

DATE IN 9/23/2014	SUSPENSE	ENGINEER DRG	LOGGED IN 9/23/2014	TYPE SWD	APP NO. PMAM14 26665837
4/2/15					
ABOVE THIS LINE FOR DIVISION USE ONLY					

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



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]

-SWD
-COG operating
229137

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A] Empire State SWD 8#1

[A] Location - Spacing Unit - Simultaneous Dedication API# 30-015-38973
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

Pool
-SWD, CISC0
96099

[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.

Kanicia Castillo

Print or Type Name

Signature

K C

Lead Regulatory Analyst

Title

9/16/2014

Date

kcastillo@Concho.com

e-mail Address



RECEIVED
OCT 13 10 17 AM

September 18, 2014

Kanicia Castillo
COG Operating LLC
One Concho Center
600 W Illinois Avenue
Midland, TX 79701

Phillip Goetze
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Saltwater Disposal Application

Empire State SWD 8 #1
API# 30-015-38973
I-8-17S-29E
1980 FSL & 660 FEL
SWD;Cisco 96099
Eddy County, New Mexico

Mr. Goetze:

COG Operating LLC respectfully requests administrative approval for authorization to inject the Empire State SWD 8 #1 for SWD purposes.

This application was submitted in 2010. The approval was delayed pending the P&A of Conoco 8 State Com #1. This P&A has been completed so we are now seeking approval. We have attached an updated application along with the Conoco 8 State Com #1 P&A sundry.

We would like approval to inject into the Cisco Reef interval, located between ~~8300' - 8900'~~ ^{8366'} ~~9000'~~.

Please contact me at 432-685-4332 or email at kcastillo@concho.com if you need additional information.

Sincerely,

Kanicia Castillo
Lead Regulatory Analyst
COG Operating LLC

Cc: NMOCD – District 2 – Artesia



COG Operating, LLC

(OGRID 229137)

Application for SWD

Empire State SWD 8 #1

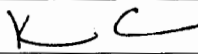
API# 30-015-38973

Section 8, Township 17S, Range 29E, Unit I

1980' FSL & 660' FEL

Eddy County, New Mexico

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance ☒ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No
- II. OPERATOR: **COG Operating, LLC.**
ADDRESS: **One Concho Center, 600 West Illinois Ave, Midland TX 79701**
CONTACT PARTY: **Kanicia Castillo** PHONE **432-685-4332**
- 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.
- 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: **Kanicia Castillo** TITLE: **Lead Regulatory Analyst**
SIGNATURE:  DATE: **9/16/2014**
E-MAIL ADDRESS: **kcastillo@concho.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.

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.

VII.

COG Operating, LLC
Empire State SWD 8 #1
API# 30-015-38973
Sec 38, T17S, R29E, Unit I
1980' FSL & 660' FEL
Eddy County, NM

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - **Average daily rate/volume 10,000 to 15,000 BWPD, Maximum daily rate/volume 20,000 BWPD**
2. Whether the system is open or closed;
 - **Closed System**
3. Proposed average and maximum injection pressure;
 - **Average injection pressure - Vacuum, Maximum injection pressure 1660 psig**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
 - **Produced water from the Yeso formation. (Only from COG nearby operations)**
 - **We do not anticipate incompatibility issues because we currently have similar SWD wells in the area that dispose of Yeso produced water in the Cisco.**
 - **Existing Cisco SWD wells: Empire St SWD #2 30-015-37787, Empire St SWD 9 #4 30-015-38972**
 - **Please see attached Yeso produced water analysis. (Conoco 8 St #1)**
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.).
 - **Chemical Analysis for the disposal zone formation water is attached**



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	COG Operating LLC - NM	Sample #:	8606
Area:	Artesia	Analysis ID #:	10527
Lease:	Conoco 8 State	BOPD:	13
Location:	1	BWPD:	87
Sample Point:	Wellhead		

		Anions		mg/l	meq/l	Cations		mg/l	meq/l
Sampling date:	5/30/2012	Chloride:	123254.2	3475.77		Sodium:	58970.0	1662.95	
Analysis date:	6/1/2012	Bicarbonate:	488.0	8.00		Magnesium:	2529.0	41.48	
Analysis:	Catalyst	Carbonate:		0.00		Calcium:	13930.0	463.87	
TDS (mg/l or g/m3):	201443	Sulfate:	880.0	18.30		Potassium:	1101.0	22.90	
Density (g/cm3):	1.139					Strontium:	278.2	6.34	
Hydrogen Sulfide:	0					Barium:	0.0	0.00	
Carbon Dioxide:	120					Iron:	12.5	0.45	
Comments:		pH at time of sampling:		5.42		Manganese:	0.0	0.00	
		pH at time of analysis:							
		pH used in Calculation:		5.42		Conductivity (micro-ohms/cm):		209000	
		Temperature @ lab conditions (F):		75		Resistivity (ohm meter):		0.0478	

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO3		Gypsum CaSO4*2H2O		Anhydrite CaSO4		Celestite SrSO4		Barite BaSO4	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.06	0.00	-0.05	0.00	-0.03	0.00	-0.09	0.00	0.00	0.00
100	0.02	2.60	-0.12	0.00	-0.03	0.00	-0.11	0.00	0.00	0.00
120	0.11	12.41	-0.17	0.00	-0.01	0.00	-0.12	0.00	0.00	0.00
140	0.20	22.50	-0.22	0.00	0.04	34.04	-0.12	0.00	0.00	0.00
160	0.30	32.60	-0.26	0.00	0.11	82.52	-0.11	0.00	0.00	0.00
180	0.41	42.70	-0.29	0.00	0.19	134.16	-0.09	0.00	0.00	0.00
200	0.53	52.51	-0.31	0.00	0.29	182.92	-0.07	0.00	0.00	0.00
220	0.66	61.74	-0.33	0.00	0.39	226.49	-0.05	0.00	0.00	0.00

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

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

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.

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

San Andres @ 2,425 ; Paddock @ 3,915' ; Blinebry @ 4,400' ; Wolfcamp @ 7,190'

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-102

Revised October 15, 2009

Submit one copy to appropriate


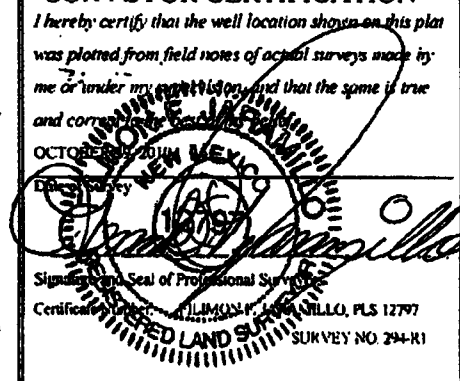
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015 - 38973		Pool Code 96099		Pool Name SWD; Cisco	
Property Code 38595		Property Name EMPIRE STATE SWD "8"			Well Number 1
OGRID No. 229137		Operator Name COG OPERATING, LLC.			Elevation 3607.0
10 Surface Location					
UL or lot no. I	Section 8	Township 17 S	Range 29 E	Lot Ida	Feet from the 1980
					North/South line SOUTH
					Feet from the 660
					East/West line EAST
					County EDDY
11 Bottom Hole Location If Different From Surface					
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the
					North/South line
					Feet from the
					East/West line
					County
12 Dedicated Acres 40		13 Joint or Infill		14 Consolidation Code	
				15 Order No.	

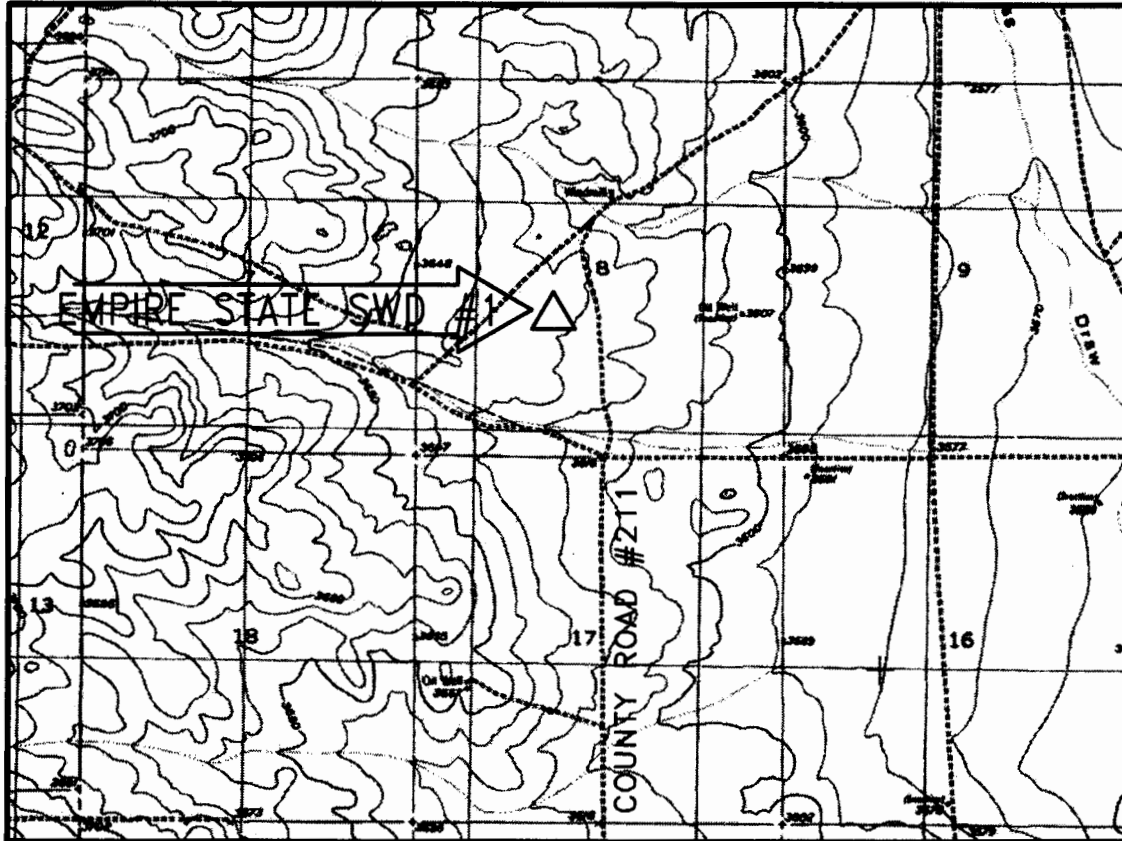
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

NW CORNER SEC. 8 LAT. = 32°51'22.85"N LONG. = 104°06'20.07"W NMSP EAST (FT) N = 875350.16 E = 611257.40		NE CORNER SEC. 8 LAT. = 32°51'22.84"N LONG. = 104°05'18.39"W NMSP EAST (FT) N = 675361.22 E = 616519.55		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  Signature _____ Date 4-8-11 Printed Name Kelly J. Holly
SW CORNER SEC. 8 LAT. = 32°50'30.60"N LONG. = 104°06'19.99"W NMSP EAST (FT) N = 670067.84 E = 611275.31		SE CORNER SEC. 8 LAT. = 32°50'30.54"N LONG. = 104°05'18.02"W NMSP EAST (FT) N = 670074.28 E = 616563.26		
RECEIVED APR 11 2011 NMOCD ARTESIA				18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct.  Signature and Seal of Professional Surveyor Certificate No. 11100011 ALBUQUERQUE, N.M. 87102 SURVEY NO. 294-R1



SECTION 8, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

LOCATION VERIFICATION MAP



NOT TO SCALE

CONTOUR INTERVAL:
Red Lake SE.

