

ABOVE THIS LINE FOR DIVISION USE ONLY

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NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



30-015-26742  
Federal 12  
Well #1

2013 APR 18 P 2:41

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

OXY USA  
SWD: Bell Canyon

- [1] TYPE OF APPLICATION - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
  - Check One Only for [B] or [C]
  - [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
  - [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
  - [D] Other: Specify \_\_\_\_\_
- [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
  - [B]  Offset Operators, Leaseholders or Surface Owner
  - [C]  Application is One Which Requires Published Legal Notice
  - [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
  - [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
  - [F]  Waivers are Attached

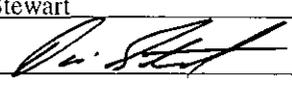
[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Stewart \_\_\_\_\_ SR. Regulatory Advisor 4/15/13  
 Print or Type Name Signature Title Date  
 david\_stewart@oxy.com  
 e-mail Address  
 Federal 12 #1 - 30-015-26742

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_  Yes \_\_\_\_\_ No
- II. OPERATOR: \_\_\_\_\_ OXY USA Inc \_\_\_\_\_ Federal 12 #1 – 30-015-26742  
ADDRESS: \_\_\_\_\_ P.O. Box 50250 Midland, TX 79710  
CONTACT PARTY: \_\_\_\_\_ David Stewart \_\_\_\_\_ PHONE: \_\_\_\_\_ 432-685-5717
- 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 \_\_\_\_\_  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. Attached
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. Attached
- VII. Attach data on the proposed operation, including:
- Proposed average and maximum daily rate and volume of fluids to be injected; Avg-2500BWPD – Max-4000BWPD
  - Whether the system is open or closed; Closed
  - Proposed average and maximum injection pressure; Avg-900psi – Max-915 psi
  - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, Delaware and Bone Spring from OXY operated leases, see attached.
  - 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.). Attached
- \*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. Attached
- IX. Describe the proposed stimulation program, if any. To Be Determined
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).  
Logs already on file at the NMOCD.
- \*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. None within one mile per the NMSEO.  
Per the field production tech, no windmills were found within one mile of this well.
- 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. Attached
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. Attached
- 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: \_\_\_\_\_ David Stewart \_\_\_\_\_ TITLE: \_\_\_\_\_ Sr. Regulatory Advisor \_\_\_\_\_  
SIGNATURE: \_\_\_\_\_  \_\_\_\_\_ DATE: \_\_\_\_\_ 4/15/13 \_\_\_\_\_  
E-MAIL ADDRESS: \_\_\_\_\_ david\_stewart@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: \_\_\_\_\_

### 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.**

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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.

INJECTION WELL DATA SHEET

OPERATOR: OXY USA Inc.

WELL NAME & NUMBER: Federal 12 #1

WELL LOCATION: 660 FSL 660 FWL SWSW(M) 12 22S 31E  
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

PROPOSED WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8" @ 828'

Cemented with: 950 sx. or 1254 ft<sup>3</sup>

Top of Cement: Surface Method Determined: Circ

Intermediate Casing

Hole Size: 11" Casing Size: 8-5/8" @ 4325'

Cemented with: 1900 sx. or 2508 ft<sup>3</sup>

Top of Cement: Surface Method Determined: Circ

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2" @ 8439'

Cemented with: 1402 sx. or 1472 ft<sup>3</sup>

Current  
Top of Cement: 5765' Method Determined: CBL

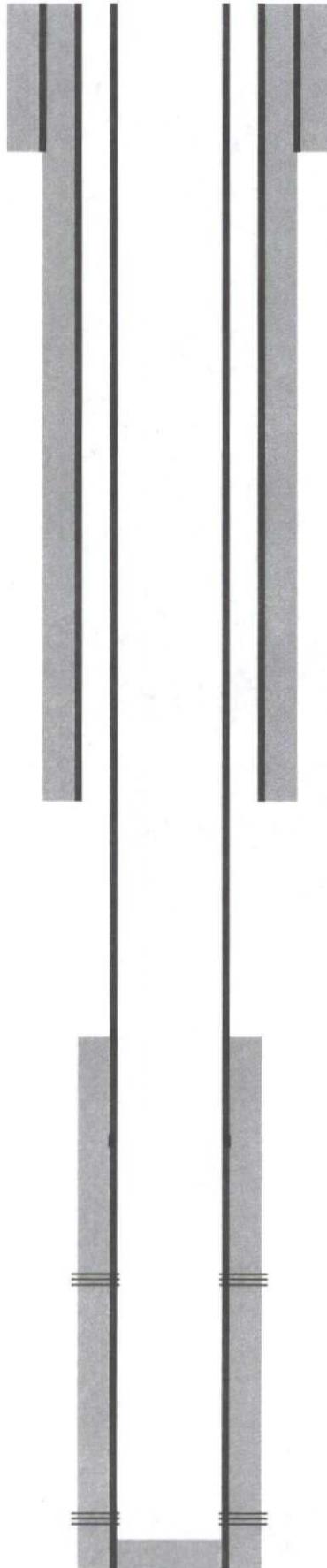
Proposed - Perfor @ 5745' 298 380 secant to 3735' - CBL will be run to confirm TOC  
Total Depth: 8439'

Injection Interval

4574 feet to 4963 feet

(Perforated or Open Hole; indicate which)

