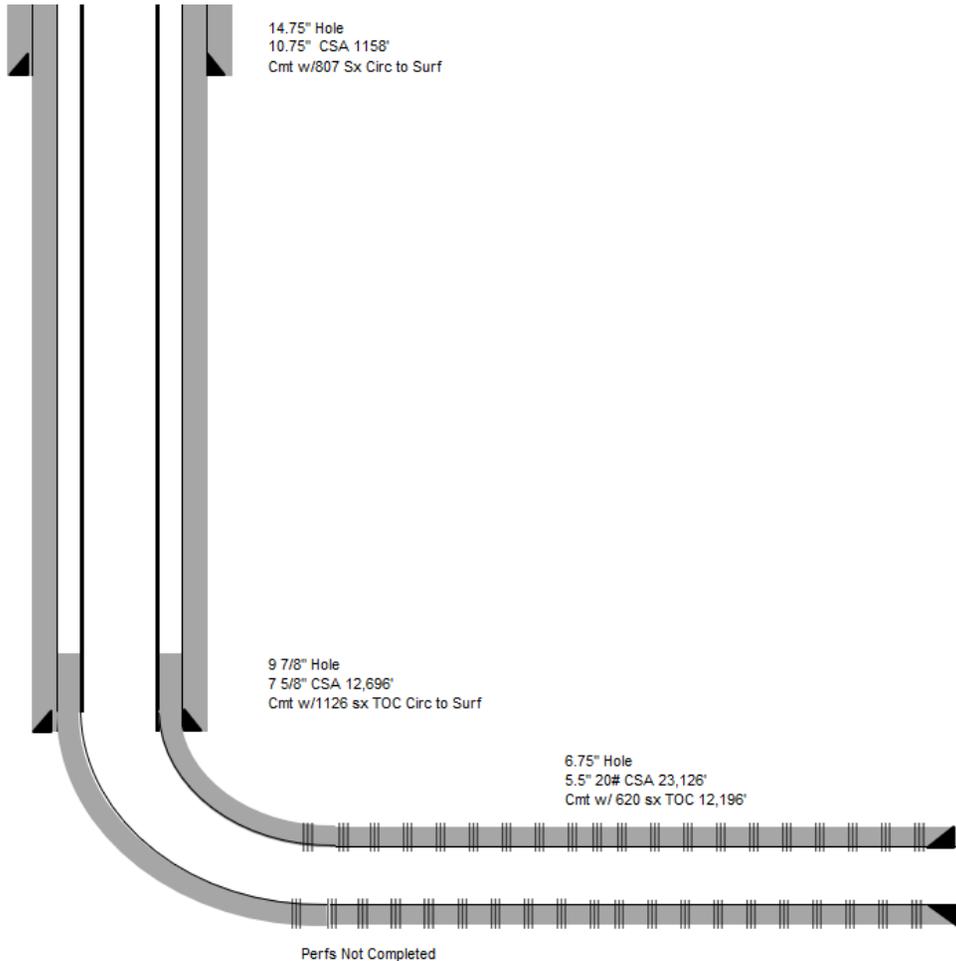
INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #039H API 30-025-48824

WELL LOCATION: <u>250 FSL, 1715 FWL</u>	N	16	24S	32E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 807 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: PROPOSED

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 1126 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: PROPOSED

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 648 sx. *or* _____ ft³

Top of Cement: 12196' Method Determined: PROPOSED

Total Depth: 23,126' Total Vertical Depth: 12,267.5'

Injection Interval MD/TVD

NOT YET COMPLETED feet to NOT YET COMPLETED

(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: NOT YET COMPLETED (MD/TVD)

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

Additional Data

1. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Oxy USA

WELL NAME & NUMBER: MESA VERDE WOLFCAMP UNIT #040H API 30-025-48825

WELL LOCATION: <u>250 FSL, 1750 FWL</u>	<u>N</u>	<u>16</u>	<u>24S</u>	<u>32E</u>
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10.75"

Cemented with: 817 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: PROPOSED

Intermediate Casing

Hole Size: 9.875" Casing Size: 7.625"

Cemented with: 1827 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: PROPOSED

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 620 sx. *or* _____ ft³

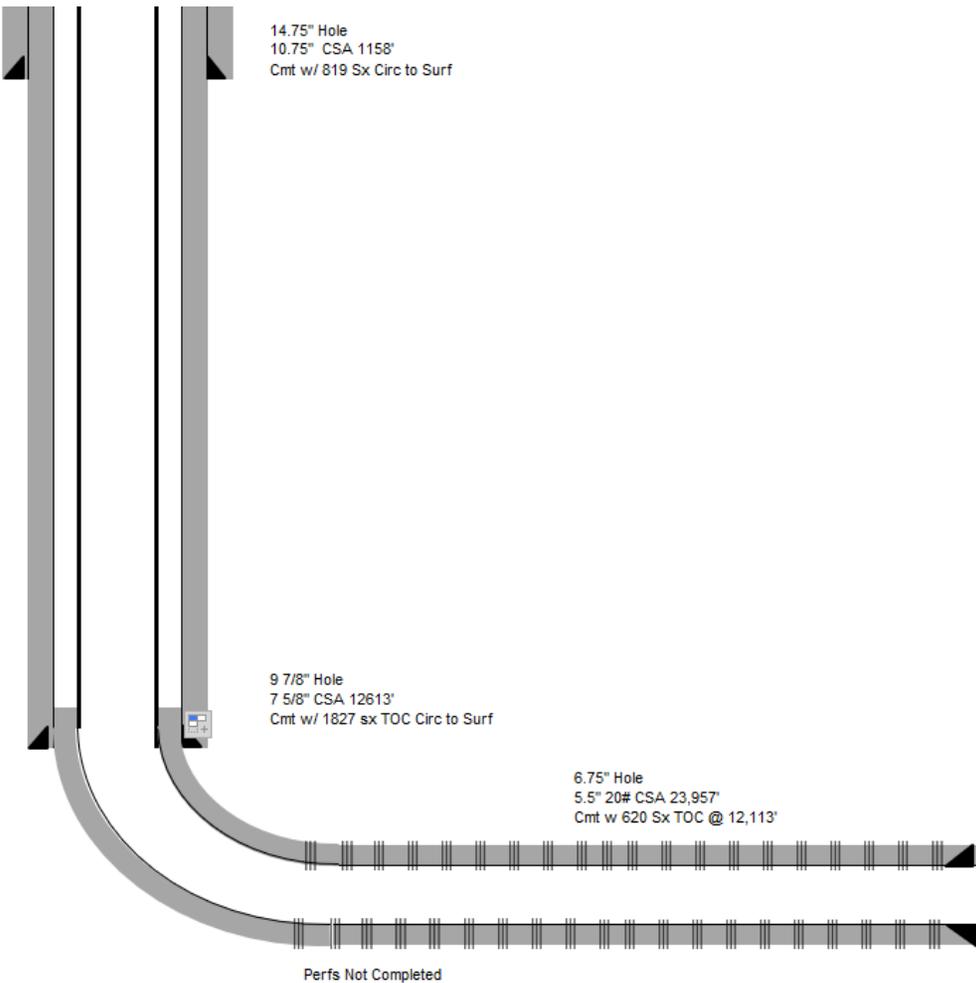
Top of Cement: 12,113' Method Determined: PROPOSED

