BEFORE THE OIL CONSERVATION DIVISION
EXAMINER HEARING SEPTEMBER 09, 2021

CASE NO. 22151

CAL-MON MDP1 "35" FEDERAL 1H, 2H, 4H, 5H, 41H, 175H WELLS,
IRIDIUM MDP1 "28-21" FEDERAL COM #21H WELL

EDDY COUNTY, NEW MEXICO

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

APPLICATION OF OXY USA INC. FOR A CLOSED LOOP GAS CAPTURE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 22151

TABLE OF CONTENTS FOR SEPTEMBER 9, 2021 HEARING EXHIBITS

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

APPLICATION OF OXY USA INC. FOR A CLOSED LOOP GAS CAPTURE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 22151

APPLICATION

OXY USA Inc. ("OXY" or "Applicant") (OGRID No. 16696) through its undersigned attorneys, hereby files this application with the Oil Conservation Division for an order authorizing OXY to engage in a closed loop gas capture injection pilot project in the Bone Spring formation ("pilot project"). In support of this application, OXY states:

PROJECT OVERVIEW

1. OXY proposes to create a 800-acre, more or less, project area for this pilot project consisting of the W/2 W/2 of Sections 21, 28 and 35, and the E/2 of Section 35, Township 23 South, Range 31 East, NMPM, Eddy County, New Mexico. *See* **Exhibit A** at 7-8.

2. The proposed project area is part of a larger area referred to as the Sand Dunes area.

3. Within the proposed project area, OXY seeks authority to utilize the following producing wells to occasionally inject produced gas into the Bone Spring formation:

- The **Cal-Mon MDP1 "35" Federal #1H well** (API No. 30-015-44771) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1077 feet FWL (Unit D) in Section 35, and a bottom hole location 202 feet FSL and 464 feet FWL (Unit M) in Section 35.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. A
Submitted by: OXY USA INC.
Hearing Date: September 09, 2021
Case No. 22151

- The **Cal-Mon MDP1 "35" Federal #2H well** (API No. 30-015-44772) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1112 feet FWL (Unit D) in Section 35, and a bottom hole location 187 feet FSL and 1248 feet FWL (Unit M) in Section 35.
- The **Cal-Mon "35" Federal #41H well** (API No. 30-015-43140) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 250 feet FNL and 710 feet FWL (Unit D) in Section 35, and a bottom hole location 193 feet FSL and 951 feet FWL (Unit M) in Section 35.
- The **Iridium MDP1 "28-21" Federal Com #21H well** (API No. 30-015-45074)[Ingle Wells; Bone Spring Pool (Pool Code 33740)], with a surface location 610 feet FSL and 648 feet FWL (Unit M) in Section 28, and a bottom hole location 24 feet FNL and 303 feet FWL (Unit D) in Section 21.
- The **Cal-Mon "35" Federal #175H well** (API No. 30-015-45524) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 110 feet FNL and 615 feet FEL (Unit A) in Section 35, and a bottom hole location 17 feet FSL and 824 feet FEL (Unit P) in Section 35.
- The **Cal-Mon MDP1 "35" Federal #4H well** (API No. 30-015-44774) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 120 feet FNL and 2624 feet FWL (Unit C) in Section 35, and a bottom hole location 191 feet FSL and 2180 feet FEL (Unit O) in Section 35.
- The **Cal-Mon MDP1 "35" Federal #5H well** (API No. 30-015-44775) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 110 feet

FNL and 890 feet FEL (Unit A) in Section 35, and a bottom hole location 200 feet FSL and 1068 feet FEL (Unit P) in Section 35.

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

- The **Cal-Mon MDP1 "35" Federal #1H well**: between 10,028 feet and 10,098 feet.
- The **Cal-Mon MDP1 "35" Federal #2H well**: between 9,940 feet and 10,101 feet.
- The **Cal-Mon "35" Federal #41H well**: between 10,295 feet and 10,385 feet.
- The **Irdium MDP1 "28-21" Federal Com #21H well**: between 8,664 feet and 8688 feet.
- The **Cal-Mon "35" Federal #175H well**: between 10,549 feet and 10,973 feet.
- The **Cal-Mon MDP1 "35" Federal #4H well**: between 10,226 feet and 10,368 feet.
- The **Cal-Mon MDP1 "35" Federal #5H well**: between 10,012 feet and 10,147 feet.

5. A map depicting the pipeline that ties the wells proposed for the pilot project into the gathering system and the affected compressor station is included in the attached ***Exhibit A*** at 7-8.

WELL DATA

6. Information on the well data, including well diagrams and well construction, casing, tubing, packers, cement, perforations, and other details for each proposed injection well are included in the attached ***Exhibit A*** at 18-31.

7. The top of the Bone Spring formation in this area is at approximately 8,000 feet true vertical depth and extends down to the top of the Wolfcamp formation at approximately 11,600 feet true vertical depth. *See* ***Exhibit A*** at 74-75.

8. The current average surface pressures under normal operations for the proposed injection wells range from approximately 560 psi to 860 psi. *See* ***Exhibit A*** at 32. The maximum allowable surface pressure (MASP) for the wells in the pilot project will be 1,250 psi. *Id.*

9. OXY plans to monitor injection and operational parameters for the pilot project using an automated supervisory control and data acquisition (SCADA) system with pre-set alarms and automatic shut-in safety valves that will prevent injection pressures from exceeding the MASP. *See* ***Exhibit A*** at 33, 49-50.

10. The proposed maximum allowable surface pressure will not exert pressure at the top perforation in the wellbore of any injection well with a full fluid column of reservoir brine water in excess of 90% of the burst pressure for the production casing or production liner. *See* ***Exhibit A*** at 32. In addition, the proposed maximum allowable surface pressure will not exert pressure at the topmost perforation in excess of 90% of the formation parting pressure. *See* ***Exhibit A*** at 32.

11. Cement bond logs[1] for each of the injection wells demonstrate the placement of cement in the wells proposed for this pilot project and that there is a good and sufficient cement bond with the production casing and the tie-in of the production casing with the next prior casing in each well.

12. The wells proposed for injection in the pilot project have previously demonstrated mechanical integrity. *See* ***Exhibit A*** at 34. OXY will undertake new tests to demonstrate

[1] Electronic version of the cement bond logs will be submitted to the Division by email.

mechanical integrity for each of the wells proposed for this pilot project as a condition of approval prior to commencing injection operations.

GEOLOGY AND RESERVOIR

13. Data and a geologic analysis confirming that the Bone Spring formation is suitable for the proposed pilot project is included in ***Exhibit A*** at 71-78. A general characterization of the geology of the Bone Spring formation and its suitability for the proposed injection, including identification of confining layers and their ability to prevent vertical movement of the injected gas is included in the analysis. *Id.*

14. Zones that are productive of oil and gas are located in the overlying Brushy Canyon formation, and the deeper Wolfcamp Formation. *See* ***Exhibit A*** at 71.

15. Reservoir modeling indicates anticipated horizontal movement of injected gas will be approximately 100 feet or less from each injection wellbore within the Bone Spring formation. *See* ***Exhibit A*** at 85.

16. The proposed average injection rate is 1.8 MMSCFPD with a maximum injection rate of 2.0 MMSCFPD during injection for each well except the Iridium MDP1 "28-21" Federal Com #21H well, which has a proposed maximum injection rate of 3.0 MMSCFPD. *See* ***Exhibit A*** at 32.

17. OXY has prepared calculations estimating the stimulated reservoir volume based on supporting empirical data and a reservoir model to evaluate potential effects on wells adjacent to the pilot project area. *See* ***Exhibit A*** at 80-89. OXY's analysis concludes that there will be no change in the oil recovery from each of its proposed injection wells or from any of the offsetting wells. *See id.* at 87.

18. Similarly, OXY has prepared an analysis of the potential effects on the reservoir caused by the proposed injection, including consideration of commingling fluids. ***Exhibit A*** at 80-89. OXY's analysis concludes that there will be no adverse effect on the reservoir as a result of the injection. *Id.* at 87, 90.

19. OXY has also prepared an analysis evaluating the expected gas storage capacity for the proposed injection well relative to the gas injection volumes for an injection scenario lasting twenty days. *See* ***Exhibit A*** at 88. The analysis confirms that whether the capacity is estimated based on the fracture volume gas equivalent or the total gas equivalent volumes produced from the proposed injection zone, the anticipated gas injection volumes will be well below the estimated volume capacity within the project area.

20. The source of gas for injection will be from OXY's wells producing in the Bone Spring and Wolfcamp formations that are identified in the list of wells in ***Exhibit A*** at page 36-38. Each of OXY's proposed injection wells are operated by OXY and OXY holds 100% of the working interest in the CLGC wells.

21. OXY has prepared an analysis of the composition of the source gas for injection and a corrosion prevention plan. *See* ***Exhibit A*** at 39-47.

22. OXY has examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the injection zone and any underground source of drinking water. *See* ***Exhibit A*** at 78. OXY has also examined the available geologic and engineering data and determined that the total recoverable volume of hydrocarbons from the reservoir will not be adversely affected by the pilot project. *See* ***Exhibit A*** at 90.

AREA OF REVIEW

23. OXY has prepared maps depicting the surface hole location and trajectory of the proposed injection well, the location of every well within a two-mile radius, leases within two miles, and the half-mile area of review. *See* ***Exhibit A*** at 52-56.

24. A tabulation of data for wells that penetrate the proposed injection intervals or the confining layer within the area of review is included in ***Exhibit A*** at pages 57-60, along with well-bore schematics for wells that are plugged and abandoned or temporarily abandoned. *See* ***Exhibit A*** at 61-69.

OPERATIONS AND SAFETY

25. OXY will monitor each injection well's instantaneous rates and daily injection volumes, along with pressure in the well tubing, casing, and bradenheads using an automated supervisory control and data acquisition (SCADA) system. *See* ***Exhibit A*** at 49-50. Each injection well will also include automated safety devices, including automatic shut-in valves among other operational safety measures. *See* ***Exhibit A*** at 33. OXY will also monitor and track various operational parameters at the pilot project's central tank battery and central gas lift compressors. *See id*.

26. A copy of this application will be provided by certified mail to the surface owner on which each injection well identified herein is located, and to each leasehold operator and other affected persons within any tract wholly or partially contained within one-half mile of the completed interval of the wellbore for each of the proposed injection wells. A copy of the affected parties subject to notice is included in ***Exhibit A*** at 95-96, along with a map and list identifying each tract and affected persons given notice. *See* ***Exhibit A*** at 92-94.

27. Approval of this pilot project is in the best interests of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, OXY USA Inc. requests that this Application be set for hearing before an Examiner of the Oil Conservation Division on September 9, 2021, and that after notice and hearing this Application be approved.

Respectfully submitted,

HOLLAND & HART LLP

By:_____

Michael H. Feldewert
Adam G. Rankin
Julia Broggi
Kaitlyn A. Luck
Post Office Box 2208
Santa Fe, NM 87504
505-998-4421
505-983-6043 Facsimile
mfeldewert@hollandhart.com
agrankin@hollandhart.com
jbroggi@hollandhart.com
kaluck@hollandhart.com

ATTORNEYS FOR OXY USA INC.

CASE _____: **Application of OXY USA Inc. for Closed Loop Gas Capture Injection Pilot Project, Eddy County, New Mexico.** Applicant in the above-styled cause seeks an order authorizing it to engage in a closed loop gas capture injection pilot project ("pilot project") in the Bone Spring formation, within a 800-acre, more or less, project area for this pilot project consisting of the W/2 W/2 of Sections 21, 28, and 35, and the E/2 of Section 35, Township 23 South, Range 31 East, NMPM, Eddy County, New Mexico, by occasionally injecting into the following wells:

- The **Cal-Mon MDP1 "35" Federal #1H well** (API No. 30-015-44771) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1077 feet FWL (Unit D) in Section 35, and a bottom hole location 202 feet FSL and 464 feet FWL (Unit M) in Section 35.
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OXY seeks authority to utilize these producing wells to occasionally inject produced gas into the Bone Spring formation at true vertical

depths of between approximately 8,000 feet to 11,600 feet along the horizontal portion of each wellbore at surface injection pressures of no more than 1,250 psi. The source of the produced gas will be the Bone Spring and Wolfcamp formations. The subject acreage is located approximately 17 miles east of Loving, New Mexico.

New Mexico Closed Loop Gas Capture (CLGC)
Oxy- North Corridor

EXHIBIT A

Occidental

Overview

General Project Description: Closed Loop Gas Capture Project
Oxy- North Corridor

About North Corridor

The North Corridor is a project area composed of Iridium and Calmon wells. These wells share the same source gas wells and the same gas system.

Summary of Requested Relief

1. Authority to operate a Closed Loop Gas Capture Project ("CLGC") consisting of seven wells to prevent waste and reduce adverse impacts from temporary interruptions of gas pipeline capacity.
2. A 2-year duration of such authority with renewal by administrative approval.
3. Authority to, when applicable, place packers in CLGC wells as deep as possible but no more than 100 feet above the top of the injection zone.
4. Authority to add CLGC wells to the proposed project by administrative approval if the well is within the Area of Review previously completed.

Overview

Oxy USA Inc. (Oxy) is proposing a CLGC project in the North Corridor area. On occasion, third-party gas purchasers reduce takeaway capacity and cause interruptions that result in flaring or shut in production. During these interruptions, Oxy will utilize CLGC wells to capture gas and reduce flaring.

In 2020, Oxy experienced 58 days of interruptions where the third-party gas purchaser temporarily reduced takeaway capacity from this location, resulting in the flaring of 162 MMSCF of gas or the immediate shut-in of at least 21,000 BOPD. Approval of this application will significantly reduce such flaring or shut-in production in the future.

Operations During Interruption	Operations During Interruption With CLGC System	Benefits
• Flare gas • Shut in production	• Store gas • Continue production • No additional surface disturbances	• Reduce greenhouse gas emissions • Improve economic recovery of mineral resources including gas that might have been flared • Utilize existing infrastructure

Proposed Operations

Oxy has an extensive high-pressure gas system in the North Corridor area. It is used for gas lift, a type of artificial lift. Oxy plans to utilize the same system for gas storage operations. Very minimal equipment on surface will need to be installed prior to starting storage operations.

Enterprise is the third-party gas purchaser for the North Corridor area. If an interruption occurs, Oxy will divert gas from the takeaway line back into the gas lift injection system. Gas will flow from the Central

Gas Lift (CGL) Station through the flow meter, control valve, safety shutdown valve, wellhead and into the wellbore for storage. Gas will be injected down the casing/tubing annulus in all wells. Simultaneously, the CLGC well will be shut in by closing the electric choke upstream of the production flowline. After the interruption has ended, the electric choke will open and the CLGC well resumes production.

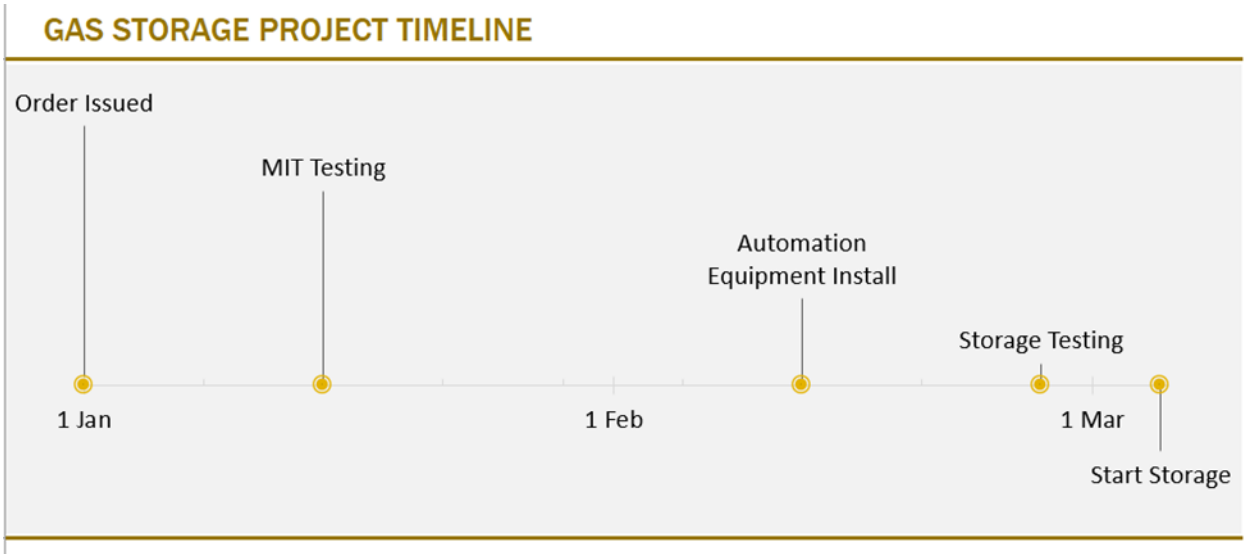
Wells

7 wells are proposed in this application.

#	API 14	Well Name	Injection down the…
1	30015455240000	CAL-MON-175H	Casing
2	30015447710000	CALMON-35-1H	Casing
3	30015447720000	CALMON-35-2H	Casing
4	30015447740000	CALMON-35-4H	Casing
5	30015447750000	CALMON-35-5H	Casing
6	30015431400200	CAL-MON41HST	Casing
7	30015450740000	IRI28-21-21H	Casing

Timeline

Since no new surface disturbances are required, this project can be implemented with minimal facility modifications. The timeline below assumes an order is issued on January 1 for illustration purposes.

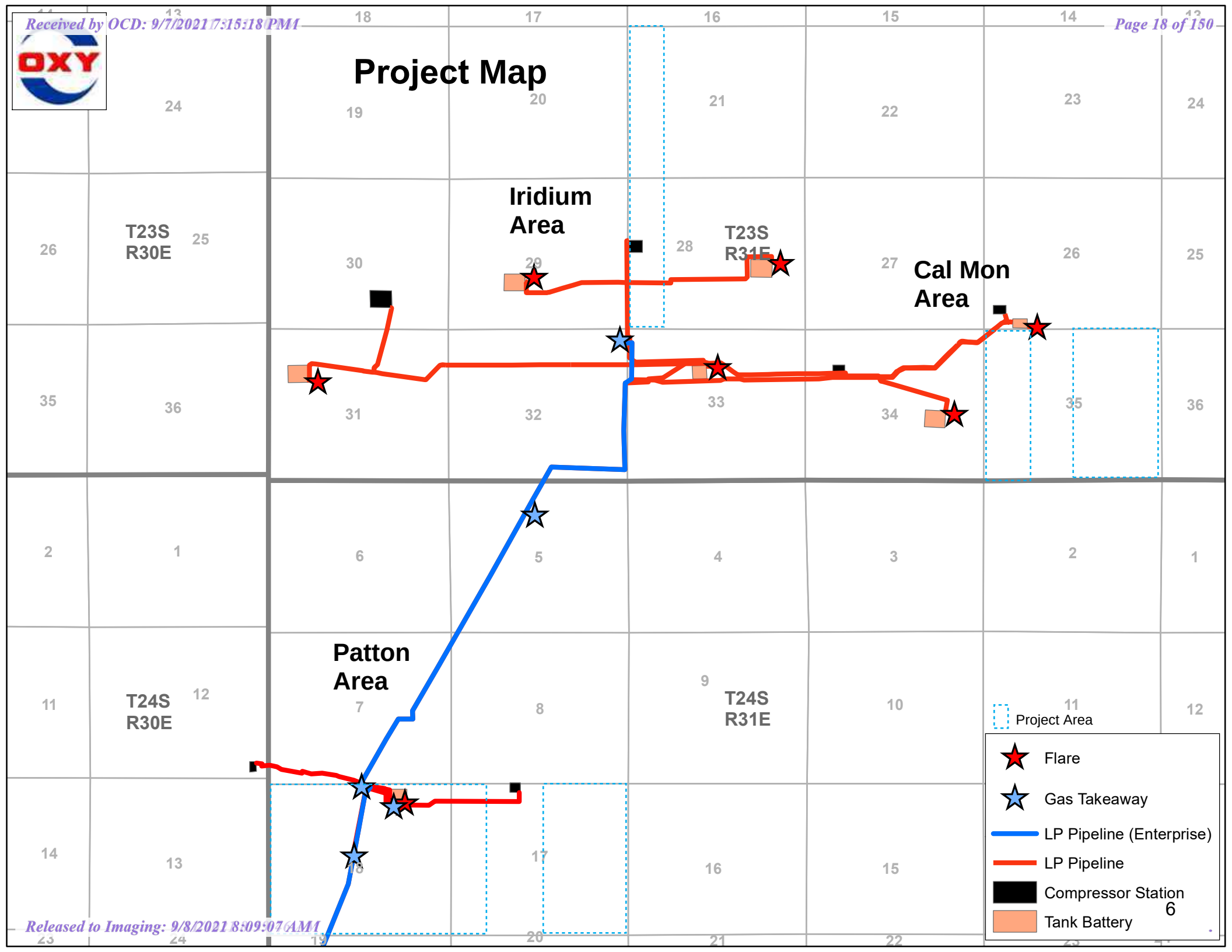


Pertinent Details

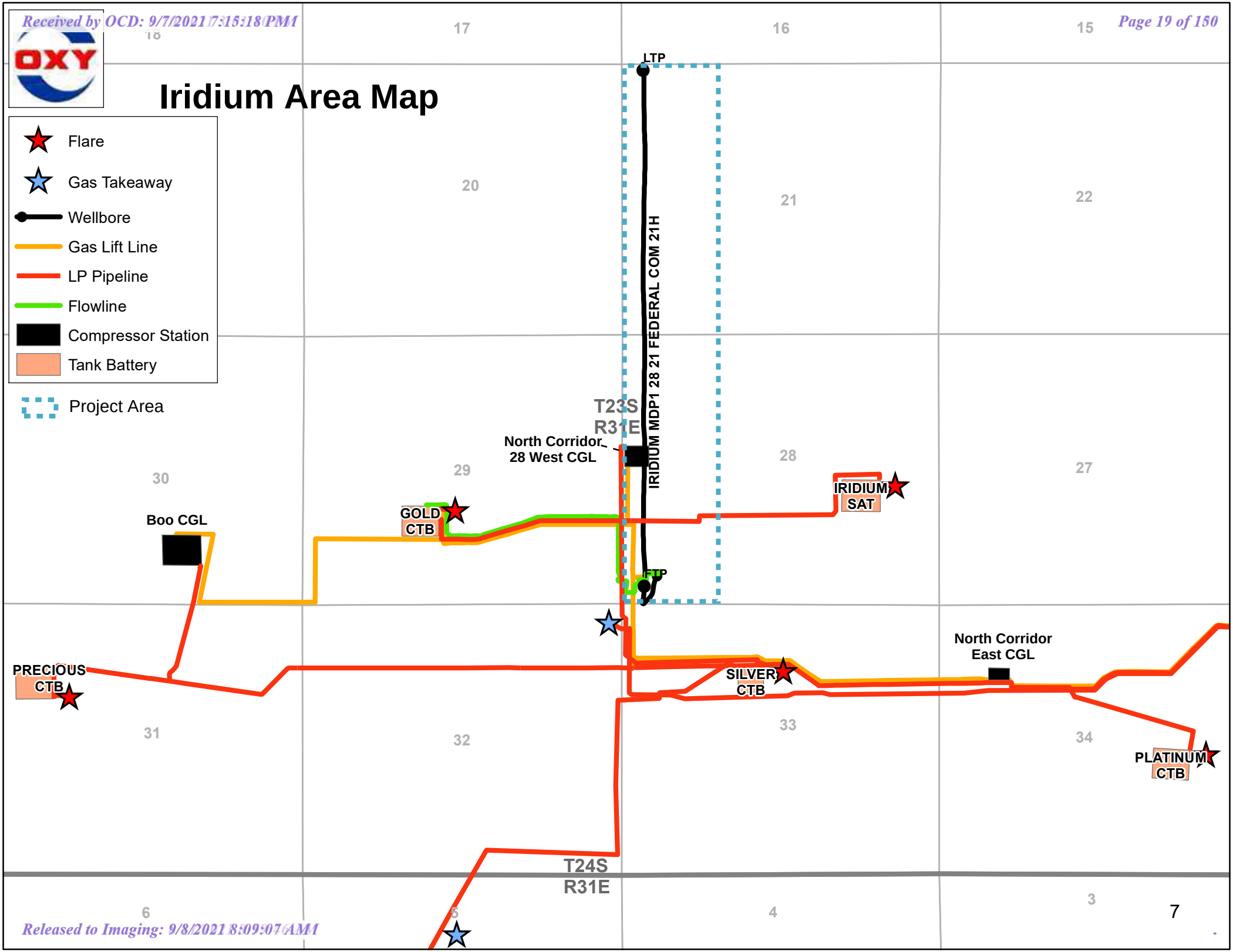
- Maximum Allowable Surface Pressure = 1250 psi
- 7 horizontal wells
- Roughly 5000 ft and 10000 ft lateral lengths
- Injection down the casing/tubing annulus

- Target Formations = Avalon, Second Bone Spring, Harkey
- Top of injection zone based off perf TVD = 8664 ft TVD
- Bottom of injection zone based off perf TVD = 10973 ft TVD

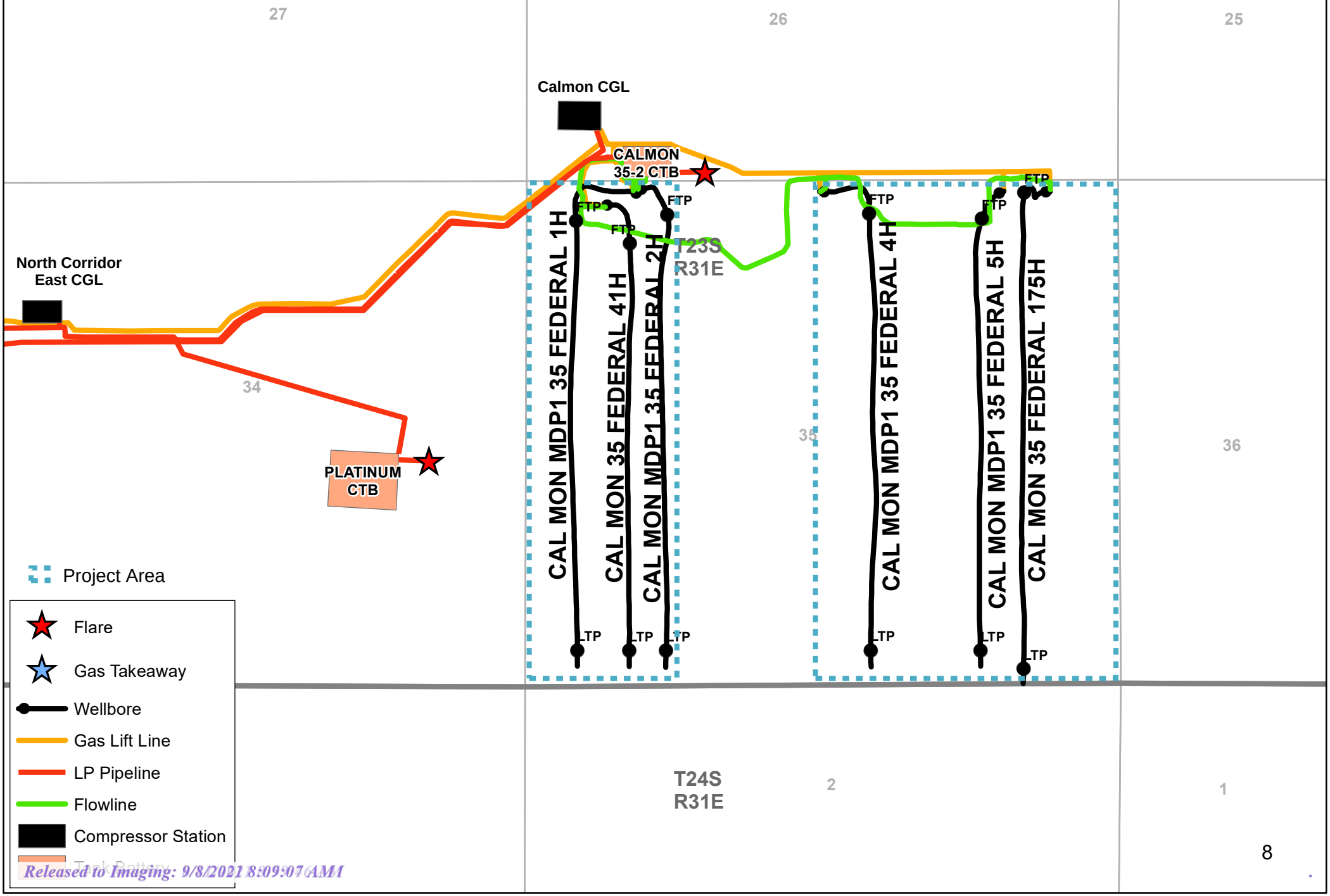
Project Map



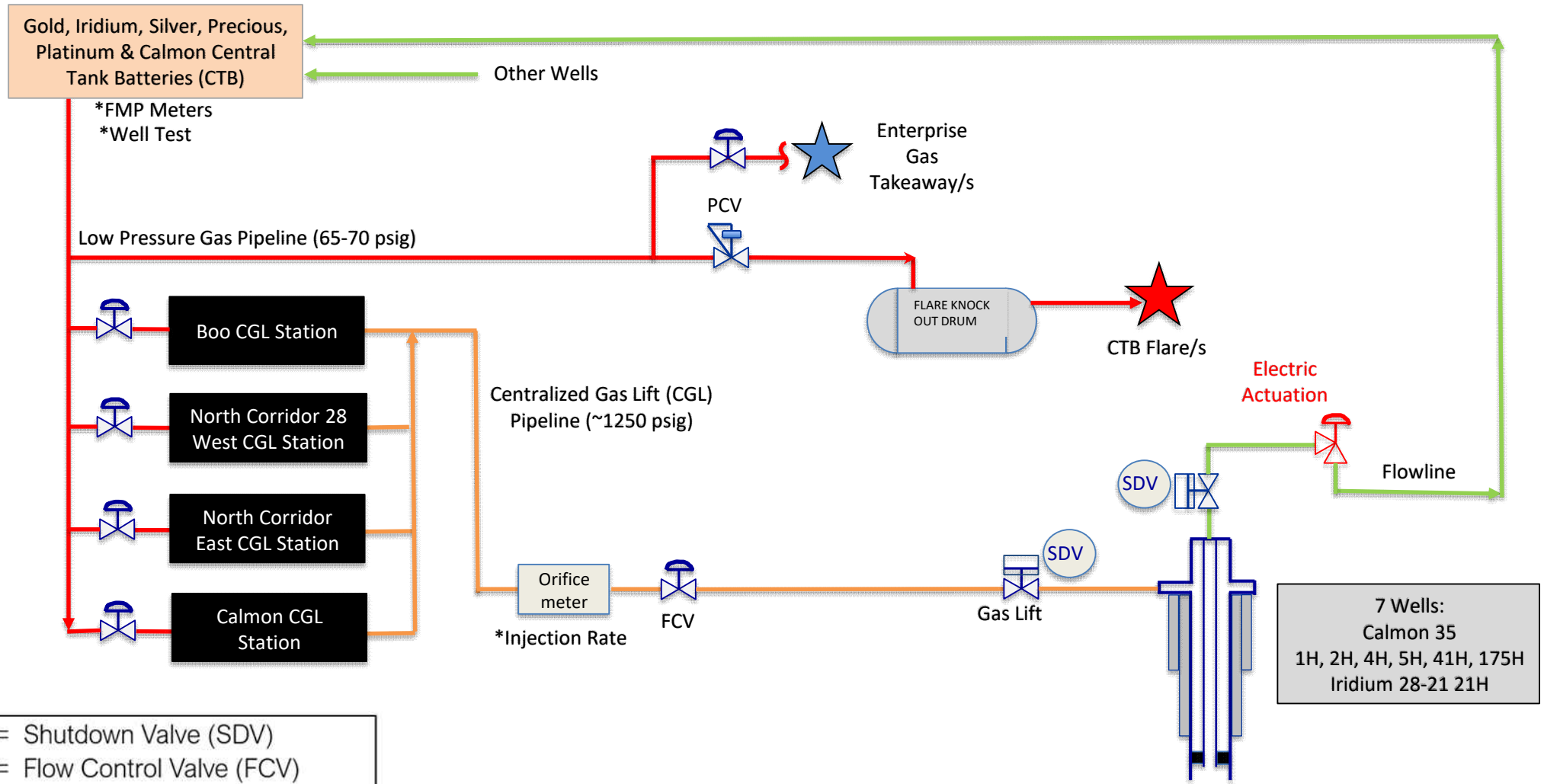
Iridium Area Map



Cal Mon Area Map



Iridium/Calmon Gas Process Flow Diagram



Injection Wellbores

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 13 2018

RECEIVED

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

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

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

☒ AMENDED REPORT
As Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-44771	13367	Cotton Draw Bone Spring

Property Code	Property Name	Well Number
320832	CAL-MON MDP1 "35" FEDERAL	1H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3457.9'

Surface Location

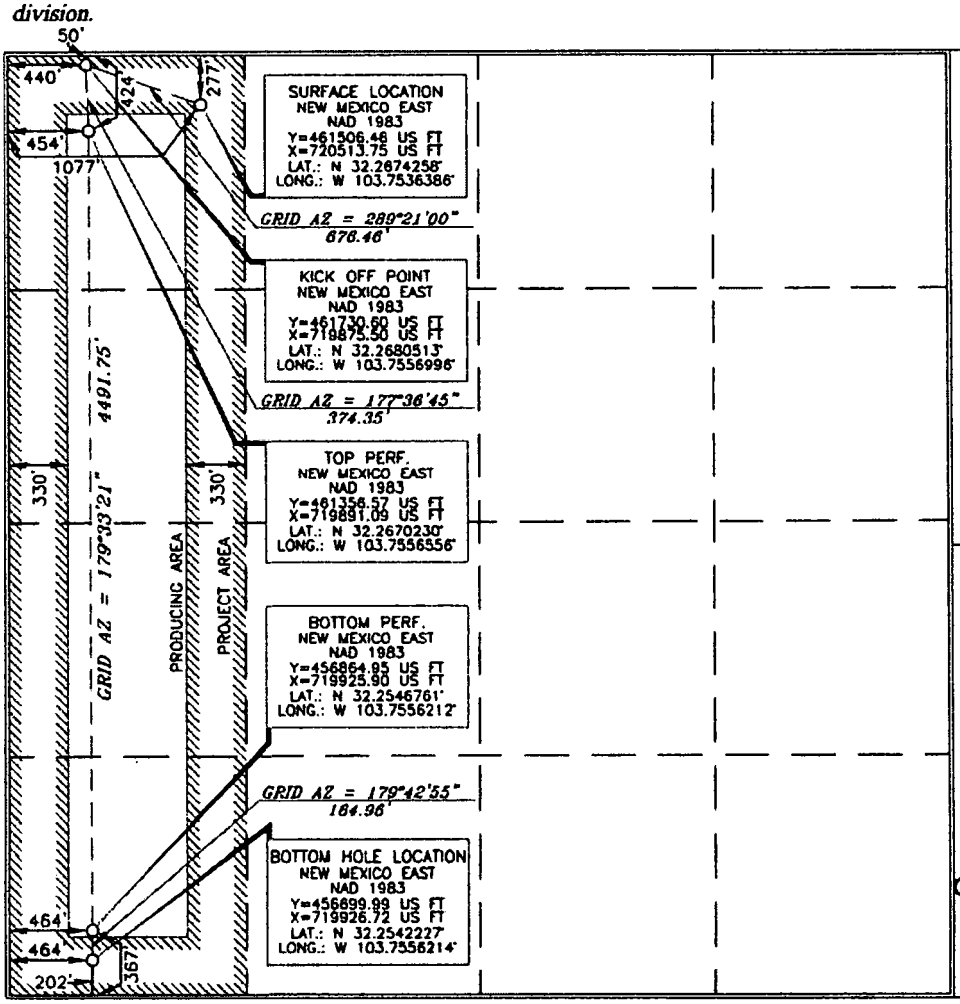
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	23 SOUTH	31 EAST, N.M.P.M.		277'	NORTH	1077'	WEST	EDDY

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
M	35	23 SOUTH	31 EAST, N.M.P.M.		202'	SOUTH	464'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		TP: 424' FNL 454' FWL BP: 367' FSL 464' FWL

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



OPERATOR CERTIFICATION

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

Sarah Chapman 6/12/18
Signature Date

Sarah Chapman
Printed Name

Sarah_chapman@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

15079
FEBRUARY 15, 2018
Date of Survey

Signature and Seal of Professional Surveyor

STATE OF NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number 15079

WO# 161019WL-a (Rev. B) (KA)

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

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WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-44772	13367	Cotton Draw Bone Spring

Property Code	Property Name	Well Number
320832	CAL-MON MDP1 "35" FEDERAL	2H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3458.4'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	23 SOUTH	31 EAST, N.M.P.M.		277'	NORTH	1112'	WEST	EDDY

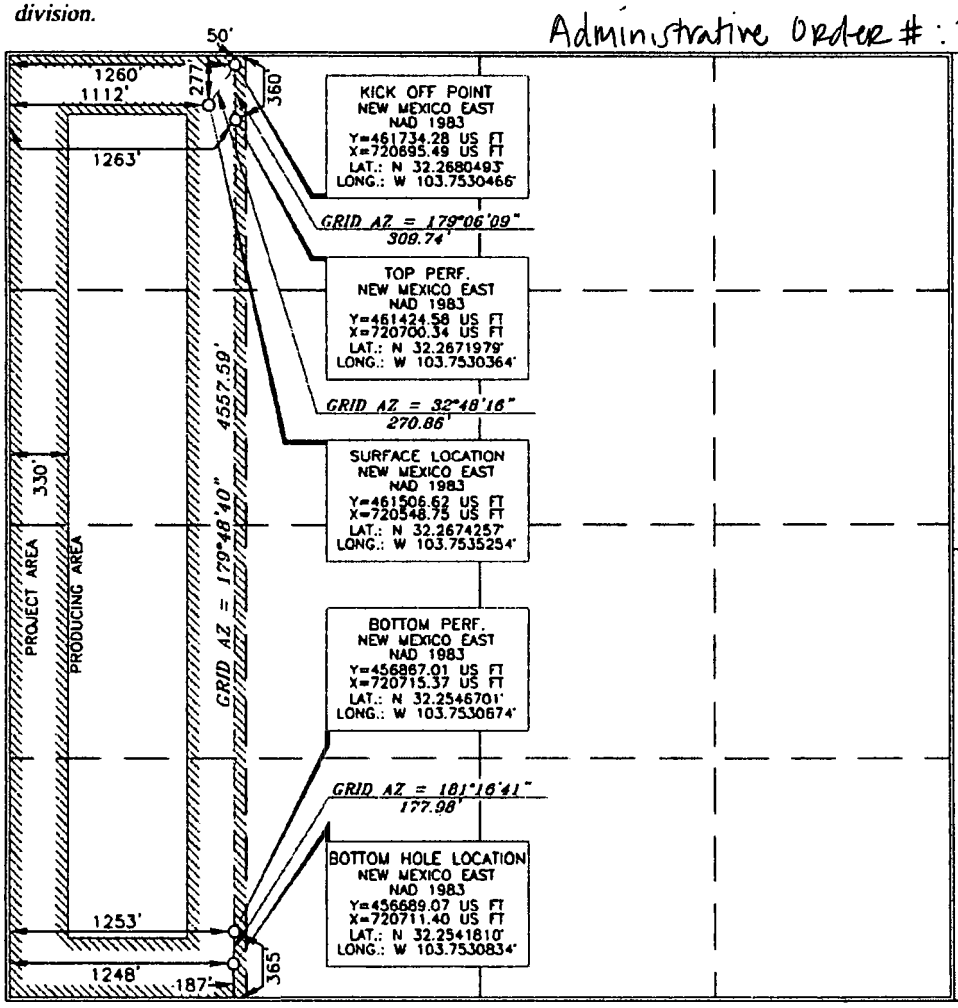
Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	23 SOUTH	31 EAST, N.M.P.M.		187'	SOUTH	1248'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		TP: 360'FNL 1263'FWL BP: 365'FSL 1253'FWL

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

Administrative Order #: 7592-NSL



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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 4/12/18
Signature Date

Sarah Chapman
Printed Name

Sarah_chapman@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

15079
FEBRUARY 15, 2018
Date of Survey

Signature and Seal of Professional Surveyor:

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

6/12/2018

Certificate Number 15079

WO# 161019WL-b (Rev. B) (KA)

NM OIL CONSERVATION
ARTESIA DISTRICT
DEC 18 2017
RECEIVED

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WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-43140	13367	Cotton Draw Bone Spring

Property Code	Property Name	Well Number
314855	CAL-MON "35" FEDERAL	41H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3456.2'

Surface Location

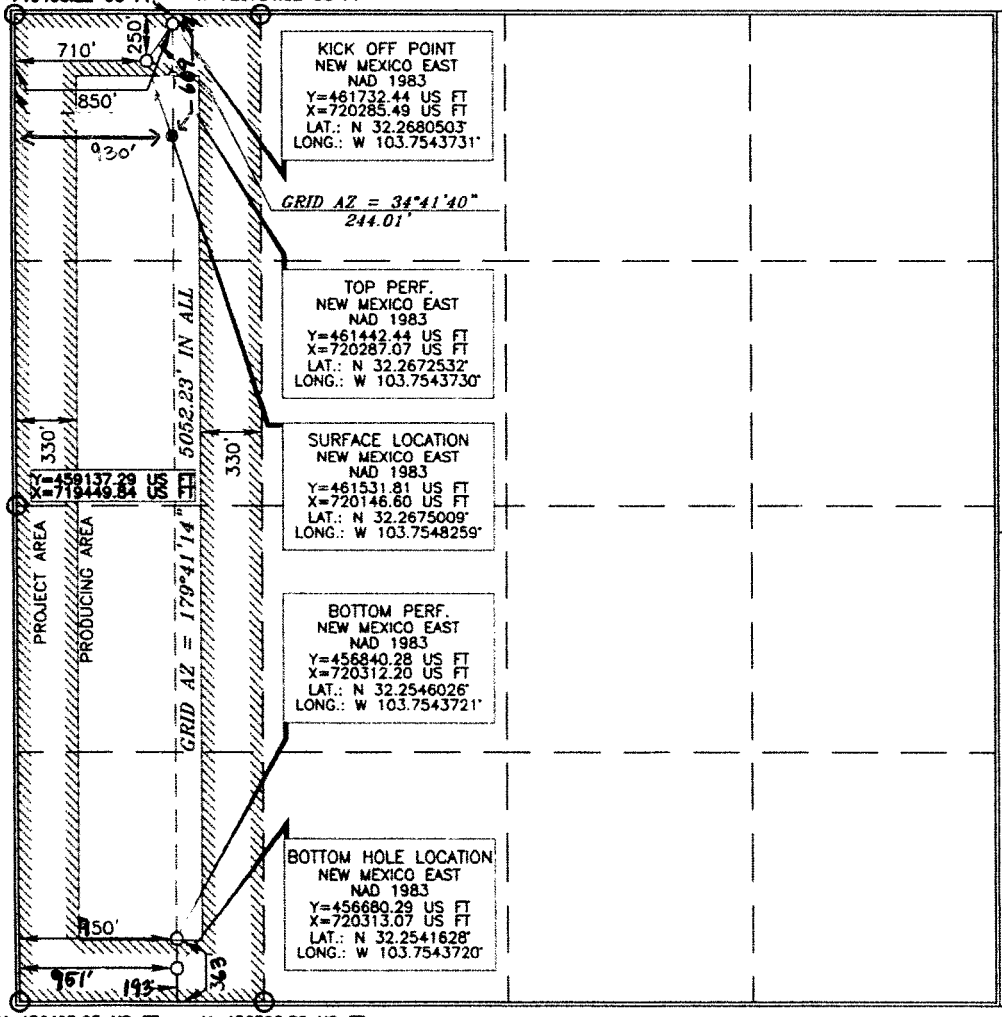
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	23 SOUTH	31 EAST, N.M.P.M.		250'	NORTH	710'	WEST	EDDY

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
M	35	23 SOUTH	31 EAST, N.M.P.M.		~~180~~ 193	SOUTH	~~850~~ 951	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	~~Order No.~~
160	N		BP - 363 FSL 950 FWL TP - 669 FNL 930 FWL

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



OPERATOR CERTIFICATION

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

Signature — Date: 10/12/17

Printed Name: Jana Mendiola

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.

