

DATE IN <u>2-22-10</u>	SUSPENSE <u>3/10/10</u>	ENGINEER <u>Jones</u>	LOGGED IN <u>2-22-10</u>	TYPE <u>SWD</u>	PTG <u>1216</u>	APP NO. <u>1005346462</u>
------------------------	-------------------------	-----------------------	--------------------------	-----------------	-----------------	---------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



Cimarex

Liberty 24 Feb. 1

### ADMINISTRATIVE APPLICATION CHECKLIST

30-015-33094

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.

<u>Zeno Farris</u>	<u>Zeno Farris</u>	<u>Mgr Operations Admin</u>	<u>2/19/10</u>
Print or Type Name	Signature	Title	Date

zfarris@cimarex.com  
 e-mail Address

600 N. Marienfeld St  
Suite 600  
Midland, TX 79701  
432-620-1938 (phone)  
432-620-1938 (fax)

# Cimarex Energy Co. of Colorado

February 19, 2010

New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505  
Attn: Mr. Will V. Jones

RE: Liberty 24 Federal Com No. 1  
30-015-33094  
SWD Administrative Application

RECEIVED OGD  
2010 FEB 22 A 11:18

Dear Mr. Jones,

Enclosed is an original Form C-108 (Application for Authorization to Inject) for the well mentioned above.

This well had produced from DHC Cisco Canyon and Morrow perms and is currently shut-in.

Cimarex proposes to plug back the 4 1/2" casing and cut at 6000' and remove. We will then drill an 8 3/4" hole out of the 9 5/8" intermediate to 13500' and set 7" casing 20' into the top of the Devonian at 12979' and complete as a Devonian open hole SWD from 12979' - 13500'.

Proof of publication will be furnished upon receipt from the Carlsbad Current Argus. Proof of notice to operators in the area of review is attached.

If you have any questions or need further information, please call me at 432-620-1938.

Sincerely,



Zeno Farris  
Manager Operations Administration

[zfarris@cimarex.com](mailto:zfarris@cimarex.com)

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance   X   Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ Yes \_\_\_\_\_ No
- II. OPERATOR: Cimarex Energy Co. of Colorado  
ADDRESS: 600 N. Marienfeld St Suite 600; Midland, TX 79702  
CONTACT PARTY: Zeno Farris PHONE: 432-620-1938
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes   X   No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Zeno Farris TITLE: Manager Operations Administration  
SIGNATURE: *Zeno Farris* DATE: February 19, 2010  
E-MAIL ADDRESS: zfarris@cimarex.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.

## INJECTION WELL DATA SHEET

OPERATOR: Cimarex Energy Co. of ColoradoWELL NAME & NUMBER: Liberty 24 Federal Com No. 1WELL LOCATION: 1650 FNL & 1200 FWL  
FOOTAGE LOCATIONUNIT LETTER ESECTION 24TOWNSHIP 25SRANGE 26EWELLBORE SCHEMATICWELL CONSTRUCTION DATA  
Surface CasingHole Size: 17½" Casing Size: 13¾" 54.5# J-55 @ 440'Cemented with: 640 sx. or ft³Top of Cement: Surface Method Determined: CirculatedIntermediate CasingHole Size: 12¼" Casing Size: 9⅝" 40# NS-110 @ 5808'Cemented with: 1700 sx. or ft³Top of Cement: Surface Method Determined: CirculatedProduction Casing - PROPOSEDHole Size: 8 ¾" Casing Size: 7" 26# P-110 @ 12979'Cemented with: 1020 sx. or ft³Top of Cement: Surface Method Determined: CirculateTotal Depth: 13500' TVD                     Injection Interval12979' feet To 13500'13900(Perforated or Open Hole; indicate which) Open Hole

INJECTION WELL DATA SHEETTubing Size: 3 1/2" 9.3#, L-80 Lining Material: Nylon (IPC 101)Type of Packer: 7" NC OD PCID AS-1X PkrPacker Setting Depth: +/- 12900'Other Type of Tubing/Casing Seal (if applicable): Additional Data1. Is this a new well drilled for injection?  Yes X No If no, for what purpose was the well originally drilled? Oil & Gas Production2. Name of the Injection Formation: Devonian3. Name of Field or Pool (if applicable): N/A

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. See attached detail of completion records. Well was originally drilled to 12300' and produced from Morrow perfs from 11860'-11956'. In late 04 Upper Penn perfs were added at 10236'-10409' and down hole commingled in 05 under order DHC-3435. The well is currently a marginal producer

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Morrow (11280'), Atoka (10664'), Strawn (10477') Cisco (10224'), Wolfcamp (8608') Delaware (1943') - Overlying

## Current Condition

Cimarex Energy Co. of Colorado

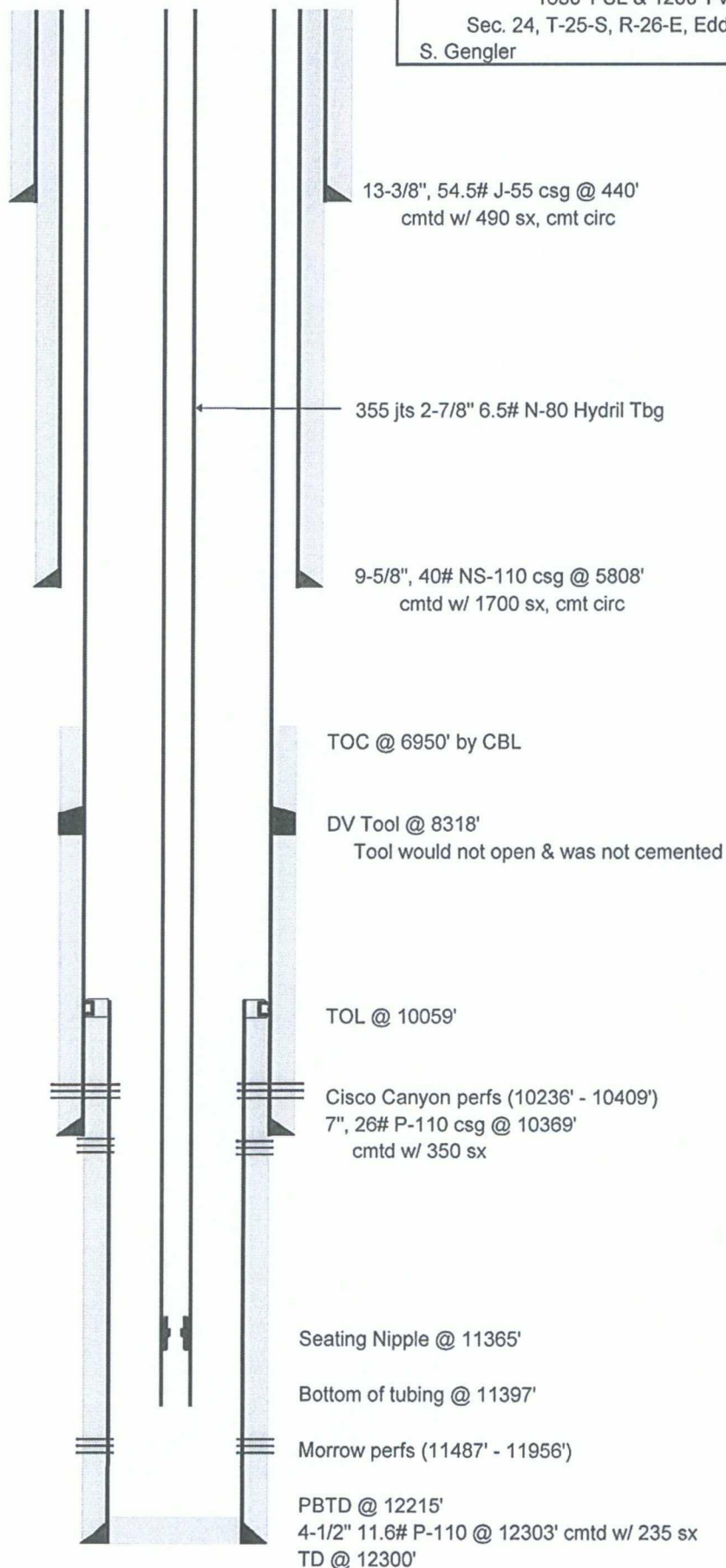
Liberty 24 Federal Com #1

1650' FSL & 1200' FWL

Sec. 24, T-25-S, R-26-E, Eddy Co., NM

S. Gengler

07/07/2009





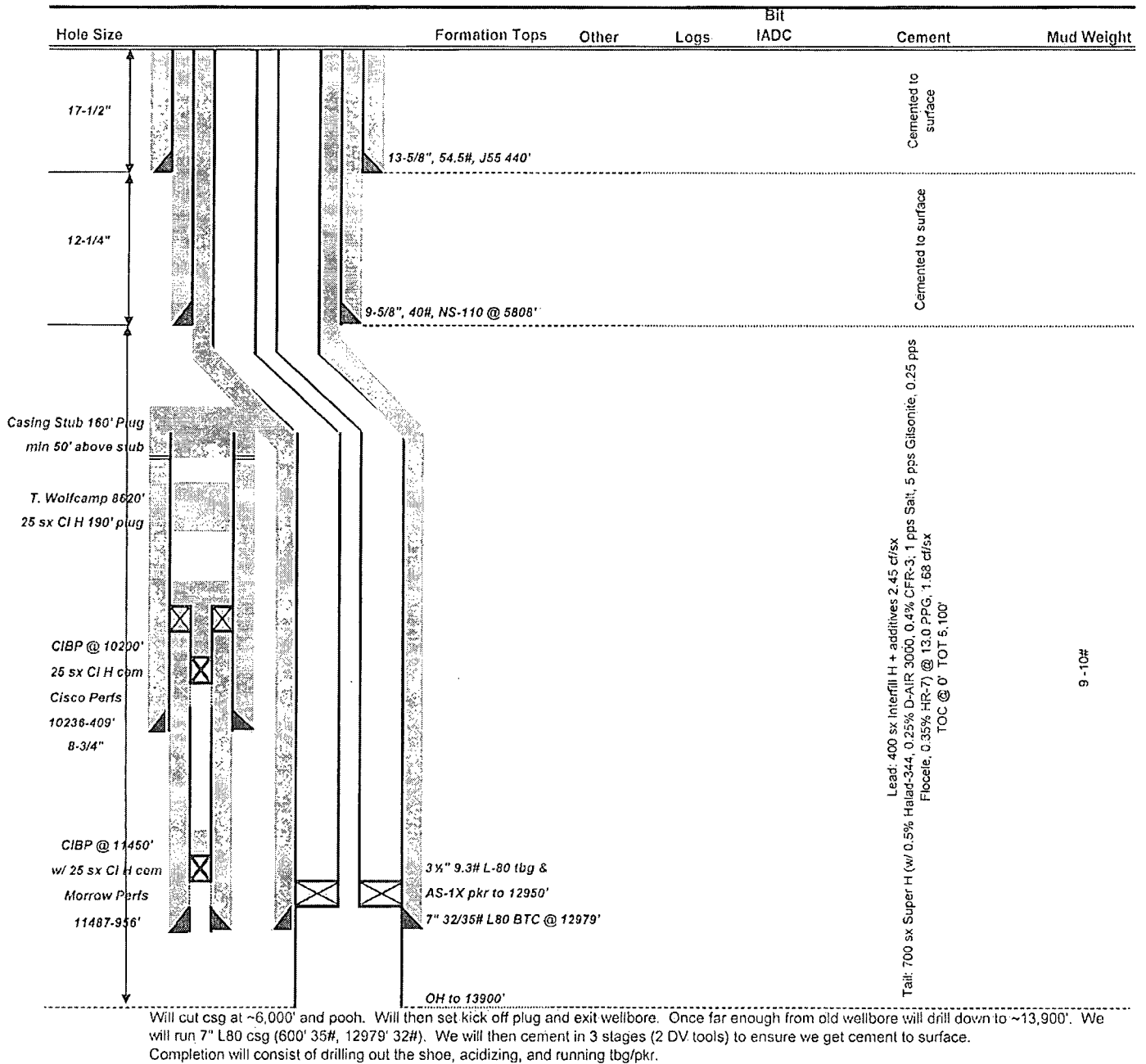
# Proposed Wellbore Cimarex Energy Company

12/28/2009

Well: Liberty 24 Fed Com #1 SWD  
Location: Sec 24, T25S, R26E  
County, State: Eddy County, NM  
Surface Location: 1650 FSL, 1200 FWL  
Bottomhole Loc:  
E-Mail:  
Wellhead:

Lse Serial #  
Field: White City  
Objective: Devonian  
TVD/MD: 13500'  
Cementing: SLB  
Mud: MI  
Motors: Great white  
OH Logs: N/A  
Rig:  
Offset Well:

Xmas Tree  
Tubing:  
Superintendent: Jim Evans  
Engineer: Ryan Braxton



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Oil Cons.  
N.M. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

FORM APPROVED  
OMB No. 1004-0135  
Expires July 31, 1996

**SUNDRY NOTICES AND REPORTS ON WELLS**

*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other

RECEIVED

2. Name of Operator  
Gruy Petroleum Management Co.

MAR - 4 2004

3a. Address  
P.O. Box 140907 Irving, TX 75014-0907

3b. Phone No. (include area code)  
972.401.3111

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1650' FNL & 1200' FWL

5. Lease Serial No.

NMNM-26105

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

Pending

8. Well Name and No.

Liberty 24 Federal Com 1

9. API Well No.

30-015-33094

10. Field and Pool, or Exploratory Area

White City Penn; (Undesg)

11. County or Parish, State

Eddy County, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

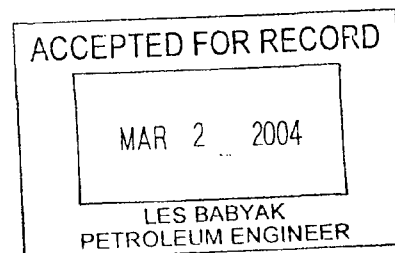
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Set surface & intermediate casing
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

01-29-04 Spud well at 5AM. Ran 10 jts of 13.375"/54.5/J55/STC casing to 440.' Cement with 340 sx Premium Plus lead and 150 sx Premium Plus tail. Bumped plug with 400 psi and circulated 150 sx cement to pit. WOC 25 hours.