Total Depth: 23,957' Total Vertical Depth: 12,851'

Injection Interval MD/TVD

NOT YET COMPLETED feet to NOT YET COMPLETED

(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: NOT YET COMPLETED (MD/TVD)

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

Additional Data

1. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

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: NOT YET COMPLETED (MD/TVD)

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

Additional Data

1. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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:

UNDERLYING:

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: NOT YET COMPLETED (MD/TVD)

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

Additional Data

1. Is this a new well drilled for injection? _____ Yes No

If no, for what purpose was the well originally drilled? _____

Oil and Gas production

2. Name of the Injection Formation:

3. Name of Field or Pool (if applicable):

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. _____

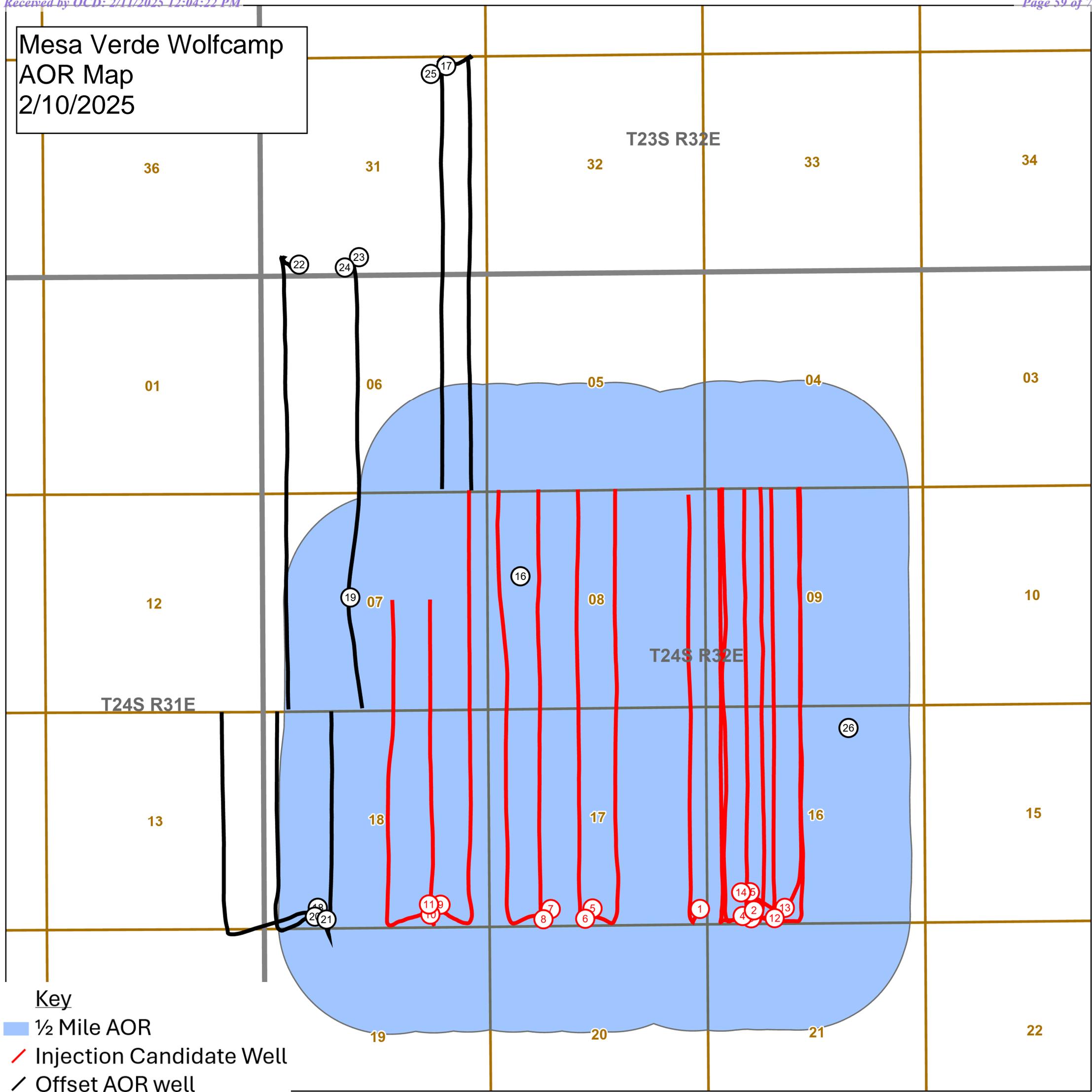
No

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

OVERLYING:

UNDERLYING:

Mesa Verde Wolfcamp
AOR Map
2/10/2025



Key

- 1/2 Mile AOR
- Injection Candidate Well
- Offset AOR well

Wolfcamp 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	Footages 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	30-025-44195	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 12.250 8.500	13.375 9.625 5.500	922 10933 10764-22271	1190 3620 2193	Surf Circ Surf Circ 10764 Circ	8.5" Vertical pilot hole to 14150' MD. 5.5" Production Liner. 5.5" frac string from 0'-10764'	[98252] MESA VERDE; WOLFCAMP
2	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 9.875 6.750	10.750 7.625 5.500	959 11725 22585	975 3015 855	Surf Circ 190 Calc 5618 Calc	[98252] MESA VERDE; WOLFCAMP	
3	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 9.875 6.750	10.750 7.625 5.500	890 11420 22351	975 2824 842	Surf Circ Surf Circ 9031 Calc	[98252] MESA VERDE; WOLFCAMP	
4	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 9.875 6.750	10.750 7.625 5.500	941 11600 22534	975 2745 834	Surf Circ 75 Calc 9269 Calc	[98252] MESA VERDE; WOLFCAMP	
5	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 9.875 6.750	10.750 7.625 5.500	942 11567 22445	908 3988 840	Surf Circ Surf Circ 11050 Calc	[98252] MESA VERDE; WOLFCAMP	
6	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 9.875 6.750	10.750 7.625 5.500	942 11278 22279	908 1655 887	Surf Circ Surf Circ 10775 Calc	[98252] MESA VERDE; WOLFCAMP	
7	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 9.875 6.750	10.750 7.625 5.500	934 11461 22433	970 1530 805	Surf Circ Surf Circ 10960 Calc	[98252] MESA VERDE; WOLFCAMP	
8	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 9.875 6.750	10.750 7.625 5.500	950 11445 22327	970 1220 780	Surf Circ Surf Circ 10940 Calc	[98252] MESA VERDE; WOLFCAMP	
9	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 9.875 6.750	10.750 7.625 5.500	860 11290 22605	870 2540 905	Surf Circ Surf Circ 10100 Calc	[98252] MESA VERDE; WOLFCAMP	
10	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 9.875 6.750	10.750 7.625 5.500	861 11356 19681	870 2975 652	Surf Circ Surf Circ 7865 Calc	[98252] MESA VERDE; WOLFCAMP	
11	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 9.875 6.750	10.750 7.625 5.500	860 11662 20015	870 2242 648	Surf Circ Surf Circ 11137 Calc	[98252] MESA VERDE; WOLFCAMP	
12	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 9.875 6.750	10.750 7.625 5.500	1158 12696 24030	807 1851 620	Surf Planned Surf Planned 12196 Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
13	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 9.875 6.750	10.750 7.625 5.500	1158 12613 23957	819 1827 620	Surf Planned Surf Planned 12113 Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
14	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 9.875 6.750	10.750 7.625 5.500	971 12560 23149	812 1831 626	Surf Planned Surf Planned 12060 Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
15	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 9.875 6.750	10.750 7.625 5.500	1156 12654 23242	823 1843 626	Surf Planned Surf Planned 12154 Planned	Spud in late 2024. Completion report has not been filed.	[98252] MESA VERDE; WOLFCAMP
16	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 17.000 12.250 9.625 9.625	20.000 13.325 9.625 7.000 4.500	598 4521 12108 11768-14950 14656-15452	932 4500 3625 750 200	Surf Circ Surf Circ 4500 TS ?? ??	NA	NA
17	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 9.875 7.875	13.375 8.625 5.500	1067 11357 22307	910 1292 3130	Surf Circ 3412 Circ ??	[98248] WC-025 G-08 S243217P; UPR WOLFCAMP	
18	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 9.875 6.750	10.750 7.625 5.500	970 11248 17065	890 2656 500	Surf Circ Surf Circ 10748 Calc	[98252] MESA VERDE; WOLFCAMP	
19	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 17.500 12.250 8.500	20.000 13.375 9.625 7.625	925 4475 11924 16763	1530 2460 1760 250	Surf Circ Surf Circ Surf Circ 11405 Calc	[97869] SWD; DEVONIAN-SILURIAN	
20	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 9.875 6.750	10.750 7.625 5.500	957 11617 17286	890 2816 485	Surf Circ Surf Circ 10000 Calc	[98252] MESA VERDE; WOLFCAMP	
21	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 9.875 6.125	10.750 7.625 5.500 x 4.5	960 11365 11275	890 2615 512	Surf Circ Surf Circ 10200 Calc	[98252] MESA VERDE; WOLFCAMP	
22	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 9.625 7.875	13.375 8.625 5.500	999 11563 22801	630 2295 2700	Surf Circ 7000 Calc Surf Circ	[98248] WC-025 G-08 S243217P; UPR WOLFCAMP	
23	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 9.625 7.875	13.375 8.625 5.500	978 11197 22672	850 1720 2609	Surf Circ 950 Circ Surf Circ	[98248] WC-025 G-08 S243217P; UPR WOLFCAMP	
24	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 9.625 7.875	13.375 8.625 5.500	996 11601 22773	740 1030 2860	Surf Circ 950 Circ Surf Circ	[98248] WC-025 G-08 S243217P; UPR WOLFCAMP	
25	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 9.625 7.875	13.375 8.625 5.500	1067 11639 22388	910 710 3130	Surf Circ Surf Circ Surf Circ	[98248] WC-025 G-08 S243217P; UPR WOLFCAMP	
26	30-025-30746	COG OPERATING LLC	DOUBLE ABJ STATE	001	Gas	PA	660 N	1980 E	B			16 24S	32E	7/31/1990	15800	NA	17.500 12.250 8.750 7.875	13.375 9.625 7.000 4.500	511 4975 13000 12749-15798	525 2700 1225 350	Surf Circ Surf Circ 6320 CBL 12749 Circ	NA	