AUGUST 8, 2016
Date of Survey

Signature and Seal of Professional Surveyor:

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

2/22/2017

Certificate Number 15079

WO# 160803WL-XY (Rev. B) (KA)

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

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

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

☑ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015- 45074	33740	Ingle Wells Bone Spring

Property Code	Property Name	Well Number
321632	IRIDIUM MDP1 "28-21" FEDERAL COM	21H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3368.4'

Surface Location

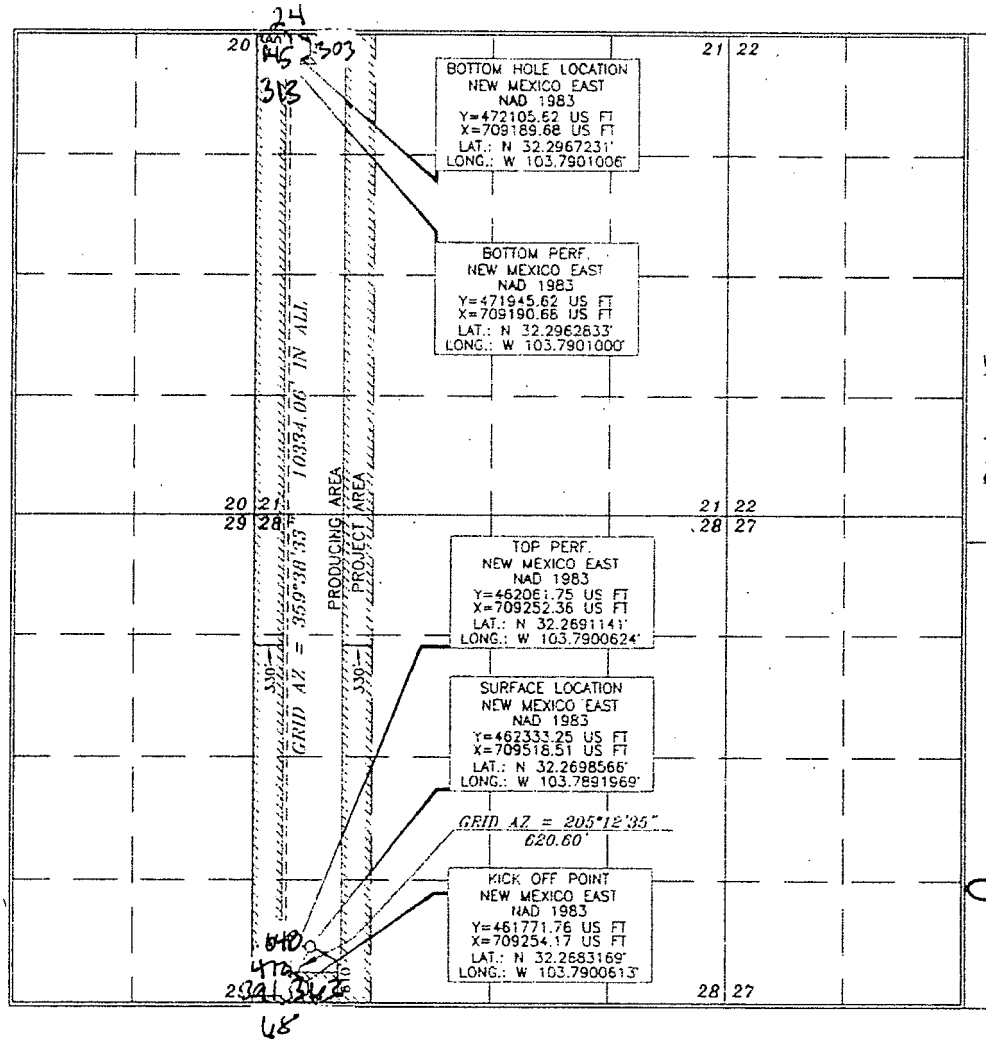
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	28	23 SOUTH	31 EAST, N.M.P.M.		610'	SOUTH	648'	WEST	EDDY

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	21	23 SOUTH	31 EAST, N.M.P.M.		24	NORTH	303'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			FTP: 472' FSL 391' FWL LTP: 145' FNL 313' FWL

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



OPERATOR CERTIFICATION

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

Sarah Chapman 12/19/18
Signature Date

Sarah Chapman
Printed Name

sarah_chapman@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

15079
SEPTEMBER 20, 2017
Date of Survey

Signature and Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

Terry J. Asel 10/31/2017
Certificate Number 15079

WO# 170920WL-b (KA)

RECEIVED

APR 05 2019

DISTRICT II-ARTESIA O.C.D.

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
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☒ AMENDED REPORT
As-Drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-45524	13367	Cotton Draw Bone Spring

Property Code	Property Name	Well Number
320832	CAL-MON "35" FEDERAL	175H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3472.5'

Surface Location

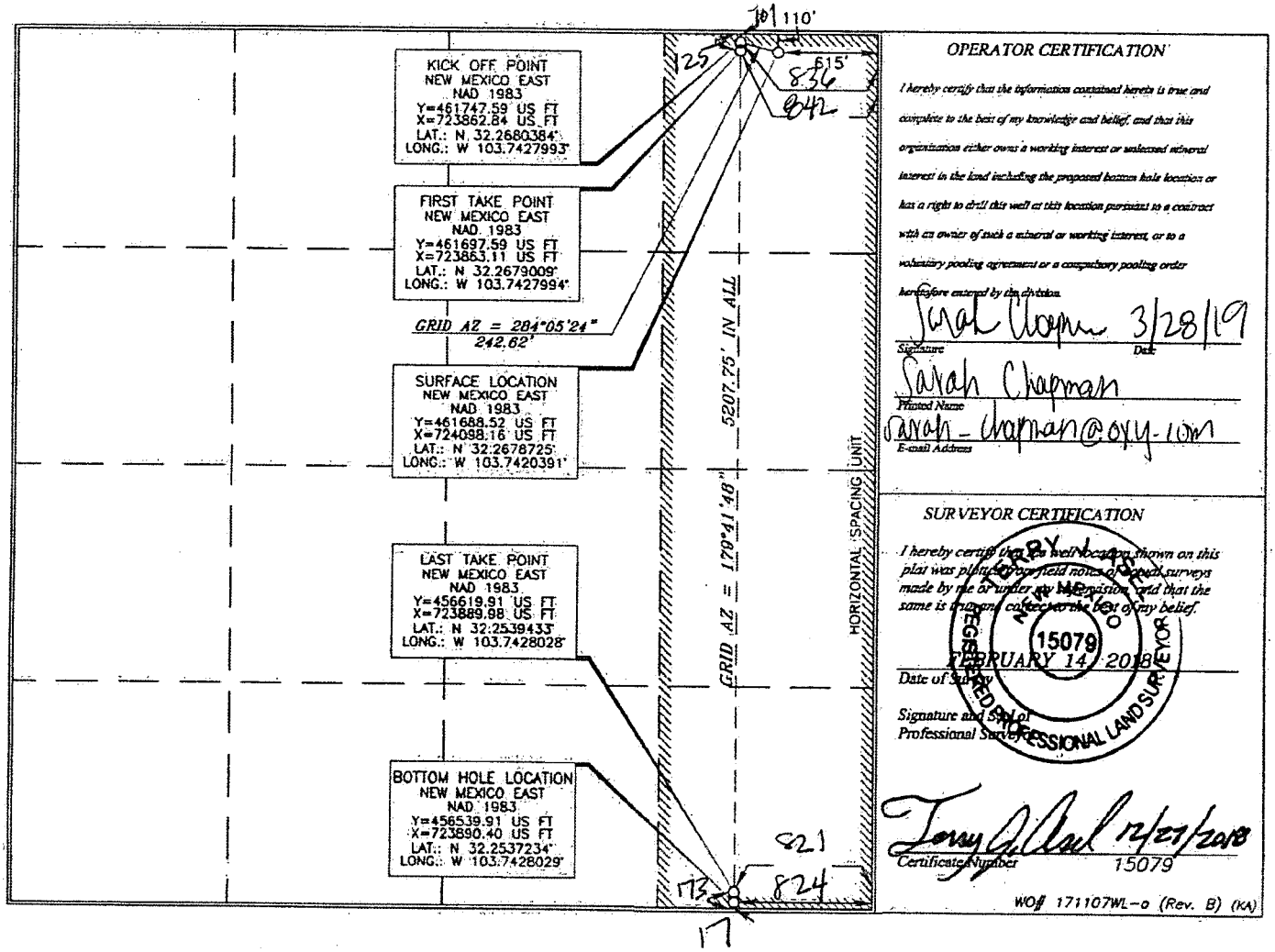
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	35	23 SOUTH	31 EAST, N.M.P.M.		110'	NORTH	615'	EAST	EDDY

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
P	35	23 SOUTH	31 EAST, N.M.P.M.		17	SOUTH	824	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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 3/28/19
Signature Date

Sarah Chapman
Printed Name

sarah_chapman@oxy.com
E-mail Address

SURVEYOR CERTIFICATION

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

FEBRUARY 14, 2018
Date of Survey

Signature and Seal of Professional Surveyor

NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number 15079

WO# 171107WL-0 (Rev. B) (KA)

RECEIVED

SEP 12 2018

DISTRICT II-ARTESIA O.C.D.

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

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

☒ AMENDED REPORT
(As-Drilled)

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-44774	13367	COTTON DRAW; BONE SPRING

Property Code	Property Name	Well Number
320823	CAL-MON MDP1 "35" FEDERAL	4H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3462.3'

Surface Location

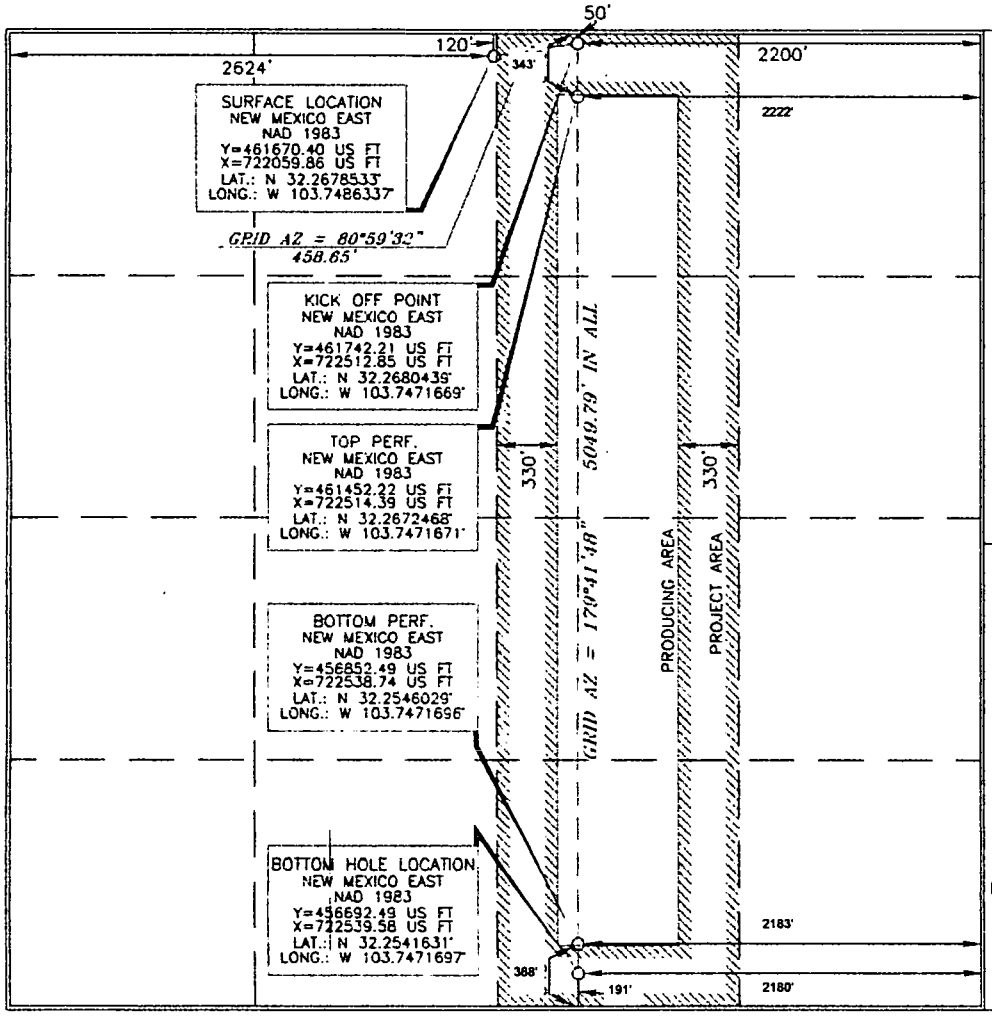
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	35	23 SOUTH	31 EAST, N.M.P.M.		120'	NORTH	2624'	WEST	EDDY

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
O	35	23 SOUTH	31 EAST, N.M.P.M.		191'	SOUTH	2180'	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		TP: 343 FNL 2222 FEL BP: 368 FSL 2183 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.

Sarah Mitchell 6/6/18
Signature Date

Sarah Mitchell
Printed Name

sarah_mitchell@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.

NOVEMBER 8, 2016
Date of Survey

Signature and Seal of Professional Surveyor:

TERRY J. ASEL — NEW MEXICO — 15079 — PROFESSIONAL LAND SURVEYOR

Terry J. Asel 2/6/2017
Certificate Number 15079

WO# 161108WL-b (KA)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
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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

NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 10 2018
RECEIVED

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-44775	13367	COTTON DRAW; BONE SPRING

Property Code	Property Name	Well Number
320832	CAL-MON MDP1 "35" FEDERAL	5H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3469.0'

Surface Location

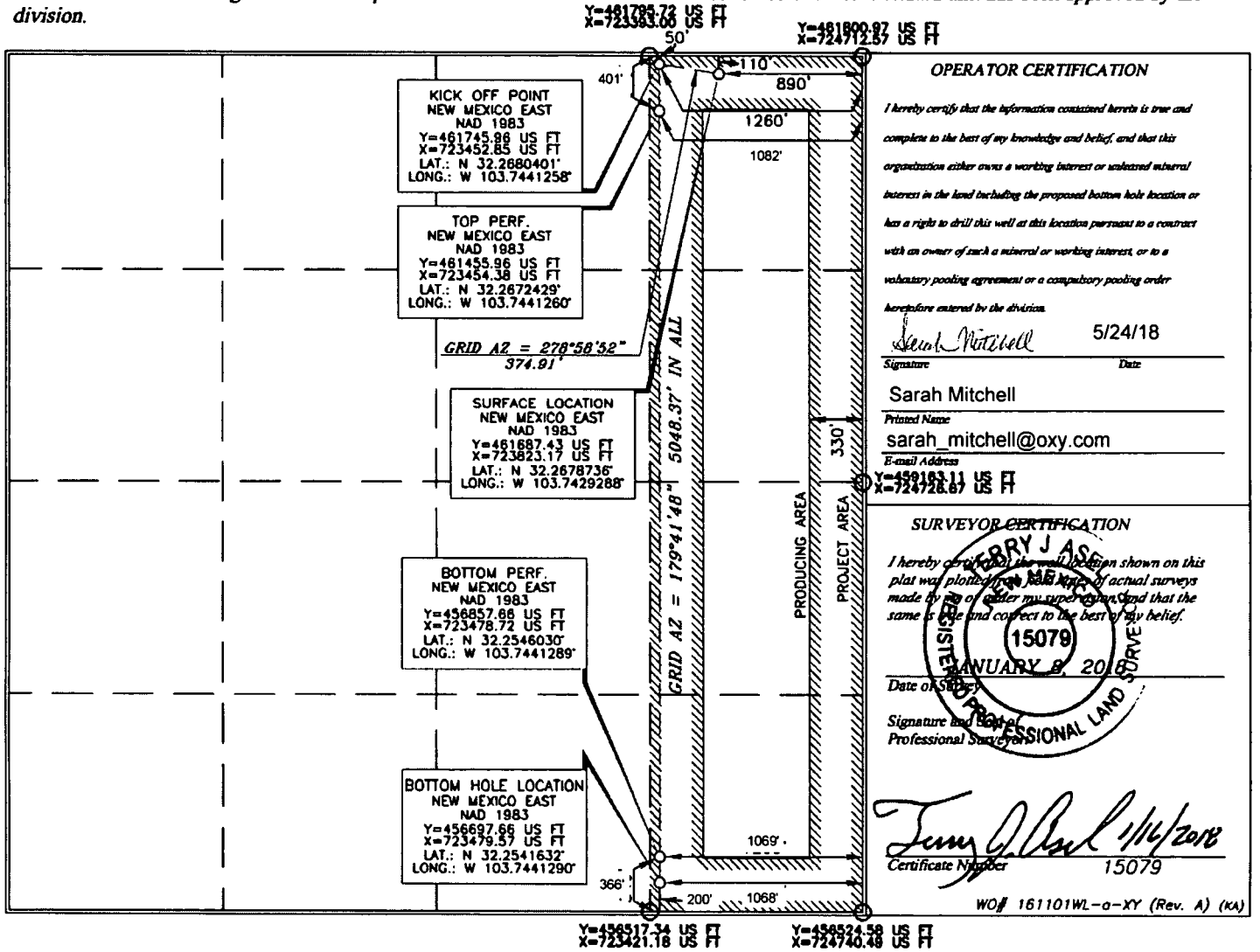
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	35	23 SOUTH	31 EAST, N.M.P.M.		110'	NORTH	890'	EAST	EDDY

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
P	35	23 SOUTH	31 EAST, N.M.P.M.		200'	SOUTH	1068'	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160	Y		NSL 7593 TP: 401 FNL 1082 FEL, BP: 366 FSL 1069 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.

Sarah Mitchell 5/24/18
Signature Date

Sarah Mitchell
Printed Name

sarah_mitchell@oxy.com
E-mail Address

Y=459183.11 US FT
X=724726.67 US FT

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.

JANUARY 8, 2018
Date of Survey

Signature and Seal of Professional Surveyor

GERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

1/16/2018

Certificate Number 15079

WO# 161101WL-a-XY (Rev. A) (KA)

Side 1

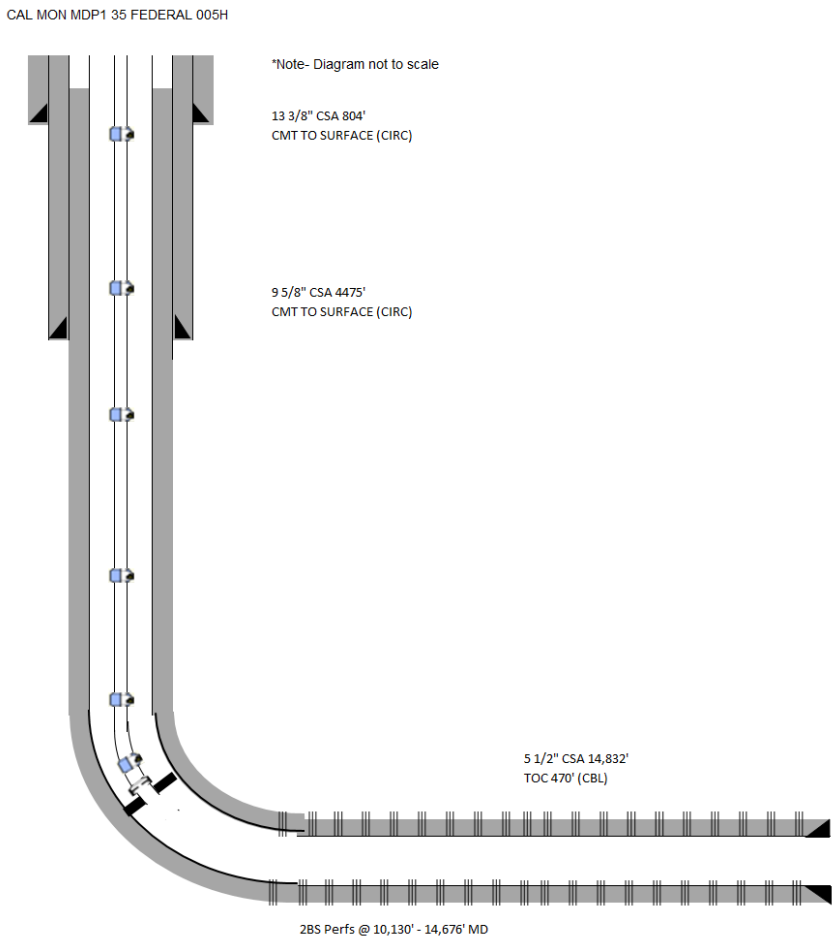
OPERATOR: OXY USA INC

WELL NAME & NUMBER: CAL MON MDP1 35 FEDERAL 5H

WELL LOCATION: 110' FNL 890' FEL | A | 35 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 1045 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

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

Cemented with: 1365 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2025 sx. ***or*** _____ ft^3

Top of Cement: 470' Method Determined: CBL

Total Depth: 14,832' MD/10,147' TVD

Injection Interval

10,130' MD/10,012' TVD feet to 14,676' MD/10,147' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: WATSON AS1X 10K PACKER 20-23# 5.5"

Packer Setting Depth: 9710' MD/9700' TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [13367] COTTON DRAW; BONE SPRING

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

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

Side 1

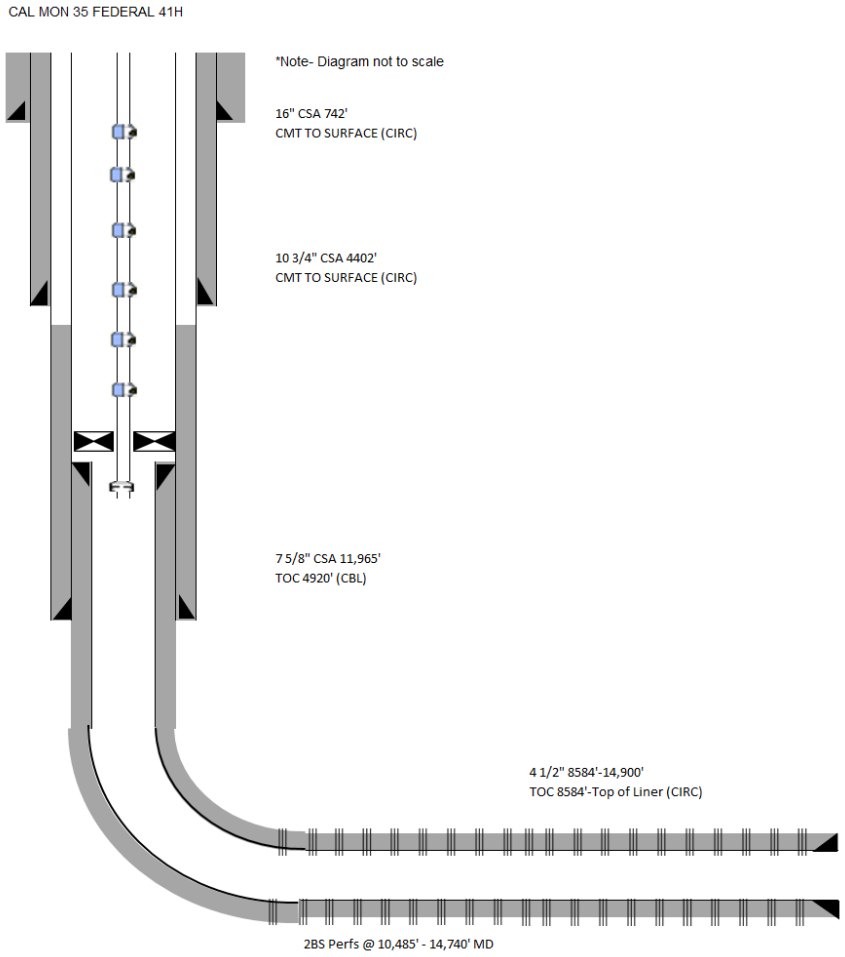
OPERATOR: OXY USA INC

WELL NAME & NUMBER: CAL MON 35 FEDERAL 41H

WELL LOCATION: 250' FNL 710' FWL | D | 35 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 18.5" Casing Size: 16"

Cemented with: 700 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 13.5" Casing Size: 10-3/4"

Cemented with: 2420 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 9.875" / 6.75" Casing Size: 7-5/8" / 4-1/2"

Cemented with: 3270 / 620 sx. ***or*** _____ ft^3

Top of Cement: 4920' / 8584' Method Determined: CBL / CIRC

Total Depth: 14,820' MD/10,387' TVD

Injection Interval

10,485' MD/10,295' TVD feet to 14,740' MD/10,385' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: WEATHERFORD AS-1X PACKER

Packer Setting Depth: 8477' MD/8477' TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [13740] COTTON DRAW; BONE SPRING

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

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

Side 1

OPERATOR: OXY USA INC

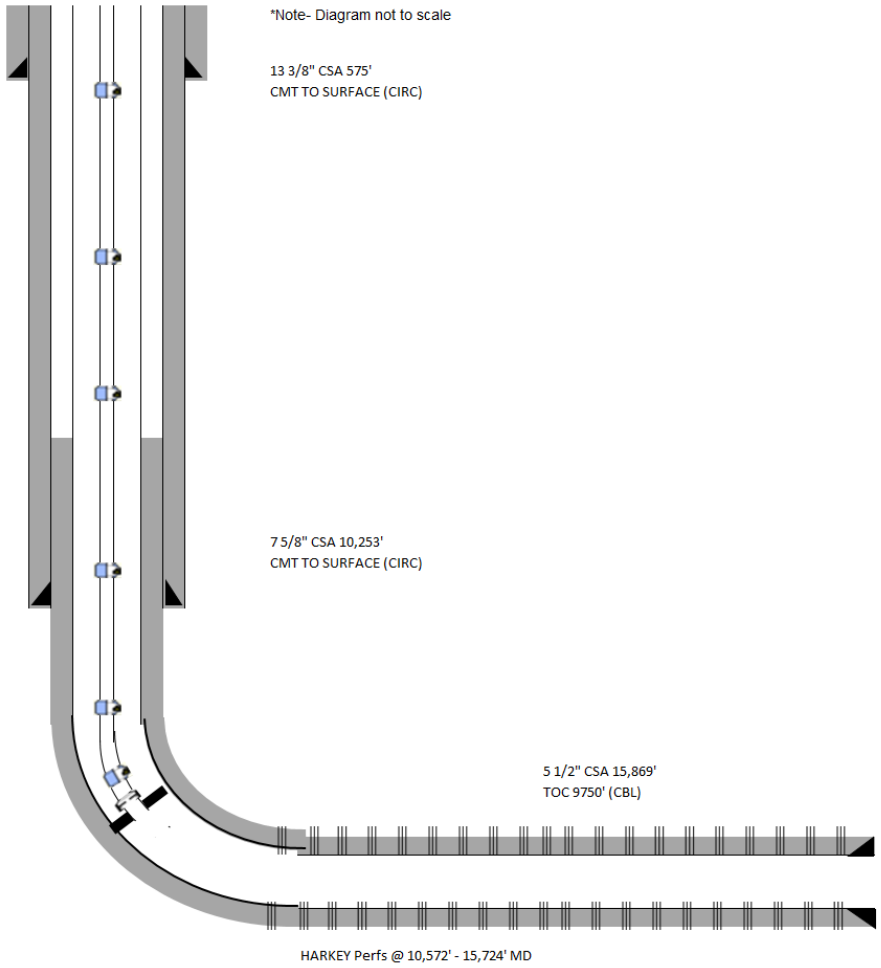
WELL NAME & NUMBER: CAL MON 35 FEDERAL 175H

WELL LOCATION: 110' FNL 615' FEL | A | 35 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

CAL MON 35 FEDERAL 175H



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14.75" Casing Size: 10-3/4"

Cemented with: 575 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 9.875" Casing Size: 7-5/8"

Cemented with: 2055 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 6.75" Casing Size: 5.5" / 4.5"

Cemented with: 670 sx. ***or*** _____ ft^3

Top of Cement: 9750' Method Determined: CBL

Total Depth: 15,869' MD/10,973' TVD

Injection Interval

10,572' MD/10,549' TVD feet to 15,724' MD/10,973' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: AS1-X PACKER 5.5"

Packer Setting Depth: 10,440' MD/10,421' TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [98236] WC-015 G-08 S233135D; WOLFCAMP

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: _____

Side 1

OPERATOR: OXY USA INC

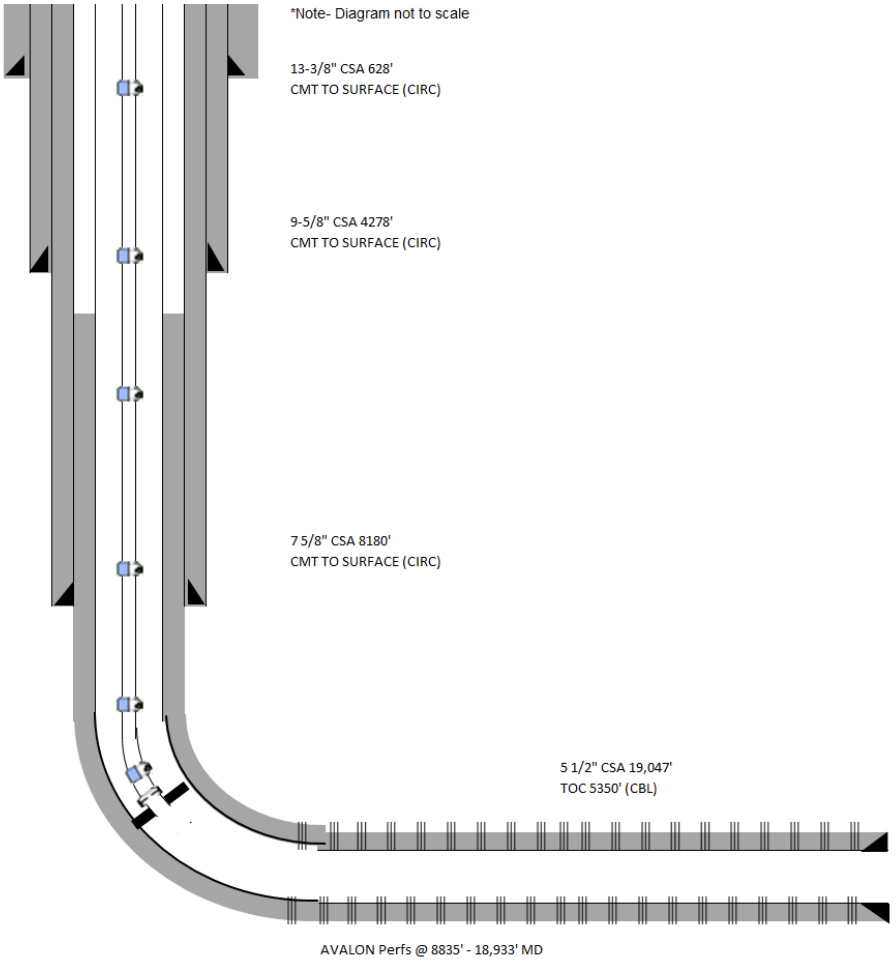
WELL NAME & NUMBER: IRIDIUM MDP1 28 21 FEDERAL COM 021H

WELL LOCATION: 610' FSL 648' FWL | M | 28 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

IRIDIUM MDP1 28 21 FEDERAL COM 21H



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 862 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

Hole Size: 12.25" / 8.5" Casing Size: 9-5/8" / 7-5/8"

Cemented with: 1450 / 687 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 6.75" Casing Size: 5.5"

Cemented with: 705 sx. ***or*** _____ ft^3

Top of Cement: 5350' Method Determined: CBL

Total Depth: 19,047' MD/8689' TVD

Injection Interval

8835' MD/8664' TVD feet to 18,933' MD/8688' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: WATSON AS1X 10K PACKER 20-23# 5.5"

Packer Setting Depth: 7997' MD/7910' TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [33740] INGLE WELLS; BONE SPRING

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

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

Side 1

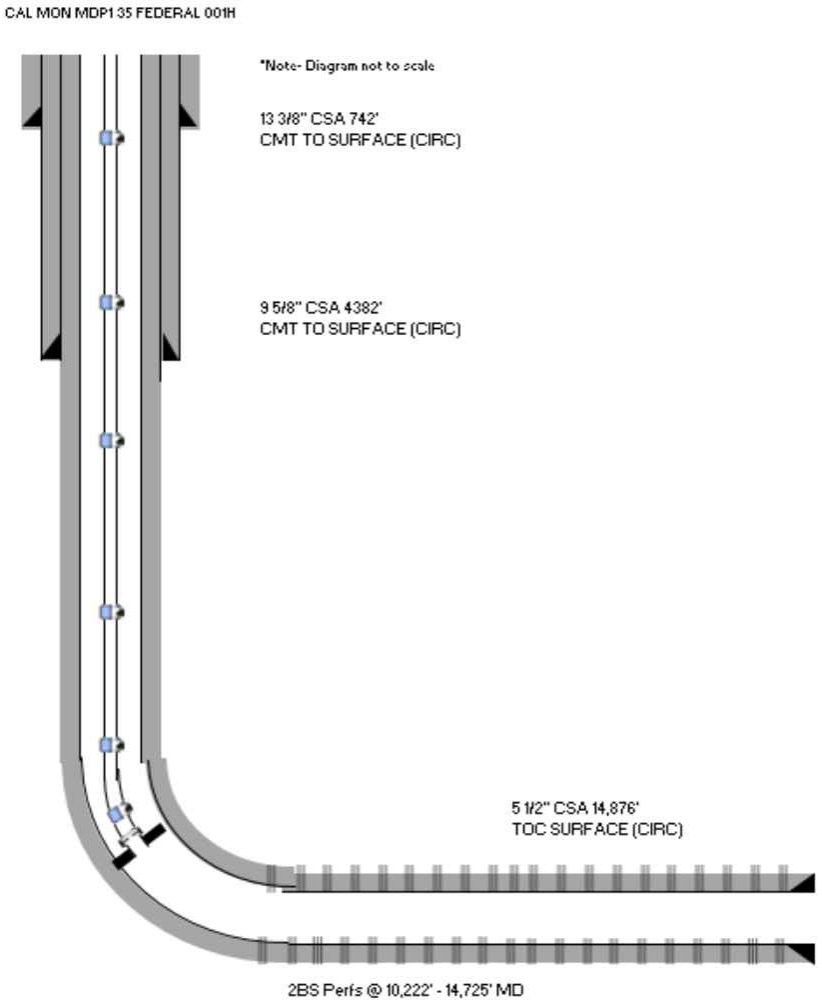
OPERATOR: OXY USA INC

WELL NAME & NUMBER: CAL MON MDP1 35 FEDERAL 1H

WELL LOCATION: 227' FNL 1077' FWL | D | 35 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 960 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

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

Cemented with: 1380 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2565 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Total Depth: 14,876' MD/10,101' TVD

Injection Interval

10,222' MD/10,028' TVD feet to 14,725' MD/10,098' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: WATSON AS1X 10K PACKER 20-23# 5.5"

Packer Setting Depth: 9781' MD/9712' TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [13367] COTTON DRAW; BONE SPRING

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

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

Side 1

OPERATOR: OXY USA INC

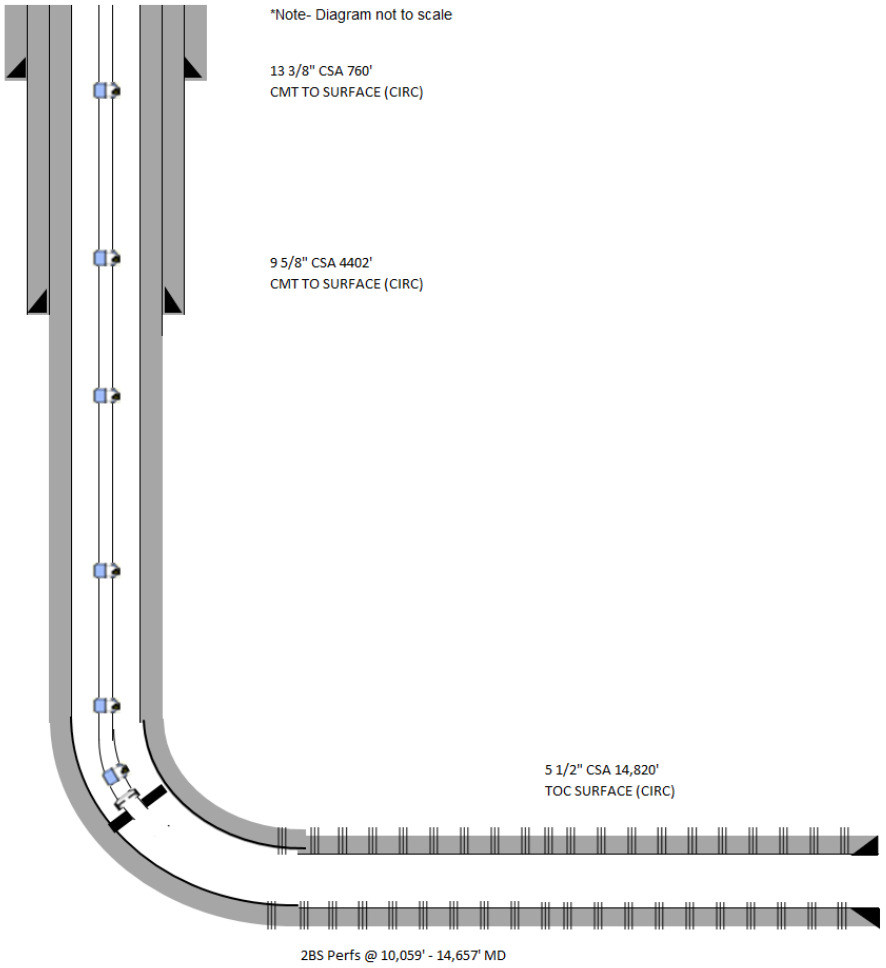
WELL NAME & NUMBER: CAL MON MDP1 35 FEDERAL 2H

WELL LOCATION: 227' FNL 1112' FWL | D | 35 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

CAL MON MDP1 35 FEDERAL 002H



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 920 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

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

Cemented with: 1380 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 8.5 Casing Size: 5.5"

Cemented with: 2628 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Total Depth: 14,820' MD/10,101' TVD

Injection Interval

10,059' MD/9940' TVD feet to 14,657' MD/10,101' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: WATSON AS1X 10K PACKER 20-23# 5.5"

Packer Setting Depth: 9759' MD/9726' TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [13367] COTTON DRAW; BONE SPRING

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

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

Side 1

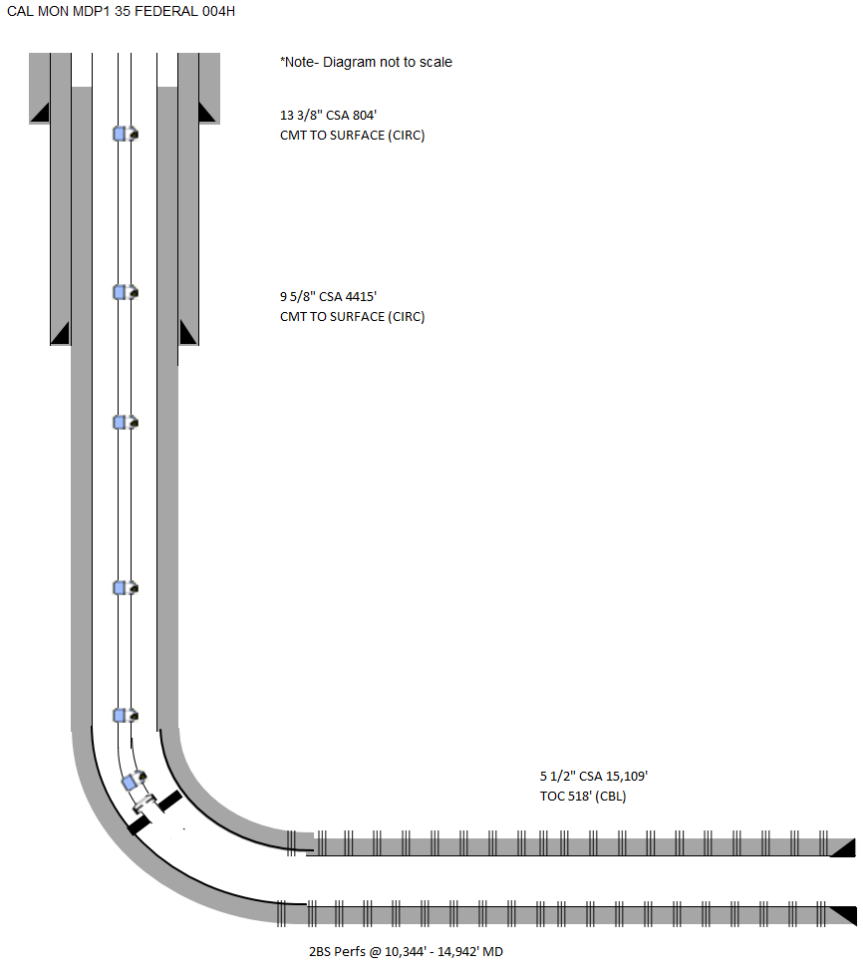
OPERATOR: OXY USA INC

WELL NAME & NUMBER: CAL MON MDP1 35 FEDERAL 4H

WELL LOCATION: 120' FNL 2624' FWL | C | 35 | 23S | 31E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