02-17-04 Ran 132 jts NS-110/9-5/8"/40#/LTC casing to 5750.' Cement with 1500 sx Interfill "C" and 200 sx Premium Plus with 1% CaCl2. Circulated 80 sx cement to pit. WOC 19.5 hours.

Please see attached drilling report.



14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Natalie Krueger

Title

Production Assistant

Signature

Date

February 24, 2004

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-104B  
Permit 26456

**Change of Operator Name**

OGRID: 162683  
Effective Date: 5/1/2006

**Previous Operator Name and Information**

Name: GRUY PETROLEUM MANAGEMENT CO.  
Address: PO BOX 140907  
Address:  
City, State, Zip: IRVING, TX 750140907

**New Operator Name and Information**

Name: Cimarex Energy Co. of Colorado  
Address: PO Box 140907  
Address:  
City, State, Zip: Irving, TX 75014-0907

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given on this form and the certified list of wells is true to the best of my knowledge and belief.

Signature: Zeno Farris  
Printed Name: Zeno Farris  
Title: Manager Operations Administration  
Date: 05-08-06 Phone: 972-443-6489

**NMOCD Approval**

Date: May 15, 2006

## C-108 Attachment

Section VI – There are four wells within the area of review, neither of which penetrated the injection interval.

1. The Cimarex Wigeon 23 Federal Com 2, 1350' FNL & 1300' FEL Sec 23-25S-26S drilled to a depth of 12345' and produced from the Cottonwood Draw Morrow. Currently producing from the Sage Draw Wolfcamp.
2. The Cimarex Liberty 24 Federal Com No. 2, 1475' FSL & 940' FWL Sec 24-25S-26E drilled to a depth of 12339' and producing for the Cottonwood Draw Morrow.
3. The Samson Lightning 24 Federal Com No. 1, 660' FNL & 1980' FEL Sec 24-25S-26E drilled to a depth of 12075' and producing from the Cottonwood Draw Morrow.
4. The Samson Lightning 24 Federal Com No. 2, 1980' FSL & 1980' FEL Sec 24-25S-26E drilled to a depth of 12060' and currently producing from the Sage Draw Wolfcamp.

## Section VII – Data on Proposed Operation

1. Proposed Average and Maximum Daily Rate and Volume of Fluids to be Injected
  - a. Average Daily Rate: 3000 BWPD
  - b. Maximum Daily Rate: 4000 BWPD
2. Open or Closed System:
  - a. Injection System is a closed System
3. Proposed Average & Maximum\* Injection Pressure
  - a. Average Injection Pressure: 2000 psi
  - b. Maximum Injection Pressure: 2595 psi
    - i. Until a fracture gradient is determined, maximum injection pressure will be based on a 0.2 psi/ft gradient
4. Sources or Appropriate Analysis of Injection Fluid
  - a. The source of the injection water will be produced water from Cimarex operated Morrow, Atoka, Cisco Wolfcamp and Delaware wells in the White City area (see attached representative water analysis).
5. Analysis of disposal zone formation water
  - a. The nearest Devonian test was the White City Gas Com Unit 1 No. 1 to the Northeast in 29-24S-26E drilled by Gulf/Chevron in 1959. The well was drilled to a TD of 12212' and a DST was performed from 12150 to 12212 which yielded an 8462' column of saltwater. The Devonian was plugged back and the well was completed in the Penn. While we do not have an analysis of the water sample from the DST, the saltwater column would indicate compatibility with the produced waters from the Wolfcamp, Penn, and Delaware formations in the area.

## Section VIII – Geologic Data on Injection Zone

1. The injection interval 12959' – 13500' is in the Devonian formation of the Devonian System with dolomite geology. The estimated top of the Devonian formation is at 12959' while the bottom of the formation is at 13500'. Gross thickness is 541'.
2. The Office of the State Engineer indicates the average depth to usable quality ground water in the area is 34' in an Alluvium Aquifer and the depth to bottom of the aquifer is confined by the Ochoa series gypsum beds at approximately 200'.

Section IX – Proposed stimulation program:

1. Liberty 24 Fed Com #1 SWD
  - a. Acidize with 42,000 gals 15% type acid

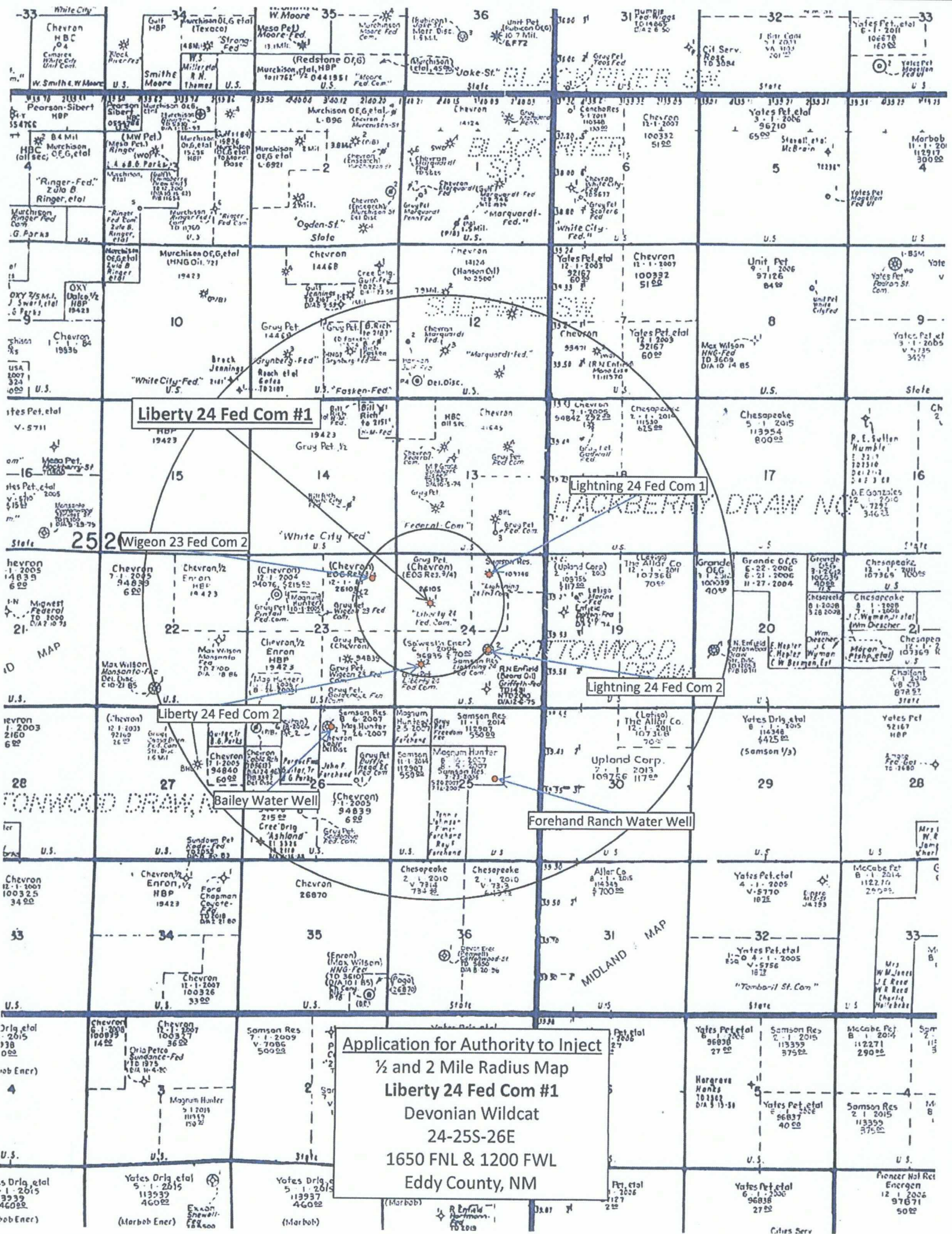
Section X – Logs have previously been filed on the Liberty 24 Federal Com # 1

Section XI – Fresh water wells within one mile of proposed disposal well

1. The Office State Engineer records indicate there no fresh water wells within 1 mile of the proposed disposal well.
2. There is an Ogden Farm stock tank well within  $\frac{3}{4}$  mile in the NE/4 of 25-25S-26E, POD No. C 02221. According to Ogden Farm management this well has been idle for more than 30 years. No sample was obtained.
3. There is an additional Ogden Farm stock tank well within  $\frac{3}{4}$  mile in the NW/4 of 26-25S-26E, POD No C 02220 commonly called the Bailey water well. See attached water analysis for this well.

Section XII – Statement of Hydrologic connection between disposal zone and underground sources of drinking water.

1. Based on available geologic and engineering data Cimarex finds no evidence of open faults or any other hydrologic connection between the disposal zone and underground sources of drinking water.



Application for Authority to Inject  
1/2 and 2 Mile Radius Map  
Liberty 24 Fed Com #1  
Devonian Wildcat  
24-25S-26E  
1650 FNL & 1200 FWL  
Eddy County, NM

Section XIII and XIV – Proof of Notice

1. Surface owners – Application mailed by Certified Mail to the following:

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

2. Leasehold Operators within 1/2 mile of proposed injection well – application mailed by Certified Mail to the following:

Sections 13, 14, 26, W/2 ~~25~~-25S-26E  
Cimarex Energy Co. of Colorado  
600 N Marienfeld St Suite 600  
Midland TX 79701

E/2 Section ~~25~~-25S-26E  
Samson Resources Company  
2 W 2<sup>nd</sup> St  
Tulsa, OK 74103

3. Publication - Attached

CARLSBAD CURRENT ARGUS  
LEGAL NOTICE

Cimarex Energy Co. of Colorado 600 N Marienfeld St Suite 600, Midland, Texas 79701 is filing an Application for Authorization to Inject (Oil Conservation Division Form C-108) with the New Mexico Oil Conservation Division seeking administrative approval for a salt water disposal well. The proposed well, the Liberty 24 Federal Com No. 1 is located 1650 feet FNL and 1200 FWL line of Section 24, Township 25 South, Range 26 East, NMPM Eddy County, New Mexico. The source of the disposal water will be wells in the area operated by Cimarex that produce from the Morrow, Atoka, Cisco, Wolfcamp and Delaware formations. The disposal water will be injected into the Devonian formation of the Devonian system at a depth interval of 12979 feet to 13500 feet at a maximum injection pressure of 2595 PSI (Subject to increase after Division approved testing) and a maximum rate of 4000 BWPD. Any interested party with questions or comments may contact Zeno Farris at Cimarex Energy Co. of Colorado 600 N Marienfeld St Suite 600, Midland, Texas, 79701 or call (432) 620-1938. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of the publication of this notice.

Report Date: February 17, 2009  
Frac Pond

Work Order: 9021614  
Frac Pond

Page Number: 1 of 2  
White City Area

## Summary Report

Mike Fraley  
Cimarex Energy Company  
7101 Norris Rd.  
Carlsbad, NM 88220

Report Date: February 17, 2009

Work Order: 9021614



Project Location: White City Area  
Project Name: Frac Pond  
Project Number: Frac Pond

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
187629	(B) Baily Water	water	2009-02-11	15:00	2009-02-14
187630	(H) Hood Water	water	2009-02-11	15:00	2009-02-14

### Sample: 187629 - (B) Baily Water

Param	Flag	Result	Units	RL
Hydroxide Alkalinity		<1.00	mg/L as CaCo3	1.00
Carbonate Alkalinity		<1.00	mg/L as CaCo3	1.00
Bicarbonate Alkalinity		182	mg/L as CaCo3	4.00
Total Alkalinity		182	mg/L as CaCo3	4.00
Specific Conductance		5160	uMHOS/cm	0.00
Chloride		437	mg/L	2.50
Fluoride		<2.50	mg/L	0.500
Sulfate		2240	mg/L	2.50
Nitrate-N		13.6	mg/L	0.500
pH		7.40	s.u.	0.00
Dissolved Calcium		656	mg/L	1.00
Dissolved Magnesium		271	mg/L	1.00
Dissolved Potassium		14.1	mg/L	1.00
Dissolved Sodium		355	mg/L	1.00
Total Dissolved Solids		4045	mg/L	10.00

### Sample: 187630 - (H) Hood Water



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

POD Number

Q64 Q16 Q4 Sec Tws Rng

X

Y

C 02220

3 1 2 26 25S 26E

569598 3552352\*

Driller License:

Driller Name: S. O PAXTON

(BAILY WATER WELL)

Source:

Drill Start Date:

Drill Finish Date: 05/01/9111

Log File Date:

PCW Received Date:

Pump Type:

Pipe Discharge Size:

Casing Size: 7.00

Estimated Yield: 7

Depth Well: 35 feet

Depth Water:

\*UTM location was derived from PLSS - see Help

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

12/10/09 4:11 PM

Page 1 of 1

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Water Right Summary



WR File Number: C 02220  
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING  
Primary Status: DCL DECLARATION  
Total Acres: 0  
Total Diversion: 3  
Owner: FOREHAND RANCHES INC.  
Contact: EARL RAY FOREHAND

### Documents on File

Doc	File/Act	Status			Transaction Desc.	From/To	Acres	Diversion	Consumptive
		1	2	3					
DCL	1991-06-04	DCL	PRC	ABS	C 02220	T	0	3	

### Point of Diversion

(NAD83 UTM in meters)

Pod Number	Source	Q	Q	Q	Sec	Tws	Rng	X	Y	Other Location Desc
C 02220	3 1 2 26	25S	26E					569598	3552352*	

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Place of Use

Q	Q	Q	Q	Sec	Tws	Rng	Acres	Diversion	Use	Priority	Status	Other Location Desc
256	64	16	4				0	3	STK		DCL	NO PLACE OF USE GIVEN.