OXY USA WTP LP - Current  
Federal 12 #1  
API No. 30-015-26742



17-1/2" hole @ 828'  
13-3/8" csg @ 828'  
w/ 950sx-TOC-Surf-Circ ✓

11" hole @ 4325'  
8-5/8" csg @ 4325'  
w/ 1900sx-TOC-Surf-Circ ✓

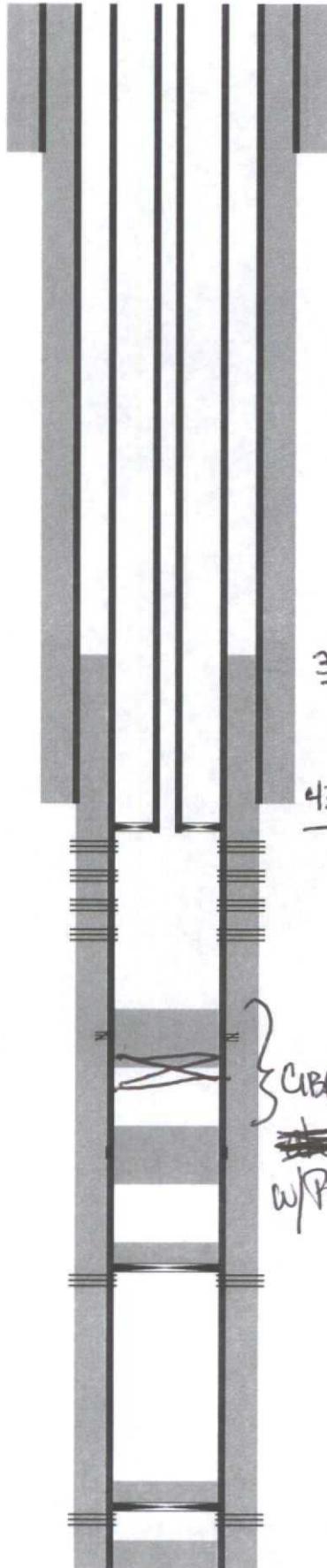
Perfs @ 7042-7074'

7-7/8" hole @ 8439'  
5-1/2" csg @ 8439'  
DVT @ 6197' ✓  
w/ 1402sx-TOC-5765'-CBL

Perfs @ 8270-8336'

TD-8439'

OXY USA WTP LP - Proposed  
Federal 12 #1  
API No. 30-015-26742



17-1/2" hole @ 828'  
13-3/8" csg @ 828'  
w/ 950sx-TOC-Surf-Circ

3735'

2-7/8" 6.5# J55 compsite tbg &  
nickel plated Arrow Set pkr @ 4524'

4325'

11" hole @ 4325'  
8-5/8" csg @ 4325'  
w/ 1900sx-TOC-Surf-Circ

Perfs @ 4574-4963'

25sx @ 5795-5645' WOC-Tag

Perf @ 5745', sqz 380sx cmt to 3735'

25sx @ 6280-6115' WOC-Tag

*CIBP ~~at~~ ~~below~~ CBL prior to perfs  
w/ perfs for  
speering*

CIBP @ 6995' w/ 25sx

Perfs @ 7042-7074'

CIBP @ 8220' w/ 25sx

7-7/8" hole @ 8439'  
5-1/2" csg @ 8439'  
DVT @ 6197'  
w/ 1402sx-TOC-5765'-CBL

Perfs @ 8270-8336'

TD-8439'

**INJECTION WELL DATA SHEET**

Tubing Size: 2-7/8" 6.5# J55 Lining Material: composite

Type of Packer: Nickel Plated Arrow Set

Packer Setting Depth: 4524'

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

Additional Data

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

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

2. Name of the Injection Formation: Delaware – Bell Canyon

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

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. Yes

7042-7074' – 8270-8336'

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

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

Proposed injection zone: 4574' - 4963'

Geologic Formation: Delaware Mtn. Group; Bell Canyon Ramsey Sand

Bell Canyon Zone thickness: 1065'

Bell Canyon Top Depth: 4574'

Lithologic description (Bell Canyon): Thin to medium bedded stacked sandstones - fine-v. fine-grained lt. tan-gray, unconsolidated, round to sub-rounded with minor calcite.

Porosity: 18-25%

Freshwater source: Recent shallow alluvium; none produced nearby.

Depth to base freshwater is 812'

IX. Describe the proposed stimulation program, if any.

Sand fracture treatment in the Ramsey sand interval 4574' - 4963'

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.

I have examined the available geologic and engineering data for the Federal 12#1 well and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

  
Rachel Aisner, Geologist

# MITCHELL ANALYTICAL LABORATORY

2638 Faudree  
Odessa, Texas 79765-8538  
561-5579

Company: **Nalco Company**

Well Number: Federal 12-1 - Delaware	Sample Temp: 70
Lease: OXY	Date Sampled: 10/4/2012
Location:	Sampled by: Leo Sandmann
Date Run: 10/4/2012	Employee #:
Lab Ref #: 12-oct-n67083	Analyzed by: GR

### Dissolved Gases

		Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide (H2S)		.00	16.00	.00
Carbon Dioxide (CO2)	<b>NOT ANALYZED</b>			
Dissolved Oxygen (O2)	<b>NOT ANALYZED</b>			

### Cations

Calcium (Ca++)		28,140.00	20.10	1,400.00
Magnesium (Mg++)		2,981.68	12.20	244.40
Sodium (Na+)		63,150.84	23.00	2,745.69
Barium (Ba++)	<b>NOT ANALYZED</b>			
Manganese (Mn+)		7.07	27.50	.26

### Anions

Hydroxyl (OH-)		.00	17.00	.00
Carbonate (CO3=)		.00	30.00	.00
BiCarbonate (HCO3-)		12.22	61.10	.20
Sulfate (SO4=)		136.00	48.80	2.79
Chloride (Cl-)		155,771.16	35.50	4,387.92
Total Iron (Fe)		10.44	18.60	.56
Total Dissolved Solids		250,209.41		
Total Hardness as CaCO3		82,574.89		
Conductivity MICROMHOS/CM		236,000		

pH	6.170	Specific Gravity 60/60 F.	1.174
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CaSO4 Solubility @ 80 F.                      6.01MEq/L,                      CaSO4 scale is unlikely

#### CaCO3 Scale Index

70.0	1.399	100.0	2.319	130.0	2.319
80.0	1.649	110.0	2.319	140.0	2.319
90.0	2.319	120.0	2.319	150.0	2.319