DIRECTIONS TO LOCATION

FROM U.S. HWY. 82 AND CR. #211 (OLD LOCO)
GO NORTH ON CR. #211 2.5 MILES AND TURN
LEFT ON OLD CALICHE ROAD AND GO WEST 600'
AND LOCATION IS ON THE LEFT (SOUTH) 280'

SEC. 8 TWP. 17-S RGE. 29-E
SURVEY N.M.P.M.
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 1980' FSL & 1980' FWL
ELEVATION 3631.1
OPERATOR C. O. G. OPERATING, LLC
LEASE EMPIRE

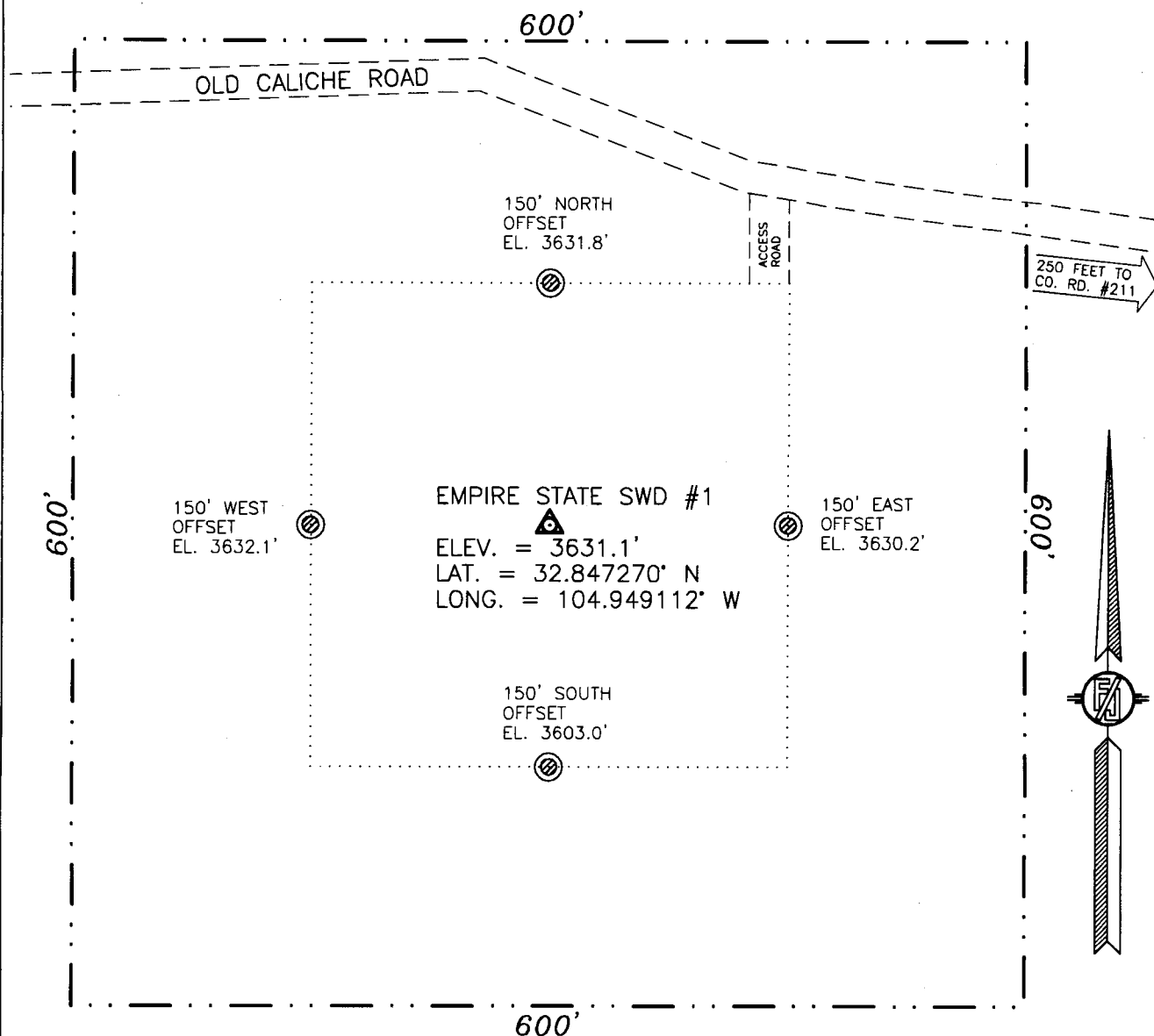
COG OPERATING, LLC
EMPIRE STATE SWD #1
LOCATED 1980 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 17 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 22, 2009

SURVEY NO. 058

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 887-5830 CARLSBAD, NEW MEXICO

SECTION 8, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO



010 50 100 200
SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM U.S. HWY. 82 AND CR. #211 (OLD LOCO)
GO NORTH ON CR. #211 2.5 MILES AND TURN
LEFT ON OLD CALICHE ROAD AND GO WEST 600'
AND LOCATION IS ON THE LEFT (SOUTH) 280'

COG OPERATING, LLC
EMPIRE STATE SWD #1
LOCATED 1980 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 17 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

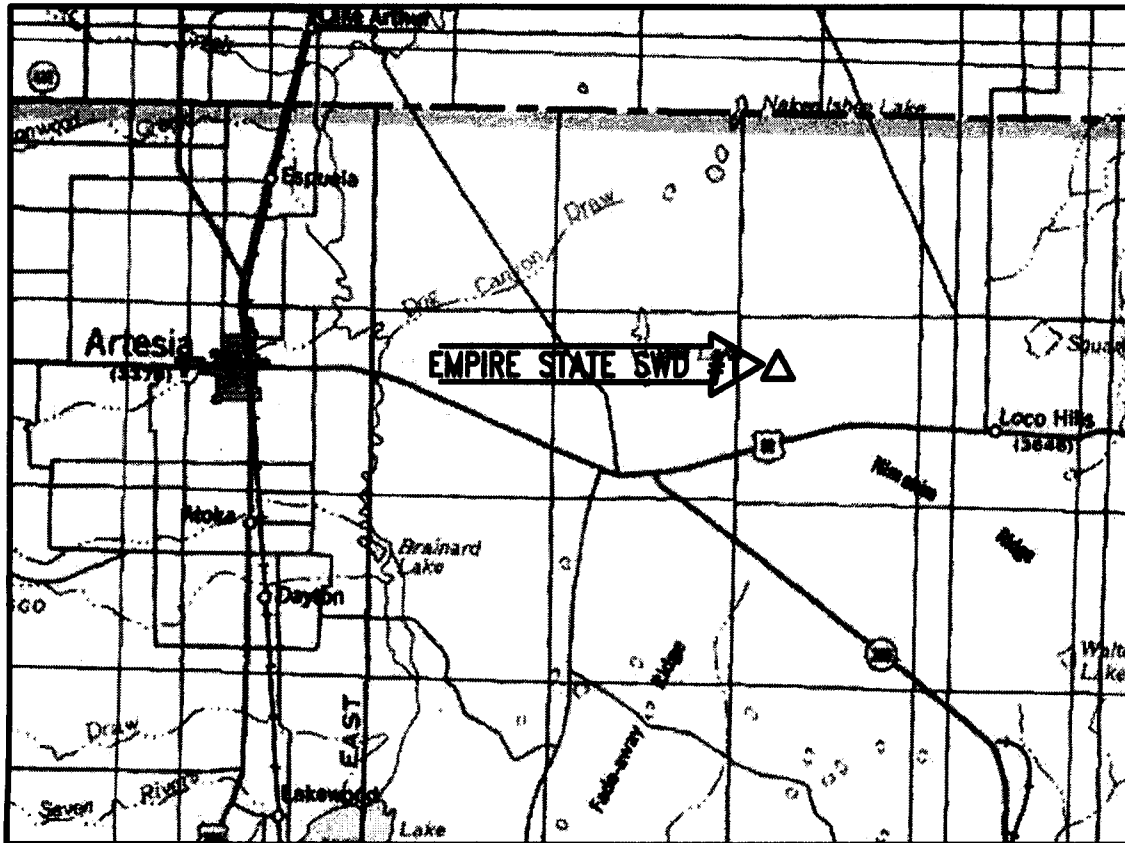
DECEMBER 22, 2009

SURVEY NO. 058

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 887-5830

SECTION 8, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

VICINITY MAP



DIRECTIONS TO LOCATION
FROM U.S. HWY. 82 AND CR. #211 (OLD LOCO)
GO NORTH ON CR. #211 2.5 MILES AND TURN
LEFT ON OLD CALICHE ROAD AND GO WEST 600'
AND LOCATION IS ON THE LEFT (SOUTH) 280'

NOT TO SCALE

SEC. 8 TWP. 17-S RGE. 29-E
SURVEY N.M.P.M.
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 1980' FSL & 1980' FWL
ELEVATION 3631.1
OPERATOR C. O. G. OPERATING, LLC
LEASE EMPIRE

COG OPERATING, LLC
EMPIRE STATE SWD #1
LOCATED 1980 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 8, TOWNSHIP 17 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 22, 2009

SURVEY NO. 058

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 887-5830 CARLSBAD, NEW MEXICO

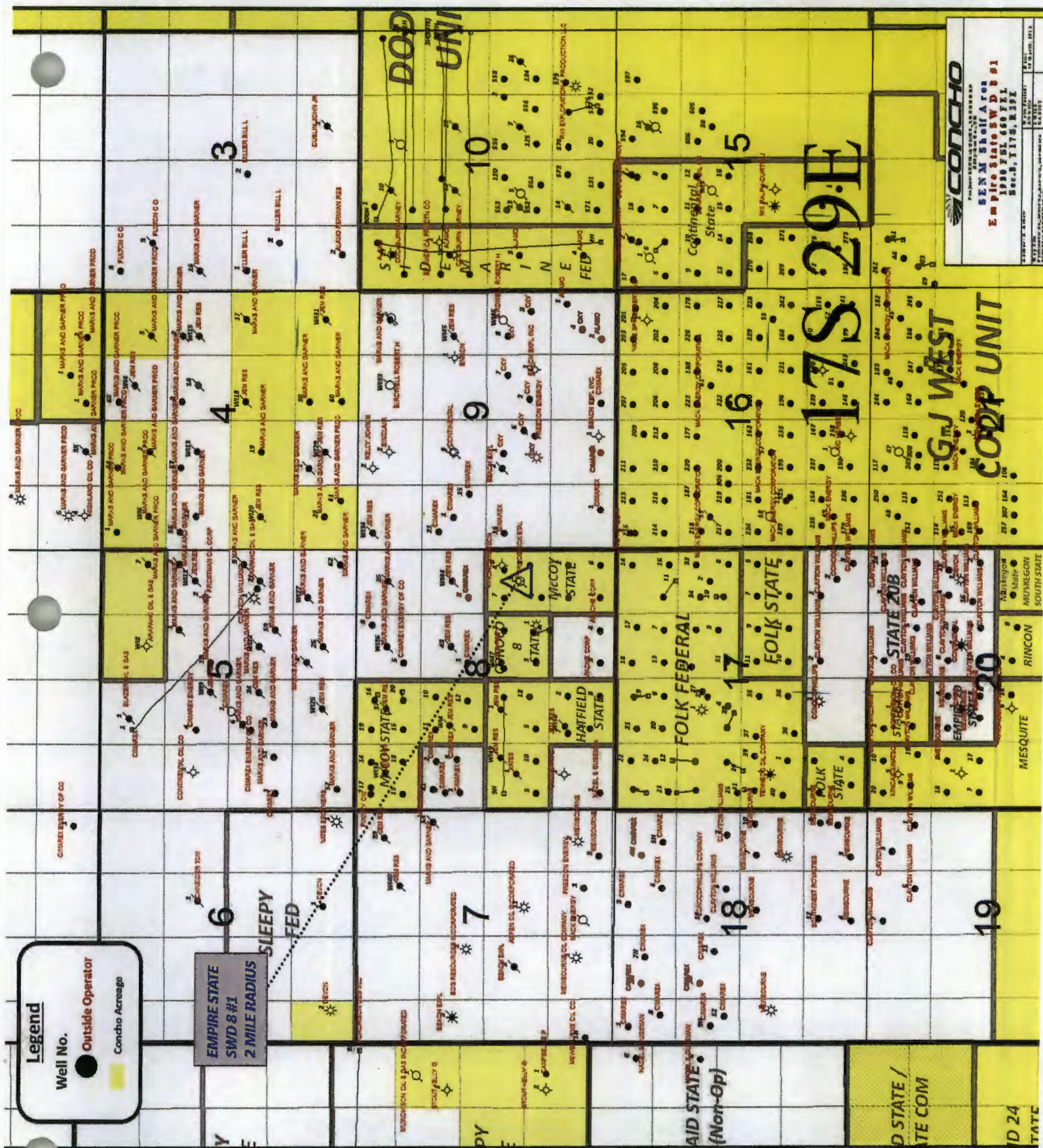


Exhibit V1.

