

12/18/12

WVS

SWD
1350-A

PWV/230156019

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]

[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.

Mark A. Fairchild	<u>Mark A. Fairchild</u>	Senior Operations Engineer	05/16/2012
Print or Type Name	Signature	Title	Date

Amended for re submission to	MFairchild@Conchoresources.com
NMOCD 12/18/2012	e-mail Address



Concho Operating LLC
c/o Mark A. Fairchild
600 West Illinois Ave
Midland TX 79701

December 18, 2012

Mr. William V. Jones, PE
NMOCD
1220 South St. Francis
Santa Fe, NM 87505

Dear Will:

This letter is in reference to Concho's Lakewood SWD #1, API 30-15-40717 and SWD Permit 1350.

The well was permitted for the Canyon interval with expected disposal zone from 7,725 to 8,000'. The Canyon came in almost perfectly with our expectations. However, the porosity development required for disposal was deeper in the Canyon section than we anticipated. Currently the well is completed for disposal in the Canyon with perforations from 7,840 to 8,084'. As you can see, we are very near our originally applied for depths.

Please review our status for an amended interval and let me know of any other information that you require.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark A. Fairchild".

Mark A. Fairchild
Sr. Operations Engr.

Amended

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No

II. OPERATOR: **COG Operating, LLC.**

ADDRESS: **550 West Texas, Ste 100, Midland TX 79701-4287**

CONTACT PARTY: **Mark A. Fairchild**

PHONE: **432-686-3021**

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: **Mark A. Fairchild**

TITLE: **Sr. Operations Engr.**

SIGNATURE: *Mark A. Fairchild*

DATE: **5/16/2012**

E-MAIL ADDRESS: **MFairchild@Concho.com**

Amended 12/16/2012

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

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

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.

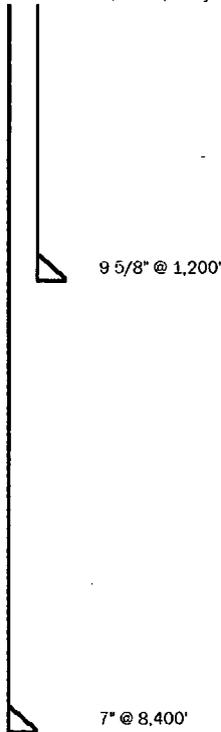
OPERATOR: **COG Operating, LLC.**

WELL NAME & NUMBER: **Lakewood SWD #1 API 30-15-40717 and SWD Permit 1350**

WELL LOCATION: **1220 FNL; 2490 FEL** **B** **8** **T19S** **R26E**
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

Well: Lakewood SWD #1
 Location: 1220 FNL; 2490 FEL, Sec 8,
 T19S, R26E, Eddy Co., NM



*Cement volumes will increase of those shown on this application to account for hole conditions unknown at this time.

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: **12 1/4"** Casing Size: **9 5/8"**
 Cemented with: **400** sx. or _____ ft³
 Top of Cement: **Surface** Method Determined: **Circulate**

Intermediate Casing

Hole Size: _____ Casing Size: _____
 Cemented with: _____ sx. or _____ ft³
 Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: **8 3/4"** Casing Size: **7"**
 Cemented with: **1,075** sx. or _____ ft³
 Top of Cement: **Surface** Method Determined: **Circulate**
 Total Depth: **8,434'**

Injection Interval

7840 feet to **8084**
Interval perforated
 (Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: **3 1/2" EUE** Lining Material: **Internally plastic coated**