1/4/2021

Current Wellbore
Jack Tank 8 Federal #2
 30-025-32192-0000
 Lea

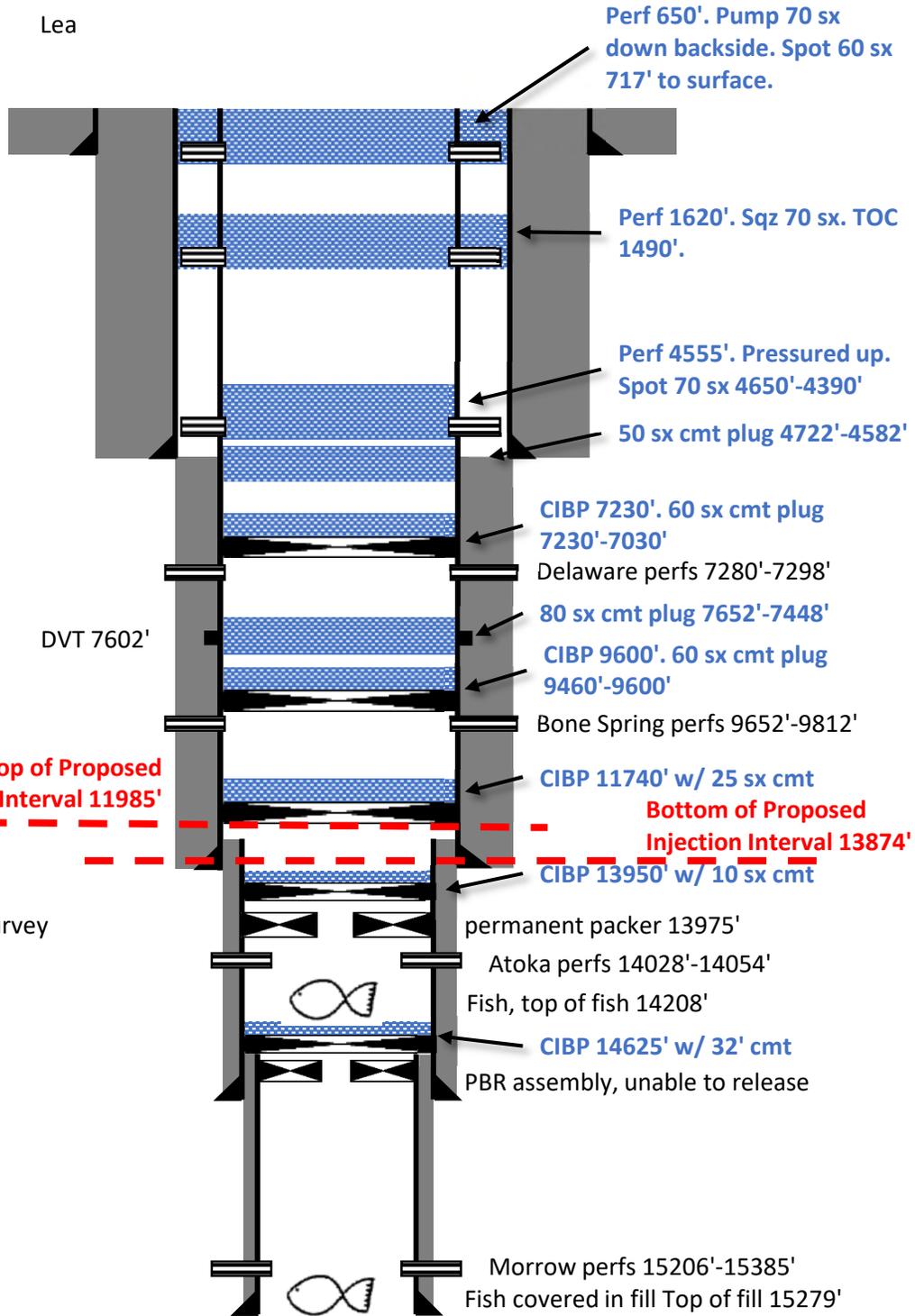
String 1
 OD 20 in
 TD 598 ft
 TOC 0 ft
 932 sx, circ

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

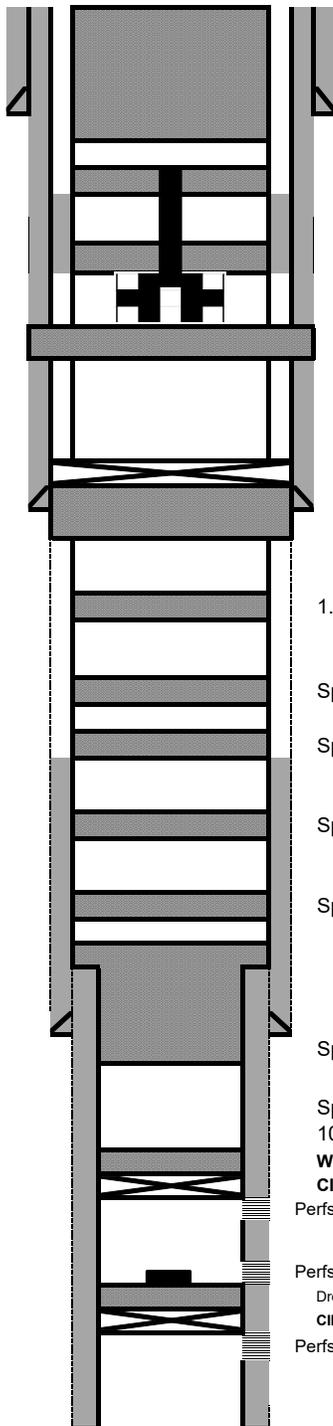
String 4, liner
 OD 7 in
 11768'-14950'
 750 sxs

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



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

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 H2O 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 and CO2 based on *PROSPER* model
 - Various inputs for fluid composition, downhole equipment, bottomhole temperature, and injection rate.