1. There are a total of 4 wells in the AOR penetrating the injection interval.

Area of Review

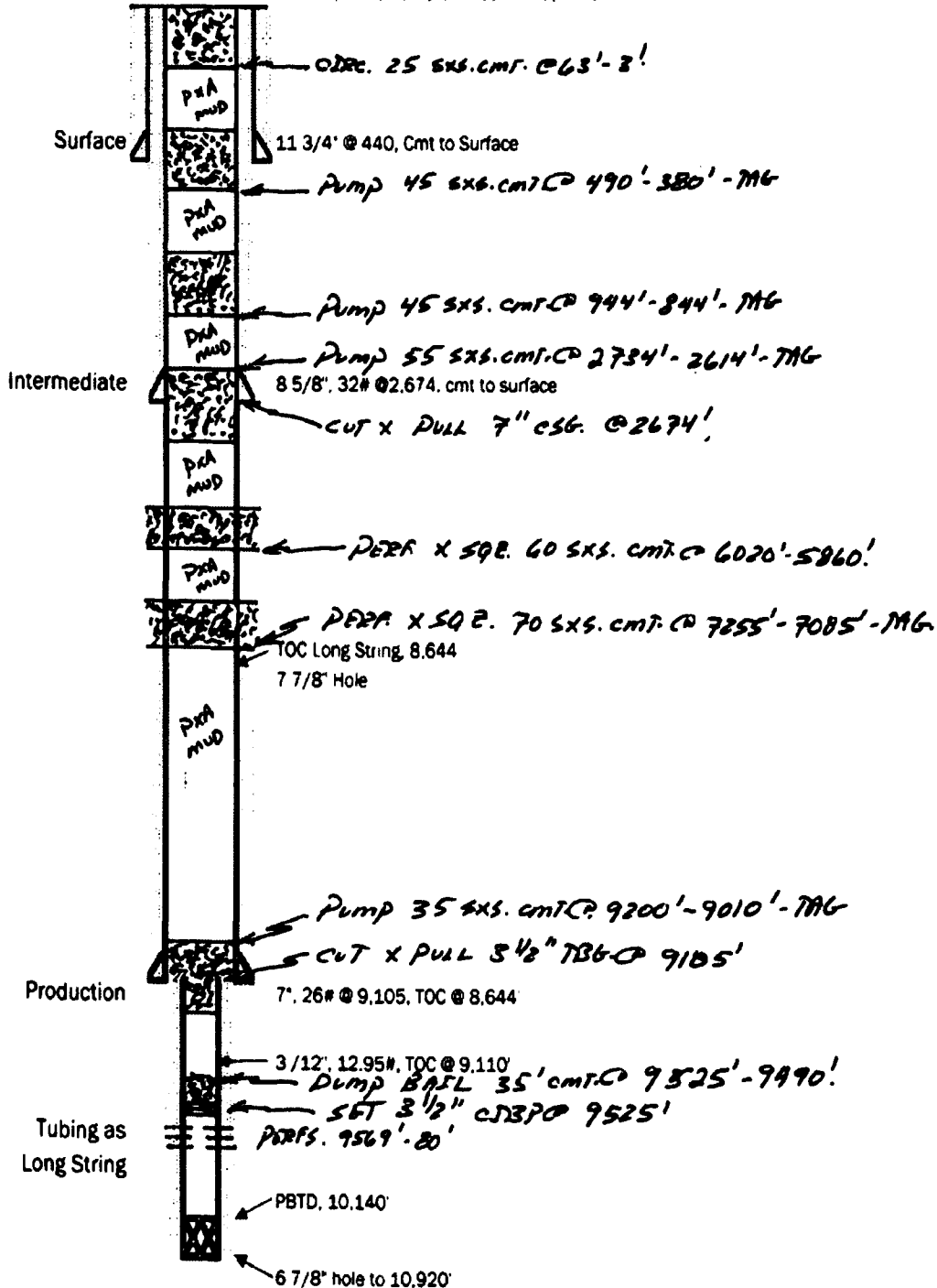
Well Name	Operator	APN	Field Design	Com Bldg DVT	SOL	Com Bldg DVT SOL	TOT
Conoco 8 St Com #1 (P&A)	COG Operating LLC	30-015-30702	J-08-175-29E	1650 FSL, 1550 FEL	11.75 11 7.875 6.125	11.75 8.625 5.5 3.5	440 2674 9105 10898 0 0 8644 9110
Pre-Ongard Well #1 (P&A)	Pre-Ongard Well Operator	30-015-24965	L-08-175-29E	1980 FSL, 660 FWL	17.5 11 7.875	13.375 8.625 5.5	350 2650 3893 0 0 0
Barbwire 9 St Com #1	Cimarex Energy Co. of Colorado	30-015-36134	E-09-175-29E	1980 FNL, 660 FWL	17.5 12.25 8.75	13.375 9.25 5.5	186 3017 10830 0 0 2420
Oxy Flameskimmer St #1	Oxy USA WTP Limited Partnership	30-015-35219	K-09-175-29E	1650 FSL, 1880 FWL	17.5 12.25 7.875	13.375 8.625 5.5	739 2084 9770 0 0 1710

Well: Conoco 8 State Com #1

API: 30-015-30702

Elev: 3,611' GL

Location: 1650 N¹ · 1550 FEL, Unit Ltr J, Sec 8, T17S, R29E

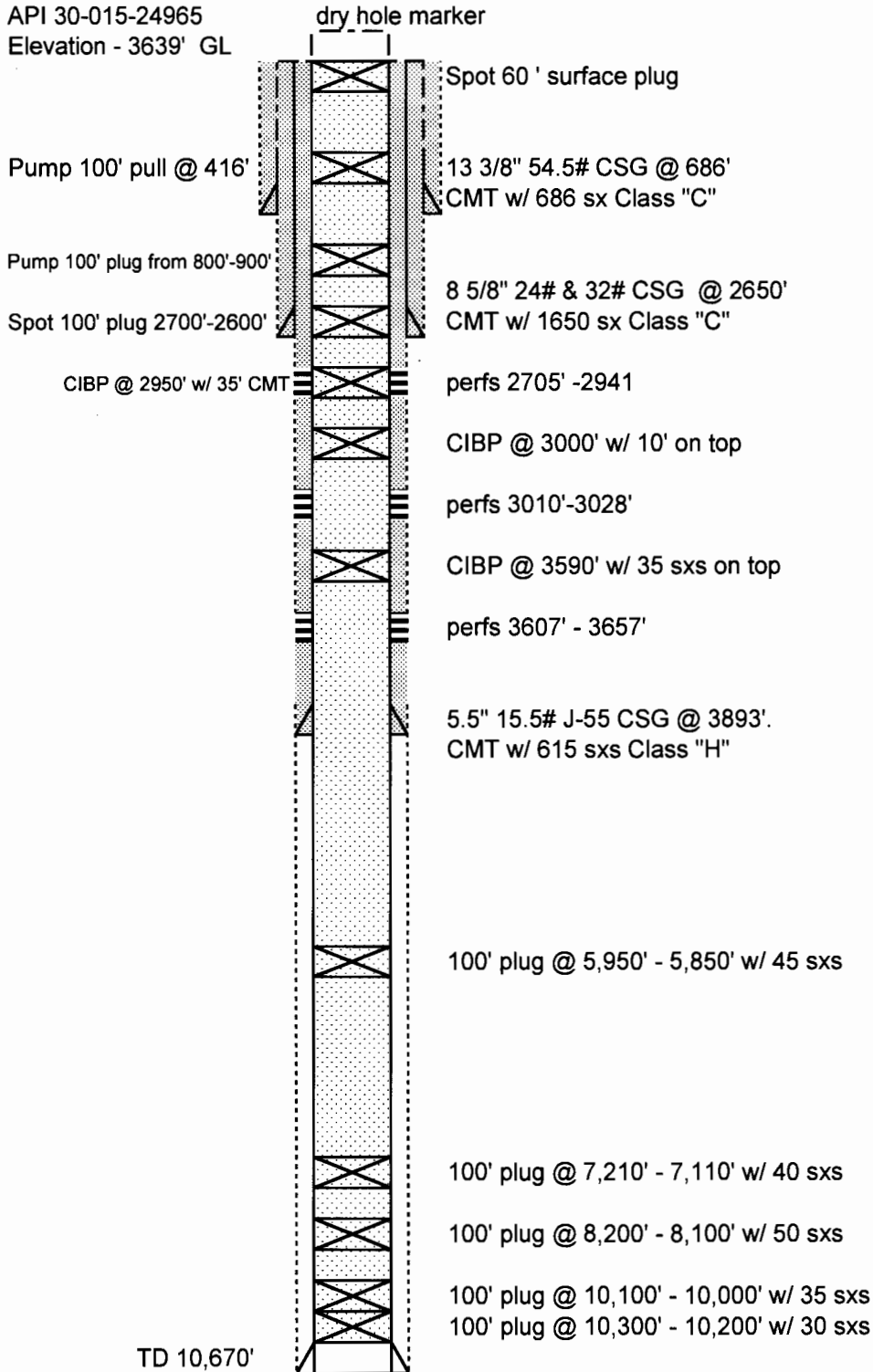


Pre-Ongard Well Operator

Lease & Well

Pre-Ongard Well #1
(Arco 8 State Com #1)