Type of Packer: **Double grip type, set in neutral**

Packer Setting Depth: **no more than 100' above top perf**

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? _____

2. Name of the Injection Formation: **Canyon**

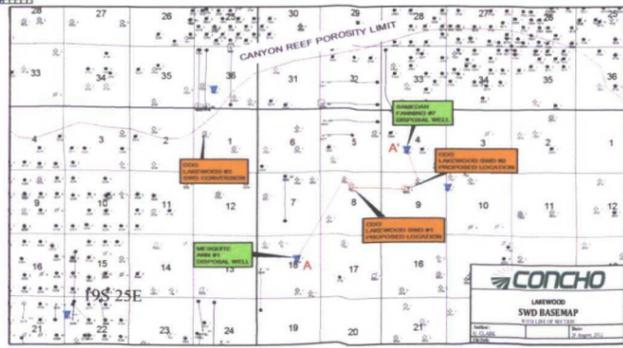
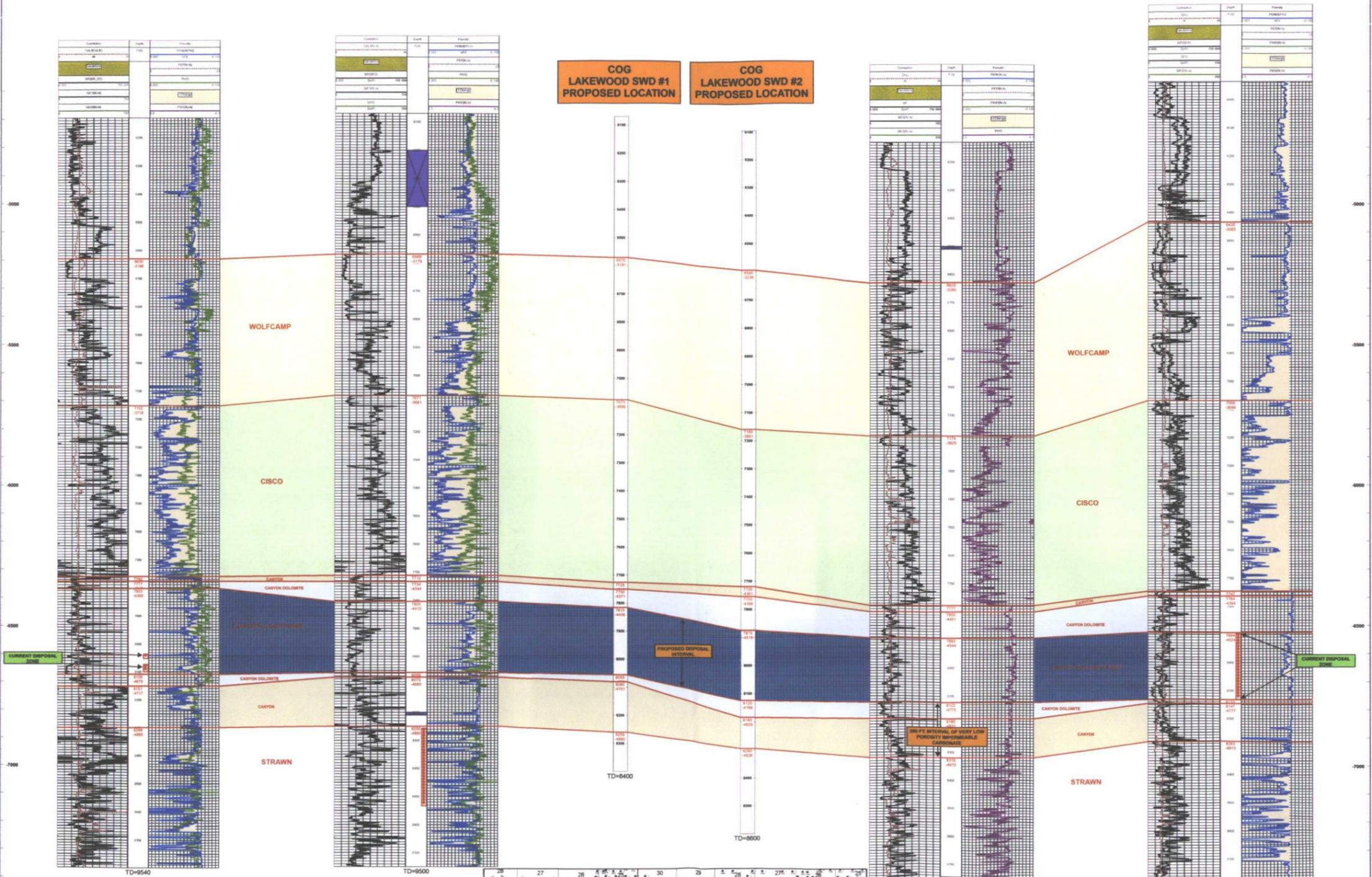
3. Name of Field or Pool (if applicable): **None**

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

No, none

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

Yeso formation at approx. 2,630'



Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, December 17, 2012 12:03 PM
To: 'Mark Fairchild'; 'Kanicia Castillo'
Cc: Ezeanyim, Richard, EMNRD
Subject: RE: SWD-1350

Kanicia,
Send a brief packet in the mail containing:

- a. A very short letter asking for the amended permit and the reasons for it.
- b. The admin order checklist
- c. The C-108 "Injection Well Data Sheet" pages (with API number, well information, etc).
- d. A bigger copy of Greg Clark's X-Section (the emailed version is illegible as to the depths)

No need to re-do any notices.