*Nalco Company*

# MITCHELL ANALYTICAL LABORATORY

2638 Faudree  
Odessa, Texas 79765-8538  
561-5579

Company: **Nalco Company**

Well Number:	Cypress 28-1 - Bone Spring	Sample Temp:	70
Lease:	OXY	Date Sampled:	4/29/2011
Location:		Sampled by:	Casey Summers
Date Run:	5/3/2011	Employee #:	
Lab Ref #:	11-may-n59280	Analyzed by:	GR

## Dissolved Gases

		Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H <sub>2</sub> S)	.00	16.00	.00
Carbon Dioxide	(CO <sub>2</sub> )	<b>NOT ANALYZED</b>		
Dissolved Oxygen	(O <sub>2</sub> )	<b>NOT ANALYZED</b>		

## Cations

Calcium	(Ca <sup>++</sup> )	1,390.92	20.10	69.20
Magnesium	(Mg <sup>++</sup> )	697.84	12.20	57.20
Sodium	(Na <sup>+</sup> )	62,308.23	23.00	2,709.05
Barium	(Ba <sup>++</sup> )	<b>NOT ANALYZED</b>		
Manganese	(Mn <sup>+</sup> )	1.66	27.50	.06

## Anions

Hydroxyl	(OH <sup>-</sup> )	.00	17.00	.00
Carbonate	(CO <sub>3</sub> <sup>=</sup> )	.00	30.00	.00
BiCarbonate	(HCO <sub>3</sub> <sup>-</sup> )	391.04	61.10	6.40
Sulfate	(SO <sub>4</sub> <sup>=</sup> )	450.00	48.80	9.22
Chloride	(Cl <sup>-</sup> )	100,110.00	35.50	2,820.00
Total Iron	(Fe)	2	18.60	.11
Total Dissolved Solids		165,351.69		
Total Hardness as CaCO <sub>3</sub>		6,338.44		
Conductivity MICROMHOS/CM		216,200		

pH 6.480 Specific Gravity 60/60 F. 1.115

CaSO<sub>4</sub> Solubility @ 80 F. 84.91MEq/L, CaSO<sub>4</sub> scale is unlikely

## CaCO<sub>3</sub> Scale Index

70.0	-.152	100.0	.188	130.0	.778
80.0	-.052	110.0	.488	140.0	.778
90.0	.188	120.0	.488	150.0	1.128

Nalco Company

**Endura Products (**

P.O. Box 3394, Midland,  
Phone (432) 884-4233 Fax

**WATER ANAL**

Date **10/10/2006** Endura Rep **Norman Smil**  
Sampling Point/Date Wellhead **10/4/2006**  
Company **Pogo Producing Co.**  
Formation **Up. Delaware** Lease **COYOTE 21**

**FORM C-108**  
**ITEM VII(5)**

**ANALYSIS -- Injection Zone**  
**Produced Water**

**POGO PRODUCING COMPANY**  
Cedar Canyon "21" Federal No. 3  
Section 21, T-24S, R-19E  
Eddy County, New Mexico

State **New Mexico**  
County **Eddy**  
Well #1

**DISSOLVED SOLIDS**

**CATIONS**

	mg/l	me/l
Sodium, Na+ (Calc.)	45,011	1,957
Total Hardness as Ca++	12,992	0
Calcium Ca++	10,856	543
Magnesium, Mg+	1,302	109
Barium, Ba++	0	0
Iron (Total) Fe+++*	0	0

**ANIONS**

Chlorides, Cl-	92,500	2,606
Sulfate, SO4-	100	2
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	73	1
Sulfide, S-*	0	0
Total Dissolved Solid	149,842	

**OTHER PROPERTIES**

pH*	6.490
Specific Gravity, 60/60 F.	1.109
Turbidity	35

**SCALING INDICIES**

<u>TEMP. F</u>	<u>CA CO3</u>	<u>CASO4*2H2O</u>	<u>CA SO4</u>	<u>BA SO4</u>
80	-0.0677	-1.0097	-1.2523	-29.2957
120	0.2990	-1.0209	-1.0831	-29.4961
160	0.8653	-1.0396	-0.9292	-29.7255

