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

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

CASE NO. 15616

APPLICATION

OXY USA Inc. ("OXY") through its undersigned attorneys, hereby files this application with the Oil Conservation Division for an order approving a pressure maintenance pilot project for injection of produced gas and produced water through two horizontal wells into the Second Bone Spring in a project area comprised of Section 16, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. In support of its application, OXY states:

1. OXY USA Inc., (OGRID No. 16696) is the operator of State Lease No. VA-0836-1, which covers all of Section 16, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. Section 16 will be the project area for the proposed pressure maintenance project.

2. OXY operates two horizontal wells in Section 16, the Cedar Canyon 16 State No. 7H and the Cedar Canyon 16 State No. 12H (collectively "Subject Wells"). OXY seeks approval to inject produced water and produced gas into the Second Bone Spring through horizontal wells, as follows:

A. Injection of produced water and produced gas into the Cedar Canyon 16 State No. 7H (API No. 30-015-41251), currently producing from the Pierce Crossing, Bone Spring, East Pool (96473). The surface hole location is 2,485 feet from the North line, 330 feet from the West (Unit E) of Section 15. The bottomhole location is 1,980 feet from the North line, 330 feet from the West line (Unit E) of Section 16. The first perforation point is located 2,310 feet from the North line and 330 feet from the East line. The last perforation is 1,980 feet from the North line, 330 feet from the West line. True vertical depth at the first perforation point is 8,690 feet, and corresponding measured depth is 9,200 feet.

True vertical depth at the last perforation point is 8,644 feet, and the corresponding measured depth is 13,860 feet. The proposed injection interval is along the horizontal portion of the wellbore at a measured depth of 9,200 feet to 13,680 feet.

B. Injection of produced water and produced gas into the Cedar Canyon 16 State No. 12H (API No. 30-015-42683), currently producing from the Corral Draw Bone Spring Pool (96238). The surface hole location is 900 feet from the South line, 860 feet from the West (Unit M) of Section 15. The bottomhole location is 910 feet from the South line, 180 feet from the West line (Unit M) of Section 16. The first perforation point is located 898 feet from the South line and 335 feet from the East line. The last perforation is 910 feet from the South line, 335 feet from the West line. True vertical depth at the first perforation point is 8,691 feet, and the corresponding measured depth is 9,704 feet. True vertical depth at last perforation is 8,635 feet and the corresponding measured depth is 14,214 feet. The proposed injection interval is along the horizontal portion of the wellbore at a measured depth of 9,704 feet to 14,214 feet.

3. The expected maximum injection rate for water into the Subject Wells is 10,000 BWPD per well. The expected average rate for water injection into the Subject Wells is 5,000 BWPD per well. The expected maximum injection pressure for water into the Subject Wells is 1700 psi per well. The expected average injection pressure for water into the Subject Wells is 1,500 psi per well.

4. The expected maximum injection rate for gas into the Subject Wells is 15,000 MCFD per well. The expected average injection rate for gas into the Subject Wells is 7,000 MCFD per well. The expected maximum injection pressure for gas into the Subject Wells is 4,500 psi per well. The expected average injection pressure into the Subject Wells is 4,000 psi per well.

5. Produced water used for injection into the Subject Wells will be from the Bone Spring and Delaware formations. OXY does not anticipate issues with compatibility. *See* Attachment A, p. 21.

6. Injected gas is sourced from the Cedar Canyon Central Delivery Point integration system, which will include gas produced from the Delaware, First Bone Spring, and Second Bone Spring formations. *See* Attachment A, p. 21.

7. Injection will provide pressure maintenance support for the following existing or proposed wells, operated by OXY:

A. Cedar Canyon 16 State No. 8H (API No. 30-015-41596)
Producing from the Pierce Crossing, Bone Spring, East Pool (96473)

B. Cedar Canyon 16 State No. 6H (API No. 30-015-41595)
Producing from the Pierce Crossing, Bone Spring, East Pool (96473)

C. Cedar Canyon 16 State No. 2H (API No. 30-015-41024)
Producing from the Corral Draw Bone Spring Pool (96238)

8. A copy of the C-108 for the project is attached hereto as Attachment A.

9. Notice of this application has been provided to all affected parties within one-half mile of the boundary of the project area, and to surface owners.

10. Approval of this application will be in the best interest 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 January 5, 2017, and, after notice and hearing as required by law, the Division approve this application.

Respectfully submitted,

HOLLAND & HART LLP

By: _____

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ATTORNEYS FOR OXY USA, INC.

Case No.:
15616

Application of OXY USA Inc. for Approval of a Pressure Maintenance Project, Eddy County, New Mexico. Applicant in the above-styled cause seeks an order approving a pressure maintenance pilot project for injection of produced gas and produced water through two horizontal wells into the Second Bone Spring in a project area comprised of Section 16, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. Produced water and produced gas will be injected into the Second Bone Spring formation (Pierce Crossing, Bone Spring, East Pool (96473) and Corral Draw Bone Spring Pool (96238)) through the Cedar Canyon 16 State No. 7H and the Cedar Canyon 16 State No. 12H in a proposed project area comprised of Section 16, Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico. The surface hole location for the Cedar Canyon 16 State No. 7H (API No. 30-015-41251) is 2,485 feet from the North line, 330 feet from the West (Unit E) of Section 15 and the bottomhole location is 1,980 feet from the North line, 330 feet from the West line (Unit E) of Section 16. The Cedar Canyon 16 State No. 7H is currently producing from the Pierce Crossing, Bone Spring, East Pool (96473). True vertical depth at the first perforation point is 8,690 feet, and corresponding measured depth is 9,200 feet. True vertical depth at the last perforation point is 8,644 feet, and the corresponding measured depth is 13,860 feet. The proposed injection interval is along the horizontal portion of the wellbore at a measured depth of 9,200 feet to 13,680 feet. The surface hole location for the Cedar Canyon 16 State No. 12H (API No. 30-015-42683) is 900 feet from the South line, 860 feet from the West (Unit M) of Section 15 and the bottomhole location is 910 feet from the South line, 180 feet from the West line (Unit M) of Section 16. The Cedar Canyon 16 State No. 12H produces from the Corral Draw Bone Spring Pool (96238). True vertical depth at the first perforation point is 8,691 feet, and the corresponding measured depth is 9,704 feet. True vertical depth at last perforation is 8,635 feet and the corresponding measured depth is 14,214 feet. The proposed injection interval is along the horizontal portion of the wellbore at a measured depth of 9,704 feet to 14,214 feet. Produced water used for injection into the Subject Wells will be from the Bone Spring and Delaware formations. Injected gas is sourced from the Cedar Canyon Central Delivery Point integration system, which will include gas produced from the Delaware, First Bone Spring, and Second Bone Spring formations. The proposed project is located approximately 5 miles east of Malaga, New Mexico.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery __X____Pressure Maintenance _____Disposal _____Storage
Application qualifies for administrative approval? _____Yes ____X____No

II. OPERATOR: __OXY USA Inc.

ADDRESS: _P.O. Box 4294, Houston, TX 77210

CONTACT PARTY: _Kelley Montgomery_____PHONE: _713-366-5716___

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

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

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

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

NAME: _Kelley Montgomery_____TITLE: _Manager Regulatory_____

SIGNATURE: Kelley Montgomery DATE: 12/2/2014

E-MAIL ADDRESS: _kelley_montgomery@oxy.com_____

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

EXHIBIT A

Cedar Canyon Gas Injection Pilot Project
Table of Contents

Side 2

III. WELL DATA

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

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

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

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

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

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

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

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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

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

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

OXY USA Inc.
Cedar Canyon C-108 Application
Application Attachments

C-108 Application
OXY USA Inc.
Cedar Canyon Area
Eddy County, NM

I. This is a pressure maintenance project.

II. OXY USA Inc. (9339)

P.O. Box 4294

Houston, TX 77210

Contact Party: Kelley Montgomery, Oxy (713) 366-5716

III. Injection well data sheets and wellbore schematic diagrams have been attached for each injection well covered by this application.

IV. This project is not an expansion of an existing project.

V. The map with a two mile radius surrounding each injection well and a one-half mile radius for area of review has been attached.

VI. The tabular format of the area of review is attached.

VII. Please see the attached proposed operation data.

VIII. Please see attached signed statement on geologic data for the Bone Spring formation.

IX. N/A

X. Logs were filed for the existing wells at the time of drilling.

Well Name	Date Submitted
Cedar Canyon 16 State 7H	08/29/2013
Cedar Canyon 16 State 12H	03/05/2015

XI. Per our field personnel, no fresh water wells or windmills were found within one mile of these wells. The two wells identified by the Office of the State Engineer of New Mexico as C00863 and C00463 have been converted to brine water wells.

XII. Please see attached.

XIII. Please find the Proof of Notice attached.

ITEM III
Well Data

Side I

INJECTION WELL DATA SHEET

OPERATOR: _OXY USA Inc. _____

WELL NAME & NUMBER: __Cedar Canyon 16 State 7H_____(API: 30-015-41251)_____

WELL LOCATION: ___2485 FNL 330 FWL_____E_____15_____24S_____29E__
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

Please see attached.