Zone	Water				Hydrocarbon Gas				CO2			
	Average Daily Injection Rate [BWIPD]	Max Daily Injection Rate [BWIPD]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]	Average Daily Injection Rate [MMSCFP D]	Max Daily Injection Rate [MMSCFP D]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]	Average Daily Injection Rate [MMSCFP D]	Max Daily Injection Rate [MMSCFP D]	Average Injection Pressure [PSI]	Max Allowable Surface Pressure [PSI]
WCXYA	5000	10000	2361	2361	22	50	5700	5700	22	50	3080	3080
WCB/C	5000	10000	2570	2570	22	50	6190	6190	22	50	3340	3340



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.

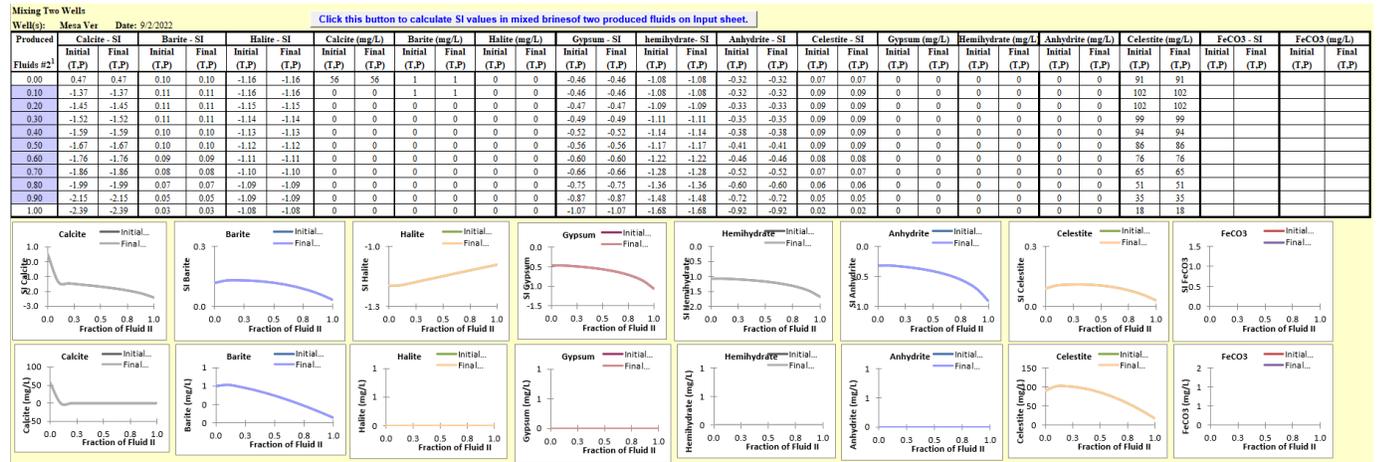
- At a 10/90 ratio of CTB/formation water, Celestite SI peaked at 0.06 SI and Celestite mg/L peaked at 60 mg/L (20 PTB). Both values are relatively low.
- At a 50/50 ratio of CTB/formation water, Celestite SI peaked at 0.10 SI and Celestite mg/L peaked at 100 mg/L (33 PTB). Both values are low.
- At 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.

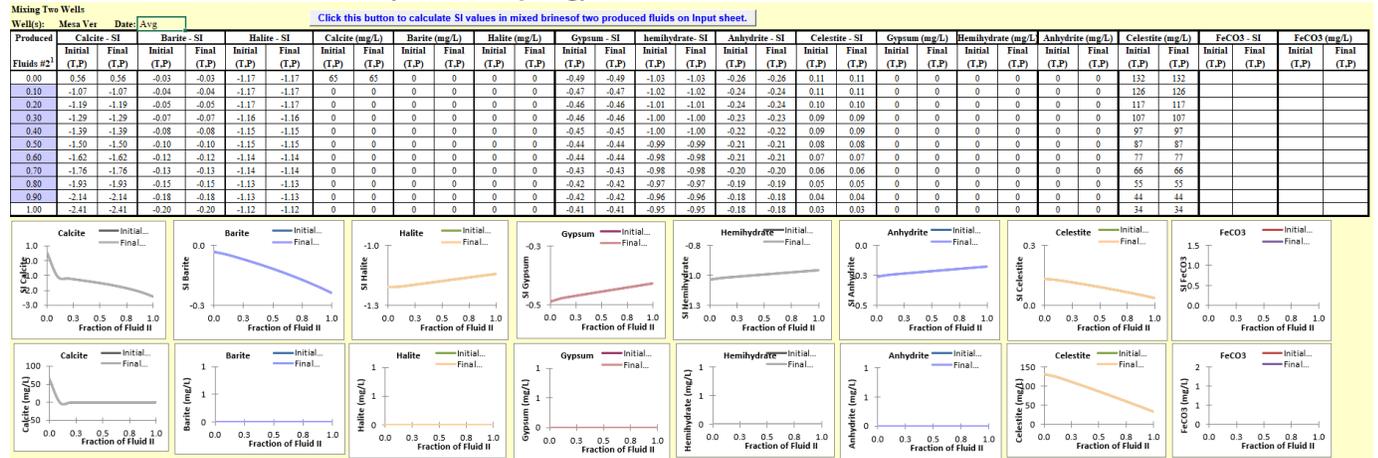
Below is supporting information and the SSP2025 results that were modeled. Additional files have the raw water chemistry information and the SSP2025 models that were ran.