**PERFORATIONS**

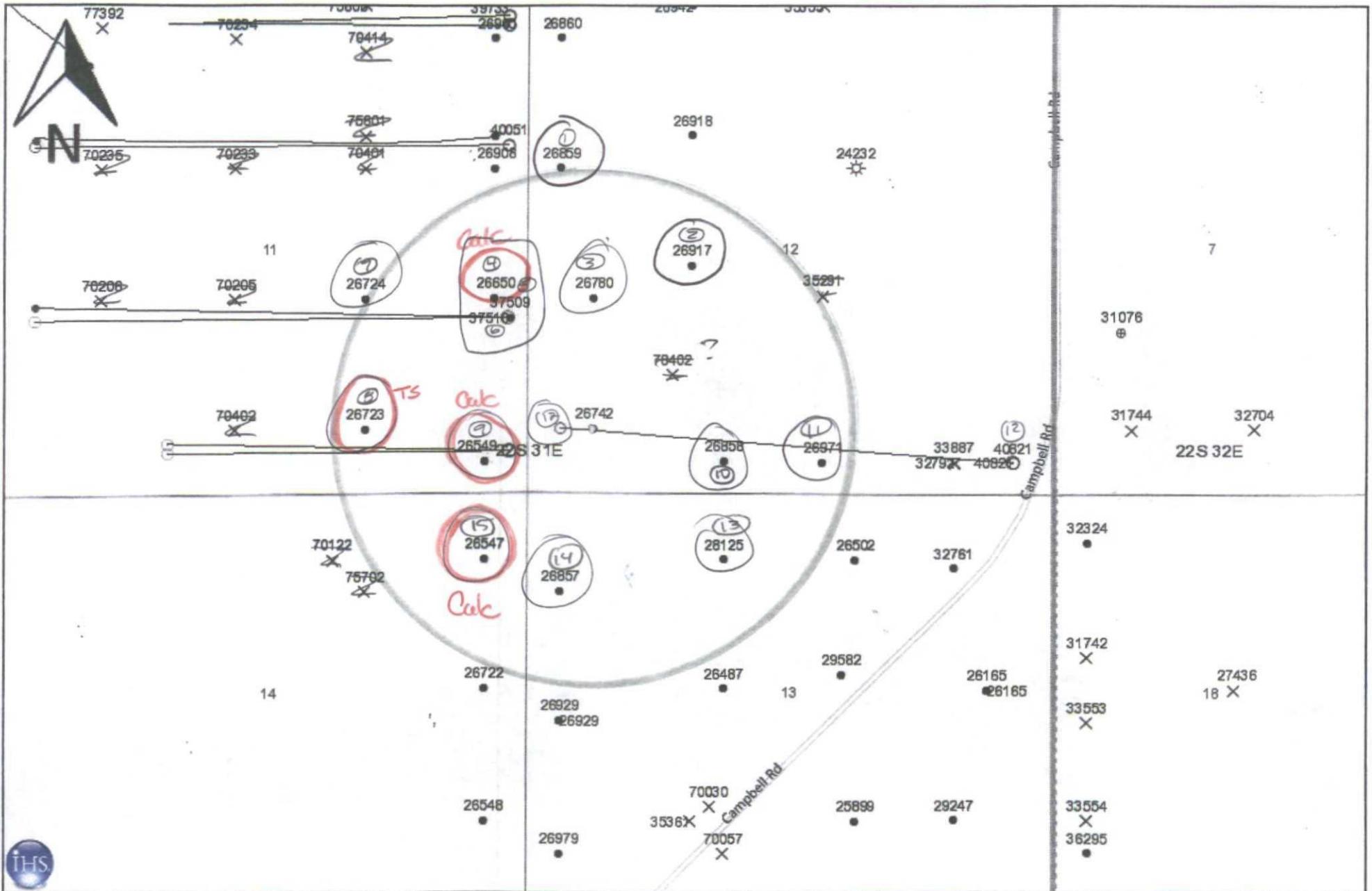
C-108 - Item VI  
 Federal 12 #1  
 AREA OF REVIEW

OPERATOR	LEASE	WELL API NO.			LOCATION	DATE DRILLED	TD	PERFS	CASING-CEMENT	STATUS
		NO.	30-	PLAT						
OXY USA Inc.	Federal 12	4	015-26859	1	1980 FNL 330 FWL (E) 12-22S-31E	11/8/91	8450'	7025-7063'	13-3/8" @ 814' w/ 1025sx - TOC-Surf-Circ ✓ 8-5/8" @ 4265' w/ 1675sx - TOC-Surf-Circ ✓ 5-1/2" @ 8450' w/ 11911sx - TOC-2030'-CBL ✓	Livingston Ridge Delaware Act Oil
OXY USA Inc.	Federal 12	6	015-26917	2	2310 FSL 1650 FWL (K) 12-22S-31E	3/2/92	8525'	7052-7096'	13-3/8" @ 818' w/ 1000sx - TOC-Surf-Circ ✓ 8-5/8" @ 4310' w/ 1700sx - TOC-Surf-Circ ✓ 5-1/2" @ 8525' w/ 1375sx - TOC-2200'-CBL ✓	Livingston Ridge Delaware Act Oil
OXY USA Inc.	Federal 12	2	015-26780	3	1980 FSL 660 FWL (L) 12-22S-31E	8/21/91	8490'	6874-7080'	13-3/8" @ 840' w/ 950sx - TOC-Surf-Circ ✓ 8-5/8" @ 4315' w/ 1800sx - TOC-Surf-Circ ✓ 5-1/2" @ 8490' w/ 1450sx - TOC-3375'-CBL ✓	Livingston Ridge Delaware Act Oil
Yates Petroleum Corp.	Martha AIX Fed	2	015-26650	4	1980 FSL 330 FEL (I) 11-22S-31E	3/19/91	8450'	6656-8307'	13-3/8" @ 854' w/ 700sx - TOC-Surf-Circ ✓ 8-5/8" @ 4505' w/ 1600sx - TOC-Surf-Circ ✓ 5-1/2" @ 8450' w/ 790sx - TOC-4007'-Calc ✓	Livingston Ridge Delaware Act Oil
Yates Petroleum Corp.	Martha AIX Fed	10H	015-37509	5	S-1780 FSL 178 FEL (I) B-1900 FSL 360 FWL (L) 11-22S-31E	9/21/12	12526'M 7984'V	8410-12440'	13-3/8" @ 859' w/ 760sx - TOC-Surf-Circ ✓ 9-5/8" @ 4562' w/ 1370sx - TOC-Surf-Circ ✓ 7" @ 7420' w/ 825sx - TOC-Surf-Circ ✓ 4-1/2" @ 6900-12520' w/ 400'-6900'-Circ ✓	Livingston Ridge Delaware Act Oil
Yates Petroleum Corp.	Martha AIX Fed	11H	015-37510	6	S-1780 FSL 200 FEL (I) B-1780 FSL 330 FWL (L) 11-22S-31E	10/1/12	11497'M 7032'V	7353-11405'	13-3/8" @ 835' w/ 680sx - TOC-Surf-Circ ✓ 9-5/8" @ 4366' w/ 1260sx - TOC-Surf-Circ ✓ 5-1/2" @ 11497' w/ 2230sx - TOC-Surf-Circ ✓	Livingston Ridge Delaware Drilling
Yates Petroleum Corp.	Martha AIX Fed	4	015-26724	7	1980 FSL 1650 FEL (J) 11-22S-31E	9/2/91	8530'	6544-8307'	13-3/8" @ 873' w/ 750sx - TOC-Surf-Circ ✓ 8-5/8" @ 4302' w/ 1950sx - TOC-Surf-Circ ✓ 5-1/2" @ 8530' w/ 1625sx - TOC-Surf-Circ ✓	Livingston Ridge Delaware Act Oil
Yates Petroleum Corp.	Martha AIX Fed	3	015-26721	8	660 FSL 1650 FEL (O) 11-22S-31E	5/6/91	8411'	6937-7028'	13-3/8" @ 850' w/ 750sx - TOC-Surf-Circ ✓ 8-5/8" @ 4227' w/ 2100sx - TOC-Surf-Circ ✓ 5-1/2" @ 8411' w/ 1110sx - TOC-580'-TS ✓	Livingston Ridge Delaware Act Oil
Yates Petroleum Corp.	Martha AIX Fed	1	015-26549	9	330 FSL 430 FEL (P) 11-22S-31E	12/7/90	8425'	3329-8308'	13-3/8" @ 851' w/ 900sx - TOC-Surf-Circ ✓ 8-5/8" @ 4485' w/ 1700sx - TOC-Surf-Circ ✓ 5-1/2" @ 8416' w/ 1200sx - TOC-3400'-Calc ✓	Livingston Ridge Delaware Act Oil
OXY USA Inc.	Federal 12	3	015-26858	10	330 FSL 1980 FWL (N) 12-22S-31E	1/19/92	8515'	6980-6997'	13-3/8" @ 804' w/ 1025sx - TOC-Surf-Circ ✓ 8-5/8" @ 4335' w/ 1575sx - TOC-Surf-Circ ✓ 5-1/2" @ 8515' w/ 1655sx - TOC-1350'-CBL ✓	Livingston Ridge Delaware Act Oil
OXY USA Inc.	Federal 12	9	015-26971	11	330 FSL 2310 FEL (O) 12-22S-31E	3/6/95	8535'	8054-8318	13-3/8" @ 630' w/ 950sx - TOC-Surf-Circ ✓ 8-5/8" @ 4285' w/ 1550sx - TOC-Surf-Circ ✓ 5-1/2" @ 8535' w/ 1625sx - TOC-Surf-Circ ✓	Livingston Ridge Delaware Act Oil
OXY USA Inc.	Federal 12	14	015-40921	12	S-330 FSL 405 FEL (P) B-660 FSL 330 FWL (M) 12-22S-31E	1/3/13	14704'M 10414'V		13-3/8" @ 892' w/ 620sx - TOC-Surf-Circ ✓ 8-5/8" @ 4500' w/ 1260sx - TOC-Surf-Circ ✓ 5-1/2" @ 14694' w/ 1880sx - TOC-Surf-Circ ✓	Wildcat Bone Spring Compl Pending