# New Mexico Office of the State Engineer

## Point of Diversion Summary

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

POD Number

Q64 Q16 Q4 Sec Tws Rng

X

Y

C 02221

4 3 2 25 25S 26E

571412 3551961\*

Driller License:

Driller Name: J. D. FOREHAND

(IDLE WELL)

Source:

Drill Start Date:

Drill Finish Date: 11/15/1914

Log File Date:

PCW Received Date:

Pump Type:

Pipe Discharge Size:

Casing Size: 6.50

Estimated Yield: 7

Depth Well: 35 feet

Depth Water:

\*UTM location was derived from PLSS - see Help

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

12/10/09 4:17 PM

Page 1 of 1

POINT OF DIVERSION SUMMARY



# New Mexico Office of the State Engineer

## Water Right Summary



WR File Number: C 02221

Primary Purpose: STK 72-12-1 LIVESTOCK WATERING

Primary Status: DCL DECLARATION

Total Acres: 0

Total Diversion: 3

Owner: FOREHAND RANCHES INC.

Contact: EARL RAY FOREHAND

Owner: OGDEN FARMS & CATTLE CO.

Contact: EARL RAY FOREHAND

### Documents on File

Doc	File/Act	Status			Transaction Desc.	From/To	Acres	Diversion	Consumptive
		1	2	3					
DCL	1991-06-04	DCL	PRC	ABS	C 02221	T	0	3	

### Point of Diversion

(NAD83 UTM in meters)

Pod Number	Source	Q	Q	Q	Sec	Tws	Rng	X	Y	Other Location Desc
C 02221		4	3	2	25	25S	26E	571412	3551961*	

\*An (\*) after northing value indicates UTM location was derived from PLSS - see Help

### Place of Use

Q	Q	Q	Q	Q	Acres	Diversion	Use	Priority	Status	Other Location Desc
256	64	16	4	Sec	Tws	Rng				
							0	3	STK	DCL NO-PLACE OF USE GIVEN.

North Permian Basin Region  
P.O. Box 740  
Sundown, TX 79372-0740  
(806) 229-8121  
Lab Team Leader - Sheila Hernandez  
(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	CIMAREX ENERGY	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (575) 910-9389
Area:	ARTESIA, NM	Sample #:	486108
Lease/Platform:	COTTON DRAW 22' DEL A W A R	Analysis ID #:	92801
Entity (or well #):	2	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 486108 @ 76°F					
Sampling Date:	06/26/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	07/09/09	Chloride:	89520.0	2525.03	Sodium:	44504.8	1936.85
Analyst:	SANDRA SANCHEZ	Bicarbonate:	415.0	6.8	Magnesium:	2375.0	195.38
TDS (mg/l or g/m3):	146559.3	Carbonate:	0.0	0.	Calcium:	8098.0	404.09
Density (g/cm3, tonne/m3):	1.102	Sulfate:	972.0	20.24	Strontium:	192.0	4.38
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.2	0.
Carbon Dioxide:	200 PPM	Borate:			Iron:	3.0	0.11
Oxygen:		Silicate:			Potassium:	479.0	12.25
Comments:		Hydrogen Sulfide:		119 PPM	Aluminum:		
		pH at time of sampling:		7.8	Chromium:		
		pH at time of analysis:			Copper:		
		pH used in Calculation:		7.8	Lead:		
					Manganese:	0.300	0.01
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.90	60.47	-0.18	0.00	-0.18	0.00	-0.07	0.00	-0.05	0.00	0.05
100	0	1.83	64.12	-0.24	0.00	-0.17	0.00	-0.09	0.00	-0.14	0.00	0.08
120	0	1.77	68.07	-0.28	0.00	-0.14	0.00	-0.09	0.00	-0.30	0.00	0.14
140	0	1.73	72.02	-0.32	0.00	-0.08	0.00	-0.09	0.00	-0.44	0.00	0.22

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

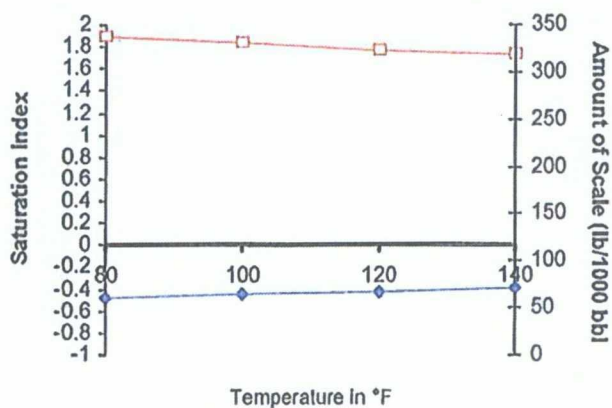
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

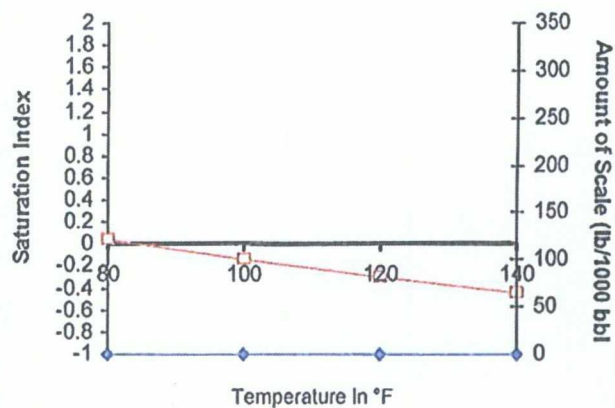
# Scale Predictions from Baker Petrolite

Analysis of Sample 486108 @ 75 °F for CIMAREX ENERGY, 07/09/09

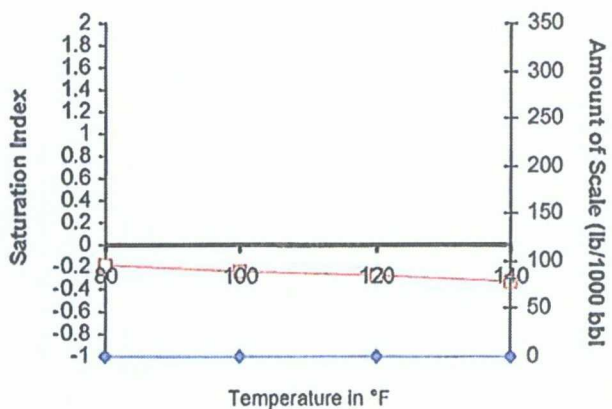
## Calcite - $\text{CaCO}_3$



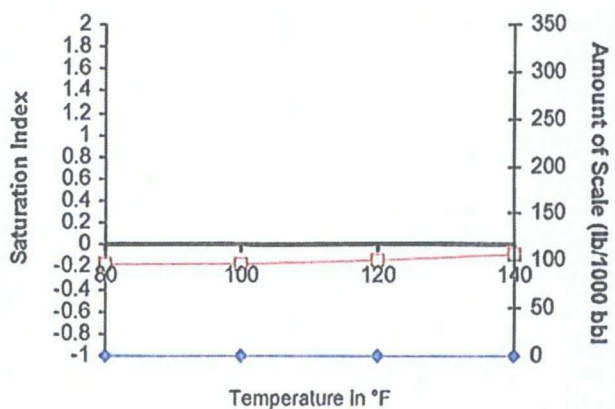
## Barite - $\text{BaSO}_4$



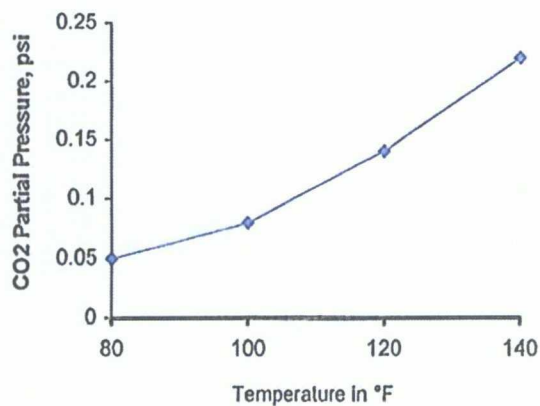
## Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



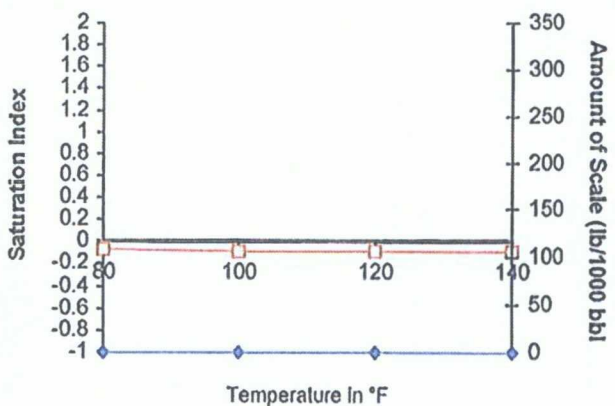
## Anhydrite - $\text{CaSO}_4$



## Carbon Dioxide Partial Pressure



## Celestite - $\text{SrSO}_4$



South Permian Basin Region  
 10520 West I-20 East  
 Odessa, TX 79765  
 (432) 498-9191  
 Lab Team Leader - Sheila Hernandez  
 (432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	CIMAREX ENERGY	Sales RDT:	44203
Region:	PERMIAN BASIN	Account Manager:	MIKE EDWARDS (505) 631-9312
Area:	HOBBS, NM	Sample #:	452195
Lease/Platform:	WHITE CITY LEASE	Analysis ID #:	81260
Entity (or well #):	28 GCU 3-4	Analysis Cost	\$80.00
Formation:	UNKNOWN <i>PENN</i>		
Sample Point:	WATER TANK <i>MORROW / ATOKA</i>		

Summary		Analysis of Sample 452195 @ 75 °F					
Sampling Date:	4/11/08	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	4/16/08	Chloride:	23949.0	675.51	Sodium:	12649.3	550.21
Analyst:	KIMBERLY POOLE	Bicarbonate:	122.0	2.	Magnesium:	254.0	20.9
TDS (mg/l or g/m3):	39522.8	Carbonate:	0.0	0.	Calcium:	1716.0	85.63
Density (g/cm3, tonne/m3):	1.027	Sulfate:	17.0	0.35	Strontium:	161.0	3.67
Anion/Cation Ratio:	1.0000000	Phosphate:			Barium:	10.0	0.15
		Borate:			Iron:	77.0	2.78
		Silicate:			Potassium:	566.0	14.47
Carbon Dioxide:	300 PPM	Hydrogen Sulfide:	< 10 PPM		Aluminum:		
Oxygen:		pH at time of sampling:		5.4	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		5.4	Lead:		
					Manganese:	1.500	0.05
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-1.50	0.00	-2.19	0.00	-2.25	0.00	-1.42	0.00	0.48	3.37	4.41
100	0	-1.39	0.00	-2.22	0.00	-2.21	0.00	-1.42	0.00	0.31	2.36	5.67
120	0	-1.26	0.00	-2.24	0.00	-2.15	0.00	-1.41	0.00	0.17	1.35	7
140	0	-1.13	0.00	-2.25	0.00	-2.06	0.00	-1.39	0.00	0.05	0.34	8.35

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

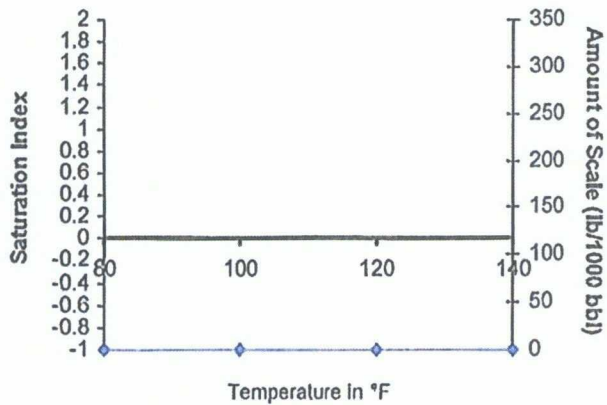
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

