

DATE IN <u>3-2-10</u>	SUSPENSE	ENGINEER <u>Jones</u>	LOGGED IN <u>3-2-10</u>	TYPE <u>SWD</u>	APP NO. <u>100615 2179</u>
-----------------------	----------	-----------------------	-------------------------	-----------------	----------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



COG
(224137)

Empire State SWD #2

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 Mark A. Fairchild Senior Ops. Engineer 2/3/2010
 Print or Type Name Signature Title Date

MFairchild@conchoresources.com
 e-mail Address

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
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: Senior Ops. Engineer
SIGNATURE: Mark A. Fairchild DATE: 2/3/2010
E-MAIL ADDRESS: MFairchild@conchoresources.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.

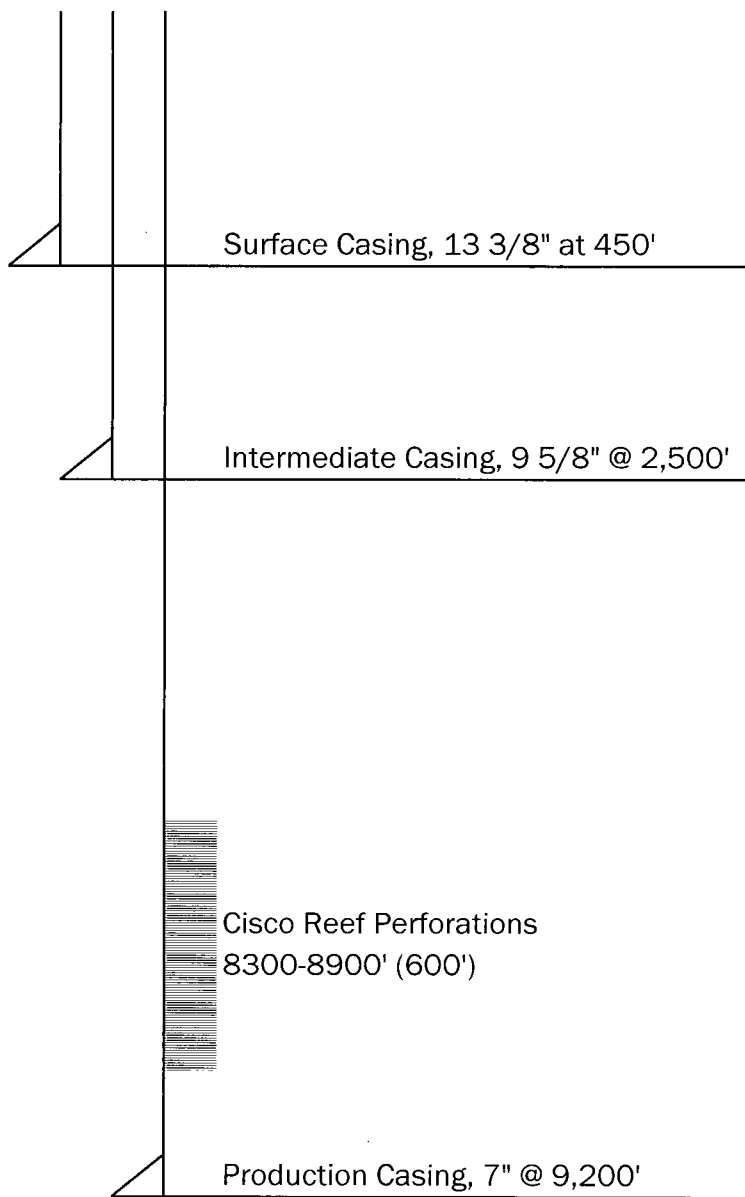
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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.

Date: 02/10/10
Company: COG Operating LLC
OGRID: 229137
Lease: Empire State SWD
Well: #2
Location: 1980' FNL and 1980' FWL, Sec 9, T17S; R29E
Co. Eddy
State: NM



Date: 2/10/2010
Company: COG Operating LLC
OGRID: 229137
Lease: Empire State SWD
Well: #2
Location: 1980' FNL and 1980' FWL, Sec 9, T17S; R29E
Co. Eddy
State: NM

Casing & Fluids:	String	Bit	Casing				Mud				
		Hole	Size	From	To	Ftg	Type	Weight	Vis	FL	
		Conductor	24"	20"	40	0	40				
		Surface	17 1/2"	13 3/8"	450	0	450	Fresh/Spud	8.6-9.2	28-34	NC
		Intermediate	12 1/4"	9 5/8"	2,500	0	2,500	Cut Brine	9.8-10.1	28-29	NC
		Long	8 3/4"	7"	9,200	0	9,200	Cut Brine	8.7-9.3	28-34	10-12 log
		Tubing:		3 1/2"			8,250	8rd, EUE, IPC			
		Packer:	Nickel Plated, Compression set w/ nipples								

Cement:		TOC		Lead	Tail
		Surface	Surface		
	Conductor	Surface			
	Surface	Surface	250 sxs, 14.8 ppg, 1.35 cuft/sx		250 sxs, 14.8 ppg, 1.35 cuft/sx
	Intermediate	Surface	550 sxs, 13.5 ppg, 1.75 cuft/sx		200 sxs, 14.8 ppg, 1.35 cuft/sx
	Long	Surface	1st Stage, DV tool at 7,200		
			300 sxs, 50/50 poz 14.2 ppg, 1.32 cuft/sx		
			2nd Stage		
			650 sxs, lite, 12.4 ppg, 2.14 cuft/sx		100 sxs, CI C, 15.6 ppg, 1.19 cuft/sx

Objective: Formation: Cisco Reef
 TD: 9,200
 Perforations: 8300-8900' (600')
 Injection Rate: 15-20K BWPD

Tops: Rustler: 400'
 Yates: 800'
 Seven Rivers: 1200'
 Queen: 1750'
 Grayburg: 2150'
 San Andres: 2500'
 Glorietta: 3900'
 Tubb: 5,325
 Wolfcamp: 7150'
 WC Reef Disposal: 7400-7600' (200')
 Cisco: 8150'
 Cisco Reef Disposal: 8300-8900' (600')

Date: 02/10/10
 Company: COG Operating LLC
 OGRID: 229137
 Lease: Empire State SWD
 Well: #2
 Location: 1980' FNL and 1980' FWL, Sec 9, T17S; R29E
 Co. Eddy
 State: NM

19. Proposed Casing and Cement Program

Type	Hole Sz	Csg Sz	Csg Wt	Set Depth	Sacks	TOC
Conductor	24"	20"		40		Surface
Surface	17 1/2"	13 3/8"	48	450	500	Surface
Intermediate	12 1/4"	9 5/8"	36	2500	750	Surface
Long	8 3/4"	7"	26	9200	1050	Surface

Additional Comments

COG proposes to drill a 24" hole and set 20" conductor casing, cemented to surface with fresh mud.
 A 17 1/2" hole will be drilled to approximately 450' to set 13 3/8" casing and cement to surface.
 The Surface hole will be drilled with fresh water spud mud. The intermediate 12 1/4" hole
 will be drilled w/ cut brine to approximately 2,500' where 9 5/8" casing will be set and cemented
 to surface. Cut brine will be used to drill the long string hole to approximately 9,200'
 where 7" casing will be set and cemented to surface with a DV tool at approximately 7,000'.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: COG Operating, LLC

WELL NAME & NUMBER: Empire State SWD #2

WELL LOCATION: 1,980' FNL and 1,980' FWL F UNIT LETTER 9 SECTION T17S TOWNSHIP R29E RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

13 3/8" Casing @ +/- 450'

9 5/8" Casing @ +/- 2,500'

Cisco Reef Perforated Interval: 8,300 to 8,900'

7" Casing @ +/- 9,200'

Hole Size: 17 1/2" Casing Size: 13 3/8"

Cemented with: sx. or 660 ft³

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8"

Cemented with: sx. or 1,402 ft³

Top of Cement: Surface Method Determined: Circulated

Production Casing

Hole Size: 8 3/4" Casing Size: 7"

Cemented with: sx. or 927 ft³

Top of Cement: Surface Method Determined: Circulated

Total Depth: 9,200

Injection Interval

8,300 feet to 8,900

(Perforated or Open Hole; indicate which)

Other Type of Tubing/Casing Seal (if applicable): None

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

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

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

Queen at 1,750'; Grayburg @ 2,150'; San Andres @ 2,500



ATTACHMENT TO APPLICATION C-108

COG Operating Inc.
Empire State SWD #2
Se. 9, T-17-S, R-29-E
Eddy County, NM

- III. WELL DATA – See attached on reverse side of form as requested.
- V. MAP ATTACHED
- VI. LIST OF WELLS AND DATA ATTACHED.
- VII. PROPOSED OPERATIONS
 - 1. The injection volume will average 10,000-15,000 BWPD while the maximum injection volumes are expected to be 20,000 BWPD.
 - 2. This will be a closed loop system.
 - 3. Proposed average and maximum injection pressure: Vacuum
 - 4. Analysis attached, only produced water.
 - 5. This well is not yet drilled. COG will swab the formation and recover fluid samples for analysis and reporting to NMOCD. Research disposal zone formation water and attach and chemical analysis.
- VIII. SEE ATTACHED
- IX. SEE ATTACHED
- X. Logging and test data will be run on the well when drilled.
- XI. No fresh water found or recorded by state engineer or OCD.

- XII. The disposal formation will have several thousand feet of overburden on top of it. In these several thousands of feet of impermeable shale and evaporate zones of various thickness exists. These zones will stop any hydraulic communication between geologic strata.
- XIII. Notice (this application) has been sent to the surface owner (NMSLO), operators of all wells, and lessees, working interest, or lease operating right holders, and lessors within a half mile.

COG SENM SWD Well Questionnaires

Date: 2/10/2010

By: Mark A. Fairchild, Office: 432-686-3021

What will be the well name?

Empire State SWD #2

What logs have been/will be run in the well?

Logs will be run as follows: porosity and resistivity

How will you re-enter/drill/convert the well?

The well will be drilled 100% with rotary tools.

How will you test the mechanical integrity of the casing?

A State of NM supervised MIT test to 500 psig will be run on the tubing/casing annulus.

What size tubing do you plan to use?

The tubing will be 3 1/2" Nominal OD.

How will tubing be internally lined?

The tubing will be internally plastic coated.

What type packer will be used?

A nickel plated compression set packer will be utilized.

Where will packer be set?

Within 50 to 100' above top perf.

Will there be any other type of casing/tubing seal?

No.

What is the fracture gradient?

Approx 0.75

Will the well be stimulated?

Yes

If yes, how will the well be stimulated?

Large conventional acid job.

Into what perforated intervals will you inject?

Cisco Reef, 8,300 to 8,900'

What will be the average daily volume injected?

10-15,000 BWPD

What will be the maximum daily volume injected?

20, 000 BWPD

What will be the average injection pressure?

Vacuum

What will be the maximum injection pressure?

1720 psig

Will water be trucked or piped to the well?

Piped

What wells will dispose into it?

Various wells owned exclusively by COG on our SWD water line system

Any non-COG wells?

No outside operated water will be disposed of.

What surface facilities (e.g.; tanks, pumps, filters) will be installed?

4 - 750 Bbl water storage tanks, 1 - 1,000 Bbl Gun Barrel

2 - 500 Bbl steel tanks, 1 - 400 BHP H pump

Do you have an analysis of the produced water you plan to inject?

Yes

Do you have an analysis of the formation water into which you'll inject?

No, these well are on a vacuum and do not produce.

How will the geology prevent migration into fresh water zones (e.g., thickness of shale or salt layers)?

Various impervious geological barriers exist between the Cisco and the surface.

Will the system be open or closed?