C-108 - Item VI  
 Federal 12 #1  
 AREA OF REVIEW

OPERATOR	LEASE	WELL API NO.			LOCATION	DATE			PERFS	CASING-CEMENT	STATUS
		NO.	30-	PLAT		DRILLED	TD				
Chevron USA Inc.	Neff 13 Federal	9	015-28125	13	660 NFL 1980 FWL ( C ) 13-22S-31E	12/7/*7	8750'	6950-7088'	13-3/8" @ 830' w/ 575sx - TOC-Surf-Circ ✓	Livingston Ridge	
									8-5/8" @ 4393' w/ 1200sx - TOC-Surf-Circ ✓	Delaware	
									5-1/2" @ 8747' w/ 1750sx - TOC-Surf-Circ ✓	Act Oil	
OXY USA Inc.	Neff 13 Federal	6	015-26857	14	990 FNL 330 FWL (D) 13-22S-31E	10/19/91	8400'	7016-7058'	11-3/4" @ 880' w/ 775sx - TOC-Surf-Circ ✓	Livingston Ridge	
									8-5/8" @ 4400' w/ 1600sx - TOC-Surf-Circ ✓	Delaware	
									5-1/2" @ 8400' w/ 1725sx - TOC-Surf-Circ ✓	Act Oil	
Yates Petroleum Corp.	Dolres AIL Fed	1	015-26547	15	660 FNL 430 FEL (A) 13-22S-31E	2/16/91	9425'	7012-8298'	13-3/8" @ 855' w/ 775sx - TOC-Surf-Circ ✓ <i>1060</i>	Livingston Ridge	
				8-5/8" @ 4460' w/ 1500sx - TOC-Surf-Circ ✓					Delaware		
				5-1/2" @ 8425' w/ 1400sx - TOC-3400'-Calc ✓					Act Oil		

# Federal 12 #1 - 1/2 Mile AOR







## New Mexico Office of the State Engineer Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,  
O=orphaned,  
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
<u>C 02744</u>			ED	3	2	1	11	22S	31E	617374	3586631*	4911		
<u>C 03150</u>			ED	2	4	4	14	22S	31E	618412	3584025*	981		
												Average Depth to Water:	--	
												Minimum Depth:	--	
												Maximum Depth:	--	

**Record Count:** 2

**PLSS Search:**

**Section(s):** 1, 2, 11, 12, 13, 14 **Township:** 22S **Range:** 31E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/9/13 4:14 PM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



## New Mexico Office of the State Engineer Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

**PLSS Search:**

**Section(s):** 6, 7, 18 **Township:** 22S **Range:** 32E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/9/13 4:15 PM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

**Federal 12 #1 – 30-015-26742**

13-3/8" 54.5# csg @ 828' w/ 950sx, 17-1/2" hole, TOC-Surf-Circ  
8-5/8" 24-32# csg @ 4325' w/ 1900sx, 11" hole, TOC-Surf-Circ  
5-1/2" 15.5-17# csg @ 8439' w/ 1402sx, 7-7/8" hole, TOC-5765'-CBL