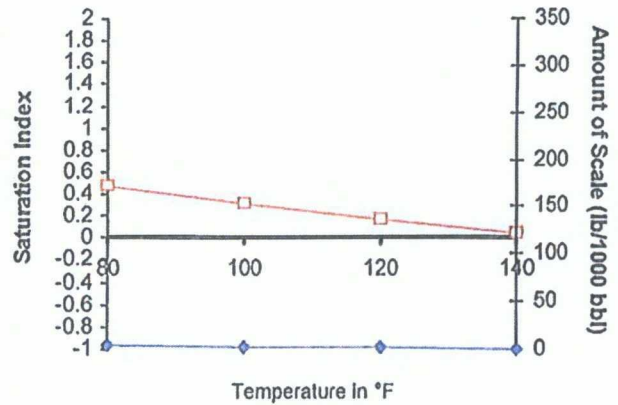
## Scale Predictions from Baker Petrolite

Analysis of Sample 452195 @ 75 °F for CIMAREX ENERGY, 4/16/08

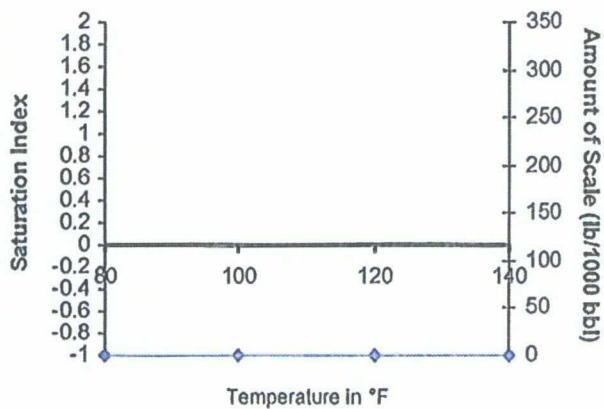
Calcite -  $\text{CaCO}_3$



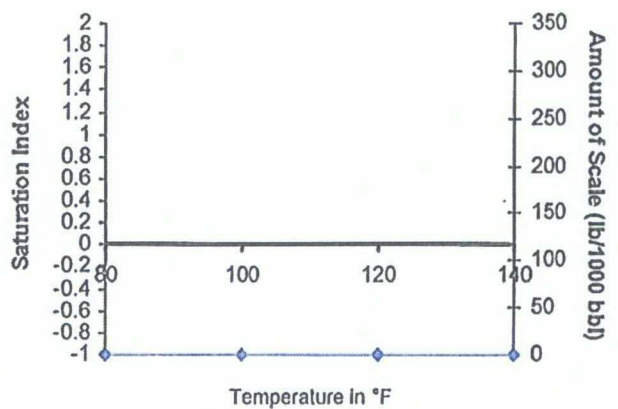
Barite -  $\text{BaSO}_4$



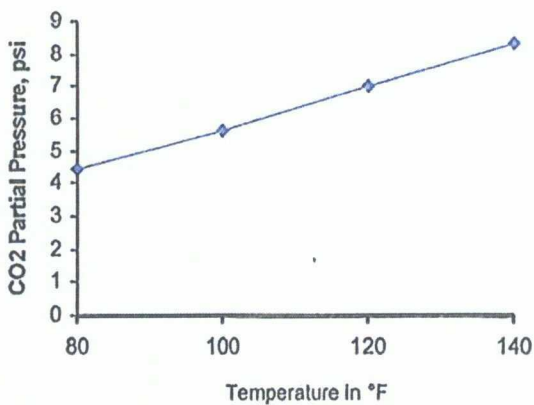
Gypsum -  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



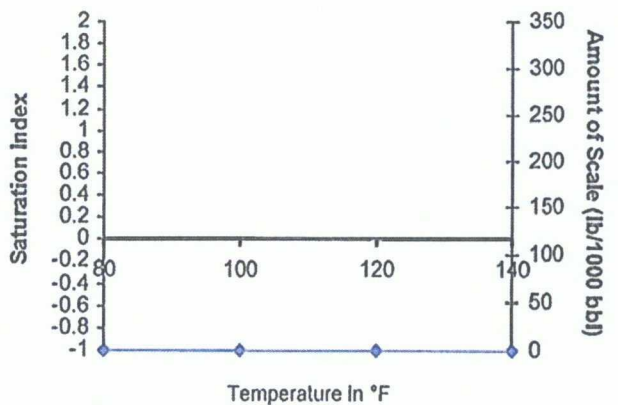
Anhydrite -  $\text{CaSO}_4$



Carbon Dioxide Partial Pressure



Celestite -  $\text{SrSO}_4$



North Permian Basin Region  
P.O. Box 740  
Sundown, TX 79372-0740  
(806) 229-8121  
Lab Team Leader - Sheila Hernandez  
(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	CIMAREX ENERGY	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (575) 910-9389
Area:	CARLSBAD, NM	Sample #:	426682
Lease/Platform:	WIGEON 23 FEDERAL	Analysis ID #:	93978
Entity (or well #):	2	Analysis Cost	\$90.00
Formation:	UNKNOWN <i>WOLFECAMP</i>		
Sample Point:	FRAC TANK		

Summary		Analysis of Sample 426682 @ 75 °F					
Sampling Date:	8/20/09	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	8/26/09	Chloride:	56397.0	1590.75	Sodium:	31981.9	1391.13
Analyst:	LEAH DURAN	Bicarbonate:	183.0	3.	Magnesium:	397.0	32.66
TDS (mg/l or g/m3):	93445.9	Carbonate:	0.0	0.	Calcium:	2866.0	143.01
Density (g/cm3, tonne/m3):	1.063	Sulfate:	264.0	5.5	Strontium:	855.0	19.52
Anion/Cation Ratio:	1	Phosphate:			Barium:	8.0	0.12
		Borate:			Iron:	16.0	0.58
		Silicate:			Potassium:	477.0	12.2
					Aluminum:		
Carbon Dioxide:	50 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:		pH at time of sampling:		6	Copper:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		6	Manganese:	1.000	0.04
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.59	0.00	-1.04	0.00	-1.07	0.00	0.22	55.31	1.29	4.16	1.45
100	0	-0.49	0.00	-1.10	0.00	-1.05	0.00	0.20	51.79	1.11	4.16	1.83
120	0	-0.38	0.00	-1.13	0.00	-1.01	0.00	0.20	50.83	0.95	3.84	2.23
140	0	-0.26	0.00	-1.16	0.00	-0.95	0.00	0.20	51.79	0.81	3.84	2.62

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

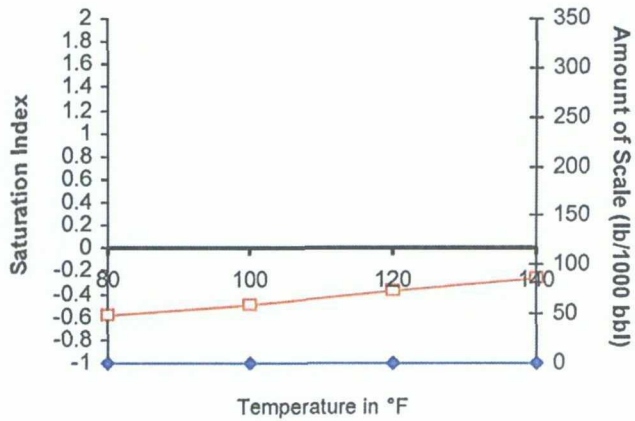
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

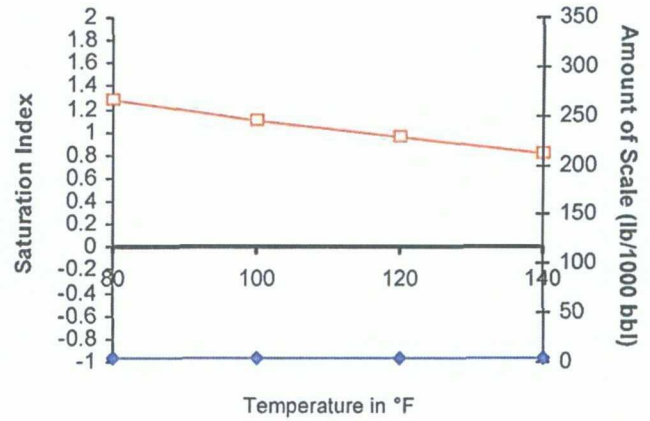
# Scale Predictions from Baker Petrolite

Analysis of Sample 426682 @ 75 °F for CIMAREX ENERGY, 8/26/09

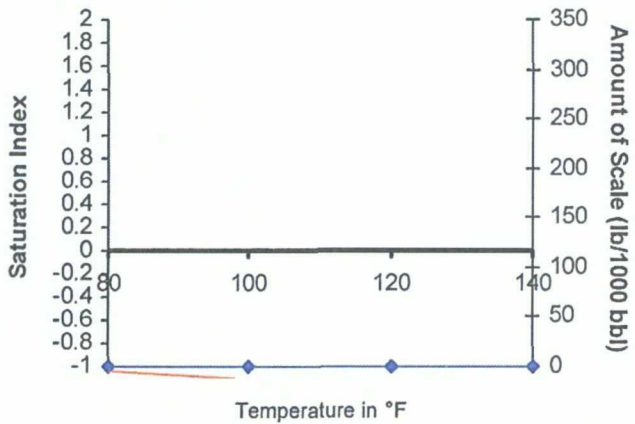
**Calcite -  $\text{CaCO}_3$**



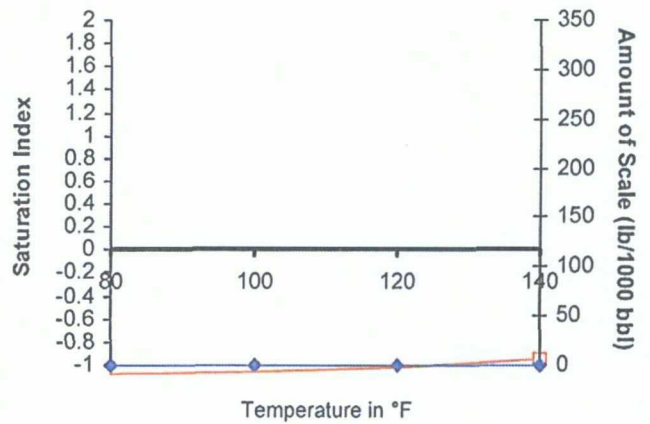
**Barite -  $\text{BaSO}_4$**



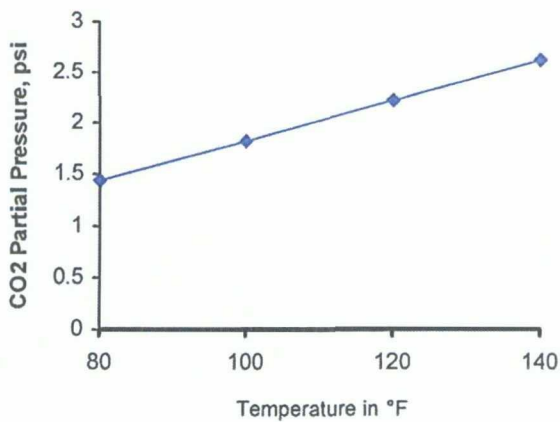
**Gypsum -  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$**



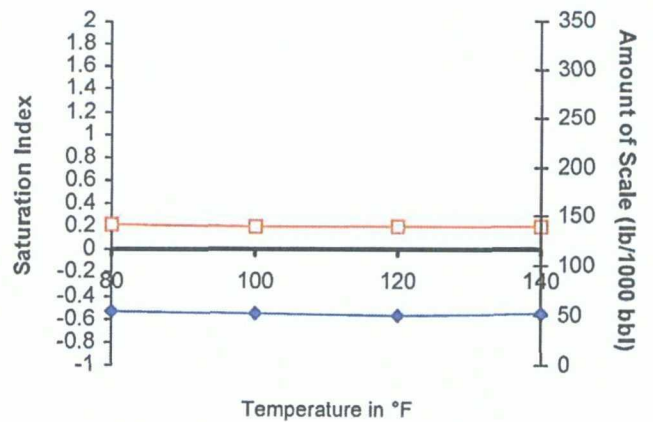
**Anhydrite -  $\text{CaSO}_4$**



**Carbon Dioxide Partial Pressure**



**Celestite -  $\text{SrSO}_4$**



North Permian Basin Region  
P.O. Box 740  
Sundown, TX 79372-0740  
(806) 229-8121  
Lab Team Leader - Sheila Hernandez  
(432) 495-7240

## Water Analysis Report by Baker Petrolite

Company	CIMAREX ENERGY	Sales RDT:	44212
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (575) 910-9389
Area:	ARTESIA, NM	Sample #:	396067
Lease/Platform:	SCOTER '6' FEDERAL COM	Analysis ID #:	84949
Entity (or well #):	1	Analysis Cost	\$80.00
Formation:	CISCO / CANYON		
Sample Point:	SEPARATOR		

Summary		Analysis of Sample 396067 @ 75 °F					
Sampling Date:	8/22/08	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	8/28/08	Chloride:	57973.0	1635.21	Sodium:	30169.5	1312.3
Analyst:	LISA HAMILTON	Bicarbonate:	134.2	2.2	Magnesium:	527.0	43.35
TDS (mg/l or g/m3):	95883.7	Carbonate:	0.0	0.	Calcium:	4451.0	222.11
Density (g/cm3, tonne/m3):	1.077	Sulfate:	47.0	0.98	Strontium:	2078.0	47.43
Anion/Cation Ratio:	1	Phosphate:			Barium:	45.0	0.66
		Borate:			Iron:	74.0	2.67
		Silicate:			Potassium:	383.0	9.79
Carbon Dioxide:	210 PPM	Hydrogen Sulfide:		0 PPM	Aluminum:		
Oxygen:	0 PPM	pH at time of sampling:		6.65	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		6.65	Lead:		
					Manganese:	2.000	0.07
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
140	0	0.36	7.02	-1.77	0.00	-1.56	0.00	-0.21	0.00	0.76	16.92	0.43
160	0	0.45	9.26	-1.78	0.00	-1.47	0.00	-0.20	0.00	0.64	15.33	0.51
180	0	0.55	11.81	-1.80	0.00	-1.37	0.00	-0.18	0.00	0.55	13.73	0.59
200	0	0.65	14.05	-1.80	0.00	-1.25	0.00	-0.15	0.00	0.47	12.45	0.68

Note 1: When assessing the severity of the scale problem, both the saturation Index (SI) and amount of scale must be considered.