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

Cemented with: 804 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Intermediate Casing

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

Cemented with: 1245 sx. ***or*** _____ ft^3

Top of Cement: SURFACE Method Determined: CIRC

Production Casing

Hole Size: 8.5" Casing Size: 5.5"

Cemented with: 2225 sx. ***or*** _____ ft^3

Top of Cement: 518' Method Determined: CBL

Total Depth: 15,109' MD/10,366' TVD

Injection Interval

10,344' MD/10,226' TVD feet to 14,942' MD/10,368' TVD

(Perforated or Open Hole; indicate which)

Side 2

PERF

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

Type of Packer: WATSON AS1X 10K PACKER 20-23# 5.5"

Packer Setting Depth: 10,038' MD/9991 TVD

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

Additional Data

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

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

2. Name of the Injection Formation: _____

3. Name of Field or Pool (if applicable): [13367] COTTON DRAW; BONE SPRING

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

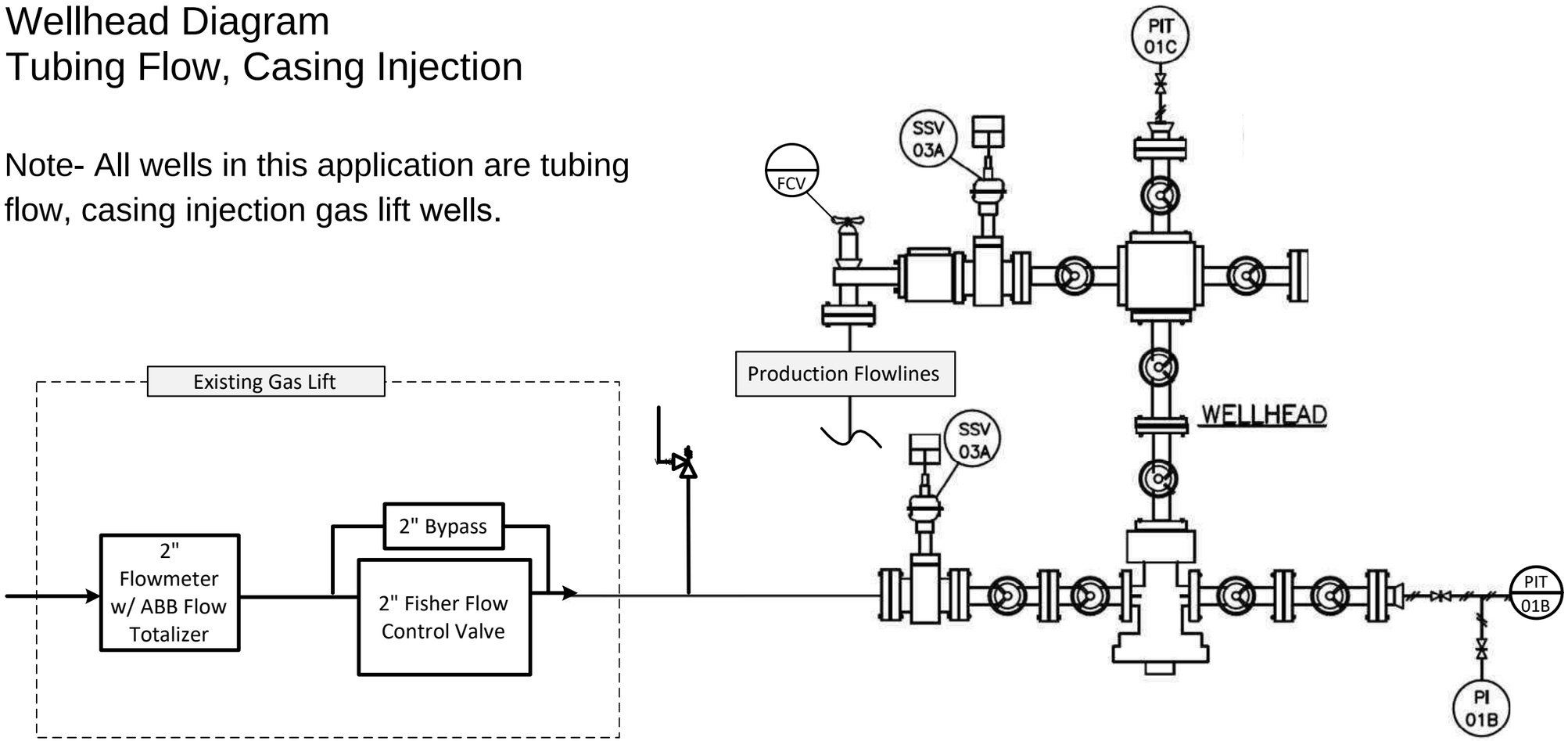
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

Max Allowable Surface Pressure (MASP) Table
North Corridor

	Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Calculation									(1+6*7)/8		1/10				(1+12*13)/(12*14)
API10	Well Name	Proposed Max Allowable Surface Pressure (MASP) (PSI)	Current Average Surface Pressure (PSI)	Max Achievable Surface Pressure, Current Infrastructure (PSI)	Proposed Average Injection Rate (MMSCFD)	Proposed Max Injection Rate (MMSCFD)	Burst Calculation Depth (FT TVD)	Brine Pressure Gradient (PSI/FT)	Casing or Liner Burst (PSI)	MASP + Reservoir Brine Hydrostatic as a percentage of Casing or Liner Burst Pressure (%)	Top Perforation Depth (FT TVD)	MASP Gradient (PSI/FT)	Top Perforation Depth (FT TVD)	Gas Pressure Gradient (PSI/FT)	Formation Parting Pressure Gradient (PSI/FT)	MASP + Gas Hydrostatic as a percentage of Formation Parting Pressure (%)
3001544771	CALMON-35-1H	1,250	860	1,250	1.8	2.0	10,028	0.468	12,360	48%	10,028	0.125	10,028	0.200	0.650	50%
3001544772	CALMON-35-2H	1,250	730	1,250	1.8	2.0	9,940	0.468	12,360	48%	9,940	0.126	9,940	0.200	0.650	50%
3001543140	CAL-MON41HST	1,250	570	1,250	1.8	2.0	8,584	0.468	6,890	76%	10,295	0.121	10,295	0.200	0.650	49%
3001545074	IRI28-21-21H	1,250	560	1,250	1.8	3.0	8,664	0.468	12,360	43%	8,664	0.144	8,664	0.200	0.650	53%
3001545524	CAL-MON-175H	1,250	775	1,250	1.8	2.0	10,549	0.468	12,360	50%	10,549	0.118	10,549	0.200	0.650	49%
3001544774	CALMON-35-4H	1,250	810	1,250	1.8	2.0	10,226	0.468	12,360	49%	10,226	0.122	10,226	0.200	0.650	50%
3001544775	CALMON-35-5H	1,250	755	1,250	1.8	2.0	10,012	0.468	12,360	48%	10,012	0.125	10,012	0.200	0.650	50%

Wellhead Diagram
Tubing Flow, Casing Injection

Note- All wells in this application are tubing flow, casing injection gas lift wells.



KEY
SSV – Safety Shutdown Valve
PI – Pressure Indicator
PIT – Pressure Indicating Transmitter
FCV- Flow Control Valve

Mechanical Integrity Test (MIT) Summary Table

API10	Well Name	MIT #1		MIT #2	
		Date	Surface Pressure	Date	Surface Pressure
3001544771	CALMON-35-1H	5/18/2018	9800 psi for 30 min		
3001544772	CALMON-35-2H	5/18/2018	9800 psi for 30 min	5/22/2018	CBL run from 10,344' to surface with 1000 psi
3001543140	CAL-MON41HST	8/22/2017	9500 psi for 30 min	8/24/2017	1000 psi, no time given
3001545074	IRI28-21-21H	12/5/2018	9800 psi for 30 min	12/5/2018	CBL run from TD to surface with 1000 psi
3001545524	CAL-MON-175H	3/5/2019	9800 psi for 30 min		
3001544774	CALMON-35-4H	5/5/2018	9800 psi for 30 min	5/6/2018	CBL run from TD to surface with 1000 psi
3001544775	CALMON-35-5H	4/21/2018	9800 psi for 30 min	4/22/2018	CBL run from 9700' to surface with 1000 psi

Gas Analysis and Operations

Iridium/Calmon Gas Source Well List

Name	Route Name	API 14
CAL-MON 018	SE_CALMON ROUTE	30015280260000
STERLING SILVER 34 003	SE_CALMON ROUTE	30015279370000
CAL MON MDP1 35 FED 001H	SE_CALMON ROUTE	30015447710000
CAL MON MDP1 35 FED 002H	SE_CALMON ROUTE	30015447720000
CAL MON MDP1 35 FED 003H	SE_CALMON ROUTE	30015447730000
CAL MON MDP1 35 FED 004H	SE_CALMON ROUTE	30015447740000
CAL MON MDP1 35 FED 005H	SE_CALMON ROUTE	30015447750000
CAL MON MDP1 35 FED 006H	SE_CALMON ROUTE	30015447760000
CAL-MON 006	SE_CALMON ROUTE	30015268850000
CAL-MON 007	SE_CALMON ROUTE	30015270810000
CAL-MON 008	SE_CALMON ROUTE	30015271130000
CAL-MON 009	SE_CALMON ROUTE	30015272060000
CAL-MON 010	SE_CALMON ROUTE	30015272690000
CAL-MON 011	SE_CALMON ROUTE	30015272230000
CAL-MON 012Q	SE_CALMON ROUTE	30015316450000
CAL-MON 017	SE_CALMON ROUTE	30015280240000
TRIPLE S 33 FEDERAL 001	SE_CALMON ROUTE	30015257690000
CAL-MON 019	SE_CALMON ROUTE	30015274960000
CAL-MON 020	SE_CALMON ROUTE	30015275490000
CAL-MON 35 FED 171H	SE_CALMON ROUTE	30015442690100
CAL-MON 35 FED 172H	SE_CALMON ROUTE	30015455210000
CAL-MON 35 FED 173H	SE_CALMON ROUTE	30015455220000
CAL-MON 35 FED 174H	SE_CALMON ROUTE	30015455230000
CAL-MON 35 FED 175H	SE_CALMON ROUTE	30015455240000
CAL-MON 35 FED 176H ST	SE_CALMON ROUTE	30015455250100
CAL-MON FEDERAL 35 41H ST2	SE_CALMON ROUTE	30015431400200
STERLING SILVER 33 017	SE_CALMON ROUTE	30015338920000
STERLING SILVER 33 011	SE_CALMON ROUTE	30015276110000
FNR 26 FEDERAL #2H	SE_CALMON ROUTE	30015416470000
FNR 26 FEDERAL #4H	SE_CALMON ROUTE	30015410120000
FNR 26 FEDERAL 001	SE_CALMON ROUTE	30015304120000
FNR 35 FEDERAL #1H	SE_CALMON ROUTE	30015422750000
FNR 35 FEDERAL #3H	SE_CALMON ROUTE	30015422980000
IRIDIUM MDP1 28-21 FED COM 11H	SE_GOLD ROUTE	30015450730100
IRIDIUM MDP1 28-21 FED COM 171H	SE_GOLD ROUTE	30015450760100
IRIDIUM MDP1 28-21 FED COM 21H	SE_GOLD ROUTE	30015450740000
IRIDIUM MDP1 28-21 FED COM 41H	SE_GOLD ROUTE	30015450750000
IRIDIUM MDP1 28-21 FEDERAL COM 173H	SE_GOLD ROUTE	30015452490000
IRIDIUM MDP1 28-21 FEDERAL COM 175H	SE_GOLD ROUTE	30015453330000
IRIDIUM MDP1 28-21 FEDERAL COM 176H	SE_GOLD ROUTE	30015453340000
IRIDIUM MDP1 28-21 FEDERAL COM 1H	SE_GOLD ROUTE	30015452420000
IRIDIUM MDP1 28-21 FEDERAL COM 2H	SE_GOLD ROUTE	30015452430000
IRIDIUM MDP1 28-21 FEDERAL COM 3H	SE_GOLD ROUTE	30015452440000
IRIDIUM MDP1 28-21 FEDERAL COM 4H	SE_GOLD ROUTE	30015452450000

IRIDIUM MDP1 28-21 FEDERAL COM 5H	SE_GOLD ROUTE	30015452460000
IRIDIUM MDP1 28-21 FEDERAL COM 6H	SE_GOLD ROUTE	30015452470000
PLATINUM MDP1 34-3 FED COM 13H	SE_PLATINUM ROUTE	30015461790000
PLATINUM MDP1 34-3 FED COM 14H	SE_PLATINUM ROUTE	30015461800000
PLATINUM MDP1 34-3 FED COM 171H	SE_PLATINUM ROUTE	30015452300000
PLATINUM MDP1 34-3 FED COM 172H	SE_PLATINUM ROUTE	30015452310000
PLATINUM MDP1 34-3 FED COM 174H	SE_PLATINUM ROUTE	30015452320000
PLATINUM MDP1 34-3 FED COM 175H	SE_PLATINUM ROUTE	30015452510000
PLATINUM MDP1 34-3 FED COM 176H	SE_PLATINUM ROUTE	30015452330000
PLATINUM MDP1 34-3 FED COM 177H	SE_PLATINUM ROUTE	30015460460000
PLATINUM MDP1 34-3 FED COM 1H	SE_PLATINUM ROUTE	30015452260000
PLATINUM MDP1 34-3 FED COM 23H	SE_PLATINUM ROUTE	30015461920000
PLATINUM MDP1 34-3 FED COM 24H	SE_PLATINUM ROUTE	30015461930000
PLATINUM MDP1 34-3 FED COM 25H	SE_PLATINUM ROUTE	30015465580000
PLATINUM MDP1 34-3 FED COM 26H	SE_PLATINUM ROUTE	30015465590000
PLATINUM MDP1 34-3 FED COM 2H	SE_PLATINUM ROUTE	30015452270000
PLATINUM MDP1 34-3 FED COM 3H	SE_PLATINUM ROUTE	30015452280000
PLATINUM MDP1 34-3 FED COM 4H	SE_PLATINUM ROUTE	30015452290000
PLATINUM MDP1 34-3 FED COM 5H	SE_PLATINUM ROUTE	30015451710000
PLATINUM MDP1 34-3 FED COM 6H	SE_PLATINUM ROUTE	30015451720000
PLATINUM MDP1 34-3 FED COM 7H	SE_PLATINUM ROUTE	30015452500000
STERLING SILVER 33 FED 012	SE_CALMON ROUTE	30015349430000
STERLING SILVER 3 006	SE_CALMON ROUTE	30015276380000
STERLING SILVER 33 005	SE_CALMON ROUTE	30015274240000
PURE GOLD MDP1 29-17 FEDERAL COM 1H	SE_GOLD ROUTE	30015456450000
PURE GOLD MDP1 29-17 FEDERAL COM 2H	SE_GOLD ROUTE	30015456460000
PURE GOLD MDP1 29-17 FEDERAL COM 3H	SE_GOLD ROUTE	30015456470000
PURE GOLD MDP1 29-17 FEDERAL COM 4H	SE_GOLD ROUTE	30015456480000
PURE GOLD MDP1 29-17 FEDERAL COM 5H	SE_GOLD ROUTE	30015456490000
PURE GOLD MDP1 29-17 FEDERAL COM 6H	SE_GOLD ROUTE	30015456500000
STERLING SILVER 3 007	SE_CALMON ROUTE	30015277140000
STERLING SILVER 3 001	SE_CALMON ROUTE	30015258310000
STERLING SILVER 3 002	SE_CALMON ROUTE	30015282820000
STERLING SILVER 3 003	SE_CALMON ROUTE	30015281840000
STERLING SILVER 3 004	SE_CALMON ROUTE	30015282830000
STERLING SILVER 3 005	SE_CALMON ROUTE	30015276370000
STERLING SILVER 33 006	SE_CALMON ROUTE	30015278120000
STERLING SILVER 3 008Q	SE_CALMON ROUTE	30015324770000
STERLING SILVER 33 002	SE_CALMON ROUTE	30015256960000
STERLING SILVER 33 007	SE_CALMON ROUTE	30015275880000
STERLING SILVER 33 008	SE_CALMON ROUTE	30015276010000
STERLING SILVER 33 009	SE_CALMON ROUTE	30015339750001
STERLING SILVER 33 010	SE_CALMON ROUTE	30015275500000
STERLING SILVER 33 014	SE_CALMON ROUTE	30015275520000
STERLING SILVER 33 015	SE_CALMON ROUTE	30015292750000
STERLING SILVER 33 016	SE_CALMON ROUTE	30015310910000
STERLING SILVER 33 018	SE_CALMON ROUTE	30015327670000

STERLING SILVER 33 FEDERAL 001H	SE_CALMON ROUTE	30015398310100
STERLING SILVER 34 002	SE_CALMON ROUTE	30015279360000
STERLING SILVER 34 004	SE_CALMON ROUTE	30015310920000
STERLING SILVER 34 005	SE_CALMON ROUTE	30015282400000
STERLING SILVER 34 006	SE_CALMON ROUTE	30015282390000
STERLING SILVER 34 007	SE_CALMON ROUTE	30015312480000
STERLING SILVER 34 008	SE_CALMON ROUTE	30015310930000
STERLING SILVER MDP1 33-4 FED COM 171H	SE_SILVER ROUTE	30015453360000
STERLING SILVER MDP1 33-4 FED COM 172H ST1	SE_SILVER ROUTE	30015453370100
STERLING SILVER MDP1 33-4 FED COM 175H	SE_SILVER ROUTE	30015453880000
STERLING SILVER MDP1 33-4 FED COM 177H	SE_SILVER ROUTE	30015460470000
STERLING SILVER MDP1 33-4 FED COM 178H	SE_SILVER ROUTE	30015460480000
STERLING SILVER MDP1 33-4 FED COM 1H	SE_SILVER ROUTE	30015453350000
STERLING SILVER MDP1 33-4 FED COM 2H	SE_SILVER ROUTE	30015453900000
STERLING SILVER MDP1 33-4 FED COM 3H	SE_SILVER ROUTE	30015453910000
STERLING SILVER MDP1 33-4 FED COM 5H	SE_SILVER ROUTE	30015453930000
STERLING SILVER MDP1 33-4 FED COM 6H	SE_SILVER ROUTE	30015453860000
STERLING SILVER MDP1 33-4 FED COM 7H	SE_SILVER ROUTE	30015453890000
STERLING SILVER MDP1 33-4 FED COM 8H	SE_SILVER ROUTE	30015453870000

North Corridor Gas Analysis Summary

- All producing wells flow to the following Central Tank Batteries (CTB).
  - Gold CTB
  - Iridium CTB
  - Silver CTB
  - Precious CTB
  - Platinum CTB
  - Calmon CTB
- Gas flows into the low-pressure gas pipeline to the following Compressor Gas Lift Stations (CGL's).
  - Boo CGL Station
  - North Corridor 28 West CGL Station
  - North Corridor East CGL Station
  - Calmon CGL Station
- The CGL's combine downstream in the same gas lift line to feed wells collectively.
- Gas analysis is provided for:
  - Boo CGL Station
  - North Corridor 28 West CGL Station
  - North Corridor East CGL Station
  - Cal Mon Gas Lift Meter
  - Avalon production
  - 2nd Bone Spring production
  - Harkey production

Boo CGL

Certificate of Analysis

Number: 6030-21050197-001A

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

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

May 21, 2021

Field:	Boo	Sampled By:	Michael Mirabal
Station Name:	Oxy Boo Outlet	Sample Of:	Gas Spot
Station Number:	17521C	Sample Date:	05/19/2021 02:42
Station Location:	Comp Station	Sample Conditions:	1301 psia, @ 119 °F Ambient: 84 °F
Sample Point:	Meter	Effective Date:	05/19/2021 02:42
Formation:	Monthly	Method:	GPA-2261M
County:	Eddy	Cylinder No:	1111-001214
Type of Sample: :	Spot-Cylinder	Instrument:	70104124 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	05/18/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	05/21/2021 13:44:58 by EJR
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000	0.000		GPM TOTAL C2+	7.295
Nitrogen	1.812	1.812	2.233		GPM TOTAL C3+	3.584
Methane	71.345	71.345	50.341		GPM TOTAL iC5+	0.501
Carbon Dioxide	0.939	0.939	1.818			
Ethane	13.898	13.898	18.381	3.711		
Propane	7.529	7.529	14.603	2.071		
Iso-butane	0.948	0.948	2.424	0.310		
n-Butane	2.231	2.231	5.704	0.702		
Iso-pentane	0.443	0.443	1.406	0.162		
n-Pentane	0.448	0.448	1.422	0.162		
Hexanes Plus	0.407	0.407	1.668	0.177		
	100.000	100.000	100.000	7.295		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7880	3.2176
Calculated Molecular Weight	22.74	93.19
Compressibility Factor	0.9959	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1317	5113
Water Sat. Gas Base BTU	1295	5024
Ideal, Gross HV - Dry at 14.65 psia	1312.0	5113.2
Ideal, Gross HV - Wet	1289.0	5023.7
Net BTU Dry Gas - real gas	1197	
Net BTU Wet Gas - real gas	1177	

Comments: H2S Field Content 0 ppm
Mcf/day 34643

Report generated by: Eric Ramirez

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

Certificate of Analysis

Number: 6030-21050197-003A

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

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

May 21, 2021

Field:	Pure Gold	Sampled By:	Michael Mirabal
Station Name:	Sand Dunes NCW CGL	Sample Of:	Gas Spot
Station Number:	17505C	Sample Date:	05/19/2021 02:19
Station Location:	Comp Station	Sample Conditions:	84 psia, @ 81 °F Ambient: 85 °F
Sample Point:	Meter	Effective Date:	05/19/2021 02:19
Formation:	Monthly	Method:	GPA-2261M
County:	Eddy	Cylinder No:	5030-00508
Type of Sample: :	Spot-Cylinder	Instrument:	6030_GC6 (Inficon GC-3000 Micro)
Heat Trace Used:	N/A	Last Inst. Cal.:	05/03/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	05/21/2021 13:45:47 by KNF
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Hydrogen Sulfide	0.000	0.000	0.000		GPM TOTAL C2+	7.239
Nitrogen	2.330	2.344	2.830		GPM TOTAL C3+	3.828
Methane	70.698	71.109	49.168		GPM TOTAL iC5+	0.796
Carbon Dioxide	1.258	1.265	2.400			
Ethane	12.700	12.774	16.556	3.411		
Propane	7.072	7.113	13.519	1.957		
Iso-butane	0.952	0.958	2.400	0.313		
n-Butane	2.406	2.420	6.063	0.762		
Iso-pentane	0.554	0.557	1.732	0.203		
n-Pentane	0.585	0.588	1.829	0.213		
Hexanes Plus	0.867	0.872	3.503	0.380		
	99.422	100.000	100.000	7.239		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.8042	3.2176
Calculated Molecular Weight	23.20	93.19
Compressibility Factor	0.9957	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1325	5113
Water Sat. Gas Base BTU	1303	5024
Ideal, Gross HV - Dry at 14.65 psia	1319.8	5113.2
Ideal, Gross HV - Wet	1296.7	5023.7
Net BTU Dry Gas - real gas	1205	
Net BTU Wet Gas - real gas	1184	

Comments: H2S Field Content 0 ppm
Mcf/day 20921

Report generated by: Eric Ramirez

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

NC East CGL

Certificate of Analysis

Number: 6030-20120099-004A

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

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

Dec. 15, 2020

Field:	Sundance	Sampled By:	Michael Mirabal
Station Name:	Sand Dunes NCE CGL Check	Sample Of:	Gas Spot
Station Number:	17500C	Sample Date:	12/11/2020 02:17
Station Location:	OXY	Sample Conditions:	94 psia, @ 66 °F Ambient: 62 °F
Sample Point:	Downstream	Effective Date:	12/11/2020 02:17
Formation:	Monthly	Method:	GPA-2261M
County:	Eddy	Cylinder No:	5030-01146
Type of Sample: :	Spot-Cylinder	Instrument:	6030_GC6 (Inficon GC-3000 Micro)
Heat Trace Used:	N/A	Last Inst. Cal.:	12/14/2020 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	12/15/2020 12:30:47 by KNF
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	1.604	1.593	1.985		GPM TOTAL C2+	6.847
Methane	74.468	73.947	52.782		GPM TOTAL C3+	3.543
Carbon Dioxide	0.485	0.482	0.944		GPM TOTAL iC5+	0.730
Ethane	12.461	12.374	16.554	3.304		
Propane	6.564	6.518	12.788	1.793		
Iso-butane	0.901	0.895	2.314	0.292		
n-Butane	2.329	2.313	5.981	0.728		
Iso-pentane	0.574	0.570	1.830	0.208		
n-Pentane	0.647	0.642	2.061	0.232		
Hexanes Plus	0.671	0.666	2.761	0.290		
	100.704	100.000	100.000	6.847		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7789	3.2176
Calculated Molecular Weight	22.48	93.19
Compressibility Factor	0.9959	
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1318	5113
Water Sat. Gas Base BTU	1296	5024
Ideal, Gross HV - Dry at 14.65 psia	1313.0	5113.2
Ideal, Gross HV - Wet	1290.0	5023.7
Net BTU Dry Gas - real gas	1198	
Net BTU Wet Gas - real gas	1177	

Comments: H2S Field Content 0 ppm
Mcf/day 18277

Hydrocarbon Laboratory Manager

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

Cal Mon Gas Lift Meter

Volumetrics US, Inc
3001 N Cameron St, Victoria, TX-77901
Tel: 361-827-4024

Company:	OXY USA INC	**Job ID:**	
Field/Location :	NMSE	**Sampled by:**	VOLUMETRICS/CE
Station Name :	CAL MON 35 FEDERAL 171H GAS LIFT	**Sample Type :**	SPOT-CYLINDER
Station Number :	17107I	**Sample Temperature (F):**	96
Sample Date:	10/12/20 3:31 PM	**Sample Pressure (PSIG):**	1165
Analysis Date:	10/19/20 3:47 PM	**Flow rate (MCF/Day):**	571
Instrument:	VARIAN- 490 GC	**Ambient Air Temperature (F):**	67
Calibration/Verification Date:	9/30/2020	**Sampling method:**	FILL & EMPTY
Heat Trace used:	YES	**Cylinder Number:**	1013

NATURAL GAS ANALYSIS: GPA 2261

Components	**Un-Normalized Mol%**	**Normalized Mol%**	**GPM 14.650**	**GPM 14.730**	**GPM 15.025**
Hydrogen Sulfide	0.0000	0.0000			
Nitrogen	1.5007	1.4936			
Carbon Dioxide	0.2421	0.2410			
Methane	76.6586	76.2972			
Ethane	12.1266	12.0695	3.222	3.239	3.304
Propane	6.0069	5.9786	1.644	1.653	1.686
Isobutane	0.7521	0.7486	0.245	0.246	0.251
N-butane	1.8039	1.7954	0.565	0.568	0.579
Isopentane	0.3688	0.3671	0.134	0.135	0.137
N-Pentane	0.3989	0.3970	0.144	0.144	0.147
Hexanes Plus	0.6149	0.6120	0.267	0.268	0.273
Total	**100.4735**	**100.0000**			

Hexane Plus split (60%-30%-10%)

Physical Properties (Calculated)	**14.650 psia**	**14.730 psia**	**15.025 psia**
Total GPM Ethane+	6.219	6.253	6.378
Total GPM Iso-Pentane+	0.544	0.547	0.558
Compressibility (Z)	0.9962	0.9962	0.9961
Specific Gravity (Air=1) @ 60 °F	0.7494	0.7494	0.7494
Molecular Weight	21.630	21.630	21.630

Gross Heating Value	**14.650 psia**	**14.730 psia**	**15.025 psia**
Dry, Real (BTU/Ft^3)	1280.4	1287.4	1313.3
Wet, Real (BTU/Ft^3)	1258.1	1265.0	1290.4
Dry, Ideal (BTU/Ft^3)	1275.5	1282.5	1308.2
Wet, Ideal (BTU/Ft^3)	1253.3	1260.2	1285.4

Temperature base 60 °F

Comment: H2S = 0 PPM

Verified by

Mostaq Ahammad
Petroleum Chemist

Approved by

Deann Friend

Deann Friend
Laboratory Manager

Avalon Produced Gas Analysis

SPL

Certificate of Analysis

Number: 6030-21040026-010A

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

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

Apr. 08, 2021

Field:	Sand Dunes	Sampled By:	Javier Lazo
Station Name:	Patton MDP1 18-33H/Sand Dunes CTB Test	Sample Of:	Gas Spot
Station Number:	17005T	Sample Date:	03/30/2021 12:14
Station Location:	OXY	Sample Conditions:	97 psig, @ 86 °F Ambient: 62 °F
Sample Point:	Downstream	Effective Date:	03/30/2021 12:14
Formation:	Monthly	Method:	GPA-2261M
County:	Eddy	Cylinder No:	1111-001222
Type of Sample: :	Spot-Cylinder	Instrument:	70104251 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	04/05/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	04/08/2021 13:35:42 by KJM
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	NIL	NIL	
Nitrogen	2.539	2.54846	2.978	
Carbon Dioxide	11.734	11.77741	21.620	
Methane	68.371	68.62596	45.921	
Ethane	9.049	9.08311	11.392	2.425
Propane	4.653	4.67003	8.590	1.284
Iso-Butane	0.526	0.52766	1.279	0.172
n-Butane	1.337	1.34228	3.254	0.422
Iso-Pentane	0.358	0.35903	1.080	0.131
n-Pentane	0.396	0.39697	1.195	0.144
Hexanes	0.273	0.27432	0.986	0.113
Heptanes	0.325	0.32601	1.363	0.150
Octanes	0.044	0.04376	0.208	0.022
Nonanes Plus	0.025	0.02500	0.134	0.014
	99.630	100.00000	100.000	4.877

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	23.97	128.26
Compressibility Factor	0.9962	
Relative Density Real Gas	0.8306	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1098.8	6974.4
Water Sat. Gas Base BTU	1080.0	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1094.6	6974.4
Ideal, Gross HV - Wet	1075.5	6852.4

Comments: H2S Field Content 0 ppm
1162 Mcf/day

Chandler Montgomery

Digitally signed by Chandler Montgomery
Date: 2021.04.13 12:22:35 -06'00'

Hydrocarbon Laboratory Manager

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

2nd Bone Spring Produced Gas Analysis

SPL

Certificate of Analysis

Number: 6030-21040026-007A

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

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

Apr. 08, 2021

Field:	Sand Dunes	Sampled By:	Javier Lazo
Station Name:	Patton MDP1 17-5H/Sand Dunes CTB Test 3	Sample Of:	Gas Spot
Station Number:	17003T	Sample Date:	03/30/2021 11:30
Station Location:	OXY	Sample Conditions:	100 psig, @ 87 °F Ambient: 62 °F
Sample Point:	Downstream	Effective Date:	03/30/2021 11:30
Formation:	Monthly	Method:	GPA-2261M
County:	Eddy	Cylinder No:	1111-001235
Type of Sample: :	Spot-Cylinder	Instrument:	70104124 (Inficon GC-MicroFusion)
Heat Trace Used:	N/A	Last Inst. Cal.:	04/05/2021 0:00 AM
Sampling Method: :	Fill and Purge	Analyzed:	04/08/2021 13:53:16 by KJM
Sampling Company: :	SPL		

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia
Hydrogen Sulfide	NIL	NIL	NIL	
Nitrogen	1.734	1.74387	2.197	
Carbon Dioxide	1.368	1.37557	2.722	
Methane	73.887	74.31188	53.610	
Ethane	11.727	11.79446	15.949	3.149
Propane	6.609	6.64682	13.181	1.828
Iso-Butane	0.784	0.78801	2.060	0.257
n-Butane	1.892	1.90268	4.973	0.599
Iso-Pentane	0.419	0.42151	1.368	0.154
n-Pentane	0.440	0.44243	1.435	0.160
Hexanes	0.258	0.25979	1.007	0.107
Heptanes	0.196	0.19753	0.890	0.091
Octanes	0.091	0.09162	0.471	0.047
Nonanes Plus	0.024	0.02383	0.137	0.013
	99.429	100.00000	100.000	6.405

Calculated Physical Properties	Total	C9+
Calculated Molecular Weight	22.24	128.26
Compressibility Factor	0.9961	
Relative Density Real Gas	0.7705	4.4283
GPA 2172 Calculation:		
Calculated Gross BTU per ft³ @ 14.65 psia & 60°F		
Real Gas Dry BTU	1280.4	6974.4
Water Sat. Gas Base BTU	1258.6	6852.4
Ideal, Gross HV - Dry at 14.65 psia	1275.4	6974.4
Ideal, Gross HV - Wet	1253.1	6852.4

Comments: H2S Field Content 0 ppm
966 Mcf/day

Chandler Montgomery

Digitally signed by Chandler Montgomery
Date: 2021.04.13 12:34:10 -06'00'

Hydrocarbon Laboratory Manager

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

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

Sample Information

	Sample Information
Sample Name	OXY__Cal Mon 35 Federal 175H__GC2-41119-04
Station Number	N/A
Lease Name	Cal Mon 35 Federal 175H
Analysis For	OXY USA
Producer	OXY USA
Field Name	N/A
County/State	Eddy,NM
Frequency/Spot Sample	Spot
Sampling Method	Fill Empty
Sample Deg F	110
Atmos Deg F	70
Flow Rate	N/A
Line PSIG	126.2
Date Sampled/Time Sampled	4-8-19
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Victor Urias
Analysis By	Pat Silvas
Verified/Calibrated Date	4-8-19
Report Date	2019-04-11 08:05:21

Component Results

Component Name	Ret. Time	Peak Area	Norm%	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.960	17041.9	1.2566	0.000
H2S	0.000	0.0	0.0000	0.000
Methane	23.740	774901.4	75.6221	0.000
Carbon Dioxide	27.760	2771.5	0.1750	0.000
Ethane	36.980	222521.2	13.1448	3.509
Propane	77.360	137364.0	6.1320	1.688
i-Butane	29.840	58581.6	0.7131	0.233
n-Butane	32.140	140341.4	1.6956	0.534
i-Pentane	39.240	31316.3	0.3289	0.120
n-Pentane	42.060	36744.5	0.3756	0.136
C6's	50.750	23667.0	0.2128	0.087
C7's	67.000	24474.0	0.2119	0.098
C8's	84.000	12097.0	0.1117	0.057
C9's	102.000	5270.0	0.0175	0.010
C10 Plus	146.000	639.0	0.0024	0.001
Total:			100.0000	6.471

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	101.6290	
Pressure Base (psia)	14.650	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1283.6	1261.1
Gross Heating Value (BTU / Real cu.ft.)	1288.5	1266.5
Relative Density (G), Ideal	0.7484	0.7462
Relative Density (G), Real	0.7509	0.7490
Compressibility (Z) Factor	0.9962	0.9958

Corrosion Prevention Plan

Existing Corrosion Prevention Plan

- Produced gas is processed through a gas dehydration unit to remove water.
- Corrosion inhibitor is added to the system downstream of the gas dehydration unit.
- Fluid samples are taken regularly and checked for Fe, Mn, and residual corrosion inhibitor in produced fluids.
- Continuously monitor and adjust the chemical treatment over the life of the well.

Oxy will continue the existing corrosion prevention plan in place for the gas lift system due to the similar nature of gas storage operations.

- Fluid samples will be taken prior to injection to establish a baseline for analysis.
- After a storage event, fluid samples will be taken to check for Fe, Mn, and residual corrosion inhibitor in the produced fluids.
- Continuously monitor and adjust the chemical treatment over the life of the project.

NM GAS STORAGE OPERATIONAL PLAN

Operational Plan

WELLSITE CLGC

Oxy USA Inc. (Oxy) will monitor the following items on each Closed Loop Gas Capture (CLGC) well via SCADA system:

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

CENTRAL TANK BATTERY (CTB)

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

- Production Rates
  - Oil
  - Gas
  - Water
- Safety devices
  - Flares at CTBs
  - Injection pressure kills on production/gas storage stream for injection
  - Emergency Shutdown (ESD) of wells that are local and remote for automatic shut downs to safe the system
  - Control of injection rate and pressures via control valve at each well injection stream

CENTRAL GAS LIFT (CGL) COMPRESSOR(S)

Oxy will monitor the following items on each Central Gas Lift (CGL) Compressor Station via SCADA system:

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

remote monitoring of valve position; but still monitored in some sense of the pressure trend for the station)

SUPERVISORY CONTROL AND DATA ACQUISTION (SCADA)

Oxy SCADA system consists of PLCs at each CTB, Wellsite, and Central Gas Lift compressor or station.

- The Programmable Logic Controller (PLCs) will take action immediately (within seconds or minutes) as programmed to automatically safe the system as required; for the system and certain device shut down(s).
- The High Alarms and High-High Alarms will be logged and registered in the SCADA system. Also the call center will take the High Alarm and make the physical phone call notification to the production techs to acknowledge the alarm & take action.