We'll get this cranked out.

Will

From: Jones, William V., EMNRD
Sent: Monday, December 17, 2012 10:58 AM
To: 'Mark Fairchild'; Kanicia Castillo
Subject: RE: SWD-1350

Kanicia,
I save everything..and I found the Wellbore Diagram

...but to help me find it,
What date did you email the abbreviated C-108 to amend this permit?

Will

From: Mark Fairchild [<mailto:MFairchild@concho.com>]
Sent: Tuesday, November 27, 2012 3:58 PM
To: Jones, William V., EMNRD; Kanicia Castillo
Subject: Re: SWD-1350

Will, can I get you this next Monday?
Mark A. Fairchild
COG OPERATING LLC

Jones, William V., EMNRD

From: Mark Fairchild <MFairchild@concho.com>
Sent: Monday, December 17, 2012 10:05 AM
To: Jones, William V., EMNRD
Subject: RE: COG SENM Lakewood SWD #1

Will, this is the well that our disposal zone slightly exceeded our SWD Permit.

SWD-1350

API: 30-015-40717

M.A. Fairchild
COG OPERATING LLC
Office: 432-686-3021
Cell: 432-230-7170



From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Monday, December 17, 2012 10:56 AM
To: Mark Fairchild
Subject: RE: COG SENM Lakewood SWD #1

Hi Mark,
Is this an SWD application?
What is the location and when was it submitted?
Has there been an API assigned?

From: Mark Fairchild [<mailto:MFairchild@concho.com>]
Sent: Monday, December 17, 2012 9:52 AM
To: Jones, William V., EMNRD; Kanicia Castillo
Subject: COG SENM Lakewood SWD #1

Will, please let me know the status of this well, thanks!!!!

M.A. Fairchild
COG OPERATING LLC
Office: 432-686-3021
Cell: 432-230-7170



Monday, August 20, 2012

Amendment to SWD Application:

*Letter Sent To
AOR OWNERS WITH
ORIGINAL APPLICATION*

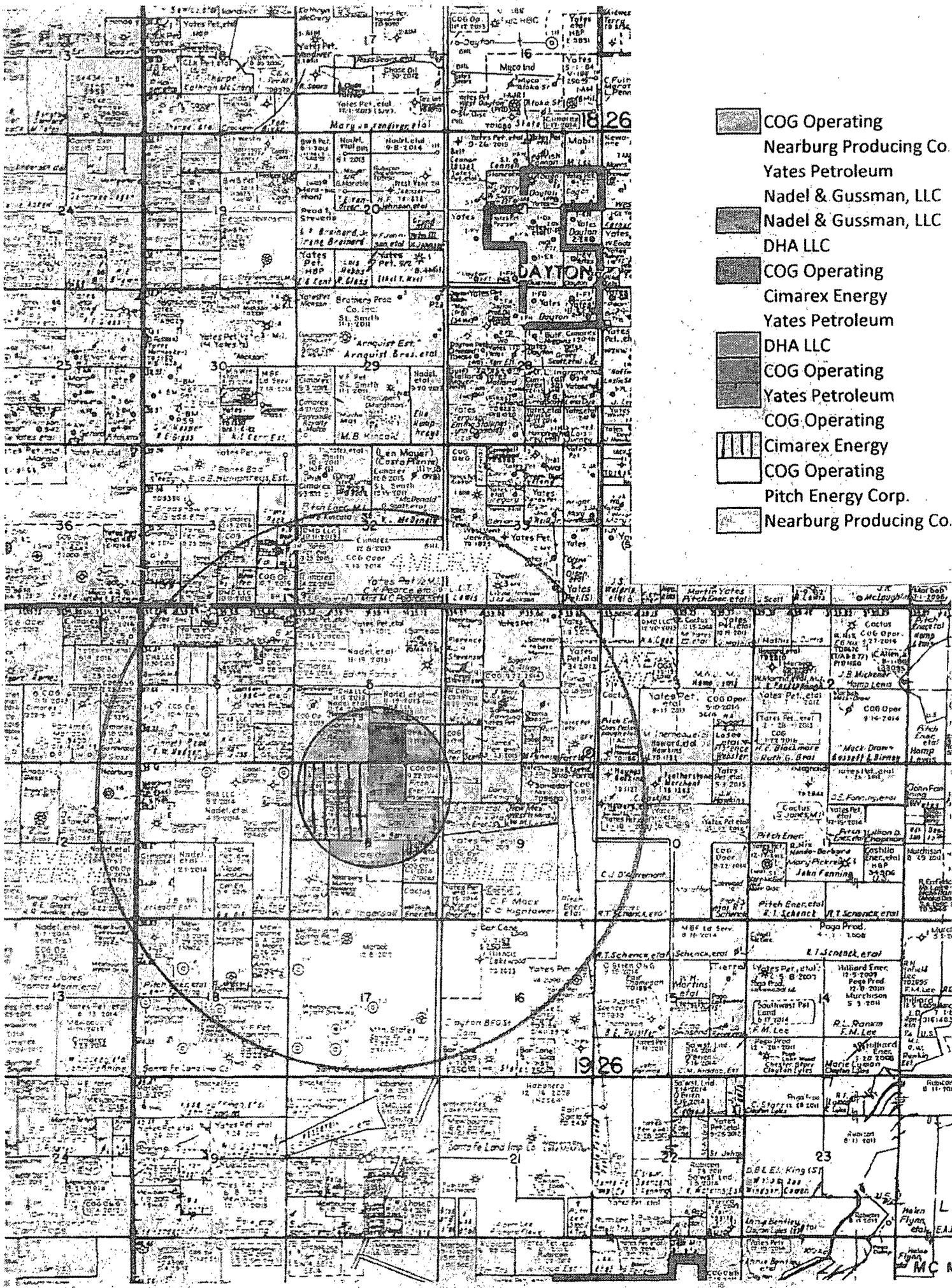
In June of this year, you were formally noticed that COG Operating LLC has applied for approval to drill a new disposal well to be located in Unit letter F of Section 9, Township 19 South, Range 26 East, NMPM, Eddy County, New Mexico. This new well would be used for water disposal into the Pennsylvanian Cisco/Canyon formation(s) from 7720 feet to 8000 feet.

There is a Dry and Abandoned well (API No. 30-015-21319) located approximately ¼ mile away within the Area of Review. This well has a plug set in the open hole at 6500 feet and another plug at 8745 feet. Within this 6500 to 8745 feet depth range are the Wolfcamp formation and the Upper Pennsylvanian formations down to the top of the Strawn formation. COG believes re-entering and re-plugging this well is not necessary since the proposed disposal depths have much higher permeability and will preferentially take the disposed waters and these waters will not endanger mineral recovery from vertically adjacent formations. COG Operating LLC will cement to surface the long string of their proposed SWD well. This cementing will also preclude movement of disposal fluids outside of the applied for disposal interval.

COG Operating LLC is hereby noticing you of the presence of this old wellbore and continues to solicit your approval of the proposed disposal into the Canyon formation from ~~7720~~ feet to ~~8000~~ feet.

7840 8084

If you wish to protest, please do so within 15 days by notifying the Division in writing and copy any concerns to Mr. Mark Fairchild with COG at 432-686-3021.



-  COG Operating
-  Nearburg Producing Co.
-  Yates Petroleum
-  Nadel & Gussman, LLC
-  Nadel & Gussman, LLC
-  DHA LLC
-  COG Operating
-  Cimarex Energy
-  Yates Petroleum
-  DHA LLC
-  COG Operating
-  Yates Petroleum
-  COG Operating
-  Cimarex Energy
-  COG Operating
-  Pitch Energy Corp.
-  Nearburg Producing Co.