Closed

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 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name EMPIRE STATE SWD			⁶ Well Number 2
⁷ OGRID No. 229137		⁸ Operator Name COG OPERATING, LLC			⁹ Elevation 3582.5'

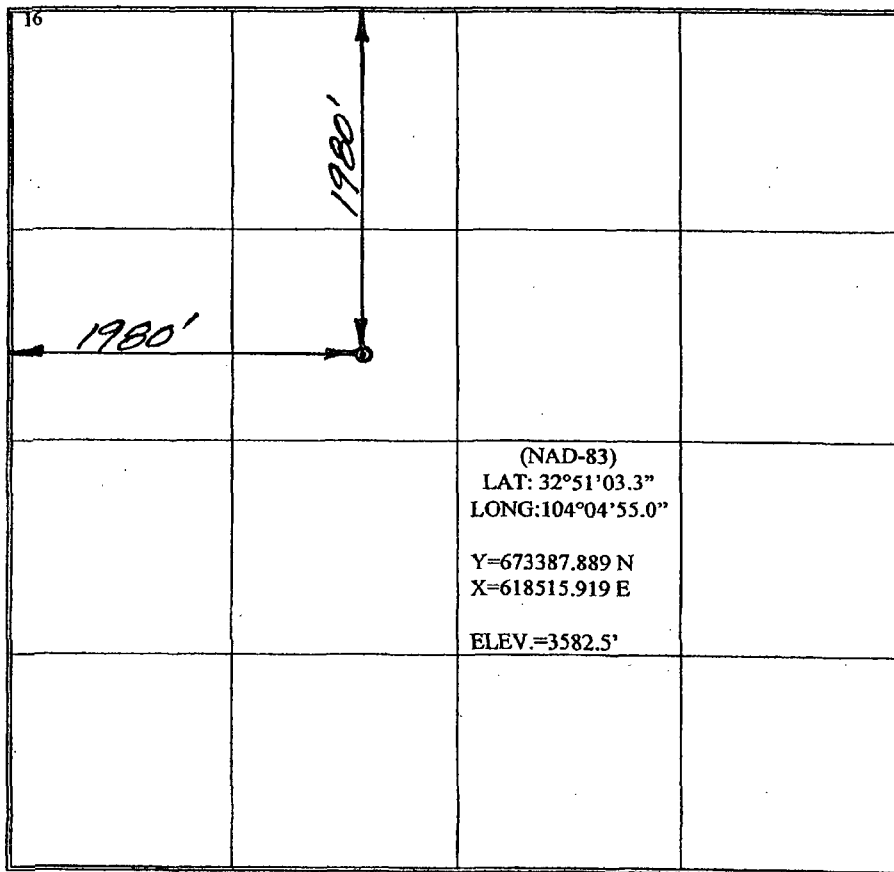
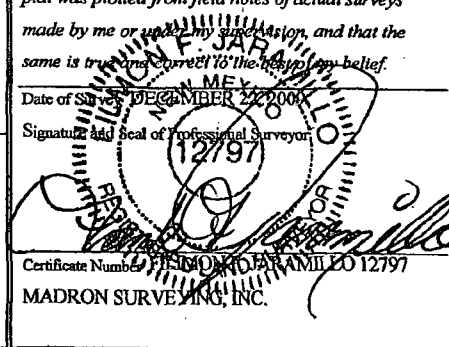
¹⁰ Surface Location

UL or lot no. F	Section 9	Township 17 S.	Range 29 E.	Lot Idn	Feet from the 1980	North/South line NORTH	Feet from the 1980	East/West line WEST	County EDDY
--------------------	--------------	-------------------	----------------	---------	-----------------------	---------------------------	-----------------------	------------------------	----------------

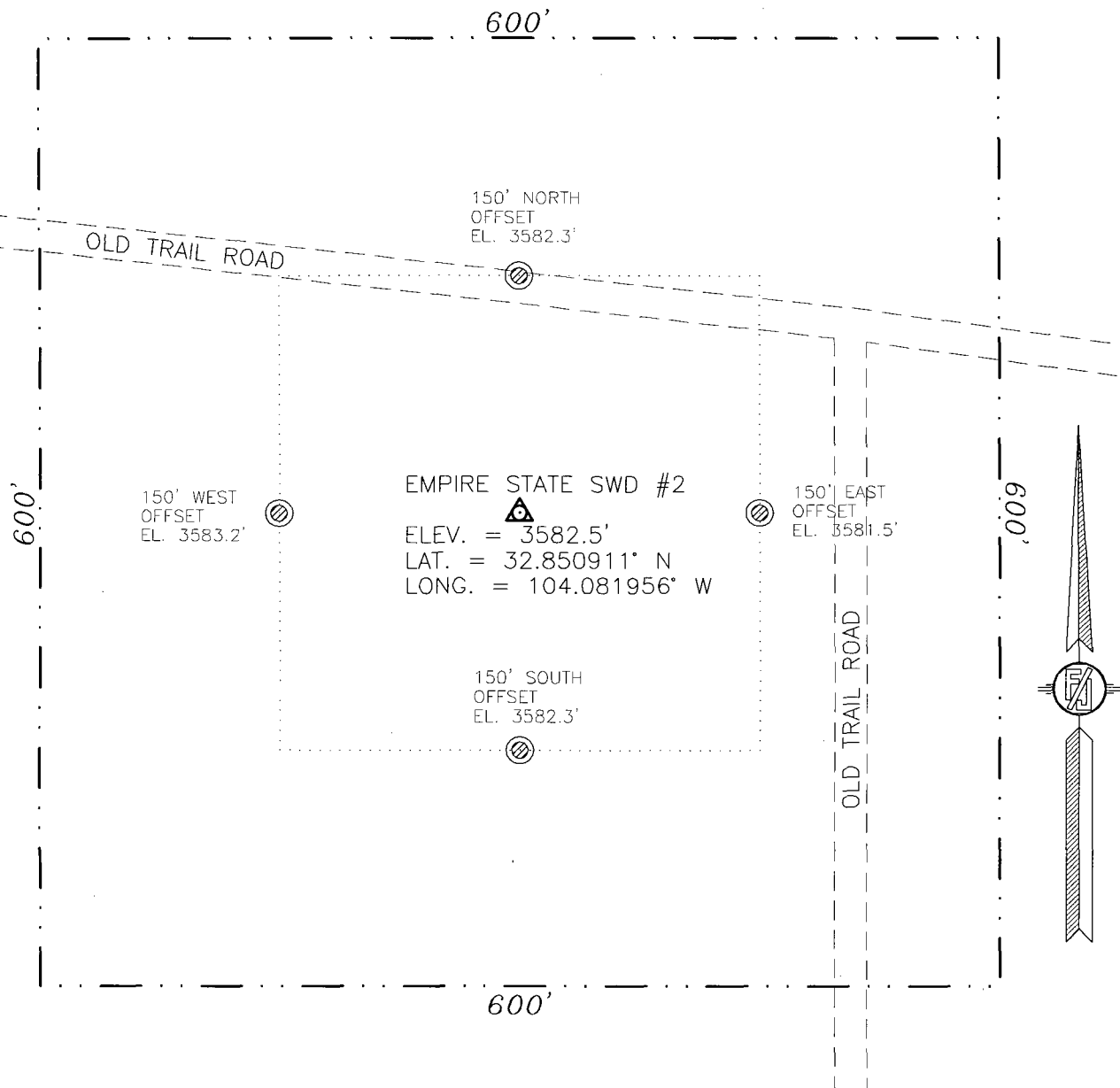
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres		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.

¹⁶ 				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 unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature _____ Date _____ Printed Name _____	
(NAD-83) LAT: 32°51'03.3" LONG: 104°04'55.0" Y=673387.889 N X=618515.919 E ELEV.=3582.5'				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 to the best of my belief. Date of Survey: DECEMBER 22, 2004 Signature and Seal of Professional Surveyor  Certificate Number: 12797 MADRON SURVEYING, INC.	

SECTION 9, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO



0 10 50 100 200
SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM U.S. HWY. 82 AND CR. #211 (OLD LOCO)
GO NORTH ON CR. #211 2.4 MILES AND TURN
RIGHT ON CALICHE LEASE ROAD AND GO EAST
0.5 MILES, BEND LEFT AND GO NORTH 0.3
MILES, BEND RIGHT AND GO EAST 0.1 MILE TO
THE CIMAREX BARBWIRE STATE #1 WELL AND
LOCATION IS 1320' EAST

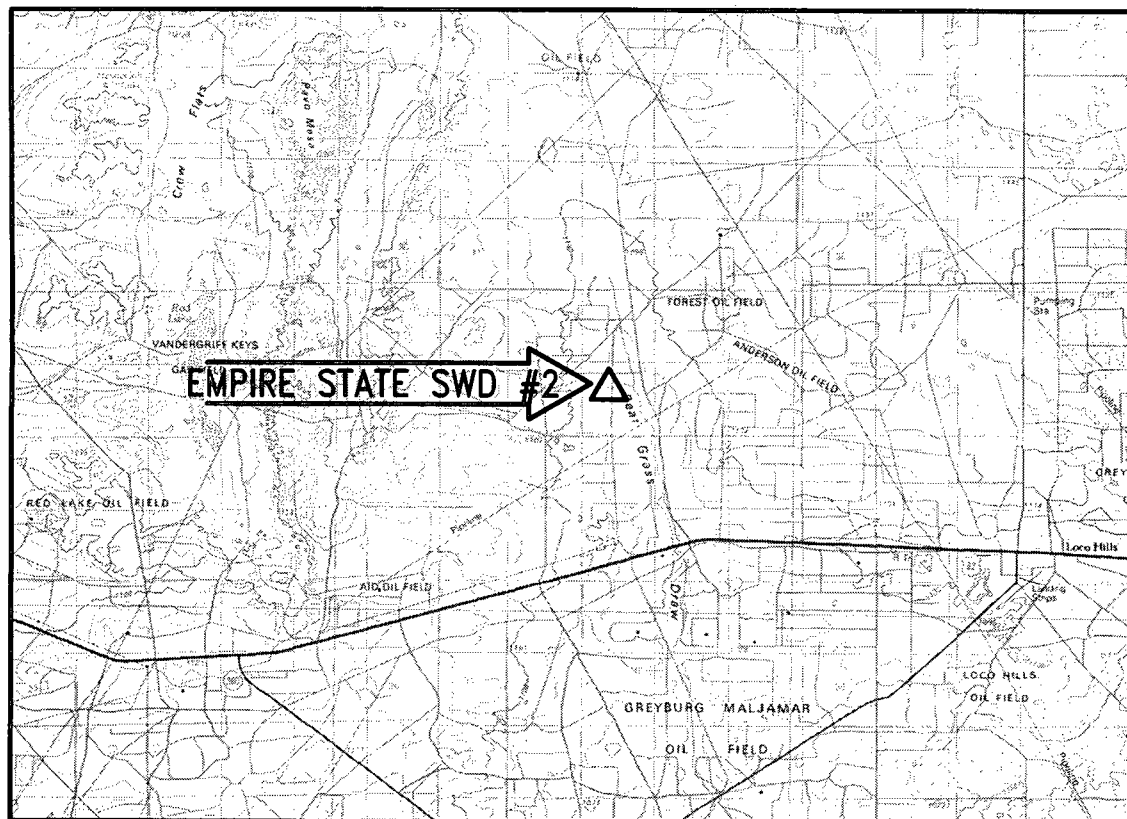
COG OPERATING LLC
EMPIRE STATE SWD #2
LOCATED 1980 FT. FROM THE NORTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 17 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 22, 2009

SURVEY NO. 059

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

SECTION 9, 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 2.4 MILES AND TURN
RIGHT ON CALICHE LEASE ROAD AND GO EAST
0.5 MILES, BEND LEFT AND GO NORTH 0.3
MILES, BEND RIGHT AND GO EAST 0.1 MILE TO
THE CIMAREX BARBWARE STATE #1 WELL AND
LOCATION IS 1320' EAST

NOT TO SCALE

SEC. 9 TWP. 17-S RGE. 29-E
SURVEY N.M.P.M.
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 1980' FNL & 1980' FWL
ELEVATION 3582.5
OPERATOR COG OPERATING LLC
LEASE EMPIRE

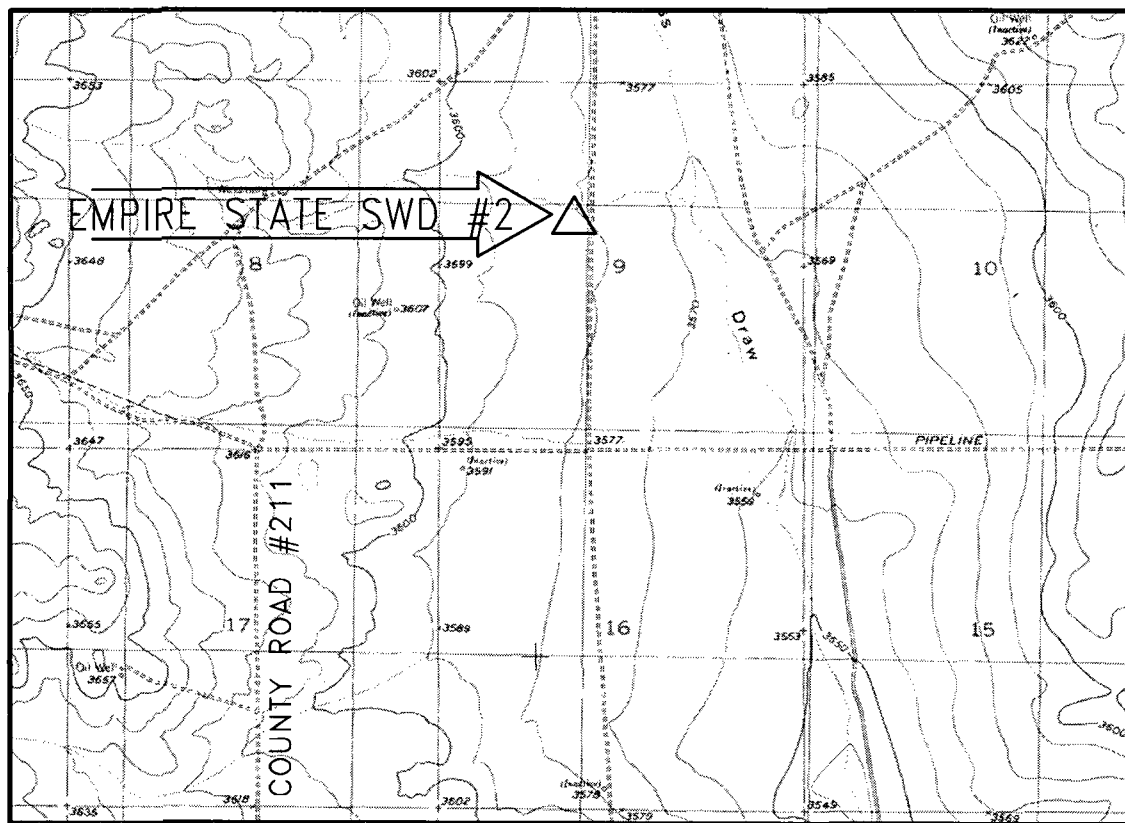
COG OPERATING LLC
EMPIRE STATE SWD #2
LOCATED 1980 FT. FROM THE NORTH LINE
AND 1980 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 17 SOUTH,
RANGE 29 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 22, 2009

