

DATE IN 11/16/06	SUSPENSE 12/2/06	ENGINEER Will Jones	LOGGED IN 11/17/06	TYPE SWD	APP NO. PTD.SOL.32147693
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ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



### ADMINISTRATIVE APPLICATION CHECKLIST

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

#### Application Acronyms:

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

#### [1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

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

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

#### [2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

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

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

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

Print or Type Name

Signature

Title

Date

e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT**

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

II. OPERATOR: COG Operating LLC

2006 NOV 16 PM 1 03

ADDRESS: 550 W. Texas, Suite 1300 Midland, TX 79701

CONTACT PARTY: Jerry W. Sherrell

PHONE: (505)748-1288

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.).

\*V111. 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 freshwater from two or more freshwater 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: Jerry W. Sherrell

TITLE: Production Clerk

SIGNATURE: Jerry W. Sherrell

DATE: 11/14/06

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

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

OPERATOR: **COG Operating LLC**

WELL NAME & NUMBER: **Blue Streak Federal #1**

WELL LOCATION: **1980 FSL & 660 FEL**

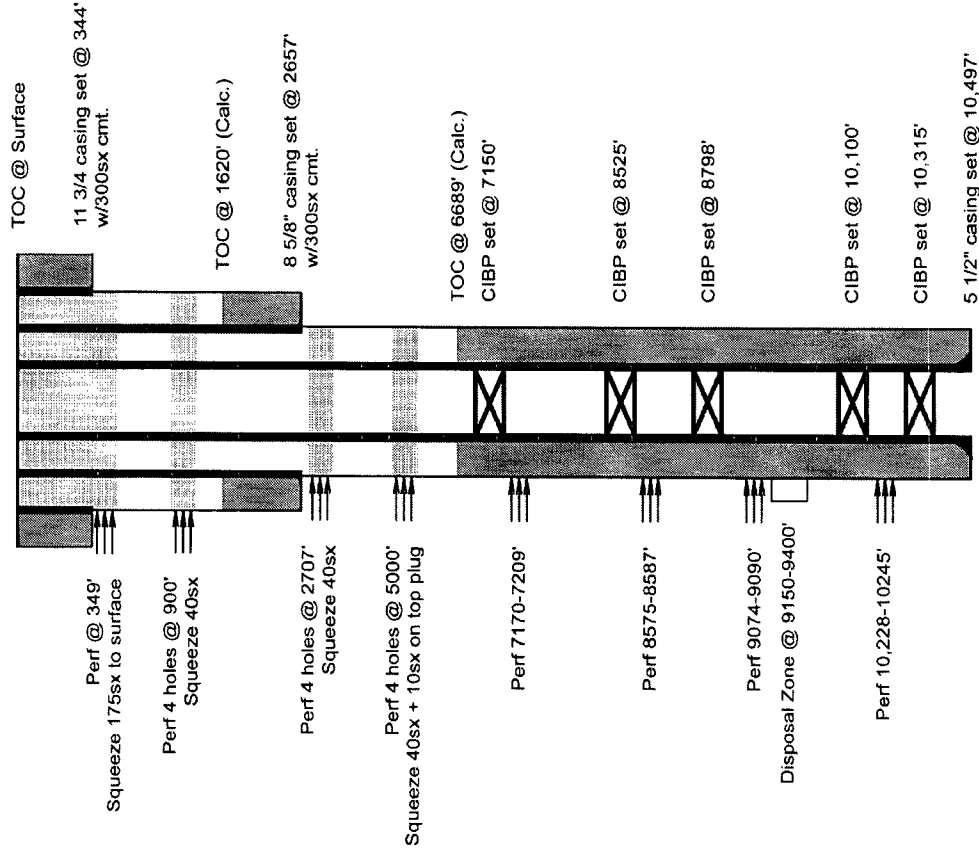
**I** **29** **17S** **29E**

UNIT LETTER SECTION TOWNSHIP RANGE

**WELL CONSTRUCTION DATA**  
Surface Casing

**WELLBORE SCHEMATIC**

Blue Streak Federal #1  
1980 FSL & 660 FEL  
Sec. 29-T17S-R29E



Hole Size: **17 1/2** Casing Size: **11 3/4**

Cemented with: **300sx** sx. or **ft**

Top of Cement: **Surface** Method Determined: **Circulated**

Intermediate Casing

Hole Size: **11** Casing Size: **8 5/8**

Cemented with: **300sx** sx. or **ft**

Top of Cement: **1620** Method Determined: **Calculated**

Production Casing

Hole Size: **7 7/8** Casing Size: **5 1/2**

Cemented with: **750sx** sx. or **ft**

Top of Cement: **6689** Method Determined: **Calculated**

Total Depth: **9150**

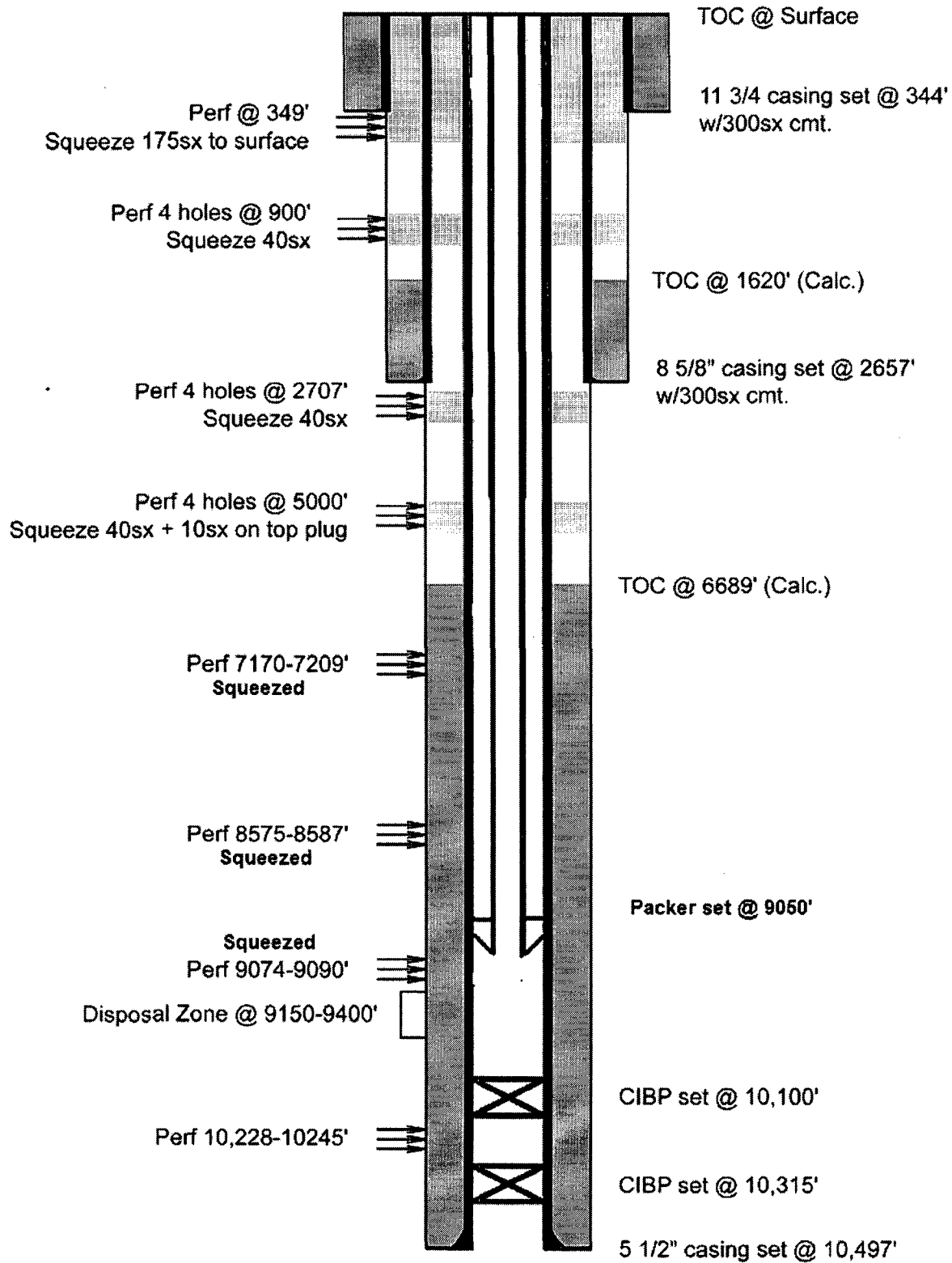
Injection Interval

**9150** feet to **9400**

(Perforated or Open Hole; indicate which)

# Blue Streak Federal #1

1980 FSL & 660 FEL  
Sec. 29-T17S-R29E



Drill out 4 squeeze jobs, drill out 3 CIBPs & squeeze 3 sets of perfs, then perforate & acidize Disposal Zone.

**INJECTION WELL DATA SHEET**

Tubing Size: 2 7/8" Lining Material: Plastic Coated

Type of Packer: Haliburton Trump Packer

Packer Setting Depth: 9050'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

**Additional Data**

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

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

2. Name of the Injection Formation: Cisco
3. Name of Field or Pool (if applicable): Empire
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 Schematic
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Underlying-Atoka, Overlying-Wolfcamp

## VII. DATA SHEET: PROPOSED OPERATIONS

1. Proposed average and maximum daily rate and volume of fluids to be injected;  
**Respectively, 2000 BWPD and 3000 BWPD**
2. The system is closed or open;  
**Closed**
3. Proposed average and maximum injection pressure;  
**100-300#**
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than re-injected produced water;  
**We will be re-injecting produced water**
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;  
**N/A**