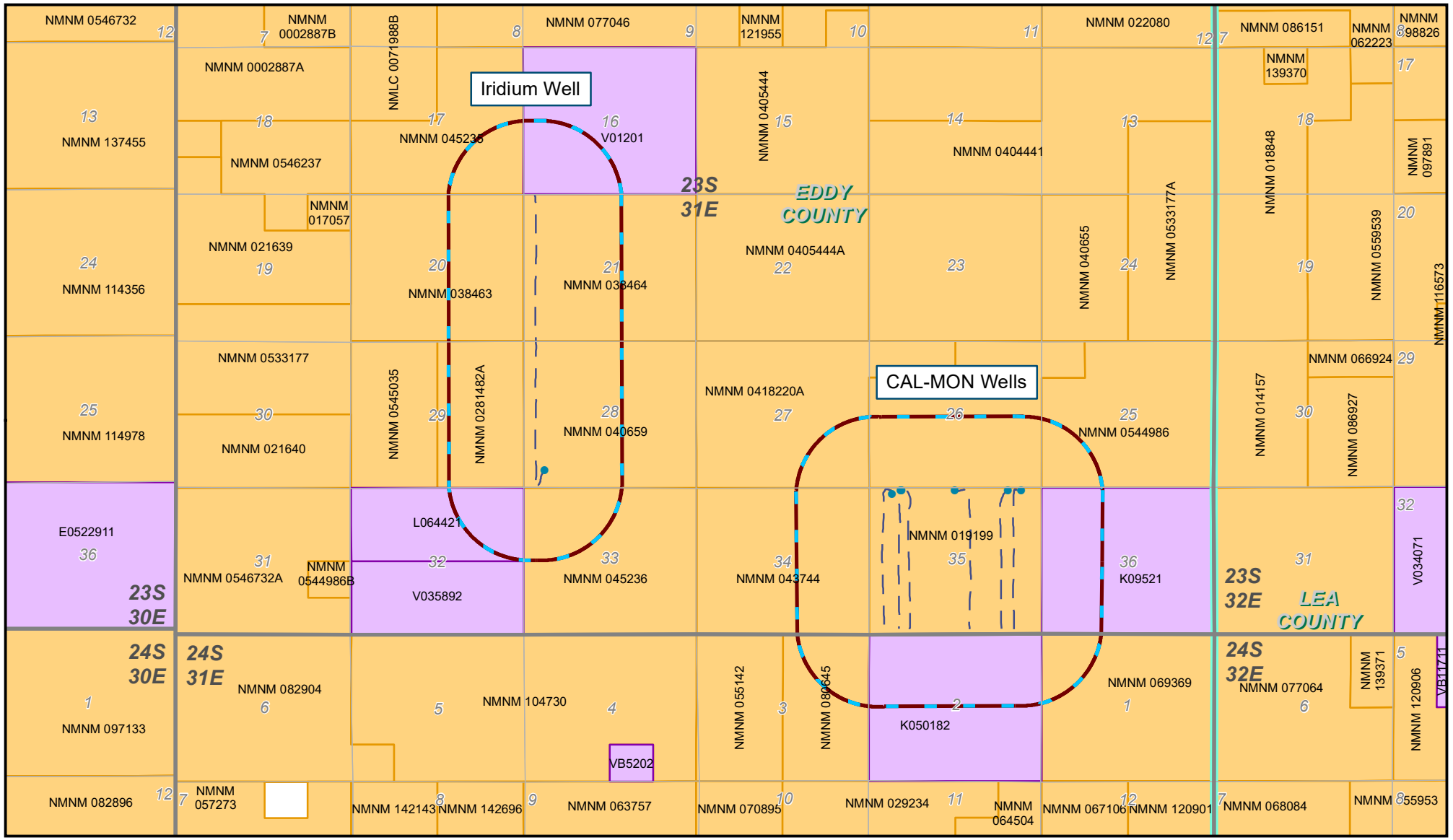
ENVIRONMENTAL/SPILL RESPONSE

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

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

Area of Review

EXHIBIT "A"
EDDY COUNTY, NEW MEXICO



County
1/2 mile AOR
Surface Hole Location
Wellbore Trajectory

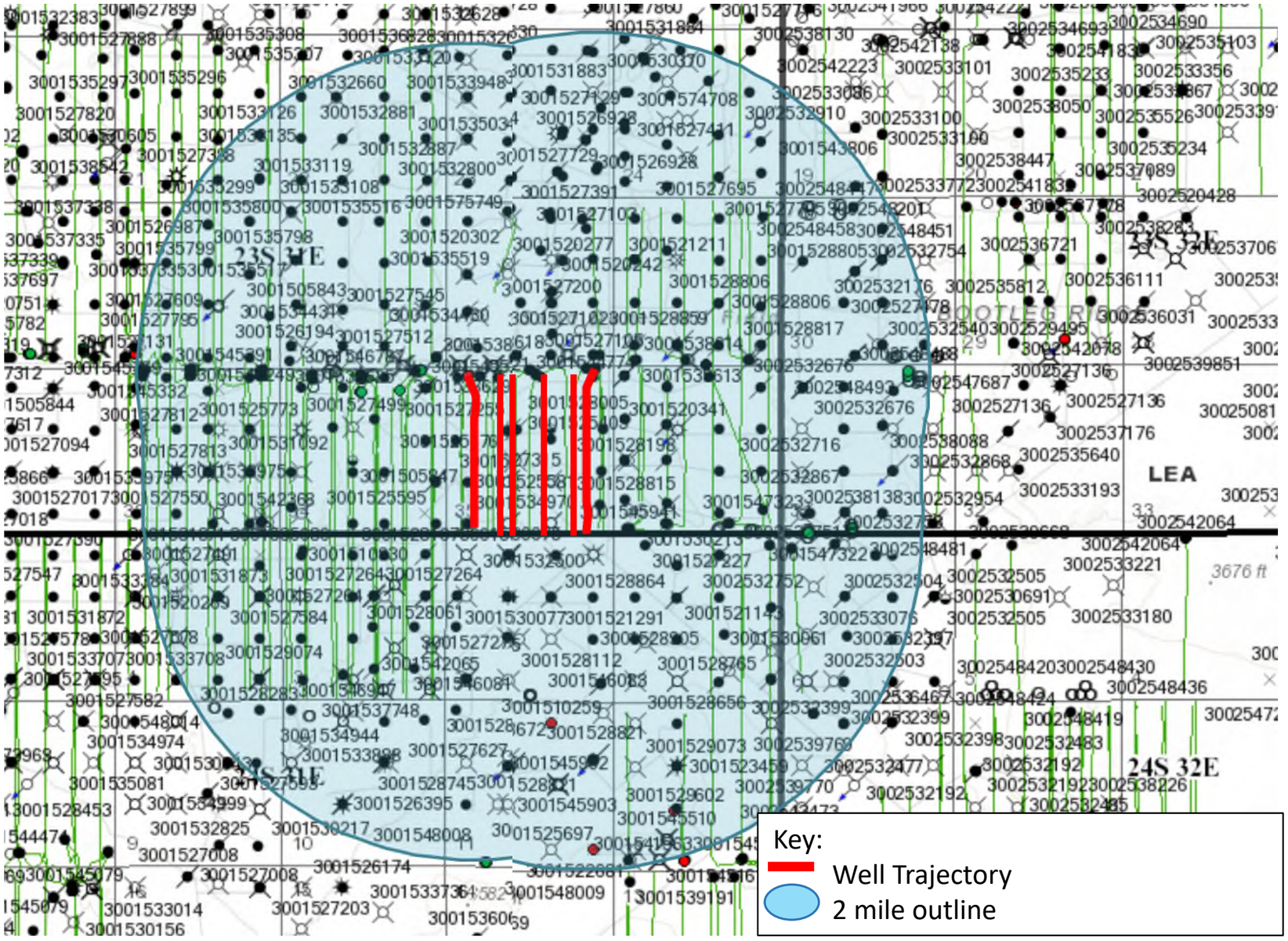
Land Owner Type:
Federal
State

0 0.5 1 2 Miles

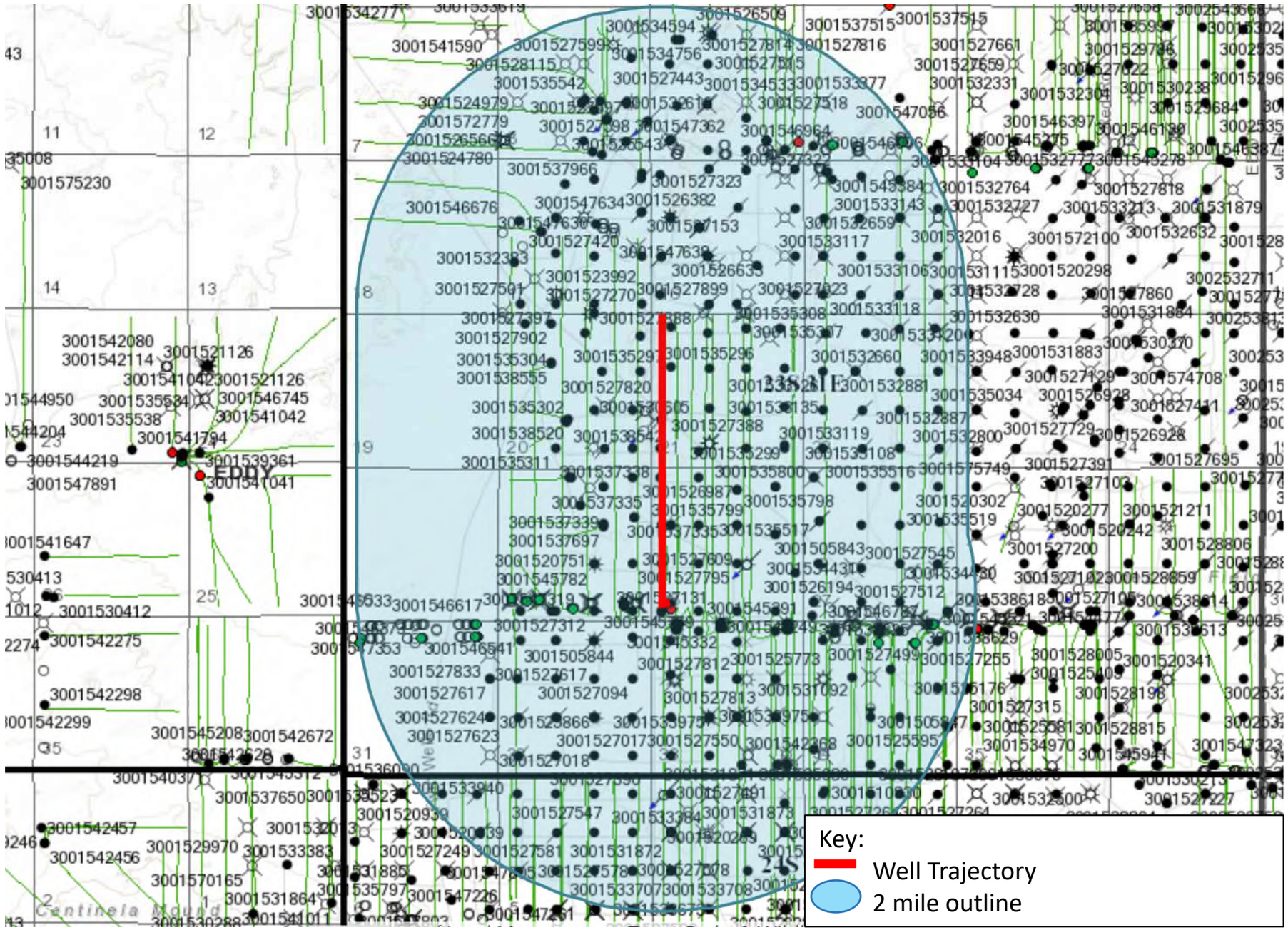
NEW MEXICO
EDDY
LEA
52

M:\Land\New_Mexico\New_Mexico_SE\Comm_Boundary_Ownership\MXD\NMGasStorage_NorthCorridor.mxd

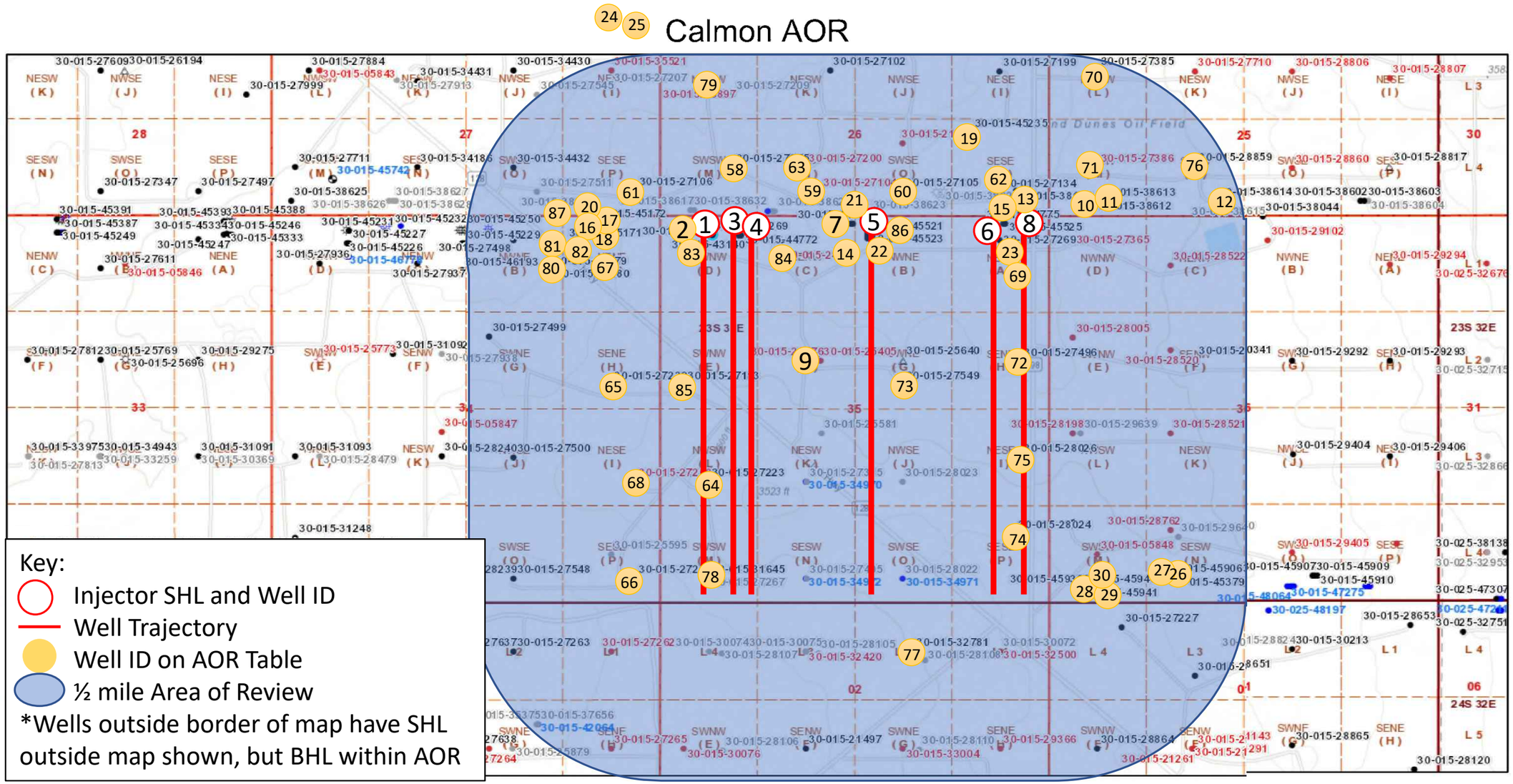
Cal Mon 2 Mile Map



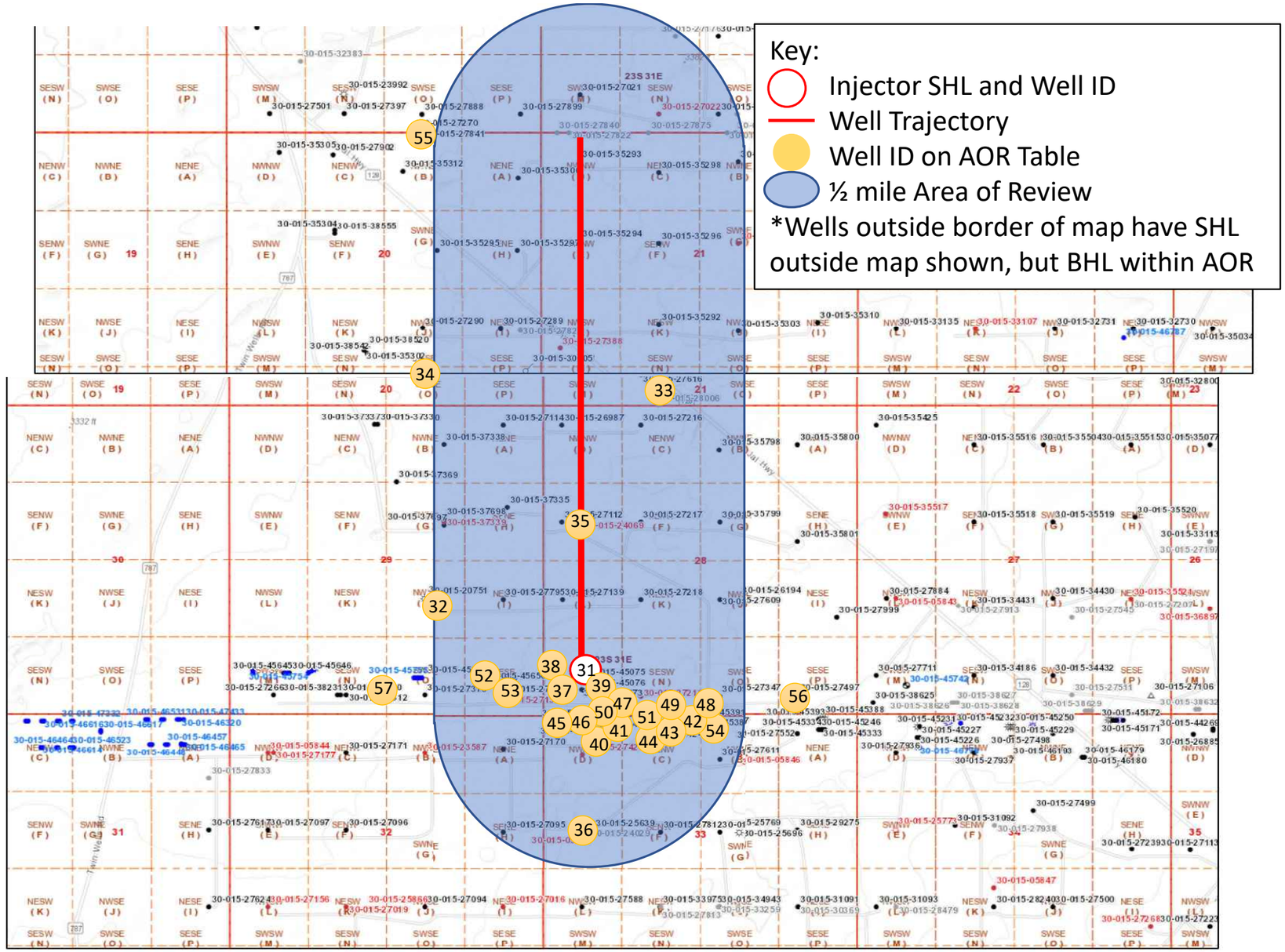
Iridium AOR 2 Mile Map



Calmon AOR


Key:
Injector SHL and Well ID
Well Trajectory
Well ID on AOR Table
½ mile Area of Review
*Wells outside border of map have SHL outside map shown, but BHL within AOR
4/8/2021, 8:28:38 AM
Wells - Large Scale
undefined
Miscellaneous
CO2, Active
CO2, Cancelled
CO2, New
CO2, Plugged
CO2, Temporarily Abandoned
Gas, Active
Gas, Cancelled
Gas, New
Gas, Plugged
Gas, Temporarily Abandoned
Injection, Active
Injection, Cancelled
Injection, New
Injection, Plugged
Injection, Temporarily Abandoned
Oil, Active
Oil, Cancelled
Oil, New
Oil, Plugged
Oil, Temporarily Abandoned
Salt Water Injection, Active
Salt Water Injection, Cancelled
Salt Water Injection, New
Salt Water Injection, Plugged
Salt Water Injection, Temporarily Abandoned
Water, Active
Water, Cancelled
Water, New
1:18,056
0 0.17 0.35 0.7 mi
0 0.28 0.55 1.1 km
Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM
New Mexico Oil Conservation Division
NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

Iridium AOR Map



Cal Mon and Iridium (North Corridor) AOR Table

Well ID	API NUMBER	Current Operator	LEASE NAME	WELL NUMBER	Well Type:	Status:	Footages N/S	N/S	Footages E/W	E/W	Surface Location Unit	Surface Location Section	Surface Location TShip	Surface Location Range	Spud [date]	True Vertical Depth [ft]	Measured Depth [ft]	HOLE SIZE [in]	CSG SIZE [in]	SET AT	SX CMT	CMT TO [ft]	HOW MEASURED	Current Completion [ft]	Comment	Current Producing Pool
1	30-015-43140	OXY USA INC	CAL MON 35 FEDERAL	041H	Oil	Active	250	N	710	W	D	35	23S	31E	11/29/2016	10390	14910	18.500	16.000	742	700	Surf	Circ	10485-14740		[33740] INGLE WELLS; BONE SPRING
																		13.500	10.750	4402	2420	Surf	Circ			
																		9.875	7.625	11965	3270	5440	CBL			
																		6.750	4.500	8584-14900	620	Surf	Circ			
2	30-015-44269	OXY USA INC	CAL MON 35 FEDERAL	171H	Oil	Active	280	N	710	W	D	35	23S	31E	6/22/2017	11705	16342	20.000	16.000	753	805	Surf	Circ	11662-16115		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		13.500	10.750	4431	1675	Surf	Circ			
																		9.875	7.625	10580	630	Surf	Circ			
																		6.750	4.500	16330	765	1150	CBL			
3	30-015-44771	OXY USA INC	CAL MON MDP1 35 FEDERAL	001H	Oil	Active	277	N	1077	W	D	35	23S	31E	3/28/2018	10101	14890	17.500	13.375	742	960	Surf	Circ	10222-14725		[13367] COTTON DRAW; BONE SPRING
																		12.250	9.625	4382	1380	Surf	Circ			
																		8.500	5.500	14876	2565	Surf	CBL			
4	30-015-44772	OXY USA INC	CAL MON MDP1 35 FEDERAL	002H	Oil	Active	277	N	1112	W	D	35	23S	31E	3/29/2018	10101	14835	17.500	13.375	760	920	Surf	Circ	10059-14657		[13367] COTTON DRAW; BONE SPRING
																		12.250	9.625	4402	1380	Surf	Circ			
																		8.500	5.500	14820	2628	Surf	CBL			
5	30-015-44774	OXY USA INC	CAL MON MDP1 35 FEDERAL	004H	Oil	Active	120	N	2624	W	C	35	23S	31E	3/9/2018	10366	15119	17.500	13.375	804	1045	Surf	Circ	10344-14942		[13367] COTTON DRAW; BONE SPRING
																		12.250	9.625	4415	1245	Surf	Circ			
																		8.500	5.500	15109	2225	518	CBL			
6	30-015-44775	OXY USA INC	CAL MON MDP1 35 FEDERAL	005H	Oil	Active	110	N	890	E	A	35	23S	31E	3/11/2018	10148	14842	17.500	13.375	804	1045	Surf	Circ	10130-14676		[13367] COTTON DRAW; BONE SPRING
																		12.250	9.625	4475	1365	Surf	Circ			
																		8.500	5.500	14832	2025	470	CBL			
7	30-015-45521	OXY USA INC	CAL MON 35 FEDERAL	172H	Oil	Active	275	N	2458	E	B	35	23S	31E	1/4/2019	16880	11930	14.75	10.75	841	850	Surf	Circ	11931-16807		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		9.875	7.625	11292	2402	Surf	Circ			
																		6.75	5.5	12048	720	10875	CBL			
																		6.75	4.5	16880	720	10875	CBL			
8	30-015-45524	OXY USA INC	CAL MON 35 FEDERAL	175H	Oil	Active	110	N	615	E	A	35	23S	31E	12/27/2018	10973	15869	14.75	10.75	847	575	Surf	Circ	10572-15724		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		9.875	7.625	10253	2055	surf	Circ			
																		6.75	5.5	10893	670	9678	CBL			
																		6.75	4.5	15869	670	9678	CBL			
9	30-015-25176	POGO PRODUCING CO	CAL-MON	002	Oil	PA	1980	N	1980	W	F	35	23S	31E	3/19/1985	15371	15375	26	20	599	825	surf	circ	NA		NA
																		17.5	13.375	4441	3500	surf	circ			
																		12.25	9.625	11862	3395	6300	Calc			
																		8.5	7	14720	700	11464	circ			
10	30-015-38612	DEVON ENERGY PRODUCTION COMPANY, LP	ALDABRA 25 FEDERAL COM	001H	Oil	Active	200	S	635	W	M	25	23S	31E	3/29/2014	11611	16174	26.000	20.000	898	1850	Surf	Circ	11702-16067		[97860] JENNINGS; BONE SPRING, WEST
																		17.500	13.375	4468	3270	Surf	Circ			
																		12.250	9.625	8332	1785	Surf	Circ			
																		8.500	5.500	16174	2920	Surf	Circ			
11	30-015-38613	DEVON ENERGY PRODUCTION COMPANY, LP	ALDABRA 25 FEDERAL COM	002H	Oil	Active	200	S	685	W	M	25	23S	31E	5/11/2014	10440	15047	26.000	20.000	900	1590	Surf	Circ	10577-14937		[96403] WILDCAT; BONE SPRING
																		17.500	13.375	4460	2992	Surf	Circ			
																		12.250	9.625	8324	2375	Surf	Circ			
																		8.500	5.500	15047	2220	Surf	Circ			
12	30-015-38614	DEVON ENERGY PRODUCTION COMPANY, LP	ALDABRA 25 FEDERAL	003H	Oil	Active	200	S	2260	W	N	25	23S	31E	3/31/2013	11694	16698	17.500	13.375	936	885	Surf	Circ	12185-16622		[96403] WILDCAT; BONE SPRING
																		12.250	9.625	4512	1450	Surf	Circ			
																		8.75	7.000	10897	1140	Surf	Circ			
																		6.125	4.500	16689	575	Unknown	Unknown			
13	30-015-38624	DEVON ENERGY PRODUCTION COMPANY, LP	ALDABRA 26 FEDERAL	008H	Oil	Active	350	S	445	E	P	26	23S	31E	10/28/2013	11603	16104	26.000	20.000	850	1460	Surf	Circ	11845-16042		[96403] WILDCAT; BONE SPRING
																		17.550	13.375	4420	3215	Surf	Circ			
																		12.250	9.625	8335	2040	Surf	Circ			
																		8.500	5.500	16104	2065	Surf	Circ			
14	30-015-44773	OXY USA INC	CAL MON MDP1 35 FEDERAL	003H	Oil	Active	120	N	2594	W	C	35	23S	31E	3/8/2018	10098	14865	17.500	13.375	803	1127	Surf	Circ	10102-14697		[13367] COTTON DRAW; BONE SPRING
																		12.250	9.625	4437	1245	Surf	Circ			
																		8.500	5.500	14859	2560	Surf	Circ			
15	30-015-44776	OXY USA INC	CAL MON MDP1 35 FEDERAL	006H	Oil	Active	110	N	855	E	A	35	23S	31E	3/13/2018	10149	14979	17.500	13.375	803	1025	Surf	Circ	10271-14821		[13367] COTTON DRAW; BONE SPRING
																		12.250	9.625	4446	1365	Surf	Circ			
																		8.500	5.500	14961	2025	Surf	Circ			
16	30-015-45171	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	005H	Oil	Active	110	N	968	E	A	34	23S	31E	9/17/2018	10270	20532	17.500	13.375	709	900	Surf	Circ	10419-20333		[97494] COTTONWOOD DRAW; BONE SPRING (
																		12.250	9.625	4465	1511	Surf	Circ			
																		8.500	7.625	9755	670	12	echometer			
																		6.75	5.500	20522	822	9237	CBL			
17	30-015-45172	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	006H	Oil	Active	110	N	933	E	A	34	23S	31E	9/16/2018	10011	20295	17.500	13.375	685	900	Surf	Circ	9959-20155		[97494] COTTONWOOD DRAW; BONE SPRING (
																		12.250	9.625	4488	1507	Surf	Circ			
																		8.500	7.625	9613	670	7	echometer			
																		6.75	5.500	20285	822	9100	CBL			
18	30-015-45233	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	176H	Gas	Active	110	N	1003	E	A	34	23S	31E	5/28/2019	11808	21902	6.750	5.500	21877	775	10445	Circ	11935-21795		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		17.5	13.375	687	540	Surf	Circ			
																		12.25	9.625	4455	1358	Surf	Circ			
																		8.5	7.625	10947	670	Surf	Circ			
19	30-015-45235	NGL WATER SOLUTIONS PERMIAN, LLC	RED ROAD SWD	001	Salt Water Disposal	Active	1107	S	1057	E	P	26	23S	31E	11/15/2018	17890	17894	24.000	20.000	1065	1168	Surf	Circ	16513-17894		[96101] SWD; DEVONIAN
																		17.500	13.375	4543	2520	Surf	Circ			
																		12.250	9.625	11662	3555	Surf	Circ			
																		8.500	7.625	16513	380	Surf	Circ			
20	30-015-45251	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	175H	Gas	Active	110	N	1038	E	A	34	23S	31E	5/29/2019	11638	21690	17.5	13.375	685	807	Surf	Circ	11764-21584		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		12.25	9.625	4479	1262	Surf	Circ			
																		8.75	7.625	11025	830	Surf	Circ			
																		6.75	5.500	21660	837	Surf	Circ			
21	30-015-45522	OXY USA INC	CAL MON 35 FEDERAL	173H	Oil	Active	240	N	2458	E	B	35	23S	31E	1/2/2019	11704	16641	14.75	10.75	846	850	Surf	Circ	11753-16555		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		9.875	7.625	11095	2320	Surf	Circ			
																		6.75	5.5	11708	700	10595	CBL			
																		6.75	4.5	16545	700	10595	CBL			
22	30-015-45523	OXY USA INC	CAL MON 35 FEDERAL	174H	Oil	Active	310	N	2458	E	B	35	23S	31E	1/6/2019	11930	16839	14.75	10.75	847	850	Surf	Circ	12023-16749		[98236] WC-015 G-08 S233135D; WOLFCAMP
																		9.875	7.625	11375	2452	Surf	Circ			
																		6.75	5.5	11995	720	10875	CBL			
																		6.75	4.5	16780	720	10875	CBL			

23	30-015-45525	OXY USA INC	CAL MON 35 FEDERAL	176H	Oil	Active	110 N	580 E	A	35	23S	31E	12/30/2018	11758	16725	14.75	10.75	848	850	Surf	Circ	11819-16569	[98236] WC-015 G-08 S233135D; WOLFCAMP
																9.875	7.625	10609	2210	Surf	Circ		
																6.75	5.5	11785	900	10105	CBL		
																6.75	4.5	16715	900	10105	CBL		
24	30-015-47062	DEVON ENERGY PRODUCTION COMPANY, LP	MALDIVES 15 27 FEDERAL COM	236H	Oil	Active	15 S	715 E	P	10	23S	31E	7/18/2020	10307	25817	17.5	13.625	748	605	Surf	Circ	10442-25754	[33840] JAMES RANCH; BONE SPRING
																12.25	10.750	4401	770	Surf	Circ		
																9.875	8.625	8338	715	Surf	Circ		
																7.875	5.500	25767	3135	Surf	Circ		
25	30-015-47084	DEVON ENERGY PRODUCTION COMPANY, LP	MALDIVES 15 27 FEDERAL COM	235H	Oil	Active	15 S	745 E	P	10	23S	31E	7/17/2020	10083	25570	12.25	10.750	4410	770	Surf	Circ	10255-25557	[33840] JAMES RANCH; BONE SPRING
																17.5	13.375	746	868	Surf	Circ		
																9.875	8.625	8383	515	Surf	Circ		
26	30-015-45379	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 36 STATE	231H	Oil	Active	330 S	1629 W	N	36	23S	31E	6/21/2019	10564	15207	17.500	13.375	822	855	Surf	Circ	10704-15178	[53805] SAND DUNES; BONE SPRING, SOUTH
																12.250	9.625	8427	2415	Surf	Circ		
																8.750	5.500	15192	1380	6270	CBL		
27	30-015-45906	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 36 25 STATE FEDERAL COM	232H	Oil	Active	330 S	1659 W	N	36	23S	31E	7/8/2019	10280	20500	17.5	13.375	817	851	Surf	Circ	10374-20464	[53805] SAND DUNES; BONE SPRING, SOUTH
																12.25	9.625	8431	3156	Surf	Circ		
																8.5	5.500	20479	2430	4120	CBL		
28	30-015-45939	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 36 STATE	625H	Oil	Active	180 S	485 W	M	36	23S	31E	8/27/2019	11873	17038	10.625	8.625	11460	1435	2425	Calc	12134-16919	[98236] WC-015 G-08 S233135D; WOLFCAMP
																7.875	5.500	17028	1230	790	Calc		
																17.5	13.375	855	1045	Surf	Circ		
29	30-015-45940	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 36 STATE	715H	Oil	Active	180 S	425 W	M	36	23S	31E	8/26/2019	12029	17063	17.5	13.375	850	1150	Surf	Circ	12181-16924	[98236] WC-015 G-08 S233135D; WOLFCAMP
																10.625	8.625	11357	2930	850	Calc		
																7.875	5.500	17035	1230	4870	Calc		
30	30-015-45941	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 36 STATE	335H	Oil	Active	180 S	455 W	M	36	23S	31E	8/27/2019	11653	16657	17.500	13.375	855	320	Surf	Circ	11858-16541	[53805] SAND DUNES; BONE SPRING, SOUTH
																10.625	8.625	10248	2930	Surf	Circ		
																7.875	5.500	16647	1310	Surf	Circ		
31	30-015-45074	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	021H	Oil	Active	610 S	648 W	M	28	23S	31E	7/22/2018	8690	19056	17.500	13.375	628	862	Surf	Circ	8835-18933	[33740] INGLE WELLS; BONE SPRING
																12.250	9.875	4278	1450	Surf	Circ		
																8.500	7.625	8180	687	Surf	Circ		
																6.750	5.500	19047	705	5350	CBL		
32	30-015-20751	OXY USA INC	MOBIL FEDERAL	001	Gas	Active	1980 S	1980 E	J	29	23S	31E	9/30/1972	14890	14890	26.000	20.000	740	1500	Surf	Circ	14375-14599 5-1/2" liner set at 12001'	[84720] SAND DUNES; MORROW, WEST (GAS)
																17.500	13.375	4049	2110	Surf	Circ		
																12.250	9.625	12492	1350	Surf	Circ		
																8.5	5.500	14854	1400	12001	Circ		
33	30-015-23175	OXY USA INC	PURE GOLD A FEDERAL	001	Gas	PA	800 S	1980 W	N	21	23S	31E	8/12/1980	14967	14967	26	20.000	583	625	Surf	Circ	NA	NA
																17.5	13.375	4206	2550	Surf	Circ		
																12.25	9.625	12398	1450	Surf	Circ		
																8.5	7.875	14161	615	11860	Circ		
34	30-015-23739	KAISER-FRANCIS OIL CO	PURE GOLD B FEDERAL	001	Gas	Active	660 S	1980 E	O	20	23S	31E	7/11/1981	14860	14865	6.5	5.000	14976	200	13702	Circ		
																26	20	600	1100	Surf	Circ	13590-13894	[84640] SAND DUNES; ATOKA, WEST (GAS)
																17.5	13.375	4106	4000	Surf	Circ		
																12.25	9.625	12395	3650	Surf	Circ		
																8.5	7.625	14268	1116	10939	Circ		
																6.5	5.5	14865	320	14062	Circ		
35	30-015-24069	POGO PRODUCING CO	PURE GOLD D FEDERAL	001	Oil	PA	1980 N	660 W	E	28	23S	31E	6/25/1985	14950	14950	26	20	532	825	Surf	Circ	NA	NA
																17.5	13.375	4170	3500	Surf	Circ		
																12.25	9.625	11490	1975	6800	TS		
																9.5	5.5	14950	11116	830	Circ		
36	30-015-25639	DEVON ENERGY PRODUCTION COMPANY, LP	STERLING SILVER 33 FEDERAL	001	Gas	Active	1980 N	810 W	E	33	23S	31E	7/28/1986	15050	15050	13.375	13.375	630	670	Surf	Circ	13785-13807 4.5" Liner top at 11503'	[84720] SAND DUNES; MORROW, WEST (GAS)
																9.625	9.625	4183	2400	Surf	Unknown		
																7.000	7.000	12000	900	7900	TS		
																6	4.5	15050	740	11503	Circ		
37	30-015-45073	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	011H	Oil	Active	430 S	648 W	M	28	23S	31E	7/21/2018	9762	19919	17.500	13.375	598	700	Surf	Circ	9903-19557	[33740] INGLE WELLS; BONE SPRING
																12.250	9.875	4281	1456	Surf	Circ		
																8.500	7.625	8049	606	Surf	Circ		
																6.750	5.500	19907	893	Surf	Circ		
38	30-015-45075	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	041H	Oil	Active	610 S	683 W	M	28	23S	31E	7/23/2018	9377	18073	17.500	13.375	608	862	Surf	Circ	9475-17951	[33740] INGLE WELLS; BONE SPRING
																12.250	9.875	4275	1310	Surf	Circ		
																8.500	7.625	8960	464	Surf	Circ		
																6.750	5.500	18057	705	Surf	Circ		
39	30-015-45076	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	171H	Oil	Active	430 S	683 W	M	28	23S	31E	7/20/2018	11469	21640	17.500	13.375	600	700	Surf	Circ	11582-21330	[98236] WC-015 G-08 S233135D; WOLFCAMP
																12.250	9.875	4265	1454	Surf	Circ		
																8.500	7.625	10368	993	Surf	Circ		
																6.750	5.500	21663	865	Surf	Circ		
40	30-015-45242	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	001H	Oil	Active	270 N	834 W	D	33	23S	31E	11/27/2018	10118	20591	17.500	13.375	692	915	Surf	Circ	10297-20495	[33740] INGLE WELLS; BONE SPRING
																12.250	9.625	4305	1374	Surf	Circ		
																8.500	7.625	9530	532	Surf	Circ		
																6.750	5.500	20591	848	Surf	Circ		
41	30-015-45243	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	002H	Oil	Active	270 N	904 W	D	33	23S	31E	11/28/2018	9912	20470	17.500	13.375	692	900	Surf	Circ	10068-20367	[33740] INGLE WELLS; BONE SPRING
																12.250	9.625	4307	1386	Surf	Circ		
																8.500	7.625	9387	532	Surf	Circ		
																6.750	5.500	20470	848	Surf	Circ		
42	30-015-45244	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	003H	Oil	Active	249 N	2369 W	C	33	23S	31E	11/24/2018	9814	20235	17.500	13.875	683	950	Surf	Circ	10046-20143	[33740] INGLE WELLS; BONE SPRING
																12.250	9.625	4345	1210	Surf	Circ		
																8.500	7.625	9232	598	Surf	Circ		
																6.750	5.500	20180	830	6809	CBL		
43	30-015-45245	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	004H	Oil	Active	249 N	2474 W	C	33	23S	31E	11/26/2018	10189	21026	17.000	13.375	680	880	Surf	Circ	10822-20921	[33740] INGLE WELLS; BONE SPRING
																12.250	9.625	4336	1215	Surf	Circ		
																8.500	7.625	9537	565	Surf	Circ		
																6.750	5.500	20972	825	7258	echometer		
44	30-015-45249	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	173H	Oil	Active	249 N	2404 W	C	33	23S	31E	7/20/2019	11666	22600	6.750	5.500	22579	914	9720	CBL	12307-22487	[98236] WC-015 G-08 S233135D; WOLFCAMP
																17.5	13.375	534	830	Surf	Circ		

															12.25	9.625	4348	1349	Surf	Circ		
															8.75	7.625	11076	741	Surf	Circ		
															6.75	5.5	22579	914	9720	CBL		
45	30-015-45335	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	001H	Oil	Active	90 N	834 W	D	33 23S	31E	11/6/2018	9933	20366	17.5	13.875	537	705	Surf	Circ	9929-20208	[33740] INGLE WELLS; BONE SPRING
															12.25	9.625	4315	1385	Surf	Circ		
															8.5	7.625	9259	548	Surf	Circ		
															6.75	5.5	20371	909	8755	CBL		
46	30-015-45336	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	171H	Gas	Active	90 N	869 W	D	33 23S	31E	6/10/2019	11557	21701	17.500	13.375	497	525	Surf	Circ	11623-21584	[98236] WC-015 G-08 S233135D; WOLFCAMP
															12.250	9.625	4276	1358	Surf	Circ		
															8.750	7.625	10887	634	Surf	Circ		
															6.750	5.500	21681	827	Surf	Circ		
47	30-015-45337	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	172H	Gas	Active	90 N	904 W	D	33 23S	31E	6/11/2019	11696	22186	17.500	13.375	497	525	Surf	Circ	12016-21976	[98236] WC-015 G-08 S233135D; WOLFCAMP
															12.250	9.625	4300	1418	Surf	Circ		
															8.750	7.625	11017	634	Surf	Circ		
															6.750	5.500	22186	775	Surf	Circ		
48	30-015-45386	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	006H	Gas	Active	69 N	2439 W	C	33 23S	31E	11/13/2018	10272	20550	16	13.375	504	705	Surf	Circ	10399-20447	[98220] PURPLE SAGE; WOLFCAMP (GAS)
															12.250	9.625	4384	1230	Surf	Circ		
															8.5	7.625	9610	555	26	echometer		
															6.75	5.5	20481	845	9160	CBL		
49	30-015-45387	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	008H	Gas	Active	69 N	2404 W	C	33 23S	31E	1/28/2019	11570	21960	17.500	13.375	540	690	Surf	Circ	11783-21844	[98236] WC-015 G-08 S233135D; WOLFCAMP
															12.250	9.625	4384	1220	Surf	Circ		
															8.750	7.625	10941	770	Surf	Circ		
															6.75	5.500	21940	790	8789	CBL		
50	30-015-45390	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	002H	Oil	Active	90 N	939 W	D	33 23S	31E	11/7/2018	10188	20459	17.5	13.375	557	705	Surf	Circ	10276-20208	[33740] INGLE WELLS; BONE SPRING
															12.25	9.625	4315	1874	Surf	Circ		
															8.5	7.625	9368	370	Surf	Circ		
															6.75	5.5	20491	909	8850	CBL		
51	30-015-45391	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	003H	Oil	Active	69 N	2369 W	C	33 23S	31E	11/12/2018	9938	20630	17.500	13.375	495	650	Surf	Circ	10227-20525	[33740] INGLE WELLS; BONE SPRING
															12.250	9.625	4383	1230	Surf	Circ		
															8.500	7.625	9376	410	Surf	Circ		
															6.750	5.500	20619	825	8870	CBL		
52	30-015-45649	OXY USA INC	PURE GOLD MDP1 29 17 FEDERAL COM	005H	Oil	Active	650 S	980 E	P	29 23S	31E	2/21/2019	10098	23238	17.500	13.375	688	870	Surf	Circ	10170-22856	[33740] INGLE WELLS; BONE SPRING
															12.250	9.625	4264	1195	Surf	Circ		
															8.500	7.625	9405	681	Surf	Circ		
															6.750	5.500	23213	1005	Surf	Circ		
53	30-015-45650	OXY USA INC	PURE GOLD MDP1 29 17 FEDERAL COM	006H	Oil	Active	545 S	980 E	P	29 23S	31E	2/22/2019	9904	22922	17.500	13.375	695	870	Surf	Circ	9853-22745	[33740] INGLE WELLS; BONE SPRING
															12.250	9.625	4279	1190	Surf	Circ		
															8.500	7.625	9011	553	Surf	Circ		
															6.750	5.500	22885	1005	Surf	Circ		
54	30-015-46047	OXY USA INC	STERLING SILVER MDP1 33 4 FEDERAL COM	177H	Gas	Active	69 N	2504 W	C	33 23S	31E	6/12/2019	11747	22091	17.500	13.375	558	730	Surf	Circ	11878-21980	[98236] WC-015 G-08 S233135D; WOLFCAMP
															12.250	9.625	4375	1225	Surf	Circ		
															8.750	7.625	11100	944	Surf	Circ		
															6.750	5.500	22071	790	Surf	Circ		
55	30-015-27270	EOG RESOURCES INC	PURE GOLD B FEDERAL	002	Gas	Active	10 S	2110 E	O	17 23S	31E	12/29/1992	14540	14540	13.375	13.375	600	625	Surf	Circ	13964-14448	4.5" liner top at 11500' [84720] SAND DUNES; MORROW, WEST (GAS)
															9.625	9.625	4050	1800	Surf	Circ		
															7.000	7.000	11900	2010	Surf	Circ		
															6.125	4.5	14400	250	11500	Circ		
56	30-015-45246	OXY USA INC	IRIDIUM MDP1 28 21 FEDERAL COM	005H	Oil	Active	276 N	634 E	A	33 23S	31E	11/2/2018	9946	20571	17.500	13.375	573	685	Surf	Circ	10375-20474	[33740] INGLE WELLS; BONE SPRING
															12.250	9.625	4391	1394	Surf	Circ		
															8.500	7.625	9574	222	Surf	Circ		
															6.750	5.500	20571	890	9000	CBL		
57	30-015-45648	OXY USA INC	PURE GOLD MDP1 29 17 FEDERAL COM	004H	Oil	Active	430 S	2605 W	N	29 23S	31E	3/3/2019	9861	22990	17.500	13.375	670	870	Surf	Circ	9966-22900	[33740] INGLE WELLS; BONE SPRING
															12.250	9.625	4210	1335	Surf	Circ		
															8.500	7.625	9015	606	Surf	Circ		
															6.750	5.500	22990	1065	8500	CBL		
58	30-015-27075	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 26 M FEDERAL	009	Oil	Active	660 S	990 W	M	26 23S	31E	9/15/1992	8400	8400	17.5	13.375	869	600	Surf	Circ	7335-7344	[33745] INGLE WELLS; DELAWARE
															11	8.625	4400	1025	Surf	Circ		
															7.875	5.5	8400	1150	Surf	Circ		
59	30-015-27104	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 26 N FEDERAL	014	Oil	PA	330 S	2180 W	N	26 23S	31E	12/12/1992	8400	8400	17.5	13.375	850	650	Surf	Circ	NA	NA
															11	8.625	4412	2050	Surf	Circ		
															7.875	5.5	8400	1050	3885	CBL		
60	30-015-27105	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 26 O FEDERAL	015	Oil	Active	330 S	1980 E	O	26 23S	31E	11/25/1992	8388	8388	17.5	13.375	830	650	Surf	Circ	6746-8202	[33745] INGLE WELLS; DELAWARE
															11	8.625	4424	2350	Surf	Circ		
															7.875	5.5	8388	1200	2600	Calc		
61	30-015-27106	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 27 P FEDERAL	016	Salt Water Disposal	Active	330 S	330 E	P	27 23S	31E	11/7/1992	8328	8328	17.500	13.375	849	650	Surf	Circ	7962-8046	[96802] SWD; BELL CANYON-CHERRY CANYON
															11.000	8.625	4350	2200	Surf	Circ		
															7.875	5.500	8328	1150	2500	Calc		
62	30-015-27134	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 26 P FEDERAL	016	Oil	Active	330 S	660 E	P	26 23S	31E	1/15/1993	8425	8425	17.500	13.375	835	650	Surf	Circ	6722-8228	[33745] INGLE WELLS; DELAWARE
															11.000	8.625	4450	2200	Surf	Circ		
															7.875	5.500	8425	1150	1800	CBL		
63	30-015-27200	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 26 J FEDERAL	021	Oil	PA	660 S	1980 W	J	26 23S	31E	3/18/1993	8300	8300	17.500	13.375	846	650	Surf	Circ	NA	NA
															11.000	8.625	4200	1600	Surf	Circ		
															7.875	5.500	8300	1100	2500	Calc		
64	30-015-27223	OXY USA INC	CAL MON	011	Oil	Active	1650 S	660 W	L	35 23S	31E	7/6/1993	8342	8342	17.5	13.375	800	1025	Surf	Circ	8164-8222	[33745] INGLE WELLS; DELAWARE
															11	8.625	4300	1600	Surf	Circ		
															7.875	5.500	8390	1950	Surf	Circ		
65	30-015-27239	OXY USA INC	SAND DUNES 34 FEDERAL	002	Oil	Active	2310 N	660 E	H	34 23S	31E	12/10/1992	8370	8370	17.5	13.375	803	950	Surf	Circ	8108-8177	[33745] INGLE WELLS; DELAWARE
															11	8.625	4250	1650	Surf	Circ		
															7.875	5.500	8370	1580	Surf	Circ		
66	30-015-27240	OXY USA INC	SAND DUNES 34 FEDERAL	003	Oil	Active	330 S	330 E	P	34 23S	31E	4/13/1994	8350	8350	17.500	13.375	810	950	Surf	Circ	8014-8178	[33745] INGLE WELLS; DELAWARE
															11.000	8.625	4245	1700	Surf	Circ		
															7.875	5.500	8350	1615	4184	Calc		
67	30-015-27255	OXY USA INC	SAND DUNES 34 FEDERAL	001	Oil	PA	660 N	660 E	A	34 23S	31E	12/29/1992	8338	8338	17.5	13.375	806	1000	Surf	Circ	NA	NA
															11	8.625	4220	1650	Surf	Circ		