Spud - 8/31/1984
API 30-015-24965
Elevation - 3639' GL



Cimarex Energy Co. of Colorado

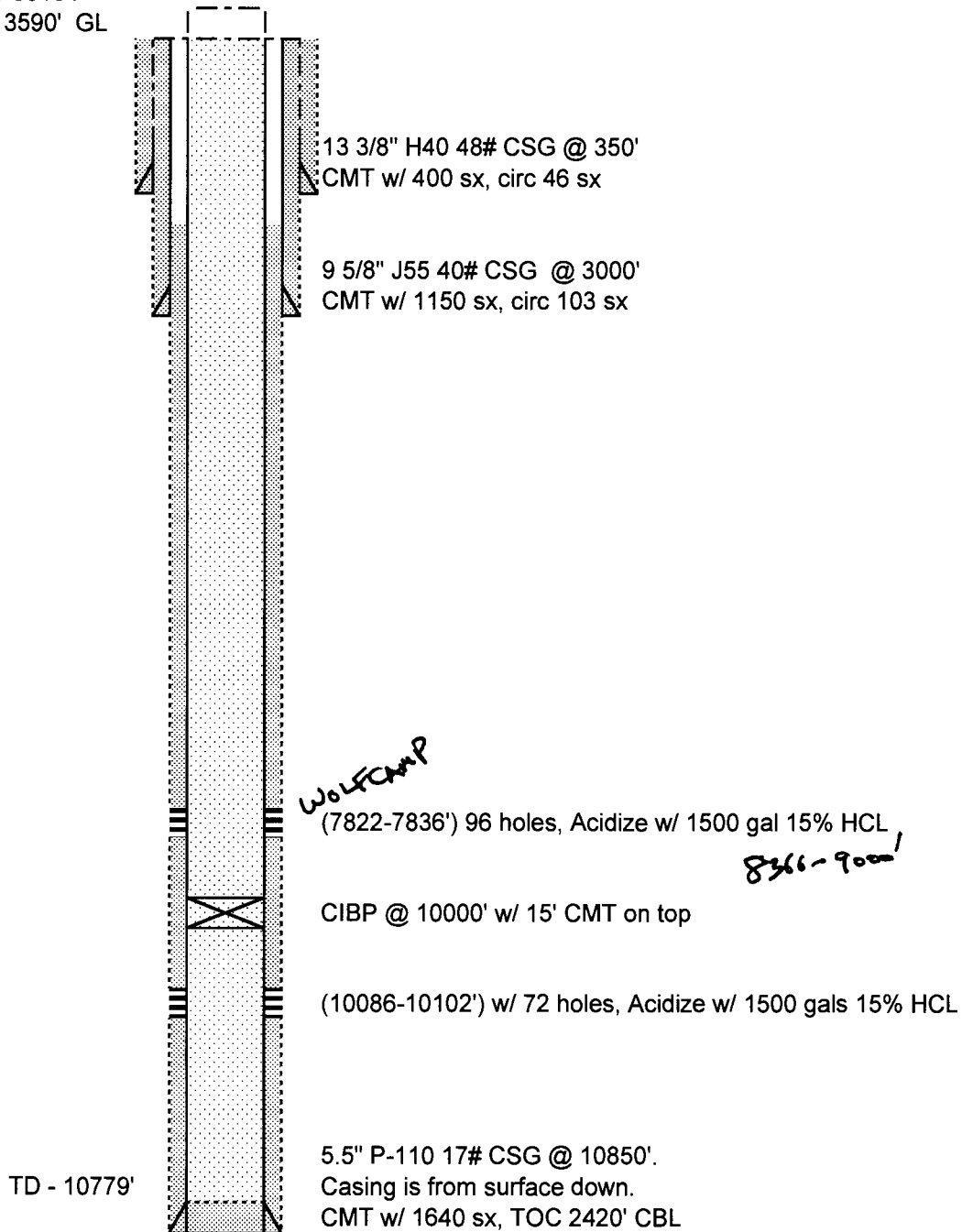
Lease & Well #

Barbwire 9 State Com #1

Spud - 3-17-2008

API 30-025-36134

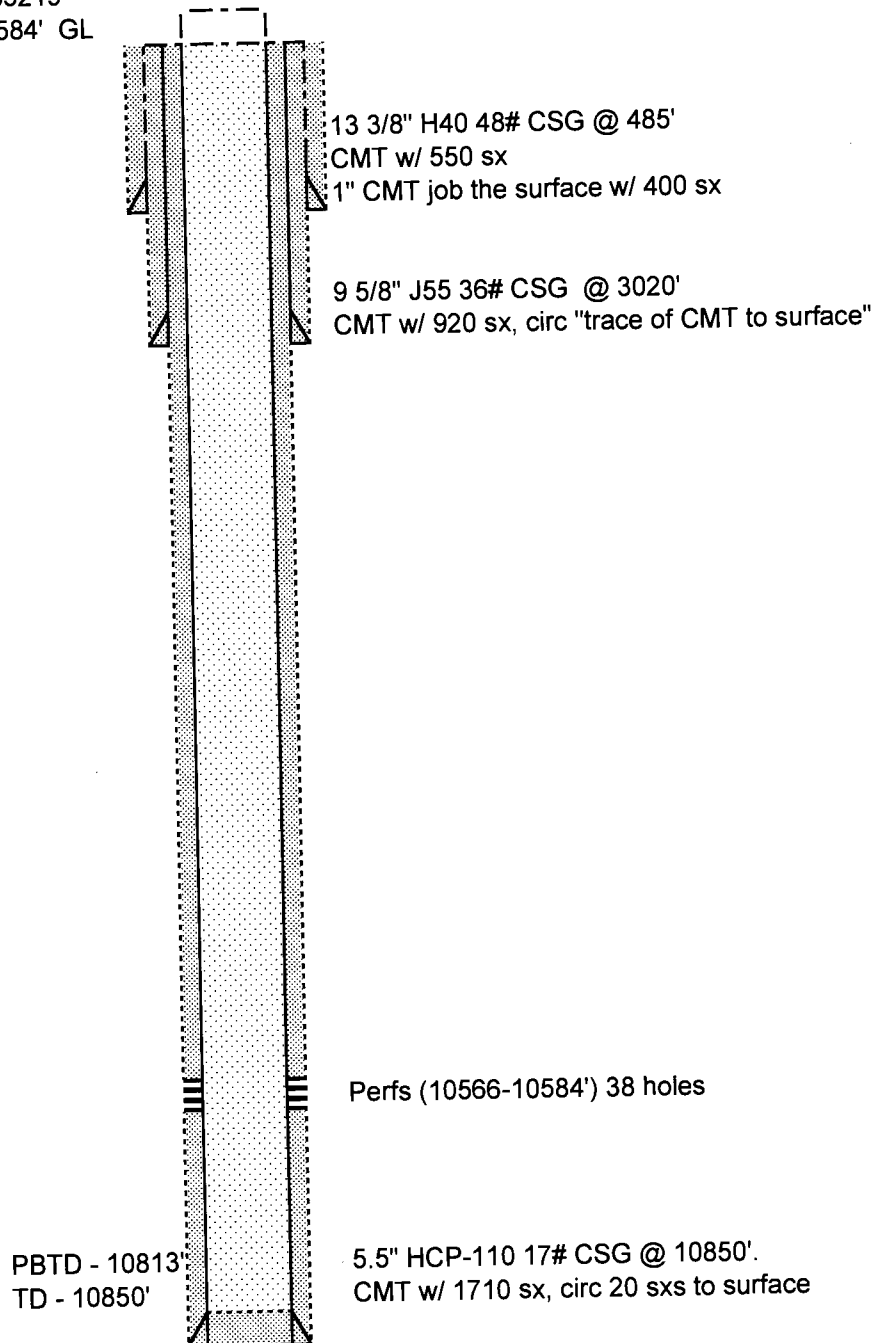
Elevation - 3590' GL



Oxy USA WTP Limited Partnership

Lease & Well # Oxy Flameskimmer State #1

Spud - 2-12-2007
API 30-015-35219
Elevation - 3584' GL



VII.

COG Operating, LLC
Empire State SWD 8 #1
API# 30-015-38973
Sec 38, T17S, R29E, Unit I
1980' FSL & 660' FEL
Eddy County, NM

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
 - **Average daily rate/volume 10,000 to 15,000 BWPD, Maximum daily rate/volume 20,000 BWPD**
2. Whether the system is open or closed;
 - **Closed System**
3. Proposed average and maximum injection pressure;
 - **Average injection pressure - Vacuum, Maximum injection pressure 1660 psig**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water; and,
 - **Produced water only**
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.).
 - **Chemical Analysis for the disposal zone formation water is attached**



Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

Water Analysis Report

Customer:	COG Operating LLC - NM	Sample #:	8606
Area:	Artesia	Analysis ID #:	10527
Lease:	Conoco 8 State	BOPD:	13
Location:	1	BWPD:	87
Sample Point:	Wellhead		

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling date:	5/30/2012	Chloride:	123254.2	Sodium:	58970.0
Analysis date:	6/1/2012	Bicarbonate:	488.0	Magnesium:	2529.0
Analysis:	Catalyst	Carbonate:	0.00	Calcium:	13930.0
TDS (mg/l or g/m3):	201443	Sulfate:	880.0	Potassium:	1101.0
Density (g/cm3):	1.139			Strontium:	278.2
Hydrogen Sulfide:	0			Barium:	0.0
Carbon Dioxide:	120			Iron:	12.5
Comments:		pH at time of sampling:	5.42	Manganese:	0.0
		pH at time of analysis:			
		pH used in Calculation:	5.42	Conductivity (micro-ohms/cm):	209000
		Temperature @ lab conditions (F):	75	Resistivity (ohm meter):	0.0478

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO3		Gypsum CaSO4*2H2O		Anhydrite CaSO4		Celestite SrSO4		Barite BaSO4	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.06	0.00	-0.05	0.00	-0.03	0.00	-0.09	0.00	0.00	0.00
100	0.02	2.60	-0.12	0.00	-0.03	0.00	-0.11	0.00	0.00	0.00
120	0.11	12.41	-0.17	0.00	-0.01	0.00	-0.12	0.00	0.00	0.00
140	0.20	22.50	-0.22	0.00	0.04	34.04	-0.12	0.00	0.00	0.00
160	0.30	32.60	-0.26	0.00	0.11	82.52	-0.11	0.00	0.00	0.00
180	0.41	42.70	-0.29	0.00	0.19	134.16	-0.09	0.00	0.00	0.00
200	0.53	52.51	-0.31	0.00	0.29	182.92	-0.07	0.00	0.00	0.00
220	0.66	61.74	-0.33	0.00	0.39	226.49	-0.05	0.00	0.00	0.00

The Triassic System overlies the Rustler formation in Eddy County and is composed of red beds and sandstones of the Dockum group. The lower part of these beds is considered Permian and correlated with Dewey Lake red beds by some geologists. The total thickness of the Dockum group east of Artesia is about 1,000'. Formations of the Dockum group exposed in Eddy County are the Pierce Canyon red beds, the Santa Rosa sandstone and red beds possibly from the Chinle formation.

In the Empire, Empire East, Loco Hills, and Fren Fields, the sandstone beds in the Triassic Dockum group and possibly in the Dewey Lake red beds are the chief sources of ground water. The depth to water in this area is generally less than 300'. Most of the wells in the outcrop area of the Dockum group yield water of better quality than the wells to the west that produce from the Rustler formation. Analyses were made of 21 samples of water from wells probably taking all or part of their water from the Triassic red beds. The hardness of calcium carbonate in the 21 samples ranged from 201 to 3,590 ppm and was more than 1,000 ppm in 14 of the 21 samples. The chloride content ranged from 17 to 785 ppm and was more than 200 ppm in 10 of the samples. Probably about half the wells in the Triassic red beds produce water that is considered usable for domestic purposes. None of the wells in the Triassic red beds produce water too highly mineralized for stock.

A review of all geologic map data and well as visual searches by field personnel did not indicate the presence of any windmills in the areas of review for the proposed conversions.

In summary, ground water in the Empire, Empire East, Loco Hills, and Fren areas for stock and domestic use can be obtained from wells in the Triassic red beds at depths up to 300'. Water is generally of fair quality but locally impotable. The injection intervals for the proposed conversions are in the Yeso group in the lower Permian age rocks at about 4,449' TVD to 4,554' TVD. No contamination of the known shallow potable ground waters is expected from the proposed deeper secondary operations due to over 3,500' of vertical separation between them. There was no indication of any use of ground water aquifers in the areas of reviews for the proposed conversions.

From Geology and Ground-Water Resources of Eddy County, New Mexico by G. E. Hendrickson and R. S. Jones. Ground-Water Report 3, New Mexico Bureau of Mines and Mineral Resources, 1952

IX.

COG Operating, LLC
Empire State SWD 8 #1
API# 30-015-38973
Sec 8, T17S, R29E, Unit I
1980' FSL & 660' FEL
Eddy County, NM

Stimulation program: Large conventional acid job. Depending on the step rate test, possibly sand fractured.

X.

COG Operating, LLC
Empire State SWD 8 #1
API# 30-015-38973
Sec 8, T17S, R29E, Unit I
1980' FSL & 660' FEL
Eddy County, NM

Logging and test data: No test data. Logs on file.



New Mexico Office of the State Engineer

Point of Diversion by Location

(with Owner Information)

POD Search:

POD Basin: Roswell Artesian

Basin/County Search:

County: Eddy

PLSS Search:

Section(s): 8

Township: 17S

Range: 29E

No PODs found.

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.

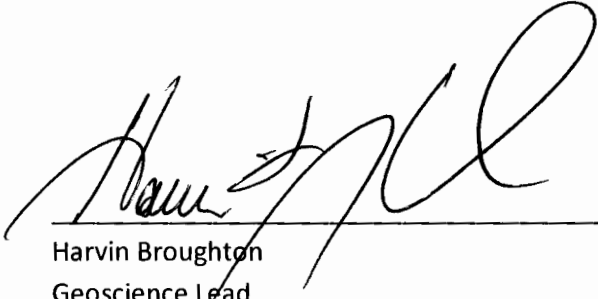
3/7/11 10:00 AM

Page 1 of 1

POINT OF DIVERSION BY LOCATION

Exhibit XII
Geological Statement

Concho Resources has examined available geological, seismic, and engineering data and finds no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.



Harvin Broughton
Geoscience Lead
432-683-7443

Notifications

Cimarex Energy Company of Colorado
202 S Cheyenne Avenue, Ste 1000
Tulsa, OK 74103

New Mexico State Land Office
Oil Gas and Mineral Division
310 Old Santa Fe Trail
Santa Fe, NM 87504

Oxy USA WTP Limited Partnership
PO Box 4294
Houston, TX 77210

LEGAL NOTICE

COG Operating LLC is applying for a saltwater disposal permit for the Empire State SWD 8 #1. The well is located at 1980' FSL & 660' FEL, Sec

T17S, R29E, Eddy County, New Mexico. The well will dispose of produced water from oil and gas wells into the Cisco Reef zone at depth of 8300' to 8900' at a maximum rate of 20,000 barrels of water per day and at a maximum pressure of 1,660 psi. Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days. Additional information can be obtained by contacting Kanicia Castillo, COG Operating LLC, One Concho Center, 600 West Illinois Ave, Midland, TX 79701. Phone number is 432-685-4332.

Published in the Artesia Daily Press, Artesia, N.M., September 17, 2014
Legal No. 23176.