SURVEY NO. 059

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

SECTION 9, 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 2.4 MILES AND TURN
 RIGHT ON CALICHE LEASE ROAD AND GO EAST
 0.5 MILES, BEND LEFT AND GO NORTH 0.3
 MILES, BEND RIGHT AND GO EAST 0.1 MILE TO
 THE CIMAREX BARBWIRE STATE #1 WELL AND
 LOCATION IS 1320' EAST

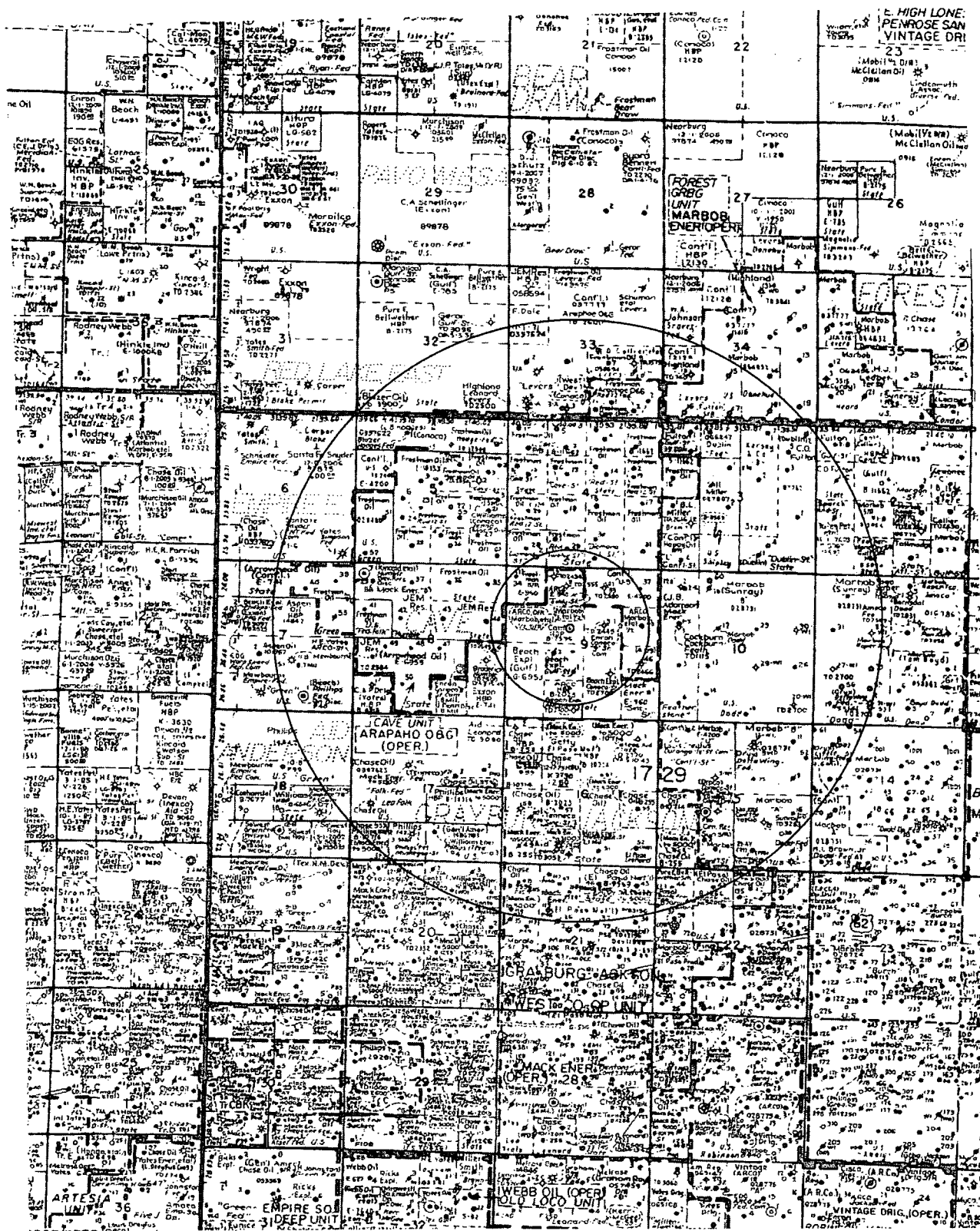
SEC. 9 TWP. 17-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 1980' FNL & 1980' FWL
 ELEVATION 3582.5
 OPERATOR COG OPERATING LLC
 LEASE EMPIRE

COG OPERATING LLC
 EMPIRE STATE SWD #2
 LOCATED 1980 FT. FROM THE NORTH LINE
 AND 1980 FT. FROM THE WEST LINE OF
 SECTION 9, TOWNSHIP 17 SOUTH,
 RANGE 29 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 22, 2009

SURVEY NO. 059

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



Disposal Well

API #	PROPERTY NAME	#	OPERATOR	TD	TYPE	STATE	CO	LAND	U/L	SEC	TWN	RNG	N/S	E/W
	Empire State SWD	2	COG OPERATING LLC	9,200'	SWD	NM	EDDY	State		9	17S	29E	1,980'N	1980'W

Wells within 1/2 mile which penetrate proposed disposal interval

API #	PROPERTY NAME	#	OPERATOR	TD	TYPE	STATE	CO	LAND	U/L	SEC	TWN	RNG	N/S	E/W
30-015-36134	Barbwire 9 State Com	1	Cimarex Energy Co. of Colorado	10,830'	Gas	NM	Eddy	State	E	9	17S	29E	1,980'N	1,380'E
30-015-36394	Flameskimmer	2	Cimarex Energy Co. of Colorado	9,900'	Gas	NM	Eddy	State	K	9	17S	29E	2,150'S	1,800'W
30-015-30690	Conoco 9 State Com	1	EOG Resources Inc.	11,000'	Gas	NM	Eddy	State	G	9	17S	29E	1,980'N	1,350'E
30-015-35219	Oxy Flameskimmer State	1	Oxy USA WTP Limited Ptnshp	10,850'	Gas	NM	Eddy	State	K	9	17S	29E	1,650'S	1,880'W

(7850')
HORIZ VC

-CIRC

not drilled yet

PEA - sand DIAGRAM (WC not isolated)

ISO
BLM
Cimarex
NOXX
EOG
Mack & Gower
Oxy Pigs Saur
Sand
No Trace

Break out
Notice
Notice

DIVISION GENERATED AOR LIST

COG Operating LLC
Empire State SWD #2

3001500000 Empire State SWD 002			COG Operating LLC				1980 N	1980 W	F	9 17S	29E	0-015-0000 C	
API	WELL NAME	OPERATOR	FTG NS	NS	FTG E	W	OC	Sec	Tsp	Rge	Dist	WI	COMPL STATUS
3001536394	FLAMESKIMMER 002	CIMAREX ENERGY CO. OF COLORADO	2150 S		1800 W	K		9 17S	29E		1,164	N	New (Not drilled or c
3001536134	BARBWIRE 9 STATE COM 001	CIMAREX ENERGY CO. OF COLORADO	1980 N		660 W	E		9 17S	29E		1,320	A	Active
3001535219	OXY FLAMESKIMMER STATE 001	OXY USA WTP LIMITED PARTNERSHIP	1650 S		1880 W	K		9 17S	29E		1,653	A	Unknown
3001530690	CONOCO 9 STATE COM 001	EOG RESOURCES INC	1980 N		1350 E	G		9 17S	29E		1,950		Plugged
Shallow in AOR													
3001524760	DIAMOND STATE 002	MARKS AND GARNER PRODUCTION LTD CO	330 S		990 W	M		4 17S	29E		2,513	A	Active
3001524759	DIAMOND STATE 001	MARKS AND GARNER PRODUCTION LTD CO	330 S		2310 E	O		4 17S	29E		2,513	A	Active
3001524588	GULF STATE 001	ASPEN PUMPING SERVICE	1650 S		2310 W	K		9 17S	29E		1,683	A	Active
3001502884	CAVE POOL UT 029	JEM RESOURCES	660 S		1980 W	N		4 17S	29E		2,640	P	Plugged
3001502932	SINCLAIR STATE 002	JOHN M. KELLY	330 N		1650 W	F		9 17S	29E		1,683	P	Plugged
3001502934	CAVE POOL UT 034	JEM RESOURCES	330 N		330 W	D		9 17S	29E		2,333	P	Plugged
3001524671	CONOCO ST 001	BEACH EXPL INC	1650 S		1650 E	J		9 17S	29E		2,333	P	Plugged
3001502935	CAVE POOL UT 045	JEM RESOURCES	1980 N		660 E	H		9 17S	29E		2,640	P	Plugged
3001502929	STATE "U" 009	CONTINENTAL OIL COM	1980 N		1980 E	G		9 17S	29E		1,320	P	Plugged
3001502933	STATE EDDY "33" 002	SINCLAIR OIL & GAS	660 N		1980 W	C		9 17S	29E		1,320	P	Plugged
3001502920	CAVE POOL UT 044	JEM RESOURCES	1980 N		660 E	H		8 17S	29E		2,640	P	Plugged
3001502928	CAVE POOL UNIT 033	JEM RESOURCES, INC.	660 N		1980 E	B		9 17S	29E		1,867	P	Plugged
3001502923	HUMBLE 8 006	KINCAID-WATSON	2310 S		330 E	I		8 17S	29E		2,513	P	Plugged
3001524809	GULF ST 002	BEACH EXPL INC	2310 S		1650 W	K		9 17S	29E		1,044	P	Plugged

REVIEW BALLOUT

REVIEW

CHECK PRODUCTION

Jones, William V., EMNRD

From: Mark Fairchild [MFairchild@conchoresources.com]
Sent: Friday, April 09, 2010 8:52 AM
To: Jones, William V., EMNRD
Cc: Keith Corbett; Robert Ready; Ramon Reyes; Sammie Hodges
Subject: COG Empire State SWD #2
Attachments: OXY Flameskinner State #1WBD.xls; DL_CONOCO 9 ST 1 TYPE LOG.jpg; Barbwire 9 State WBS.xls; Conoco 9 State Com WBS.xls

William, in response to your questions of 3/15/2010 items 'o.' and 'p.' COG respectfully submits the following for your review.

- A. Per 'o.' all of the Wellbore diagrams of the P&A'd wells in the AOR. ✓
- B. Per 'p.' a detailed, annotated log with tops and cement plugs of the Conoco 9 State Com #1 well. COG contends that the cement plug in the Cisco does isolate the porous reef injection interval in this wellbore and that the well is adequately plugged.
- C. Please note, our NMOCD research of 30-015-36394 shows a permit but no drilled well documentation. ✓

Please let me know what you decide.

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.

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address CIMAREX ENERGY CO. OF COLORADO 3215 N. O'CONNOR BLVD. IRVING, TX 75039		2. OWM Number 163883
		3. API Number 10401536394
4. Property Code 37228	5. Property Name FLAMESKINNER	6. Well No 002

7. Surface Location									
UTM Lat K	Section 9	Township 17S	Range 29E	Lot Blk 1	Feet Blk 2130	R/S Line S	Feet Blk 1200	B/W Line W	County EL PASO

8. Pool Information	
WGS STRAWNS (C)	97636

Additional Well Information				
9. Well Type New Well	10. Well Type OAS	11. Casing/Depth	12. Lease Type State	13. Ground Level Elevation 1586
14. Depth N	15. Proposed Depth 5900	16. Production Steam	17. Cementor	18. Spud Date 7/15/2008
Depth to bound water		Distance from nearest fresh water well		Distance to nearest surface water
Dr. Line: Synthetic <input type="checkbox"/> mls. thick Clay <input type="checkbox"/> Pt. Volume <input type="checkbox"/> Bulk: Drilling Method Closed Loop System <input type="checkbox"/> Rock: Water <input type="checkbox"/> Dr. Line <input type="checkbox"/> Dr. Line <input type="checkbox"/> Dr. Line <input type="checkbox"/>				

19. Proposed Casing and Cement Program						
Type	Hole Size	Casing Type	Casing Weight	Casing Depth	Scale of Cement	Estimated TOC
Surf	13.5	13.375	48	350	340	0
Int1	12.25	9.625	40	3000	680	0
Prod	8.75	5.5	17	9900	1436	2450

Casing/Cement Program: Additional Comments
Complete mud, casing, cementing, and BOP details will be emailed to Kerdealy Wilson.