DAYTON

26

19 26

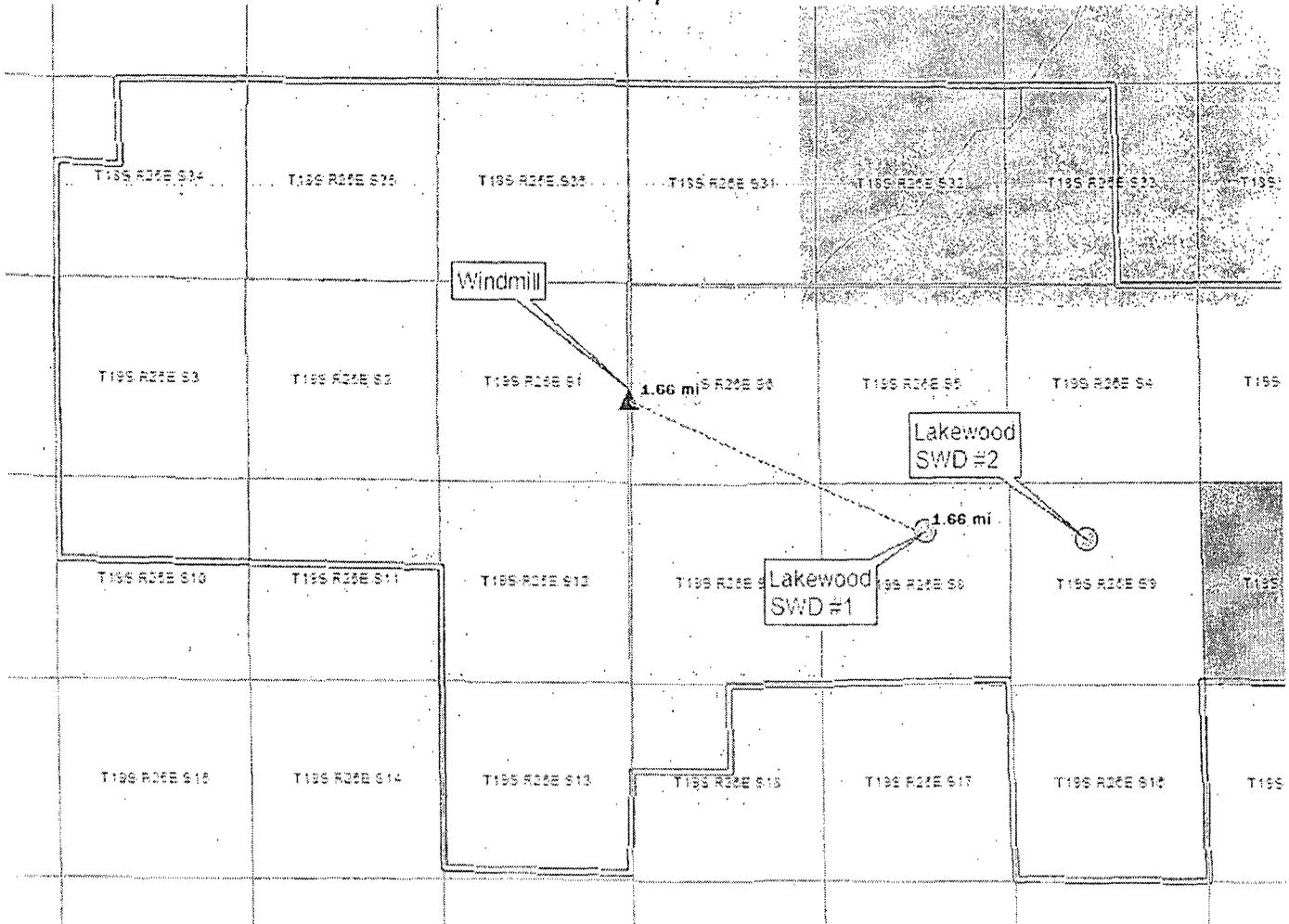
23

U.S.
M.A.C.A.

Jones, William V., EMNRD

From: Mark Fairchild <MFairchild@concho.com>
Sent: Monday, August 13, 2012 3:01 PM
To: Jones, William V., EMNRD
Subject: Windmill

Will, we are 1.66 miles from this windmill, please see below.



M.A. Fairchild
COG OPERATING LLC
Office: 432-686-3021
Cell: 432-230-7170



CONFIDENTIALITY NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Thank you.