XIII

Legal Notice

COG Operating LLC is applying for a saltwater disposal permit for the Empire State SWD 8 #1. The well is located at 1980' FSL & 660' FEL, Sec 8, T17S, R29E, Eddy County, New Mexico. The well will dispose of produced water from oil and gas wells into the Cisco Reef zone at depth of 8300' to 8900' at a maximum rate of 20,000 barrels of water per day and at a maximum pressure of 1,660 psi. Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505 within 15 days. Additional information can be obtained by contacting Kanicia Castillo, COG Operating LLC, One Concho Center, 600 West Illinois Ave, Midland, TX 79701. Phone number is 432-685-4332.



September 16, 2014

Cimarex Energy Company of Colorado
202 S Cheyenne Avenue, Ste 1000
Tulsa, OK 74103

Certified Mail Article Number: 91 7199 9991 7033 5389 3830

Re: Application for SWD well on the:

Empire State SWD 8 #1
API# 30-015-38973
Sec 8, 17S, R29E, Unit I
1980' FSL & 660' FEL
SWD;Cisco (96099)
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM for a new SWD well. We will be disposing of produced water, into the Cisco Reef, depths 8300' to 8900'.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3200.

Sincerely,

A handwritten signature in black ink, appearing to be "K. Castillo", written over a horizontal line.

Kanicia Castillo
Regulatory Analyst
COG Operating LLC



September 16, 2014

Oxy USA WTP Limited Partnership
PO Box 4294
Houston, TX 77210

Certified Mail Article Number: 91 7199 9991 7033 5389 3823

Re: Application for SWD well on the:

Empire State SWD 8 #1
API# 30-015-38973
Sec 8, 17S, R29E, Unit I
1980' FSL & 660' FEL
SWD;Cisco (96099)
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM for a new SWD well. We will be disposing of produced water, into the Cisco Reef, depths 8300' to 8900'.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3200.

Sincerely,

A handwritten signature in black ink, appearing to read "K-C", with a horizontal line extending to the right.

Kanicia Castillo
Regulatory Analyst
COG Operating LLC



September 16, 2014

New Mexico State Land Office
Oil Gas and Mineral Division
310 Old Santa Fe Trail
Santa Fe, NM 87504

Certified Mail Article Number: 91 7199 9991 7033 5389 3816

Re: Application for SWD well on the:

Empire State SWD 8 #1
API# 30-015-38973
Sec 8, 17S, R29E, Unit I
1980' FSL & 660' FEL
SWD;Cisco (96099)
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM for a new SWD well. We will be disposing of produced water, into the Cisco Reef, depths 8300' to 8900'.

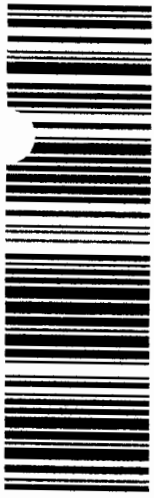
Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3200.

Sincerely,

A handwritten signature in black ink, appearing to read 'K. Castillo'.

Kanicia Castillo
Regulatory Analyst
COG Operating LLC

CERTIFIED MAIL



91 7199 9991 7033 5389 3830



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

Cimarex Energy Company of Colorado
202 S Cheyenne Avenue, Suite 1000
Tulsa, OK 74103

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:

Cimarex Energy Company of Colorado
202 S Cheyenne Avenue, Suite 1000
Tulsa, OK 74103

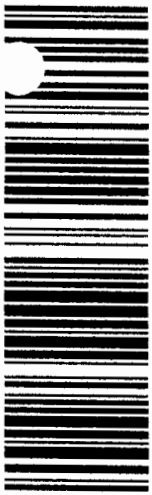
COMPLETE THIS SECTION ON DELIVERY

A. Signature	<input type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee
B. Received by (Printed Name)	C. Date of Delivery
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"/> Registered <input type="checkbox"/> Insured Mail	<input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> C.O.D.
4. Restricted Delivery? (Extra Fee)	<input type="checkbox"/> Yes	

2 Article Number

91 7199 9991 7033 5389 3830



91 7199 9991 7033 5389 3816



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

NEW MEXICO STATE LAND OFFICE
OIL GAS AND MINERALS DIVISION
310 OLD SANTA FE TRAIL
SANTA FE, NM 87504-1148

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:

NEW MEXICO STATE LAND OFFICE
OIL GAS AND MINERALS DIVISION
310 OLD SANTA FE TRAIL
SANTA FE, NM 87504-1148

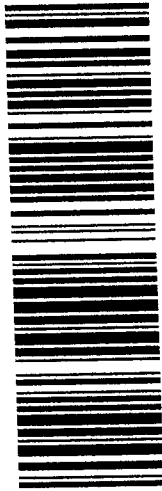
COMPLETE THIS SECTION ON DELIVERY

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

3. Service Type ☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label)

91 7199 9991 7033 5389 3816



91 7199 9991 7033 5389 3823



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

Oxy USA WTP Limited Partnership
PO Box 4294
Houston, TX 77210

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:

Oxy USA WTP Limited Partnership
PO Box 4294
Houston, TX 77210

COMPLETE THIS SECTION ON DELIVERY

A. Signature	<input type="checkbox"/> Agent
<input checked="" type="checkbox"/>	<input type="checkbox"/> Addressee
B. Received by (Printed Name)	C. Date of Delivery
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)

91 7199 9991 7033 5389 3823

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
June 19, 2008

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		WELL API NO. 30-015-38973
2. Name of Operator COG Operating LLC		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
3. Address of Operator One Concho Center 600 W. Illinois Ave. Midland, TX 79701		6. State Oil & Gas Lease No.
4. Well Location Unit Letter <u>I</u> : <u>1980</u> feet from the <u>South</u> line and <u>660</u> feet from the <u>East</u> line Section <u>8</u> Township <u>17S</u> Range <u>29E</u> NMPM County <u>Eddy</u>		7. Lease Name or Unit Agreement Name Empire State SWD 8
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3607' GR		8. Well Number 1
		9. OGRID Number 229137
		10. Pool name or Wildcat SWD; Cisco 96099

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: Shut in <input checked="" type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Well shut in effective 3/4/12, has not been issued an SWD permit pending remedial operations in an offset well.

RECEIVED

FEB 12 2013

NMOOD ARTESIA

Spud Date:

2/17/12

Rig Release Date:

3/4/12

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

SIGNATURE

Chasity Jackson

TITLE Regulatory Analyst

DATE 2/6/13

Type or print name Chasity Jackson

E-mail address: cjackson@concho.com

PHONE: 432-686-3087

For State Use Only

APPROVED BY

JDade

TITLE

Director Supervisor

DATE 2/14/13

Conditions of Approval (if any):

Submit 1 Copy To Appropriate District
Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

WELL API NO. 30-015-30702	
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No. E-6353	
7. Lease Name or Unit Agreement Name CONOCO 8 STATE COM	
8. Well Number 001	
9. OGRID Number 229137	
10. Pool name or Wildcat UNDESIGNATED: WOLFCAMP	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator COG OPERATING LLC	
3. Address of Operator 600 W. ILLINOIS AVE., MIDLAND, TEXAS 79701	
4. Well Location Unit Letter: J : 1650 feet from the SOUTH line and 1550 feet from the EAST line Section 08 Township 17S Range 29E NMPM EDDY County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3,611' - GR	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☒
CASING/CEMENT JOB ☐

OTHER: ☐

OTHER: WELL PLUGGED AND ABANDONED 08/27/14.

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

08/12/14: SET 3-1/2" CIBP @ 9,525'; PRES. TEST PLUG TO 1,000# X HELD FOR 10 MINS.; DUMP BAIL 35' CMT. @ 9,525'.
08/13/14: CUT X ATTEMPT TO PULL 3-1/2" TBG. @ 9,105' - UNSUCCESSFUL X COULD NOT PUMP INTO TBG. CUT.
08/14-17/14: CUT X PULL 3-1/2" TBG. @ 8,600' (PER OCD).
08/18/14: PUMP 35 SXS. CMT. @ 8,600'-8460' (PER OCD); PERF. SQZ. HOLES @ 7,255'; ATTEMPT TO EST. INJ. RATE - PRES. UP TO 500# X HELD; PUMP 45 SXS. CMT. @ 7,305' (PER OCD); WOC X TAG CMT. PLUG @ 7,034'.
08/19/14: PERF. X SQZ. 60 SXS. CMT. @ 6,020'; WOC X TAG CMT. PLUG @ 5,824'.
08/20/14: PERF. X SQZ. 55 SXS. CMT. @ 2,734'; WOC X TAG CMT. PLUG @ 2,514'.
08/21/14: PERF. X SQZ. 45 SXS. CMT. @ 944'; WOC X TAG CMT. @ 818'.
08/22/14: MIX X BRADENHEAD SQZ. @ 1,200# 150 SXS. CMT. DOWN BACKSIDE OF 7" CSG.(PER OCD); WOC.
08/23/14: PERF. SQZ. HOLES @ 63'; MIX X CIRC. TO SURF., FILLING ALL ANNULI. 125 SXS. CMT. @ 490'-3'.
08/24-27/14: MONITOR WELL FOR PRESSURE @ SURF. (PER OCD); WELL DEAD.
08/28/14: DIG OUT X CUT OFF WELLHEAD 3' B.G.L.; WELD ON STEEL PLATE TO CSGS. X INSTALL DRY HOLE MARKER.

Spud Date:

MIRU: 08/11/14

Rig Release Date:

RDMO: 08/26/14

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

SIGNATURE



TITLE: AGENT

DATE: 08/28/14

type or print name: DAVID A. EYLER

E-mail address: DEYLER@MILAGRO-RES.COM

PHONE: 432.687.3033

for State Use Only

APPROVED BY:

TITLE

DATE

Conditions of Approval (if any):

LOS ANGELES-CHICAGO-LOGAN, OH
MCGREGOR, TX-LOCUST GROVE, GA
U.S.A.

Shed
No. 2-153C

Get Typewriter -
 173 9625
 1741 10119
 1712 10397
 1712 10607
 Leighton and 173 10607
 Table 3235
 Penn 3 3367

30-015-30702
 Conoco 8 State Com. #1
 8-17S-29E
 Ut. J NW/SE

Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Friday, March 06, 2015 11:52 AM
To: 'kcastillo@concho.com'
Cc: Sanchez, Daniel J., EMNRD; Goetze, Phillip, EMNRD; Sharp, Karen, EMNRD
Subject: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973
Wolfcamp/Cisco Reef

Hello Kanicia,

I reviewed this application today.

Apparently this prospective disposal well from 2010 was waiting on a re-plugging of the offsetting Conoco 8 State Com and that was finished 8/26/14.

Two of the wells you had listed in the AOR were actually more than ½ mile away, so I am not counting them. And this is good, because one was not isolating the disposal interval very well.

This general area has at least three other SWD wells approved for COG into this same Wolfcamp or Cisco "Reef".

The well name probably should have conformed a bit with other wells – so probably should be: "Empire 8 State SWD Well No. 1" instead of "Empire State SWD 8 Well No. 1"?

Could you work with Karen Sharp to move the "8"? If you have a big objection to this, it would be fine.

Would you please let me know if the waste water to be disposed into this well will be:

- a. Only from this State lease
- b. Only from COG nearby operations
- c. From any operator in the area

Please list the formations from which the disposal water will originate and send a typical water analysis of each of those formations (list on the water analysis the well and formation from which it came)

It seems this well has already been drilled and cased to 8366 feet and is waiting on this permit.

Do you still plan to drill out with 6-1/8 inch bit from the shoe at 8366 to 9000 feet and inject only into this open hole?

Our well file shows this proposed 8366 – 9000 feet to be both Wolfcamp and Cisco in age – are you OK with the permit reflecting that?

Certified Notice:

There are two operators that currently operate shallower wells within ½ mile that have not been noticed:

Apache Corp (Unit letter O of Section 8)

Freedom Energy (Unit letter K of Section 9)

Please obtain waivers from them or send them certified notice (copy of this application) – or if I am mistaken, just have a Landman let me know.

I am assuming there is no vertical depth ownership differences – let me know if anyone else owns the rights to the Wolfcamp or Cisco within ½ mile of this well.

This all looks like a lot, but hopefully it is minor and won't cause you too much extra work,

Thanks for the application and contact me if you need to.

Regards,



STILL NOE HOLE 3/23/15

Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Tuesday, March 10, 2015 9:57 AM
To: 'Kania Castillo'
Cc: Kautz, Paul, EMNRD; Goetze, Phillip, EMNRD; Wade, Gabriel, EMNRD
Subject: RE: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Wolfcamp/Cisco Reef
Attachments: NoticeExample_AllDepths_Takeoff.pdf; NoticeExample_CiscoCanyon_MapView.pdf; NoticeExample_MapView_EddyNM_NASH_53_SWD.pdf; Potash Notification for SWD wells.docx

Kania,
Thanks for being so prompt and thorough.