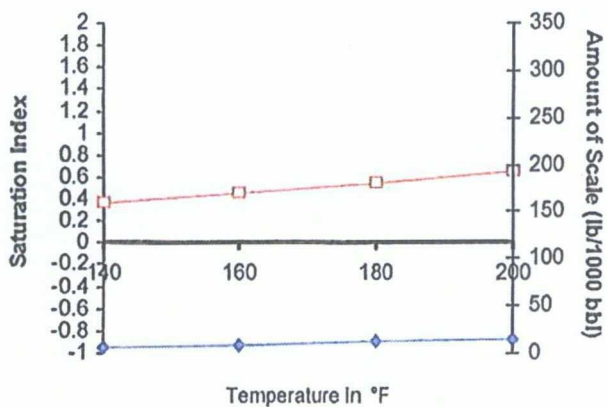
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

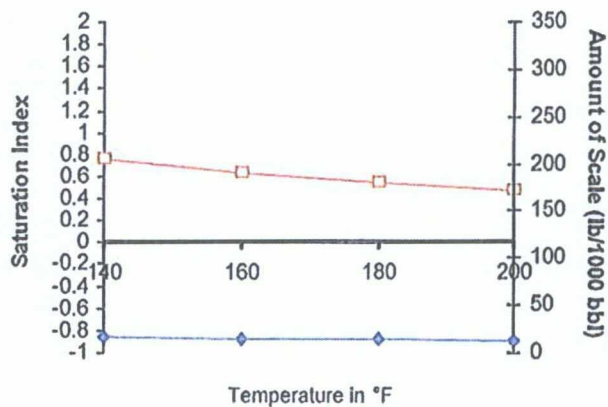
# Scale Predictions from Baker Petrolite

Analysis of Sample 396067 @ 75 °F for CIMAREX ENERGY, 8/28/08

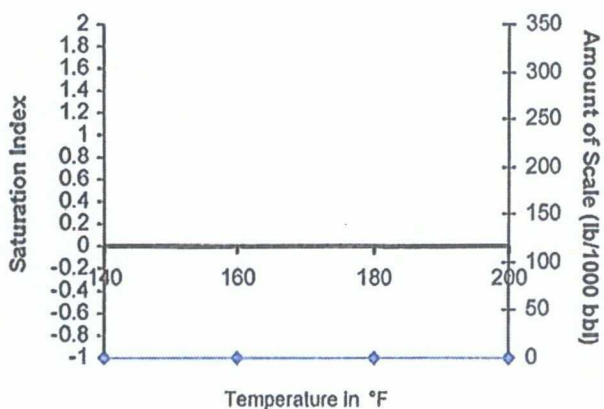
Calcite -  $\text{CaCO}_3$



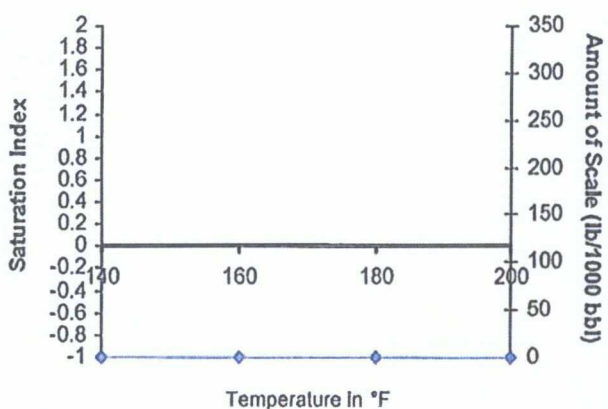
Barite -  $\text{BaSO}_4$



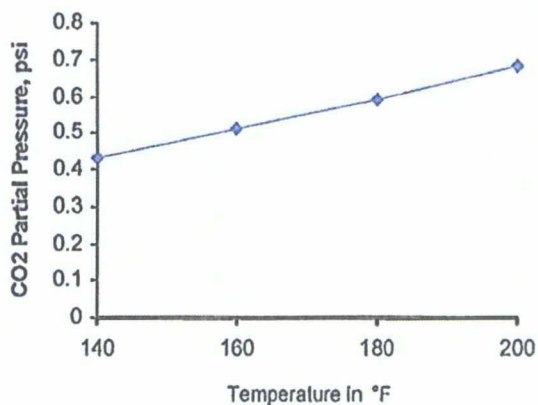
Gypsum -  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



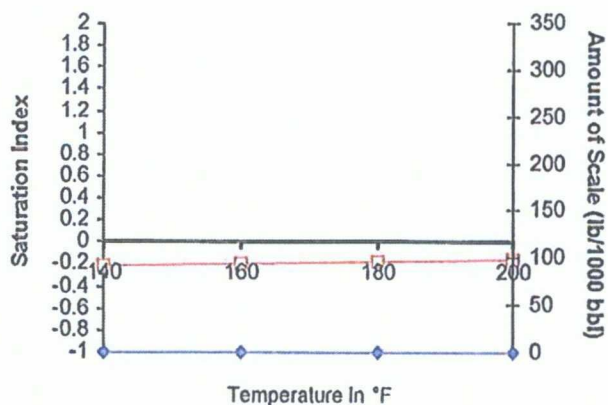
Anhydrite -  $\text{CaSO}_4$



Carbon Dioxide Partial Pressure



Celestite -  $\text{SrSO}_4$



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT **OCD-ARTESIA**FORM APPROVED  
OMB NO 1004-0137  
Expires March 31, 2007

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other  
b. Type of Completion ☐ New Well ☐ Work Over ☐ Deepen ☒ Plug Back ☒ Diff Resvr  
Other Recompleted to Wolfcamp

2. Name of Operator  
Climarex Energy Co. of Colorado

3. Address  
600 N. Marlenfeld St., Ste. 600, Midland, Tx 79701

3a. Phone No (include area code)  
432-571-7800

4. Location of Well (Report Location clearly and in accordance with Federal requirements)

At surface

1350' FNL & 1300' FEL

At top prod. interval reported below

At total depth

14. Date Spudded  
09.15.04

15. Date T.D. Reached  
10.17.04

16. Date Completed 08.22.09  
☐ D & A ☒ Ready to Prod

18. Total Depth: MD 12345'  
TVD

19. Plug Back TD MD 11485'  
TVD

20. Depth Bridge Plug Set: MD 11520' w/ 35' cmt  
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

Logs run on initial completion

22. Was well cored? ☒ No ☐ Yes (Submit analysis)

Was DST run? ☒ No ☐ Yes (Submit report)

Directional Survey ☒ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks & Type of Cement	Slurry Vol (BBL)	Cement Top*	Amount Pulled
17 1/2"	13 1/2"	54.5	0'	205'		400 sx		0'	
12 1/4"	9 1/2"	40	0'	1925'		650sx		0'	
8 3/4"	7"	23	0'	9026'	DV @ 4990'	1025 sx		0'	
6 1/8"	4 1/2"	11.6	0'	12345'		425 sx		TOC 7350'	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2 3/8"	9447'	9454'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Wolfcamp	9503'	9895'	9827'-9895'	3 spf	75	producing
B)			9695'-9750'	3 spf	48	producing
C)			9503'-9642'	3 spf	60	producing
D)						

27. Acid, Fracture, Treatment, Cement Squeezes, etc.

Depth Interval	Amount and Type of Material
9827'-9895'	frac w/5938 gal acid followed w/ 188,888 gals slickwater & 111,159# 30/50 sand.
9695'-9750'	frac w/5736 gal acid followed w/ 174,813 gals slickwater & 110,975# 30/50 sand
9503'-9642'	frac w/5005 gal acid followed w/ 299,938 gals slickwater & 166,589# 30/50 sand

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity BTU	Production Method
08.22.09	09.09.09	24	→	22	338	138	54.1	1,233	Flowing
Choke Size	Tbg. Press Flwg	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
open	SI 1440	540	→				15,363	Producing	

28. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press Flwg	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
	SI		→						

\* (See instructions and spaces for additional data on page 2)

RECEIVED  
OCT 8 2009  
NMOCD ARTESIA

ACCEPTED FOR RECORD  
OCT 6 2009  
/s/ Chris Walls  
BUREAU OF LAND MANAGEMENT  
CARLSBAD FIELD OFFICE.

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

## 29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Sold

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				Base Salt	1,684'
				Delaware	1,886'
				Bone Spring	5,393'
				Wolfcamp	8,604'
				Cisco-Canyon	10,301'
				Strawn	10,601'
				Atoka	10,800'
				Morrow	11,394'

## 32. Additional remarks (include plugging procedure):

## 33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☐ Directional Survey
 ☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other:

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Brett Jennings Title Regulatory AnalystSignature  Date September 29, 2009

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**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**

1120 S. St. Francis Dr., Santa Fe, NM 87505

**State of New Mexico**

Energy, Minerals &amp; 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**

<sup>1</sup> API Number 30-015-33684	<sup>2</sup> Pool Code 96890	<sup>3</sup> Pool Name Sage Draw; Wolfcamp, East (Gas)
<sup>4</sup> Property Code	<sup>5</sup> Property Name Wigeon 23 Federal Com	<sup>6</sup> Well Number 002
<sup>7</sup> GRID No. 162683	<sup>8</sup> Operator Name CIMAREX ENERGY CO. OF COLORADO	<sup>9</sup> Elevation 3296' GL

**<sup>10</sup> Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	25S	26E		1350	North	1300	East	Eddy

**<sup>11</sup> 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
---------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code C	<sup>15</sup> 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			NM-26105	<sup>17</sup> <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land on which 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 is a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Zeno Farris</i> 9/29/2009 Signature Date Zeno Farris Printed Name
			Wigeon 23 Fed Com #2	
			NM-94839	<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> 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 Signature and Seal of Professional Surveyor Certificate Number

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE\*

(See other In-  
structions on  
reverse side)FOR APPROVED  
OMB NO. 1004-0137  
Expires: December 31, 1991

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

5. LEASE DESIGNATION AND SERIAL NO.

NMNM96835

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

NMNM112716

8. FARM OR LEASE NAME, WELL NO.

Liberty 24 Fed Com 2

9. API WELL NO.

30-015-33683 SI

10. FIELD AND POOL, OR WILDCAT

Cottonwood Draw; Morrow

11. SEC., T., R., M., OR BLOCK AND SURVEY  
OR AREA

Sec. 24; T25S; R26E

12. COUNTRY OR  
FABRIC

Eddy

13. STATE

NM

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other \_\_\_\_\_

b. TYPE OF COMPLETION:

NEW  
WELL ☒WORK  
OVER ☐DEEP-  
EN ☐PLUG  
BACK ☐DIFF.  
PERV. ☐

Other \_\_\_\_\_

RECEIVED

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P O Box 140907 Irving Tx. 75014-0907

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*

At surface 1475' FSL &amp; 940' FWL

At top prod. interval reported below 1475' FSL &amp; 940' FWL

At total depth 1475' FSL &amp; 940' FWL

14. PERMIT NO.

DATE ISSUED

JUL 07 2005

OODARTESIA

15. DATE SPUDDED

03-17-05

16. DATE T.D. REACHED

04-15-05

17. DATE COMPL. (Ready to prod.)

06-21-05

18. ELEVATIONS (DP, RMB, RT, OR, ETC.)\*

3227' OR

19. GLEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD

12339'

21. PLUG BACK T.D., MD &amp; TVD

12286'

22. IF MULTIPLE COMPL.,  
HOW MANY\*23. INTERVALS  
DRILLED BY

ROTARY TOOLS

All

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

Cottonwood Draw; Morrow 11556' - 11956'

25. WAS DIRECTIONAL  
SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Spaced Neutron &amp; DLL Microguard

27. WAS WELL CORED

No

## 28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 - 3/8" J-55	54.5 #	220'	17-1/2"	250 sx Prem circ 110 sx to pit	
9-5/8" NS-110/N-80	40#	1935'	12-1/4"	650 sx IntC/Prem circ 125 sx to pit	
7" P-110	23#	9015'	8-3/4"	1115 sx IntH/SupH/IntC/Prem circ 118 sx to pit	
4-1/2" P-110	11.6#	12339'	6-1/8"	400 sx SupH TOC 4300'	