Proposed Blowout Prevention Program			
Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	5000	5000	Cameron

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling will be conducted according to BUREAU guidelines, a permit plan, or an approved alternative OED-approved plan. Printed Name: Electronically Filed by Leno Paris Title: Manager Operations Administration Email Address: lparis@oasgarnthunter.com Date: 6/25/2008	OIL CONSERVATION DIVISION	
	Approved By: Tim Gurn	
	Title: District Supervisor	
	Approved Date: 6/26/2008	Expiration Date: 6/26/2010
	Conditions of Approval Attached	

Well NOT DRILLED Yet

Submit To Appropriate District Office State Lease - 6 copies Fee Lease - 5 copies 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 and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised June 10, 2003 WELL API NO. 30-015-36134 5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> State Oil & Gas Lease No.
--	---	---

WELL COMPLETION OR RECOMPLETION REPORT AND LOG													
1a. Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> DRY <input type="checkbox"/> OTHER <input type="checkbox"/>			7. Lease Name or Unit Agreement Name Barbwire 9 State										
b. Type of Completion: NEW <input checked="" type="checkbox"/> WORK <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG <input type="checkbox"/> DIFF. WELL OVER BACK RESVR. <input type="checkbox"/> OTHER <input type="checkbox"/>			8. Well No. 001										
2. Name of Operator Cimarex Energy Co. of Colorado(162683)			9. Pool name or Wildcat Anderson; Wolfcamp, Wildcat										
3. Address of Operator PO Box 140907; Irving, TX 75014-0907			4. Well Location SHL: Unit Letter E 1980 Feet From The North Line and 660 Feet From The West Line BHL: Unit Letter _____ Feet From The _____ Line and _____ Feet From The _____ Line Section 9 Township 17S Range 29E NMPM County Eddy										
10. Date Spudded 3-17-08	11. Date T.D. Reached 4-13-08	12. Date Compl. (Ready to Prod.) 5-15-08	13. Elevations (DF& RKB, RT, GR, etc) 3590' GR	14. Elev. Casinghead									
15. Total Depth 10,830'	16. Plug Back T.D. 10779'	17. If Multiple Compl. How Many Zones? 	18. Intervals Drilled By Rotary	Rotary Tools Cable Tools									
19. Producing Interval(s), of this completion - Top, Bottom, Name Anderson; Wolfcamp'				20. Was Directional Survey Made NO									
21. Type Electric and Other Logs Run PEX, HRLA, BHC, Sonic, HNGS, CBL			22. Was Well Cored No										
23. CASING RECORD (Report all strings set in well)													
CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED								
13 3/4"	48	186'	17 1/2"	400 sx, circ 46 sx									
9 1/4"	40	3017'	12 1/4"	1150 sx, circ 130 sx									
5 1/2"	17	10830'	8 3/4"	1640sx, TOC 2420' CBL	✓								
24. LINER RECORD			25. TUBING RECORD										
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE								
					2 1/2"								
					7901'								
			PACKER SET										
			Tac @ 7602'										
26. Perforation record (interval, size, and number) 10086'-10102' .43 72 holes covered by CIBP set @ 10000' w/15' cement on top 7822'-7836' .43 96 holes			27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;">DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> <tr> <td>10086'-10102'</td> <td>1500 gal 15% NEFE HCL acid</td> </tr> <tr> <td>10000'</td> <td>CIBP with 15' Cement on top</td> </tr> <tr> <td>7822'-7836'</td> <td>1500 gal 15% NEFE HCL acid</td> </tr> </table>			DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED	10086'-10102'	1500 gal 15% NEFE HCL acid	10000'	CIBP with 15' Cement on top	7822'-7836'	1500 gal 15% NEFE HCL acid
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED												
10086'-10102'	1500 gal 15% NEFE HCL acid												
10000'	CIBP with 15' Cement on top												
7822'-7836'	1500 gal 15% NEFE HCL acid												
28. PRODUCTION													
Date First Production 5-18-08		Production Method (Flowing, gas lift, pumping - Size and type pump) Pumping - 2 1/2" x 1 1/2" x 20' Sub surface Pump		Well Status (Prod. or Shut-in) Producing									
Date of Test 05-9-08	Hours Tested 24	Choke Size 48/64	Prod'n For Test Period	Oil - Bbl 20	Gas - MCF 10								
Flow Tubing Press. 120	Casing Pressure 50	Calculated 24 Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.								
			Oil Gravity - API - (Corr.) 39.36										
29. Disposition of Gas (Sold, used for fuel, vented, etc.) *First Gas production - 5-18-08 sold					Test Witnessed By								
30. List Attachments Deviation Report													
31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.													
Signature <u>Scott Haynes</u>			Printed Name <u>Scott Haynes</u> Title <u>Regulatory Analyst</u> Date <u>8/11/2008</u>										
E-mail Address <u>shaynes@cimarex.com</u>													

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

FEB - 4 2009

Form C-101
May 27, 2004

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



Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Cimarex Energy Co. of Colorado 5215 N. O'Connor Blvd., Ste 1500 Irving, TX 75039		² OGRID Number 162683
		³ API Number 30-015-36134
⁴ Property Code 37012	⁵ Property Name Barbwire 9 State Com	⁶ Well No. 001
⁹ Proposed Pool 1 Anderson; Wolfcamp		¹⁰ Proposed Pool 2

Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	9	17S	29E		1980	North	660	West	Eddy

Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	9	17S	29E		1980	North	660	East	Eddy

Additional Well Information

¹¹ Work Type Code A	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3590' GL
¹⁶ Multiple N	¹⁷ Proposed Depth 11762' (lateral MD)	¹⁸ Formation Wolfcamp	¹⁹ Contractor N/A	²⁰ Spud Date When Approved
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit Liner: Synthetic <input type="checkbox"/> _____mils thick Clay <input type="checkbox"/> Pit Volume: _____bbls Drilling Method:				
Closed-Loop System <input checked="" type="checkbox"/> Flowback Tanks Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17½"	13¾"	48#	186'	400	Surface
12¼"	9⅝"	40#	3017'	1150	Surface
8¾"	5½"	17#	10830'	1640	2420'
6⅝"	3½"	9.3#	11762'	No cmt, PEAK	

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary. 10086-10102
Well currently producing from Wolfcamp 7822-36.' Atoka perms 1008-102' with CIBP @ 10000' w/ 15' cmt. Cimarex proposes the following operations to recompleat horizontally in the Wolfcamp:

- Kill well. NU 5K BOP. Squeeze Wolfcamp perms @ 7822-36.' Set CIBP @ 7672' w/ 2 sx sand.
 - Mill window from 7650' to 7665.' Kick off 6⅝" hole at 7660.' Land curve @ 7957' MD and drill to TD of 11762' MD and 7917' TVD.
 - Run 3½" 9.3# P-110 EUE 8rd liner from RSB packer at 7560' to TD of 11762' MD. Liner will be PEAK completion assembly with no cement.
 - Fracture treat in several stages as needed through iso-ports (separated by iso-packers).
- Please see attached preliminary directional survey and C-102.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Natalie Krueger
Printed name: Natalie Krueger

Title Regulatory Analyst

E-mail Address: nkruieger@cimarex.com

Date: January 27, 2009

Phone: 469-420-2723

OIL CONSERVATION DIVISION

Approved by:

Jacqui Reeves

Title:

District 11 Geologist

Approval Date: 2/10/09

Expiration Date: 2/10/2011

Conditions of Approval Attached ☐

Cimarex Energy Co. of Colorado

Lease & Well

30 015 36134

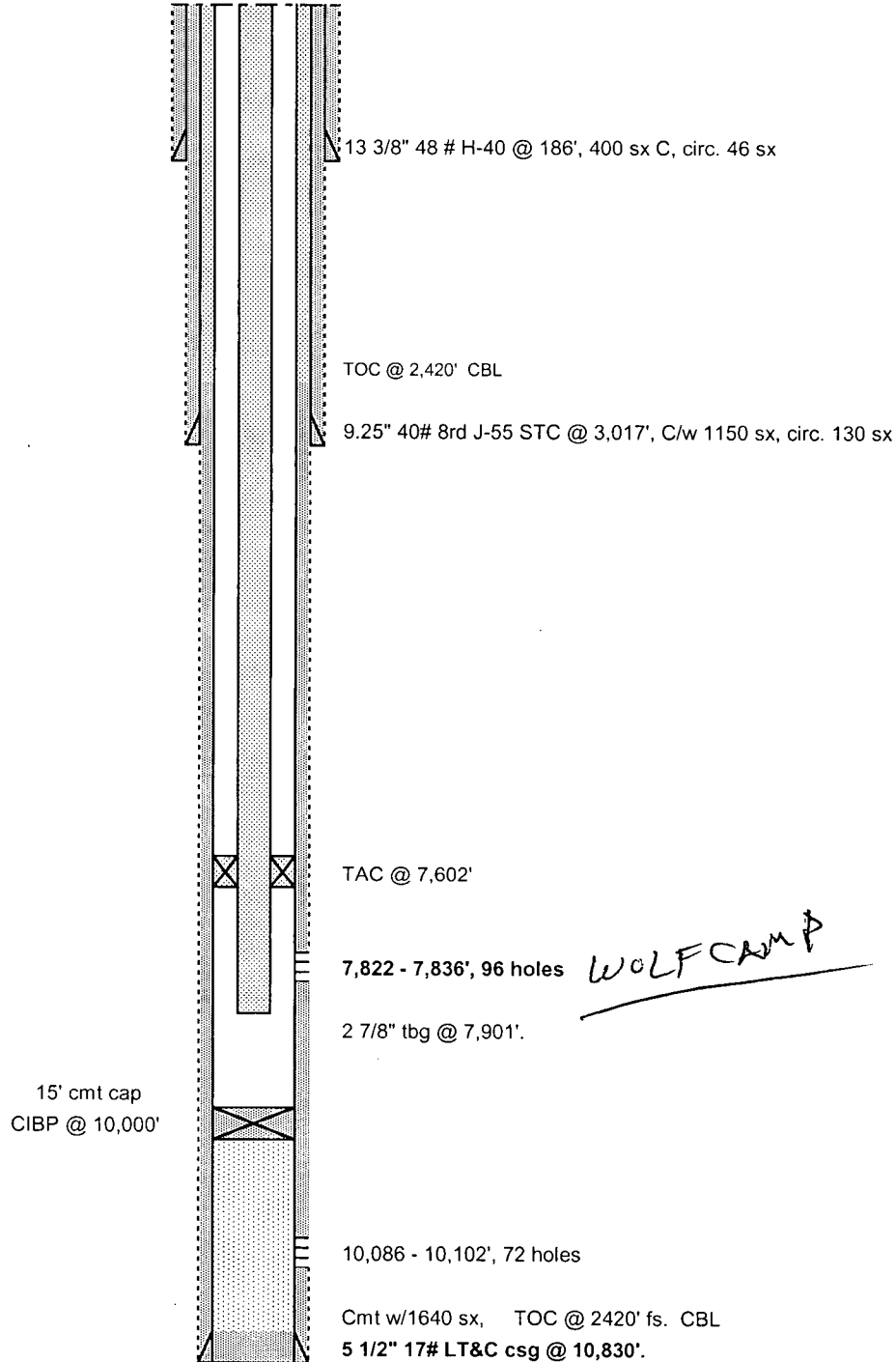
Barbwire 9 State #1

SPUD - 3/17/2008

Eddy Co., NM

Sec 9 T17S R29E 1980 FNL & 660 FWL

Elevation - 3590'



Cimarex Energy Co. of Colorado

SERVICE RIG

DRLG F/ 10200 TO 10232, 32', AVG ROP = 6 FPH, WOB = 55, RPM = 60

SV @ 10183' = .25 DEG

DRLG F/ 10232 TO 10364, 132', AVG ROP = 8 FPH, WOB = 55, RPM = 60

Date: 03/14/2007

DRLG F/ 10364 TO 10389, 25', AVG ROP = 10 FPH, WOB = 55, RPM = 60

SERVICE RIG & PUMPS

DRLG F/ 10389 TO 10585, 196', AVG ROP = 9 FPH, WOB = 55, RPM = 60

Date: 03/15/2007

DRLG F/ 10585 TO 10605, 20', AVG ROP = 7 FPH, WOB = 55, RPM = 60

SERVICE RIG

DRLG F/ 10605 TO 10729, 124', AVG ROP = 7 FPH, WOB = 55, RPM = 60

SV @ 10675 = .25 DEG

DRLG F/ 10729 TO 10737, 8', AVG ROP = 5 FPH, WOB = 55, RPM = 60

Date: 03/16/2007

DRLG f/ 10737' - 10760' (23'), AVG ROP = 4.6 FPH, WT = 55, RPM = 60

SERVICE RIG

DRLG f/ 10760' - 10850' (90'), TD 8 3/4" HOLE @ 03:30 HRS, 3-16-2007 @ 10850', AVG ROP = 5.5 FPH, WT = 55, RPM = 60

CIRC BOTTOMS UP

DROP TOTCO

TOH FOR LOGS

Date: 03/17/2007

FNSH TOH

L/D DRLG BHA & BIT

PRE-JOB SAFETY MEETING w/ BAKER ATLAS & McVAY RIG PERSONNEL

R/U BAKER ATLAS WIRELINE TRUCK, P/U LOGGING TOOLS, RIH w/ TRIPLE COMBO TOOL, RAN LOGS, POH, L/D TRIPLE COMBO TOOL, P/U STAR LOGGING TOOL, RIH, LOGGING OPEN HOLE WITH STAR LOGGING TOOL

Date: 03/18/2007

TIH W/ BIT

WASH TO BOTTOM

CIRC

HELD A PRE-JOB SAFETY MEETING AND TOH LDDP AND DCS

MIRU BULL ROGERS CSG CREW AND HELD A PRE-JOB SAFETY MEETING. TIH W/ FS, 1 JT, FC, AND 5.5" 17# HCP-110 LTC CASING AT REPORT TIME

Date: 03/19/2007

COMPLETED RUNNING CSG TO 10850 W/ 262 JTS OF 5.5" 17# HCP-110 LTC & SET @ 10850'

CIRC WHILE WAITING ON HALLIBURTON'S CEMENT

HALLIBURTON CEMENTED CSG W/ 840 SK OF INTERFILL "H" FB 870 SK OF SUPER "H". CIRC 26 SK TO PIT

ND BOPE AND SET SLIPS

JET & CLEAN PITS, NU WELL HEAD & RELEASED RIG AT 6:00 PM, 03/18/2007

SHUT DOWN FOR NIGHT, PREP TO COMPLETE RD THIS AM

30-015-35219
OXT Flomaskin State #1

BUT See Next Page

OXY FLAMESKIMMER STATE #1

04/18/2007 CMIC: Barton
MIRU.