Formation name:

The reason I was asking about this being partially within the "Wolfcamp" is the formation tops as picked and recorded in the well files by the OCD geologist for this area indicates the top of the Penn a bit lower than your proposed disposal interval. Several areas in SE NM have "PermoPenn" reservoirs that overlap the ages of Wolfcamp and Penn. And to complicate things, sometimes there is a depth severance between the Wolfcamp and Penn – so if you will talk to your Landman about this issue and make sure he or she knows that it is a bit cloudy whether this Reef goes up into the Wolfcamp or not? We don't want to identify it as only Cisco if there are depth ownership severances between the Permian and the Penn AND our well file has geologist picked tops which conflict with this application.

Notice:

So we can wait to hear from your Landman about depth severances out here. The "affected parties" are assumed to be within the interval being used for disposal (see attached examples) – but the form C-108 is also a part of this injection rule and it says to notice all "operators" within ½ mile. The operators of any depth within ½ mile are easy to find, so (per the C-108) we also ask you to notice them in addition to the "affected parties" and the surface owner. And we have had shallower operators of wells that have objected to a disposal well going in close to them – not often, but it happens. For a longer discussion on why we require notice to "Division Designated Operators", look at the attached "Potash Notification for SWD Wells".

Thanks for the analysis of waters from the Conoco 8 State Well No. 1 – for our records, would you let me know what formation this is from? *Yes*

Regards,

Will

From: Kania Castillo [mailto:kcastillo@concho.com]
Sent: Tuesday, March 10, 2015 7:49 AM
To: Jones, William V, EMNRD
Subject: RE: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Wolfcamp/Cisco Reef

Will,

One Concho Center
600 W. Illinois Avenue
Midland, TX 79701
P.432.685.4332
F.432.221.0858



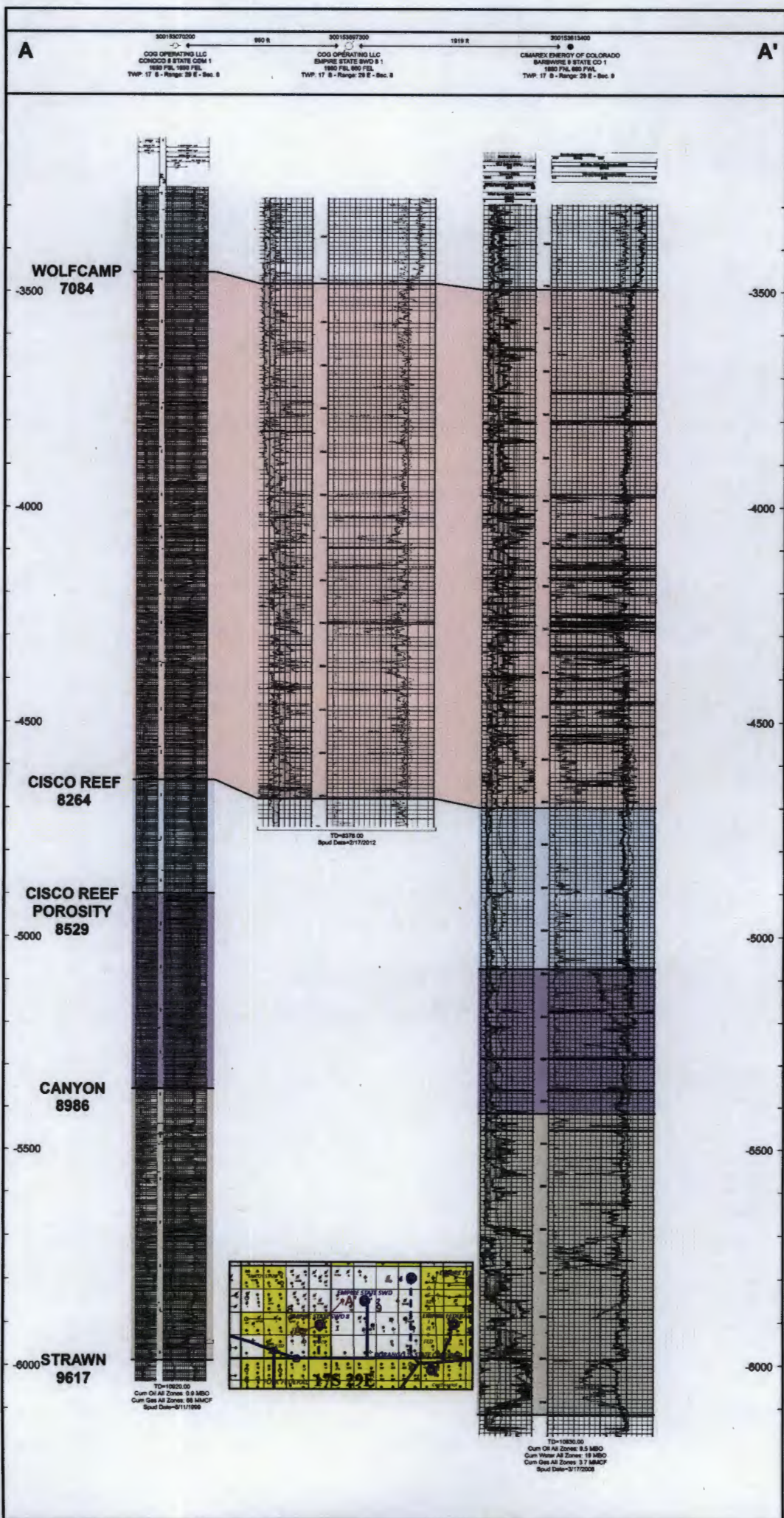
From: Candice Pettijohn
Sent: Thursday, March 12, 2015 2:13 PM
To: Kanicia Castillo
Cc: Justin Hollums; Harvin Broughton
Subject: Empire State SWD 8 #1 cross section and type log

Attached are a cross section and type log for the Empire State SWD 8 #1. In the cross section you can see that COG's geologists have picked the top of the Cisco Reef to be at 8303' in the Empire State SWD 8 #1, well above the injection interval. Our open hole injection interval in the Empire State SWD 8 #1 will be within the Cisco Reef from 8366' to 9000'. The type log is a COG-interpreted log for the Conoco 8 State Com #1, which is less than 1000 ft southwest of Empire State SWD 8 #1. The approximate injection interval for the Empire State SWD 8 #1 is posted on the right side of the type log to demonstrate the expected formation depths we will encounter when we drill out the Empire State SWD 8 #1 for injection (these two wells only have about 20 ft of offset in formation tops). I hope this helps clear things up, if not let me know what else I can put together.

Candice Pettijohn | Geologist | New Mexico Shelf | One Concho Center
600 W. Illinois Ave Midland, TX 79701
office: 432-685-2530 cell: 907-982-1670
cpettijohn@concho.com

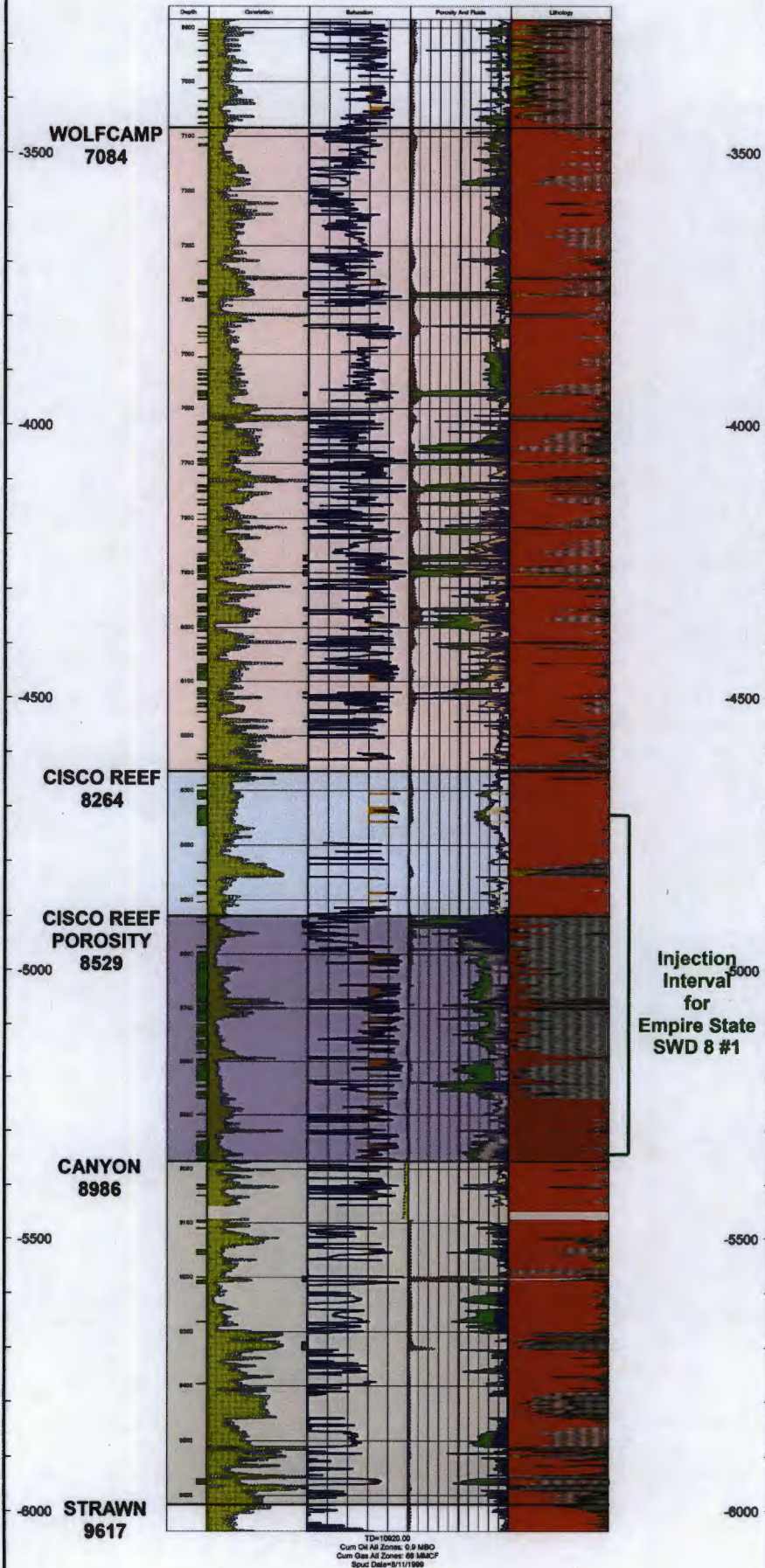


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TYPE LOG

300153070200
 COG OPERATING LLC
 CONOCO 8 STATE COM 1
 1850 FSL 1550 FEL
 TWP: 17 S - Range: 28 E - Sec. 8



Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Monday, March 23, 2015 4:50 PM
To: 'Kanicia Castillo'
Cc: Goetze, Phillip, EMNRD; Sanchez, Daniel J., EMNRD
Subject: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Cisco Reef

Hi Kanicia,
I have this one written and ready to release, but
Waiting on:

Certified Notice:

There are two operators that currently operate shallower wells within ½ mile that have not been noticed:

Apache Corp (Unit letter O of Section 8)

Freedom Energy (Unit letter K of Section 9)

Please obtain waivers from them or send them certified notice (copy of this application) – or if I am mistaken, just have a Landman let me know.

Let me know if anyone else owns the rights to the Cisco within ½ mile of this well – and send map with ownership "tracts".

Please remind me if you have already sent these two proof of notices and the Landman's take-off on Cisco ownership with the identified tracts.

(I believe that OXY, Cimarex, and the State Land Office have already been noticed)

Regards,

Will



William V. Jones, P.E., District IV Supervisor
Oil Conservation Division <http://www.emnrd.state.nm.us/ocd/>
1220 South St. Francis Drive, Santa Fe, NM 87505
P: 505.476.3477 C: 505.419.1995

Will

From: Kanicia Castillo [<mailto:kcastillo@concho.com>]
Sent: Tuesday, March 10, 2015 7:49 AM
To: Jones, William V, EMNRD
Subject: RE: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Wolfcamp/Cisco Reef

Will,

Please see the answers below in red. I'm still awaiting a response from my previous email about the notices. So, that question is still not answered on this email. I also have land checking the depth severance question, so that is not answered either.