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACKS-CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKED OFF (MD)
			ACCEPTED FOR RECORD		2 3/8"	11466'	

## 31. PRODUCTION RECORD (Interval, size and number)

11839' - 11956' 6 JSPF 72 Holes

11556' - 11746' 6 JSPF 114 Holes

JUL - 6 2005

ALEXIS C. SWOBODA  
PETROLEUM ENGINEER

## 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
11953' - 11956'	1000gal 7-1/2% NEFE HLC+Methanol
11839' - 11956'	13999gal foam 45# CO2/Meth 23500# VProp
11556' - 11746'	37195gal foam 45# CO2/Meth 72050# VProp

## 33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
06-21-05		Flowing				Producing	
DATE OF TEST	HOURS TESTED	CHOKED SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
06-26-05	24	8/64	—————→	-0-	1343	11	N/A
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
1850	2100	—————→	-0-	1343	11	N/A	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

Electric logs and Inclination Summary

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Natalie Kueger

TITLE

Regulatory Analyst

DATE 06-30-05

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stems, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Strawn	10454'	
Atoka	10696'	
Mottow	11362'	

## DISTRICT I

1825 N. FRANCH DR., HOES, NM 85240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 86210

## 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 Department

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-33683	Pool Code	Pool Name Cottonwood Draw; Morrow
Property Code	Property Name LIBERTY 24 FEDERAL COM	Well Number 2
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3227'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	24	25-S	26-E		1475	SOUTH	940	WEST	EDDY

## 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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y	C	

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

	<b>OPERATOR CERTIFICATION</b> I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature Zeno Farris Printed Name Mgr Operations Admin Title June 30, 2005 Date
	<b>SURVEYOR CERTIFICATION</b> 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. SEPTEMBER 1, 2004 Date Surveyed Signature & Seal Professional Surveyor  Certified No. GARY EDSON 12841
	<b>GEODETIC COORDINATES</b> NAD 27 NME Y=404501.9 N X=525407.1 E LAT.=32°06'43.44" N LONG.=104°15'04.59" W
	RECEIVED JUL 07 2005 OGD-ARTESIA

RECEIVED  
(September 2001)

MAR 07 2005

OCCUPATION

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTN.M. Oil Cons. DIV-Dist. 2  
301 W. Grand Avenue  
Altesia, NM 88210FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 20045. Lease Serial No.  
NM-109748

- 1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry Other  
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.  
Other \_\_\_\_\_

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.

Lightning 24 Federal Com. #1

9. API Well No.

30-015-33001 SI

10. Field and Pool, or Exploratory  
Undesignated Morrow11. Sec., T., R., M., on Block and Survey  
or Area 24-25S-26B12. County or Parish  
Eddy13. State  
NM

2. Name of Operator

SAMSON RESOURCES COMPANY ATTN: KATHY STATON

3. Address

TWO WEST SECOND STREET, TULSA, OK 74103-3103

3a. Phone No. (include area code)

918-591-1971

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

At surface 660' FNL &amp; 1980' FEL

At top prod. interval reported below same as above

At total depth same as above

14. Date Spudded

8/25/04

15. Date T.D. Reached

10/23/04

16. Date Completed

☐ D&A ☒ Ready to Prod.

17. Elevations (DF, RKB, RT, OL)\*

3251' GL; 3277' DF; 3278' KB

18. Total Depth: MD 12075'  
TVD 12075'19. Plug Back T.D.: MD 11970'  
TVD same20. Depth Bridge Plug Set: MD  
TVD

21. Type Electric &amp; Other Mechanical Logs Run (Submit copy of each)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)  
Was DST run? ☒ No ☐ Yes (Submit report)  
Directional Survey? ☒ No ☐ Yes (Submit copy)

CBL/GR/CCL

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500"	13.375"/H40	48.00#	surface	437'		420sx		surface	
12.250"	9.625"/J55	36.00#	surface	2047'		1300 sx		surface	
8.750"	7"/P110	26.00#	surface	9012'		825 sx		1500'	
6.25"	4.5"/S95&P1	11.60#	surface	12064'		275 sx		8100'	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375"	11786'							

25. Producing Intervals

Formation	TOP	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Morrow	11411'		11830'-11882'		4 SPF	producing
B)						
C)						
D)						

ACCEPTED FOR RECORD

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
11830'-11882'	frac w/100K# 20/40 VersaProp, 271 tons CO <sub>2</sub> - 8 tons CO <sub>2</sub> cool down
	ALEXIS C. SWOBODA PETROLEUM ENGINEER

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/17/05	2/7/05	24	<input type="checkbox"/>	0	689	15	—	0.6	flowing
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
38/64"	500	740	<input type="checkbox"/>	0	689	15	—	flowing	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
SI			<input type="checkbox"/>						

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg Press Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>						

## 29. Disposition of Gas (Sold used for fuel, vented, etc.)

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents; etc.	Name	Top Meas. Depth
				Bell Canyon	2006'
				Bone Springs	3470'
				Wolfcamp	8600'
				Strawn	10570'
				Atoka	10908'
				Morrow	11411'

## 32. Additional remarks (include plugging procedure):

Fish in hole @ 11970' (PBDT). Lower 1/2 of pump off bit sub-3/25" OD. fishing neck - W.50. Length of fish 9.64'

## 33. Circle enclosed attachments:

- ☒ 1 Electrical/Mechanical Logs (1 full set req'd.)   
 ☐ 2 Geologic Report   
 ☐ 3 DST Report   
 ☒ 4 Directional Survey  
☐ 5 Sundry Notice for plugging and cement verification   
☐ 6 Core Analysis   
☐ 7 Other: \_\_\_\_\_

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) J.L. Farrell, III

Title District Engineer

Signature

Date 2/15/05

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

District I  
1825 N. French Dr. Hobbs, NM 88240

District II  
811 South First, Artesia, NM 88210

District III  
1000 Re Broeze Rd., Aztec NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, N M 87505

Form C-102

Revised March 17, 1999  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Undesignated Morrow
Property Code	Property Name <b>LIGHTNING 24 FEDERAL</b>	Well Number <b>1</b>
OGRID No.	Operation Name <b>SAMSON RESOURCES</b>	Elevation <b>3251</b>

Surface Location

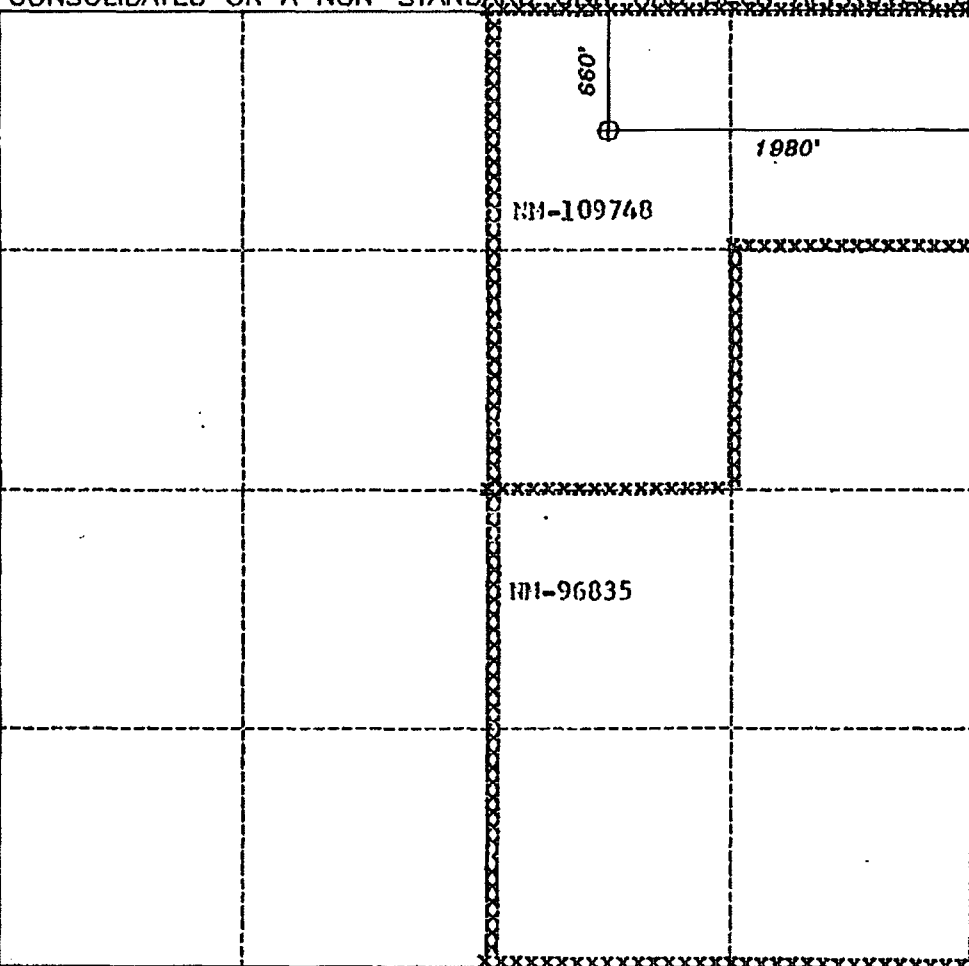
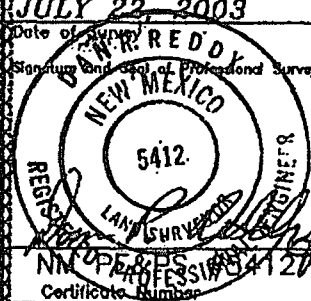
UL or Lot No. <b>B</b>	Section <b>24</b>	Township <b>25S</b>	Range <b>26E</b>	Lot Idn.	Feet from the <b>660</b>	North/South line <b>NORTH</b>	Feet from the <b>1980</b>	East/West line <b>EAST</b>	County <b>EDDY</b>
---------------------------	----------------------	------------------------	---------------------	----------	-----------------------------	----------------------------------	------------------------------	-------------------------------	-----------------------

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
---------------	---------	----------	-------	----------	---------------	------------------	---------------	----------------	--------

Dedicated Acres <b>320</b>	Joint or Infill	Consolidation Code <b>Com</b>	Order No.
-------------------------------	-----------------	----------------------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b> HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.  <i>George R. Smith</i> Signature <b>George R. Smith, agent</b> Printed Name <b>for Samson Resources</b> Date <b>August 5, 2003</b> Date
	<b>SURVEYOR CERTIFICATION</b> 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 KNOWLEDGE AND BELIEF.  <b>JULY 22, 2003</b> Date of Survey <b>DAVID REDD</b> Signature and Seal of Professional Surveyor  RECEIVED LAND SURVEYOR NEW MEXICO 5412 NM OPERATES PROFESSIONAL Certificate Number

**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**

N.M. Oil Cons. DIV-Dist. 2

1001 W. Grand Avenue

Alameda, NM 88210

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2004

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry Other \_\_\_\_\_  
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.  
Other \_\_\_\_\_

**2. Name of Operator**

Samson Resources Company ATTN: Kathy Staton

**3. Address**

Two West Second Street, Tulsa, OK 74103

**3a. Phone No. (include area code)**

(918) 591-1971

**4. Location of Well (Report location clearly and in accordance with Federal requirements)\***

At surface 1980' FSL & 1980' FEL

At top prod. interval reported below same

At total depth same

**RECEIVED**

AUG 24 2005

OIL ALAMEDA

5. Lease Serial No.  
NM-96835

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.

Lightning 24 Federal Com #2

9. API Well No.

30-015-33578 S1

10. Field and Pool, or Exploratory  
Undesignated Morrow

11. Sec., T., R., M., on Block and Survey  
or Area 24-25S-26E

12. County of Parish

Eddy

13. State

NM

17. Elevations (DF, RKB, RT, OL)\*

3257 KB; 3256' DF; 3231' OL

14. Date Spudded

2/27/05

15. Date T.D. Reached

4/9/05

16. Date Completed

☐ D&A ☒ Ready to Prod.