## VIII. GEOLOGICAL DATA

1. Lithologic Detail; **Carbonate**
2. Geological Name; **Cisco**
3. Thickness; **250'**
4. Depth; **9150-9400'**

## IX. PROPOSED STIMULATION PROGRAM

1. To be treated with 1000 gallons 15% acid

## X. LOGS AND TEST DATA

1. Well data has been filed with the OCD

## XI. ANALYSIS OF FRESHWATER WELLS

1. N/A

Additional Information

Waters injected: Grayburg, San Andres, Paddock

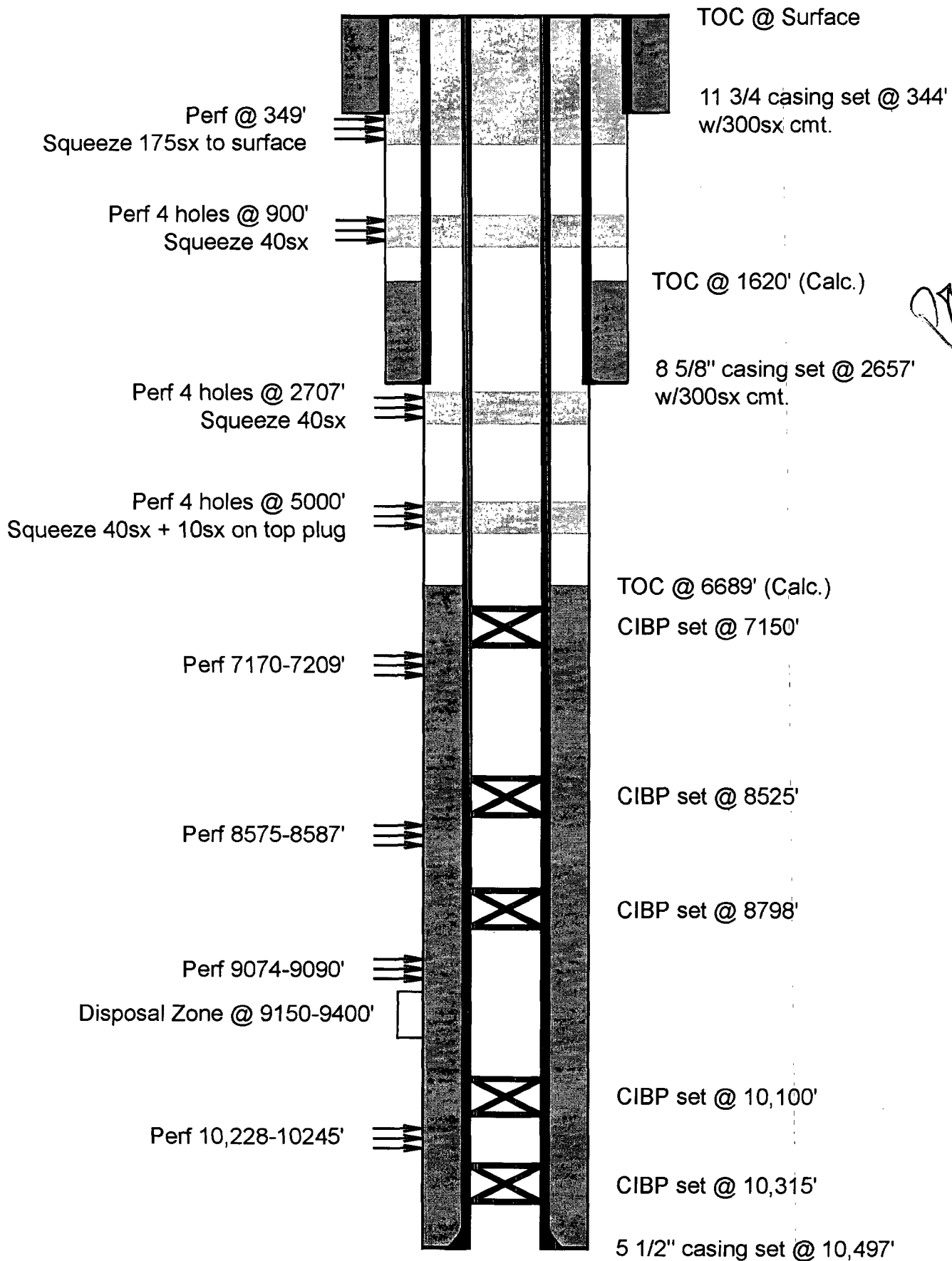
*water kind*



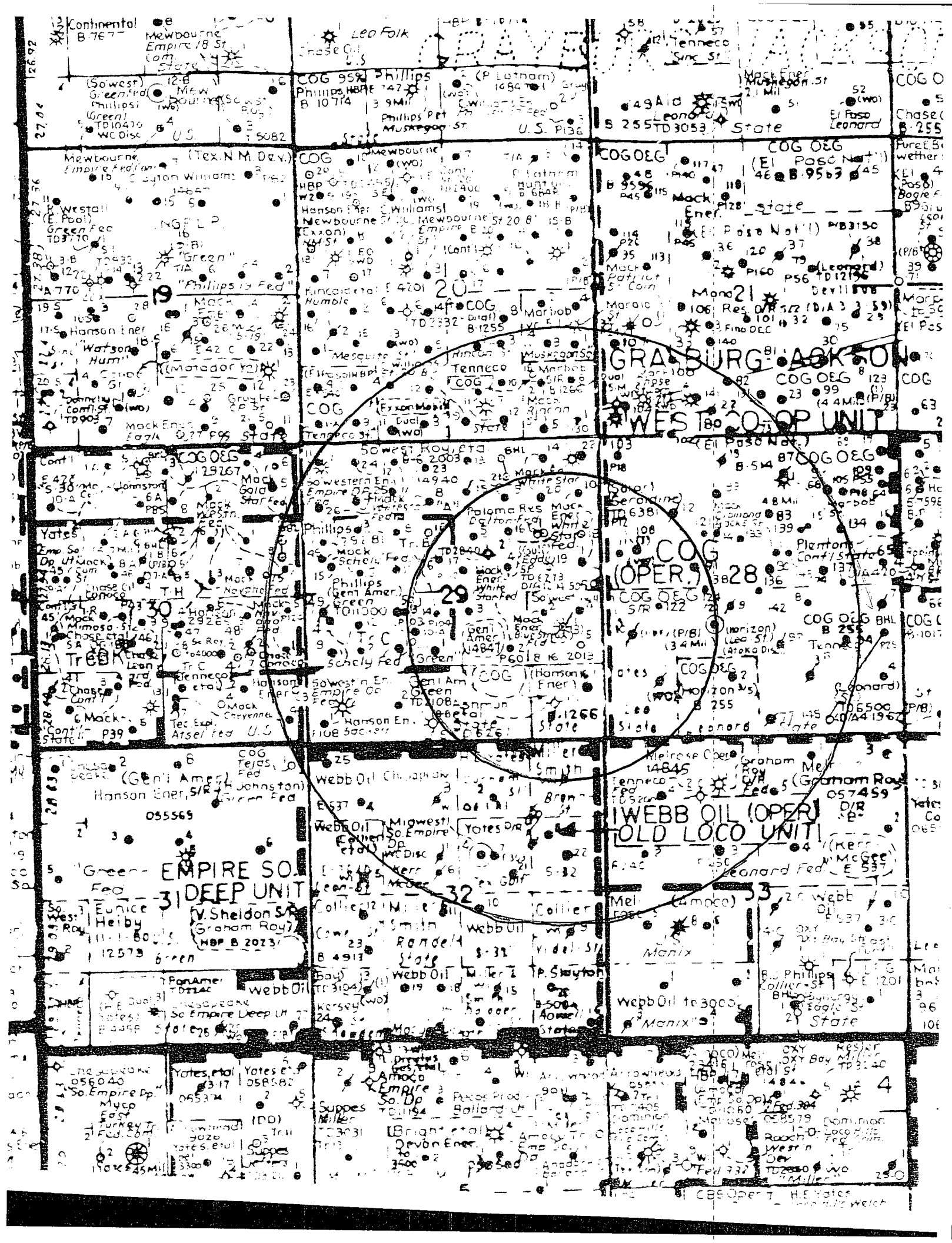
# Blue Streak Federal #1

1980 FSL & 660 FEL

Sec. 29-T17S-R29E



Drill out 4 squeeze jobs, drill out 3 CIBPs & squeeze 3 sets of perfs, then perforate & acidize Disposal Zone.





# AREA OF REVIEW WELL DATA

LEASE/API	WELL#	LOCATION	TD (PBSD)	TYPE & DATE DRILLED	HOLE SIZE	CASING SIZE & WEIGHT	SETTING DEPTH	SX CMT	TOC	PERFS