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: ___14 3/4"_____ Casing Size:__11 3/4" _____

Cemented with: __680_____ sx. *or* _____ ft³

Top of Cement: __Surface_____ Method Determined: _Circulated__

Intermediate Casing

Hole Size: ___10 5/8"_____ Casing Size:__8 5/8"_____

Cemented with. __1000_____ sx. *or* _____ ft³

Top of Cement: _Surface_____ Method Determined: _Circulated__

Production Casing

Hole Size: __7 7/8"_____ Casing Size:___5 1/2"_____

Cemented with: __1570_____ sx. *or* _____ ft³

Top of Cement: _Surface_____ Method Determined: _Circulated__

Total Depth: __13725' MD_8644' TVD__

Injection Interval

9200' to 13680' (MD) (Perforated) 8644' to 8690' (TVD) (Perforated)

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: _2 3/8" or 2 7/8"L-80 tubing 4.7lbs/ft_____Lining Material: _None_____

Type of Packer: __5-1/2" FB-1 permanent packer for 5 ½" casing 14-17 lbs/ft._____

Packer Setting Depth: _7736'_____

Other Type of Tubing/Casing Seal (if applicable): _"R" Nipple 1.87", Seal bore extension_____

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: __2nd Bone Spring_____

3. Name of Field or Pool (if applicable): _Pierce Crossing Bone Spring, East_____

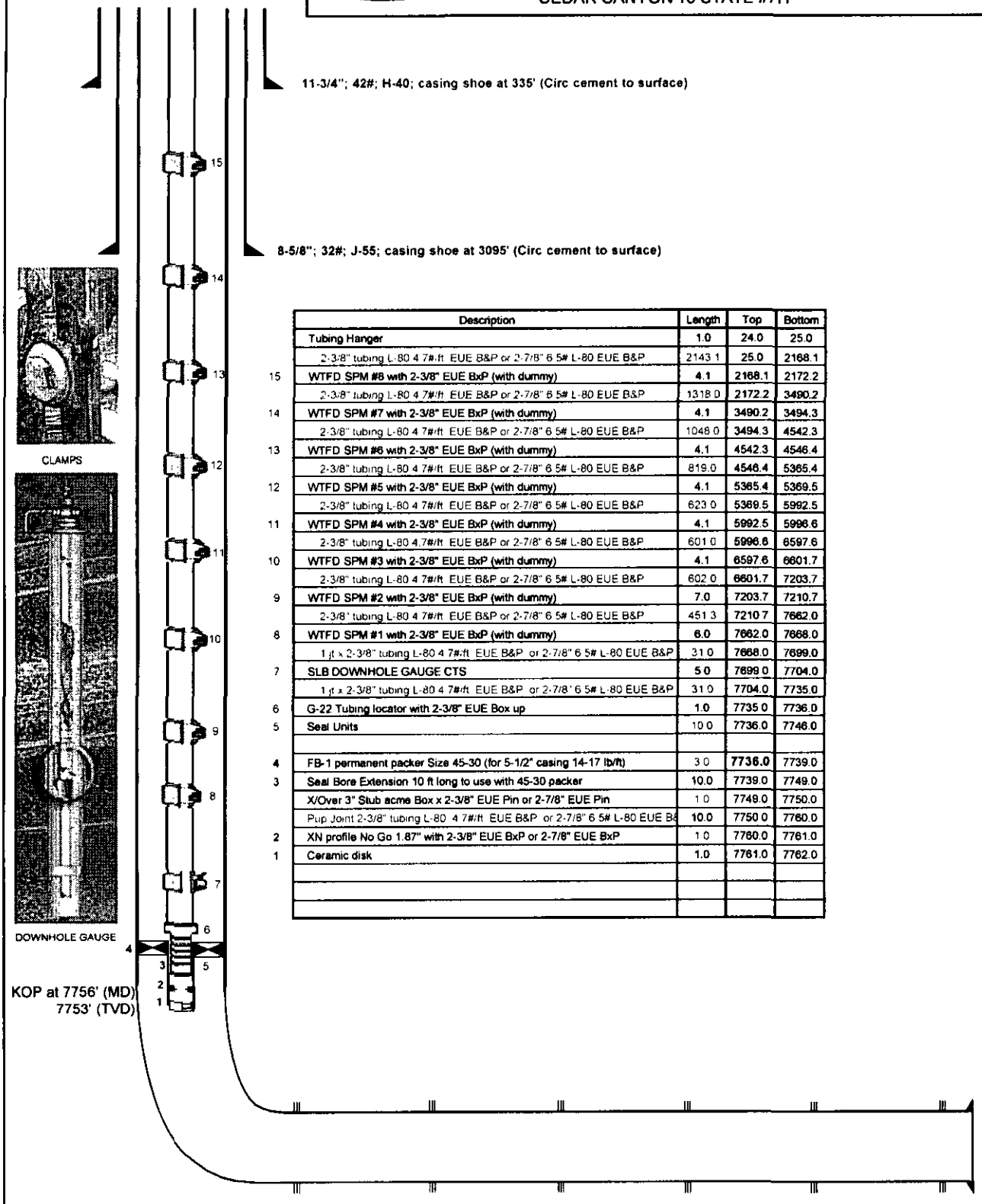
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. ___No_____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: __
   __Brushy Canyon Formation (Delaware) (overlying) (5000')_____

   __Wolfcamp Formation (underlying) (9925')_____

   _____

Proposed Wellbore Diagram
CEDAR CANYON 16 STATE #7H



	Description	Length	Top	Bottom
	Tubing Hanger	1.0	24.0	25.0
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	2143.1	25.0	2168.1
15	WTFD SPM #8 with 2-3/8" EUE BxP (with dummy)	4.1	2168.1	2172.2
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	1318.0	2172.2	3490.2
14	WTFD SPM #7 with 2-3/8" EUE BxP (with dummy)	4.1	3490.2	3494.3
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	1046.0	3494.3	4542.3
13	WTFD SPM #6 with 2-3/8" EUE BxP (with dummy)	4.1	4542.3	4546.4
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	819.0	4546.4	5365.4
12	WTFD SPM #5 with 2-3/8" EUE BxP (with dummy)	4.1	5365.4	5369.5
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	623.0	5369.5	5992.5
11	WTFD SPM #4 with 2-3/8" EUE BxP (with dummy)	4.1	5992.5	5996.6
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	601.0	5996.6	6597.6
10	WTFD SPM #3 with 2-3/8" EUE BxP (with dummy)	4.1	6597.6	6601.7
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	602.0	6601.7	7203.7
9	WTFD SPM #2 with 2-3/8" EUE BxP (with dummy)	7.0	7203.7	7210.7
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	451.3	7210.7	7662.0
8	WTFD SPM #1 with 2-3/8" EUE BxP (with dummy)	6.0	7662.0	7668.0
	1 jt x 2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	31.0	7668.0	7699.0
7	SLB DOWNHOLE GAUGE CTS	5.0	7699.0	7704.0
	1 jt x 2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	31.0	7704.0	7735.0
6	G-22 Tubing locator with 2-3/8" EUE Box up	1.0	7735.0	7736.0
5	Seal Units	10.0	7736.0	7746.0
4	FB-1 permanent packer Size 45-30 (for 5-1/2" casing 14-17 lb/ft)	3.0	7736.0	7739.0
3	Seal Bore Extension 10 ft long to use with 45-30 packer	10.0	7739.0	7749.0
	X/Over 3" Stub acme Box x 2-3/8" EUE Pin or 2-7/8" EUE Pin	1.0	7749.0	7750.0
	Pup Joint 2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&	10.0	7750.0	7760.0
2	XN profile No Go 1.87" with 2-3/8" EUE BxP or 2-7/8" EUE BxP	1.0	7760.0	7761.0
1	Ceramic disk	1.0	7761.0	7762.0

Side 1

INJECTION WELL DATA SHEET

OPERATOR: _OXY USA Inc. _____

WELL NAME & NUMBER: __Cedar Canyon 16 State 12H____(API: 30-015-42683)_____

WELL LOCATION: ___900 FSL 860 FWL_____M_____15_____24S_____29E__
FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

Please see attached.

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: ___14 3/4"_____ Casing Size:__11 3/4" _____

Cemented with: __680_____ sx. *or* _____ ft^3

Top of Cement: __Surface_____ Method Determined: _Circulated__

Intermediate Casing

Hole Size: ___10 5/8"_____ Casing Size:__8 5/8"_____

Cemented with. _____850_____ sx. *or* _____ ft^3

Top of Cement: _Surface_____ Method Determined: _Circulated__

Production Casing

Hole Size: __7 7/8"_____ Casing Size:___5 1/2"_____

Cemented with: __1570_____ sx. *or* _____ ft^3

Top of Cement: _600'_____ Method Determined: _Calc.___

Total Depth: _14417' MD_8624' TVD__

Injection Interval

9704' to 14214' (MD) (Perforated) *8635' to 8691' (TVD) (Perforated)*

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: _2 3/8" or 2 7/8" L-80 tubing 4.7 lbs/ft_____Lining Material: _None_____

Type of Packer: __FB-1 permanent packer for 5 ½" casing 14-17 lbs/ft._____

Packer Setting Depth: _8610'_____

Other Type of Tubing/Casing Seal (if applicable): _"R" nipple 1.87", Seal bore extension_____

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: __2nd Bone Spring_____

3. Name of Field or Pool (if applicable): _Corral Draw; Bone Spring

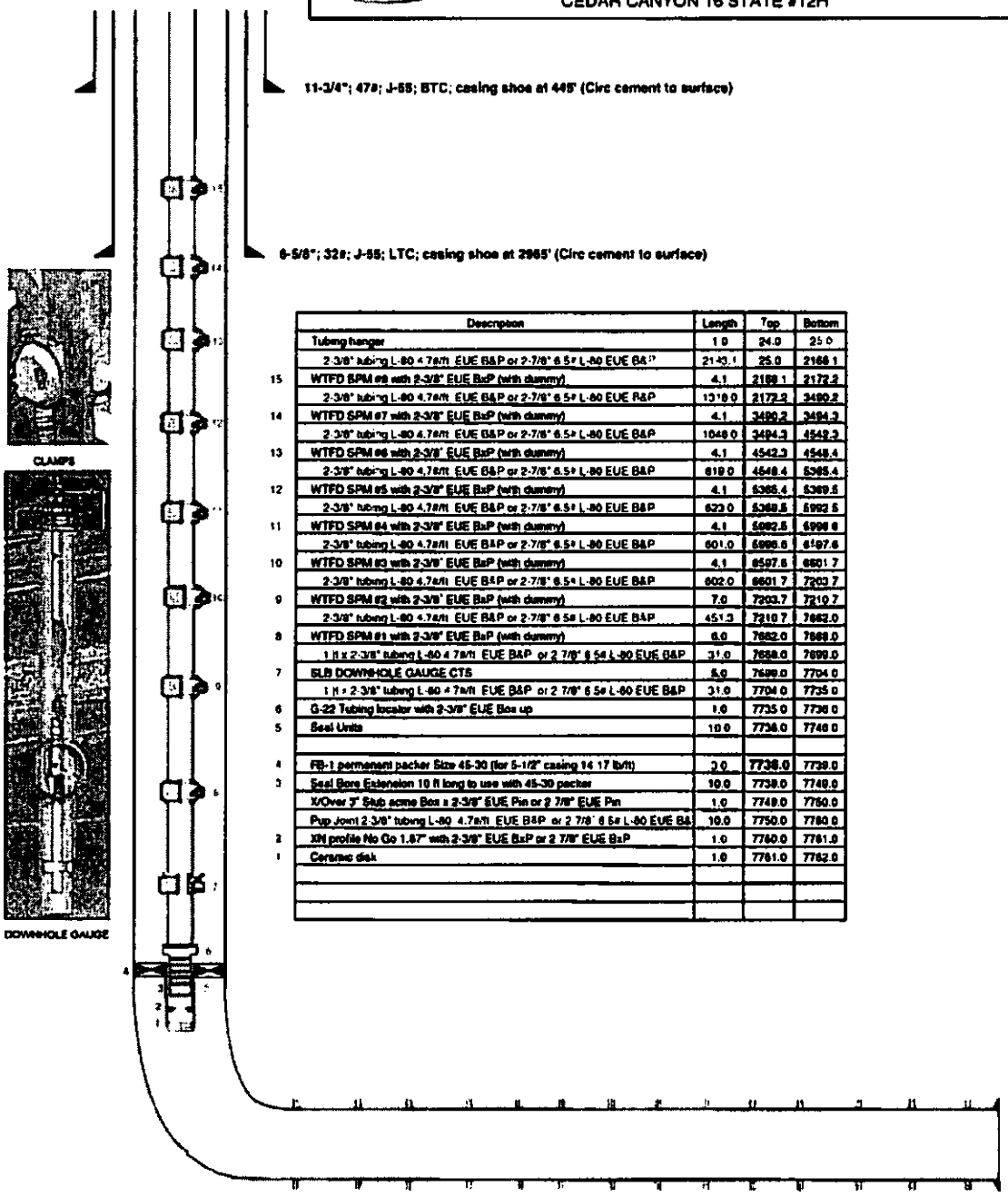
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. ___No_____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: __
   __Brushy Canyon Formation (Delaware) (overlying) (5030')_____