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

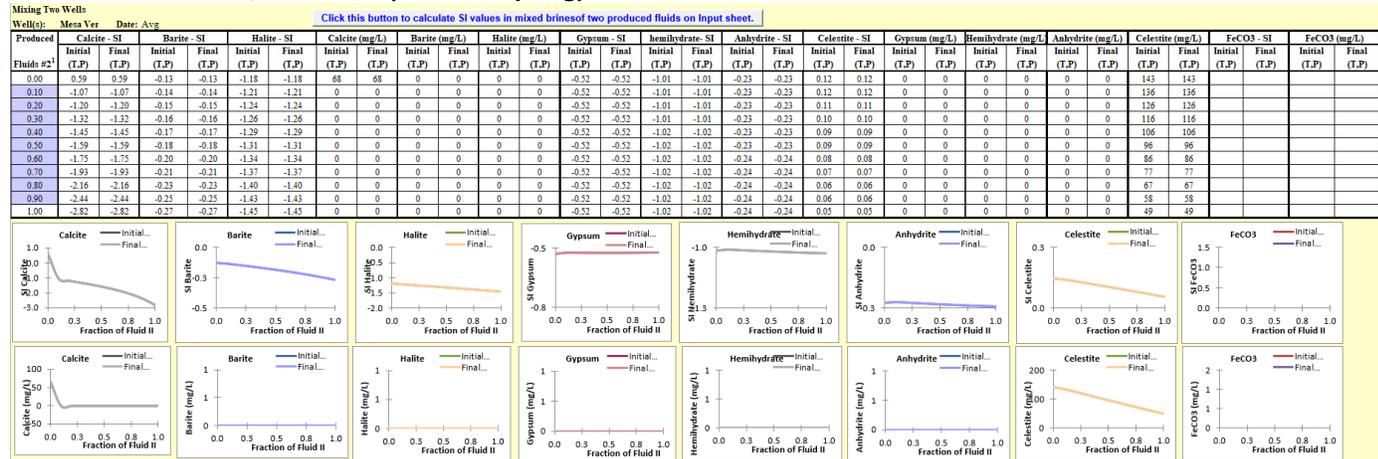
Mesa Verde 18 CTB / MV BS 1H-ST1 (Avalon)



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



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



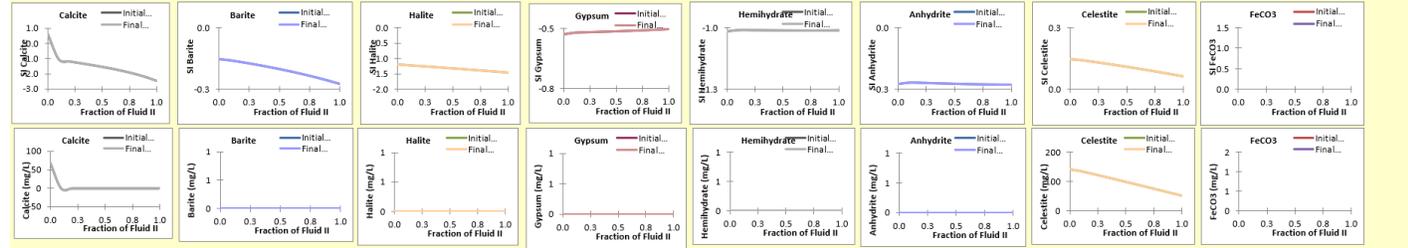
Mesa Verde 18 CTB / MV WC 5H (WCXY)

Mixing Two Wells

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

[Click this button to calculate SI values in mixed brines of two produced fluids on input sheet.](#)

Produced Fluids #2	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)		FeCO ₃ - SI		FeCO ₃ (mg/L)	
	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	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	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	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	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	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	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	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	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	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	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	0	0	53	53		



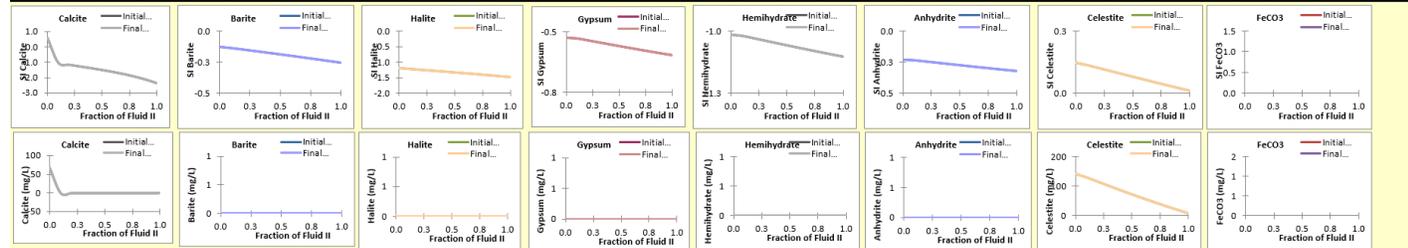
Mesa Verde 18 CTB / MV WC 7H (WCA)

Mixing Two Wells

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

[Click this button to calculate SI values in mixed brines of two produced fluids on input sheet.](#)

Produced Fluids #2	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)		FeCO ₃ - SI		FeCO ₃ (mg/L)	
	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	0	0	143	143		
0.10	-1.04	-1.04	-0.14	-0.14	-1.21	-1.21	0	0	0	0	0	0	-0.52	-0.52	-1.02	-1.02	-0.23	-0.23	0.11	0.11	0	0	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	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	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	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	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	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	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	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	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	0	0	10	10		