Blue Streak Federal 30-015-21308	1	1980' FSL 660' FEL 29-17S-29E	10,927' (0')	Gas 8/11/1974	17 1/2 11 7 7/8	11 3/4, 42# 8 5/8, 24 & 32# 5 1/2, 15.5 & 17#	344' 2657' 10,497'	300 300 750	circ 1620' 6689'	Plugged
State 28 Com 30-015-20351	2	1980' FSL 1980' FWL 28-17S-29E	10,890' 0'	Gas 4/27/1973	15 11 7 7/8	11 3/4, 42# 8 5/8, 32# 5 1/2, 20#	350' 3500' 10,870'	350 400 300	circ 1180' 9280'	Plugged Pulled 6600' 5 1/2 Pulled 1180' 8 5/8
GJ West Coop Unit 30-015-20351	124	1980' FSL 1980' FWL 28-17S-29E	6020' 5524' 11,000	Oil(Re-entry) 2/23/1994	15 11 7 7/8	11 3/4, 42# 8 5/8, 32# 5 1/2, 17#	350' 1180-3500' 5524'	350 400 1100	circ 1180' 650'	4098-5218'
Green A 30-015-21748	10	1980' FSL 1980' FWL 29-17S-29E	9800'	Gas 3/10/1976	15 11 7 7/8	11 3/4, 42# 8 5/8, 32# 5 1/2, 17#	333' 2674' 9800'	300 300 1630	0' 1600' 2000'	9220-9600'

NOTE: AOR

1/2

# Green A Federal #10

1980 FSL & 1980 FWL

Sec. 29-T17S-R29E

5 1/2" TOC @ Surface (Calc.)