   __Wolfcamp Formation (Underlying) (9925')_____

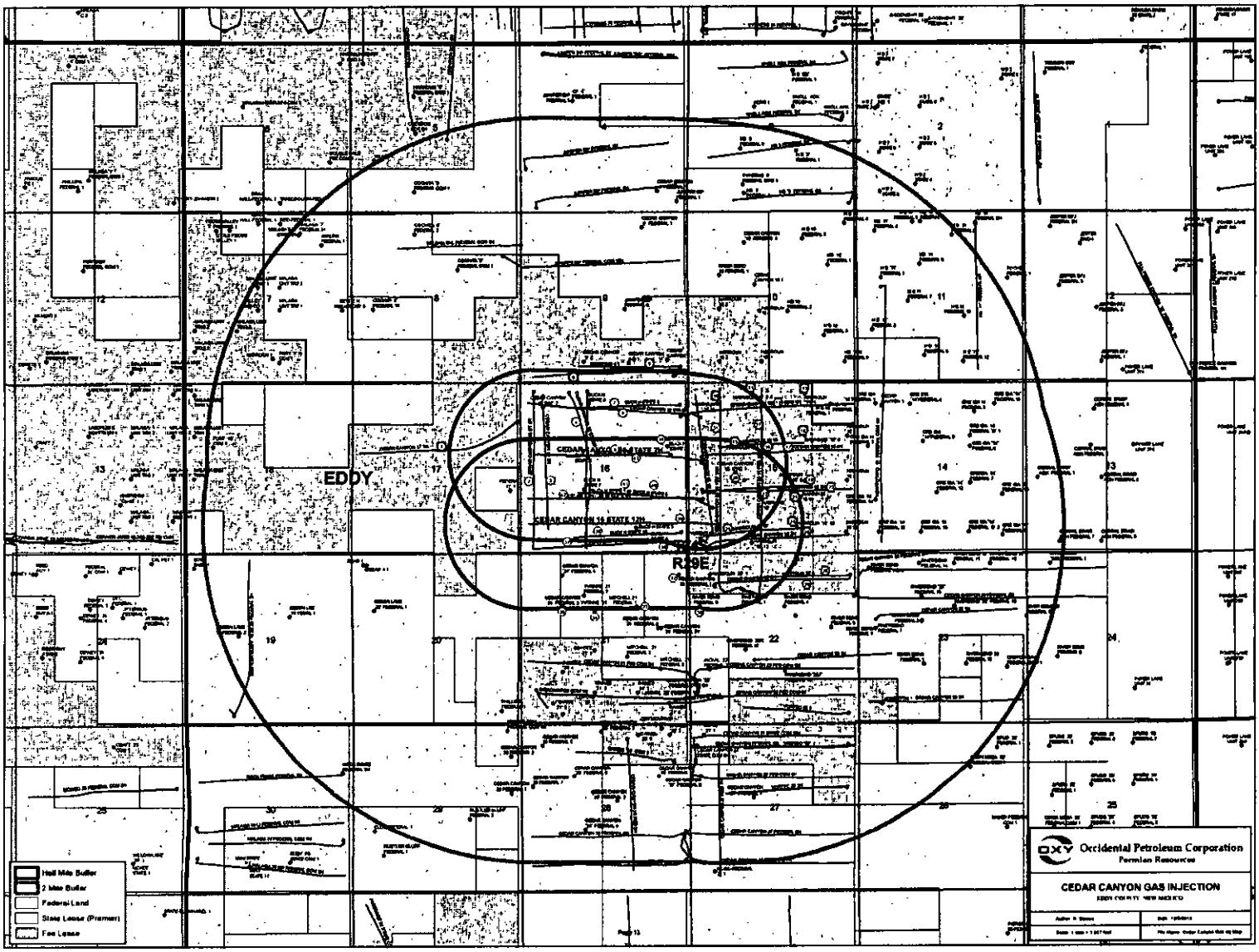
   _____

Proposed Wellbore Diagram
CEDAR CANYON 16 STATE #12H



	Description	Length	Top	Bottom
	Tubing hanger	1.0	24.0	25.0
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	2143.1	25.0	2168.1
15	WTFD SPM #8 with 2-3/8" EUE BxP (with dummy)	4.1	2168.1	2172.2
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	1318.0	2172.2	3490.2
14	WTFD SPM #7 with 2-3/8" EUE BxP (with dummy)	4.1	3490.2	3494.3
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	1046.0	3494.3	4540.3
13	WTFD SPM #6 with 2-3/8" EUE BxP (with dummy)	4.1	4540.3	4544.4
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	819.0	4544.4	5363.4
12	WTFD SPM #5 with 2-3/8" EUE BxP (with dummy)	4.1	5363.4	5369.5
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	623.0	5369.5	5992.5
11	WTFD SPM #4 with 2-3/8" EUE BxP (with dummy)	4.1	5992.5	5996.6
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	601.0	5996.6	6597.6
10	WTFD SPM #3 with 2-3/8" EUE BxP (with dummy)	4.1	6597.6	6601.7
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	602.0	6601.7	7203.7
9	WTFD SPM #2 with 2-3/8" EUE BxP (with dummy)	7.0	7203.7	7210.7
	2-3/8" tubing L-80 4.7#/ft EUE B&P or 2-7/8" 6.5# L-80 EUE B&P	451.3	7210.7	7662.0
8	WTFD SPM #1 with 2-3/8" EUE BxP (with dummy)	6.0	7662.0	7668.0
	1 jt x 2-3/8" tubing L-80 4.7#/ft EUE B&P or 2 7/8" 6.5# L-80 EUE B&P	31.0	7668.0	7699.0
7	SLB DOWNHOLE GAUGE CTS	5.0	7699.0	7704.0
	1 jt x 2-3/8" tubing L-80 4.7#/ft EUE B&P or 2 7/8" 6.5# L-80 EUE B&P	31.0	7704.0	7735.0
6	G-22 Tubing locator with 2-3/8" EUE Box up	1.0	7735.0	7736.0
5	Seal Units	10.0	7736.0	7746.0
4	FB-1 permanent packer Size 45-30 (for 5-1/2" casing 14-17 lb/ft)	2.0	7736.0	7738.0
3	Seal Bore Extension 10 ft long to use with 45-30 packer	10.0	7738.0	7748.0
	X/Over 3" Stub acme Box x 2-3/8" EUE Pin or 2 7/8" EUE Pin	1.0	7748.0	7750.0
	Pup Joint 2 3/8" tubing L-80 4.7#/ft EUE B&P or 2 7/8" 6.5# L-80 EUE B&	10.0	7750.0	7760.0
2	XN profile No Go 1.87" with 2-3/8" EUE BxP or 2 7/8" EUE BxP	1.0	7760.0	7761.0
1	Ceramic disk	1.0	7761.0	7762.0

ITEM V
Map


EDDY
R29E
Half Mile Buffer
2 Mile Buffer
Federal Land
State Lease (Pramari)
Fee Lease
Occidental Petroleum Corporation
Permian Resources
CEDAR CANYON GAS INJECTION