1. MI& RU Rig. ND WH and NU BOP.
2. PR&P and LD Same. P Tbg and LD.
3. RU WLU. RIH and set CIBP @ 8220'. POOH.
4. RIH w/ WS and spot 25 sx cmt on CIBP @ 8220'. POOH.
5. RIH w/ WL and set CIBP @ 6995'. RD WL.
6. RIH w/ WS and spot 25 sx cmt on CIBP @ 6995'.
7. Pull up WS and spot 25 sx cmt @ 6280'-6115'. WOC and tag. POOH w/ WS.
8. RU WL. RIH and perf squeeze holes @ 5745'. RD WL.
9. PU cement retainer and RIH w/ WS. Set retainer above squeeze perfs @ +/- 5725'.
10. RU cementers.
11. Maintain 500 psi pressure in WS x 5 1/2" casing annulus to prevent casing collapse.
12. Establish circulation in 8 5/8" x 5 1/2" casing annulus through bradenhead by pumping 500 gals 15% HCl down work string followed by 200 bbls freshwater. **Do not exceed a 3400 psi (70% of collapse pressure) bottomhole pressure.**
13. After establishing circulation, pump 380 sx cmt down WS. **Do not exceed a 3400 psi bottomhole pressure.**
14. Displace cement out of WS.
15. POO retainer w/ WS.
16. Pull up WS and spot 25 sx cmt at 5795-5645'.
17. POOH w/ WS.
18. RU WLU and run CBL from PBSD to surface. RD WL.
19. **Obtain engineering approval before continuing.**
20. Pressure test casing to 3,700 psi (70% of burst).
21. RD Rig. NU Frac valve.
22. RU WL. Perforate @ 4592-4962', RD WL.
23. RU Frac. Frac per Halliburton frac schedule.
24. RU Rig. CO to PBSD. RD Rig.
25. Flow back to frac tanks for five days or until well has died, whichever comes first.
26. RU WL. Re-perforate entire interval @ 4574-4963'. ✓
27. RIH w/ WL and set injection packer @ +/- 4524' w/ plug in profile nipple. RD WL. ✓
28. RU Rig. RIH w/ injection tubing and BHA and circulate pkr fluid.
29. Run an MIT pressure test on the well with a witness from the OCD. RD Rig. NU WH.
30. Place well on injection and report results to engineer.

**WARNING: A POISONOUS GAS - HYDROGEN SULFIDE (H<sub>2</sub>S) - A HIGHLY TOXIC COLORLESS GAS THAT IS HEAVIER THAN AIR MAY BE PRESENT AT THIS LOCATION AND/OR PRESENT IN THE GAS AND LIQUIDS INJECTED OR PRODUCED FROM THIS WELL. PLANS MUST BE REVIEWED DEALING WITH H<sub>2</sub>S SAFETY PRIOR TO WORKING ON THIS WELL. CHECK WITH FOREMAN CONCERNING LOCAL CONDITIONS.**

**C-108 Service List  
OXY USA Inc  
Federal 12 #1**

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

**Surface Owner**

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

**Offset Operators within 1/2 mile**

Chevron USA Inc.  
P.O. Box 2100  
Houston, TX 77252

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

Yates Petroleum Corp.  
105 S. 4th St.  
Artesia, NM 88210

**Potash Lessee(s) within 1 mile**

Intrepid Potash LLC  
707 17th St.  
Denver, CO 80202

Western AG-Minerals Co.  
P.O. Box 71  
Carlsbad, NM 88221

Copies of this application were mailed to the following individuals, companies and organizations on or before 4/15/13.



David Stewart  
OXY USA Inc.

Federal 12-H

Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  
 Print your name and address on the reverse so that we can return the card to you.  
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 WMOCD  
 811 S. First St.  
 Artesia, NM 88210

A. Signature: *[Signature]*  Agent  Addressee  
 B. Received by (Printed Name): *[Signature]* C. Date of Delivery:  
 D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  G.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 3816

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

**SENDER: COMPLETE THIS SECTION**

Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  
 Print your name and address on the reverse so that we can return the card to you.  
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 WMOCD  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

A. Signature: *[Signature]*  Agent  Addressee  
 B. Received by (Printed Name): *[Signature]* C. Date of Delivery: 04/18/13  
 D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  G.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 3779

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

**SENDER: COMPLETE THIS SECTION**

Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.  
 Print your name and address on the reverse so that we can return the card to you.  
 Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:  
 BEM  
 620 E. Greene St.  
 Carlsbad, NM 88220

A. Signature: *[Signature]*  Agent  Addressee  
 B. Received by (Printed Name): *[Signature]* C. Date of Delivery: 4/18/13  
 D. Is delivery address different from item 1?  Yes  No  
 If YES, enter delivery address below:

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  G.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

2. Article Number (Transfer from service label) 7011 3500 0002 4988 3823

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

OK USA Inc.  
Feb 12 #1

■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature <i>[Signature]</i>		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
	B. Received by (Printed Name) <i>[Name]</i>	C. Date of Delivery <i>4-18-13</i>	
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No			
3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.			
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes			
2. Article Number (Transfer from service label)    7011 3500 0002 4988 3861			
PS Form 3811, February 2004    Domestic Return Receipt    102595-02-04-1840			

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature <i>[Signature]</i>		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
	B. Received by (Printed Name) <i>[Name]</i>	C. Date of Delivery <i>4-18-13</i>	
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No			
3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.			
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes			
2. Article Number (Transfer from service label)    7011 3500 0002 4988 3854			
PS Form 3811, February 2004    Domestic Return Receipt    102595-02-04-1840			

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature <i>[Signature]</i>		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
	B. Received by (Printed Name) <i>[Name]</i>	C. Date of Delivery <i>4-18-13</i>	
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No			
3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.			
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes			
2. Article Number (Transfer from service label)    7011 3500 0002 4988 3878			
PS Form 3811, February 2004    Domestic Return Receipt    102595-02-04-1840			

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits.	A. Signature <i>[Signature]</i>		<input type="checkbox"/> Agent <input type="checkbox"/> Addressee
	B. Received by (Printed Name) <i>[Name]</i>	C. Date of Delivery <i>4-18-13</i>	
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No			
3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.			
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes			
2. Article Number (Transfer from service label)    7011 3500 0002 4988 3885			
PS Form 3811, February 2004    Domestic Return Receipt    102595-02-04-1840			

**Affidavit of Publication**

State of New Mexico,  
County of Eddy, ss.