11 3/4" TOC @ Surface

11 3/4" casing set @ 333'  
w/300sx cmt.

8 5/8" TOC @ 1600'

Perf 2306-2309'

Perf 2342-2348'

Perf 2442-2446'

Perf 2453-2460'

(Perfs @ 2306-2460'  
squeezed with 180sx cmt.)

8 5/8" casing set @ 2674'  
w/300sx cmt.

*Operator?*

*1/2 mile  
away*

*OUT OF  
HOL*

*SQUEEZED?*

Perf 9220-9600'

5 1/2" casing set @ 9800'  
w/1630sx cmt.

TOC @ 9917'  
132' cmt. plug set @ 10,049'

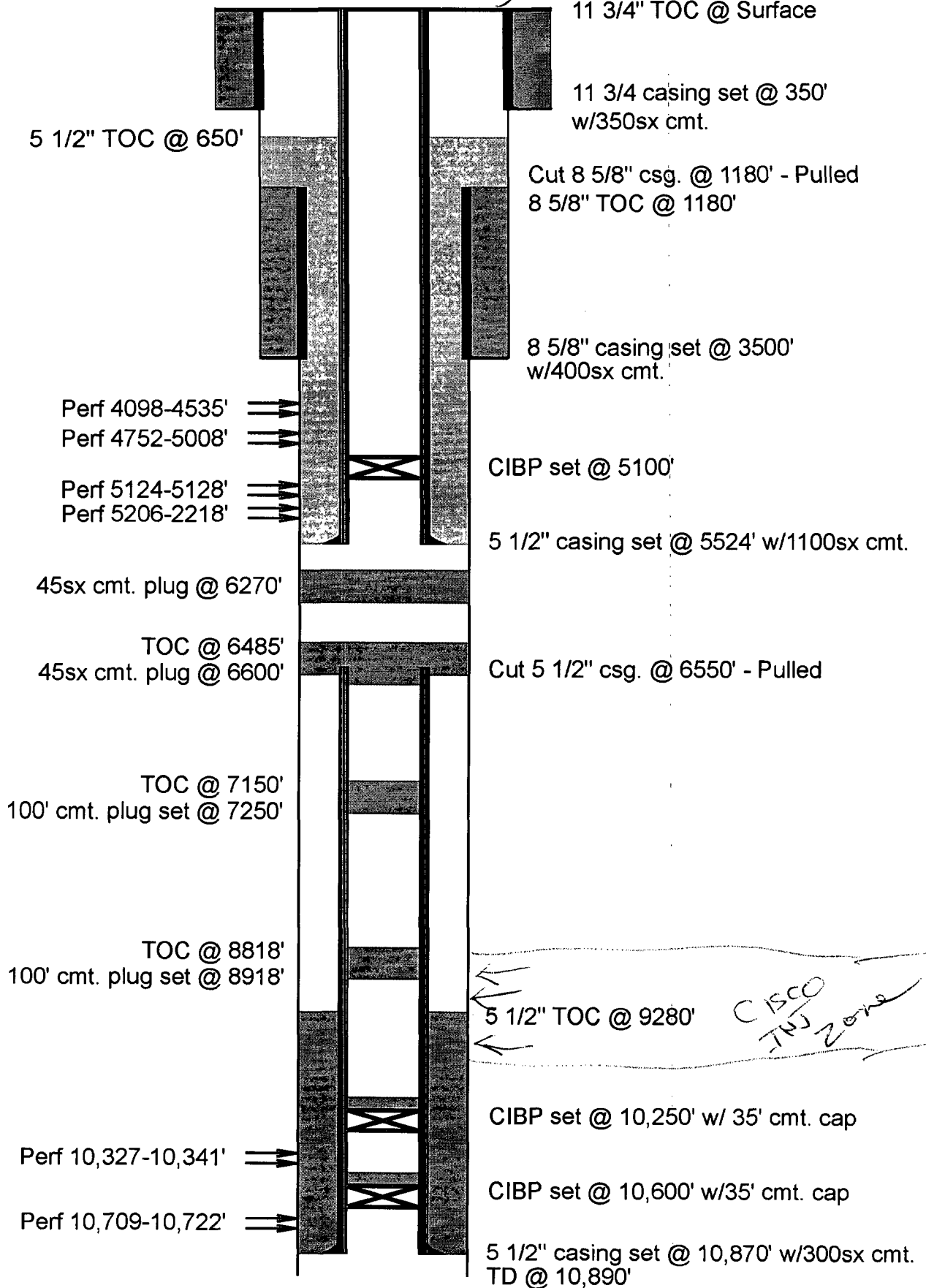
TD @ 11,000'

# GJ West Coop Unit #124 / State 28 com #2

1980 FSL & 1980 FWL

Sec. 28-T17S-R29E

30-015-20351



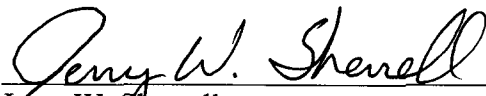
## **XII. AFFIRMATIVE STATEMENT**

RE: Blue Streak Federal #1

We have examined the available geologic and engineering data and find no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

Mack Energy Corporation

Date: 11-14-2006

  
Jerry W. Sherrell

## **Blue Streak Federal #1 Notification List**

**Bogel Farms**

P.O. Box 441  
Artesia, NM 88210

**ConocoPhillips**

P.O. Box 2197  
Houston, TX 77252

**Heyco**

P.O. Box 1933  
Roswell, NM 88202

**Marathon Oil Company**

P.O. Box 33128  
Houston, TX 77253-3128

**Oxy USA Inc.**

P.O. Box 50250  
Midland, TX 79710  
*Attn: Oxy USA Inc., Richard K. Barr, Scott E. Wilson*

**RKC Inc.**

1527 Hillside Rd.  
Fairfield, CT 06490

**William J. Graham**

3612 Pennsylvania LN  
Plano, TX 75075

**Bureau of Land Management**

620 E. Greene Street  
Carlsbad, NM 88220-6292

**Mack Energy  
Corporation**

# Fax

**To:** Artesia Daily Press-Barbara

**From:** Jerry W. Sherrell

**Fax:** 505-746-8795

**Pages:** 2

**Phone:** 505-746-3524

**Date:** 11/14/2006

**Re:** Legal Notice Publication

**CC:**

Blue Streak Federal #1 SWD

☐ **Urgent**

☒ **For Review**

☐ **Please Comment**

☐ **Please Reply**

☐ **Please Recycle**

● **Comments:** Barbara, would you please bill Mack Energy Corporation for this publication. If you have any questions give me a call at 505-748-1288.