6/28/05

18. Total Depth: MD 12,060'  
TVD n/a

19. Plug Back T.D.: MD 11,816  
TVD n/a

20. Depth Bridge Plug Set: MD 11,840' w/ 24' cmr  
TVD n/a

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

22. Was well cored? ☒ No ☐ Yes (Submit analysis)

Was DST run? ☒ No ☐ Yes (Submit report)

Directional Survey? ☒ No ☐ Yes (Submit copy)

DSN/SDL; DLL/MGRD

**23. Casing and Liner Record (Report all strings set in well)**

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
9.625"	J55	36.00#	0'	470'		260		surface	
7.00"	N80	26.00#	0'	10030'		362		surface	
4.500"	HCP110	11.60#	0'	12060'		200		5884'	

**24. Tubing Record**

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375"	11425'	11425'						

**25. Producing Intervals**

Formation	TOP	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Morrow	11432'	12060'	11483'-11720'		4 spf	active
B)						
C)						
D)						

**26. Perforation Record**

**27. Acid, Fracture, Treatment, Cement Squeeze, Etc.**

Depth Interval	Amount and Type of Material
11873'-11934'	Acid w/ 1090 gals 7.5% Claysafe H acid & 70,000 cfm N2
11483'-11720'	Frac w/ 75,500# prop, 203 tons CO2

**28. Production - Interval A**

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
6/28/05	7/21/05	24	<input type="checkbox"/>	0	904	10			flowing
Choke Size	Tbg. Press. Flwg. SI	Csg. Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
24/64"	730	160	<input type="checkbox"/>					active gas well	

**28a. Production - Interval B**

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			<input type="checkbox"/>						
Choke Size	Tbg. Press. Flwg. SI	Call Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	
			<input type="checkbox"/>						

**ACCEPTED FOR RECORD**

AUG 23 2005

ALEXIS C. SWOBODA  
PETROLEUM ENGINEER

## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production <input type="checkbox"/>	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Thg Press Flwg. SI	Csg. Press	24 Hr. Rate <input type="checkbox"/>	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production <input type="checkbox"/>	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Thg Press Flwg. SI	Csg. Press	24 Hr. Rate <input type="checkbox"/>	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status	

## 29. Disposition of Gas (Sold used for fuel, vented, etc.)

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				Bone Springs	6364'
				Wolfcamp	8610'
				Penn Marker	10248'
				Strawn	10592'
				Atoka	10936'
				Morrow	11432'

## 32. Additional remarks (include plugging procedure):

## 33. Circle enclosed attachments:

- ☒ 1 Electrical/Mechanical Logs (1 full set req'd.)   
 ☐ 2 Geologic Report   
 ☐ 3 DST Report   
 ☐ 4 Directional Survey  
☐ 5 Sundry Notice for plugging and cement verification   
☐ 6 Core Analysis   
☐ 7 Other: \_\_\_\_\_

## 34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) J.L. Farrell Title District Engineer

Signature 

Date 8/12/05

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

District I  
1825 N. French Dr. Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 N. Brazos Rd., Aztec NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources  
OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, N M 87505

Form C-102  
Revised March 17, 1999  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name <b>Undesignated Morrow</b>	
Property Code	Property Name <b>LIGHTNING 24 FEDERAL COM.</b>		Well Number <b>2</b>	
GRID No. <b>20,165</b>	Operation Name <b>SAMSON RESOURCES</b>		Elevation <b>3231</b>	

Surface Location

UL or Lot No. <b>J</b>	Section <b>24</b>	Township <b>25-S</b>	Range <b>26-E</b>	Lot Idn.	Feet from the <b>1980</b>	North/South line <b>SOUTH</b>	Feet from the <b>1980</b>	East/West line <b>EAST</b>	County <b>EDDY</b>
---------------------------	----------------------	-------------------------	----------------------	----------	------------------------------	----------------------------------	------------------------------	-------------------------------	-----------------------

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
Dedicated Acres <b>320</b>		Joint or Infill	Consolidation Code <b>comm</b>	Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				<b>OPERATOR CERTIFICATION</b> I HEREBY CERTIFY THAT THE INFORMATION 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 KNOWLEDGE AND BELIEF.	
				Signature <i>George R. Smith</i>	
				Printed Name <b>George R. Smith</b>	
				Title <b>agent</b>	
				Date <b>6/25/04</b>	
				<b>SURVEYOR CERTIFICATION</b> 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 KNOWLEDGE AND BELIEF.	
				Date of Survey <b>JUNE 21, 2004</b>	
				Signature of Registered Surveyor <i>George R. Smith</i>	
				Certification Number <b>5412</b>	

7008 1830 0004 2586 2352

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

For delivery information visit our website at [www.usps.com](http://www.usps.com)

CARLSBAD, NM 88220

Postage	\$ 1.90
Certified Fee	\$2.80
Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
<b>Total Postage &amp; Fees</b>	<b>\$ 7.00</b>



02/19/2010

Sent To Bureau of Land Management  
 Street, Apt. No., 620 E. Greene St.  
 or PO Box No. Carlsbad, NM 88220  
 City, State, ZIP+4

PS Form 3800, Au

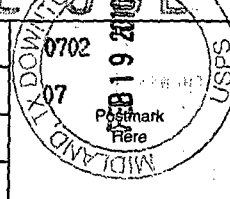
7008 1830 0004 2586 2352

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

For delivery information visit our website at [www.usps.com](http://www.usps.com)

TULSA, OK 74103

Postage	\$ 1.90
Certified Fee	\$2.80
Return Receipt Fee (Endorsement Required)	\$2.30
Restricted Delivery Fee (Endorsement Required)	\$0.00
<b>Total Postage &amp; Fees</b>	<b>\$ 7.00</b>



02/19/2010

Sent To Samson Resources Company  
 Street, Apt. No., 2 W. 2nd St.  
 or PO Box No. Tulsa, OK 74103  
 City, State, ZIP+4

PS Form 3800, Au

**Jones, William V., EMNRD**

---

**From:** Zeno Farris [zfarris@cimarex.com]  
**Sent:** Tuesday, March 02, 2010 1:42 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Natalie Krueger  
**Subject:** FW: Liberty 24 Federal Fed Com # 1 Affidavit of Publishing  
**Attachments:** 20100302142829162.pdf

Will attached is the affidavit of publishing for the Liberty 24 Fed Com # 1 SWD application. This is a Devonian disposal application with no production or wells in the 1/2 area of review that penetrate the injection interval.

Thanks

Zeno

-----Original Message-----

**From:** administrator@cimarex.com [mailto:administrator@cimarex.com]  
**Sent:** Tuesday, March 02, 2010 1:28 PM  
**To:** Zeno Farris  
**Subject:**

This E-mail was sent from "RNPC64ACF" (MP C3500/LD435c).

Scan Date: 03.02.2010 14:28:28 (-0500)  
Queries to: [administrator@cimarex.com](mailto:administrator@cimarex.com)

---

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

---

**Affidavit of Publication**

State of New Mexico,  
County of Eddy, ss.

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

That she is the Classified Supervisor of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

February 23 2010

That the cost of publication is **\$57.30** and that payment thereof has been made and will be assessed as court costs.

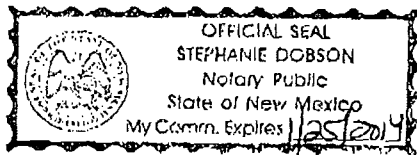
*Kathy McCarroll*

Subscribed and sworn to before me this

23<sup>rd</sup> day of February, 2010  
*Stephanie Dobson*

My commission Expires on 1/25/2014

Notary Public



February 23, 2010

**LEGAL NOTICE**

Cimrex Energy Co., of Colorado, 200 N. Maricopa St., Suite 600, Midland, Texas 79701, is filing an Application for Authorization to Inject Oil Conservation Division Form C-100 with the New Mexico Oil Conservation Division seeking administrative approval for disposal of oil water disposal well. The proposed well, the Liberty 24 Federal Com No. 1 is located 1650 feet FWL and 1200 FWL line of Section 24, Township 24 South, Range 26 East, NMPN, Eddy County, New Mexico. The source of the disposal water will be water in the area operated by Cimrex that produce from the Morrow, Atoka, Climo, Wolfcamp and Delaware formations. The disposal water will be injected into the Devonian formation of the Devonian system at a depth interval of 12579 feet to 13500 feet at a maximum injection pressure of 2575 PSI (subject to increase after Division approved testing) and a maximum rate of 4000 BWPD. Any interested party with questions or comments may contact Zeno Parra at Cimrex Energy Co., of Colorado, 200 N. Maricopa St., Suite 600, Midland, Texas, 79701 or call (432) 620-1930. Objections to this application or requests for hearing must be filed with the Oil Conservation Division, 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505, within fifteen days of the date of the publication of this notice.

## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Tuesday, March 09, 2010 5:09 PM  
**To:** 'Zeno Farris'  
**Cc:** Ezeanyim, Richard, EMNRD; Macquesten, Gail, EMNRD; Reeves, Jacqueta, EMNRD; Dade, Randy, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** Disposal Application from Cimarex Energy Co of Colorado: Liberty 24 Fed Com #1 30-015-33094 Devonian Open Hole

Hello Zeno:

Reviewed your application, looks good, but have a few questions:

First three questions deal with Notice. Your notice was sent to the operators of the shallower Penn gas wells – but these wells were BLM minerals and had a “Com” in the title. You did not say in the C-108 specifically who owned rights in the Devonian.

1. Is there any depth Division of Interest between the Pennsylvanian gas intervals and the Devonian? I am guessing not, but need to have a statement from you.
2. I am no landman but the “Com” seems to me that there may have been other parties controlling some acreage in those Penn 320 acre spacing units? Since there are no wells producing from the Devonian, notice should be given to all the Devonian Lessees within ½ mile of this subject well. Were there any other owners of acreage other than Samson and Gruy/Cimarex?
3. If all Devonian acreage is unleased within ½ mile, and the BLM is the only mineral rights owner within ½ mile, then you are OK on notice issues because you have noticed the BLM already.
4. I saw the statement about the nearest Devonian test. Do you intend to run mudlogs and/or elogs through the Devonian? Or otherwise how will you test it for productivity at this location?
5. The most time critical issue is the Rule 5.9 status of Cimarex Energy Co. of Colorado. The database we look at shows 14 wells out of compliance, so we are prohibited from issuing any disposal permits until the number drops to 10 or less – or until the OCD enforcement works out an Agreed Compliance Order with Cimarex.

Please call Daniel and/or Gail about this Rule 5.9 status. The following is a link to the list of wells that I see.

<http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?Production=15&Operator=162683&ACO=Exclude&TA=Exclude>

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**

*Release on 4/21/10*

**From:** Zeno Farris [zfarris@cimarex.com]  
**Sent:** Thursday, March 11, 2010 5:11 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Ezeanyim, Richard, EMNRD; Macquesten, Gail, EMNRD; Reeves, Jacqueta, EMNRD; Dade, Randy, EMNRD; Sanchez, Daniel J., EMNRD; Swazo, Sonny, EMNRD  
**Subject:** RE: Disposal Application from Cimarex Energy Co of Colorado: Liberty 24 Fed Com #1 30-015-33094 Devonian Open Hole

I'll check the lessee's of record and make sure that we notify all and also give you a statement regarding Penn and Devonian rights. As far as testing the Devonian we will run a mud log and if we have hydrocarbon shows we would opt to swab test after acidizing but we do not anticipate significant hydrocarbon shows on the mud log.

Regarding 5.9 we are working with Daniel and Sonny on a new ACOI for our recently expired ACOI but they will not enter into a new ACOI until the current list is at 10 or below. Of the 14 wells on the current list 1 well is pending BLM approved PA sundry and 8 are pending production reporting. However 7 of the wells brought back on production won't be reported until 4-15-10. We will also have a BLM approved TA for one well by then. The rest are on our PA schedule. Our recent ACOI expired on 3-2-10 and on 4-2-10 we will have all of the recent ACOI wells on our inactive list. At that time 4 of the wells on the expired ACOI list with production or injection of 1990 or older will be added to our current inactive list. As I understand the requirements once we report on 4-15 and we are at 10 or below inactive wells for our non expired ACOI wells with production or injection greater than 1990 Santa Fe will enter into a new ACOI for those wells.

*Talked to Zeno 4/5/10 and  
He will NOTIFY a bit more.*

So it won't be until after 4-15 that we enter into a new ACOI and be at 10 or below inactive wells.

---

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Tuesday, March 09, 2010 6:09 PM  
**To:** Zeno Farris  
**Cc:** Ezeanyim, Richard, EMNRD; Macquesten, Gail, EMNRD; Reeves, Jacqueta, EMNRD; Dade, Randy, EMNRD; Sanchez, Daniel J., EMNRD  
**Subject:** Disposal Application from Cimarex Energy Co of Colorado: Liberty 24 Fed Com #1 30-015-33094 Devonian Open Hole

Hello Zeno:

Reviewed your application, looks good, but have a few questions:

First three questions deal with Notice. Your notice was sent to the operators of the shallower Penn gas wells – but these wells were BLM minerals and had a "Com" in the title. You did not say in the C-108 specifically who owned rights in the Devonian.

1. Is there any depth Division of Interest between the Pennsylvanian gas intervals and the Devonian? I am guessing not, but need to have a statement from you.
2. I am no landman but the "Com" seems to me that there may have been other parties controlling some acreage in those Penn 320 acre spacing units? Since there are no wells producing from the Devonian, notice should be given to all the Devonian Lessees within ½ mile of this subject well. Were there any other owners of acreage other than Samson and Gruy/Cimarex?
3. If all Devonian acreage is unleased within ½ mile, and the BLM is the only mineral rights owner within ½ mile, then you are OK on notice issues because you have noticed the BLM already.

4. I saw the statement about the nearest Devonian test. Do you intend to run mudlogs and/or elogs through the Devonian? Or otherwise how will you test it for productivity at this location?
5. The most time critical issue is the Rule 5.9 status of Cimarex Energy Co. of Colorado. The database we look at shows 14 wells out of compliance, so we are prohibited from issuing any disposal permits until the number drops to 10 or less – or until the OCD enforcement works out an Agreed Compliance Order with Cimarex.

Please call Daniel and/or Gail about this Rule 5.9 status. The following is a link to the list of wells that I see.

<http://www.emnrd.state.nm.us/OCD/OCDPermitting/Report/Stats/InactiveWellList.aspx?Production=15&Operator=162683&ACO=Exclude&TA=Exclude>

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.

---

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 using Webroot Email Security.