**Kathy McCarroll**, being first duly sworn,  
on oath says:

That she is the Classified Supervisor 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:

March 22, 2013  
**Notice Of Application For Fluid Disposal**  
**Applicant:**  
OXY USA Inc.  
P.O. Box 50250  
Midland, TX 79710  
ATTN: David Stewart  
432-685-5717  
**Purpose - Well:**  
Disposal of Produced Water Into A Zone Non Productive of Oil & Gas  
Federal 12 #1  
660 FSL 660 FWL  
SWSW(M) Sec 12 T22S  
R31E  
Eddy County, NM  
**Formation:**  
Delaware - Bell Canyon  
4574-4963'  
Maximum Injection Rate -  
4000 BWPD  
Maximum Injection Pressure - 915 psi  
**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 of this application.**

March 22 2013

That the cost of publication is **\$49.42** and that payment thereof has been made and will be assessed as court costs.

*Kathy McCarroll*

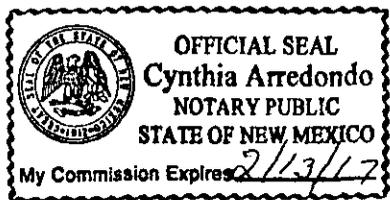
Subscribed and sworn to before me this

28 day of March, 2013

*Cynthia Arredondo*

My commission Expires on 2/13/17

Notary Public



Injection Permit Checklist: Received 4/18/13 First Email Date: — Final Reply Date: — Final Notice Date: 6/17/2013

Issued Permit: Type: WFX / PMX (SWD) Number: 1423 Permit Date: June 18, 2013 Legacy Permits or Orders: NA

Well No. #1 Well Name(s): Federal 12

API: 30-0 15-26742 Spud Date: 06/18/1992 New/Old: (N) (UIC CI II Primacy March 7, 1982)

Footages 660 FSL / 660 FWL Lot - Unit M Sec 12 Tsp 22S Rge 31E County Eddy

General Location: Northeast of WIPP / Eddy-Lea Co. Pool: Livingston Ridge Delaware Pool No.: —

Operator: OXY USA OGRID: 116696 Contact: David Stewart

COMPLIANCE RULE 5.9: Inactive Wells: 2 Total Wells: 1829 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? Yes

Well File Reviewed: ✓ Current Status: P&A planned - depleted well / 8/12/2012 - Lst prod / 75 BO / 714 MCF / Last 16 months

Planned Rehab Work to Well: Squeeze cement above current amt / CIBPs / cement for two abandoned

Well Diagrams: Proposed — Before Conversion ✓ After Conversion ✓ Are Elogs in Imaging?: Yes Prop zones

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned <u>—</u> or Existing <u>—</u> Cond	—	—	—	—	—
Planned <u>—</u> or Existing <u>✓</u> Surface	17 1/2 / 13 3/8	0 to 828	—	950	Circ to surf
Planned <u>—</u> or Existing <u>✓</u> Interm	11 / 8 5/8	0 to 4325	—	1900	Circ to surf
Planned <u>—</u> or Existing <u>✓</u> LongSt	7 7/8 / 5 1/2	0 to 8439 (6197) <u>OK</u>	—	1402	5765 / CBL
Planned <u>—</u> or Existing <u>—</u> Liner	—	—	—	—	—
Planned <u>✓</u> or Existing <u>✓</u> OH / PERP	7 7/8 / 5 1/2	4574 to 4963	—	—	—

Injection Formation(s):	Depths (ft)	Formation	Tops?	Completion/Ops Details:
Above Top of Inject Formation	+ 94	Lamar	4480	Drilled TD <u>8439</u> Proposed PBTB <u>5643</u>
Above Top of Inject Formation	+ 40	Bell / Ramsey	4534	Open Hole <u>—</u> or Perfs <u>✓</u>
Proposed Interval TOP:	—	4574 / Bell	—	Tubing Size <u>2 7/8</u> Inter Coated? <u>✓</u>
Proposed Interval BOTTOM:	—	4963 / Cond	—	Proposed Packer Depth <u>4524</u>
Below Bottom of Inject Formation	- 895	Cherry Canyon	5588	Max Packer Depth <u>4474</u> (100-ft limit)
Below Bottom of Inject Formation	- 2041	Brushy Canyon	7004	Proposed Max. Surface Press <u>915</u>
AOR: Hydrologic and Geologic Information				Calc. Injt Press <u>915</u> (0.2 psi per ft)
CAPITAN REEF: in <u>✓</u> thru <u>✓</u> POTASH <u>✓</u> Noticed? <u>Y</u> WIPP <u>N</u> Noticed? <u>N</u> <u>✓</u> Rustler <u>✓</u> Noticed? <u>Y</u> <u>750</u> Bot <u>—</u> CLIFF HOUSE <u>N/A</u>				Calc. FPP <u>—</u> (0.65 psi per ft)
Fresh Water: Max Depth: <u>800</u> FW Formation <u>—</u> but outside R-III-PS <u>—</u> Analysis? <u>Y</u> Hydrologic Affirm Statement <u>Yes</u>				
Disposal Fluid: Formation Source(s) <u>Delaware / Brushy &amp; Bone Springs</u> On Lease <u>—</u> Only from Operator <u>(X)</u> or Commercial <u>—</u>				
Disposal Interval: Protectable Waters? <u>N</u> H/C Potential: Log <u>✓</u> / Mudlog <u>—</u> / DST <u>—</u> / Tested <u>—</u> / Depleted <u>—</u> Other <u>Historical / No production in area</u>				
AOR Wells: 1/2-M Radius Map? <u>Y</u> Well List? <u>Y</u> Producing in Interval? <u>—</u> Formerly Produced in Interval? <u>—</u>				
Penetrating Wells: No. Active Wells <u>15</u> Num Repairs? <u>—</u> on which well(s)? <u>Delaware / Brushy</u> Diagrams? <u>N</u>				
Penetrating Wells: No. P&A Wells <u>—</u> Num Repairs? <u>—</u> on which well(s)? <u>Bone Spring</u> Diagrams? <u>N</u>				