Thanks

Jerry W. Sherrell

Legal Notice

COG Operating LLC, 550 W. Texas Suite 1300, Midland, TX 79701, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced salt water in the Blue Streak Federal #1 Section 29, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico. The water will be injected into the Cisco formation at a disposal depth of 9150 feet to 9400 feet. Water will be injected at a maximum surface pressure of 300 pounds and a maximum injection rate of 3000 BWPD. Any interested party with questions or comments may contact Jerry W. Sherrell at Mack Energy Corporation, Post Office Box 960, Artesia, New Mexico 88211-0960 or call (505) 748-1288. 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. Published in the Artesia Daily Press, Artesia, New Mexico.

TRANSACTION REPORT

P. 01

NOV-14-2006 TUE 01:15 PM

FOR: mack energy

15057469539

SEND

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
NOV-14	01:14 PM	97468795	18"	2	FAX TX	OK	475	

TOTAL : 18S PAGES: 2

P.O. Box 960 Artesia NM 88211-0960 (505)748-1288 Fax (505)746-9539

**Mack Energy  
Corporation**

# Fax

**To:** Artesia Daily Press-Barbara

**From:** Jerry W. Sherrell

**Fax:** 505-746-8795

**Pages:** 2

**Phone:** 505-746-3524

**Date:** 11/14/2006

**Re:** Legal Notice Publication

**CC:**

Blue Streak Federal #1 SWD

☐ Urgent    ☒ For Review    ☐ Please Comment    ☐ Please Reply    ☐ Please Recycle

• **Comments:** Barbara, would you please bill Mack Energy Corporation for this publication. If you have any questions give me a call at 505-748-1288.

Thanks





Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8540**  
**RETURN RECEIPT REQUESTED**

Bogel Farms  
P.O. Box 441  
Artesia, NM 88210

*Gentlemen:*

*Enclosed for your review is a copy of Mack Energy Corporations contract operator for COG Operating LLC application for approval to convert the Blue Streak Federal #1, Sec. 29 T17S R29E well into produced water disposal well*

*This letter will serve as a notice that COG Operating LLC has requested administrative approval from the NMOCD to convert this well into a water disposal well. If you have any objections, you must notify the Oil Conservation Division in Santa Fe in writing within fifteen (15) days of receiving this letter.*

*Sincerely,*

*Mack Energy Corporation*

*Jerry W. Sherrell  
Production Clerk*

*JWS\*

*Enclosures*



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

---

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8533**  
**RETURN RECEIPT REQUESTED**

ConocoPhillips  
P.O. Box 2197  
Houston, TX 77252

Gentlemen:

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Sincerely,

Mack Energy Corporation

Jerry W. Sherrell  
Production Clerk

JWS\

Enclosures



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8526**  
**RETURN RECEIPT REQUESTED**

Heyco  
P.O. Box 1933  
Roswell, NM 88202

Gentlemen:

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Sincerely,

Mack Energy Corporation

A handwritten signature in black ink that reads "Jerry W. Sherrell". The signature is written in a cursive style with a large, prominent "J" and "S".

Jerry W. Sherrell  
Production Clerk

JWS\

Enclosures



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8496**  
**RETURN RECEIPT REQUESTED**

Marathon Oil Company  
P.O. Box 33128  
Houston, TX 77253-3128

Gentlemen:

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Sincerely,

Mack Energy Corporation

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Jerry W. Sherrell  
Production Clerk

JWS\

Enclosures



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

---

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8519**  
**RETURN RECEIPT REQUESTED**

Oxy USA Inc.  
P.O. Box 50250  
Midland, TX 79710  
Attn: Oxy USA Inc., Richard K. Barr, Scott E. Wilson

Gentlemen:

*Enclosed for your review is a copy of Mack Energy Corporations contract operator for COG Operating LLC application for approval to convert the Blue Streak Federal #1, Sec. 29 T17S R29E well into produced water disposal well*

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*Sincerely,*

*Mack Energy Corporation*

*Jerry W. Sherrell*  
*Production Clerk*

*JWS\*

*Enclosures*



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8489**  
**RETURN RECEIPT REQUESTED**

RKC Inc.  
1527 Hillside Rd.  
Fairfield, CT 06490

Gentlemen:

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*Sincerely,*

*Mack Energy Corporation*

*Jerry W. Sherrell  
Production Clerk*

*JWS\*

*Enclosures*



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8502**  
**RETURN RECEIPT REQUESTED**

William J. Graham  
3612 Pennsylvania LN  
Plano, TX 75075

Gentlemen:

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*Sincerely,*

Mack Energy Corporation

*Jerry W. Sherrell*  
Production Clerk

JWS\

Enclosures



Post Office Box 960  
Artesia, NM 88211-0960  
Office (505) 748-1288  
Fax (505) 746-9539

---

November 14, 2006

**VIA CERTIFIED MAIL 7006 0100 0002 8524 8472**  
**RETURN RECEIPT REQUESTED**

Bureau of Land Management  
620 E. Greene Street  
Carlsbad, NM 88220-6292

Gentlemen:

*Enclosed for your review is a copy of Mack Energy Corporations contract operator for COG Operating LLC application for approval to convert the Blue Streak Federal #1, Sec. 29 T17S R29E well into produced water disposal well*

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*Sincerely,*

*Mack Energy Corporation*

*Jerry W. Sherrell  
Production Clerk*

*JWS\*

*Enclosures*



100000 COPY  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM-14840

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Green "A"

9. WELL NO.

#3

10. FIELD AND POOL, OR WILDCAT

Grayburg-Atoka

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

Sec. 29, T-17S, R-29E

12. COUNTY OR PARISH

Eddy

13. STATE

New Mexico

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED

1. OIL WELL ☐ GAS WELL ☒ OTHER ☐

2. NAME OF OPERATOR **FEB 19 1979**  
General American Oil Company of Texas

3. ADDRESS OF OPERATOR **O. C. C.**  
P. O. Box 128 Loco Hills, New Mexico 88556 **ARTESIA, OFFICE**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface  
1980' FSL and 660' FEL  
Section 29, T-17S, R-29E  
Eddy County, New Mexico

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
3595' KB

## 10. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☐(Other) ☐PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON\* ☐CHANGE PLANS ☐

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☒(Other) **Plug Back & Test** ☒REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

A cast iron bridge plug was set @ 10,315' and 30' of cement was placed on bridge plug to permanently abandon Atoka perforations from 10,350'-10,389'.