														7.875	5.500	8338	1485	Surf	Circ			
68	30-015-27268	OXY USA INC	SAND DUNES 34 FEDERAL	004	Oil	PA	1650 S	330 E	I	34	23S	31E	10/21/1993	8380	8380	17.5	13.375	802	950	Surf	Circ	NA	NA
															11	8.625	4253	1700	Surf	Circ		
															7.875	5.500	8380	1905	Surf	Circ		
69	30-015-27269	OXY USA INC	CAL MON	010	Oil	Active	330 N	660 E	A	35	23S	31E	3/2/1993	8374	8374	17.5	13.375	818	950	Surf	Circ	8174-8224	[33745] INGLE WELLS; DELAWARE
															11	8.625	4305	1850	Surf	Circ		
															7.875	5.500	8420	1645	Surf	Circ		
70	30-015-27385	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 25 L FEDERAL	012	Oil	Active	1982 S	660 W	L	25	23S	31E	8/30/1993	8400	8400	17.5	13.375	872	700	Surf	Circ	8045-8228	[33745] INGLE WELLS; DELAWARE
															11	8.625	4353	1650	Surf	Circ		
															7.875	5.5	8400	1100	2500	Calc		
71	30-015-27386	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 25 M FEDERAL	013	Oil	PA	662 S	660 W	M	25	23S	31E	10/21/1993	8370	8370	17.5	13.375	860	700	Surf	Circ	NA	NA
															11	8.625	4370	1500	Surf	Circ		
															7.875	5.500	8370	1075	2500	Calc		
72	30-015-27496	OXY USA INC	CAL MON	019	Oil	Active	1980 N	380 E	H	35	23S	31E	9/22/1993	8400	8400	17.5	13.375	813	950	Surf	Circ	8170-8225	[33745] INGLE WELLS; DELAWARE
															11	8.625	4300	1800	Surf	Circ		
															7.875	5.500	8400	1705	Surf	Circ		
73	30-015-27549	OXY USA INC	CAL MON	020	Oil	Active	2310 N	1980 E	G	35	23S	31E	7/16/1993	8350	8350	17.5	13.375	816	950	Surf	Circ	8174-8220	[33745] INGLE WELLS; DELAWARE
															11	8.625	4303	1800	Surf	Circ		
															8.625	5.500	8390	1665	Surf	Circ		
74	30-015-28024	OXY USA INC	CAL MON	017	Oil	Active	930 S	460 E	P	35	23S	31E	1/2/1997	8440	8440	14.75	10.750	865	800	Surf	Circ	8214-8254	[33745] INGLE WELLS; DELAWARE
															9.875	7.625	4375	975	Surf	Circ		
															6.75	4.500	8440	675	5088	Calc		
75	30-015-28026	OXY USA INC	CAL MON	018	Oil	Active	1980 S	385 E	I	35	23S	31E	9/30/1994	8402	8402	17.5	13.365	800	850	Surf	Circ	8053-8240	[33745] INGLE WELLS; DELAWARE
															11	8.625	4305	1600	Surf	Circ		
															7.875	5.500	8402	2035	Surf	Circ		
76	30-015-28859	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 25 N FEDERAL	014	Salt Water Disposal	Active	660 S	1980 W	N	25	23S	31E	4/19/1996	8673	8673	17.5	13.375	877	700	Surf	Circ	6799-8274	[53810] SAND DUNES; CHERRY CANYON
															11	8.625	4373	1220	Surf	Circ		
															7.875	5.500	8672	935	3500	Calc		
77	30-015-30810	PENROC OIL CORP	BARCLAY STATE	009	Oil	Active	660 N	1980 E	B	2	23S	31E	3/18/2000	8600	8600	17.5	13.375	895	700	Surf	Circ	6560-8220	[96149] LIVINGSTON RIDGE; DELAWARE, SOUTH
															12.25	8.625	4479	1800	Surf	Circ		
															7.875	5.500	8600	860	5868	Calc		
78	30-015-31645	OXY USA INC	CAL MON	012Q	Oil	Active	330 S	660 W	M	35	23S	31E	3/29/2001	8424	8424	14.75	10.750	760	450	Surf	Circ	8194-8218	[33745] INGLE WELLS; DELAWARE
															9.875	7.625	4250	1470	Surf	Circ		
															6.75	4.500	8424	1550	Surf	Circ		
79	30-015-36897	DEVON ENERGY PRODUCTION COMPANY, LP	TODD 26 L FEDERAL	017	Oil	PA	1800 S	660 W	L	26	23S	31E	12/10/2009	8400	8400	17.500	13.375	740	770	Surf	Circ	NA	NA
															11.000	8.625	4378	1320	Surf	Circ		
															8.750	5.500	8396	1140	800	CBL		
80	30-015-46179	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	013H	Oil	Active	750 N	1480 E	B	34	23S	31E	1/3/2020	9416	18842	8.750	7.625	8710	1020	Surf	Circ	9758-18750	[13367] COTTON DRAW; BONE SPRING
															17.5	13.375	700	780	Surf	Circ		
															12.25	9.625	4473	1464	Surf	Circ		
															6.75	5.500	18822	845	8388	Calc		
81	30-015-46180	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	014H	Oil	Active	750 N	1445 E	B	34	23S	31E	1/4/2020	9513	19888	17.5	13.375	700	880	Surf	Circ	9757-19750	[13367] COTTON DRAW; BONE SPRING
															12.25	9.625	4479	1400	Surf	Circ		
															8.75	7.625	8888	604	Surf	Circ		
															6.75	5.500	19869	842	8456	Calc		
82	30-015-46559	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	026H	Oil	Active	110 N	793 E	A	34	23S	31E	1/14/2020	8935	19165	17.5	13.375	722	935	Surf	Circ	9037-19030	[13367] COTTON DRAW; BONE SPRING
															12.25	9.625	4454	1697	Surf	Circ		
															8.75	7.625	8271	424	3902	Calc		
															6.75	5.500	19150	840	7600	Calc		
83	30-015-26885	OXY USA INC	CAL MON	006	Oil	Active	330 N	380 W	D	35	23S	31E	2/21/1992	8309	8309	17.5	13.375	825	950	surf	circ	8007-8046	[33745] INGLE WELLS; DELAWARE
															11	8.625	4340	1575	surf	circ		
															7.875	5.5	8309	1404	4400	CBL		
84	30-015-27081	OXY USA INC	CAL MON	007	Oil	Active	330 N	1650 W	C	35	23S	31E	8/9/1992	8400	8400	17.5	13.375	797	1000	surf	circ	6996-8125	[33745] INGLE WELLS; DELAWARE
															11	8.625	4275	1525	surf	circ		
															7.875	5.5	8400	1275	2800	Calc		
85	30-015-27113	OXY USA INC	CAL MON	008	Oil	Active	2310 N	330 W	E	35	23S	31E	11/7/1992	8330	8330	17.5	13.375	815	1000	surf	circ	8149-8214	[33745] INGLE WELLS; DELAWARE
															11	8.625	4240	1525	surf	circ		
															7.875	5.5	8330	1505	Surf	Circ		
86	30-015-27206	OXY USA INC	CAL MON	009	Oil	Active	330 N	2310 E	B	35	23S	31E	12/6/1992	8370	8370	17.5	13.375	815	950	surf	circ	8102-8198	[33745] INGLE WELLS; DELAWARE
															11	8.625	4270	1850	surf	circ		
															7.875	5.5	8370	1680	Surf	circ		
87	30-015-46558	OXY USA INC	PLATINUM MDP1 34 3 FEDERAL COM	025H	Oil	Active	110 N	898 E	A	34	23S	31E	1/15/2020	8850	19189	17.5	13.375	722	935	Surf	Circ	9057-19038	[13367] COTTON DRAW; BONE SPRING
															12.25	9.625	4477	1721	Surf	Circ		
															8.75	7.625	8246	568	Surf	Circ		
															6.75	5.5	19164	774	7600	Calc		

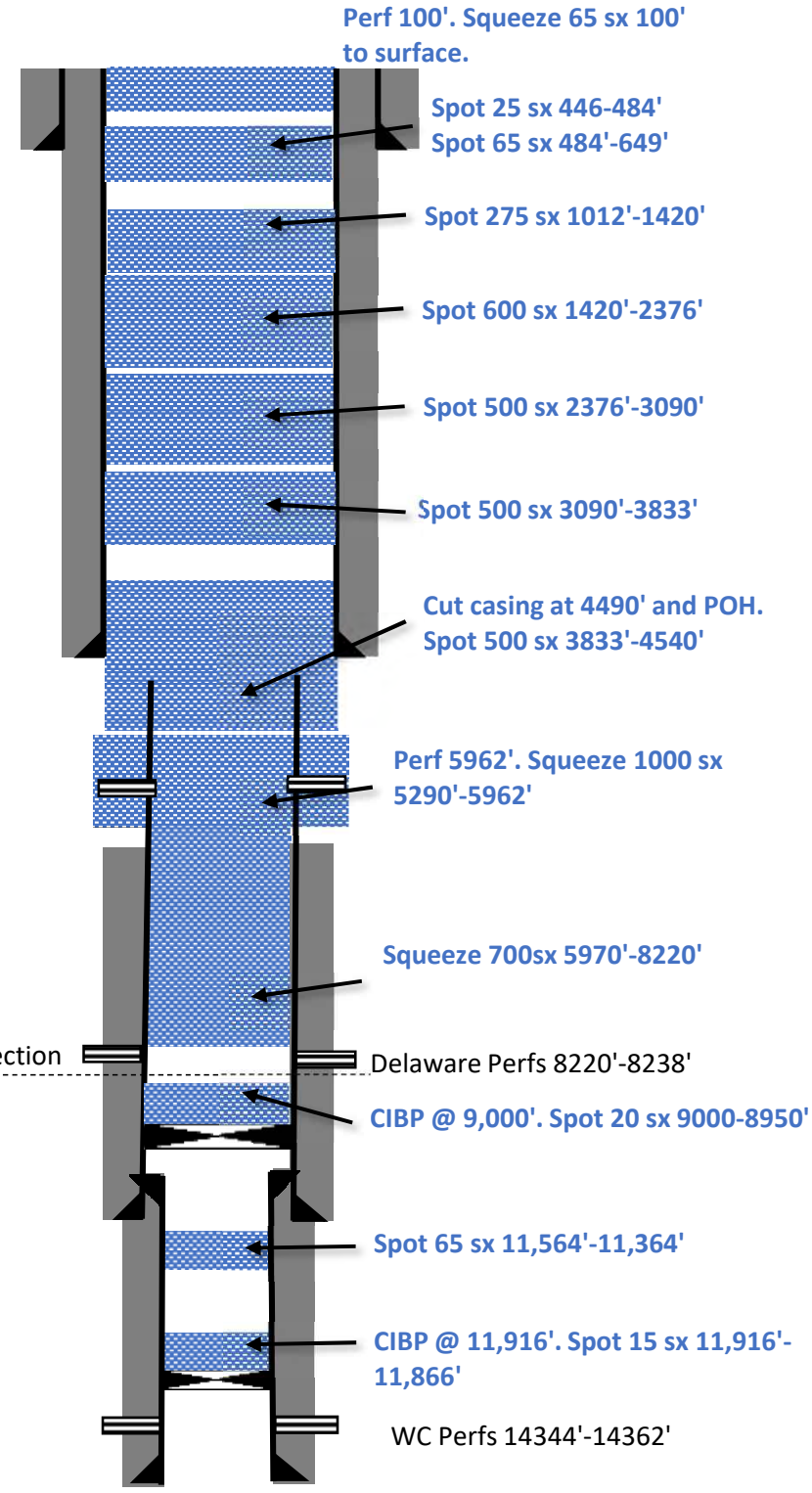
Current Wellbore

4/6/2021

Calmon 2

30-015-25176-0000

Eddy



- CALMON/IRIDIUM AOR WELL #35

MAVERICK WELL PLUGGERS

COMPANY: Pogo Producing Co.

WELL NAME: Pure Gold "D" Federal

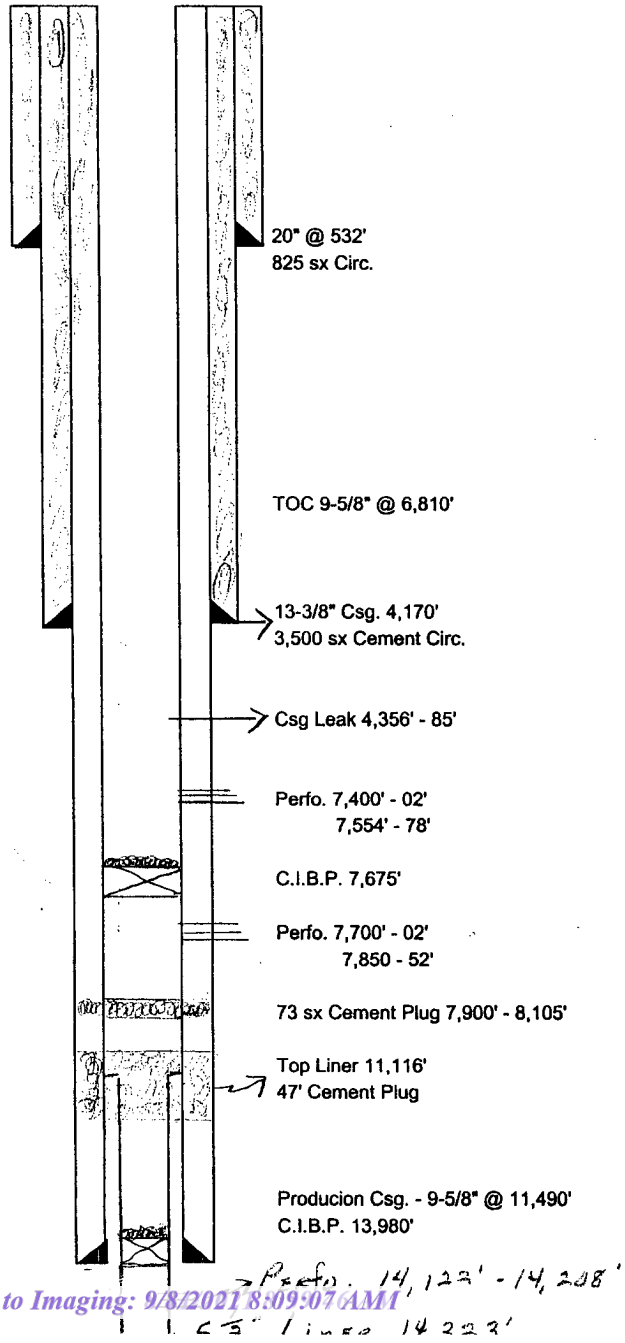
WELL #: # 1

COUNTY: Lea, New Mexico

LEASE ID:

SURFACE CASING				
OD	WT/FT	GRADE	SET AT	TOC
20	94 #	K-55	532'	Surface
INTERMEDIATE CASING				
OD	WT/FT	GRADE	SET AT	TOC
13-3/8"	68 & 61	S-80-K55	4,170'	Surf.
PRODUCTION CASING				
OD	WT/FT	GRADE	SET AT	TOC
9-5/8"	47 & 43.5	S-95	11,490'	6,810'
TUBING				
OD	WT/FT	GRADE	SET AT	TAL
5-1/2"	17 #	S-95	14,323'	11,116'

BEFORE



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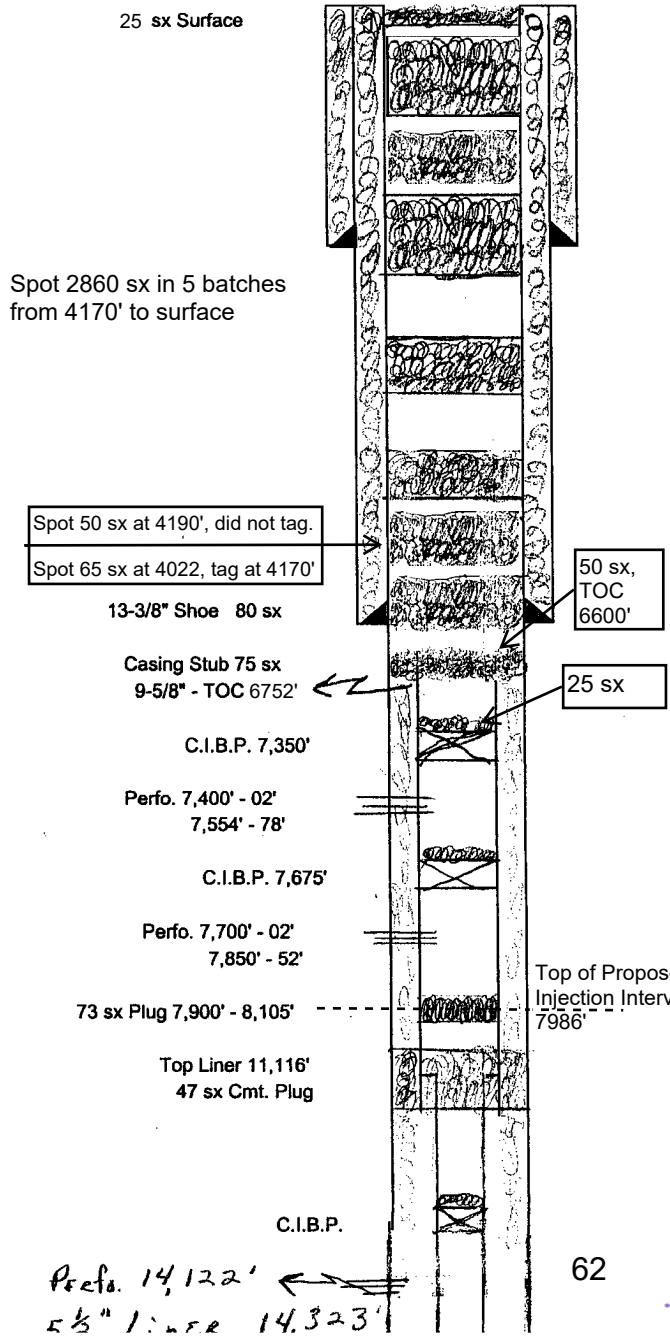
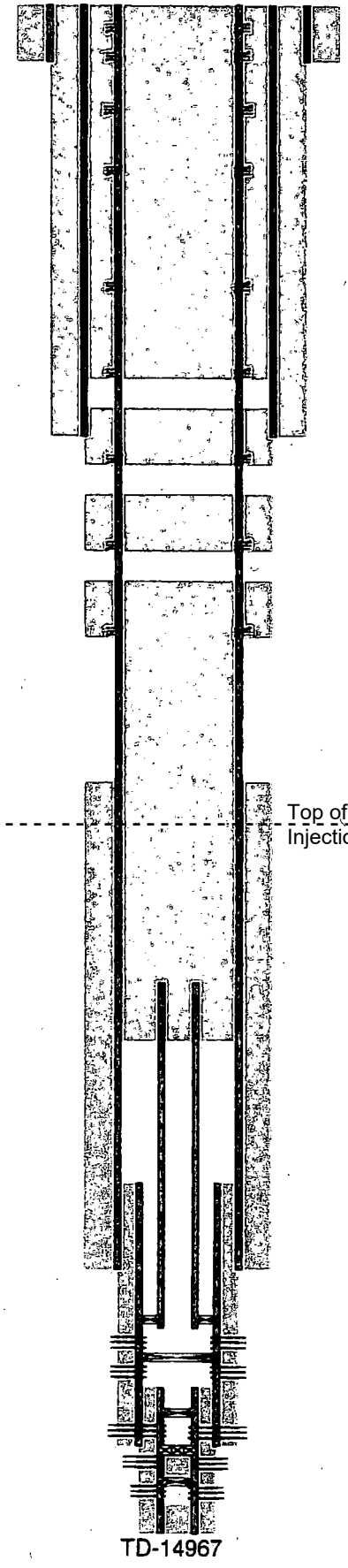


OXY USA Inc. (Kaiser Francis Oil Co.) - Final
Pure Gold A Federal #1
API No. 30-015-23175



67sx @ 72'-Surface VC
255sx @ 509-72' Tagged
200sx @ 1122-509' Tagged

400sx @ 1608-1122' Tagged

400sx @ 2896-1608' Tagged

400sx @ 3550-2896' Tagged

115sx @ 4256-4089' Tagged

200sx @ 5140-4640' Tagged

400sx @ 6350-5880' Tagged

120sx @ 6792-6411' Tagged

200sx @ 7415-6792' Tagged

400sx @ 8239-7415' Tagged

400sx @ 9479-8239' Tagged

2-3/8" tbg @ 9340 w/ pkr @ 13478'

CIBP @ 13590' w/ 10' - 13580'

CIBP @ 14050 w/ 2sx - 14030'

CR @ 14142'sqz 200sx w/ 10' - 14132'
CIBP @ 14370' w/ 35' cmt-14335'
PB-14924'

TD-14967

Perf @ 72'
Perf @ 509'
26" hole @ 600'
20" csg @ 583'
w/ 1125sx-TOC-Surf-Circ

Perf @ 1122' - Pressure to 750#

Perf @ 1608' TOC-509'CBL

Perf @ 2896'

Perf @ 3550'
17-1/2" hole @ 4206'
13-3/8" csg @ 4206'
w/ 2850sx-TOC-Surf-Circ

Perf @ 4256'

Perf @ 5140'

Perf @ 6350'

Top of Proposed
Injection Interval 8400'

12-1/4" hole @ 12400'
9-5/8" csg @ 12398'
w/ 1450sx-TOC-7850'-TS

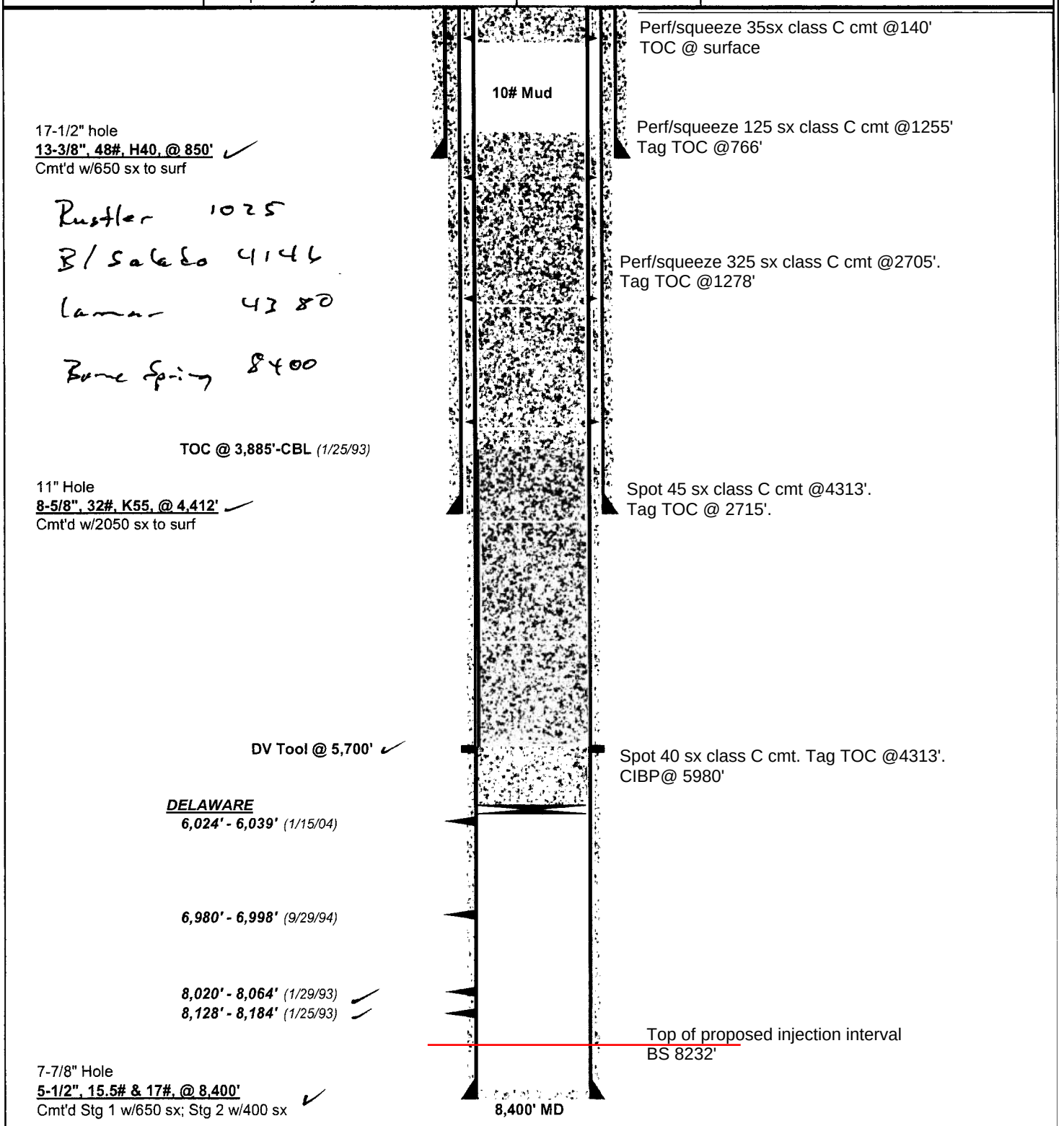
8-3/4" hole @ 14161'
7-5/8" liner @ 11860-14161'
w/ 615sx-TOC-11860'-Sqz

6-3/4" hole @ 14976'
5" liner @ 13702-14976'
w/ 200sx-TOC-13702'-Circ

Perfs @ 13506-13510'
Perfs @ 13624-13634'

Perfs @ 14084-14100'
Perfs @ 14165-14228'
Perfs @ 14414-14633'

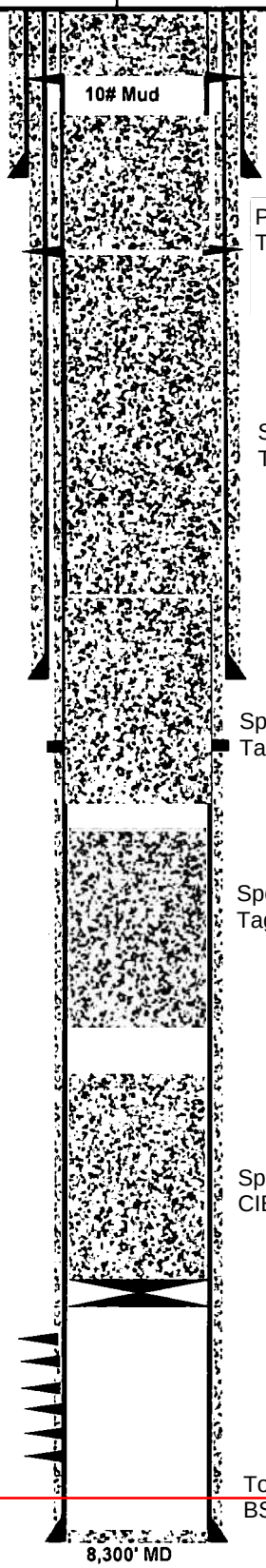
DEVON ENERGY PRODUCTION COMPANY LP			
Well Name: TODD 26 N FEDERAL 14		Field: TODD SOUTHWEST	
Location: 330' FSL & 2180' FWL; 26-T23S-R31E		County: EDDY	State: NM
Elevation: 3477' KB; 3458' GL; 19' KB to GL		Spud Date: 12/12/92	Compl Date: 2/20/93
API#: 30-015-27104	Prepared by: Ronnie Slack	Date: 2/13/18	Rev:



CALMON/IRIDIUM AOR WELL #63

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: TODD 26J FEDERAL #21		Field: INGLE WELLS	
Location: 1980' FSL & 1980' FEL; 26-T23S-R31E		County: EDDY	State: NM
Elevation: 3448' GL		Spud Date: 3/18/93	Compl Date: 6/15/93
API#: 30-015-27200	Prepared by: Max Lubitz	Date: 6/28/18	Rev:



Perf/squeeze 35 sx class C cmt @140'.
TOC @ surface

17-1/2" hole
13-3/8", 48#, H40, @ 846'
Cmt'd w/650 sx to surface

TOC @ 2500' -estimated *(4/7/93)*

Perf/squeeze 220 sx class C cmt @1747'.
Tag TOC @ 730'

Spot 165 sx class C cmt @3386'.
Tag TOC @ 1757'

11" Hole
8-5/8", 32#, J55 & WC50, @ 4,200'
Cmt'd w/1600 sx to surface

DV Tool @ 5709'

Spot 100 sx class C cmt @4250'.
Tag TOC @ 3386'

Spot 25 sx class C cmt @5759'.
Tag TOC @ 5524'

Spot 25 sx class C cmt. TOC @6440'
CIBP @ 6690'

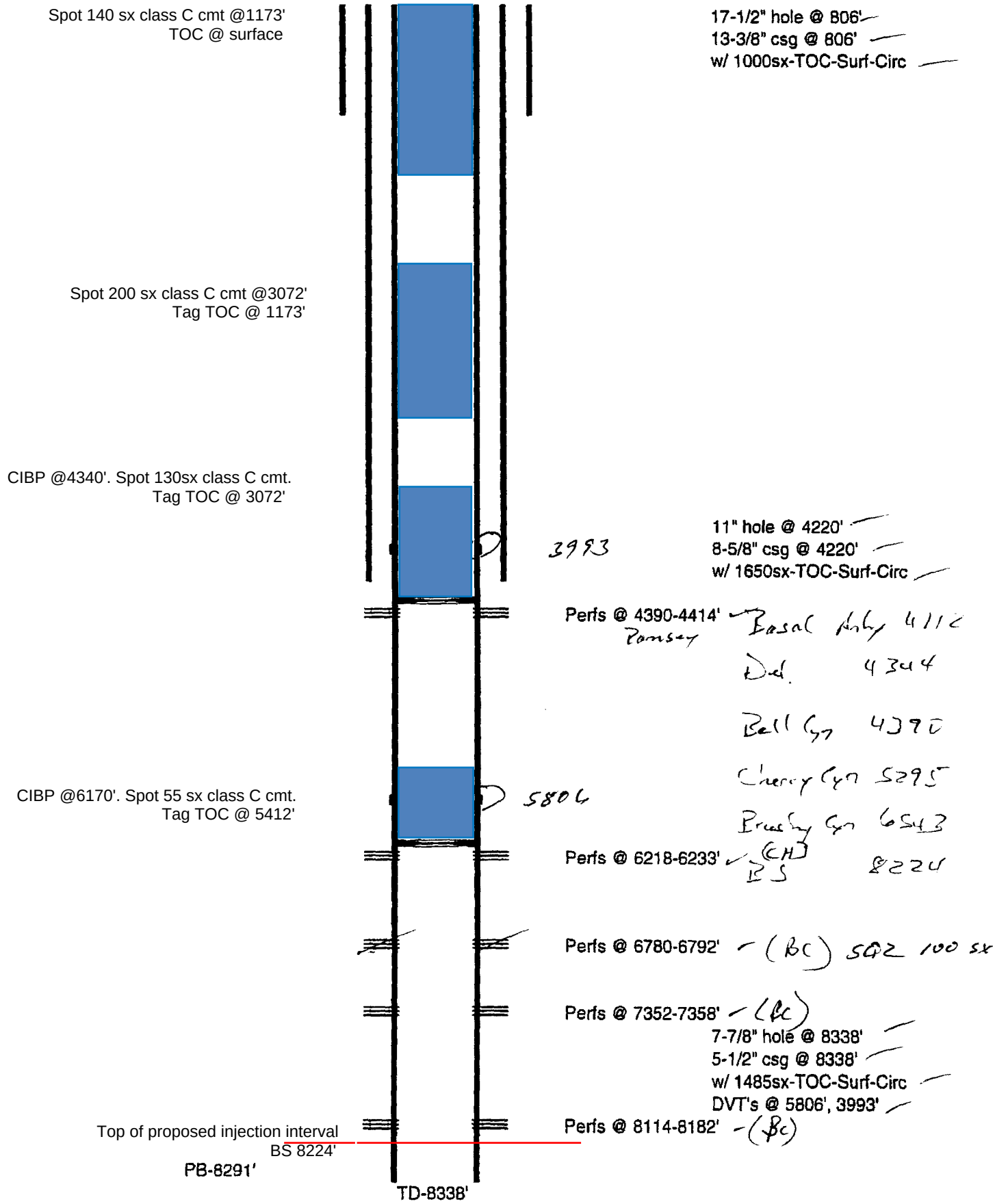
DELAWARE
6712'-6721 (08/2008)
6802-6818 (08/2008)
6885'-6899' (08/2008)
6982'-6991' (08/2008)
7096'-7110' (08/2008)
7140'-7175' (08/2008)
8,047' - 8,164' *(5/14/93)*

Top of proposed injection interval
BS 8216'

7-7/8" Hole
5-1/2", 15.5# & 17#, J55, @ 8,300'
Cmt'd Stg 1 w/475 sx, Stg 2 w/625 sx.

8,300' MD

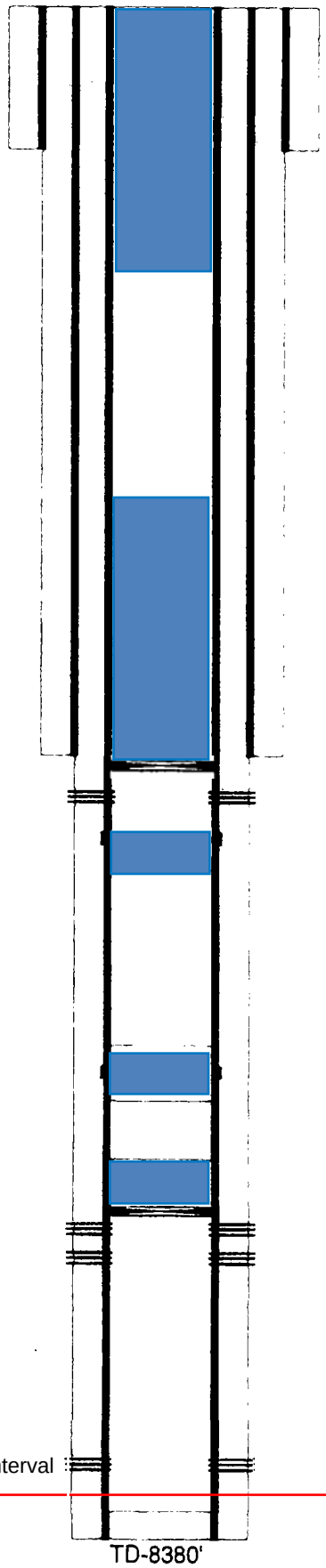
OXY USA Inc.
Sand Dunes 34 Federal #1
API No. 30-015-27255



OXY USA Inc.
Sand Dunes 34 Federal #4
API No. 30-015-27268

Top off with 15 sx class C cmt

Pump 145 sx class C cmt
TOC @ surface



17-1/2" hole @ 802'
13-3/8" csg @ 802'
w/ 950sx-TOC-Surf-Circ

11" hole @ 4253'
8-5/8" csg @ 4253'
w/ 1700sx-TOC-Surf-Circ

CIBP @4394'. Pump 150 sx class C cmt
Tag TOC @2932'

Perfs @ 4444-4460'

Pump 25 sx class C cmt @4790'
Tag TOC @4533'

Pump 30 sx class C cmt @6071'
Tag TOC @5778'

CIBP @ 6845'. Pump 26 sx class C cmt.
Tag TOC @6581'

Perfs @ 6904-6908'
Perfs @ 7014-7028'

7-7/8" hole @ 8380'
5-1/2" csg @ 8380'
w/ 1905sx-TOC-Surf-Circ
DVT's @ 5987', 4688'

Top of proposed injection interval
BS Top 8244'

Perfs @ 8092-8196'

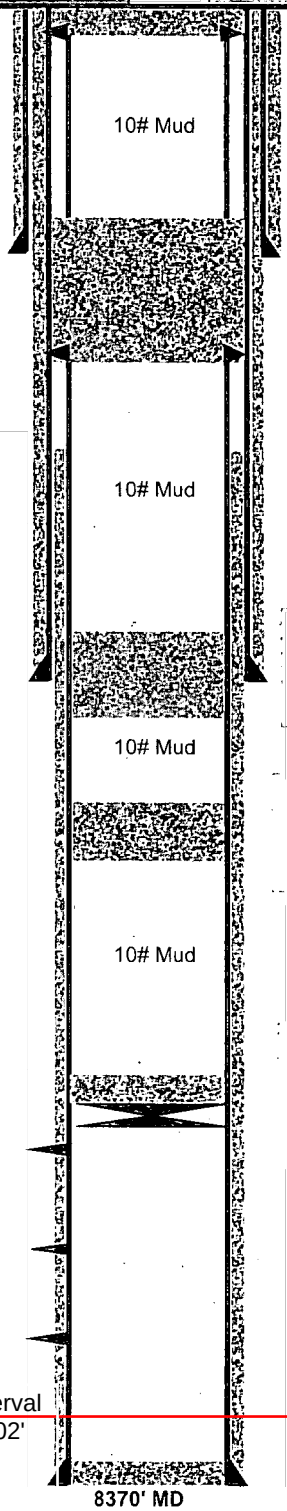
PB-8336'

TD-8380'

CALMON/IRIDIUM ACR WELL #71

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: TODD 25M FED 13		Field: Todd East	
Location: 662 FSL 660 FWL	SEC 25 T23S R31E	County: Eddy	State: New Mexico
Elevation: 3480' GL		Spud Date: 10/21/1993	Compl Date: 1/2/1994
API#: 30-015-27386	Prepared by: Arnon Radkar	Date: 7/8/19	Rev:



Perf & squeeze 35 sx class C cmt @140'
TOC @ surface

17-1/2" Hole
13-3/8", 48#, H-40 @ 860'
Cmt'd w/700 sx Cl C to surface

Perf & squeeze 105 sx class C cmt @1200'
Tag TOC @705'

TOC @ 2500' (est)

11" Hole
8-5/8", 32#, J-55, @ 4370'
Cmt'd w/1500 sx Cl C to surface

Spot 35 sx class C cmt @4570'
Tag TOC @4166'

DV Tool @ 5680'

Spot 25 sx class C cmt @5750'
Tag TOC @5385'

Spot 25 sx class C cmt. TOC @6400'
Set CIBP @ 6700'

Perforations
6748'-8248' (Delaware)

Top of proposed injection interval
BS Top 8302'

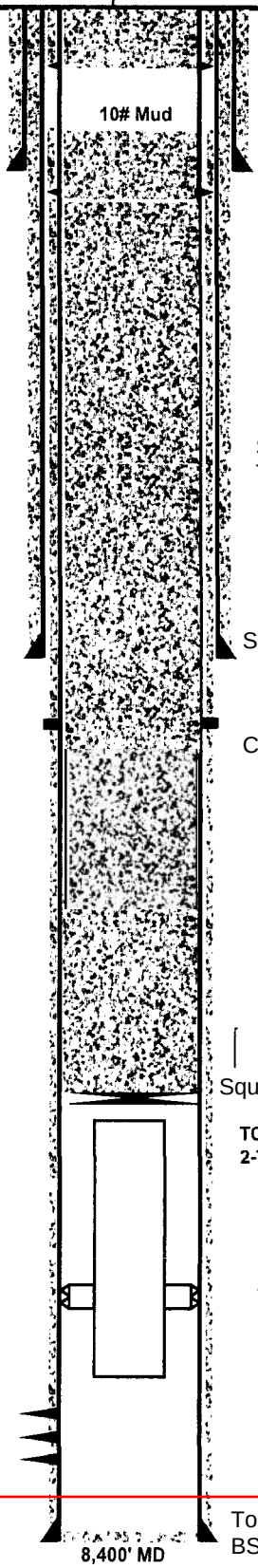
7-7/8" Hole
5-1/2", 15.5# & 17#, J-55, @ 8370'
Cmt'd w/1075 sx Cl H & Cl C cmt to 2500' (est)

8370' MD

CALMON/IRIDIUM AOR WELL #79

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: TODD 26L FEDERAL #17		Field: INGLE WELLS	
Location: 1800' FSL & 660' FWL; 26-T23S-R31E		County: EDDY	State: NM
Elevation: 3446' KB; 3430' GL; 16' KB to GL		Spud Date: 12/10/09	Compl Date: 1/18/10
API#: 30-015-36897	Prepared by: Ronnie Slack	Date: 11/28/17	Rev:



Perf & squeeze 35sx class C cmt.
Tag TOC @surface

10# Mud

17-1/2" hole
13-3/8", 48#, H40, @ 740'
Cmt'd w/770 sx to surface

Spot 40sx class C cmt.
Tag TOC @351'

TOC @ 800' -CBL *(1/7/10)*

Spot 200sx class C cmt.
Tag TOC @966'

11" Hole
8-5/8", 24# & 32#, J55, @ 4,378'
Cmt'd w/1320 sx to surface

Spot 230sx class C cmt. Tag TOC @2779'

DV Tool @ 4,487'

CIBP@ 5000'

Squeeze 300 sx class C cmt. TOC 5751'.