Certificate of Analysis

Number: 6030-20090036-004A

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

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

Sep. 08, 2020

Field:	Mesa Verde	Sampled By:	Chandler Montgomery
Station Name:	Mesa Verde Wolf Camp 4H	Sample Of:	Gas Spot
Station Number:	15511T	Sample Date:	09/03/2020 09:45
Sample Point:	N/A	Sample Conditions:	103 psig, @ 117.4 °F Ambient: 82 °F
Meter Number:	API 30-025-46112	Effective Date:	09/03/2020 09:45
County:	Lea	Method:	GPA-2261M
Type of Sample:	Spot-Cylinder	Cylinder No.:	1111-002323
Heat Trace Used:	N/A	Instrument:	70104251 (Inficon GC-MicroFusion)
Sampling Method:	Fill and Purge	Last Inst. Cal.:	08/31/2020 0:00 AM
Sampling Company:	OXY	Analyzed:	09/08/2020 10:58:08 by PGS

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Nitrogen	1.004	1.01170	1.218	
Carbon Dioxide	0.108	0.10851	0.205	
Methane	72.990	73.54212	50.704	
Ethane	12.285	12.37754	15.995	3.307
Propane	6.466	6.51482	12.346	1.793
Iso-Butane	0.959	0.96585	2.413	0.316
n-Butane	2.408	2.42652	6.061	0.764
Iso-Pentane	0.613	0.61794	1.916	0.226
n-Pentane	0.741	0.74651	2.315	0.270
Hexanes	0.574	0.57834	2.142	0.238
Heptanes	0.955	0.96223	4.144	0.443
Octanes	0.109	0.11023	0.541	0.056
Nonanes Plus	0.037	0.03769	NIL	NIL
	99.249	100.00000	100.000	7.413

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	23.27	NIL
Compressibility Factor	0.9954	
Relative Density Real Gas	0.8068	NIL

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.65 psia & 60°F

Real Gas Dry BTU	1380.3	NIL
Water Sat. Gas Base BTU	1356.7	NIL
Ideal, Gross HV - Dry at 14.65 psia	1374.0	NIL
Ideal, Gross HV - Wet	1349.9	NIL

Comments: H2S Field Content 0 ppm
 Mcf/day 4009

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 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
 Station Name: Mesa Verde East CGL
 Station Number: N/A
 Sample Point: Inlet to Dehy
 Meter Number:
 County: Lea
 Type of Sample: Spot-Cylinder
 Heat Trace Used: N/A
 Sampling Method: Fill and Purge

Sampled By: Scott Beasley
 Sample Of: Gas Spot
 Sample Date: 10/30/2020 10:00
 Sample Conditions: 1290 psig, @ 60 °F
 Method: GPA 2286
 Cylinder No: 1111-002316
 Analyzed: 11/05/2020 14:31:50 by PGS
 Sampling Company: OXY

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
 Station Name: Mesa Verde East CGL
 Station Number: N/A
 Sample Point: Inlet to Dehy
 Meter Number:
 County: Lea
 Type of Sample: Spot-Cylinder
 Heat Trace Used: N/A
 Sampling Method: Fill and Purge

Sampled By: Scott Beasley
 Sample Of: Gas Spot
 Sample Date: 10/30/2020 10:00
 Sample Conditions: 1290 psig, @ 60 °F
 Method: GPA 2286
 Cylinder No: 1111-002316
 Analyzed: 11/05/2020 14:31:50 by PGS
 Sampling Company: OXY

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		
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	
	<u>100.000</u>	<u>100.000</u>	<u>6.645</u>	



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Nov. 05, 2020

Field: Mesa Verde
Station Name: Mesa Verde East CGL
Station Number: N/A
Sample Point: Inlet to Dehy
Meter Number:
County: Lea
Type of Sample: Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: Fill and Purge

Sampled By: Scott Beasley
Sample Of: Gas Spot
Sample Date: 10/30/2020 10:00
Sample Conditions: 1290 psig, @ 60 °F
Method: GPA 2286
Cylinder No: 1111-002316
Analyzed: 11/05/2020 14:31:50 by PGS
Sampling Company: OXY