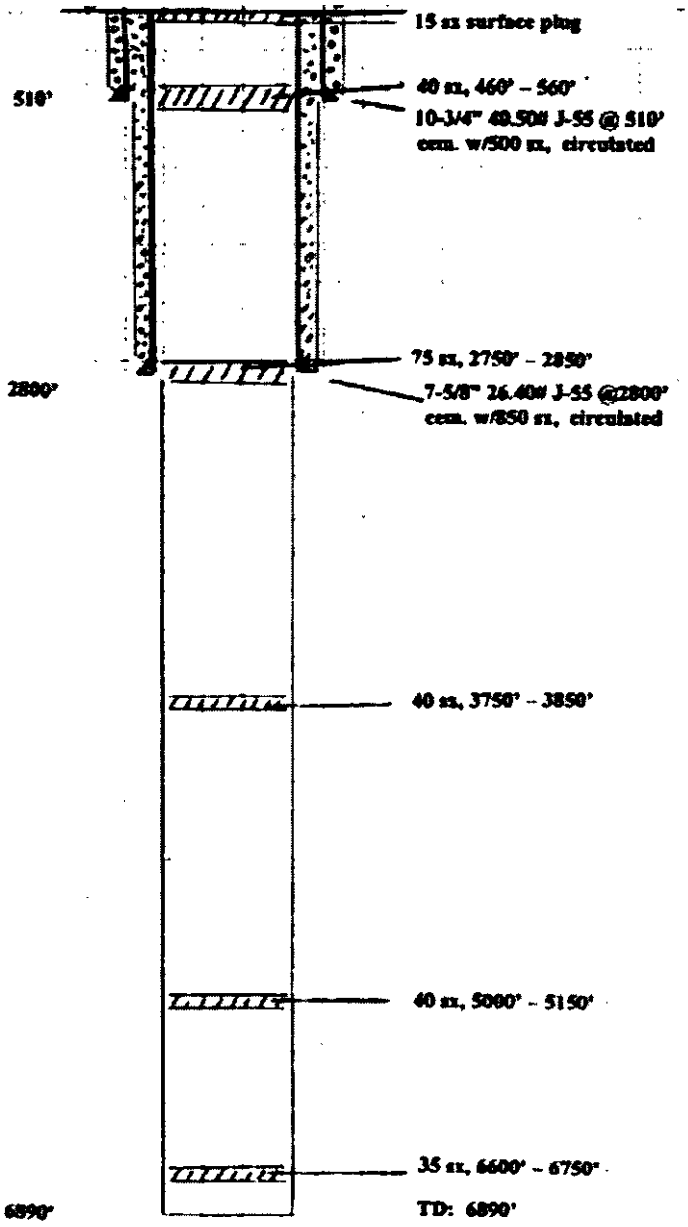
ITEM VI
Area of Review

MAP LEGEND NUMBER	API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG N/S		FTG E/W		UNIT	SEC	TSHIP	RNG	DATE DRILLED	TOTAL TVD	TOTAL MD	HOLE SIZE	CSG SIZE	SET AT	SX CMT	CMT TOP	MTD	DVT	CURRENT COMPLETION	REMARKS
1	30-015-42058	OXY USA INC	CEDAR CANYON 17	1H	P	Active	1981	FNL	174	FWL	A	17	24 S	29 E	2014-05-08	8535'	13370'	14 3/4"	11 3/4"	365'	530	Surface	Circ		9195'-13220'	
																		10 5/8"	8 5/8"	2925'	840	Surface	Circ			
																		7 7/8"	5 1/2"	13370'	1420	Surface	Circ			
2	30-015-42061	OXY USA INC	CEDAR CANYON 16 State	5H	P	Active	224	FNL	350	FWL	D	16	24 S	29 E	2015-07-11	9828'	14485'	11"	8 5/8"	459'	280	Surface	Circ		10083'-14262'	
																			5 1/2" x							
																		6 3/4"	4 1/2"	14401'	1780	2650'	CBL			
3	30-015 39856	OXY USA INC	CEDAR CANYON 16	1H	P	Active	380	FNL	660	FWL	D	16	24 S	29 E	2012-06-12	7685'	11502'	17 1/2"	13 3/8"	385'	430	Surface	Circ		8620'-11201'	
																		12 1/4"	9 5/8"	2875'	1130	Surface	Circ			
																		8 3/4"	5 1/2"	11502'	1840	2400'	Calc			
4	30-015-42055	OXY USA INC	CEDAR CANYON 16 State	10H	P	Active	260	FNL	1470	FWL	C	16	24 S	29 E	2014-05-10	9856'	14477'	14 3/4"	11 3/4"	405'	745	Surface	Circ		10262'-14101'	
																		10 5/8"	8 5/8"	3110'	830	Surface	Circ			4 1/2" Liner 0-9120', 4" Liner 9121'-14168
																		7 7/8"	5 1/2"	14477'	1520	Surface	Circ			210 sx, TOC 5037' calc
5	30-015-34444	OXY USA INC	H Buck State	4H	P	Active	2310	FNL	330	FEL	H	16	24 S	29 E	2005-11-29	10686'	10686'	17 1/2"	13 3/8"	254'	350	Surface	Circ		7879'-10326'	
																		12 1/4"	9 5/8"	2830'	900	Surface	Circ			
																		8 1/2" x 7								
																		7/8"	5 1/2"	10686'	2050	1920'	CBL			
6	30-015-41488	OXY USA INC	Harroun 9	3H	P	Active	200	FSL	550	FEL	P	9	24 S	29 E	2013-10-29	8645'	13196'	14 3/4"	11 3/4"	567'	620	Surface	Circ		9262'-13013'	
																		10 5/8"	8 5/8"	3000'	910	Surface	Circ			
																		7 7/8"	5 1/2"	13187'	1430	Surface	Circ			
7	30-015-33820	OXY USA INC	H Buck State	3	P	Active	660	FNL	330	FEL	A	16	24 S	29 E	2005-04-15	10750'	10750'	17 1/2"	13 3/8"	337'	350	Surface	Circ		7971'-10667'	
																		12 1/4"	9 5/8"	2870'	1050	Surface	Circ			
																		8 1/2"	5 1/2"	10750'	2050	Surface	Circ			
8	30-015-41596	OXY USA INC	CEDAR CANYON 16 State	8H	P	Active	1040	FNL	330	FEL	A	16	24 S	29 E	2014-06-29	8618'	13560'	14 3/4"	11 3/4"	364'	599	Surface	Circ		9017'-13407'	
																		10 5/8"	8 5/8"	3118'	890	Surface	Circ			
																		7 7/8"	5 1/2"	13544'	1350	Surface	Circ			
9	30-015-34997	OXY USA INC	Harroun 9	1	P	Active	530	FSL	330	FEL	P	9	24 S	29 E	2006-06-05	10680'	10680'	17 1/2"	13 3/8"	550'	425	Surface	Circ		7860'-10580'	
																		12 1/4"	9 5/8"	2875'	950	Surface	Circ			
																		8 1/2" x 7								
																		7/8"	5 1/2"	10680'	2100	1550	CBL			
10	30-015-32620	OXY USA INC	Harroun 15	14	P	Active	660	FNL	750	FWL	D	15	24 S	29 E	2003-02-14	8000'	8000'	17 1/2"	13 3/8"	577'	670	Surface	Circ		7730'-7762'	
																		11"	8 5/8"	2878'	950	Surface	Circ			
																		7 7/8"	5 1/2"	8000'	1615	1300'	CBL			
11	30-015-29987	OXY USA INC	Harroun 15	7	P	Active	330	FNL	1980	FWL	C	15	24 S	29 E	1998-02-19	6900'	6900'	14 3/4"	10 3/4"	513'	500	Surface	Circ		4909'-6348'	
																		9 5/8"	7 5/8"	2850'	950	Surface	Circ			
																		6 3/4"	4 1/2"	6900'	930	1650'	CBL	5416		
12	30-015-42421	OXY USA INC	Cedar Canyon 15 Fed Com	5H	P	Active	1095	FNL	290	FWL	D	15	24 S	29 E	2014-10-14	8809'	13508'	14 3/4"	11 3/4"	380'	796	Surface	Circ		9563'-13319'	
																		10 5/8"	8 5/8"	2937'	930	Surface	Circ			
																		7 7/8"	5 1/2"	13508'	1120	Surface	Circ			
13	30-015-29310	OXY USA INC	Harroun 15	5	P	Active	330	FNL	1650	FEL	B	15	24 S	29 E	1997-03-05	8050	8050'	14 3/4"	10 3/4"	565'	550	Surface	Circ		6448'-6524	
																		9 5/8"	7 5/8"	2873'	900	Surface	Circ			
																		6 3/4"	4 1/2"	8050'	1365	1500'	Calc	4308', 6101'		
14	30-015-28138	OXY USA INC	H Buck State	2	P	Active	1980	FNL	660	FEL	H	16	24 S	29 E	1994-11-09	7950'	7950'	17 1/2"	13 3/8"	535'	1400	Surface	Circ		5216'-5246'	
																		11"	8 5/8"	2805'	1200	Surface	Circ			
																		7 7/8"	5 1/2"	7950'	1325	2440'	Calc	4665', 6372		
15	30-015-33317	OXY USA INC	Harroun 15	15	P	Active	1980	FNL	990	FWL	E	15	24 S	29 E	2004-08-12	10192'	10192'	17 1/2"	13 3/8"	545'	800	Surface	Circ		8249'-10100'	
																		12 1/4"	9 5/8"	2865'	800	Surface	Circ.			
																		8 1/2" x 7								
																		7/8"	5 1/2"	10192'	890	4000'	Calc			
16	30-015-30253	OXY USA INC	Harroun 15	8	P	Active	1980	FNL	2310	FWL	F	15	24 S	29 E	1998-11-07	6885'	6885'	14 3/4"	10 3/4"	535'	500	Surface	Circ.		6620'-6688'	
																		9 7/8"	7 5/8"	2880'	950	Surface	Circ			
																		6 3/4"	4 1/2"	6885'	1105	3100'	CBL	5485		
17	30-015-41291	OXY USA INC	Cedar Canyon 15	4H	P	Active	2310	FNL	330	FWL	E	15	24 S	29 E	2013-05-13	8786'	13111'	14 3/4"	11 3/4"	357'	950	Surface	Circ.		9000'-12900	
																		10 5/8"	8 5/8"	3091'	960	240'	Calc			
																		7 7/8"	5 1/2"	13106'	1420	2930'	CBL			