The Upper Atoka Zone was perforated from 10,228' to 10,245' (one shot per foot) acidized this zone with 1,000 gallons of acid. Swabbed well. Tested Zone. Gas show to small to measure. A cast iron bridge plug was set @ 10,100' and 30' of cement was placed on bridge plug to permanently abandon this Upper Atoka Zone.

10% acetic acid was spotted across the Cisco Zone. The Cisco Zone was perforated from 9074' to 9090' (2 shots per foot) well was swabbed. Well would not flow. Installed pumping unit and placed well on test.

RECEIVED

FEB 16 1979

U.S. GEOLOGICAL SURVEY  
ARTESIA, NEW MEXICO

18. I hereby certify that the foregoing is true and correct

SIGNED

Lendell N. Hawkins  
Lendell N. Hawkins

TITLE Assistant Field Superintendent DATE February 16, 1979

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACTING DISTRICT ENGINEER

DATE

FEB 16 1979

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Drawer DD  
Artesia, NM 88210

5. LEA

NM-14840

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

RECEIVED

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Green "A" Conv.

9. WELL NO.

#3

O. C. D.

ARTESIA, OFFICE

10. FIELD OR WILDCAT NAME

Grayburg-Atoka

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

Sec. 29, T-17S, R-29E

12. COUNTY OR PARISH

Eddy

13. STATE

New Mexico

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)

3595' KB

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well ☐ gas well ☒ other

DEC 16 1982

2. NAME OF OPERATOR

General American Oil Company of Texas

3. ADDRESS OF OPERATOR

P. O. Box 128 Loco Hills, N.M. 88255

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)

AT SURFACE:

AT TOP PROD. INTERVAL:

AT TOTAL DEPTH: 1980' FSL and 660' FEL

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETE ☐

CHANGE ZONES ☒

ABANDON\* ☐

(other) ☐

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

MINERALS DIVISION  
ROSWELL, NEW MEXICO

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well was drilled and originally produced from the Atoka Perfs 10,350'-10,389' from October, 1972 to October, 1978.

A cast iron bridge plug was set @ 10,315' on October 2, 1978 with 35' of cement on top. The Upper Atoka was perforated from 10,228'-10,245' and was tested and found to be non-productive.

On October 9, 1978 a cast iron bridge plug was set at 10,100' with 35' of cement on top. The Cisco zone was perforated from 9074'-9090' and was tested and found non-productive.

On March 19, 1979 a cast iron bridge plug was set at 8798' with 35' of cement on top. The Wolfcamp was perforated from 8575'-8587' and was tested and found non-productive.

Prior to the plugging and abandoning of this well we request to:

1. Dig small workover pit.

(CONTINUED ON BACK)

Subsurface Safety Valve: Manu. and Type

Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Pendell N. Humphins TITLE Superintendent

DATE December 2, 1982

APPROVED BY Peter M. Chester  
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

APPROVED

(This space for Federal or State office use)