If I missed something, please let me know.

Thank you,

Kanicia Castillo
Lead Regulatory Analyst
COG OPERATING LLC
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701
P.432.685.4332
F.432.221.0858


From: Jones, William V, EMNRD [<mailto:WilliamV.Jones@state.nm.us>]
Sent: Friday, March 06, 2015 12:52 PM
To: Kanicia Castillo
Cc: Sanchez, Daniel J., EMNRD; Goetze, Phillip, EMNRD; Sharp, Karen, EMNRD
Subject: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Wolfcamp/Cisco Reef

Hello Kanicia,

I reviewed this application today.

Apparently this prospective disposal well from 2010 was waiting on a re-plugging of the offsetting Conoco 8 State Com and that was finished 8/26/14.

Two of the wells you had listed in the AOR were actually more than ½ mile away, so I am not counting them. And this is good, because one was not isolating the disposal interval very well.

This general area has at least three other SWD wells approved for COG into this same Wolfcamp or Cisco "Reef".

The well name probably should have conformed a bit with other wells – so probably should be: "Empire 8 State SWD Well No. 1" instead of "Empire State SWD 8 Well No. 1"? We would like to keep the well name the same.

Could you work with Karen Sharp to move the "8"? If you have a big objection to this, it would be fine.

Would you please let me know if the waste water to be disposed into this well will be:

- a. Only from this State lease
- b. Only from COG nearby operations
- c. From any operator in the area

Please list the formations from which the disposal water will originate and send a typical water analysis of each of those formations (list on the water analysis the well and formation from which it came) Please see attached documents, VII & Conoco 8 State 1 Analysis

It seems this well has already been drilled and cased to 8366 feet and is waiting on this permit.

Do you still plan to drill out with 6-1/8 inch bit from the shoe at 8366 to 9000 feet and inject only into this open hole?

Yes and Yes

Our well file shows this proposed 8366 – 9000 feet to be both Wolfcamp and Cisco in age – are you OK with the permit reflecting that? Our Geologist would like it to reflect the Cisco only. (OCD pool: SWD; Cisco 96099)

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I am assuming there is no vertical depth ownership differences – let me know if anyone else owns the rights to the Wolfcamp or Cisco within ½ mile of this well.

This all looks like a lot, but hopefully it is minor and won't cause you too much extra work,

Thanks for the application and contact me if you need to.

Regards,

Will



William V. Jones, P.E., District IV Supervisor

Oil Conservation Division <http://www.emnrd.state.nm.us/oed/>

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

P: 505.476.3477 C: 505.419.1995

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Subject: RE: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973
Wolfcamp/Cisco Reef
Attachments: VII.DOCX; Conoco 8 St #1.pdf

Will,

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Thank you,

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Lead Regulatory Analyst
COG OPERATING LLC
One Concho Center
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To: Kanicia Castillo
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Oil Conservation Division <http://www.emnrd.state.nm.us/oed/>
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P: 505.476.3477 C: 505.419.1995

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Jones, William V, EMNRD

From: Kanicia Castillo <kcastillo@concho.com>
Sent: Tuesday, April 21, 2015 11:50 AM
To: Jones, William V, EMNRD
Subject: RE: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Cisco Reef
Attachments: Empire State SWD 8 #1 AOR map and notifications.pdf

Will,

Please see that attached documents. There is an update map that shows the operators and interest owners and then notifications based on the updated map plus the ones that you requested below.

Please let me know if you need anything else.

Thanks,

Kanicia Castillo
Lead Regulatory Analyst
COG OPERATING LLC
One Concho Center
600 W. Illinois Avenue
Midland, TX 79701
P.432.685.4332
F.432.221.0858



From: Jones, William V, EMNRD [<mailto:WilliamV.Jones@state.nm.us>]
Sent: Monday, March 23, 2015 5:50 PM
To: Kanicia Castillo
Cc: Goetze, Phillip, EMNRD; Sanchez, Daniel J., EMNRD
Subject: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Cisco Reef

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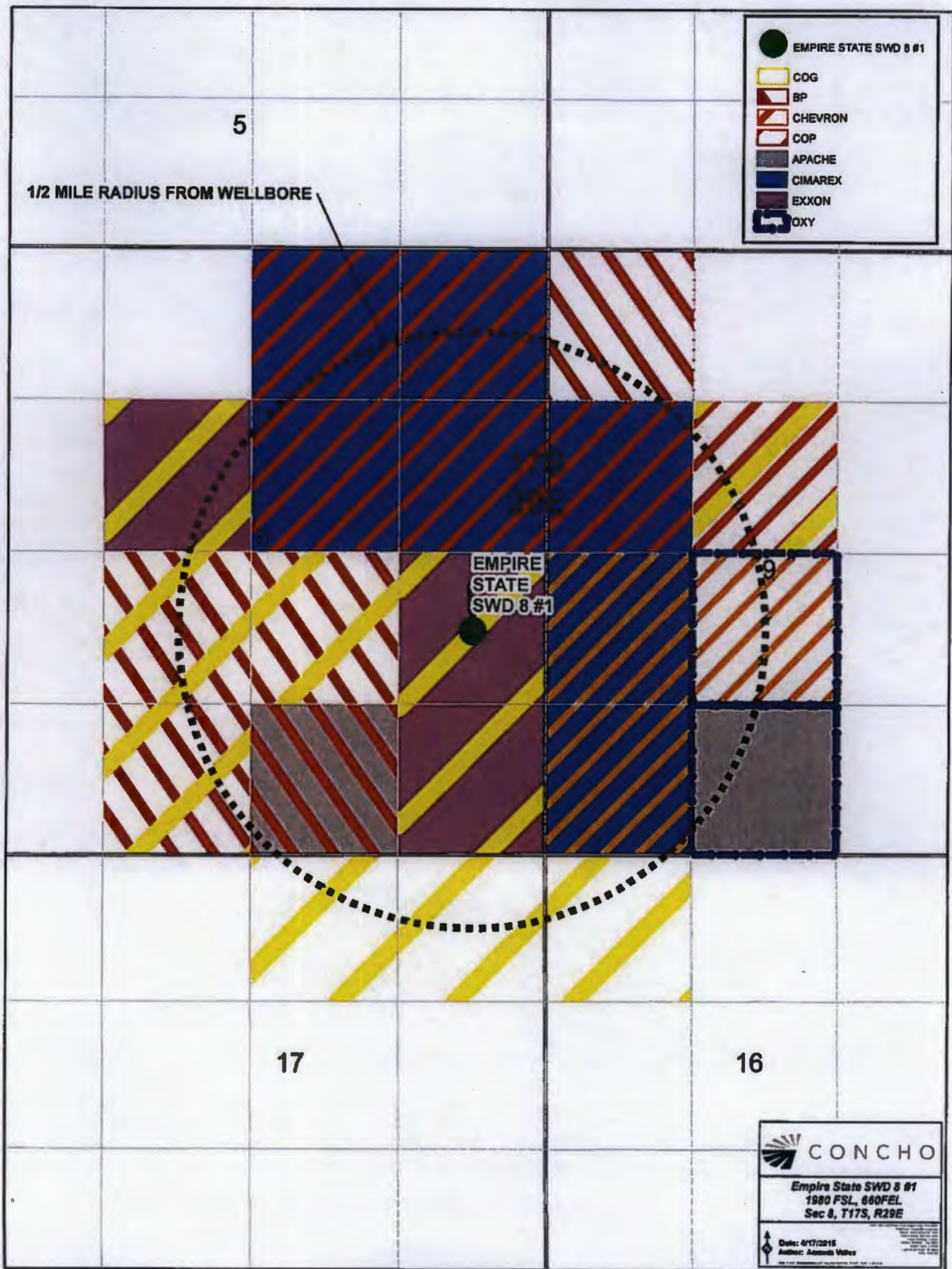
William V. Jones, P.E., District IV Supervisor

Oil Conservation Division <http://www.emnrd.state.nm.us/ocd/>

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

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Legal	Operator	Address
Sec. 8: NE4NE4 (A)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 8: NW4NE4 (B)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 8: SE4NW4 (F)	COG	
Sec. 8: SW4NE4 (G)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 8: SE4NE4 (H)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 8: NE4SW4 (K)	COG	
Sec. 8: NW4SE4 (J)	COG	
Sec. 8: NE4SE4 (I)	COG	
Sec. 8: SE4SW4 (N)	COG	
Sec. 8: SW4SE4 (O)	Apache Corporation	303 Veterans Airpark Lane Midland, TX 79705
Sec. 8: SE4SE4 (P)	COG	
Sec. 17: NWNE4 (B)	COG	
Sec. 17: NE4NE4 (A)	COG	
Sec. 16: NW4NW4 (D)	COG	
Sec. 9: NW4NW4	(?)	
Sec. 9: SW4NW4 E	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 9: NW4SW4 (L)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 9: SW4SW4 (M)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 9: SE4NW4 (F)	COG	
Sec. 9: NE4SW4 (K)	Oxy USA	P.O. Box 4294 Houston, TX 77210
Sec. 9: SE4SW4 (N)	Cimarex Energy	600 N. Marienfeld Street Midland, TX 79701
Sec. 9: SE4SW4 (N)	Oxy USA	P.O. Box 4294 Houston, TX 77210

Legal	Lessee of Record	Address
Sec. 8: NE4NE4 (A)	ConocoPhillips Co.	Attn: Patsy L. Clugston 3401 E. 30th Street Farmington, NM 87402
Sec. 8: NW4NE4 (B)	ConocoPhillips Co.	Attn: Patsy L. Clugston 3401 E. 30th Street Farmington, NM 87402
Sec. 8: SE4NW4 (F)	Exxon Mobil Corporation	Attn: Liz Tindol P.O. Box 4358 Houston, TX 77210-435
Sec. 8: SW4NE4 (G)	ConocoPhillips Co.	Attn: Patsy L. Clugston 3401 E. 30th Street Farmington, NM 87402
Sec. 8: SE4NE4 (H)	ConocoPhillips Co.	Attn: Patsy L. Clugston 3401 E. 30th Street Farmington, NM 87402
Sec. 8: NE4SW4 (K)	BP America Production Co.	P.O. Box 3092 Houston, TX 77253-3092
Sec. 8: NW4SE4 (J)	BP America Production Co.	P.O. Box 3092 Houston, TX 77253-3092
Sec. 8: NE4SE4 (I)	Exxon Mobil Corporation	Attn: Liz Tindol P.O. Box 4358 Houston, TX 77210-435
Sec. 8: SE4SW4 (N)	BP America Production Co.	P.O. Box 3092 Houston, TX 77253-3092
Sec. 8: SW4SE4 (O)	BP America Production Co.	P.O. Box 3092 Houston, TX 77253-3092
Sec. 8: SE4SE4 (P)	Exxon Mobil Corporation	Attn: Liz Tindol P.O. Box 4358 Houston, TX 77210-435
Sec. 17: NWNE4 (B)	COG	
Sec. 17: NE4NE4 (A)	COG	
Sec. 16: NW4NW4 (D)	COG	
Sec. 9: NW4NW4 (D)	BP America Production Co.	P.O. Box 3092 Houston, TX 77253-3092
Sec. 9: SW4NW4 E	ConocoPhillips Co.	Attn: Patsy L. Clugston 3401 E. 30th Street Farmington, NM 87402
Sec. 9: NW4SW4 (L)	Chevron USA, Inc.	Attn: Sandy Stedman-Daniel Smith Street Houston, TX 77002 1400
Sec. 9: SW4SW4 (M)	Chevron USA, Inc.	Attn: Sandy Stedman-Daniel Smith Street Houston, TX 77002 1400
Sec. 9: SE4NW4 (F)	ConocoPhillips Co.	Attn: Patsy L. Clugston 3401 E. 30th Street Farmington, NM 87402
Sec. 9: NE4SW4 (K)	Chevron USA, Inc.	Attn: Sandy Stedman-Daniel Smith Street Houston, TX 77002 1400

Sec. 9: SE4SW4 (N)

ZPZ Delaware I LLC

Attn: Peggy Glark

2000 Post Oak Blvd., Suite 100 Houston, TX 77056



April 21, 2015

Apache Corporation
303 Veterans Airpark Ln, #600
Midland, TX 79705

Certified Mail Article Number: 91 7199 9991 7033 4974 9868

Re: Application for SWD well on the:

Empire State SWD 8 #1
API# 30-015-38973
Sec 8, 17S, R29E, Unit I
1980' FSL & 660' FEL
SWD;Cisco (96099)
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM for a new SWD well. We will be disposing of produced water, into the Cisco Reef, depths 8300' to 8900'.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3200.