MAP LEGEND NUMBER	API NUMBER	OPERATOR	LEASE NAME	WELL NO	WELL TYPE	STATUS	FTG N/S		FTG E/W		UNIT	SEC	TSHP	RNG	DATE DRILLED	TOTAL TVD	TOTAL MD	HOLE SIZE	CSG SIZE	SET AT	SX CMT	CMT TOP	MTD	DVT	CURRENT COMPLETION	REMARKS
18	30-015-30614	OXY USA INC	Harroun 15	6	P	Active	1650	FNL	1650	FEL	G	15	24 S	29 E	1999-04-06	6890'	6890'	14 3/4"	10 3/4"	539'	486	Surface	Circ		5252'-6303'	
																		9 7/8"	7 5/8"	2883'	1050	Surface	Circ			
																		6 3/4"	4 1/2"	6890	1195	3242'	CBL	5406'		
19	30-015-30713	OXY USA INC	Harroun 15	9	P	Active	2260	FSL	1650	FEL	J	15	24 S	29 E	1999-08-28	6890'	6890'	14 3/4"	10 3/4"	548'	540	Surface	Circ		5480'-6652'	
																		9 7/8"	7 5/8"	2892	900	Surface	Circ			
																		6 3/4"	4 1/2"	6890'	1070	2000'	CBL	5585'		
20	30-015-42797	OXY USA INC	Cedar Canyon 15 SWD	1	I	Active	2500	FSL	1400	FWL	K	15	24 S	29 E	2015-01-14	16014'	16014	24"	18 5/8"	277'	900	Surface	Circ		14842'-15964'	7" Liner 9755'-14842', cmt w/ 630 sx circ-to
																		17.5"	13 3/8"	3107'	2720	Surface	Circ			
																		12.25"	9 5/8"	10155'	3450	Surface	Circ.	3177'		
21	30-015-33823	OXY USA INC	Harroun 15	16	P	Active	1980	FSL	330	FWL	L	15	24 S	29 E	2005-02-25	10800'	10800'	17 1/2"	13 3/8"	514'	900	surface	Circ		8053'-10750'	Cmt 1 stage, CBL TOC @ 4420', perf & squ €
																		12 1/4"	9 5/8"	2870'	1100	Surface	Circ			
																		8 1/2" x 7 7/8"	5 1/2"	10800'	2340	1091'	Calc			
22	30-015-30934	OXY USA INC	Harroun 15	10	P	Active	1700	FSL	2310	FWL	K	15	24 S	29 E	2000-01-26	6880'	6880'	14 3/4"	10 3/4"	593'	540	Surface	Circ.		5252'-6477	
																		9 7/8"	7 5/8"	2875'	900	Surface	Circ.			
																		6 3/4"	4 1/2"	6880'	1115	2300'	CBL	5497		
23	30-015-41594	OXY USA INC	Cedar Canyon 15	3H	P	Active	1888	FSL	700	FWL	L	15	24 S	29 E	2014-06-14	8810'	13180'	14 3/4"	11 3/4"	390'	550	Surface	Circ.		9152'-13041'	
																		10 5/8"	8 5/8"	3125'	890	Surface	Circ.			
																		7 7/8"	5 1/2"	13177'	1300	478'	CBL			
24	30-015-30951	OXY USA INC	Harroun 15	11	P	Active	800	FSL	1900	FEL	O	15	24 S	29 E	2000-08-04	6890'	6890'	14 3/4"	10 3/4"	563'	545	Surface	Circ.		5246'-5264	
																		9 7/8"	7 5/8"	2930'	800	Surface	Circ.			
																		6 3/4"	4 1/2"	6890'	1115	3234'	CBL	5520'		
25	30-015-33822	OXY USA INC	Harroun 15	17	P	Active	660	FSL	330	FWL	M	15	24 S	29 E	2006-07-09	10887'	10887'	17 1/2"	13 3/8"	315'	580	Surface	Circ.		8405'-10740	
																		12 1/4"	9 5/8"	2880'	1000	Surface	Circ.			
																		8 1/2"	5 1/2"	10887'	2005	3940'	CBL			
26	30-015-41032	OXY USA INC	Cedar Canyon 15	7H	P	Active	170	FSL	360	FWL	M	15	24 S	29 E	2013-02-23	8795'	12960'	14 3/4"	11 3/4"	334'	280	Surface	Circ.		8900'-12800'	
																		10 5/8"	8 5/8"	3103'	840	Surface	Circ.			
																		7 7/8"	5 1/2"	12960'	1450	2960'	CBL			
27	30-015-43808	OXY USA INC	Cedar Canyon 22-15 Fee	32H	P	Active	1108	FNL	1633	FWL	C	22	24 S	29 E	2016-07-16	9926'	16075'	14 3/4"	10 3/4"	442'	470	Surface	Circ.		9994'-15862	
																		9 5/8"	7 5/8"	9277'	3130	Surface	Circ.			
																		6 3/4"	5 1/2" x 4 1/2"	16053'	470	5970'	CBL			
28	30-015-33821	OXY USA INC	Harroun 22	3	P	Active	660	FNL	330	FEL	A	22	24 S	29 E	2006-01-19	6750'	10864'	17 1/2"	13 3/8"	506'	450	Surface	Circ.		7863'-10720'	
																		12 1/4"	9 5/8"	2914'	1100	Surface	Circ.			
																		8 1/2" x 7 7/8"	5 1/2"	10819'	2150	4670'	CBL			
29	30-015-41327	OXY USA INC	Cedar Canyon 22	2H	P	Active	990	FNL	690	FWL	D	22	24 S	29 E	2013-06-08	8813'	12685'	14 3/4"	11 3/4"	389'	415	Surface	Circ.		8920'-12520'	
																		10 5/8"	8 5/8"	3105'	960	Surface	Circ.			
																		7 7/8"	5 1/2"	12678'	1400	2995'	CBL			
30	30-015-16696	OXY USA INC	Riverbend Federal	9	P	Active	1650	FNL	330	FWL	E	22	24 S	29 E	1996-03-25	7900'	7900'	14 3/4"	10 3/4"	530'	510	Surface	Circ.		5225'-5262'	
																		9 5/8"	7 5/8"	2850'	750	Surface	Circ.			
																		6 3/4"	4 1/2"	7900'	1095	1800	Calc.	3994', 5974'		
31	30-015-43809	OXY USA INC	Cedar Canyon 22-15 Fee	31H	P	Active	1108	FNL	1603	FWL	C	22	24 S	29 E	2016-07-16	9906'	16050'	14 3/4"	10 3/4"	443'	470	Surface	Circ.		10004'-15872'	
																		9 7/8"	7 5/8"	9188'	1915	Surface	Circ.	2992'		
																		6 3/4"	5 1/2"	16031'	470	8690'	CBL			
32	30-015-28654	OXY USA INC	Cedar Canyon 21 Federal	1	P	Active	660	FNL	330	FEL	A	21	24 S	29 E	1995-02-21	6766'	6766'	11"	8 5/8"	580'	450	Surface	Circ.		5212'-5242'	
																		7 7/8"	4 1/2"	6766'	1790	Surface	Circ.	3491', 5446'		
33	30-015-28559	OXY USA INC	Mitchell 21 Federal	1	P	Active	1650	FNL	1650	FEL	G	21	24 S	29 E	1995-08-15	8900'	8900'	17 1/2"	13 3/8"	580'	650	Surface	Circ.		4886'-4908	
																		11"	8 5/8"	2840'	1300	Surface	Circ.			
																		7 7/8"	5 1/2"	8900'	1705	700'	Calc.	4585', 6685'		
34	30-015-28850	OXY USA INC	Yvonne 21 Federal	1	P	Active	1800	FNL	2310	FWL	F	21	24 S	29 E	1996-05-31	7820'	7820'	14 3/4"	10 3/4"	500'	520	Surface	Circ.		6480'-6538'	
																		9 5/8"	7 5/8"	2823'	830	Surface	Circ.			
																		6 3/4"	4 1/2"	7820'	1050	Surface	Circ.	4006', 5987'		

MAP LEGEND NUMBER	API NUMBER	OPERATOR	LEASE NAME	WELL NO	WELL TYPE	STATUS	FTG N/S		FTG E/W		UNIT	SEC	TSHIP	RNG	DATE DRILLED	TOTAL TVD	TOTAL MD	HOLE SIZE	CSG SIZE	SET AT	SX CMT	CMT TOP	MTD	DVT	CURRENT COMPLETION	REMARKS
35	30-015-29676	POGO PRODUCING CO	Cedar Canyon 21 Federal	3	I	P&A	1650	FNL	1300	FWL	E	21	24 S	29 E	1997-06-18	6890'	6890'	14 3/4"	10 3/4"	510	500	Surface	Circ		None	Plugged 07/02/1997, no prod casing
																		9 7/8"	7 5/8"	2800'	850	Surface	Circ			
																		6 3/4"								
36	30-015-28636	OXY USA INC	H Buck State	6	P	Active	330	FSL	660	FEL	P	16	24 S	29 E	1995-12-26	7815'	7815'	14 3/4"	10 3/4"	529	510	Surface	Circ.		6388'-6501'	
																		9 5/8"	7 5/8"	2825'	750	Surface	Circ.			
																		6 3/4"	4 1/2"	7815'	1055	1490'	Calc.	4018', 6038'		
37	30-015-41024	OXY USA INC	Cedar Canyon 16 State	2H	P	Active	230	FSL	330	FEL	P	16	24 S	29 E	2013-02-12	8575'	13240'	16"	13 3/8"	356'	625	Surface	Circ.		8860'-13000	
																		12 1/4"	9 5/8"	2977'	1260	Surface	Circ			
																		8 3/4"	5 1/2"	13240'	2210	5030'	CBL			
38	30-015-34695	OXY USA INC	H Buck State	10	P	Active	660	FSL	330	FEL	P	16	24 S	29 E	2006-03-18	10865'	10865'	17 1/2"	13 3/8"	288	1030	Surface	Circ		8396'-10710'	
																		12 1/4"	9 5/8"	2910'	1300	Surface	Circ			
																		8 1/2"	5 1/2"	10865'	2150	4870'	CBL			
39	30-015-42683	OXY USA INC	Cedar Canyon 16 State	12H	P	Active	900	FSL	860	FWL	M	15	24 S	29 E	2016-11-07	8624'	14422'	14 3/4"	11 3/4"	445'	680	Surface	Circ		9704'-14214'	
																		10 5/8"	8 5/8"	2965'	850	Surface	Circ			
																		7 7/8"	5 1/2"	14417'	1570	600'	Calc.			
40	30-015-35042	OXY USA INC	H Buck State	5	P	Active	1680	FSL	430	FWL	L	15	24 S	29 E	2006-09-30	7630'	10792	17 1/2"	13 3/8"	522'	450	Surface	Circ		8244'-10600	
																		12 1/4"	9 5/8"	2884'	900	Surface	Circ			
																		8 1/2" x 7 7/8"	5 1/2"	10792	450	2700'	CBL			
41	30-015-27092	OXY USA INC	H Buck State	1	P	Active	1982	FSL	1961	FEL	J	16	24 S	29 E	1992-09-26	7850'	7850'	12 1/4"	8 5/8"	660'	425	Surface	Circ		5122'-7690'	SQZ @ 7610 & 7220 in 1994
																		7 7/8"	5 1/2"	7850'	2312	2800'	Calc.	3972', 6179'		
42	30-015-41595	OXY USA INC	Cedar Canyon 16 State	6H	P	Active	1430	FSL	710	FWL	L	15	24 S	29 E	2014-06-10	8620'	13788	14 3/4"	11 3/4"	364'	550	Surface	Circ.		9115'-13625'	
																		10 5/8"	8 5/8"	3144'	890	Surface	Circ			
																		7 7/8"	5 1/2"	13786	1410	Surface	Circ			
43	30-015-41251	OXY USA INC	Cedar Canyon 16 State	7H	P	Active	2485	FNL	330	FWL	E	15	24 S	29 E	2013-04-15	8644'	13762'	14 3/4"	11 3/4"	335'	680	Surface	Circ		9200'-13560'	
																		10 5/8"	8 5/8"	3095'	1000	Surface	Circ			
																		7 7/8"	5 1/2"	13725'	1570	Surface	Circ.			