DEC 14 1982

FOR

JAMES A. GILLHAM  
DISTRICT SUPERVISOR

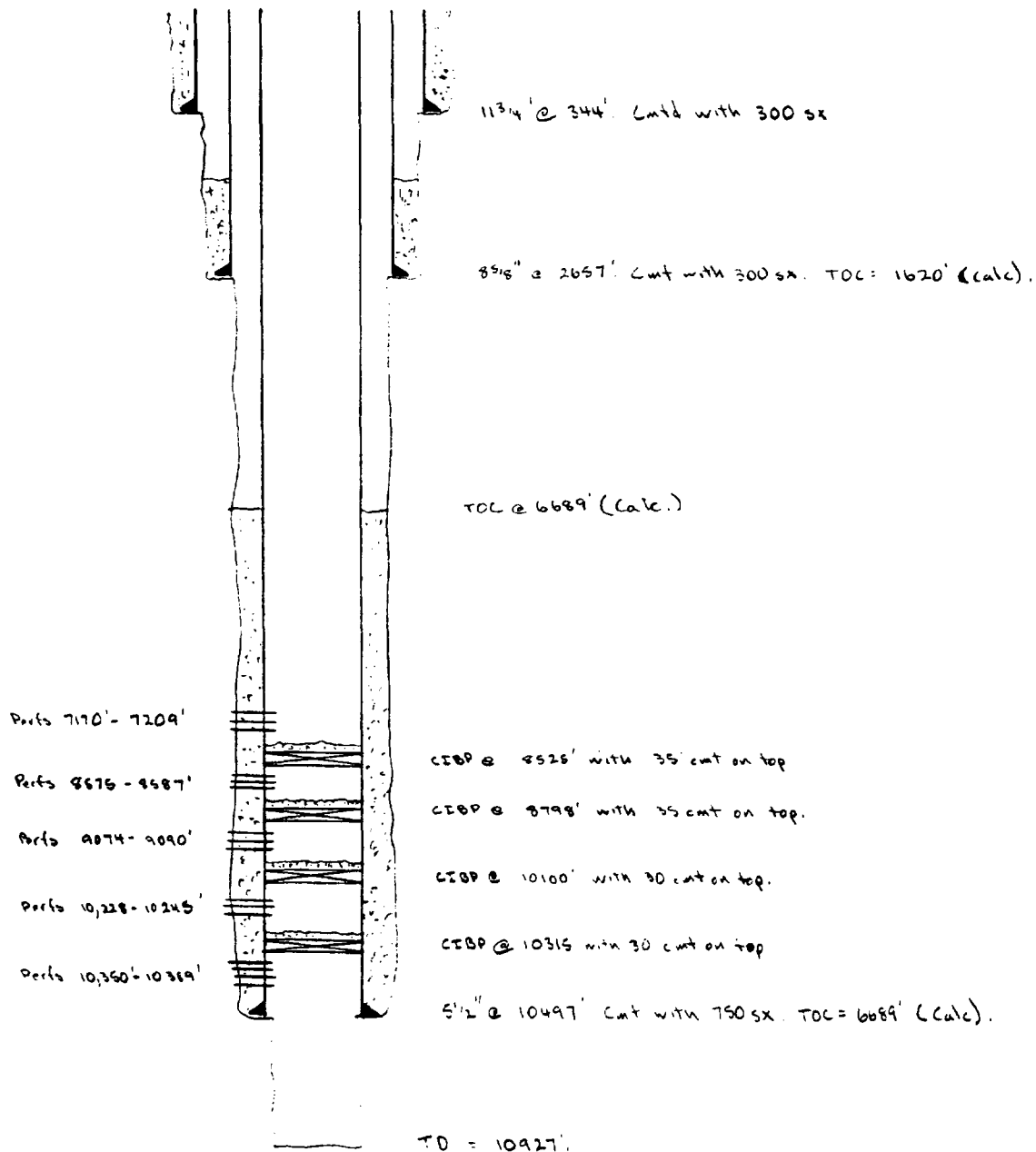
\*See Instructions on Reverse Side

# SOUTHWEST ROYALTIES

PROJECT Green A Fed #3  
Present Status

PAGE \_\_\_\_\_ OF \_\_\_\_\_  
 BY ROY DATE 6-1-93

Drilled & completed in 1974



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

113  
Artesia, NM

vision FORM APPROVED  
Budget Bureau No 1004-0135  
Expires: March 31, 1993

5. Designation and Serial No  
NM-14840

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.  
Blue Streak Federal #1

9. API Well No.  
30-015-21308

10. Field and Pool, or Exploratory Area  
Eddy Undes Abo (Gas)

11. County or Parish, State

Eddy, NM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Mack Energy Corporation

3. Address and Telephone No

P.O. Box 960, Artesia, NM 88211-0960

(505)748-1288

4. Location of Well (Footage, Sec., T. R., M. or Survey Description)

Sec. 29-T17S-R29E 1980 FSL & 660 FEL

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

TYPE OF SUBMISSION

☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

☐ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☒ Other Change of Operator, Change Name  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)\*

As required by 43 CFR 3100.0-5(a) and 43 CFR 3162.3 we are notifying you of a change of operator on the above referenced lease.

Mack Energy Corporation, as new operator, accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the lease or portion of lease described.

Mack Energy Corporation meets federal bonding requirements as follows (43 CFR 3104):

Bond Coverage: Individually Bonded

BLM Bond File No.: 58 59 88

The effective date of this change: May 1, 1998

Also the name was changed from the Green A #3 to the Blue Streak Federal #1.

APPROVED  
JUN 3 1998  
AUTHORIZED OFFICER, MINERALS  
BUREAU OF LAND MANAGEMENT

14. I hereby certify that the foregoing is true and correct

Signed

Cesar D. Carter

Title

Production Clerk

Date

6/19/98

(This space for Federal or State office use)

Approved by

Conditions of approval, if any:

Title

Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

C. Cons.  
N.M. Div. Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210  
FORM APPROVED  
Bureau No. 1004-0135  
Date: March 31, 1993  
Designation and Serial No.  
NM-14840

CISF

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals

**SUBMIT IN TRIPLICATE**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other	6. If Indian, Allottee or Tribe Name
2. Name of Operator Mack Energy Corporation	7. If Unit or CA, Agreement Designation
3. Address and Telephone No. P.O. Box 960, Artesia, NM 88211-0960 (505) 748-1288	8. Well Name and No. Blue Streak Federal #1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1980' FSL & 660' FEL, Sec. 29, T-17-S, R-29-E	9. API Well No. 30-015-21308
	10. Field and Pool, or Exploratory Area Eddy Undes Abo (Gas)
	11. County or Parish, State Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input checked="" type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

5-04-02 Rig up unit, RIH w/ tbg. & tag plug @ 6948'. Mud up hole. Test csg. @ 500 PSI.  
Held okay.  
5-06-02 Well had pressure, leave it flowing over night.  
5-07-02 Perf @ 5000', RIH w/ tbg. and pkr, pkr was set down @ 2679'.  
5-08-02 Clean up hole, RIH w/ tbg. and pkr. sqz 40 sx cmt. WOC.  
5-09-02 Tag cmt. plug @ 4918', add 10 sx cmt.  
5-10-02 Perf @ 2707', sqz 40 sx cmt. w/ 2% CaCl. WOC 4 hrs. & tag plug @ 2537'.  
Perf 4 holes @ 900', sqz 40 sx cmt. WOC over the weekend.  
5-13-02 Tag cmt. plug @ 752', perf @ 394', sqz 175 sx to surface.  
RDMO. Cut off wellhead and install dry hole marker.

Post Post

ACCEPTED FOR RECORD  
MAY 1 1993  
BUREAU OF LAND MANAGEMENT  
U.S. DEPARTMENT OF THE INTERIOR

14. I hereby certify that the foregoing is true and correct

Signed

Agent

Date

05/16/02

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

## Inactive Well List

**Total Well Count:952 Inactive Well Count:3 Since:8/27/2005**

**Printed On: Monday, November 20 2006**

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	Days in TA
1	30-025-27073	JALMAT YATES UNIT #010	4-7 -25S-37E	M	229137	COG OPERATING LLC	P	I	05/2001		T	1855
1	30-025-26870	JALMAT YATES UNIT #026	2-18-25S-37E	E	229137	COG OPERATING LLC	P	I	09/1995		T	2110
1	30-025-34973	MC FEDERAL #005	N-21-17S-32E	N	229137	COG OPERATING LLC	F	O	07/2003	PADDOCK	T	1850

WHERE Ogrid:229137, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15

**Jerry Sherrell**

**From:** Jones, William V., EMNRD [William.V.Jones@state.nm.us]  
**Sent:** Monday, November 20, 2006 8:04 PM  
**To:** Jerry Sherrell  
**Cc:** Ezeanyim, Richard, EMNRD; Arrant, Bryan, EMNRD  
**Subject:** SWD application: Blue Streak Federal #1

RECEIVED

NOV 27 2006

Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

Hello Jerry:

After reviewing your application on behalf of COG, I have the following requests and questions:

- 1) Please send a list of all geologic formation tops as picked by your geologists in this area - from surface to the Morrow. ✓
- 2) Send water analysis of all types of waters to be disposed: Gbg, SA, Paddock, etc. ✓
- 2A) Send a water analysis of the Cisco in this area. ✓
- 3) Is there a windmill or other fresh water well within 1 mile of this location? If so, send a water analysis. ✓
- 4) Who is the surface owner, Bogel Farms, or the BLM? ✓
- 5) Send a copy of the actual newspaper ad as it ran in the paper. ✓
- 6) Send a post conversion wellbore diagram of the intended injection well. ✓
- 7) When does Mack intend to transfer this well to COG Operating, LLC? ✓

Thank You,

William V. Jones

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.