04/19/2007 CMIC: Barton

Move in rig up. Nipple up 5K hyd BOP. Unload and rack 363 jts new 2 3/8" L80 tbg. (11,465.69'). Pick up and run 4 3/4" bit, 5 1/2" csg scraper, on 342 jts tbg. Tag @ 10,813'. Test casing to 1500# - OK. Displace with 240 bbls 6% kcl claystay pkr fluid. Pull bit up hole to 10,787'. SION. Prep to POOH - Run CBL - CCL.

04/20/2007 CMIC: Barton

Hold safety meeting. Trip out with 341 jts 2 3/8" tbg. Load csg with 18 bbls pkr fluid. Rig Halliburton wireline up. Run CBL from 10,804' to 7,800'. Run repeat log under 1000# psi. Rig wireline down. SION. Cement good from 8450' down. Fair to poor cement from 8450' - 4500'. No cement above 4500'.

04/21/2007 CMIC: Barton

hold safety meeting, assemble tcp guns, pkr, on/off tool & rih on 2 3/8" tbg, miru baker atlas wl, rih w/gamma ray tool & correlate to open hole log, pooh, rd wl, space out guns to perf. 10,566'-84', set pkr. @ 10,492', test csg. & pkr. to 500#(OK) and bop, nu tree, si, rig down p/u & r/u, sd for weekend.

1-2 3/8" L-80 pup jt.	-	4.06
1-2 3/8" x 1.815" F" nipple	-	.98
1-2 3/8" L-80 pup jt.	-	6.21
1-2.38" x 5.5" baker hornet pkr.	-	9.14
1-2 3/8" x 1.875" L-10 on/off tool	-	1.65
2-jts. 2 3/8" L-80 tbg.	-	63.27
1-2 3/8" L-80 pup jt.	-	6.15
328-jts. 2 3/8" L-80 tbg.	-	10358.21
3-2 3/8" L-80 pup jts. (12', 10'6")	-	28.11
1-jt. 2 3/8" L-80 tbg.	-	31.64
TOTAL	-	10509.42
KB	-	3.09
BOTTOM OF TBG.	-	10512.51

PKR. @ 10492.12 1.87 @ 10490.47 1.81 @ 10507.47

05/01/2007 CMIC: Barton

Drop bar. Tubing pressure went to 3000#. Open up and flow on various choke settings for 2 hours. Recover 25 bbls. of water. (100% load recovery) Flow well on 24/64 choke, 2750# FTP, 975 MCF/day rate for one hour. Recover 12 bbls. (37 bbls total) Open choke to 42/64. Flow rate 1.95 @ 1950# FTP. Recover 11 bbls in first hour. (48 bbls total). Flow well @ 1.95 rate for a total of 2.5 hours. Flowing tubing pressure 1800#. Well made 13 bbls of water the last hour for a total of 61 bbls. Load to recover was 23 bbls.

05/02/2007 CMIC: Barton

Wait on Pro Wireline. Rig up Pro Wireline and RIH. Release TCP assembly and follow them down hole. Tag top of assembly @ 10,763'. POOH RIH W/single pressure gauge to 10,575' and acquire bottom hole pressure. Open well to sales.

OXY USA

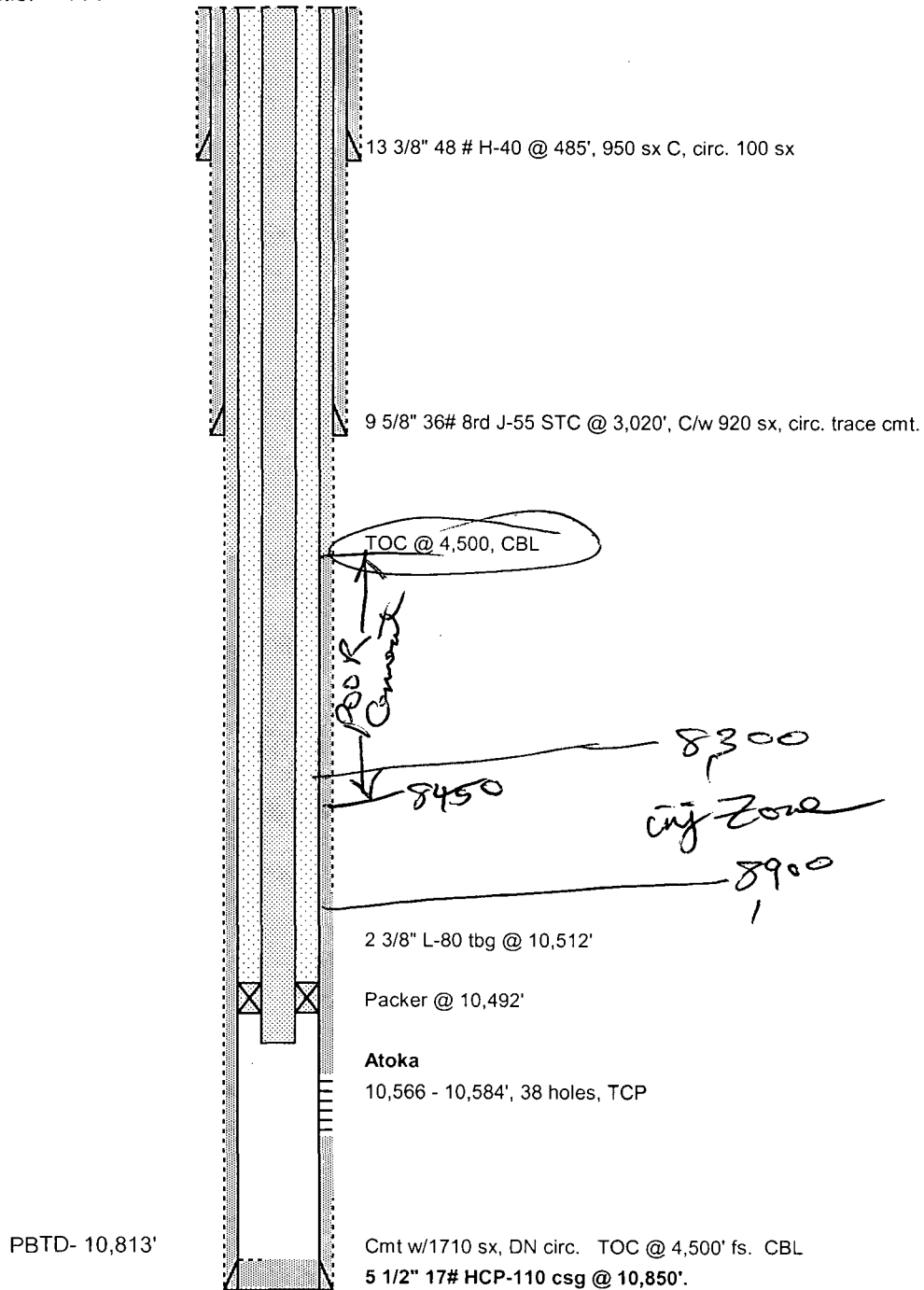
Lease & Well #
30 015 35219

OXY Flameskimmer State #1

SPUD - 2/13/2007

Eddy Co., NM
Sec 9 T17S R29E 1650 FSL & 1880 FEL

Elevation - 3584'



OXY USA

4/9/2010

OXY Flameskinner State #1WBD.xls

SHodges

ENRON OIL & GAS COMPANY
CONOCO "9" STATE COM NO. 1
API 30-015-30690
PAGE 2 OF C-103
10/11/99

1950' AWAY FROM SUBJECT well

8/7/99

Cement plug 10,488-10,388'. 100' plug, cement pumped – 40 sx Premium Class "H", 16.4#/gal, 1.06 cu ft/sk
Cement plug 8620-8520'. 100' plug, cement pumped – 45 sx Premium Class "H", 16.4#/gal, 1.06 cu ft/sk
Cement plug 7230-7138. 92' plug, cement pumped – 40 sx Premium Class "H", 16.4#/gal, 1.06 cu ft/sk
Cement plug 6014-5914'. 100' plug, cement pumped – 45 sx Premium Class "H", 16.4#/gal, 1.06 cu ft/sk.
Cement plug 3900-3800'. 100' plug, cement pumped – 40 sx Premium Class "H", 16.4#/gal, 1.06 cu ft/sk.
Cement plug 2700-2600'. 100' plug, cement pumped 30 sx Premium Plus "C", 15.6#/gal, 1.18 cu ft/sk.
Pulled 5 stds DP. Waited on cement two (2) hrs – tagged cement at 2,600' with 8000# wt.
Cement plug 489-389'. 100' plug, cement pumped 25 sx Premium Plus "C", 15.6#/gal, 1.18 cu ft/sk.
Cement plug 50' – surface. 50' plug, cement pumped 15 sx Premium Plus "C", 15.6#/gal, 1.18 cu ft/sk.

8/8/99

Nipple down BOP. Install dry hole marker.

1999 DRY hole

W.C. ROY / C. ROY
7,230' → 8,620'
OPEN

no CASPER Run TO TD

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 Pacheco St.
Santa Fe, NM 87505

WELL API NO. 30-015-30690
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Conoco "9" State Com
8. Well No. 1
9. Pool name or Wildcat Sand Tank (Morrow)

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	
2. Name of Operator Enron Oil & Gas Company	
3. Address of Operator P.O. Box 2267 Midland, TX 79702	
4. Well Location Unit Letter G : 1980 Feet From The North Line and 1350 Feet From The East Line Section 9 Township 17S Range 29E NMPM Eddy County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3565' GL	

11. 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 ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☒
CASING TEST AND CEMENT JOB ☐
OTHER: ☐

12. 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.

8/3/88 - TD at 10,960' at 10:00 p.m.
8/4/88 - Log well with Dual Induction/GR/COM Z Densilog/Comp Neutron/Digital Acousticlog
8/7/88 - Plug and abandon well.
See attached page for further details.



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

SIGNATURE Mike Francis TITLE Agent DATE 10/11/99

TYPE OR PRINT NAME Mike Francis TELEPHONE NO. 915/686-3714

(This space for State Use)

APPROVED BY Jim W. Burns TITLE District Supervisor DATE 10-20-99

CONDITIONS OF APPROVAL, IF ANY:

Enron Oil Gas Company

Lease & Well #
30 015 30690

Conoco 9 State Com. #1

P&A, 8/8/1999

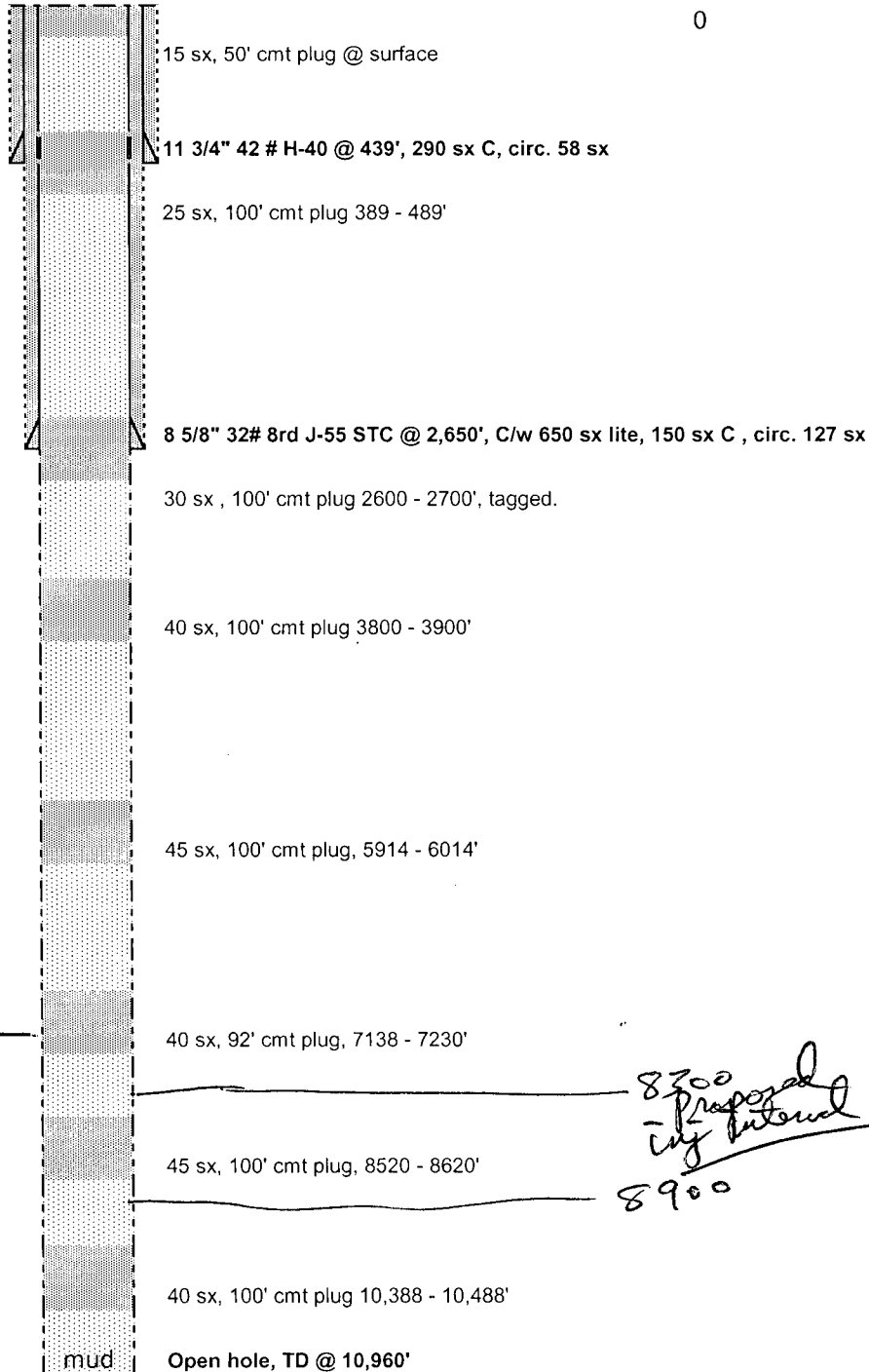
SPUD - 7/13/99

Eddy Co., NM

Sec 9 T17S R29E 1980 FNL & 1350 FEL

Elevation - 3565'

0

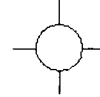


~ 7185' Top (WC)

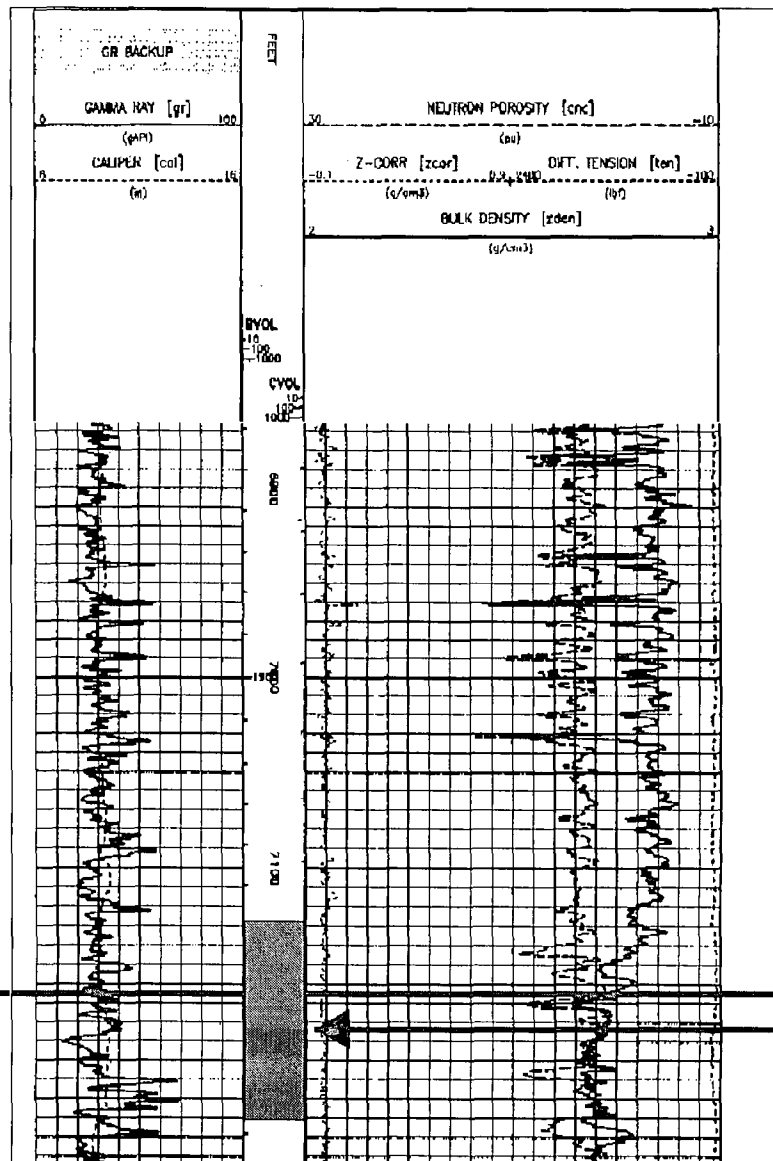
*8300
Proposed
casing interval
8900*



300153069000



ENRON OIL & GAS CO
CONOCO '9' STATE CO 1
1980 FNL 1350 FEL
TWP: 17 S - Range: 29 E - Sec. 9
Datum=3583



T/ Wolfcamp



New Mexico Office of the State Engineer
Point of Diversion by Location
(with Owner Information)

UTM/NAD83 Radius Search (in meters):

Easting (X): 585701

Northing (Y): 3635328

Radius: 1610

• No PODs found.

2/19/2010: Fresh Water Well Search, COG SENM Empire State SWD #2,
1 mile radius of location. No wells found

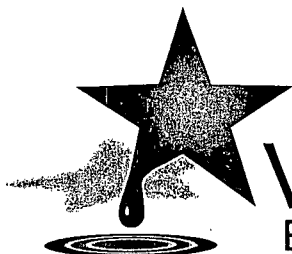
Legal Notice

COG Operating LLC is applying to drill the Empire State SWD #2 as a water disposal well.

The well is located in 1980' FNL & 1980' FWL, Sec. 9, T. 17 S., R. 29 E., Eddy County, NM. The well will be dispose of water produced from oil and gas wells into the Cisco Reef zone at a depth of 8300' to 8900' at a maximum rate of 20,000 barrels of water per day and at a maximum pressure of 1,720 psi.

Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 12220 South Saint Francis Dr., Santa Fe, NM 87505, within 15 days.

Additional information can be obtained
by contacting Tye Orr
Veritas 321 Energy Partners, LP
P.O. Box 173
Midland, TX
(432) 349-4729



VERITAS 321
ENERGY PARTNERS, LP

New Mexico State Land Office
P.O. Box 1148
Santa Fe, NM 87504

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger



For delivery information visit our website at www.usps.com

OFFICIAL USE

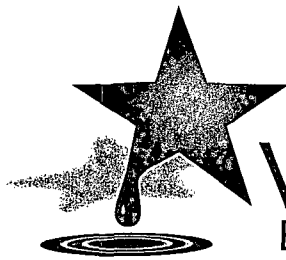
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Postmark
Here

Sent To: New Mexico State Land Office
Street, Apt. No.,
or PO Box No. P.O. Box 1148
City, State, ZIP+4 Santa Fe NM 87504

02 • 432.682.4002 • 432.684.4741 fax

7007 2560 0003 3661 9027



VERITAS 321
ENERGY PARTNERS, LP

Bureau of Land Management
620 E Greene Street
Carlsbad, NM 88220

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger

U.S. Postal ServiceTM
CERTIFIED MAILTM RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Sent to: Bureau of Land Management
Street, Apt. No.,
or PO Box No. 620 Greene Street
City, State, ZIP+4[®] Carlsbad NM 88220



VERITAS 321
ENERGY PARTNERS, LP

ConocoPhillips
PO Box 2197
Houston, TX 77252

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E
Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com

OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Postmark Here

Sent to
Conoco Phillips
Street, Apt. No.,
or PO Box No. P.O. Box 2197
City, State, ZIP+4 Houston, TX 77252

PS Form 3800, August 2006 See Reverse for Instructions



VERITAS 321

ENERGY PARTNERS, LP

Doral Energy Corp
111 N. Sepulveda Blvd, Suite 250
Manhattan Beach, CA 90266

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E
Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM


Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

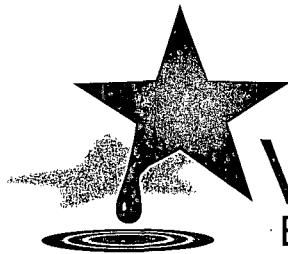

Tony Esslinger

7007 2560 0003 3681 9089

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information, visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71
Postmark Here	
Sent To	
Doral Energy Corp.	
Street, Apt. No., or PO Box No. 111 N. Sepulveda Blvd #250	
City, State, ZIP+4 Manhattan Beach, CA 90266	
PS Form 3800, August 2006 See Reverse for Instructions	



702 • 432.682.4002 • 432.684.474 | fax



VERITAS 321
ENERGY PARTNERS, LP

J.E. Roye and Rozelle V. Roye
2014 Gila Rd
Odessa, TX 79763

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information, visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71
Postmark Here	
Sent to: J.E. Roye & wife Rozelle V. Roye	
Street, Apt. No., or P.O. Box No. 2014 Gila Rd.	
City, State, ZIP+4 Odessa TX 79763	

9702 • 432.682.4002 • 432.684.4741 fax



VERITAS 321
ENERGY PARTNERS, LP

Gayle S. Smith
9430 Manor Dr
La Mesa, CA 91942

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

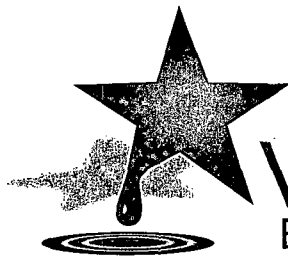
Tony Esslinger

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information, visit our website at www.usps.com

OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Sent To: Gayle S. Smith
Street, Apt. No., or PO Box No.: 9430 Manor Dr.
City, State, ZIP+4: La Mesa, CA 91942



VERITAS 321
ENERGY PARTNERS, LP

JEM Resources, Inc.
512 W Texas Ave
Artesia, NM 88210

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900)

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

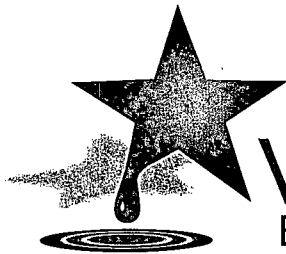
Sincerely,

Tony Esslinger

7007 2562 0000 0952 0001 9050

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Sent To: JEM Resources, Inc.
Street, Apt. No. or PO Box No.: 512 W. Texas Ave.
City, State, ZIP+4: Artesia NM 88210



VERITAS 321
ENERGY PARTNERS, LP

OXY USA WTP, Inc.
PO Box 50250
Midland, TX 79710

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

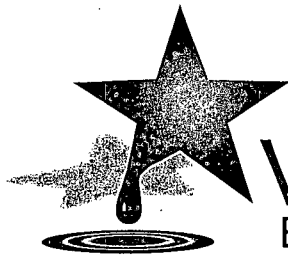
Please call me if you have any questions.