Sincerely,

A handwritten signature in black ink, appearing to be "K-C" with a flourish.

Kanicia Castillo
Regulatory Analyst
COG Operating LLC



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

CERTIFIED MAIL



91 7199 9991 7033 4974 9868

Apache Corporation
303 Veterans Airpark Ln, Suite 600
Midland, TX 79705

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:

Apache Corporation
303 Veterans Airpark Ln, Suite 600
Midland, TX 79705

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail® ☐ Priority Mail Express™
- ☐ Registered ☐ Return Receipt for Merchandise
- ☐ Insured Mail ☐ Collect on Delivery

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number
(Transfer from service label)

91 7199 9991 7033 4974 9868

PS Form 3811, July 2013

Domestic Return Receipt



April 21, 2015

Freedom Energy LLC
R649 N. 13th Street
Lake Arthur, NM 88253

Certified Mail Article Number: 91 7199 9991 7033 5027 3871

Re: Application for SWD well on the:

Empire State SWD 8 #1
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Sec 8, 17S, R29E, Unit I
1980' FSL & 660' FEL
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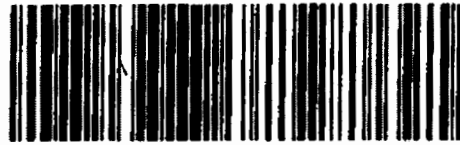
Sincerely,

A handwritten signature in black ink, appearing to read "K-C", with a horizontal line extending to the right.

Kanicia Castillo
Regulatory Analyst
COG Operating LLC



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701



91 7199 9991 7033 5027 3871

Freedom Energy LLC
R649 N 13th Street
Lake Arthur, NM 88253

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Freedom Energy LLC
R649 N 13th Street
Lake Arthur, NM 88253

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A. Signature

X

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

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4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number
(Transfer from service label)

91 7199 9991 7033 5027 3871

PS Form 3811, July 2013

Domestic Return Receipt



April 21, 2015

Cimarex Energy
600 N Marienfeld Street
Midland, TX 79701

Certified Mail Article Number: 91 7199 9991 7033 4974 9738

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Regulatory Analyst
COG Operating LLC

CONCHO

One Concho Center
100 West Illinois Avenue
Midland, Texas 79701

CERTIFIED MAIL



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Article Number
(Transfer from service label)

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Form 3811, July 2013

Domestic Return Receipt



April 21, 2015

ConocoPhillips Company
Attn: Patsy L Clugston
3401 E 30th Street
Farmington, NM 87402

Certified Mail Article Number: 91 7199 9991 7033 4974 9714

Re: Application for SWD well on the:

Empire State SWD 8 #1
API# 30-015-38973
Sec 8, 17S, R29E, Unit I
1980' FSL & 660' FEL
SWD;Cisco (96099)
Eddy County, New Mexico

To Whom It May Concern:

This letter will serve as notice under Rule 19.15.26.8B that COG Operating LLC has applied for a permit from the Oil Conservation Division in Santa Fe, NM for a new SWD well. We will be disposing of produced water, into the Cisco Reef, depths 8300' to 8900'.

Should your company have any objection, it must be filed in writing within fifteen (15) days from the date of this notice. If the Oil Conservation Division determines the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Drive, Santa Fe, New Mexico, 87505, the telephone number is 505-476-3200.

Sincerely,

A handwritten signature in black ink, appearing to read "K-C" followed by a stylized flourish.

Kanicia Castillo
Regulatory Analyst
COG Operating LLC

CERTIFIED MAIL



91 7199 9991 7033 4974 9714



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

ConocoPhillips Company
Attn: Patsy L Clugston
3401 E 30th Street
Farmington, NM 87402

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:

ConocoPhillips Company
Attn: Patsy L Clugston
3401 E 30th Street
Farmington, NM 87402

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail®

☐ Priority Mail Express™

☐ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ Collect on Delivery

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number

(Transfer from service label)

91 7199 9991 7033 4974 9714

PS Form 3811, July 2013

Domestic Return Receipt



April 21, 2015

Exxon Mobil Corporation
Attn: Liz Tindol
PO Box 4358
Houston, TX 77210-4358

Certified Mail Article Number: 91 7199 9991 7033 5027 3581

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Kanicia Castillo
Regulatory Analyst
COG Operating LLC

CONCHO

One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

CERTIFIED MAIL



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April 21, 2015

BP America Production Company
PO Box 3092
Houston, TX 77253-3092

Certified Mail Article Number: 91 7199 9991 7033 5027 3574

Re: Application for SWD well on the:

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Regulatory Analyst
COG Operating LLC



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701



91 7199 9991 7033 5027 3574

BP America Production Company
PO Box 3092
Houston, TX 77253-3092

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PO Box 3092
Houston, TX 77253-3092

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(Transfer from service label)

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PS Form 3811, July 2013

Domestic Return Receipt



April 21, 2015

Chevron USA, INC
Attn: Sandy Stedman-Daniel
1400 Smith Street
Houston, TX 77002

Certified Mail Article Number: 91 7199 9991 7033 5027 3567

Re: Application for SWD well on the:

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Sincerely,

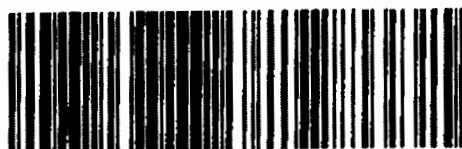
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Kanicia Castillo
Regulatory Analyst
COG Operating LLC

CERTIFIED MAIL



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701



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Chevron USA, INC
Attn: Sandy Stedman-Daniel
1400 Smith Street
Houston, TX 77002

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<p>1. Article Addressed to:</p> <p> Chevron USA, INC Attn: Sandy Stedman-Daniel 1400 Smith Street Houston, TX 77002</p>		<p>B. Received by (Printed Name)</p>	<p>C. Date of Delivery</p>
		<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>	
		<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail® <input type="checkbox"/> Priority Mail Express™ <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> Collect on Delivery </p>	
<p>2. Article Number (Transfer from service label)</p>		<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>	
<p>91 7199 9991 7033 5027 3567</p>			

PS Form 3811, July 2013

Domestic Return Receipt



April 21, 2015

ZPZ Delaware LLC
2000 Post Oak Blvd, Suite 100
Houston, TX 77056

Certified Mail Article Number: 91 7199 9991 7033 5027 3550

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Regulatory Analyst
COG Operating LLC



One Concho Center
600 West Illinois Avenue
Midland, Texas 79701

CERTIFIED MAIL



91 7199 9991 7033 5027 3550

ZPZ Delaware LLC
2000 Post Oak Blvd, Suite 100
Houston, TX 77056

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ZPZ Delaware LLC
2000 Post Oak Blvd, Suite 100
Houston, TX 77056

2. Article Number

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PS Form 3811, July 2013

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☐ Yes

91 7199 9991 7033 5027 3550

Domestic Return Receipt

Jones, William V, EMNRD

From: Jones, William V, EMNRD
Sent: Friday, May 15, 2015 10:39 AM
To: 'Kanicia Castillo'
Cc: Goetze, Phillip, EMNRD; McMillan, Michael, EMNRD; Kautz, Paul, EMNRD
Subject: COG SWD application for the Empire State SWD 8 Well No. 1 30-015-38973 Cisco Reef Logs Missing

Hey Kanicia,
I am releasing this SWD permit to Mr. Catanach for his signature, but

.... Am also asking you to send the elogs run to-date on this well to the Hobbs district office for scanning.
We have no logs visible for this well.

Regards,

Will



C-108 Review Checklist:

Received 9/23/14

Add. Request:

3/6/15

Reply Date:

4/21/15

Suspended:

[Ver 14]

PERMIT TYPE: WFX / PMX / SWD

Number: 1540

Permit Date: 5/15/15

Legacy Permits/Orders:

Well No. 11

Well Name(s):

EMPIRE STATE SWD 8 well No. 1

API: 30-015-38973

Spud Date:

2-13-12

(New or Old:

(UIC Class II Primacy 03/07/1982)

Footages

1980 FSL/660 FEL

Lot

or Unit

I

Sec

8

Tsp

17S

Rge

29E

County

EDDY

General Location:

North of Reef, East of Pecos

Pool:

Empire

Pool No.:

BLM 100K Map:

Operator:

COG OPERATING LLC

OGRID:

229137

Contact:

Karina Castilleja

COMPLIANCE RULE 5.9: Total Wells:

3805

Inactive:

1

Fincl Assur:

OK

Compl. Order?

—

IS 5.9 OK?

Date:

3/6/15

WELL FILE REVIEWED

Current Status:

Drilled to 8366', waily on Permit & offset well repair

WELL DIAGRAMS: NEW:

Proposed

or RE-ENTER:

Before Conv.

After Conv.

Logs in Imaging:

NOT Received

Planned Rehab Work to Well:

Well Construction Details		Sizes (in)	Setting	Cement	Cement Top and
		Borehole / Pipe	Depths (ft)	Sx or Cf	Determination Method
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	COND Surface	24-20	40'	Stage-Tool	CIRC
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	Interm/Prod	17 1/2 - 13 1/8	268'	1300	CIRC
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	Interm/Prod	12 1/4 - 9 5/8	2390'	950	CIRC
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	Prod/Liner	8 3/4 - 7"	8366'	400/1000	CIRC/CIRC
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	Liner				
Planned <input checked="" type="checkbox"/> or Existing <input type="checkbox"/>	OH / PERF	6 1/8 (850-9,000)		Inj Length	

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.		W.C.	✓
Confining Unit: Litho. Struc. Por.	8567	Penn	✓
Proposed Inj Interval TOP:	8366	CISCO Reef	✓
Proposed Inj Interval BOTTOM:	9000	" "	✓
Confining Unit: Litho. Struc. Por.	9625	Strawn	✓
Adjacent Unit: Litho. Struc. Por.			

Completion/Operation Details:			
Drilled TD	8366'	PBTD	
NEW TD	9000'	NEW PBTD	
NEW Open Hole	<input checked="" type="checkbox"/>	NEW Perfs	<input type="checkbox"/>
Tubing Size	3 1/2 in.	Inter Coated?	✓
Proposed Packer Depth		ft	
Min. Packer Depth		(100-ft limit)	
Proposed Max. Surface Press.		psi	
Admin. Inj. Press.	1673	(0.2 psi per ft)	

AOR: Hydrologic and Geologic Information

POTASH: R-111-P ☐ Noticed? ☒ BLM Sec Ord ☐ WIPP ☐ Noticed? ☐ SALT/SALADO T: 180' B: 430 CLIFF HOUSE

FRESH WATER: Aquifer 300' Max Depth HYDRO AFFIRM STATEMENT By Qualified Person ☒

NMOSE Basin: CAPTAN REEF: thru ☐ adj ☐ NA ☒ No. Wells within 1-Mile Radius? 0 FW Analysis ☒

Disposal Fluid: Formation Source(s) 1000 Analysis? On Lease ☒ Operator Only ☐ or Commercial ☐

Disposal Int: Inject Rate (Avg/Max BWPD): 20,000 Protectable Waters? No Source: System: Closed ☒ or Open ☐

HC Potential: Producing Interval? NO Formerly Producing? NO Method: Logs/DST/P&A/Other 500 other SWDS 2-Mile Radius Pool Map ☒

AOR Wells: 1/2-M Radius Map? ☒ Well List? ☒ Total No. Wells Penetrating Interval: 2 Horizontals? ☐

Penetrating Wells: No. Active Wells 1 Num Repairs? 0 on which well(s)? Diagrams? ☐

Penetrating Wells: No. P&A Wells 1 Num Repairs? 0 on which well(s)? Diagrams? ☒

NOTICE: Newspaper Date 9/17/14 Mineral Owner SLO Surface Owner SLO N. Date 9/16/14

RULE 26.7(A): Identified Tracts? ☒ Affected Persons: Cmaxx / APACHE / OXY USA N. Date 9/16/14

Permit Conditions: Issues: REMEDIAL WORK in OFFSET well, Connect 8 State Court

Add Permit Cond: THIS is Really ☒ CISCO