NOTICE: Newspaper Date 03/22/2012 Mineral Owner Vates / Chem / OXY Surface Owner BLM N. Date 4/13/2013

RULE 26.7(A): Identified Tracts? ✓ Affected Persons: Intrepid & Western-Potash N. Date —

Permit Conditions: ① CBL to be provided to district / ② BP at PBTB

Issues: Confirmation of cement for injection interval

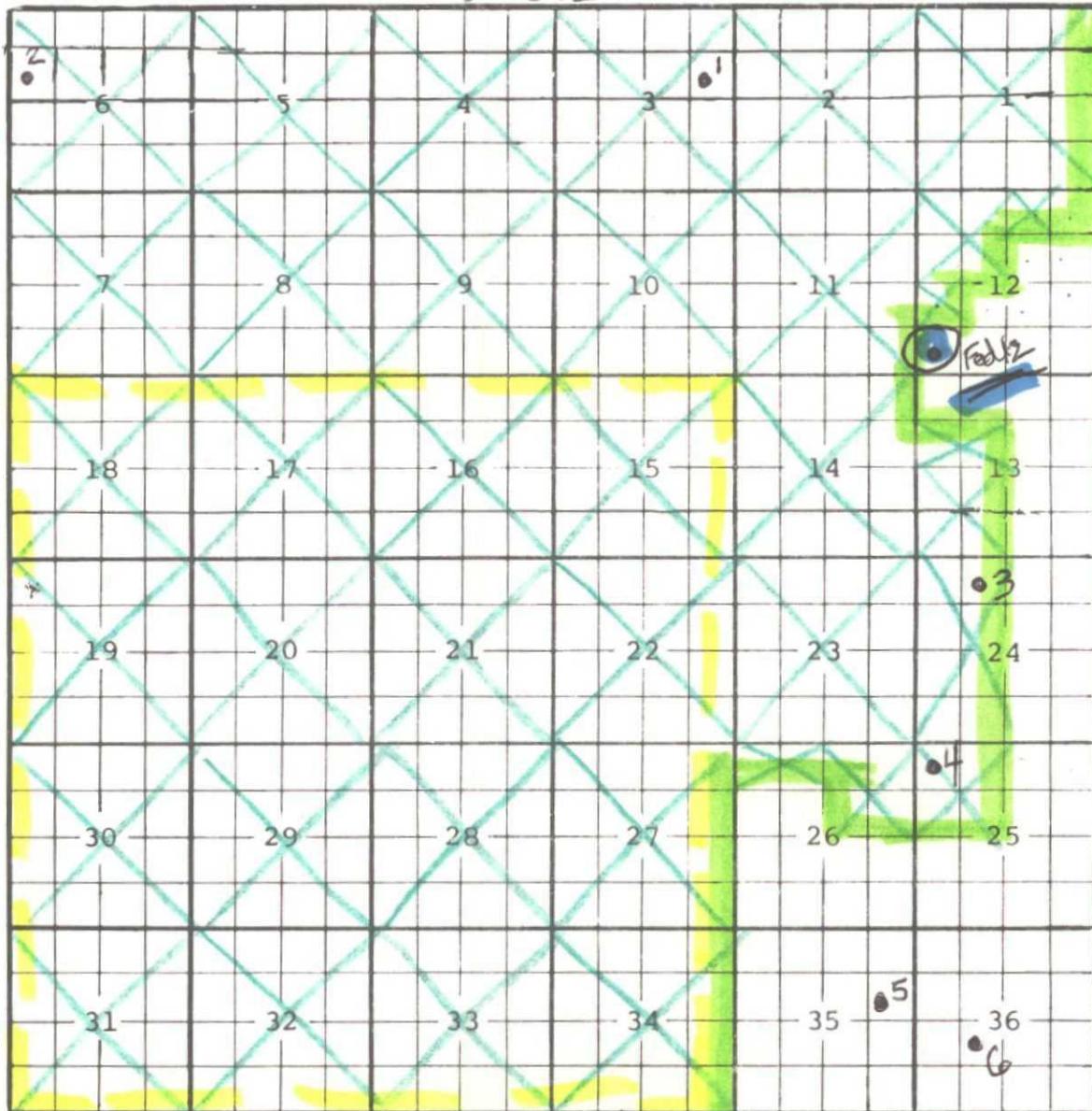
Issues: additional BP for PBTB of injection well

Two existing perf sets  
7042 to 7074  
&  
8270 to 8336

2,243  
BOW

County Eddy ~~root~~ R-III-P X WIPP □

TOWNSHIP 22S Range 31E NMPM



<u>OKY</u>	1	30-015-38254	Lost Tank 3 Fed Well #25	SWD-1244	9/3/2010 Cherry Canyon
	2	30-015-21098	Campana Well #1	SWD-920	4/7/2009
	3	30-015-26848	Getty 24 Fed Well #5	SWD-440	
<u>OKY</u>	4	30-015-28281	Neff Fed Well #3	SWD-1229	
	5	30-015-26629	David Ross Fed SW Well #1	SWD-419	
	6	30-015-26171	Medano State Well #1	SWD-689	

- 1 5355-6137 Cherry Canyon Fm
- 2 5900-6014 "Delaware Mbr"
- 3 4500-5000 "Delaware formation"
- 4 5634-5987 Cherry Canyon Fm
- 5 4500-5670 "Delaware formation"
- 6 4500-5700 "Delaware formation" IPI tol, 400