Cedar Canyon 21 Federal 3 Wellbore Schematic (P&A)



ITEM VII
Proposed Operations

Pilot Description

Injection into the Cedar Canyon 16 State 7H will start once the compressor is built and installed and the injection order is approved. Initially, Oxy will inject for 1-3 months before flowing the well back up the tubing for approximately one month. This will represent one huff and puff trial to understand the potential incremental recovery of that process as well as the full EOR potential of miscible gas injection. After the initial production cycle we plan to convert the Cedar Canyon 16 State 7H back to continuous injection to understand the line drive offset response in the Cedar Canyon 16 State 6H and Cedar Canyon 16 State 8H. Pending results from the initial pilot into the Cedar Canyon 16 State 7H Oxy will start injection into the Cedar Canyon 16 State 12H.

Additionally, Oxy requests permission to utilize produced water for injection. The water will be used for pressure maintenance in conjunction with the produced gas injection. The water will be used to help mitigate early offset breakthrough at low injection pressures.

Item VII
Proposed Operations

Gas Injection

1.

Well Name	Average Daily Rate of Gas to be Injected	Maximum Daily Rate of Gas to be Injected
Cedar Canyon 16 State 7H	7000 MCFD	15,000 MCFD
Cedar Canyon 16 State 12H	7000 MCFD	15,000 MCFD

2. This will be a closed system
3.

Well Name	Average Injection Pressure	Maximum Injection Pressure
Cedar Canyon 16 State 7H	4000 psi	4500 psi
Cedar Canyon 16 State 12H	4000 psi	4500 psi

4. The source of the injected gas will be produced gas from the Cedar Canyon Central Delivery Point integration system which is comprised of nearby Delaware, 1st and 2nd Bone Spring wells. Please see the attached gas analysis.
5. N/A

Water Injection

1.

Well Name	Average Daily Rate of Water to be Injected	Maximum Daily Rate of Water to be Injected
Cedar Canyon 16 State 7H	1. 5000 BWIPD	2. 10,000 BWIPD
Cedar Canyon 16 State 12H	3. 5000 BWIPD	4. 10,000 BWIPD

2. This will be a closed system

3.

Well Name	Average Injection Pressure	Maximum Injection Pressure
Cedar Canyon 16 State 7H	1500 psi	1700 psi
Cedar Canyon 16 State 12H	1500 psi	1700 psi

4. Water used for injection will be treated produced water from wells drilled in the Bone Springs and Delaware Formations. Please see the attached analysis from the Cedar Canyon #9014 well.
5. N/A

Cedar Canyon 16 State 7H and Cedar Canyon 16 State 12H Wellhead Injection Pressure with Natural Gas

Oxy will inject produced gas into the Cedar Canyon 16 State 7H and Cedar Canyon 16 State 12H into the Second Bone Spring reservoir as a part of the miscible gas injection pilot. The composition of injection gas stream is shown in Table 1.

Component	Mol %
Methane	76.3148
Nitrogen	1.8953
Carbon Dioxide	0.2239
Ethane	11.8589
Propane	5.7914
Iso Butane	0.7374
Butane	1.7502
Iso Pentane	0.395
Pentane	0.411
Hexane	0.6221

Table 1 – Gas Injection Stream Molecular Composition

The maximum total volume of gas to be injected is 7MMSCFPD. Pressure reduction valves will be incorporated to assure that maximum surface injection pressure permitted by NMOCD will not be exceeded.

DFIT

A DFIT (diagnostic fracture injection test) is an injection test designed to understand fracture creation and propagation and pressure transience in low porosity and permeability reservoirs. DFITs are similar to a step rate injection test, however, the DFIT utilizes a smaller volume of injected fluid. Conventional reservoirs exhibit higher permeability and porosity compared to an unconventional reservoir like the 2nd Bone Spring Sand of the Cedar Canyon 16 State 7H and 12H and typically require injecting more fluid through a step rate test to reach fracture pressure. In a DFIT a small volume of water is injected through perforations at the toe of a lateral and the pressure buildup and profile is monitored using surface wellhead pressure. The low permeability and porosity of the 2nd Bone Spring sand means that a small volume of water can be injected to create, propagate, and observe a fractures behavior with a DFIT.

Calculation of Surface Injection Pressure

The following paragraphs describe the calculations used to determine the maximum surface injection pressure of 4500 psi. This pressure is based on limiting the maximum bottom hole injection pressure below the pressure required to fracture the reservoir. The TVD for the two injection wells is 8644'. Step Rate analysis using DFIT methodology from the Cedar Canyon 2nd Bone Springs wells yields a frac gradient of 0.66 psi/ft. This is based on the injection period of the DFIT process and where the pressure breaks over from a linear trend and indicates that additional rate is fracturing the reservoir. The maximum injection BHP is shown at the break-over point to be 5700 psi (Figure1). Based on a TVD of 8644' for the Cedar Canyon 2nd Bone Spring this equates to a 0.66 psi/ft. fracture gradient.

Fracture Gradient = Break-over Pressure / TVD = 5700 psi / 8644' TVD = 0.66 psi/ ft.

Maximum Injection Bottom Hole Pressure = FG x TVD = 0.66 psi/ft. x 8644 ft. TVD = 5700 psi

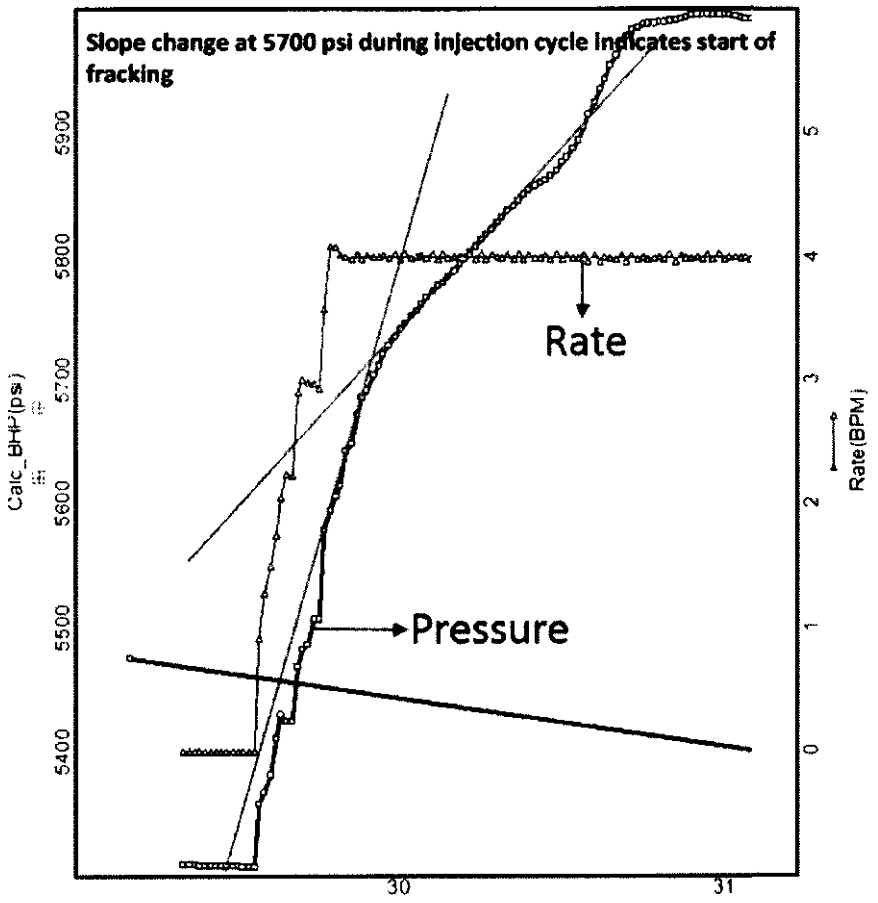


Figure 1 – Cedar Canyon 2nd Bone Spring DFIT Chart Pressure BHP vs. Injection Time (minutes)

The **maximum surface injection pressure** is then calculated as follows:

Surface Injection Pressure = Max BHP – D_p (gravity) + D_p (friction) = 5700 psi - D_p (gravity) + D_p (friction)

D_p (gravity) = Gas Density x g x TVD: Gravity head of gas column in wellbore

D_p (friction) = Friction pressure loss in injection tubing

Estimation of Gravity Head

The density of injection gas is dependent on the pressure and temperature conditions. It is most accurately calculated using Peng-Robinson Equation of State (PR EoS) model. As both pressure and temperature vary along the wellbore, density of gas varies along the wellbore. To accurately calculate this variation along the wellbore, Petroleum Experts PROSPER software package is used. This is a standard industry package used for production engineering calculations in the wellbore. PROSPER uses the following input parameter to calculate gas density and friction pressure along the wellbore:

- Fluid Type: Gas
- PVT Methodology: Peng Robinson Equation of State
    - Gas composition as described in Table 1.
- Viscosity Calculations: Newtonian Fluid for Gas
- Wellbore model with injection tubing ID of 2.441" ID with average roughness for steel
- Injection rate: 7000 MCFD

Friction pressure loss is determined using maximum gas injection rate of 7000 MSCFPD. The injection tubing is 2.875" O.D. (2.441" ID) with an average roughness factor. PROSPER then performs friction pressure drop calculation using the above input parameters.

PROSPER uses the Peng Robinson EOS to calculate the gas gravity along the wellbore and then calculates **D_p (gravity)** as a result of the column of gas in the well. Additionally, PROSPER includes the friction pressure **D_p (friction)** for the 7000 MCFD injection rate. Limiting the model to a maximum 5700 psi BHP injection pressure yields the following pressure profile as shown in Figure 3.