---

---

This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

---

**Jones, William V., EMNRD**

---

**From:** Zeno Farris [zfarris@cimarex.com]  
**Sent:** Monday, April 05, 2010 4:35 PM  
**To:** Jones, William V., EMNRD  
**Cc:** Natalie Krueger  
**Subject:** FW: Liberty 24 SWD additional lessee notification  
**Attachments:** 20100405172539100.pdf

Will attached is proof of notification for additional lessees of record for the Liberty Devonian SWD. Do we need to fed ex this to you. We sent them the complete application but only sent you the notification pages. If we need to fed ex you the whole package we will.  
Thanks

-----Original Message-----

**From:** administrator@cimarex.com [mailto:administrator@cimarex.com]  
**Sent:** Monday, April 05, 2010 4:26 PM  
**To:** Natalie Krueger; Zeno Farris  
**Subject:**

This E-mail was sent from "RNPC64ACF" (MP C3500/LD435c).

Scan Date: 04.05.2010 17:25:38 (-0400)  
Queries to: [administrator@cimarex.com](mailto:administrator@cimarex.com)

.....

600 N. Marienfeld St  
Suite 600  
Midland, TX 79701  
432-620-1938 (phone)  
432-620-1938 (fax)

# Cimarex Energy Co. of Colorado

April 5, 2010

New Mexico Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, NM 87505  
Attn: Mr. Will V. Jones

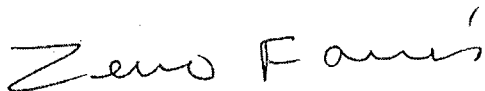
RE: Liberty 24 Federal Com No. 1  
30-015-33094  
SWD Administrative Application

Dear Mr. Jones,

Enclosed is proof of notice to additional lessees of record for the referenced Liberty 24 Fed Com # 1 SWD application. We have contractual rights to drill and operate under this acreage but we have not drilled a test well to the Devonian so we are notifying the additional lessees. We have previously notified the BLM and Samson Resources.

If you have any questions or need further information, please call me at 432-620-1938.

Sincerely,



Zeno Farris  
Mgr Operations Administration

zfarris@cimarex.com

.....

Confirmation Services	Package ID: 9171082133393773219797	E-CERTIFIED
	Destination ZIP Code: 77252	1ST CLASS FLAT
	Pogo Producing Co.	PBP Account #: 35644897
	PO Box 2504	Serial #: 3132785
	Houston, TX 77252-2504	APR 05 2010 3:58P

Confirmation Services	Package ID: 9171082133393773219780	E-CERTIFIED
	Destination ZIP Code: 79702	1ST CLASS FLAT
	EOG Resources, Inc.	PBP Account #: 35644897
	PO Box 2267	Serial #: 3132785
	Midland, TX 79702	APR 05 2010 3:59P

Confirmation Services	Package ID: 9171082133393773219803	E-CERTIFIED
	Destination ZIP Code: 79701	1ST CLASS FLAT
	Chevron USA Production Co.	PBP Account #: 35644897
	1004 N Big Spring St	Serial #: 3132785
	Midland, TX 79701	APR 05 2010 3:56P

Confirmation Services	Package ID: 9171082133393773219810	E-CERTIFIED
	Destination ZIP Code: 73112	1ST CLASS FLAT
	Customer Reference:	PBP Account #: 35644897
	Southwestern Energy Production Co	Serial #: 3132785
	5600 N May Ave #200 Oklahoma City, OK 73112	APR 05 2010 3:56P

Section XIII and XIV – Proof of Notice

1. Surface owners – Application mailed by Certified Mail to the following:

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

2. Leaschold Operators within ½ mile of proposed injection well – application mailed by Certified Mail to the following:

**S2 Section 13-25S-26E**

SE4

Cimarex Energy Co. of Colorado  
600 N Marienfeld St Suite 600  
Midland TX 79701

Chevron USA Production Co.  
1004 N Big Spring St  
Midland, TX 79701

EOG Resources, Inc.  
PO Box 2267  
Midland, TX 79702

**E2 Section 23-25S-26E**

NE4

Chevron USA Production Co.  
1004 N Big Spring St  
Midland, TX 79701

EOG Resources, Inc.  
PO Box 2267  
Midland, TX 79702

SE4

Chevron USA Production Co.  
1004 N Big Spring St  
Midland, TX 79701

**SE4 Section 14-25S-26E**

EOG Resources, Inc.  
PO Box 2267  
Midland, TX 79702

Murchison Oil & Gas Inc.  
1445 Ross Ave #5300  
Dallas, TX 75202-2883

Pogo Producing Co.  
PO Box 2504  
Houston, TX 77252-2504

Cimarex Energy Co. of Colorado  
600 N Marienfeld St Suite 600  
Midland TX 79701

**Section 24-25S-26E**

N2NE, SWNE

Samson Resources Co.  
2 West Second Street  
Tulsa, OK 74103

NW4

Chevron USA Production Co.  
1004 N Big Spring St  
Midland, TX 79701

EOG Resources, Inc.  
PO Box 2267  
Midland, TX 79702

Cimarex Energy Co. of Colorado  
600 N Marienfeld St Suite 600  
Midland TX 79701

SENE, S2

Southwestern Energy Production Co  
5600 N May Ave #200  
Oklahoma City, OK 73112

**Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, April 23, 2010 8:16 AM  
**To:** 'Zeno Farris'  
**Cc:** Reeves, Jacqueta, EMNRD; Ezeanyim, Richard, EMNRD  
**Subject:** Disposal application from Cimarex: Liberty 24 Fed Com #1 30-015-33094

Zeno:

I am ready to release this Devonian disposal permit but let me know what the final depths you folks are looking at AND what the geologists consider to be the Bottom of the Devonian in this area. Is this area productive in the Devonian or deeper horizons?

If this is down into another formation, or close to another formation, we need to re-notice. Since this is the Devonian, if this is only deeper into the water leg of the Devonian, we are likely OK without re-noticing.

Thanks,

Will Jones

-----Original Message-----

From: Zeno Farris [mailto:zfarris@cimarex.com]  
Sent: Tuesday, April 20, 2010 12:18 PM  
To: Jones, William V., EMNRD  
Subject: RE: Liberty 24 SWD additional lessee notification

Will.

If we want to drill this well 300' to 500' deeper in the Devonian would we have to re-notify and post?

Thanks Zeno

**Jones, William V., EMNRD**

---

**From:** Zeno Farris [zfarris@cimarex.com]  
**Sent:** Friday, April 23, 2010 10:04 AM  
**To:** Jones, William V., EMNRD  
**Cc:** Reeves, Jacqueta, EMNRD; Ezeanyim, Richard, EMNRD  
**Subject:** RE: Disposal application from Cimarex: Liberty 24 Fed Com #1 30-015-33094  
**Attachments:** Geo Prog\_AFE Request\_Liberty 24 Fed Com #1\_Devonian\_Revised TD.XLS; Liberty 24 rev WDB.pdf

Yes Will. Attached is a revised geological prognosis for the Liberty 24 and our geologists comments below. Also attached is a revised well bore diagram. We will have a mud logger from 12000' to TD and will evaluate the Devonian for productivity and furnish the log at completion. There is no Devonian production in the area and our geologist mentioned that the Devonian is only productive on structural highs and we don't see a structural high here so it is highly unlikely that we will encounter production.

Hi Zeno,

I propose revising the TD for the Liberty 24 Fed #1 SWD from 13,500' to 13,900'. The reason for the deepening is to give us the opportunity to gain more injectivity in case a portion of the Devonian (aka "Siluro-Devonian") injection interval is non-reservoir quality. I have included a revised geoprogram.

Based on the nearest offset well to drill all the way through the Devonian, the Humble Federal Wiggs #1 (sec. 31-T24S-R27E), the Devonian section is 1022' thick. The anticipated base of the Devonian injection interval would be 13,981', approximately 81' below the proposed TD.

Please let me know if you need any additional data.

Thanks,

-----Original Message-----

**From:** Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]  
**Sent:** Friday, April 23, 2010 9:16 AM  
**To:** Zeno Farris  
**Cc:** Reeves, Jacqueta, EMNRD; Ezeanyim, Richard, EMNRD  
**Subject:** Disposal application from Cimarex: Liberty 24 Fed Com #1 30-015-33094

Zeno:

I am ready to release this Devonian disposal permit but let me know what the final depths you folks are looking at AND what the geologists consider to be the Bottom of the Devonian in this area. Is this area productive in the Devonian or deeper horizons?

If this is down into another formation, or close to another formation, we need to re-notice. Since this is the Devonian, if this is only deeper into the water leg of the Devonian, we are likely OK without re-noticing.

Thanks,

Will Jones

-----Original Message-----

From: Zeno Farris [mailto:zfarris@cimarex.com]

Sent: Tuesday, April 20, 2010 12:18 PM

To: Jones, William V., EMNRD

Subject: RE: Liberty 24 SWD additional lessee notification

Will.

If we want to drill this well 300' to 500' deeper in the Devonian would we have to re-notify and post?

Thanks Zeno

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.

# Inactive Well List

Total Well Count: 1067 Inactive Well Count: 4 Since: 1/28/2009

Printed On: Friday, April 23 2010

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
2	30-005-63314	FORAN 30 FEDERAL #002	4-30-15S-28E	D	162683	CIMAREX ENERGY CO. OF COLORADO	F	G	11/2008	DIAMOND MOUND MORROW		
2	30-005-62320	FORAN FEDERAL 30 COM #001	J-30-15S-28E	J	162683	CIMAREX ENERGY CO. OF COLORADO	F	G	10/2008			
1	30-025-30695	LAGUNA DEEP FEDERAL UNIT #004	B-26-19S-33E	B	162683	CIMAREX ENERGY CO. OF COLORADO	F	G	04/2008	MORROW TA DENIED BY BLM 04/12/10		
1	30-025-26493	PENNZOIL STATE #001	G-18-16S-37E	G	162683	CIMAREX ENERGY CO. OF COLORADO	S	O	12/2008	NE LOVINGTON PENN 02/26/10 INT TO PA		

WHERE Ogrid:162683, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period

# Injection Permit Checklist (1/30/09)

Case \_\_\_\_\_ R- SWD 126 WFX \_\_\_\_\_ PMX \_\_\_\_\_ IPI \_\_\_\_\_ Permit Date 4/26 UIC Qtr (A/M)  
 # Wells 1 Well Name: Liberty 24 Fed #1  
 API Num: (30-) 015-33094 Scud Date: 1/29/04 New/Old: N (UIC primacy March 7, 1982)  
 Footages 1650 FNL/1200 FUL Unit E Sec 24 Tsp 255 Rge 26E County EDD  
 Operator: Amstar Energy Co. of Colorado Contact Zeno Ferris  
 OGRID: 16283 RULE 5.9 Compliance (Wells) 4/10/06 (Finan Assur) OK  
 Operator Address: 600 N. Marienfeld St, Suite 600, MIDLAND, TX 79702

Location and Current Status: \_\_\_\_\_

Planned Work to Well: \_\_\_\_\_

Planned Tubing Size/Depth: 3 1/2 @ 12900'

	Sizes Hole.....Pipe	Setting Depths	Cement Sx or Cf	Cement Top and Determination Method
Existing <input checked="" type="checkbox"/> Surface	17 1/2 13 3/8	440	640	CIRC
Existing <input checked="" type="checkbox"/> Intermediate	12 1/4 9 5/8	5808	1700	CIRC
Existing <input checked="" type="checkbox"/> Long String	8 3/4 7"	12979	1020	CIRC (Planned)
2 DV Tool <u>S</u> Liner		Open Hole <u>12979-13900</u>	Total Depth <u>13900 (Planned)</u>	

Well File Reviewed \_\_\_\_\_

Diagrams: Before Conversion ☒ After Conversion ☒ Elogs in Imaging File: ☒

Intervals:	Depths	Formation	Producing (Yes/No)
Above (Name and Top)			
Above (Name and Top)	11280 -	Monon	
Injection.....			
Interval TOP:	12979	Dev	
Injection.....			
Interval BOTTOM:	13900	Devon	
Below (Name and Top)			

WHITE CITY  
area

2596 PSI Max JWHIP  
☒ Open Hole (Y/N)  
☒ Deviated Hole?

Sensitive Areas: Capitan Reef Offshore Salt Depths 2500-8000 1684 309-1745

.....Potash Area (R 111-P) \_\_\_\_\_ Potash Lessee \_\_\_\_\_ Notified? \_\_\_\_\_

Fresh Water: Depths: 34-200' Wells None 2 ST. Vrain 1/2 Analysis? Yes Affirmative Statement ☒

Disposal Fluid Sources: Monon/ATOKA/CISCO/WC/Delaware Analysis? \_\_\_\_\_

Disposal Interval Production Potential/Testing/Analysis Analysis: non production in recent Test

Notice: Newspaper(Y/N) ☒ Surface Owner BLM Mineral Owner(s) \_\_\_\_\_

RULE 26.7(A) Affected Parties: Sanson and others ! !

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

Active Wells 0 Num Repairs \_\_\_\_\_ Producing in Injection Interval in AOR \_\_\_\_\_

..P3A Wells 0 Num Repairs \_\_\_\_\_ All Wellbore Diagrams Included? ☒

Questions to be Answered:

NOTICE ? Rule 5.9 !

Required Work on This Well: \_\_\_\_\_ Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_

AOR Repairs Needed: \_\_\_\_\_ Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_

\_\_\_\_\_ Request Sent \_\_\_\_\_ Reply: \_\_\_\_\_