CBL Noted void in cement From 5,117' To 6,050'

TOF @ 5,884'. *(2-7/8" prod tbg)*
2-7/8", 6.5#, J55 prod tbg - 5,884' - 7,620'

TAC @ 7,623'
6 Jts, 2-7/8", 6.5#, J55 prod tbg.
SN @ 7,818'
Perfed sub, 1 Jt tbg, bull plug @ 7,854'

DELAWARE
7,904' - 7,912' *(1/11/10)*
7,993' - 8,000' *(1/7/10)*
8,090' - 8,100' *(1/7/10)*

2020' between Top Perf and Top Fish.

7-7/8" Hole
5-1/2", 17#, J55, @ 8,396'
Cmt'd Stg 1 w/705 sx, Stg 2 w/435 sx.

Top of proposed injection interval
BS top 8182'

8,400' MD

Geology

North Corridor Type Log

Barriers protecting fresh water

- Rustler
- Salado Salt (~2,000ft thick)
- Castile Formation (~1,400ft thick)
  - > Low permeability anhydrite, gypsum, and calcite
- Delaware Mountain Group (~3,900ft thick)
  - > Low porosity/ low permeability sands

Bone Spring and Wolfcamp Reservoir Characteristics

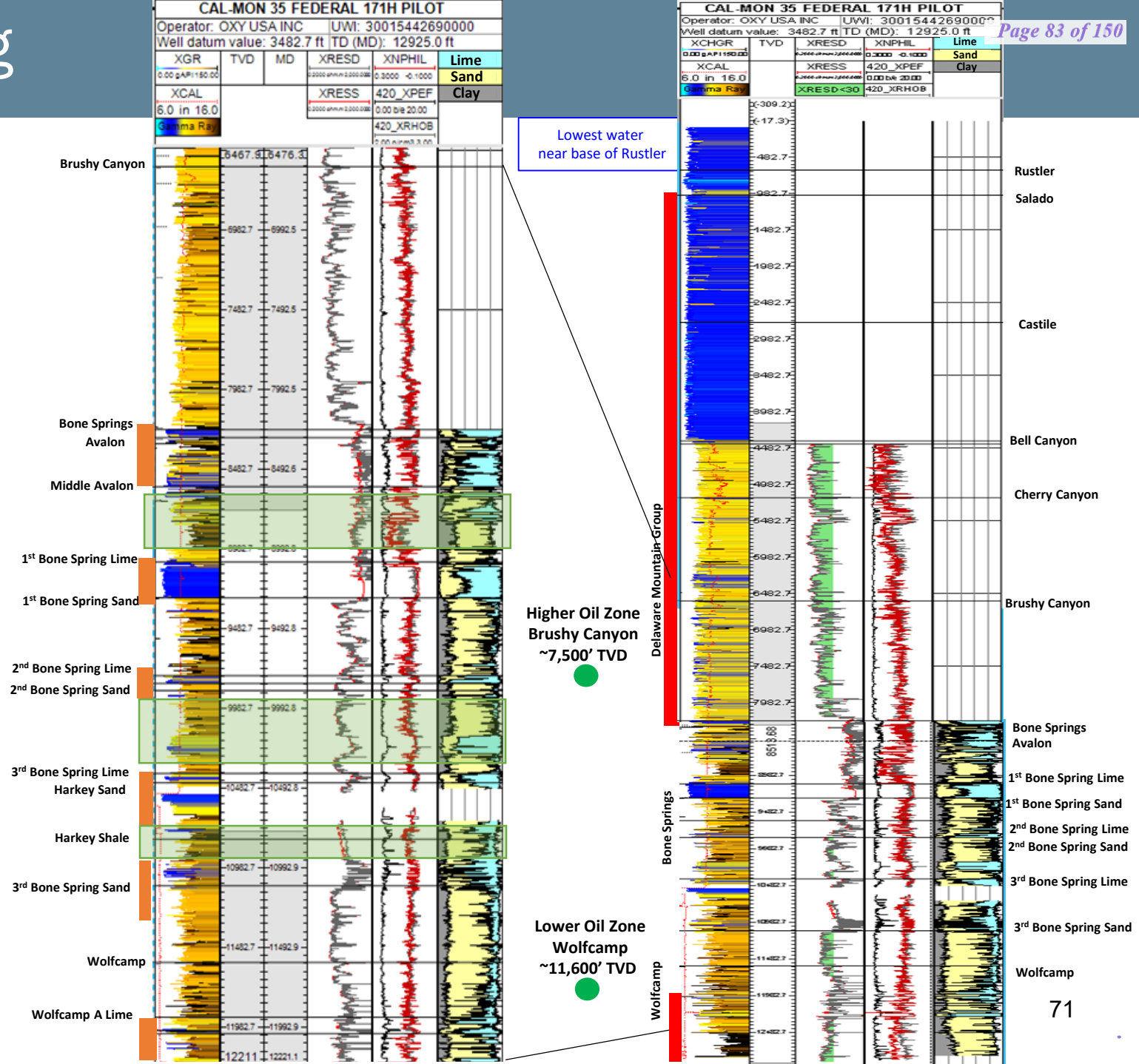
- Composed of large-scale cycles of alternating carbonate and siliclastic-dominated successions
- Siliclastic members are low stand turbidite channel, fans & distal sheets
  - > Very fine-grained sandstones and silts, mudstones, and shales
  - > Porosity 4-9% Permeability 400-800nD
  - > Authigenic clays are present
- Carbonate members are high stand submarine debris flows & sheets and act as internal barriers to flow between the different sandstone members

Immediate barriers to flow outside of Bone Spring/ Wolfcamp

- Low permeability & porosity limes and siltstones at the top of the Avalon
- Low permeability & porosity siltstones and shales of the lower Wolfcamp

Surrounding Production

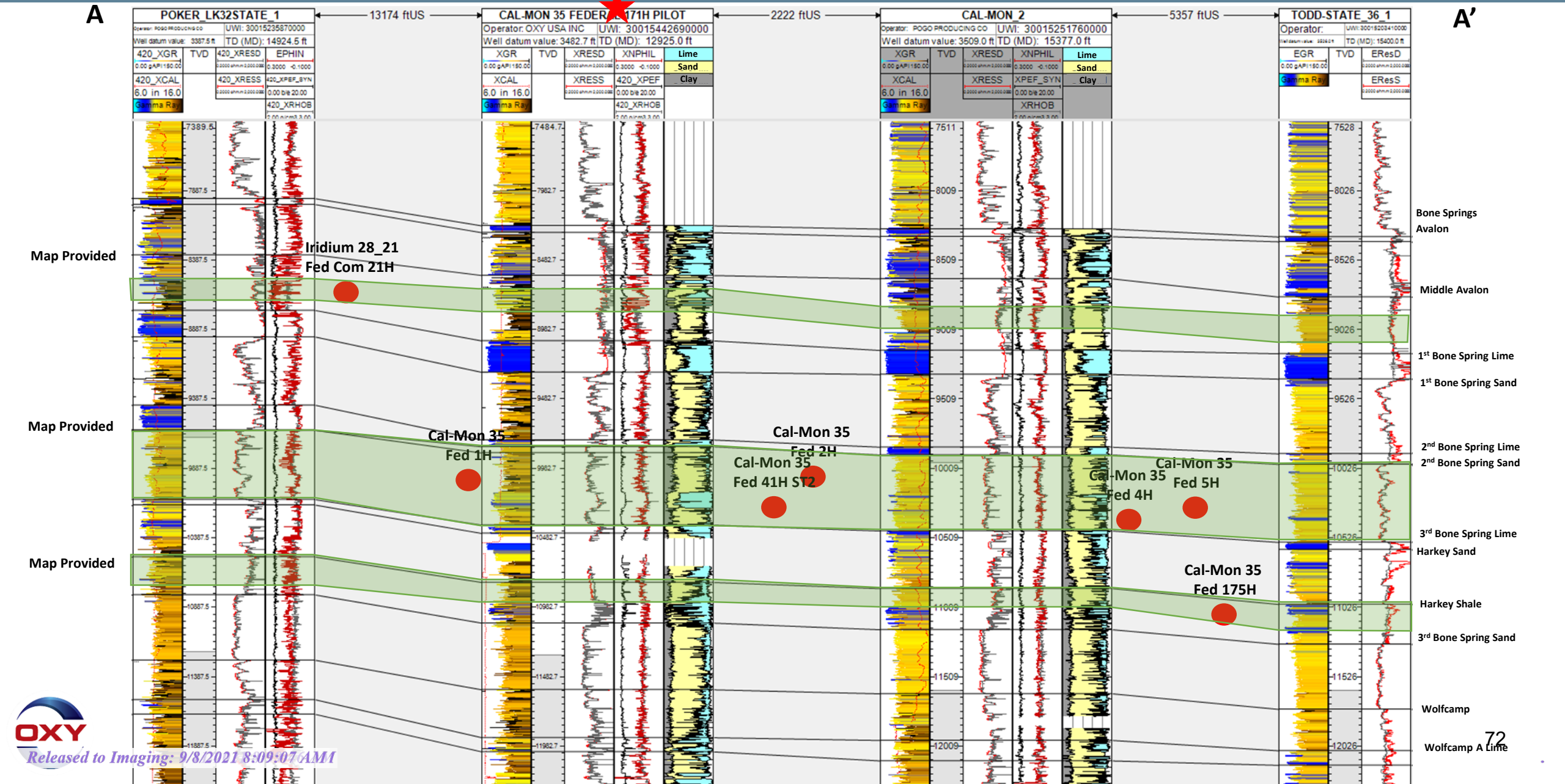
- Delaware Mountain Group
  - > Brushy Canyon oil production: Deepest production ~7,500’ TVD
- Wolfcamp
  - > Oil production: Shallowest production ~11,600’ TVD



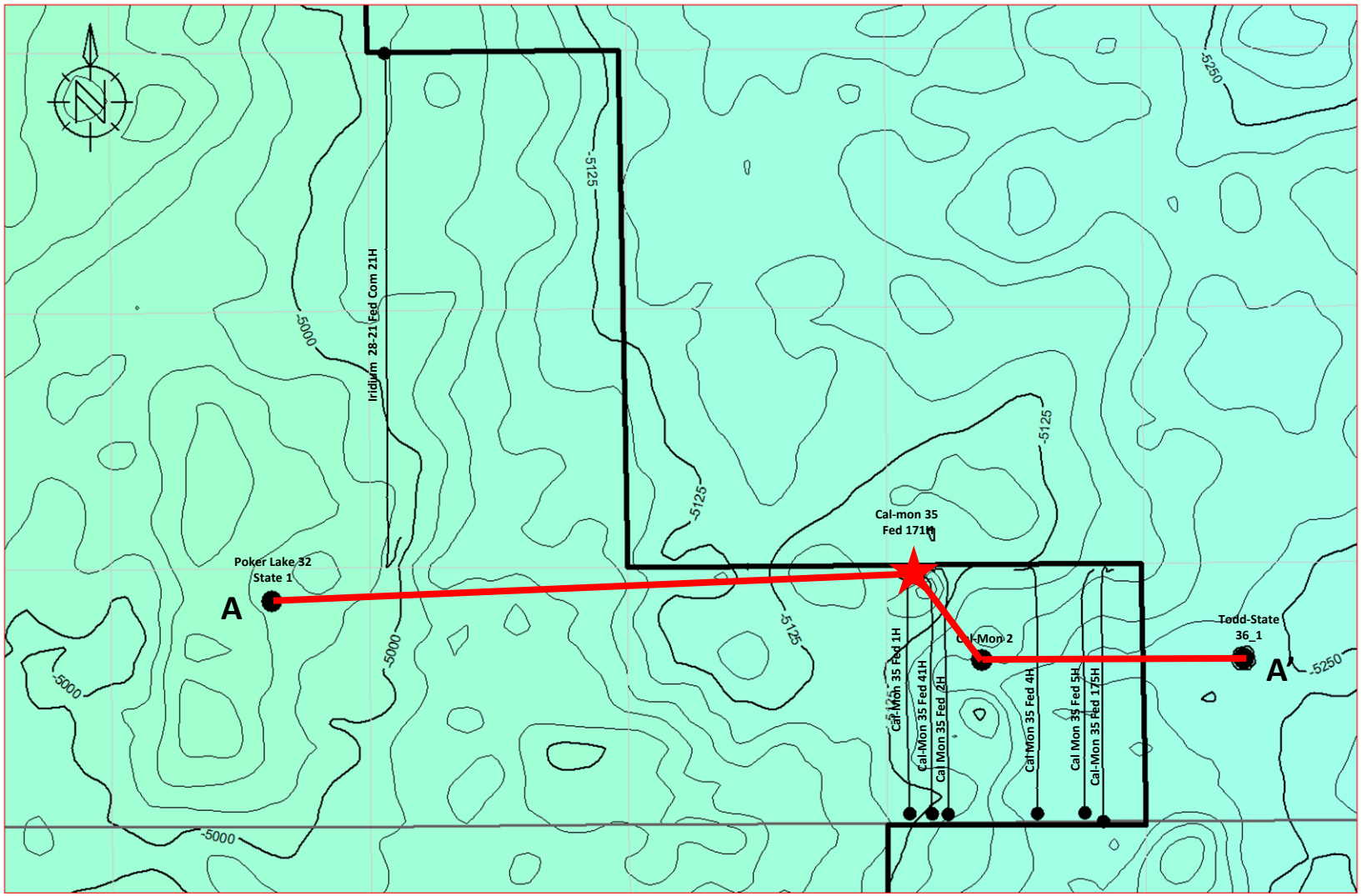
Barriers to migration from gas injected into the Bone Spring or Wolfcamp

Proposed Storage Interval

North Corridor Cross-Section



North Corridor Maps- Middle Avalon



Middle Avalon Structure Map	
Scale 1:40000	User name wiechmam
Contour inc 25	Date 08/04/2021

0 1000 2000 3000 4000 5000ftUS

1:40000

Elevation depth

-2250.00
-3000.00
-3750.00
-4500.00
-5250.00
-6000.00

Geologic Information for Wells injecting into the Avalon member of the Bone Spring Formation

One well will be injecting into the lower portion of the Avalon member of the Bone Spring Formation. The well has an average TVD of approximately 8,700 ft. with a lateral length of approximately 10,500 ft. The Avalon is a very fine-grained quartz-rich and brittle siltstone with alternating cycles of carbonate rich mudstones deposited by gravity flows. Core data and petrophysical analysis indicates a tight reservoir with an average porosity of 8.4% and an average permeability of 0.000340mD. The reservoir has a clay content of 20–26% including illite and smectite. Cements include Fe-calcite, Fe-dolomite, with some quartz overgrowths. Minor amounts of pyrite (<1%) are present.

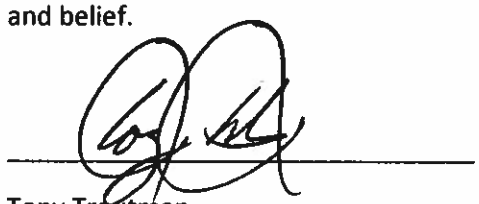
Low-permeability barriers within the upper Avalon and the 1st Bone Spring Lime act as barriers directly above and below the reservoir. The upper Avalon consist of fine-grained siltstones, carbonate mudstone and dolomudstone that have very low vertical permeabilities and an average thickness of 450 ft. Underlying is the 1st Bone Spring Lime, a ~ 200ft thick carbonate rich interval that acts as a flow barrier. Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.

The top of the Bone Spring Formation is at approximately 8,000 ft. TVD, with over 2,000 ft. of carbonate mudstones and shales acting as permeability barriers to upward migration of injected gas. Overlying the Bone Springs is the Delaware Mountain Group, which consists of connate-water bearing and hydrocarbon-bearing low permeability and porosity sands, with minor limestone and shale intervals and is approximately 3,700 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,500 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 1,000 ft. thick barrier of salt. The top of the Salado is at approximately 750 ft. TVD and the deep aquifers found just above the Salado at the base of the Rustler are saline water. The top of Rustler Formation is at approximately 400 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. Due to the thickness of multiple impermeable rock layers above the injection reservoir there is little possibility for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow water wells has not found any freshwater wells within a two mile radius of this injector.

Well List:
Iridium MDP1 28-21 Fed Com 21H

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



Tony Troutman
Geologist

8/6/21
Date

Geologic Information for Wells injecting into the 2nd Bone Spring Sand Member of the Bone Spring Formation

Five wells will be injecting into the 2nd Bone Spring Sandstone of the Bone Spring Formation. The wells have an average TVD of approximately 9,800 ft. with lateral lengths of approximately 5,000 ft. The wells inject into a reservoir composed of tight siltstone, laminated mudstone, and pelagic shales. Core data and petrophysical analysis indicates a tight reservoir with a 7% average porosity and an average permeability of 0.0016mD. The reservoir has a clay content of 20–26% including illite and smectite. Cements include Fe-calcite, Fe-dolomite, with some quartz overgrowths. Minor amounts of pyrite (<1%) are present.

Low-permeability carbonate mudstones and dolomudstone barriers of the 2nd Bone Spring Lime and 3rd Bone Spring Lime act as flow barriers directly above and below the reservoir. 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 low pressure injected gas.

The top of the Bone Spring Formation is at approximately 8,000 ft. TVD, with over 2,000 ft. of carbonate mudstones and shales acting as permeability barriers to upward migration of injected gas. Overlying the Bone Springs is the Delaware Mountain Group, which consists of connate-water bearing and hydrocarbon-bearing low permeability and porosity sands, with minor limestone and shale intervals and is approximately 3,700 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,500 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 1,000 ft. thick barrier of salt. The top of the Salado is at approximately 750 ft. TVD and the deep aquifers found just above the Salado at the base of the Rustler are saline water. The top of Rustler Formation is at approximately 400 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. Due to the thickness of multiple impermeable rock layers above the injection reservoir there is little possibility for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow water wells has not found any freshwater wells within a two mile radius of this injector.

Well List:
Cal-mon MDP1 35 Federal 1H
Cal-mon MDP1 35 Federal 2H
Cal-mon 35 Federal 41H ST1
Cal-mon MDP1 35 Federal 4H
Cal-mon MDP 1 35 Federal 5H

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

Tony Troutman
Geologist

8/6/21
Date

Geologic Information for Wells injecting into the 3rd Bone Spring Lime Member, Bone Spring Formation

One well will be injecting into the 3rd Bone Lime; specifically, into the siliciclastic member the Harkey Shale. The well has an average TVD of approximately 10,950 ft. with lateral length of approximately 5,000 ft. The well injects into a reservoir which is composed of tight siltstones and mudstones deposited in a lowstand turbidite environment and has an average porosity of 7% and an average permeability of 0.0003 mD.

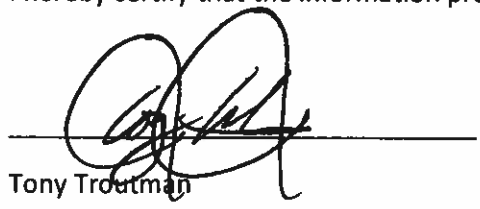
Where developed the middle 3rd Bone Lime acts as barrier directly above the injection reservoir, where less developed shales and tight siltstones act as a barrier. This upper barrier is approximately 200ft. Low permeability and porosity siltstones, carbonate mudstones, and shales of the 3rd Bone Spring Lime act as a barrier below the Harkey; this interval is approximately 250 ft. thick. Laterally the injection will be primarily contained by the reservoir volume that has been previously and partially depleted by the adjacent producing wells. The tight low-permeability reservoir and the production from the adjacent wells will be the primary constraints on the conformance of the injection to the project area and are expected to contain the injected gas.

The top of the Bone Spring Formation is at approximately 8,000 to 8,200 ft. TVD depending on location within the field, with over 2,000 ft. of carbonate mudstones and shales acting as permeability barriers to upward migration of injected gas. Overlying the Bone Springs is the Delaware Mountain Group, which consists of connate-water bearing and hydrocarbon-bearing low permeability and porosity sands, with minor limestone and shale intervals and is approximately 3,700 ft. thick. Above that is the Castile Formation consisting of very low permeability anhydrite, gypsum, and calcite that acts as another 1,500 ft. thick barrier to upward movement of fluids. The Salado overlies the Castile and forms a 1,000 ft. thick barrier of salt. The top of the Salado is at 750-900 ft. TVD (depending on location within the field) 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 approximately 500 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. Due to the thickness of multiple impermeable rock layers above the injection reservoir there is little possibility for migration upward into freshwater aquifers where they exist.

Locate freshwater wells within two miles:
An investigation of existing shallow water wells has not found any freshwater wells within a two mile radius of this injector.

Well List:
Cal-Mon 35 Federal 175H

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



Tony Troutman
Geologist

9/6/21
Date

Closed Loop Gas Capture (CLGC) Project

Affirmative Statement 1

The operator examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the disposal zone and any underground source of drinking water.

Tony Troutman, Geologist — Date 6/10/2021

Xueying Xie, Reservoir Engineer — Date 6/10/2021

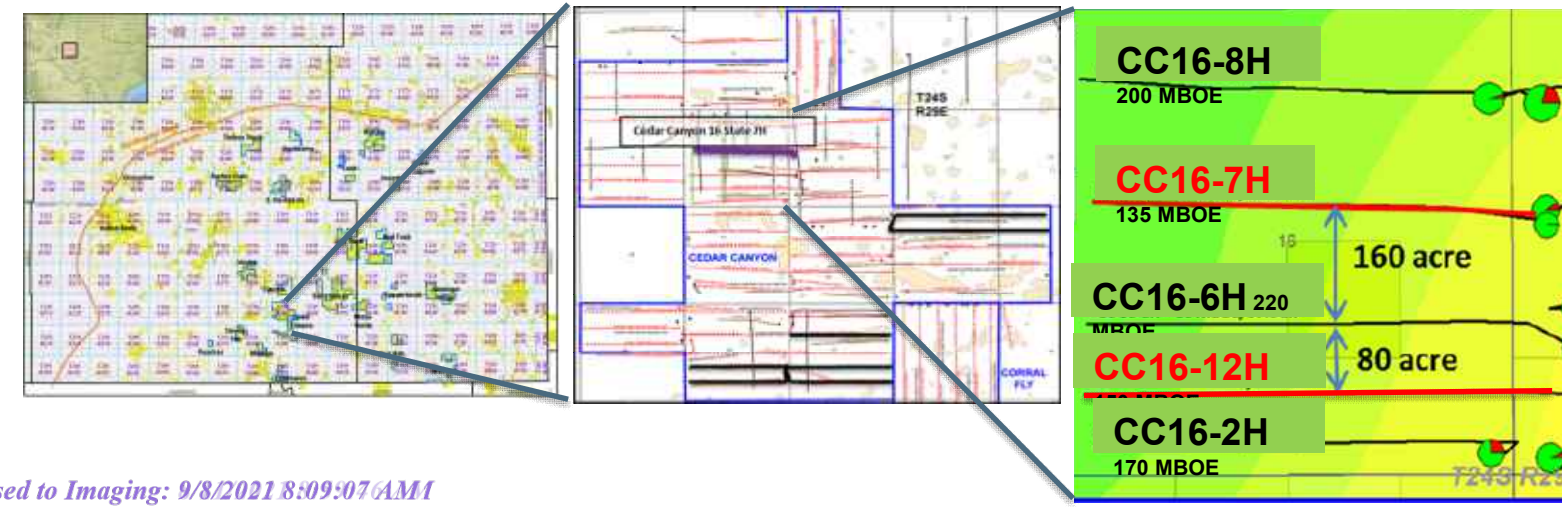
Reservoir Engineering

Project Overview- NC

- Closed loop gas capture project (CLGC) IN Oxy's NM assets
- Produced gas injection into productive formations in NM (Avalon, 2nd Bone Spring, Harkey)
- Gas injection into horizontal wells of varying lateral length (5,000'-10,000')
- Purpose of Modeling
  - >Review potential effects on wells adjacent to the CLGC area
  - >Quantify movement of the injected gas
  - >Utilize data from Cedar Canyon Huff and Puff Projects

Model Set-up

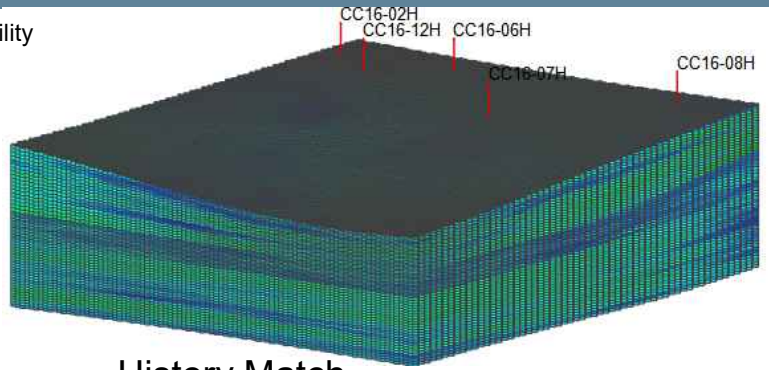
- Uses Cedar Canyon Sec 16 2nd BSS (as shown in layout below)
- Gas Injection pilot (EOR) was implemented in CC16-7H well in 2017
- Reservoir model is history matched for primary production and gas injection pilot
- Model is also tuned to capture injection gas breakthrough in offset wells that was observed during pilot period
- Gas injection pilot wells are 4 wells per section; model is adjusted to simulate the effect of closer wells (6 wps)



Cedar Canyon Section-16 Reservoir Model

Location:	Lea County,NM
Model Acreage:	640
Pay Horizon:	2nd Bone Springs Sand
Lithology:	Sandstone interbedded with Limestone
Trap Type:	Stratigraphic
Nominal Depth:	8400 ft
Gas Cap (at discovery):	No
Primary Drive Mechanism:	Solution Gas Drive

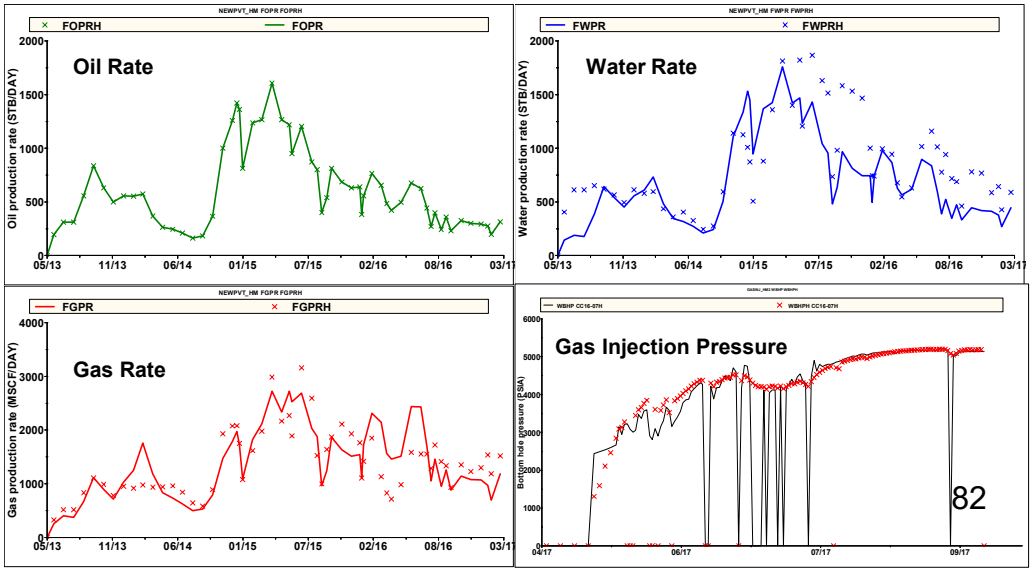
Structure & Permeability
1,177,400 Grids
56 Layers



Model Inputs

Gross Pay:	320 ft
Net Pay:	320 ft
Avg Porosity:	6.8%
Initial Sw:	50%
Permeability:	0.001md (matrix)
Initial Reservoir Pressure:	4500 psi
Reservoir Temperature:	150 F
Oil Gravity:	42 API
Boi:	1.63 RB/STB
Rsi:	1480 SCF/STB
Original Oil in Place:	28 MMSTB

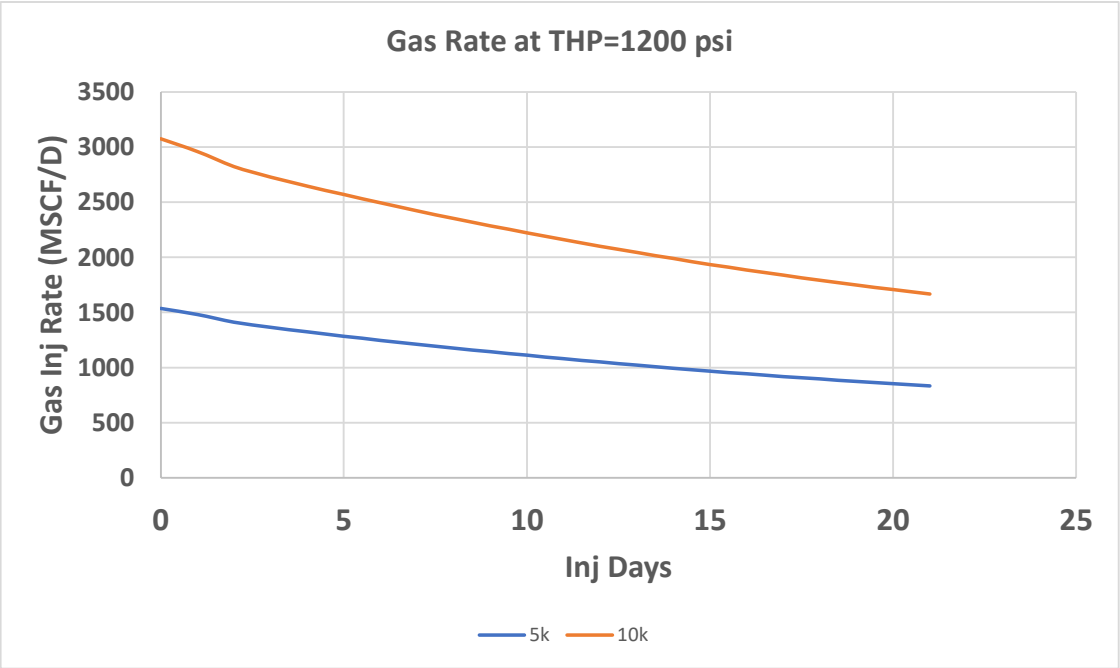
History Match



Gas Storage Simulation Process

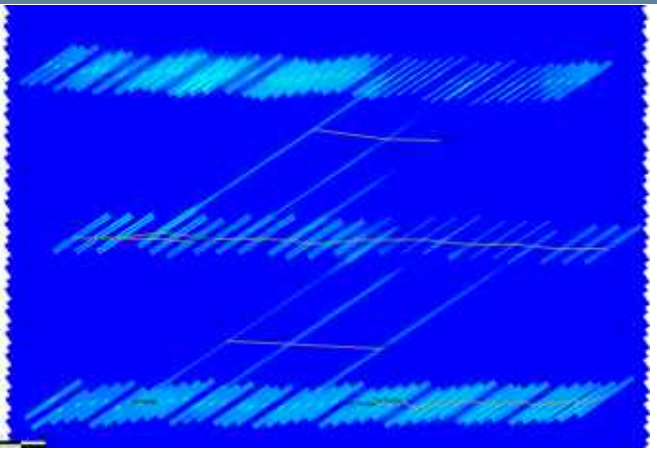
- Run primary production for all wells for additional period (post history match) – Base Case
- Inject gas in injection well at 2MMSCFPD for 7 days
- Produce the injection well post injection – Injection Case
- Observe the effect on oil, gas rate/recovery in injection well and offset wells by comparing Base and Injection cases

Gas Injection Rates

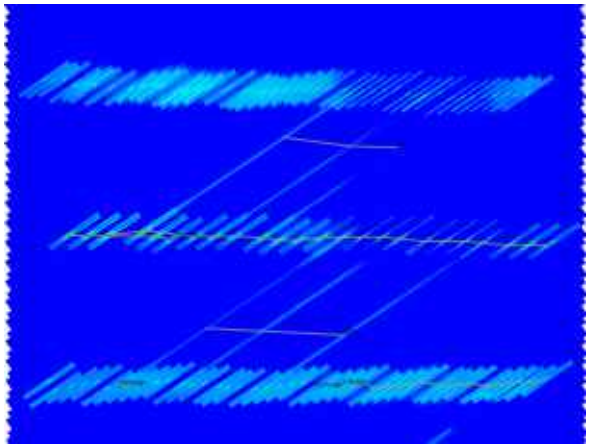


For a 10k well, 3 MMSCFPD is the max injection rate at THP of 1200 psi. Injection rate declines to about 50% of its initial value in 3 weeks. For long injection case a flat injection rate of 3MMSCFPD for 3 weeks is used as worst-case scenario. There is [illegible]se in rate if THP is increased to 1250 psi.

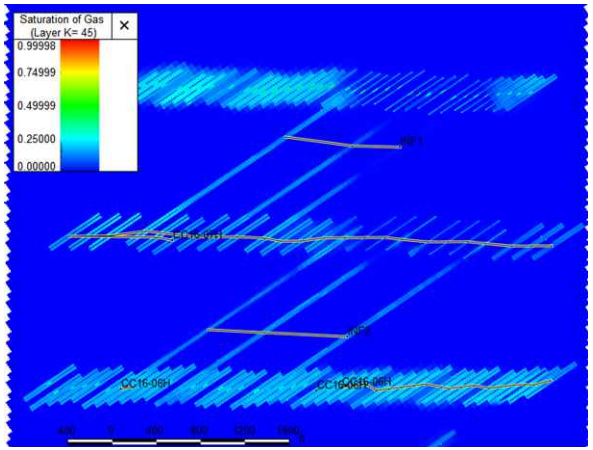
Gas Injection Profile



Before injection



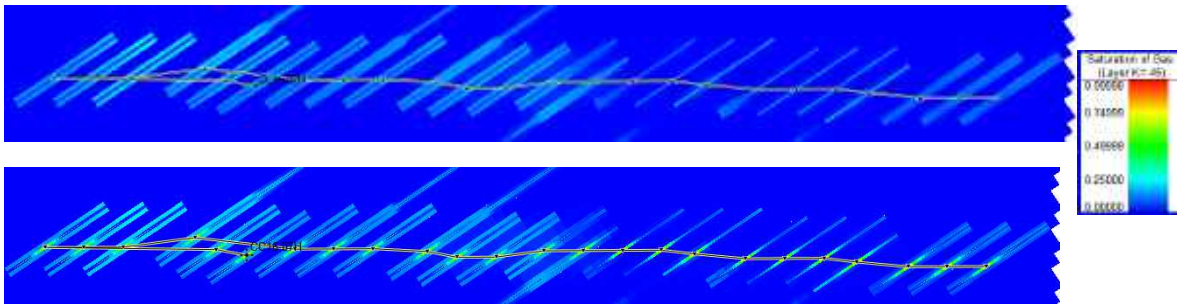
After 1 week of injection (3 MMSCFPD)



After 16 months production

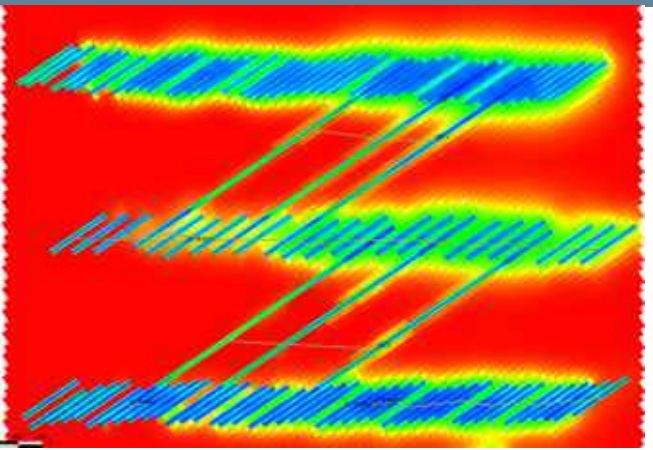
Before Injection CC16-7H Blow-up

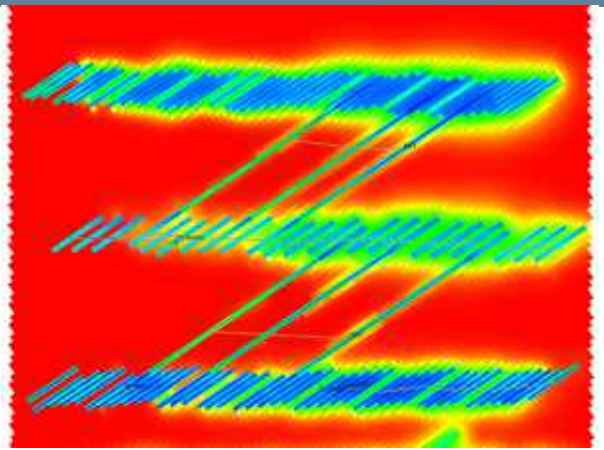
After Injection CC16-7H Blow-up

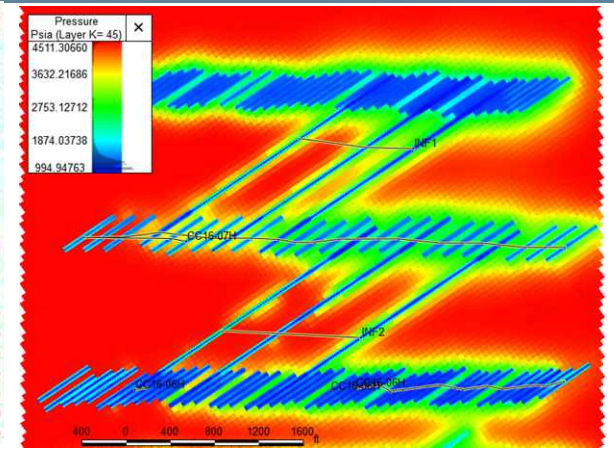


- Gas is stored within fractures.
- All injection cases indicate horizontal gas movement of 100 ft or less into the fractures.

Pressure Profile





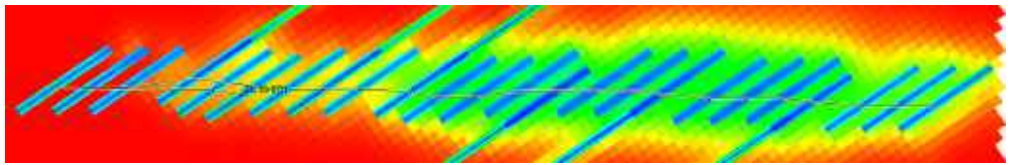


Before injection

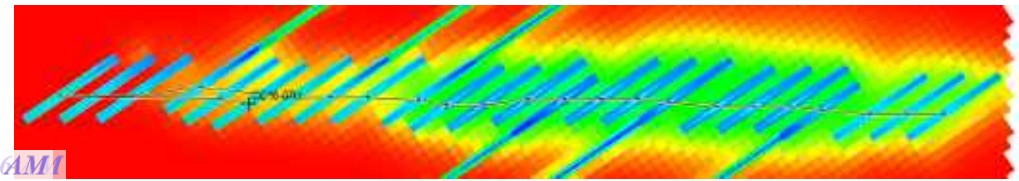
After 1 week of injection (3 MMSCFPD)

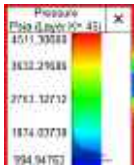
After 16 months production

Before Injection CC16-7H Blow-up



After Injection CC16-7H Blow-up





Summary of Cases

Case	Injection Description*	WPS	Oil recovery effect in injected well (MBO)	Oil recovery effect in offset wells (MBO)	Gas breakthrough in Offset well
1	Single Well	4	No change	No change	No
2	Single Well**	6	No change	No change	No
3	Single Well	8	No change	No change	No
4	Single Well (Multiple injection and production cycles)	6	No change	No change	No
5	Single well***	6	No change	No change	No
6	Multiple Adjacent Wells	4	No change	No change	No
7	Multiple Adjacent Wells	6	No change	No change	No
8	Multiple Adjacent Wells	8	No change	No change	No

**All injection at 2MMSCF/DAY for 7 days except cases 2 and 5*

***Injection at 3MMSCF/DAY for 7 days*

****Injection at 3MMSCF/DAY for 21 days*

Gas Storage Capacities - NC

		Gas Storage Capacity with 1200 psi WHP Injection	
API	Well Name	Fracture volume gas equavalent, mmscf	Total prod gas equivalent, mmscf
30015447710000	CAL MON MDP1 35 FED 001H	130	722
30015447720000	CAL MON MDP1 35 FED 002H	130	762
30015447740000	CAL MON MDP1 35 FED 004H	129	613
30015447750000	CAL MON MDP1 35 FED 005H	129	789
30015455240000	CAL-MON 35 FED 175H	133	376
30015431400200	CAL-MON FEDERAL 35 41H ST2	145	883
30015450740000	IRIDIUM MDP1 28-21 FED COM 21H	276	1806

- Gas storage capacity is high for each well
  - Even just stored gas in fractures, the capacity is over 100 mmscf
- The expected gas injection volume for each well during each event could be up to 60 mmscf, this is way below the storage capacity

Frac Height and SRV - NC

- Frac height:
  - Avalon: Based on Tanks Avogato
    - XH= 340’
    - Xf = 350’
  - 2BSS: Based on Nimitz
    - XH = 285’,
    - Xf = 300-400’
  - Harkey
    - XH = 350’
    - Xf=400’

- SRV
  - SRV= 2*Xf*Xh*Well length

API 14	Well Name	SRV, ft^3
30015447710000	CALMON-35-1H	898,348,500
30015447720000	CALMON-35-2H	917,301,000
30015431400200	CAL-MON41HST	848,673,000
30015450740000	IRI28-21-21H	2,403,562,000
30015455240000	CAL-MON-175H	1,442,840,000
30015447740000	CALMON-35-4H	917,301,000
30015447750000	CALMON-35-5H	907,126,500

Closed Loop Gas Capture (CLGC) Project

Affirmative Statement 2

The operator examined the available geologic and engineering data and determined 1) the total recoverable volume of hydrocarbons from the reservoir will not be adversely affected by the project and 2) the gas composition will not damage the reservoir.