For the given injection gas, injection tubing configuration, injection rate and injection depth, injecting at a **maximum surface pressure of 4500 psi** will generate a maximum limiting BHP of 5700 psi. This is the maximum estimated surface injection pressure.

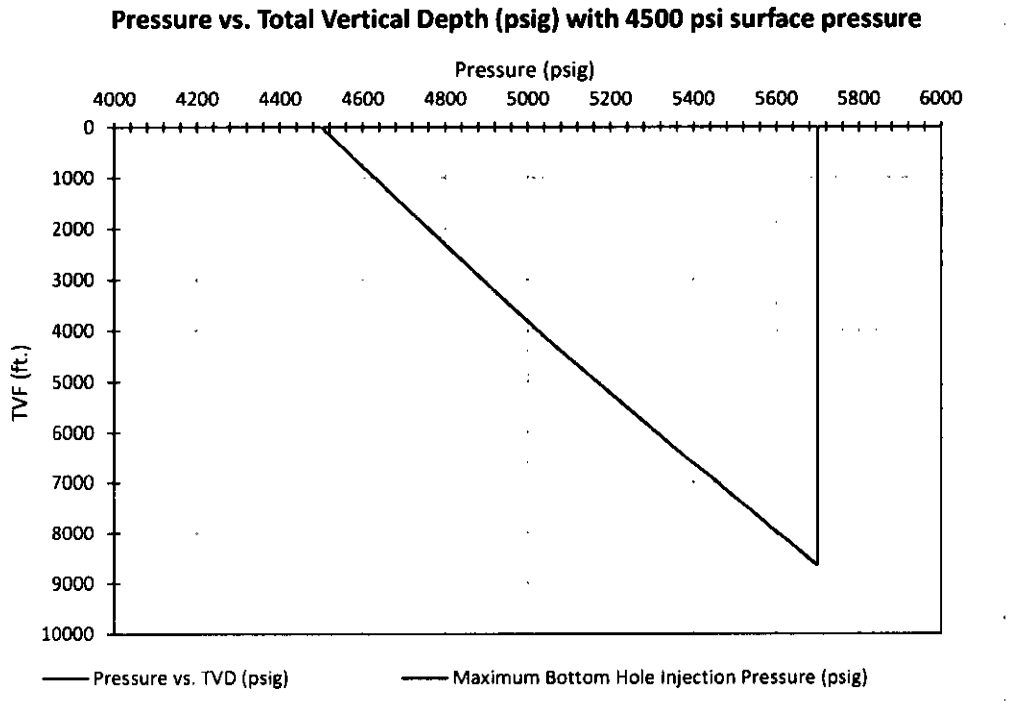


Figure 3: Pressure vs. TVD with 4500 psi surface injection pressure

2nd Bone Spring Native Gas Analysis

Atchafalaya/Wildcat Measurement, Inc.
P.O.Box 1836
416 East Main Street
Artesia, NM 88211-1836

11/29/2016 4:46 PM
Phone: 575-746-3481
888-421-9453
Fax: 575-748-9852
dnorman@ami.email

GAS ANALYSIS REPORT

Analysis For: OXY USA, INC.
Field Name: CEDAR CANYON
Well Name: CEDAR CANYON "21" #5
Station Number:
Purpose: SPOT
Sample Deg. F: 60.0
Volume/Day:
Formation:
Line PSIG: 188.7
Line PSIA: 201.9

Run No: 2161129-06
Date Run: 11/29/2016
Date Sampled: 11/28/2016
Producer: OXY USA, INC.
County: EDDY
State: NM
Sampled By: JOHN BRITT
Atmos Deg. F: 55

GAS COMPONENTS		MOL%	GPM
Oxygen	O2:	0.0000	
Carbon Dioxide	C02:	0.1879	
Nitrogen	N2:	2.0834	
Hydrogen Sulfide	H2S:	0.0000	
Methane	C1:	73.0807	
Ethane	C2:	13.7945	3.6682
Propane	C3:	6.7409	1.8466
Iso-Butane	IC4:	0.7892	0.2568
Nor-Butane	NC4:	1.8466	0.5789
Iso-Pentane	IC5:	0.3893	0.1416
Nor-Pentanes	NC5:	0.4175	0.1505
Hexanes Plus	C6+:	0.6700	0.2897
Totals		100.0000	6.9323

Pressure Base: 14.650
Real BTU Dry: 1305.605
Real BTU Wet: 1282.686

Calc. Ideal Gravity: 0.7682
Calc. Real Gravity: 0.7710
Field Gravity:
Standard Pressure: 14.696
Ideal BTU Dry: 1304.425
Ideal BTU Wet: 1281.728
Z Factor: 0.9960
Average Mol Weight: 22.2490
Average CuFt/Gal: 54.0575
26 lb. Product: 0.8963
Ethane+ GPM: 6.9321
Propane+ GPM: 3.2639
Butane+ GPM: 1.4174
Pentane+ GPM: 0.5817

Remarks:
H2S IN GAS STREAM ON LOCATION: NONE DETECTED

Analysis By: Don Norman

Produced Gas Injectant Gas Analysis

ENTERPRISE PERMIAN
Preparer Code: 1354746534
Statement Title: Measurement Audit Statement(Differential)
MEAS Contact: AMY CARROLL (713)381-6321
STMT Contact: MARCUS WARE (713)381-7816

Accounting/Production Period: 08/2016
Meter ID: 68841-01
Meter Name: CEDAR CANYON COMPRESSOR SUCTION
BTU Basis: Dry
Reporting Basis: MCF @ 14.730

OXY USA INC
Recipient Code: 115102402
Location Code: NA DRN
Report Date/Time: 09/13/2016 08:14
Statement Type: Original

CERTIFICATE OF ANALYSIS

Sample Id: 68641
Sample Desc: CEDAR CANYON COMPRESS SUCTION

District: 653 - S CARLSBAD

Effective Date: 08/01/2016 07:00
Sample Date: 07/18/2016
Analyzed Date:
Sample Freq: MONTHLY

Sample Type: CONTINUOUS
Sampled By:
Analyzed By: FSLAB
GPA Version: 2145-09

Device: Continuous Sampler
Chrom ID: N/A

Sample Temp (F): 89.0
Sample Press: 225.0
Press Base: 14.73

Component	Mole %	GPM	Others	Mole %	GPM
Methane	74.3148	0.0000	Carbon Dioxide	0.2239	0.0000
Ethane	11.8589	3.1827	H2S	0.0000	0.0000
Propane	5.7914	1.6012	Nitrogen	1.8953	0.0000
Iso Butane	0.7374	0.2422	Hydrogen	0.0000	0.0000
Butane	1.7502	0.5537	Oxygen	0.0000	0.0000
Iso Pentane	0.3950	0.1450	Helium	0.0000	0.0000
Pentane	0.4110	0.1495	Argon	0.0000	0.0000
Hexi-Pentane	0.0000	0.0000	Carbon Monoxide	0.0000	0.0000
Hexane	0.4221	0.1786			
Heptane	0.0000	0.0000	Sub Total Others	2.1192	0.0000
Octane	0.0000	0.0000			
Nonane	0.0000	0.0000			
Decane	0.0000	0.0000			
Sub Total GPM	97.6808	6.1529			
Others	2.1192	0.0000			
Total	100.0000	6.1529			

Gravity	0.7492
Dry BTU	1280.3
Wet BTU	1259.0

Water Compatibility Study

Scale precipitation due to incompatibility of mixing different waters is simulated using ScaleSoftPitzer™ (SSP) developed by Rice University Brine Chemistry Consortium. Compatibility between 2nd Bone Spring formation water and produced water (PW) from Cedar Canyon was performed. Water analysis from multiple 2nd Bone Spring wells was used and the average was calculated as a representative 2nd Bone Spring water analysis. A produced water analysis from the Cedar Canyon 15 Treatment facility was used as injection water analysis. Table 1 shows the water analysis of both waters.

Table 1. Water analysis from both 2nd Bone Spring water and PW from Cedar Canyon treatment facility.

Cations / Anions (mg/L)	2nd BS wells	CC15 SWD Treatment Facility
Na^+	65,724	50,455
Mg^{2+}	1,264	2,899
Ca^{2+}	8,794	13,025
Sr^{2+}	576	381
Ba^{2+}	1.06	2.0
Fe^{2+}	53.62	2.36
Cl^-	120,712	109,120
SO_4^{2-}	645	260
$HCO3^-$	137.9	24.4
TDS	197,909	175,788
pH	6.3	5.0

The two waters are input into SSP at different ratios to calculate scaling index (SI) and potential precipitation (ppt) in pound per thousand barrels (ptb). Bottom hole temperature of 122 F and bottom hole pressures of 5,000 psia were used in the modeling. Results are summarized in Table 2. In general, there is a slight, inherent scaling tendency with the 2nd Bone Spring water itself. The predicted SI is 0.54. Any scaling index above zero indicates a supersaturation condition of the scale. By injecting PW (based on water analysis from CC15 SWD) into the 2nd Bone Spring formation it is observed that the scaling index of all three (3) scales becomes smaller. In other words by injecting PW we expect a reduction of incompatibility between the two waters and a reduction of scaling tendency of the native formation water.

Table 2. Prediction of Scaling Index (SI) and potential precipitation of 3 common oilfield scales by mixing the two waters at different ratios.

treated PW from CC15 SWD	avg. 2nd BS	Calcite		Barite		Celestite	
% PW	% 2nd BS	SI	ppt (ptb)	SI	ppt (ptb)	SI	ppt (ptb)
100	0	-1.49	0.0	-0.28	0.0	-0.54	0.0
75	25	-0.75	0.0	-0.18	0.0	-0.32	0.0
50	50	-0.28	0.0	-0.12	0.0	-0.15	0.0
25	75	0.12	2.5	-0.10	0.0	0.00	1.9
0	100	0.54	11.1	-0.1	0.0	0.14	62.9

ITEM VIII
Geologic Statement

Part VIII- Geologic Information

The Bone Spring formation was deposited as a series of alternating carbonate and siliciclastic cycles of Permian (Leonardian) age. During periods of high sea level, carbonates were deposited as submarine debris flows along the slope and as hemipelagic carbonate mud towards the basin. As sea level fell, siliciclastics were deposited into the basin by widespread turbidite sheets interbedded with clastic-rich, hemipelagic mud. The proposed gas injection is within the 2nd Bone Spring Sand formation. The lithology is composed of argillaceous coarse silt to very fine sand. The 2nd Bone Spring Sand is well sorted and texturally mature. It was deposited on the slope and toe-of-slope settings as channelized sands and on the basin floor as thin, widespread sheet sands and silts. Average porosity of the second Bone Spring Sand in the project area is 7%.