Sincerely,

Tony Esslinger

U.S. Postal Service	
CERTIFIED MAIL - RECEIPT	
(Domestic Mail Only, No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71
Sent To: Oxy USA WTP, Inc.	
Street, Apt. No., or PO Box No. P.O. Box 50250	
City, State, ZIP+4 Midland TX 79710	

702 • 432.682.4002 • 432.684.4741 fax



VERITAS 321
ENERGY PARTNERS, LP

Pitch Energy Corp.
PO Box 304
Artesia, NM 88211

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger

7007 2560 0003 3681 9157

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71
Postmark Here	
Sent To Pitch Energy Corp.	
Street, Apt. No., or PO Box No. P.O. Box 304	
City, State, ZIP+4 Artesia NM 88211	

See Reverse for Instructions



Magnum Hunter Production, Inc.
600 Las Colinas Blvd, Suite 1100
Irving, TX 75039

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900)

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E
Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

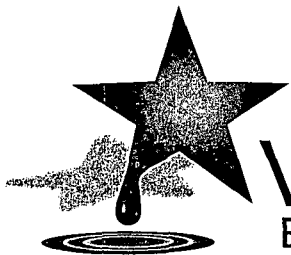
Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

U.S. Postal Service	
CERTIFIED MAIL - RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71
Sent To: Magnum Hunter Production, Inc.	
Street, Apt. No. or PO Box No. 5215 N O'Connor, Ste. 1500	
City, State, ZIP+4 Irving, TX 75039	



VERITAS 321

ENERGY PARTNERS, LP

Magnum Hunter Production, Inc.
5215 N O'Connor, Suite 1500
Irving, TX 75039

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E
Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger



For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Postmark
Here

Sent to
Magnum Hunter Production Inc.
Street, Apt. No.
or PO Box No. 600 Las Colinas Blvd. Ste. 1100
City, State, ZIP+4 Irving, TX 75039

02 • 432.682.4002 • 432.684.4741 fax

7007 2560 0003 3681 9188



VERITAS 321

ENERGY PARTNERS, LP

Enercorp Resources, Inc.
101 W Goodwin Ave
Victoria, TX 77901

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900)

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E
Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

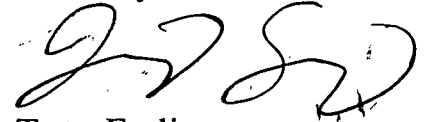
Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,


Tony Esslinger

U.S. Postal ServiceTM
CERTIFIED MAILTM RECEIPT
(Domestic Mail Only, No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com

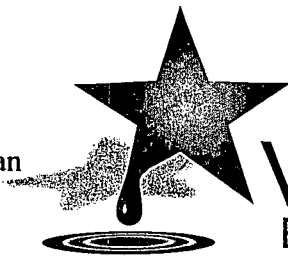
OFFICIAL USE	
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Sent To: Enercorp Resources, Inc.
Street, Apt. No., or PO Box No.: 101 W. Goodwin Ave
City, State, ZIP: Victoria, TX 77901

PS Form 3800, August 2006 See Reverse for Instructions

9702 • 432.682.4002 • 432.684.4741 fax

Consulting Landman



VERITAS 321
ENERGY PARTNERS, LP

Marbob Energy Corp.
PO Box 227
Artesia, NM 88211

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger



For delivery information, visit our website at www.usps.com

OFFICIAL USE

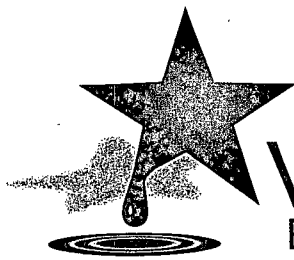
Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Postmark
Here

Sent To	
Marbob Energy Corp.	
Street, Apt. No., or PO Box No.	
P.O. Box 227	
City, State, Zip+4	
Artesia, NM 88211	

PS Form 3800, August 2006 See Reverse for Instructions

9702 • 432.682.4002 • 432.684.4741 fax



VERITAS 321
ENERGY PARTNERS, LP

Brock Resources, Inc.
225 Baronne St Suite 700
New Orleans, LA 70112

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

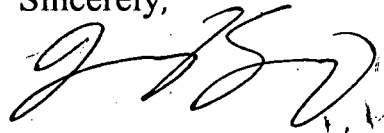
Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,


Tony Esslinger

U.S. Postal Service
CERTIFIED MAIL™ RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Postmark
Here

Sent To Brock Resources, Inc.
Street, Apt. No.,
or PO Box No. 225 Baronne St. Ste 700
City, State, ZIP+4 New Orleans, LA 70112

PS Form 3800, August 2006 See Reverse for Instructions

02 • 432.682.4002 • 432.684.4741 fax



VERITAS 321

ENERGY PARTNERS, LP

Freedom Energy, LLC
RR 649 N 13th Street
Lake Arthur, NM 88253

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

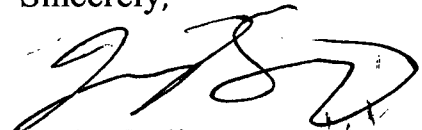
Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,


Tony Esslinger

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only: No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Postmark
Here

Sent To Freedom Energy, LLC
Street, Apt. No.,
or PO Box No. RR 649 N. 13th Street
City, State, Zip+4 Lake Arthur, NM 88253

PS Form 3800, August 2006 See Reverse for Instructions

9702 • 432.682.4002 • 432.684.4741 fax



VERITAS 321
ENERGY PARTNERS, LP

BP America Production Co.
PO Box 3092
Houston, TX 77253

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger

7007 2560 0003 3681 9202

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$ 0.11
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71
Postmark Here	
Sent To BP America Production Co.	
Street, Apt. No., or PO Box No. P.O. Box 3092	
City, State, ZIP+4 Houston, TX 77253	
PS Form 3800, August 2005 See Reverse for Instructions	

702 • 432.682.4002 • 432.684.4741 fax



VERITAS 321

ENERGY PARTNERS, LP

Devon Energy Corp.
20 North Broadway Ave Ste 1500
Oklahoma City, OK 73102

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900)

Location: 1980' FNL & 1980' FWL Sec 9, T 17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tony Esslinger

U.S. Postal ServiceTM
CERTIFIED MAILTM RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information, visit our website at www.usps.com

OFFICIAL USE

Postage	\$ 0.61
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Sent To: Devon Energy Corp.
Street, Apt. No., or PO Box No.: 20 N. Broadway Ste. 1500
City, State, ZIP+4: Oklahoma City, OK 73102

PS Form 3800, August 2006 See Reverse for Instructions

9702 • 432.682.4002 • 432.684.4741 fax

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, March 15, 2010 3:21 PM
To: 'Mark Fairchild'
Cc: Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD; 'Wesley_Ingram@blm.gov'; Warnell, Terry G, EMNRD
Subject: Disposal Application from COG Operating LLC: Empire State SWD #2 30-015-NA Proposed new well for disposal into the Cisco Reef 8300 - 8900

Hello Mark: ANOTHER EMAIL FOR ANOTHER WELL

After reviewing I have the following requests:

- ? a. Please send a list of all anticipated formation names that will be contributing waters to this well and a "typical" analysis for each.
- ? b. Your application shows a search of the State Engineer site to look for water wells. Please ask your field people to locate the nearest Windmill or Cattle tank and get a sample for analysis if located within 1 mile of this well.
- OK c. The newspaper notice was confusing as listing Veritas 321 Energy Partners as contact info – is this correct? If not, please renote. Another point is that newspaper notices should have an informal location in addition to a legal location that gives the reader a general idea of where the well is located – for example, 4 miles NW of Loco Hills, NM.
- ? d. We ask that the applicant break up the ½ mile AOR into consistently owned "tracts" of land and list these tracts with the owners of each tract. Please note that if there is a Lessee of a tract of land at Cisco Reef depths, then you don't have to notice the mineral interest owner(s) of the Cisco Reef depth. That being said, THANK YOU for being thorough with the notice.
- ? e. I did see that Cimarex, EOG, and Aspen Pumping Services operate shallower wells and therefore may own rights to the Cisco depths – if there is a question, please send them notice also. *Sand Complete G 1085*
- include in my permit f. This is a new proposed well in an area where the well records indicate older wells had difficulty circulating adequate cement – See the records on 30-015-35219. Therefore any approved injection permit may have a stipulation that a cement bond log be run not only to locate cement tops, but to locate areas with poor cement bond.
- ✓ g. Your AOR well list failed supply Wellbore Diagrams for P&Aed wells and only listed "proposed" casing/cementing data. Please send wellbore diagrams for P&Aed wells and "actual" records of casing/cement.
- Re plug h. *(1950 Feet away)* The Conoco 9 State Com #1 30-015-30690 well is plugged in the AOR with plugs that do not isolate the Wolfcamp from the Cisco formations. That well will have to be re-entered and replugged so as to isolate the Cisco Reef from formations located above or below the disposal interval. The SWD permit issued will have a stipulation to this effect.
- ? i. This is a "State" owned well, so it should not take long to obtain an APD from the district office. As soon as the API number is available for the subject well – send it to my attention, so we can update our database.

Thank You for this application.

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, April 12, 2010 4:05 PM
To: 'Mark Fairchild'
Cc: Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD
Subject: Disposal Application from COG Operating LLC: Empire State SWD #2 30-015-NA Proposed new well for disposal into the Cisco Reef formation 8300 - 8900

Hello again Mark:

Thank you for the reply back on many of the 3/15/10 requested items.

There are still a few issues, but the main one in this case is the issue of the Conoco 9 State Com #1 30-015-30690. This well is not plugged such that the Wolfcamp is isolated from the proposed disposal interval – and Cimarex operates a Wolfcamp well in the Area of Review. Also, notice was not sent to Cimarex in this case – that I have a record of.

In addition, this Conoco 9 State Com #1 is not plugged to isolate the proposed disposal interval from deeper – upper Penn intervals.

We cannot approve this disposal application unless you agree to re-enter this well and set new plugs to isolate the proposed Cisco disposal interval from upper and lower strata.

The OCD could approve a permit with the provision this Conoco 9 State Com #1 well be re-entered and re-plugged. Let me know if you want this? If so, please answer the following questions that from my records, appear remaining from the 3/15/10 email:

- with good* Please send a list of all anticipated formation names that will be contributing waters to this well and a “typical” analysis for each.
- no time* b. Your application shows a search of the State Engineer site to look for water wells. Please ask your field people to locate the nearest Windmill or Cattle tank and get a sample for analysis if located within 1 mile of this well.
- OK* c. Please break up the ½ mile AOR into consistently owned “tracts” of land and list these tracts with the owners of each tract. Please note that if there is a Lessee of a tract of land at Cisco Reef depths, then you don’t have to notice the mineral interest owner(s) of the Cisco Reef depth.
- no rights* d. I did see that Cimarex, EOG, and Aspen Pumping Services operate shallower wells and therefore may own rights to the Cisco depths – if there is a question, please send them notice also.
- ?* e. Does the State Land Office own the surface where the well is to be located?
- f. As soon as the API number is available for the subject well – send it to my attention, so we can update our database.

Since it appears the plugged Conoco 9 State Com #1 30-015-30690 must be re-entered and re-plugged, COG could consider re-entering this well, installing casing, and using it for an SWD well? Of course, a new AOR would need to be examined.

You always have the option of appearing before an examiner and providing additional evidence.

Thank You again for this application.

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

Jones, William V., EMNRD

From: Mark Fairchild [MFairchild@conchoresources.com]
Sent: Tuesday, April 13, 2010 7:59 AM
To: Jones, William V., EMNRD
Subject: RE: Disposal Application from COG Operating LLC: Empire State SWD #2 30-015-NA Proposed new well for disposal into the Cisco Reef formation 8300 - 8900
Attachments: representative_sample_blinebry_formation.pdf;
representative_sample_paddock_formation.pdf

William, the two representative water samples are attached. Each zone contributes approximately 50% of the volume we dispose of.

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.

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Monday, April 12, 2010 5:05 PM
To: Mark Fairchild
Cc: Ezeanyim, Richard, EMNRD; Reeves, Jacqueta, EMNRD
Subject: Disposal Application from COG Operating LLC: Empire State SWD #2 30-015-NA Proposed new well for disposal into the Cisco Reef formation 8300 - 8900

Hello again Mark:

Thank you for the reply back on many of the 3/15/10 requested items.

There are still a few issues, but the main one in this case is the issue of the Conoco 9 State Com #1 30-015-30690. This well is not plugged such that the Wolfcamp is isolated from the proposed disposal interval – and Cimarex operates a Wolfcamp well in the Area of Review. Also, notice was not sent to Cimarex in this case – that I have a record of.

In addition, this Conoco 9 State Com #1 is not plugged to isolate the proposed disposal interval from deeper – upper Penn intervals.

We cannot approve this disposal application unless you agree to re-enter this well and set new plugs to isolate the proposed Cisco disposal interval from upper and lower strata.

The OCD could approve a permit with the provision this Conoco 9 State Com #1 well be re-entered and re-plugged. Let me know if you want this? If so, please answer the following questions that from my records, appear remaining from the 3/15/10 email:

- a. Please send a list of all anticipated formation names that will be contributing waters to this well and a "typical" analysis for each.
- b. Your application shows a search of the State Engineer site to look for water wells. Please ask your field people to locate the nearest Windmill or Cattle tank and get a sample for analysis if located within 1 mile of this well.
- c. Please break up the ½ mile AOR into consistently owned "tracts" of land and list these tracts with the owners of each tract. Please note that if there is a Lessee of a tract of land at Cisco Reef depths, then you don't have to notice the mineral interest owner(s) of the Cisco Reef depth.
- d. I did see that Cimarex, EOG, and Aspen Pumping Services operate shallower wells and therefore may own rights to the Cisco depths – if there is a question, please send them notice also.
- e. Does the State Land Office own the surface where the well is to be located?
- f. As soon as the API number is available for the subject well – send it to my attention, so we can update our database.

Since it appears the plugged Conoco 9 State Com #1 30-015-30690 must be re-entered and re-plugged, COG could consider re-entering this well, installing casing, and using it for an SWD well? Of course, a new AOR would need to be examined.

You always have the option of appearing before an examiner and providing additional evidence.

Thank You again for this application.

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

Confidentiality Notice: This e-mail, including all attachments is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited unless specifically provided under the New Mexico Inspection of Public Records Act. If you are not the intended recipient, please contact the sender and destroy all copies of this message. -- This email has been scanned by the Sybari - Antigen Email System.