Xueying Xie

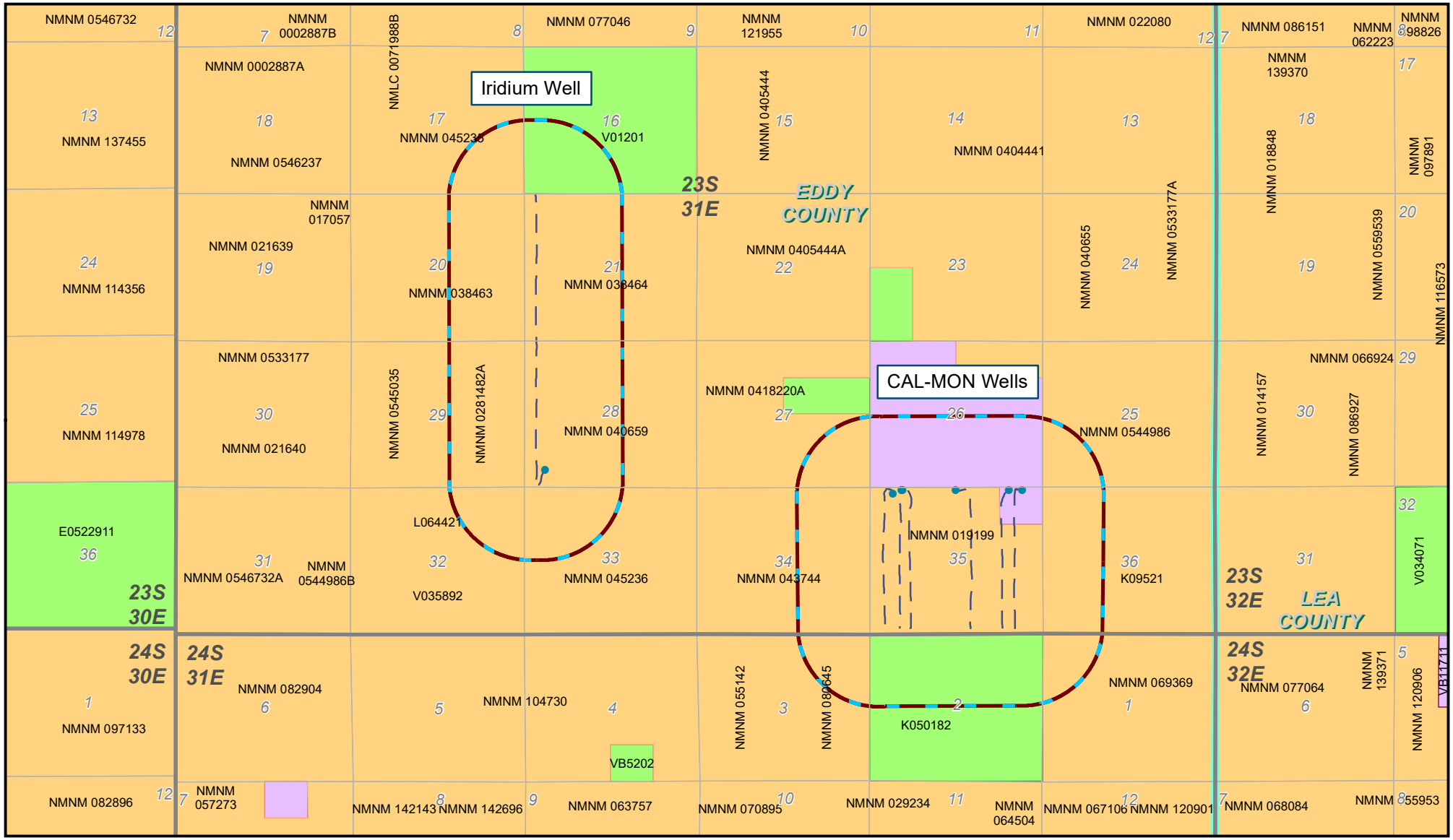
6/9/2021

_____ _____

Xueying Xie, Reservoir Engineer Date

Notice

EXHIBIT "A"
EDDY COUNTY, NEW MEXICO



County
1/2 mile AOR
Surface Hole Location
Wellbore Trajectory

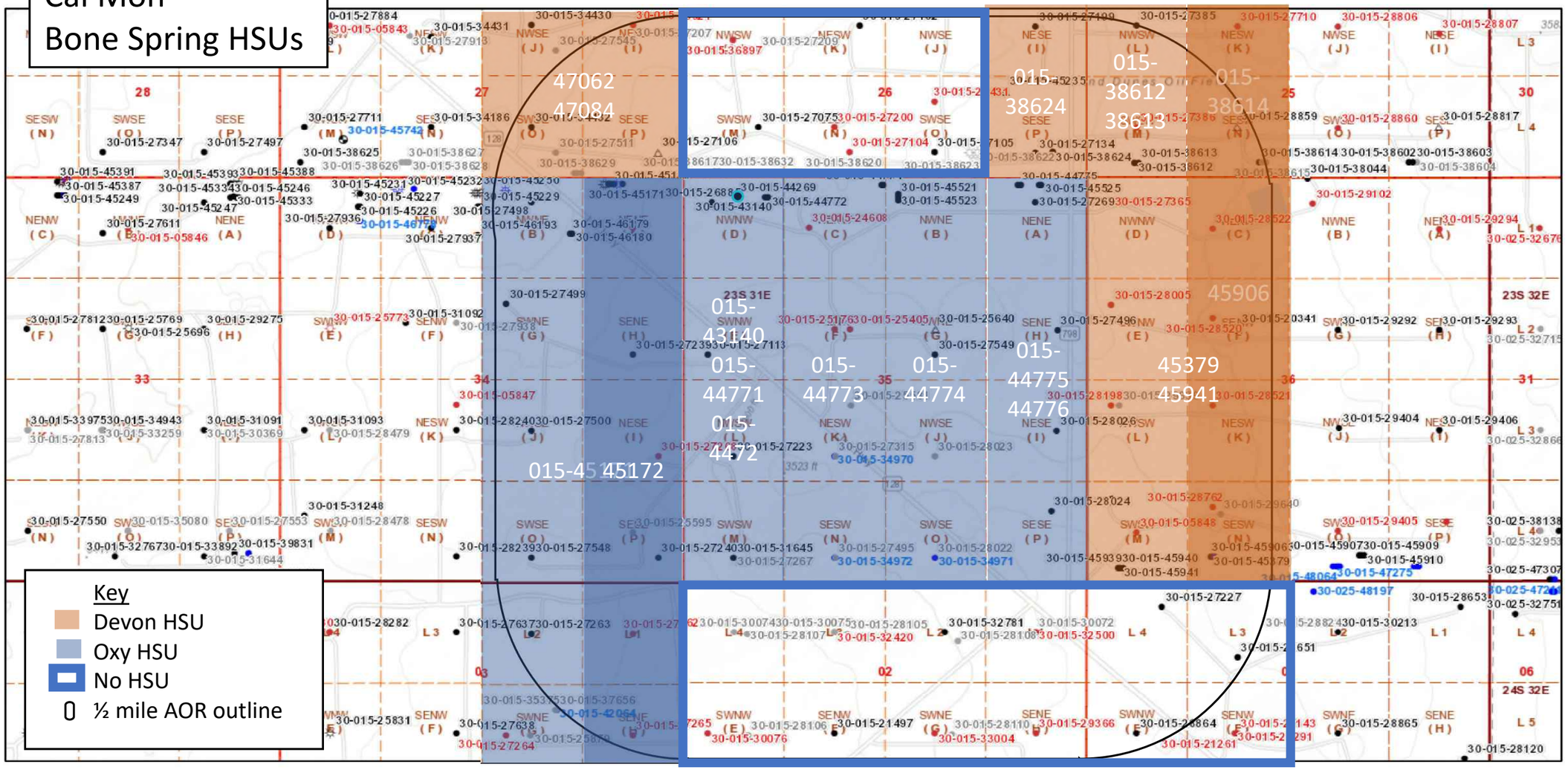
Surface Ownership:
Federal
Private
State

0 0.5 1 2 Miles

NEW MEXICO
EDDY
LEA
92

M:\Land\New_Mexico\New_Mexico_SE\Comm_Boundary_Ownership\MXD\NMGasStorage_NorthCorridor.mxd

Cal Mon
Bone Spring HSUs



4/8/2021, 8:28:38 AM

Wells - Large Scale

undefined
Miscellaneous
CO2, Active
CO2, Cancelled
CO2, New
CO2, Plugged
CO2, Temporarily Abandoned
Gas, Active
Gas, Cancelled
Gas, New
Gas, Plugged
Gas, Temporarily Abandoned
Injection, Active
Injection, Cancelled
Injection, New
Injection, Plugged
Injection, Temporarily Abandoned
Oil, Active
Oil, Cancelled
Oil, New
Oil, Plugged
Oil, Temporarily Abandoned
Salt Water Injection, Active
Salt Water Injection, Cancelled
Salt Water Injection, New
Salt Water Injection, Plugged
Salt Water Injection, Temporarily Abandoned
Water, Active
Water, Cancelled
Water, New

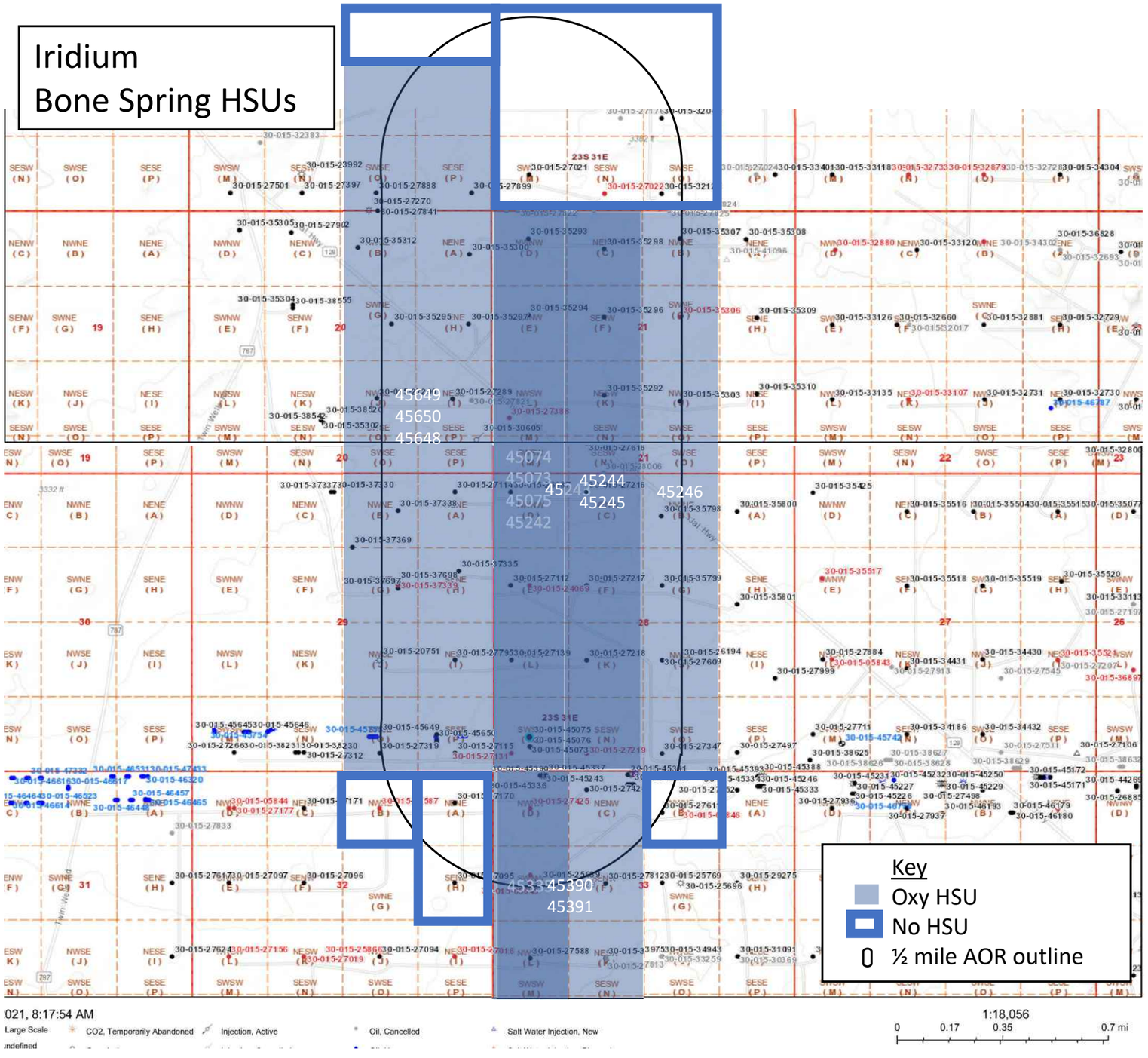
1:18,056

0 0.17 0.35 0.7 mi

0 0.28 0.55 1.1 km

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division


Iridium
Bone Spring HSUs
23S 31E
45649
45650
45648
45074
45073
45075
45242
45244
45245
45246
45333
45390
45391
Key
Oxy HSU
No HSU
½ mile AOR outline
021, 8:17:54 AM
Large Scale
CO2, Temporarily Abandoned
Injection, Active
Oil, Cancelled
Salt Water Injection, New
1:18,056
0
0.17
0.35
0.7 mi

Notice List- NC

Name	Street	City	State	Zip	Merged Address
Surface Owner					
BLM	620 E. Greene St.,	Carlsbad	NM	88220	BLM 620 E. Greene St., Carlsbad,NM 88220
Leasehold Operators					
Chevron USA Inc.	6301 Deauville	Midland	TX	79706	Chevron USA Inc. 6301 Deauville Midland,TX 79706
Devon Energy Production Company LP	333 W. Sheridan Ave	Oklahoma City	OK	73102	Devon Energy Production Company LP 333 W. Sheridan Ave Oklahoma City,OK 73102
EOG Resources Inc.	P.O. Box 2267	Midland	TX	79702	EOG Resources Inc. P.O. Box 2267 Midland,TX 79702
EOG Y RESOURCES, INC.	104 S 4TH ST	ARTESIA	NM	88210	EOG Y RESOURCES, INC. 104 S 4TH ST ARTESIA,NM 88210
Kaiser-Francis Oil Co.	P.O. Box 21468	Tulsa	OK	74121	Kaiser-Francis Oil Co. P.O. Box 21468 Tulsa,OK 74121
NGL WATER SOLUTIONS PERMIAN, LLC	865 NORTH ALBION ST. SUITE 400	DENVER	CO	80220	NGL WATER SOLUTIONS PERMIAN, LLC 865 NORTH ALBION ST. SUITE 400 DENVER,CO 80220
POGO PRODUCING CO	PO BOX 10340	MIDLAND	TX	79702	POGO PRODUCING CO PO BOX 10340 MIDLAND,TX 79702
SONAT EXPLORATION COMPANY	PO BOX 1513	HOUSTON	TX	77251	SONAT EXPLORATION COMPANY PO BOX 1513 HOUSTON,TX 77251
HARVARD PETROLEUM COMPANY, LLC	PO BOX 936 200 E SECOND	ROSWELL	NM	88202	HARVARD PETROLEUM COMPANY, LLC PO BOX 936 200 E SECOND ROSWELL,NM 88202
Affected Persons					
AGS Resources 2004 LLLP	10 Inverness Dr. East	Englewood	CO	80112	AGS Resources 2004 LLLP 10 Inverness Dr. East Englewood,CO 80112
Camterra Res Ptnrs	2615 E. End Blvd S	Marshall	TX	75670	Camterra Res Ptnrs 2615 E. End Blvd S Marshall,TX 75670
Chevron USA Inc.	P O Box 730436	Dallas	TX	75373-0436	Chevron USA Inc. P O Box 730436 Dallas,TX 75373-0436
CNX Gas Co LLC	P.O. Box 1248	Jane Lew	WV	26378	CNX Gas Co LLC P.O. Box 1248 Jane Lew,WV 26378
Devon Energy Production Company LP	333 W. Sheridan Ave	Oklahoma City	OK	73102	Devon Energy Production Company LP 333 W. Sheridan Ave Oklahoma City,OK 73102
Devon Energy Production, LP	333 W. Sheridan Avenue	Oklahoma City	OK	73102	Devon Energy Production, LP 333 W. Sheridan Avenue Oklahoma City,OK 73102
EOG Resources Inc.	P.O. Box 2267	Midland	TX	79702	EOG Resources Inc. P.O. Box 2267 Midland,TX 79702
EOG Resources Inc.	P.O. Box 840321	Dallas	TX	75284	EOG Resources Inc. P.O. Box 840321 Dallas,TX 75284

Finley Production Co LP	P.O. Box 2200	Fort Worth	TX	76113	Finley Production Co LP P.O. Box 2200 Fort Worth,TX 76113
Grasslands Energy LP	5128 Apache Plume Rd.	Fort Worth	TX	76109	Grasslands Energy LP 5128 Apache Plume Rd. Fort Worth,TX 76109
Harken Exploration Co	P.O. Box 619024	Dallas	TX	75261	Harken Exploration Co P.O. Box 619024 Dallas,TX 75261
Kaiser-Francis Oil Co.	P.O. Box 21468	Tulsa	OK	74121	Kaiser-Francis Oil Co. P.O. Box 21468 Tulsa,OK 74121
Marbob Energy Corp	P.O. Box 227	Artesia	NM	88211	Marbob Energy Corp P.O. Box 227 Artesia,NM 88211
Merit Energy Partners	13727 Noel Rd, Ste 500	Dallas	TX	75240	Merit Energy Partners 13727 Noel Rd, Ste 500 Dallas,TX 75240
Mid-Continent Energy	100 W. 5th St, Ste 450	Tulsa	OK	74103	Mid-Continent Energy 100 W. 5th St, Ste 450 Tulsa,OK 74103
Orion OG Properties	P.O. Box 2523	Roswell	NM	88202	Orion OG Properties P.O. Box 2523 Roswell,NM 88202
Petrohawk Properties LP	1100 Louisiana Ste 4400	Houston	TX	77002	Petrohawk Properties LP 1100 Louisiana Ste 4400 Houston,TX 77002
Petrojarl Inc.	P.O. BOX 820467	Houston	TX	77282	Petrojarl Inc. P.O. BOX 820467 Houston,TX 77282
Plains Production Inc.	1313 Campbell Rd., BLDG D	Houston	TX	77055	Plains Production Inc. 1313 Campbell Rd., BLDG D Houston,TX 77055
PXP Producing Co LLC	717 Texas St., Ste 2100	Houston	TX	77002	PXP Producing Co LLC 717 Texas St., Ste 2100 Houston,TX 77002
Richard S. Briggs	17 Meadowbrook Ln	Trophy Club	TX	76262	Richard S. Briggs 17 Meadowbrook Ln Trophy Club,TX 76262
Richard Scott Briggs	1920 E. Riverside Dr. STE A-120 #505	Austin	TX	78741	Richard Scott Briggs 1920 E. Riverside Dr. STE A-120 #505 Austin,TX 78741
Riverbend Production LP	500 Dallas St., Suite 2835	Houston	,TX	77002	Riverbend Production LP 500 Dallas St., Suite 2835 Houston,,TX 77002
Siete Oil & Gas Corp	P.O. Box 2523	Roswell	NM	88202	Siete Oil & Gas Corp P.O. Box 2523 Roswell,NM 88202
Suzanne Thomas	3936 Byron St	Houston	TX	77005	Suzanne Thomas 3936 Byron St Houston,TX 77005
Titus Oil & Gas Corp	420 Throckmorton St, Ste 1150	Fort Worth	TX	76102	Titus Oil & Gas Corp 420 Throckmorton St, Ste 1150 Fort Worth,TX 76102
XTO Holdings, LLC	22777 Springwoods Village Pkwy	Spring	TX	77389	XTO Holdings, LLC 22777 Springwoods Village Pkwy Spring,TX 77389
State Land Office	P O BOX 1148	SANTA FE	NM	87504	State Land Office P O BOX 1148 SANTA FE,NM 87504
PENROC OIL CORP	P.O. Box 2769	Hobbs	NM	88241	PENROC OIL CORP P.O. Box 2769 Hobbs,NM 88241

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

APPLICATION OF OXY USA INC. FOR A CLOSED LOOP GAS CAPTURE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 22151

AFFIDAVIT OF STEPHEN JANACEK

I, Stephen Janacek, of lawful age and being first duly sworn, declare as follows:

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

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

3. I am familiar with the application filed by OXY in this case, and the Division guidance and requirements regarding closed loop gas capture injection projects (CLGC Project) such as this one. I also prepared exhibits in support of this application from pages 3 through 75 and 96-99 in ***Exhibit A*** attached to OXY's application.

4. In this case, OXY seeks an order approving the 800-acre, more or less, project area for this pilot project consisting of the W/2 W/2 of Sections 21, 28 and 35, and the E/2 of Section 35, Township 23 South, Range 31 East, NMPM, Eddy County, New Mexico. *See* ***Exhibit A*** to the Application, at 7-8. The proposed project area is part of a larger area referred to as the Sand Dunes area. A locator map identifying the general location of OXY's proposed North Corridor CLGC Project is included in ***Exhibit A*** at page 6. The Iridium Area and the Cal Mon Area are in the North Corridor area. Wells in the Patton area are the subject of a separate application.

5. OXY requests an initial project duration of two years. OXY also requests the ability to administratively extend the project without the need for a hearing.

6. Within the proposed project area, OXY seeks authority to utilize the following producing wells to occasionally inject produced gas into the Bone Spring formation, as identified on the project locator map, included at page 6 of Exhibit A:

- The **Cal-Mon MDP1 "35" Federal #1H well** (API No. 30-015-44771) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1077 feet FWL (Unit D) in Section 35, and a bottom hole location 202 feet FSL and 464 feet FWL (Unit M) in Section 35.
- The **Cal-Mon MDP1 "35" Federal #2H well** (API No. 30-015-44772) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1112 feet FWL (Unit D) in Section 35, and a bottom hole location 187 feet FSL and 1248 feet FWL (Unit M) in Section 35.
- The **Cal-Mon "35" Federal #41H well** (API No. 30-015-43140) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 250 feet FNL and 710 feet FWL (Unit D) in Section 35, and a bottom hole location 193 feet FSL and 951 feet FWL (Unit M) in Section 35.
- The **Iridium MDP1 "28-21" Federal Com #21H well** (API No. 30-015-45074) [Ingle Wells; Bone Spring Pool (Pool Code 33740)], with a surface location 610 feet FSL and 648 feet FWL (Unit M) in Section 28, and a bottom hole location 24 feet FNL and 303 feet FWL (Unit D) in Section 21.
- The **Cal-Mon "35" Federal #175H well** (API No. 30-015-45524) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 110 feet

FNL and 615 feet FEL (Unit A) in Section 35, and a bottom hole location 17 feet FSL and 824 feet FEL (Unit P) in Section 35.

- The **Cal-Mon MDP1 "35" Federal #4H well** (API No. 30-015-44774) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 120 feet FNL and 2624 feet FWL (Unit C) in Section 35, and a bottom hole location 191 feet FSL and 2180 feet FEL (Unit O) in Section 35.
- The **Cal-Mon MDP1 "35" Federal #5H well** (API No. 30-015-44775) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 110 feet FNL and 890 feet FEL (Unit A) in Section 35, and a bottom hole location 200 feet FSL and 1068 feet FEL (Unit P) in Section 35.

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

- The **Cal-Mon MDP1 "35" Federal #1H well**: between 10,028 feet and 10,098 feet.
- The **Cal-Mon MDP1 "35" Federal #2H well**: between 9,940 feet and 10,101 feet.
- The **Cal-Mon "35" Federal #41H well**: between 10,295 feet and 10,385 feet.
- The **Iridium MDP1 "28-21" Federal Com #21H well**: between 8,664 feet and 8,688 feet.
- The **Cal-Mon "35" Federal #175H well**: between 10,549 feet and 10,973 feet.
- The **Cal-Mon MDP1 "35" Federal #4H well**: between 10,226 feet and 10,368 feet.
- The **Cal-Mon MDP1 "35" Federal #5H well**: between 10,012 feet and 10,147 feet.

8. OXY seeks authority to add CLGC wells to the proposed project by administrative approval if the well is within the Area of Review previously completed.

9. A summary overview of the pilot project is located at pages 3-5 of ***Exhibit A***.

10. A process flow diagram of the closed loop gas capture system is in the Attached ***Exhibit A*** at page 9. This diagram reflects the current and proposed system to be used for gas storage. OXY will utilize the existing gas lift infrastructure so no changes are shown. During normal operations, produced fluids flow from the wells down the green flowline to the Central Tank Batteries (CTBs). The source wells, which consist of all wells connected to the CTBs, produce from the Bone Spring and Wolfcamp formations. Oil, water, and gas are separated out and leave the CTBs. Oil is sold through the Lease Automatic Custody Transfer (LACT) at each CTB, water is sent to a disposal well, and gas enters the red Low Pressure Gas Pipeline. Gas can then be sold to the Enterprise Gas Takeaway, flared, or delivered to the Centralized Gas Lift (CGL) Stations for compression and re-injection as gas lift gas. After the gas goes through the CGL Stations, the pressure increases to a maximum of 1250 psig in the orange Centralized Gas Lift (CGL) Pipeline. Then it flows back to the wells with gas lift systems. The flow of fluids is similar yet different during a gas storage event. A gas storage event is initiated when gas cannot be sold to Enterprise and the source wells are not shut-in. The major changes are to the Enterprise Gas Takeaway (which ceases taking gas) and the CLGC wells (which cease producing and become CLGC wells). Since gas cannot be sold, it will begin to build up in the Low-Pressure Gas Pipeline as wells continue to produce oil, water, and gas. Once the pressure in the Low-Pressure Gas Pipeline increases to a certain point, the CLGC wells will be activated in a cascade fashion. CLGC wells are activated by closing the Shutdown Valve (SDV) at the wellhead. If the pressure in the Low-Pressure Gas Pipeline does not decrease, an additional CLGC well will be

activated. Additional CLGC wells will be activated in this cascade system. When the interruption ends and gas can once again be sold to Enterprise, the gas storage event ends. The Shutdown Valves open and the CLGC wells produce down the flowline to a test separator at the CTB for measurement.

11. A map depicting the pipeline that ties the CLGC wells for the pilot project into the gathering system and the affected compressor stations is included in the attached ***Exhibit A*** at page 7-8. The colors and components of the system are the same as the process flow diagram in the attached ***Exhibit A*** at page 9 with some additional items. The black lines represent the wellbore trajectories of the CLGC wells. The First Take Point (FTP) and Last Take Point (LTP) are labeled on the well trajectory. The project area is outlined with a dashed, dark-blue line, which is based on each CLGC well's horizontal spacing unit as shown on the attached ***Exhibit A*** at pages 11-17. Gas source wells are not on this map.

12. Data for each CLGC well, including well diagrams and well construction, casing, tubing, packers, cement, perforations, and other details for each proposed injection well are included in the attached ***Exhibit A*** at pages 18-31. All wells have gas lift systems which inject down the casing and produce up the tubing with a packer in the hole.

13. OXY proposes to place packers as deep as possible but no higher than 100 feet above the top of the Bone Spring formation.

14. Cement bond logs for each of the CLGC wells demonstrate the placement of cement in the CLGC wells for this pilot project, and that there is a good and sufficient cement bond with the production casing and the tie-in of the production casing with the next prior casing in each well.

15. The current average surface pressures under normal operations for the CLGC wells range from approximately 560 psi to 860 psi. *See* ***Exhibit A*** at 32. The maximum allowable surface pressure (MASP) for the wells in the pilot project will be 1,250 psi. *Id.*

16. Assuming a full fluid column of reservoir brine water, the proposed maximum allowable surface pressure will not exert pressure at the top perforation in the wellbore of any injection well with a full fluid column of reservoir brine water in excess of 90% of the burst pressure for the production casing or production liner. *See* ***Exhibit A*** at 32. In addition, the proposed maximum allowable surface pressure will not exceed 0.14 psi per foot as measured at the top of the uppermost perforation in any injection well and will not exert pressure at the topmost perforation in excess of 90% of the formation parting pressure. *See* ***Exhibit A*** at 32.

17. OXY plans to monitor injection and operational parameters for the pilot project using an automated supervisory control and data acquisition (SCADA) system with pre-set alarms and automatic shut-in safety valves that will prevent injection pressures from exceeding the MASP. *See* ***Exhibit A*** at 49-50. The wellhead diagram for all CLGC wells is found in ***Exhibit A*** at 33. Injection starts at the flowmeter where the injection rate is measured and moves through the following components: first, the injection flow control valve which controls the injection pressure, the casing safety shutdown valve (SSV), which can open and close automatically, the casing-tubing annulus, the tubing, the tubing SSV, which can open and close automatically and is also closed when a CLGC well is activated, and finally another flow control valve (FCV), which controls flowline pressure. Pressure Indicating Transmitters (PITs) are located on the casing valve and tubing valves. PITs capture pressure data that is stored in the SCADA system and then used to automatically control the SSVs and FCVs.

18. The proposed average injection rate for each CLGC well is 1.8 MMSCFD. All wells will have a maximum injection rate of 2.0 MMSCFD during injection except for the Iridium 28-21 21H, which will have a maximum injection rate of 3.0 MMSCFPD due to its longer lateral length. *See* ***Exhibit A*** at 32.

19. The wells proposed for the CLGC project have previously demonstrated mechanical integrity. *See* ***Exhibit A*** at 34. OXY will undertake new tests to demonstrate mechanical integrity for each of the wells proposed for this pilot project as a condition of approval prior to commencing injection operations.

20. The source of gas for injection will be from OXY's wells producing in the Bone Spring and Wolfcamp formations that are identified in the list of wells in ***Exhibit A*** at page 36-38. Each of OXY's CLGC wells are operated by OXY and OXY holds 100% of the working interest in the wells.

21. OXY has prepared an analysis of the composition of the source gas for injection and a corrosion prevention plan. *See* ***Exhibit A*** at 39-47. ***Exhibit A*** at 39 is a summary of the gas analyses included in the application and the components in the system. Source wells flow to multiple CTBs. From there gas flows to CGL Stations. Gas analyses have been provided for the CGL Stations and the formation for gas injection. The gas analyses for the CGL Stations are similar to the gas analyses for the zones for gas injection. H2S is not found in any of the gas analyses. CO2 is found in all the analyses at various amounts.

22. Since CO2 is already present in this system, OXY intends to continue with its existing Corrosion Prevention Plan in these CLGC wells outlined at page 47 of ***Exhibit A***. In the existing Corrosion Prevention Plan, produced gas is processed through a gas dehydration unit to remove water. Then corrosion inhibitor is added to the system of each well downstream of the

gas dehydration unit. Fluid samples are taken regularly and checked for iron, manganese, and residual corrosion inhibitor in the produced fluids. The process allows OXY to continuously monitor and adjust the chemical treatment over the life of the well to minimize corrosion. Additionally, fluid samples will be taken prior to gas injection to establish a baseline for analysis. After a CLGC event, fluid samples will be taken to check for iron, manganese, and residual corrosion inhibitor in the produced fluids in the CLGC wells. OXY will continue to monitor and adjust the chemical treatment over the life of the project.

23. Using an automated supervisory control and data acquisition (SCADA) system, OXY will monitor a multitude of rates and pressures to allow for efficient and safe operation, proper allocation and reporting of volumes, and immediate response to unexpected events. *See* ***Exhibit A*** at 49-50. Each CLGC well will also include automated safety devices, including automatic shut-in valves among other operational safety measures. OXY will also monitor and track various operational parameters at the pilot project's central tank battery and central gas lift compressor. *See* ***Exhibit A*** at 49-50.

24. OXY proposes a Data Collection Plan for the North Corridor CLGC Project as seen in its Data Collection Plan, attached as **Exhibit B-1**, to collect and report data pertinent to CLGC operations. The plan is similar to the data collection process outlined in the Injection Order R-21747 but proposes some changes. Consistent with Order R-21747, the Data Collection Plan will apply to the wells listed in the table in the Exhibit. The spatial relationship of these wells is illustrated in the Gun Barrel View that I have attached to this affidavit as **Exhibit B-2**. This diagram shows the proposed North Corridor CLGC wells (blue circles) and any offset wells in the same correlative zone (yellow circles). There is one proposed CLGC well in the Avalon, 5 in the Second Bone Spring, and one in the Harkey. In the OXY Data Collection Plan for North

Corridor, there are some changes to the reporting requirements. First, to lessen the administrative burden of these requirements, OXY proposes status updates every 12 months instead of every 3 months. Second, the recovery analysis required for each involved CLGC well and for each well related to each involved CLGC well will be required only if the change in production casing pressure or production volume is related to the CLGC event. These wells are on gas lift most of the time, and changes in casing pressure or production volumes are not unusual for artificially lifted wells. Third, because the CLGC wells and the involved CLGC wells are being produced pursuant to an approved commingling permit, OXY will attempt to collect the data at the requested resolution, but we need the flexibility to substitute well tests when equipment constraints prevent such high resolution. Fourth, some allowance needs to be incorporated into the requirements for interruptions that occur with less than 24 hours' notice. Lastly, OXY shall not be required to install additional facilities or measurement equipment to collect the data described. These changes create an achievable Data Collection Plan for the North Corridor. If a data collection plan is required as outlined in the Injection Order R-21747, additional well testing equipment will be required which will severely impact OXY's ability to pursue this project due to the additional capital costs.

25. I also conducted an analysis of the half-mile area of review and two-mile area surrounding each of the proposed CLGC wells. A map depicting wells and their trajectories within a two-mile radius around the injection wells is located at page 53-54 of ***Exhibit A***. A map identifying each surface tract by ownership type within the half-mile area of review and two-mile area surrounding each of the proposed injection wells is located at page 52 of ***Exhibit A***. Finally, a map depicting all wells identified with completed laterals all or partially within the half-mile area of review is located at page 55-56 of ***Exhibit A***. It assigns a well identification number to each

well within the area of review that may be cross referenced in the following well data tabulation chart on pages 57-60 of ***Exhibit A***. The well data tabulation chart provides detailed information for identification, location, drilling, casing, cement, current completion, and current producing pool of each well. Additionally, I have prepared a map of the half-mile area of review reflecting each of the injection well trajectories, which is attached as **Exhibit B-3.**

26. Wellbore schematics for the nine wells that penetrate the top of the proposed injection interval and have been plugged and abandoned are included at pages 61-69 in ***Exhibit A***. Review of the wellbore diagrams indicate adequate casing, cement, and cement plug placement to sufficiently contain gas within the injection interval.

27. To properly determine gas production from each CLGC well, OXY will apply a GOR Gas Allocation Method. *See* Gas Allocation, attached as **Exhibit B-4**. Per existing commingling permits,[1] gas sales are allocated by well test. For a period of time after a storage event, the GOR Gas Allocation Method will be used to differentiate between native gas (owned by the owners of the CLGC well) and recovery of previously stored gas (owned by the owners of the source wells). I believe it is a fair and reasonable method for allocating gas production after a storage event.

28. The Gas Allocation Plan will utilize the Tapered Testing Methodology as outlined in **Exhibit B-5**. The Tapered Testing Methodology is designed based on the Division's current approach to well testing requirements for surface commingling permits that utilize allocation by well testing. OXY believes that such well testing requirements can be accomplished with existing equipment and connections and allow us to accurately measure and interpolate well tests for allocation and reporting purposes.

[1] PLC-749.

29. Working with OXY's in-house land department, I also prepared a list of affected parties required to receive notice of this application. The maps on pages 92-94 of ***Exhibit A*** reflect that the Bureau of Land Management and Oxy are the surface owners with respect to the proposed CLGC wells. The map depicts the area of review and identifies the designated operator for each tract that falls within the half-mile area of review for each of the wells within the Bone Spring formation.

30. Pages 95-96 of ***Exhibit A*** identify all leasehold operators and other affected persons within any tract wholly or partially contained within one-half mile of the completed interval of the wellbore for each of the proposed injection wells entitled to notice in accordance with Division regulations, including the Bureau of Land Management as the surface owner for some of the CLGC wells.

31. Parties entitled to notice were identified based on a determination of the title of lands and interests as recorded in the records of Eddy County or from a review of New Mexico Oil Conservation Division and Bureau of Land Management operator records as of the time the application was filed or from OXY's internal records (division orders).

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

33. I provided the law firm of Holland & Hart LLP a list of names and addresses of the affected parties identified on pages 95-96 for purposes of providing notice.

34. As reflected on **Exhibit B-6**, notice of this application was provided in accordance with 19.15.26.8(B)(2) NMAC. Notice was also published in the Hobbs Daily News.

35. Pages 3 through 75 and 96-99 in **Exhibit A** and **OXY Exhibits B-1** through **B-3** were either prepared by me or compiled under my direction and supervision.

FURTHER AFFIANT SAYETH NOT.

FURTHER AFFIANT SAYETH NOT.

Stephen Janacek

STATE OF TEXAS)
)
COUNTY OF Collin)

SUBSCRIBED and SWORN to before me this 7 day of September, 2021 by STEPHEN JANACEK.

NOTARY PUBLIC

My Commission Expires:

08-27-2022

MATTHEW C. OWENS
Notary Public, State of Texas
Comm. Expires 08-27-2022
Notary ID 125728578

Data Collection Plan for North Corridor CLGC Project

CLGC Well Name	Completion Reservoir	Involved Well (West Side)	Involved Well (East Side)
Iridium 21H	Avalon	None	None
Calmon 1H	Second Bone Spring	Platinum 6H	None
Calmon 41H	Second Bone Spring	None	None
Calmon 2H	Second Bone Spring	None	Calmon 3H
Calmon 4H	Second Bone Spring	Calmon 3H	None
Calmon 5H	Second Bone Spring	None	Calmon 6H
Calmon 175H	Harkey	None	None

A Gunbarrel View is attached showing the relationship of CLGC wells and Offset wells in North Corridor.

Applicant shall provide to the OCD Engineering Bureau at ocd.engineer@state.nm.us, project status updates every twelve (12) months after the approval of this Order and a summary report no later than three (3) months after the cessation of the pilot project or upon request from OCD. Status updates shall include a summary of the actions taken and problems and solutions identified and implemented. The summary report(s) shall include:

a. a summary of all project-related activity;

b. a review regarding any problems and solutions identified and implemented;

c. for each period of injection, a summary of the results, including for each CLGC Well in which injection occurred ("involved CLGC Well"):

i. average and maximum injection flow rates;

ii. injection duration; and

iii. total injected volume.

d. for each period of injection, the following data graphed and tabulated with a resolution of at least: one (1) data point per hour beginning twenty-four (24) hours before the injection (provided adequate notice is received beforehand), four (4) data points per hour during the injection, and one (1) data point per hour ending twenty-four (24) hours after the injection:

i. for each involved CLGC Well, the oil and gas production and injection flow rates and annulus pressure of all casing strings; and

ii. for each well related to each involved CLGC Well, the oil and gas production and injection flow rates and production casing pressure.

iii. for situations where equipment constraints do not allow for data collection at the resolution specified above or injection periods lasting more than twenty-four (24) hours, periodic well tests may be substituted, provided such well tests are conducted by

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B1
Submitted by: OXY USA INC.
Hearing Date: September 09, 2021
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separating and metering the oil and gas production from each well for a minimum of six (6) hours.

e. for each period of injection, a recovery profile for each involved CLGC Well and for each well related to each involved CLGC Well which experienced a change in production casing pressure or production volume related to the injection during or immediately following the injection. The volume of recovered gas shall be determined by taking the difference between the gas production following the injection and baseline production. The baseline production shall be determined by using well tests to create a production curve that estimates what the production would have been had injection not occurred. The production curve shall be calculated by interpolating daily production for each day using the known daily production obtained by well tests conducted prior to the start of injection and shall use a method of interpolation that is at minimum as accurate as maintaining a constant rate of change for each day's production between the known daily production. The recovery profile shall include:

i. a summary of the results, including the volume and percent of total production recovered and the duration of time required to achieve that recovery; and

ii. a tabulation of daily oil and gas production and baseline production totals; beginning a week before the injection and ending when either the gas production is near equal to its baseline production or Applicant conducts another period of injection on an involved CLGC Well.

f. If any of the CLGC wells or the involved CLGC wells are being produced pursuant to an approved commingling permit, applicant shall not be required to install additional facilities or measurement equipment to collect the data described above in subparagraphs (d) or (e) above.

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Submitted by: OXY USA INC.
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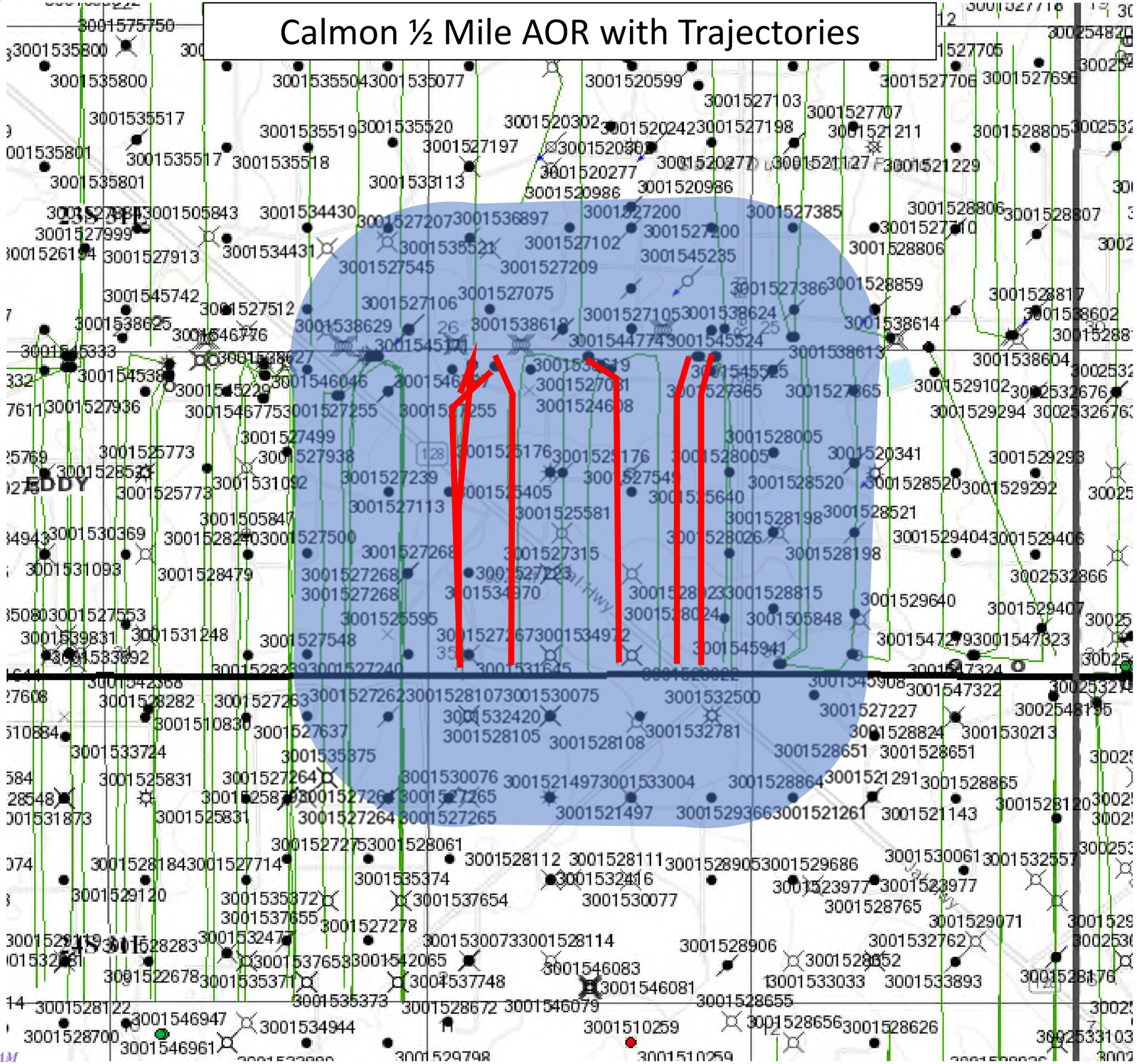
North Corridor GBV

Target TVD	SHL in Sect 28		SHL in Sect 34	SHL in Section 35	Target TVD
8785’	IRIDIUM 21H 303’ FWL	Avalon			
		2BS	PLAT 6H 393’ FEL	CALMON 1H 464’ FWL CALMON 41H 951’ FWL CALMON 2H 1248’ FWL CALMON 3H 2181’ FWL CALMON 4H 2180’ FEL CALMON 5H 1068’ FEL CALMON 6H 465’ FEL	10,090’
		Harkey		CALMON 175H 824’ FEL	10,900’

Key
- CLGC Well
- Offset well

Note-not to scale. Location info based on BHL. Iridium Northwest of Platinum.
No nearby Avalon offsets for Iridium. No nearby Harkey offsets.