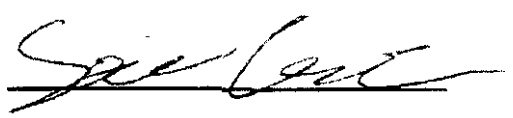
In the project area, the top of the Bone Spring Formation is 6600' TVD (-3649' TVDSS). The Base of the Bone Spring formation is 9927' TVD (-6976' TVDSS). The top of the Second Bone Spring Sand is 8415' TVD (-5464' TVDSS) and the base of the Second Bone Spring Sand formation is 8754' TVD (-5803' TVDSS). The 2nd Bone Spring Sand is overlain by the 2nd Bone Spring Lime, a 550' thick low porosity and permeability barrier acting as a seal to the reservoir. The 2nd Bone Spring Sand lies on top of the 3rd Bone Spring Lime, a 800' thick low porosity and low permeability layer providing a lower seal to the *reservoir.*

Evaporites of the Salado and Castile formations (Ochoan) overlie the Delaware Mountain Group, and these evaporites form a second impermeable barrier to water moving upward from the injection interval. Within the area of the proposed gas injection, the base of these evaporites is at about 2920'TVD (-31 TVDSS) and the top is at about 600' TVD (-2351' TVDSS). All potable groundwater in this area lies above these evaporites in aquifers the Santa Rosa Formation (Triassic Dockum Group), so the depth to bottom of underground drinking water would be about 600'. There are no open faults known to be present under the proposed waterflood area, so injected saltwater has no vertical pathway to move upward through the impermeable Delaware Mountain limestones and Ochoan evaporite layers into Triassic aquifers. There are no sources of drinking water below the injection zone.

Locate freshwater wells within one mile:

Per our field personnel, no fresh water wells or windmills were found within one mile of these wells. The two wells identified by the Office of the State Engineer of New Mexico as C00863 and C00463 have been converted to brine water wells.

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



12/2/16

Spencer Gunderson
Geologist Sr.

Date

ITEM XII
Hydrologic Connection Statement

Item XII

I have examined the available geologic and engineering data for the Cedar Canyon 16 State #7 well and the Cedar Canyon 16 State #12 well and find no evidence of open faults or any other hydrologic connection between the disposal zone any underground sources of drinking water.

12/2/16

Spencer Gunderson

Date

Geologist, Sr.

ITEM XIII
Proof of Notice

C-108 Injection Application -Cedar Canyon
Item XIII - Proof of Notice
OXY USA Inc
Cedar Canyon 16 State #7H & #12H

New Mexico Oil Conservation Division
811 S. First St.
Artesia, NM 88210

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

United States Dept of Interior
Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220

New Mexico State Land Office
310 Old Sanata Fe Trail
Sanata Fe, NM 87504

Surface owners

Henry McDonald and John D. Brantley
Valley Land Ranch
Attn: Cas Tabor
112 North Canyon, Bujac Building
Carlsbad, NM 88220

Leasehold operators

OXY USA Inc.
P.O. Box 50250
Midland, TX 79710

Devon Energy Production Company, LP
333 W. Sheridan
Oklahoma City, OK 73102
Attn: Land Manager--New Mexico

Mobil Producing Texas & New Mexico Inc.
810 Houston St.
Fort Worth, TX 76102-6298
Attn: Land Department – New Mexico

Avalanche Royalty Partners LLC
C/O BWAD Incorporated
475 17th Street, Suite 1390
Denver, CO 80202

COG Operating LLC
One Concho Center
600 W. Illinois Ave
Midland, TX 79701
Attention: Land Manager- New Mexico

Unit Petroleum Company
P.O. Box 702500
Tulsa, OK 74170
Attention: Patrick Shortess

Vision Energy, Inc.
PO Box 2459
Carlsbad, NM 88221
Attention: David Maley

GD McKinney Investments LP
300 N Marienfed, Ste 1100
Midland, TX 79701
Attn: Gary D. McKinney

B. Jack Reed
506 Charismatic
Midland, TX 79705
Attn: B. Jack Reed

Leopard Petroleum LP
4200 Fairwood
Midland, TX 79707
Attn: Gerald A. Hancock

DRW Energy, LLC
4107 Tanforan
Midland, TX 79707

Beryl Oil and Gas, LP
6707 Pebble Court
Midland, TX 79707

M'lissa L. McKinney Schoening
301 Sir Barton Parkway
Midland, TX 79705

Bergfeld Land & Minerals Group, LLC
305 South Broadway, Ste 304
Tyler, TX 75702

Realezza Del Spear LP
P. O. Box 1684
Midland, TX 79702
Attention: Shane Spear

Barbara L. Backman, Inc.
Attn: J. Douglas Heiskell
1516 W. Riverside Ave.
Spokane, WA 99201

Caren G. Lucas
P. O. Box 90621
Austin, TX 78709-0621

Caren Gall Lucas, Trustee of the Caren Gall Lucas Exempt Trust
Caren Gall Lucas, Trustee
P. O. Box 90621
Austin, TX 78709-0621

Catherine G. Parker

3721 Pallos Verdas Drive
Dallas, TX 75229

Catherine Gall Parker and Craig Parker, as Co-Trustees of the Catherine Gall Parker Exempt Trust
Catherine Gall Parker and Craig Parker, as Co-Trustees
3721 Pallos Verdas Drive
Dallas, TX 75229

Catherine Gall Parker and Craig Parker, as Co-Trustees of the Gall Credit Shelter Trust
Catherine Gall Parker and Craig Parker, as Co-Trustees
3721 Pallos Verdes Drive
Dallas, TX 75229

Earl B. Guitar, Jr. and Margaret A. Guitar, Co-Trustees of the Earl B. Guitar, Jr. and Margaret A. Guitar Revocable Trust
Attn: Philip E. Guitar
P.O. Box 748
Abilene, TX 79604

Guitar Land & Cattle Company, LP
Attn: Phil Guitar
P.O. Box 2213
Abilene, TX 79604

Guitar-Galusha, LP
Attn: Marilyn Galusha
P.O. Box 1438
Abilene, TX 79604

Santa Elena Minerals, LP
P. O. Box 2063
Midland, TX 79702

CrownRock Minerals, LP
P. O. Box 51933
Midland, TX 79710

JPH Holdings, LP
4400 Arcady Ave.
Dallas, TX 75205

Laura J. Hofer, Trustee of the Laura J. Hofer Trust U/T/A dated February 19, 1991
Attn: Paul Hofer
11248 S. Turner Ave.
Ontario, CA 91761

Truchas Peaks, LLC
110 Louisiana, Suite 500
Midland, TX 79701

Melissa Gray A/K/A Melissa McGee
2801 South 25th
Abilene, TX 79605

Sally Guitar
10 Woodhaven Cir.
Abilene, TX 79605

Charlotte F. Albright
1705 Boyd Drive
Carlsbad, New Mexico 88220

John G. Witherspoon, Jr.
7404 Lemonwood Ln.
Fort Worth, TX 76133

Pressley H. Guitar
P.O. Box 5383
Abilene, TX 79608

Conoco Phillips Company
Attn: Land Department-New Mexico
P.O. Box 2197
Houston, TX 77252-2197

Roy G. Barton III
1919 N. Turner Street
Hobbs, NM 88240

Thomas Earl Forni
1013 South Country Club Circle
Carlsbad, NM 88221

Jack G. Woods, Jr.
P.O. Box 341342
Austin, TX 78738

Ross Duncan Properties LLC
P.O. Box 647
Artesia, NM 88211

Judy Guitar Uhey
117 Calumet Loop
Elizabethtown, KY 42701

Leslie D. Guitar

P.O. Box 2228
Brownwood, TX 76804

Lesli Guitar Nichols
6305 W County Rd 34
Knott, TX 79748

Murchison-Guitar Family, LP
Rusty Murchison
P.O. Box 712
Red Bluff, CA 96080

Sharon Guitar Ellis
670 Yellowstone Trail Road
Snoqualmie Pass, WA 98068

Gayle N. Nicolay, Trustee of the
Gayle N. Nicolay Revocable Trust
Gayle N. Nicolay, Trustee
5528 Tahoe Lane
Fairway, KS 66205

Mary L. Forehand, Life Estate,
Remainder to Mark L. Forehand
403 San Juan Manor
Carlsbad, NM 88220

Virginia N. Hoff, Trustee of the
Virginia N. Hoff Management Trust
Virginia N. Hoff, Trustee
2601 Lakewood Circle
Tuscaloosa, AL 35405

Jeri Alexander Mangum and First Financial Trust and Asset Management Company as Trustees of the Jane Alexander Rhodes Revocable Trust
Jeri Alexander Mangum and First Financial Trust and Asset Management Company as Trustees
P.O. Box 701
Abilene, TX 79604

Brett C. Barton
7800 Aria Loop
Austin, TX 78736

The MLBK Family Trust
C/0 Michael J. Forni
P. O. Box 600575
Dallas, TX 75360

James M. Alexander
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John K. Guitar
P.O. Box 1121
Clyde, TX 79510

Kelly W. Leach
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Mallard Royalty Partners, L.P.

P. O. Box 52267
Midland, TX 79710

Lost Creek Royalties
PO BOX 11148
Midland, TX 79702

Polk Land & Minerals, LP
Elizabeth Polk
1101 Butternut
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Woods Dickens Ranch, L.P.
Attn: Jack Woods
36 Surrey Square
Abilene, TX 79606

Guy P. Witherspoon, III
P.O. Box 100403
Fort Worth, TX 76185-0403

Pardue Limited Company
P. O. Box 4294
Carlsbad, NM 88221

MRC Permian Company

5400 LBJ Freeway, Suite 1500
Dallas, TX 75240
Attention: Land Manager – New Mexico

Heidi C. Barton
2008 Vega Ct.
Hobbs, NM 88240