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

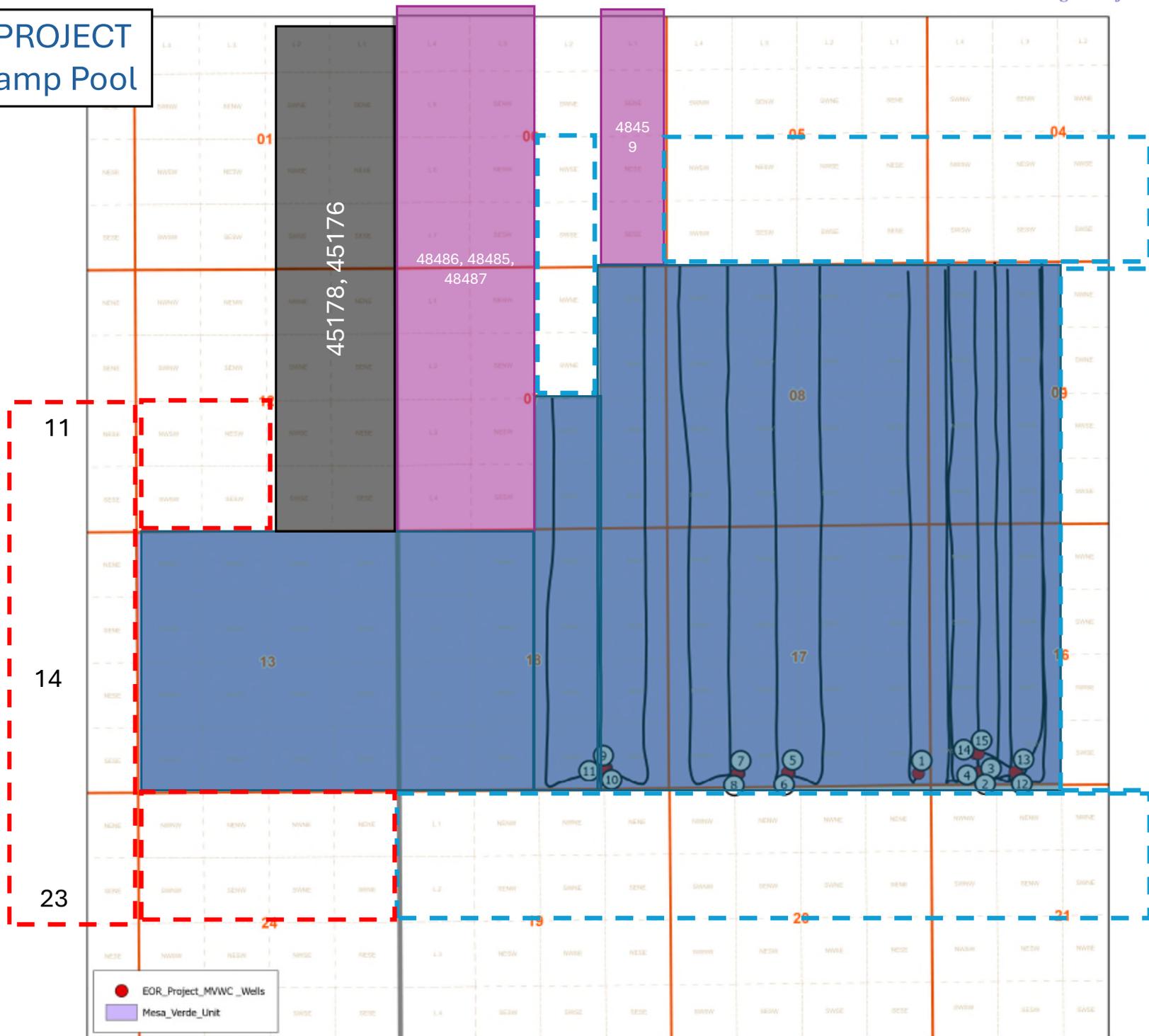
Hydrocarbon Laboratory Manager

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- Wolfcamp Pool

- Key**
- Project Area
 - Oxy IWM HSU
 - Oxy HSU
 - Devon HSU
 - Chevron HSU
 - Determined Lessee or Unleased MIO
 - West side review

— Candidate well



Mesa Verde WC EOR Project- Notice List 2/3/2025

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
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
NGL WATER SOLUTIONS PERMIAN, LLC	865 North Albion Street Suite 500 Denver, CO 80220
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	600 W. Illinois Avenue Midland, TX 79701
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
EOG Resources	1111 Bagby Street Sky Lobby 2 Houston, TX 77002
Hilcorp Energy	1000 Louisiana #3760 Houston, TX 77002
Javelina Partners	616 Texas Street Fort Worth, TX 76102
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
SMC Oil & Gas Inc.	P.O. Box 50907 Midland, TX 79710
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 Wolfcamp A Lateral Wells:*Table 1. Mesa Verde Wolfcamp A Laterals (11).*

Well Name	API
MESA VERDE WC UNIT 1H ST1	3002544195
MESA VERDE WC UNIT 2H	3002546110
MESA VERDE WC UNIT 3H	3002546111
MESA VERDE WC UNIT 4H	3002546112
MESA VERDE WC UNIT 5H	3002545862
MESA VERDE WC UNIT 6H	3002545863
MESA VERDE WC UNIT 7H	3002545920
MESA VERDE WC UNIT 8H	3002545921
MESA VERDE WC UNIT 9H	3002545871
MESA VERDE WC UNIT 10H	3002545872
MESA VERDE WC UNIT 11H	3002545873

The Mesa Verde Wolfcamp A laterals (Table 1) will be injecting into the Wolfcamp X, Y, A1, A2 subformations, grouped as the "Wolfcamp A," of the Wolfcamp Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -8,425 to -8,775 ft. with lateral lengths ranging from 7,500 to 10,000 ft. They will be injecting into a heterolithic reservoir mainly composed of tight siltstone with interbedded calcareous siltstones, argillaceous siltstones, and mudrocks. The reservoir rock has porosity of 1-12% with an average porosity of 7%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.001 millidarcies, ranging from 0.0000009 to 0.004 millidarcies. Pressure transient analysis indicates a permeability of 0.001 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 Wolfcamp measures at 11,882 feet measured depth in the Heavy Metal 14 Federal 1 well (API #30-015-29603). 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 3,400 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

Stephanie Noonan
Geologist Staff Sr.

2/6/25

Date

Part VIII- Geologic Information for Mesa Verde – Wolfcamp BC*Table 1. Mesa Verde Wolfcamp BC Laterals (4).*

Well Name	API
MESA VERDE WC UNIT 39H	3002548824
MESA VERDE WC UNIT 40H	3002548825
MESA VERDE WC UNIT 54H	3002548817
MESA VERDE WC UNIT 55H	3002548863

The Mesa Verde Wolfcamp BC lateral wells Table (1) will be injecting into the Wolfcamp B and Wolfcamp C zones of the Wolfcamp Formation. These wells have a subsea true vertical depth (SSTVD) of approximately -9250 to -9350 ft. with lateral lengths of approximately 10,000 ft. They will be injecting into a heterolithic reservoir composed of tight siltstone with interbedded calcareous siltstones, argillaceous siltstones, and mudrocks. The reservoir rock has porosity of 2-14% with an average porosity of 7%. Rock matrix permeability measured on whole core and rotary sidewall cores with GRI tests averages 0.00805 millidarcies, ranging from 0.0000238 to 0.01478 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 Wolfcamp measures at 11,882 feet measured depth in the Heavy Metal 14 Federal 1 well (API #30-015-29603). 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 4,300 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
Geologist Staff Sr.

2/6/25

Date