Calmon ½ Mile AOR with Trajectories



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Submitted by: OXY USA INC.
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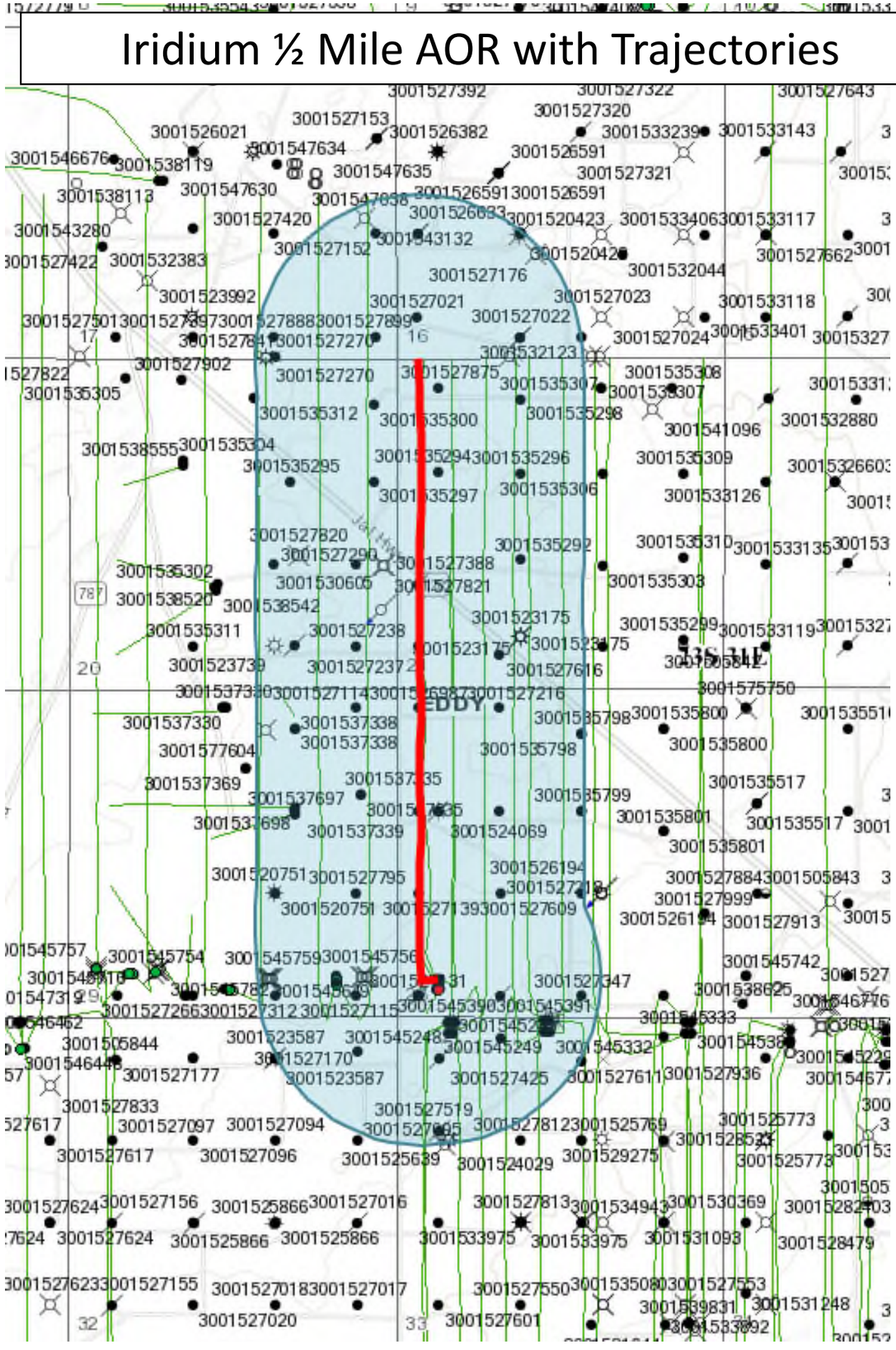
Iridium ½ Mile AOR with Trajectories



Key

- CLGC Well Trajectory
- ½ mile Area of Review

Wells (IHS)

- LOC
- GAS
- ABANDONED-NO SHOWS
- ABANDONED LOC
- GAS SHOWS
- OIL SHOWS
- O&G SHOWS
- OIL
- O&G
- OTHER
- INJ-NO SHOWS
- SUS
- AGW
- AOW
- AO&GW
- <Null>

GOR Gas Allocation Plan for CLGC Wells

Application

The following methodology will apply to CLGC wells on a well by well basis. The application will start after a CLGC storage event and will end after 100% of the Storage Gas Injection Inventory is recovered. Afterwards, Gas Allocation will revert to previous accounting procedures.

Overview

During a CLGC storage event, a portion of the combined gas streams from source wells will be stored in a CLGC well. After a storage event, the wellhead gas produced from a CLGC well will consist of three components: Gas Lift Gas, Native Gas, and Storage Gas Production. Both Native Gas and Storage Gas Production are produced from the reservoir, and the combined production is Reservoir Gas.

Wellhead Gas Produced = Gas Lift Gas + Native Gas + Storage Gas Production

Gas Lift Gas is measured continuously for each well. This methodology applies a Gas-Oil-Ratio (GOR) Calculation to determine the Native Gas (owned by the owners of the CLGC well) and Storage Gas Production (owned by the owners of the source wells).

A Well Test Allocation Method will be utilized after a storage event. In the example below, the well tests values are highlighted. The values between are interpolated.

Example

The following data is a simulated, 1-Day storage event.

- 2000 mscf is injected over 24 consecutive hours.
- The well is produced back immediately following a storage event.
- The data has been truncated at 24 days because it is included for illustration purposes.

The input and calculated values for an example well are listed below:

Values	Description
Wellhead Gas Produced, mscf/d	Wellhead gas, measured with well test
Gas Lift Gas, mscf/d	Gas Lift Gas injection, measured with flow meter
Reservoir Gas, mscf/d	Reservoir Gas, the difference between Wellhead Gas and Gas Lift Gas, calculated
Oil, bbl/d	Oil production, measured with well test
Water, bbl/d	Water production, measured with well test
GOR, scf/bbl	Gas Oil Ratio (GOR), engineer calculation based on previous oil and gas well tests before a storage event
Native Gas- GOR Calc, mscf/d	Minimum of Reservoir Gas or Native Gas Production using GOR, calculated
Storage Gas Injection, mscf/d	Storage Gas Injection, measured with flow meter

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Storage Gas Injection Inventory, mscf	Storage Gas Injection Inventory, cumulative amount of storage gas injection minus storage gas production, calculated
Storage Gas Production, mscfd	Storage Gas Production, difference between Reservoir Gas and Calculated Native Gas Production, calculated

Column	1	2	3	4	5	6	7	8	9	10
Calculation or measurement	Well Test	Flow Meter	1-2	Well Test	Well Test	Engineer Analysis	MIN (3,4*6/1000)	Flow Meter	8-10 + 9_PreviousRow	IF(9>0, 3-7,0)
Day	Wellhead Gas Produced, mscf/d	Gas Lift Gas, mscf/d	Reservoir Gas, mscf/d	Oil, bbl/d	Water, bbl/d	GOR, scf/bbl	Native Gas-GOR Calc, mscf/d	Storage Gas Injection, mscf/d	Storage Gas Injection Inventory, mscf	Storage Gas Production, mscfd
-90	626	500	126	63	103	2,005	126	0	0	0
-60	625	500	125	62	101	2,032	125	0	0	0
-30	624	500	124	60	99	2,053	124	0	0	0
1	623	500	123	59	96	2,081	123	0	0	0
2	0	0	0	0	0	2,050	0	2000	2000	0
3	850	500	350	45	80	2,050	92	0	1743	257
4	741	500	241	50	86	2,050	102	0	1604	139
5	713	500	213	52	88	2,050	107	0	1498	106
6	685	500	185	54	91	2,050	111	0	1424	73
7	675	500	175	55	92	2,050	113	0	1362	62
8	665	500	165	56	93	2,050	115	0	1313	50
9	661	500	161	57	93	2,050	116	0	1267	45
10	657	500	157	57	94	2,050	117	0	1227	40
11	653	500	153	57	94	2,050	117	0	1192	35
12	649	500	149	58	95	2,050	118	0	1161	31
13	647	500	147	58	95	2,050	118	0	1133	28
14	645	500	145	58	95	2,050	119	0	1106	26
15	643	500	143	58	95	2,050	119	0	1082	24
16	641	500	141	58	95	2,050	119	0	1060	22
17	640	500	140	58	95	2,050	119	0	1038	21
18	639	500	139	58	94	2,050	119	0	1018	20
19	639	500	139	58	94	2,050	119	0	998	20
20	638	500	138	58	94	2,050	119	0	980	19
21	637	500	137	58	93	2,050	119	0	962	18
22	636	500	136	58	93	2,050	119	0	945	17
23	635	500	135	58	93	2,050	119	0	930	16
24	634	500	134	58	92	2,050	119	0	915	15

Well Test Allocation Method

Following an injection period, the allocation of oil and gas production shall be based on the production life of each CLGC well as measured for three periods: (a) the initial production period shall be measured from the end of the injection period until the peak gas production rate is reached; (b) the plateau period shall be measured from the end of the initial production period to the peak decline rate; and (c) the decline period shall be measured from the end of the plateau period until the well has recovered the previously-injected volume.

During the initial production period, the oil and gas production for each CLGC well shall be allocated using daily well tests or separated and metered individually prior to commingling.

During the plateau period, the oil and gas production for each CLGC well shall be allocated using a production curve calculated from a minimum of three (3) well tests per month. The production curve shall be calculated by interpolating daily production for each day using the known daily production obtained by well tests and shall use a method of interpolation that is at minimum as accurate as maintaining a constant rate of change for each day's production between the known daily production values.

During the decline period, the oil and gas production for each CLGC well shall be allocated using a production curve calculated from a minimum well testing frequency as follows: (a) a minimum of three (3) well tests per month when the decline rate is greater than 22% per month; (b) a minimum of two (2) well tests per month when the decline rate is between 22% and 10% per month; and (c) a minimum of one (1) well test per month when the decline rate is less than 10% per month. The production curve shall be calculated by interpolating daily production for each day using the known daily production obtained by well tests and shall use a method of interpolation that is at minimum as accurate as maintaining a constant rate of change for each day's production between the known daily production values.

Applicant shall conduct a well test by separating and metering the oil and gas production from each well for either (a) a minimum of twenty-four (24) consecutive hours; or (b) a combination of nonconsecutive periods that meet the following conditions: (i) each period shall be a minimum of six (6) hours; and (ii) the total duration of the nonconsecutive periods shall be a minimum of eighteen (18) hours.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B5
Submitted by: OXY USA INC.
Hearing Date: September 09, 2021
Case No. 22151

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

APPLICATION OF OXY USA INC. FOR A CLOSED LOOP GAS CAPTURE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 22151

AFFIDAVIT

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

Adam G. Rankin, attorney in fact and authorized representative of OXY USA Inc, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application has been provided under the notice letters and proof of receipts attached hereto.

Adam G. Rankin

SUBSCRIBED AND SWORN to before me this 7th day of September, 2021 by Adam G. Rankin.

Notary Public

My Commission Expires:

January 28, 2023

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. B6
Submitted by: OXY USA INC.
Hearing Date: September 09, 2021
Case No. 22151

OFFICIAL SEAL
ANNA K. STORM
NOTARY PUBLIC - STATE OF NEW MEXICO
My Commission Expires: January 28, 2023

HOLLAND&HART LLP

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

August 20, 2021

VIA CERTIFIED MAIL
CERTIFIED RECEIPT REQUESTED

TO: ALL AFFECTED PARTIES

Re: Application of OXY USA Inc. for Closed Loop Gas Capture Injection Pilot Project, Eddy County, New Mexico.
Cal-Mon MDP1 "35" Federal 1H, 2H, 4H, 5H, 41H, 175H well, Irdium MDP1 "28-21" Federal Com #21H well

Ladies & Gentlemen:

This letter is to advise you that OXY USA Inc. has filed the enclosed application with the New Mexico Oil Conservation Division.

During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. The hearing will be conducted on September 9, 2021 beginning at 8:15 a.m., until it is concluded. To participate in the electronic hearing, see the instructions posted on the OCD Hearings website: https://www.emnrd.nm.gov/ocd/hearing-info/.

You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date. Parties appearing in cases are required by Division Rule 19.15.4.13.B to file a Pre-hearing Statement four business days in advance of a scheduled hearing. This statement must be filed online or in person at the Division's Santa Fe office and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions about this matter, please contact Stephen Janacek, at (713) 497-2417, or Stephen_Janacek@OXY.com.

Sincerely,

Adam G. Rankin
ATTORNEY FOR OXY USA INC.

Oxy - Closed Loop Gas Capture Sand Dunes Iridium-Calmon
Case no. 22151 Postal Delivery Report

TrackingNo	ToName	DeliveryAddress	City	State	Zip	USPS_Status
9402811898765800082033	Sonat Exploration Company	PO Box 1513	Houston	TX	77251-1513	This is a reminder to arrange for redelivery of your item or your item will be returned to sender.
9402811898765800082088	Pogo Producing Co	PO Box 10340	Midland	TX	79702-7340	The return on your item was processed on August 27, 2021 at 4:41 pm in MIDLAND, TX 79701.
9402811898765800082095	NGL Water Solutions Permian, LLC	865 Albion St Ste 400	Denver	CO	80220-4809	The U.S. Postal Service was electronically notified by the shipper on August 21, 2021 to expect your package for mailing. This does not indicate receipt by the USPS or the actual mailing date. Delivery status information will be provided if/when available.
9402811898765800082002	Kaiser-Francis Oil Co.	PO Box 21468	Tulsa	OK	74121-1468	Your item was picked up at a postal facility at 5:44 am on August 25, 2021 in TULSA, OK 74103.
9402811898765800082064	EOG Y Resources, INC.	104 S 4th St	Artesia	NM	88210-2123	Your item was delivered to the front desk, reception area, or mail room at 7:45 am on August 24, 2021 in ARTESIA, NM 88210.
9402811898765800082378	EOG Resources Inc.	PO Box 2267	Midland	TX	79702-2267	Your item was picked up at a postal facility at 7:50 am on August 26, 2021 in MIDLAND, TX 79702.
9402811898765800080817	Penroc Oil Corp	PO Box 2769	Hobbs	NM	88241-2769	Your item was delivered at 1:14 pm on August 24, 2021 in HOBBS, NM 88240.
9402811898765800080275	State Land Office	PO Box 1148	Santa Fe	NM	87504-1148	Your item was delivered at 10:10 am on August 23, 2021 in SANTA FE, NM 87501.
9402811898765800080237	XTO Holdings, LLC	22777 Springwoods Village Pkwy	Spring	TX	77389-1425	Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.
9402811898765800080282	Titus Oil & Gas Corp	420 Throckmorton St Ste 1150	Fort Worth	TX	76102-3761	Your item was delivered to the front desk, reception area, or mail room at 2:51 pm on August 23, 2021 in FORT WORTH, TX 76102.
9402811898765800080244	Suzanne Thomas	3936 Byron St	Houston	TX	77005-3628	Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.
9402811898765800080299	Siete Oil & Gas Corp	PO Box 2523	Roswell	NM	88202-2523	Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.
9402811898765800080206	Riverbend Production LP	500 Dallas St Ste 2835	Houston	TX	77002-4721	Your item was delivered to the front desk, reception area, or mail room at 3:57 pm on August 23, 2021 in HOUSTON, TX 77002.
9402811898765800080220	Richard Scott Briggs	1920 E Riverside Dr Ste A-120 no 505	Austin	TX	78741-1350	Your item was delivered to the front desk, reception area, or mail room at 3:09 pm on August 25, 2021 in AUSTIN, TX 78741.
9402811898765800080268	Richard S. Briggs	17 Meadowbrook Ln	Trophy Club	TX	76262-5640	Your item was forwarded to a different address at 7:58 am on August 26, 2021 in ROANOKE, TX. This was because of forwarding instructions or because the address or ZIP Code on the label was incorrect.
9402811898765800080213	PXP Producing Co LLC	717 Texas St Ste 2100	Houston	TX	77002-2753	Your item departed our NORTH HOUSTON TX DISTRIBUTION CENTER destination facility on August 30, 2021 at 8:36 pm. The item is currently in transit to the destination.
9402811898765800082385	Devon Energy Production Company LP	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item was delivered at 8:32 am on August 24, 2021 in OKLAHOMA CITY, OK 73102.
9402811898765800082576	Plains Production Inc.	1313 Campbell Rd Bldg D	Houston	TX	77055-6458	Your item was delivered to an individual at the address at 4:31 pm on August 23, 2021 in HOUSTON, TX 77055.
9402811898765800082538	Petrojarl Inc.	PO Box 820467	Houston	TX	77282-0467	Your item was delivered at 10:37 am on August 26, 2021 in HOUSTON, TX 77077.
9402811898765800082583	Petrohawk Properties LP	1100 Louisiana St Ste 4400	Houston	TX	77002-5224	Your item arrived at the SANTA FE, NM 87504 post office at 9:02 am on August 30, 2021 and is ready for pickup.
9402811898765800082545	Orion OG Properties	PO Box 2523	Roswell	NM	88202-2523	Your package is moving within the USPS network and is on track to be delivered to its final destination. It is currently in transit to the next facility.
9402811898765800082590	Mid-Continent Energy	100 W 5th St Ste 450	Tulsa	OK	74103-4254	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765800082507	Merit Energy Partners	13727 Noel Rd Ste 500	Dallas	TX	75240-7312	Your item was delivered to an individual at the address at 2:54 pm on August 24, 2021 in DALLAS, TX 75240.
9402811898765800082521	Marbob Energy Corp	PO Box 227	Artesia	NM	88211-0227	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.
9402811898765800082569	Kaiser-Francis Oil Co.	PO Box 21468	Tulsa	OK	74121-1468	Your package will arrive later than expected, but is still on its way. It is currently in transit to the next facility.

Oxy - Closed Loop Gas Capture Sand Dunes Iridium-Calmon
Case no. 22151 Postal Delivery Report

9402811898765800082552	Harken Exploration Co	PO Box 619024	Dallas	TX	75261-9024	Your item arrived at the SANTA FE, NM 87504 post office at 10:56 am on August 28, 2021 and is ready for pickup.
9402811898765800082514	Grasslands Energy LP	5128 Apache Plume Rd	Fort Worth	TX	76109-1580	Your item was delivered to an individual at the address at 11:36 am on August 23, 2021 in FORT WORTH, TX 76109.
9402811898765800082392	Chevron USA Inc.	6301 Deauville	Midland	TX	79706-2964	Your item was delivered to the front desk, reception area, or mail room at 3:23 pm on August 24, 2021 in MIDLAND, TX 79706.
9402811898765800082477	Finley Production Co LP	PO Box 2200	Fort Worth	TX	76113-2200	Your item has been delivered and is available at a PO Box at 9:32 am on August 25, 2021 in FORT WORTH, TX 76102.
9402811898765800082439	EOG Resources Inc.	PO Box 840321	Dallas	TX	75284-0321	Your item was delivered at 7:55 pm on August 24, 2021 in DALLAS, TX 75266.
9402811898765800082484	EOG Resources Inc.	PO Box 2267	Midland	TX	79702-2267	Your item was picked up at a postal facility at 7:50 am on August 26, 2021 in MIDLAND, TX 79702.
9402811898765800082446	Devon Energy Production, LP	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item was delivered at 9:35 am on August 23, 2021 in OKLAHOMA CITY, OK 73102.
9402811898765800082491	Devon Energy Production Company LP	333 W Sheridan Ave	Oklahoma City	OK	73102-5010	Your item was delivered at 9:35 am on August 23, 2021 in OKLAHOMA CITY, OK 73102.
9402811898765800082422	CNX Gas Co LLC	PO Box 1248	Jane Lew	WV	26378-1248	Your item was returned to the sender on August 24, 2021 at 8:03 am in JANE LEW, WV 26378 because the address was vacant or the business was no longer operating at the location and no further information was available.
9402811898765800082460	Chevron USA Inc.	PO Box 730436	Dallas	TX	75373-0436	Your item was delivered at 3:16 am on August 26, 2021 in DALLAS, TX 75266.
9402811898765800082453	Camterra Res Ptnrs	2615 E End Blvd S	Marshall	TX	75672-7425	Your item was delivered to the front desk, reception area, or mail room at 10:21 am on August 24, 2021 in MARSHALL, TX 75672.
9402811898765800082415	AGS Resources 2004 LLLP	10 Inverness Dr E	Englewood	CO	80112-5610	Your item was delivered to an individual at the address at 3:09 pm on August 23, 2021 in ENGLEWOOD, CO 80112.
9402811898765800082071	Harvard Petroleum Company, LIC	PO Box 936 200 E Second	Roswell	NM	88202-0936	Your item was delivered at 12:57 pm on August 25, 2021 in ROSWELL, NM 88201.
9402811898765800082361	BLM	620 E Greene St	Carlsbad	NM	88220-6292	Your item was delivered to an individual at the address at 3:48 pm on August 23, 2021 in CARLSBAD, NM 88220.

Carlsbad Current Argus.

Affidavit of Publication

Ad # 0004880631

This is not an invoice

HOLLAND AND HART
POBOX 2208

SANTA FE, NM 87504

I, a legal clerk of the **Carlsbad Current Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

08/24/2021

Legal Clerk

Subscribed and sworn before me this August 24, 2021:

State of WI, County of Brown
NOTARY PUBLIC

1-7-25

My commission expires

KATHLEEN ALLEN
Notary Public
State of Wisconsin

Ad # 0004880631
PO #:
# of Affidavits 1

This is not an invoice

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

The State of New Mexico, Energy Minerals and Natural Resources Department, Oil Conservation Division ("Division") hereby gives notice that the Division will hold public hearings before a hearing examiner on the following case. During the COVID-19 Public Health Emergency, state buildings are closed to the public and Division hearings will be conducted remotely. The public hearing for the following case will be electronic and conducted remotely. The hearing will be conducted on **Thursday, September 9, 2021, beginning at 8:15 a.m.** To participate in the electronic hearing, see the instructions posted below. The docket may be viewed at https://www.emnrd.nm.gov/ocd/hearing-info/ or obtained from Marlene Salvidrez, at Marlene.Salvidrez@state.nm.us. Documents filed in the case may be viewed at http://ocdimage.emnrd.state.nm.us/imaging/CaseFileCriteria.aspx. If you are an individual with a disability who needs a reader, amplifier, qualified sign language interpreter, or other form of auxiliary aid or service to attend or participate in a hearing, contact Marlene Salvidrez at Marlene.Salvidrez@state.nm.us, or the New Mexico Relay Network at 1-800-659-1779, no later than **August 29, 2021.**

Persons may view and participate in the hearings through the following link:

https://nmemnrd.webex.com/nmemnrd/onstage/g.php?MTID=e379adae1410a8aecfd0fe5582b1917ea
Event number: 146 427 9260
Event password: HxJBs523k3Y

Join by video: 1464279260@nmemnrd.webex.com
Numeric Password: 857180
You can also dial 173.243.2.68 and enter your meeting number

Join by audio: 1-844-992-4726 United States Toll Free
Access code: 146 427 9260

STATE OF NEW MEXICO TO:
All named parties and persons having any right, title, interest or claim in the following case and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

To: All affected parties, including: Bureau of Land Management; Chevron USA Inc.; Devon Energy Production Company LP; EOG Resources Inc.; EOG Y Resources, Inc.; Kaiser-Francis Oil Co.; NGL Water Solutions Permian, LLC; POGO Producing Co; Sonat Exploration Company; Harvard Petroleum Company, LLC; AGS Resources 2004 LLP; Camterra Res Ptnrs; CNX Gas Co LLC; Devon Energy Production, LP; Finley Production Co LP; Grasslands Energy LP; Harken Exploration Co; Marbob Energy Corp; Merit Energy Partners; Mid-Continent Energy; Orion OG Properties; Petrohawk Properties LP; Petrojarl Inc.; Plains Production Inc.; PXP Producing Co LLC; Richard S. Briggs, his heirs and devisees; Richard Scott Briggs, his heirs and devisees; Riverbend Production LP; Siete Oil & Gas Corp; Suzanne Thomas, her heirs and devisees; Titus Oil & Gas Corp; XTO Holdings, LLC; State Land Office; and Penroc Oil Corp.

Case No. 22151: Application of OXY USA Inc. for Closed Loop Gas Capture Injection Pilot Project, Eddy County, New Mexico. Applicant in the above-styled cause seeks an order authorizing it to engage in a closed loop gas capture injection pilot project ("pilot project") in the Bone Spring formation, within a 800-acre, more or less, project area for this pilot project consisting of the W/2 W/2 of Sections 21, 28, and 35, and the E/2 of Section 35, Township 23 South, Range 31 East, NMPM, Eddy County, New

Mexico, by occasionally injecting into the following wells:

- **Cal-Mon MDP1 "35" Federal #1H well** (API No. 30-015-44771) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1077 feet FWL (Unit D) in Section 35, and a bottom hole location 202 feet FSL and 464 feet FWL (Unit M) in Section 35.
- **The Cal-Mon MDP1 "35" Federal #2H well** (API No. 30-015-44772) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 277 feet FNL and 1112 feet FWL (Unit D) in Section 35, and a bottom hole location 187 feet FSL and 1248 feet FWL (Unit M) in Section 35.
- **The Cal-Mon "35" Federal #41H well** (API No. 30-015-43140) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 250 feet FNL and 710 feet FWL (Unit D) in Section 35, and a bottom hole location 193 feet FSL and 951 feet FWL (Unit M) in Section 35.
- **The Irdium MDP1 "28-21" Federal Com #21H well** (API No. 30-015-45074) [Ingle Wells; Bone Spring Pool (Pool Code 33740)], with a surface location 610 feet FSL and 648 feet FWL (Unit M) in Section 28, and a bottom hole location 24 feet FNL and 303 feet FWL (Unit D) in Section 21.
- **The Cal-Mon "35" Federal #175H well** (API No. 30-015-45524) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 110 feet FNL and 615 feet FEL (Unit A) in Section 35, and a bottom hole location 17 feet FSL and 824 feet FEL (Unit P) in Section 35.
- **The Cal-Mon MDP1 "35" Federal #4H well** (API No. 30-015-44774) [Cotton Draw; Bone Spring Pool (Pool Code 13367)], with a surface location 120 feet FNL and 2624 feet FWL (Unit C) in Section 35, and a bottom hole location 191 feet FSL and 2180 feet FEL (Unit O) in Section 35.
- **The Cal-Mon MDP1 "35" Federal #5H well** (API No. 30-015-44775) [Cotton Draw; Bone Spring Pool

(Pool Code 13367)], with a surface location 110 feet FNL and 890 feet FEL (Unit A) in Section 35, and a bottom hole location 200 feet FSL and 1068 feet FEL (Unit P) in Section 35.
OXY seeks authority to utilize these producing wells to occasionally inject produced gas into the Bone Spring formation at true vertical depths of between approximately 8,000 feet to 11,600 feet along the horizontal portion of each wellbore at surface injection pressures of no more than 1,250 psi. The source of the produced gas will be the Bone Spring and Wolfcamp formations. The subject acreage is located approximately 17 miles east of Loving, New Mexico.
#4880631, Current Argus, August 24, 2021

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

APPLICATION OF OXY USA INC. FOR A CLOSED LOOP GAS CAPTURE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 22151

AFFIDAVIT OF TONY TROUTMAN

I, Tony Troutman, of lawful age and being first duly sworn, declare as follows:

1. My name is Tony Troutman. I work for OXY USA, Inc. ("OXY"), as a petroleum geologist.

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

3. I am familiar with the application filed by OXY in this case for approval of a closed loop gas capture injection pilot project in the Bone Spring formation, and I have conducted a geologic study of the lands in the subject area that is included in ***Exhibit A*** to OXY's application. My analysis and conclusions are summarized at pages 71-78 of the Exhibit.

4. A general characterization of the geology of the Bone Spring formation and its suitability for the proposed injection, including identification of confining layers and their ability to prevent vertical movement of the injected gas is included in my analysis. *See* ***Exhibit A*** at 71-78.

5. Page 71 of ***Exhibit A*** depicts a type log for the project area, showing the proposed injection zone, adjacent oil and gas zones, and confining layers. The proposed injection zone is the Bone Spring Formation, within the Avalon Shale, the 2nd Bone Spring Sand, and the Harkey Shale sub-units of the Bone Spring Formation. Adjacent oil and gas zones are the overlying Brushy

Canyon Member of the Delaware Mountain Group, the underlying 3rd Bone Spring Sand Member of the Bone Spring Formation, and the Wolfcamp Formation. Confining layers that will prevent migration of injected gas into adjacent oil and gas zones are within the Avalon Shale Member of the Bone Spring Formation and the 3rd Bone Spring Limestone Member of the Bone Spring Formation.

6. Page 72 is a cross-section map using four representative wells in the pilot project area as shown on the following page. This cross section indicates that the entire Bone Spring Formation dips to the east and maintains a consistent thickness across the project area. The Avalon, 2nd Bone Spring Sand, and Harkey Shale members follow this pattern. There is no evidence of faults, pinch-outs, or other potential pathways for out-of-zone migration indicated by the cross-sections.

7. Page 73 is a structure map on the top of the Avalon Shale that shows the structure gently dipping to the east. There is no evidence of faults, pinch-outs, or other potential pathways for out-of-zone migration indicated by the structure map.

8. In this proposed CLGC Project, the following well will inject into the Avalon Shale at the following depths:

- Iridium MDPI 28-21 Fed Com 21H

The following wells will inject into the 2nd Bone Spring Sand:

- Cal Mon MDP1 35 Federal 1H
- Cal Mon MDP1 35 Federal 2H
- Cal Mon 35 Federal 41H ST1
- Cal Mon MDP1 35 Federal 4H
- Cal Mon MDP1 Federal 5H

The following well will inject into the Harkey Shale of the 3rd Bone Spring Lime:

- Cal Mon 35 Federal 175H

9. The proposed injection intervals are in an unconventional reservoir composed of very fine-grained quartz-rich and brittle siltstone. *See* ***Exhibit A*** at 71, 74-77. Low-permeability barriers to fluid flow exist within the Bone Spring Formation above and below the proposed injection intervals. Above the Avalon Shale, the highest of the three intervals, the Bone Spring Formation consists of fine-grained siltstones, carbonate mudstones that have very low permeabilities and an average thickness of 250 feet and provide isolation from the overlying productive Avalon Sand and Brushy Canyon Formation. Above the Brushy Canyon Formation are impermeable anhydrite, gypsum, and salt layers of the Castile, Salado, and Rustler Formations. Due to the thickness of multiple impermeable rock layers above the injection reservoir there is little possibility for migration upward into freshwater aquifers where they exist. Below the Avalon Shale is the First Bone Spring Lime, a low permeability, approximately 150-foot thick carbonate-rich interval which provides isolation from the underlying productive First Bone Spring Sand.

10. As described on page 75 of ***Exhibit A***, the 2nd Bone Spring Sand injection interval is isolated from overlying 1st Bone Spring Sand reservoir by the 2nd Bone Spring Lime member of the Bone Spring Formation. This mudstone unit has very low permeability and averages 100-feet in thickness. Below the 2nd Bone Spring Sand interval is the 3rd Bone Spring Lime of low permeability carbonate mudstones averaging 500 feet in thickness.

11. As described on page 77 of ***Exhibit A***, the Harkey Shale interval is within the 3rd Bone Spring Limestone and is overlain by low permeability carbonates mudstones averaging 300 feet in thickness and underlain by a 200-foot thick barrier of carbonate mudstones.

12. Laterally, the injection will be contained in the reservoir volume that has been previously and partially depleted by the CLGC wells. The low-permeability reservoir will be the primary constraint on movement of the injection gas and is expected to contain the injected gas within the pilot project area. *See* ***Exhibit A*** at 74-77.

13. My analysis concludes that the Bone Spring formation in this area is suitable for the proposed CLGC Project and that there are geologic barriers that will contain the proposed injection within the Bone Spring formation. *See* ***Exhibit A*** at 74-77.

14. I have examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the injection zone and any underground source of drinking water. *See* ***Exhibit A*** at 74-77.

15. In my opinion, the granting of OXY's application in this case is in the best interest of conservation, the prevention of waste, and protection of correlative rights.

16. Pages 71-78 of **Exhibit A** were prepared by me or under my direction and supervision.

FURTHER AFFIANT SAYETH NOT.

Tony Troutman,

STATE OF TEXAS)
)
COUNTY OF Harris)

SUBSCRIBED and SWORN to before me this 1st day of Sept, 2021 by Tony Troutman.

NOTARY PUBLIC

My Commission Expires:

02-08-2025

NUBIA SMITH
My Notary ID # 130998946
Expires February 8, 2025

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

APPLICATION OF OXY USA INC. FOR A CLOSED LOOP GAS CAPTURE INJECTION PILOT PROJECT, EDDY COUNTY, NEW MEXICO.

CASE NO. 22151

AFFIDAVIT OF XUEYING XIE

I, Xueying Xie, of lawful age and being first duly sworn, declares as follows:

1. My name is Xueying Xie and I am employed by Oxy USA Inc. ("OXY") as a reservoir engineer.

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

3. I am familiar with the application filed by OXY in this case and the Division guidance regarding closed loop gas capture injection (CLGC) projects such as this one. I have conducted an engineering study of the reservoir to evaluate the potential effects of the proposed temporary injection on the reservoir and future production. The conclusions I have drawn from my analysis are summarized in pages 78-90 in ***Exhibit A*** attached to OXY's application.

4. I have examined the available geologic and engineering data and found no evidence of open faults or other hydrologic connections between the injection zone and any underground source of drinking water. *See* ***Exhibit A*** at 78.

5. The CLGC project will inject produced gas into horizontal wells with 5,000 ft and 10,000 ft laterals and into the productive zone of the Bone Spring formations of Avalon, 2nd Bone Spring Sand, and Harkey. We applied simulation modeling techniques to investigate gas

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Exhibit No. D
Submitted by: OXY USA INC.
Hearing Date: September 09, 2021
Case No. 22151

movement in the injection zone and any potential impacts on production performance of the CLGC wells and direct offset wells.

6. The model utilized data from our Cedar Canyon Section 16 Gas EOR Project ("CC 16 EOR Project") for verification. The CC 16 EOR Project began in 2017. It is located 17 miles away from the North Corridor CLGC project area. The bottom left box of page 82 shows the reservoir properties and conditions of the Bone Spring formation at the CC 16 EOR Project. In general, the Cedar Canyon and North Corridor areas have very similar reservoir properties, except the Avalon Shale in North Corridor has a permeability less than 0.001mD. The section, location, and well layout for the CC 16 EOR Project are shown on page 81. In this EOR project, Cedar Canyon 16-7H injected produced gas for five months in 2017 at a rate of 7 mmscf/d. After the five months of EOR gas injection, the final surface tubing head pressure was 4100 psi and bottom hole pressure was about 5000 psi. The simulation model incorporated both the primary production history of wells in the CC 16 EOR Project area and the EOR gas injection history with gas communication occurring between the EOR injection well and offset producing wells. During the first three months of EOR gas injection, there was no observed gas communication. However, after three months of EOR gas injection, there was gas communication in offset producers and the model was able to predict it. This gives us confidence in the ability of the model to predict impacts on offset wells resulting from CLGC operations.

7. The reservoir model is a full section model with five wells. The top right of page 82 shows the 3D model grid. It has 56 layers and over a million cells. The four plots in the bottom right show history match results of all five wells in the CC 16 EOR project area. The dots represent historical field data and the curves are modeling results. The first three plots show the primary production match from 2013 to 2017 for all five wells in the section. The green plot

shows oil rate match, the blue plot shows water rate match, and the red plot shows gas rate match. The bottom right plot shows gas injection bottom hole pressure match of EOR gas injection in 2017. The model shows a good match for all rates and pressure.

8. With the high EOR gas injection rates and injection pressures in the CC 16 EOR Project, the reservoir simulation model was created to capture the gas communication between injection wells and the offset producers. This modeling improved our understanding of the complexity of connected fractures based on actual field response. The model was used to simulate the effects of CLGC operations in the North Corridor and other areas, since the reservoirs have similar properties. We believe the model should be able to predict communication caused by CLGC operations because it was "tuned" based on actual gas communication between wells. First, we created a base case for normal production without any gas injection. Then we ran numerous gas injection cases to simulate CLGC operations and compared those with the base case to determine the impact on well production rate and recovery in both CLGC wells and offset wells. To further validate our injection rate assumptions, we integrated the reservoir model with a Prosper wellbore model to predict the injection rate at a wellhead injection pressure of 1200 psi. The results are shown on the plot of page 84. For a 10,000 ft lateral length well (representative of our proposed Iridium MDP1 "28-21" Federal Com #21H well), 3 mmscf/day is the predicted max injection rate. For a 5,000 ft lateral length well (representative of our other proposed North Corridor CLGC wells), 1.5 (rounded to 2) mmscf/day is the predicted max injection rate. The max rates decline to about 50% of the initial values after three weeks. Despite the injection rate decline over time, Oxy ran all cases in the model with flat injection rates to simulate worst-case scenarios. The results of these model runs are shown on page 87 and discussed more fully below.

9. Reservoir modeling indicates the horizontal movement of injected gas is anticipated to be approximately 100 feet or less from each CLGC wellbore within the Bone Spring formation. *See* ***Exhibit A*** at 85. This is illustrated by comparing gas saturation pre-injection and post-injection. The top left plot on page 85 shows pre-injection gas saturation. The wellbores are depicted as east-west lines, and the numerous hydraulic fractures created in each wellbore are shown as NE-SW angled lines. The blue color shows no gas while the cyan color shows gas exists in the fractures. A warmer color indicates a higher gas saturation. The middle plot shows gas saturation after one week of injection. The gas injected into the middle well and the fractures near wellbore show a warmer color. The bottom plots have a magnified view of the CLGC well gas saturation for a clearer comparison. We can clearly see that the fractures near wellbore in the injection case have a warmer color than those of the pre-injection case. Additionally, further away from the CLGC wellbore, there is no gas saturation change in the factures even though there are connected fractures between wells. This is because the injected gas volume during CLGC operations is too small to move very far away from the CLGC wellbore. And even when we have fracture communication between wells, there is not very high conductivity for immediate gas communication as was observed in our CC 16 EOR project which had a much higher injection rate and pressure. The gas storage injection in North Corridor will occur at a much lower rate (<3 mmscf/d for the 10,000 ft lateral length well and <2 mmscf/d for the 5,000 ft lateral length wells) for a shorter period of time with much lower tubing head pressure (1200psi) compared with CC 16 EOR Project in 2017, so it is not unexpected that the model shows no gas communication. Finally, after a long period of

production following a gas storage event, the gas saturation in the near wellbore of CLGC wells is restored to pre-injection values as shown in the plot on the upper right of page 85. This is because the majority of injected gas has been recovered.

10. The pressure map plots of page 86 tell the same story as the gas saturation map plots. With gas injection, the pressure increases only in the fractures nearest the wellbore within 100 feet of the CLGC well.

11. We modeled all possible CLGC scenarios including different well spacing (from 4-8 Wells Per Section, or "WPS"), single well injection, multi-well injection, and a worst case with a higher injection rate and a longer injection period than historical upsets. The modeling results are summarized in the table on page 87 and in each case show no impact. North Corridor wells have well spacing of 1-7 WPS, and the model scenarios even tested narrower spacing of 8 WPS which still shows no impact. For the injection parameters, all possible scenarios—including the worst-case gas storage scenario—have much lower injection volumes and injection pressures compared to CC 16 EOR Project. In conclusion, the analysis indicates that there will be no change in the oil recovery from each of its proposed injection wells or from any of the offsetting wells because of CLGC operations. *See id.* at 87.

12. As a cross-check of the model results, I prepared an analysis of the expected gas storage capacity in the fracture network of the CLGC well relative to the gas injection volumes for the worst-case injection scenario lasting twenty days. *See* ***Exhibit A*** at 88. My analysis confirms that whether the capacity is estimated based on the fracture volume gas equivalent, or the total gas equivalent volumes produced from

the proposed injection zone, the anticipated gas injection volumes will be considerably less than the estimated volume capacity for gas storage within the project area.

13. Fracture dimensions are predicted by a fracture model software package called Gohfer, which is based on reservoir geo-mechanical properties and actual well hydraulic fracturing procedure history matching. The fracture dimensions for Bone Spring wells with different zones are shown at page 89. The table on the right show Stimulated Reservoir Volume (SRV) for each individual CLGC well, which is in the range of 0.8 to 2.4 billion cubic feet.

14. In my analysis, examining the available geologic and engineering data, I have determined that the total recoverable volume of hydrocarbons from the reservoir will not be adversely affected by the pilot project and that the gas composition of the injected gas will not damage the reservoir. *See* ***Exhibit A*** at 90.

15. Pages 78 through 90 of **Exhibit A** were either prepared by me or compiled under my direction and supervision.

FURTHER AFFIANT SAYETH NOT.

Xueying Xie

Xueying Xie

STATE OF TEXAS)
)
COUNTY OF Harris)

SUBSCRIBED and SWORN to before me this 7th day of September, 2021, by XUEYING XIE.

IGNACIO BONILLA NOTARY PUBLIC STATE OF TEXAS NOTARY ID 130159029 MY COMM. EXP. 04-08-2023

NOTARY PUBLIC

My Commission Expires:

04/08/2023