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 #: 6861
Area: Artesia Analysis ID #: 216
Location: Typical Blinebry 0
Sample Point: Wellhead

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	1/11/07	Chloride:	152968.0	Sodium:	57440.1
Analysis Date:	2/7/07	Bicarbonate:	62.8	Magnesium:	4065.0
Analyst:	Mitchell Labs	Carbonate:		Calcium:	29844.8
TDS (mg/l or g/m3):	244706.2	Sulfate:	320.0	Strontium:	
Density (g/cm3):	1.17			Barium:	
				Iron:	4.9
Hydrogen Sulfide:	5			Manganese:	0.600
Carbon Dioxide:	61.6				
Comments:		pH at time of sampling:	6.5		
		pH at time of analysis:			
		pH used in Calculation:	6.5		
		Temperature @ lab conditions (F):	70	Conductivity (micro-ohms/cm):	225000
				Resistivity (ohm meter):	.0444

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.38	2.22	-0.24	0.00	-0.20	0.00	0.00	0.00	0.00	0.00
100	0.45	2.77	-0.31	0.00	-0.21	0.00	0.00	0.00	0.00	0.00
120	0.51	3.33	-0.37	0.00	-0.18	0.00	0.00	0.00	0.00	0.00
140	0.57	3.88	-0.41	0.00	-0.13	0.00	0.00	0.00	0.00	0.00



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 #: 6518
 Area: Artesia Analysis ID #: 166
 Location: Typical Paddock 0
 Sample Point: Wellhead

		Anions		Cations	
		mg/l	meq/l	mg/l	meq/l
Sampling Date:	10/18/06	Chloride:	118129.8	Sodium:	63736.9
Analysis Date:	10/20/06	Bicarbonate:	125.7	Magnesium:	1356.6
Analyst:	Mitchell Labs	Carbonate:		Calcium:	9326.4
TDS (mg/l or g/m3):	193512.6	Sulfate:	800.0	Strontium:	
Density (g/cm3):	1.135			Barium:	
Hydrogen Sulfide:	5			Iron:	36.1
Carbon Dioxide:	57			Manganese:	1.070
Comments:		pH at time of sampling:	6.9		
		pH at time of analysis:			
		pH used in Calculation:	6.9		
		Temperature @ lab conditions (F):	75	Conductivity (micro-ohms/cm):	375000
				Resistivity (ohm meter):	.0267

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	0.68	7.56	-0.23	0.00	-0.20	0.00	0.00	0.00	0.00	0.00
100	0.72	8.72	-0.30	0.00	-0.21	0.00	0.00	0.00	0.00	0.00
120	0.75	9.89	-0.36	0.00	-0.19	0.00	0.00	0.00	0.00	0.00
140	0.79	11.05	-0.41	0.00	-0.15	0.00	0.00	0.00	0.00	0.00

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Tuesday, April 13, 2010 11:21 AM
To: 'Mark Fairchild'
Subject: Disposal Applications from COG Operating LLC: Empire State SWD #2 and Federal #3

Mark:

Let me know after you check with Veritas about noticing Marbob and Hanson Energy on the #3 well?

Also, let me know if these footage locations are fixed? (The disposal permits are site specific, so once the permit is issued, if the footage location changes, the permit would no longer be valid and it would require a new application.)

Thanks for the water analysis.

Will

Jones, William V., EMNRD

From: Tye Orr [tye@veritas321.com]
Sent: Friday, April 16, 2010 2:11 PM
To: Jones, William V., EMNRD
Cc: mfairchild@conchoresources.com
Subject: Extended Notices
Attachments: Extended Notice (Aspen).pdf; ATT3669687.txt; Extended Notice (Cimarex).pdf; ATT3669688.txt; Extended Notice (EOG).pdf; ATT3669689.txt; Extended Notice (Hanson).pdf; ATT3669690.txt; Extended Notice (Marbob).pdf; ATT3669691.txt

William, attached are the notices you had in question for the Empire State SWD #2 and #3 wells that I have applied for on behalf of Concho. All have been mailed as of today. These are for your records per your request. Please let me know if you have any questions. Thanks.

R. L. Orr
5/3/10

Jones, William V., EMNRD

From: Mark Fairchild [MFairchild@conchoresources.com]
Sent: Friday, April 16, 2010 8:40 AM
To: Jones, William V., EMNRD
Cc: Robert Ready; Tye Orr
Subject: RE: Empire Area SWD wells #2 and 3

Just talked to Ty and he will mail today!

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.

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Friday, April 16, 2010 9:40 AM
To: Mark Fairchild
Subject: RE: Empire Area SWD wells #2 and 3

Mark:
Sounds like a plan.
If you noticed other parties other than the BLM, please send the receipts.

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

From: Mark Fairchild [mailto:MFairchild@conchoresources.com]
Sent: Friday, April 16, 2010 7:50 AM
To: Jones, William V., EMNRD
Cc: Erick Nelson; Robert Ready; Tye Orr; Phyllis Edwards; Robyn Odom; Keith Corbett
Subject: Empire Area SWD wells #2 and 3

William, just got off the phone with Mr. Ingram of the BLM and he has #3 on his desk and all is good. Should sign this date. Will await the now 14 days for release of SWD permit and then send the API's to you when y'all issue them. Please let me know of anything that needs our attention. Thanks!



EOG Resources, Inc.
4000 N. Big Spring St # 500
Midland, TX 79705

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980 FWL Sec 9, T17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tye Orr
Consulting Landman
(432) 349-4729



Postage	\$.78
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.38

Postmark
Here

Sent To	EOG Resources, Inc.
Street, Apt. No., or PO Box No.	4000 N. Big Spring St #500
City, State, ZIP+4	Midland, TX 79705



Cimarex Energy Co.
600 N. Marienfeld St. # 600
Midland, TX 79701

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2

Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')

Location: 1980' FNL & 1980 FWL Sec 9, T17S, R29E

Eddy County, NM

Approximate Location: 3 miles East of Artesia, NM

Applicant Name: COG Operating LLC (432) 685-4340

Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tye Orr
Consulting Landman
(432) 349-4729

U.S. Postal Service
CERTIFIED MAIL - RECEIPT
(Domestic Mail Only, No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com
OFFICIAL USE

Postage	\$.78
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.38

Postmark
Here

Sent to
Cimarex Energy Co.
Street, Apt. No.,
or PO Box No. 600 N. Marienfeld St. # 600
City, State, ZIP+4
Midland, TX 79701



Aspen Pumping Services
1218 W. Pueblo Ave.
Hobbs, NM 88240

COG Operating LLC is applying (see attached application) to drill a salt water disposal well as described below. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well: Empire State SWD #2
Proposed Disposal Zone: Cisco Reef (from 8,300' to 8,900')
Location: 1980' FNL & 1980 FWL Sec 9, T17S, R29E
Eddy County, NM
Approximate Location: 3 miles East of Artesia, NM
Applicant Name: COG Operating LLC (432) 685-4340
Applicant's Address: 550 West Texas, Suite 1300, Midland, TX 79701

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Tye Orr
Consulting Landman
(432) 349-4729

U.S. Postal Service	
CERTIFIED MAIL - RECEIPT	
(Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$.78
Certified Fee	2.30
Return Receipt Fee (Postage Required)	2.30
Estimated Delivery Fee (Postage Required)	
Total Postage & Fees	\$ 5.38
Postmark Here	
Sent To: Aspen Pumping Services	
Street, Apt. No.: 1218 W. Pueblo Ave.	
PO Box No. 1111	
City, State, ZIP+4: Hobbs, NM 88240	



April 23, 2010

MFairchild@conchoresources.com

C.O.G. Operating
550 W. Texas, Ste 100
Midland, TX 79701

Attn: **MARK FAIRCHILD**

RE: CONOCO 9 STATE COM #1
Eddy County, NM

Procedures:

1. M.I. R.U. P&A equip. Build WH. NU to drill out well – Reverse Unit, 6 collars
2. After well drilled out – RIH w/ 2 7/8" WS to 10,488' – Spot 40sx cmt. WOC to Tag
3. Tag plug. Mix circulate hole w/ MLF.
4. PUH to 9,880' – Spot 40sx cmt.
5. ~~PUH to 8,380' – Spot 65sx cmt.~~ *add 8900' plug*
6. PUH to 7,450' – Spot 65sx cmt.
7. PUH to 6,014' – Spot 45sx cmt.
8. PUH to 3,900' – Spot 40sx cmt.
9. PUH to 2,700' – Spot 40sx cmt. WOC-Tag.
10. PUH to 489' – Spot 40sx cmt. WOC-Tag.
11. 60sx cmt to surface.
12. R.D. M.O.

Estimate: \$34,976.00 for Plugging

Estimate: \$12,874.00 for Reverse Unit (5 days)

(\$3,879 1st Day, \$1,900/day after, \$159/day for stripper rubber, \$600 water)

Prices are subject to change after P & A procedure begins if problems arise during plugging procedure. This bid does not include any "Off Turn Key" charges. Any Off Turn Key charges will be added at the end of the job, if we do job as a bid. Location must be cleared/cleaned before P & A Rig can move in/out.

Estimate will expire 90 days from April 23, 2010.

Basic Energy Services will furnish the workstring.

Any drilling that has to be done will be at Company's own expense. Also, Workstring will have to be furnished for drilling.

Bid includes 2 3/8" Workstring, BOP, pumps & cement equipment. Basic Energy will provide Wireline services per estimate (CIBP, perforating, cutting, etc.)

All fluids "hailed off" will be charged to COG Operating. Disposal will be furnished by COG Operating.

COG Operating will furnish their own flow pit according to the O.C.D. & B.L.M. rules & regulations. Basic Energy Services will furnish the split frac tank for all M.L.F.

If any changes are made in the field by the B.L.M., O.C.D. or Texas Railroad Commission, additional charges will be incurred.

In Texas, it is required that the oil company is to provide a company representative on location while cementing.

This Estimate is based on information furnished to Basic Energy by your company. In the event operations are delayed or restricted because of unknown wellbore conditions or changes beyond our control to original approved regulatory form, charges will revert to standard hourly rates until such problems are corrected. In the event that this occurs, your company representative will be notified. As of March 01, 2003, all anchors must have been tested within the last two years. If a Basic Energy Services flow pit is used to circulate into, it will be cleaned at Customer's expense.

***** Due to shortage Water Truck availability, any "unforeseen" downtime, due to waiting on Water Trucks, will be charged at regular rig rate.**

Thank you for this opportunity to furnish this Estimate for your plugging and abandonment.

Sincerely,

Randall Minear,
P & A Supervisor

RM/gb

1214 Injection Permit Checklist 11/30/09

Case _____ R- _____ SWD ~~1214~~ VFX _____ PMX _____ IPI _____ Permit Date 5/13/10 UIC ~~1214~~

Wells 1 Well Name: EMPIRE State SWD #2

API Num: (30-) 015-NA Spud Date: Newell New/Old: N (UIC primacy March 7, 1982)

Footages 1980 FNL/1980 FWL Unit F Sec 9 Twp 17S Rge 29E County EDDY

Operator: COG Operating, LLC Contact Mark A. Fairchild

OGRID: 229B7 RULE 5.9 Compliance (Wells) 6/1588 (Finan Assur) OK OK

Operator Address: 550 West TEXAS, Suite 100, MIDLAND, TX 79701

Location and Current Status: New Drill Planned For Injection

Planned Work to Well: DRILL/EQUIP/INJ Planned Tubing Size/Depth: 3 1/2

		Sizes Hole.....Pipe	Setting Depths	Cement Sx or Cf	Cement Top and Determination Method
Existing	Surface	17 1/2 13 3/8	450	250/250	Surf
Existing	Intermediate	12 7/8 9 5/8	2500	550/200	Surf
Existing	Long String	8 3/4 7"	9200	300/650/100	Surf

DV Tool 7200 Liner _____ Open Hole _____ Total Depth 9200

Well File Reviewed NONE yet

Diagrams: Before Conversion ☒ After Conversion ☒ Elogs in Imaging File: will be run

Intervals:	Depths	Formation	Producing (Yes/No)
Above (Name and Top)	<u>7450</u>	<u>WC Reef</u>	
Above (Name and Top)	<u>8150</u>	<u>C1500</u>	
Injection..... Interval TOP:	<u>8300</u>	<u>C1500 Reef</u>	<u>NO</u>
Injection..... Interval BOTTOM:	<u>8900</u>	<u>C1500 Reef</u>	<u>NO</u>
Below (Name and Top)	<u>8964</u>	<u>Canyon</u>	

1660 PSI Max. WHIP

Open Hole (Y/N) _____

Deviated Holes? _____

Sensitive Areas: Capitan Reef Cliff House Salt Depths 400'-800'

..... Potash Area (R-111-P) _____ Potash Losses _____ Noticed? _____

Fresh Water: Depths: none Wells _____ Analysis? _____ Affirmative Statement ☒

Disposal Fluid Sources: _____ Analysis? _____

Disposal Interval Production Potential/Testing/Analysis Analysis: will Swab Test & Get Sample

Notice Newspaper(Y/N) 1 Surface Owner SLO - ? Mineral Owner(s) _____

RULE 26.7(A) Affected Parties: _____

Area of Review: Adequate Map (Y/N) ☒ and Well List (Y/N) ☒

Active Wells 3 Num Repairs 0 Producing in Injection Interval in AOR NO

..P&A Wells 1 Num Repairs 1 All Wellbore Diagrams Included? no

Questions to be Answered: Rm CBL for Prod. PIPE

address Sit # wrong on Navigator Notice

Case OK? ✓

Reply Concur 9500 Com. #1

Required Work on This Well: _____ Request Sent _____ Reply _____

AOR Repairs Needed: _____ Request Sent _____ Reply _____

Request Sent _____ Reply _____

CLOSED
PIPED
SYSTEM

Near Cave UNIT

8300
1660

X

X