11/21/2006

Blue Streak Federal #1  
Log Tops

Yates: 802'  
Seven Rivers: 1096'  
Queen: 1727'  
Grayburg: 2125'  
San Andres: 2450'  
Glorieta: 3926'  
Tubb: 5645'  
Abo Shale: 6171'  
Wolfcamp: 7309'  
Cisco: 8600'  
Strawn: 9798'  
Atoka: 10,216'  
Morrow: 10,660'



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:	MACK ENERGY INCORPORATED	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (505) 910-9389
Area:	ARTESIA, NM	Sample #:	329118
Lease/Platform:	MESQUITE STATE LEASE	Analysis ID #:	53282
Entity (or well #):	13	Analysis Cost:	\$40.00
Formation:	UNKNOWN <b>GB/SA</b>		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 329118 @ 75 °F					
Sampling Date:	7/19/05	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	8/2/05	Chloride:	109053.0	3075.99	Sodium:	68091.5	2961.81
Analyst:	STACEY SMITH	Bicarbonate:	414.8	6.8	Magnesium:	743.0	61.12
TDS (mg/l or g/m3):	186010.4	Carbonate:	0.0	0.	Calcium:	2653.0	132.39
Density (g/cm3, tonne/m3):	1.129	Sulfate:	4349.0	90.55	Strontium:	60.0	1.37
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.1	0.
		Borate:			Iron:	12.0	0.43
		Silicate:			Potassium:	634.0	16.21
Carbon Dioxide:	50 PPM	Hydrogen Sulfide:		7 PPM	Aluminum:		
Oxygen:	0 PPM	pH at time of sampling:		7	Chromium:		
Comments:		pH at time of analysis:			Copper:		
RESISTIVITY - 0.048 OHM-M @ 75°F		pH used in Calculation:		7	Lead:		
					Manganese:		
					Nickel:		

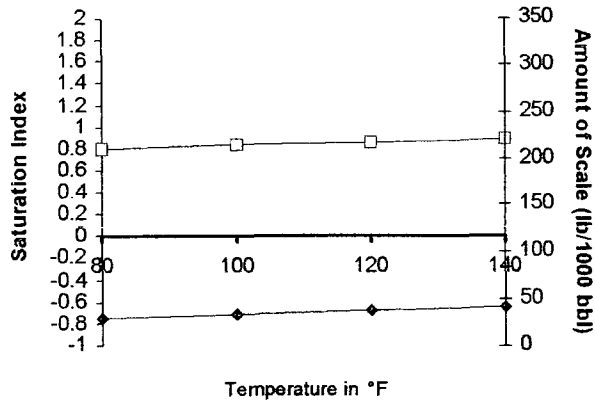
Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> *2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.80	29.28	0.01	49.18	0.03	92.22	0.04	3.22	0.38	0.00	0.31
100	0	0.83	33.37	-0.06	0.00	0.02	61.77	0.01	0.59	0.17	0.00	0.43
120	0	0.85	37.47	-0.13	0.00	0.04	97.49	-0.01	0.00	-0.01	0.00	0.58
140	0	0.88	42.16	-0.19	0.00	0.07	187.66	-0.02	0.00	-0.17	0.00	0.76

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 CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

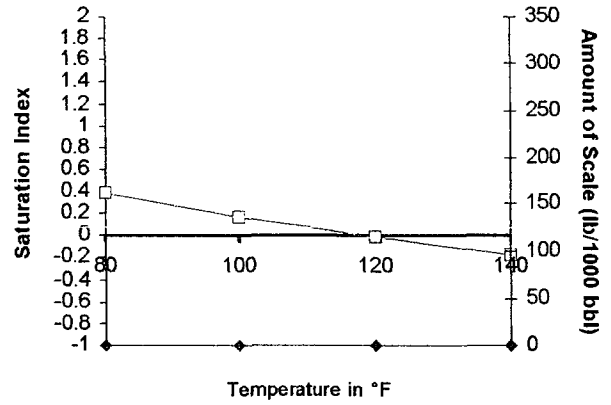
# Scale Predictions from Baker Petrolite

Analysis of Sample 329118 @ 75 °F for MACK ENERGY INCORPORATED, 8/2/05

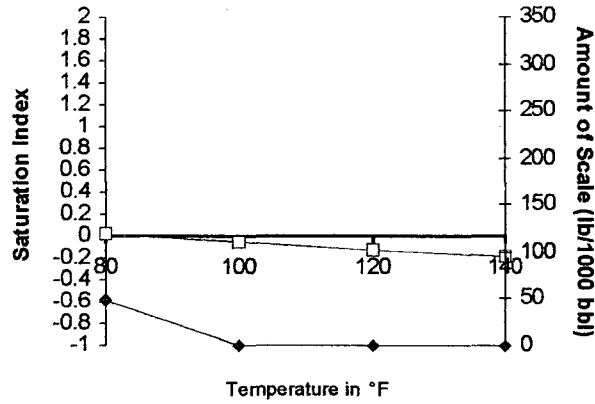
**Calcite -  $\text{CaCO}_3$**



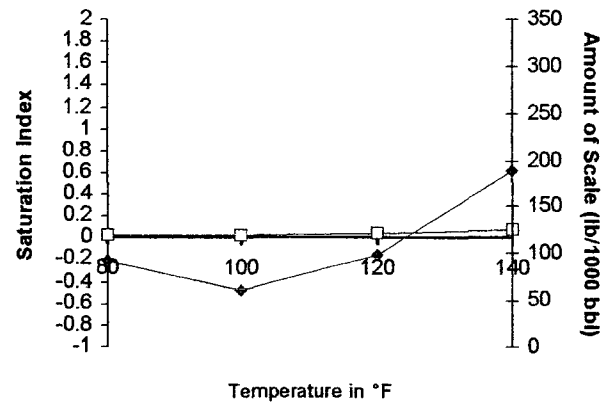
**Barite -  $\text{BaSO}_4$**



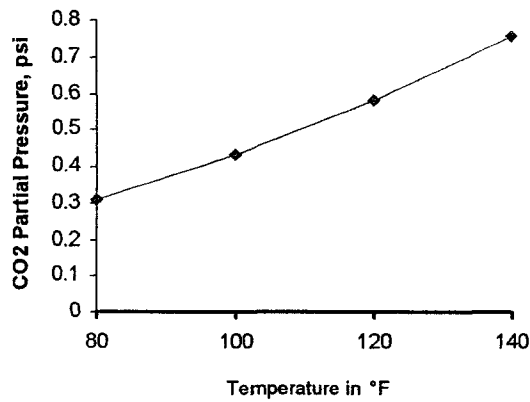
**Gypsum -  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$**



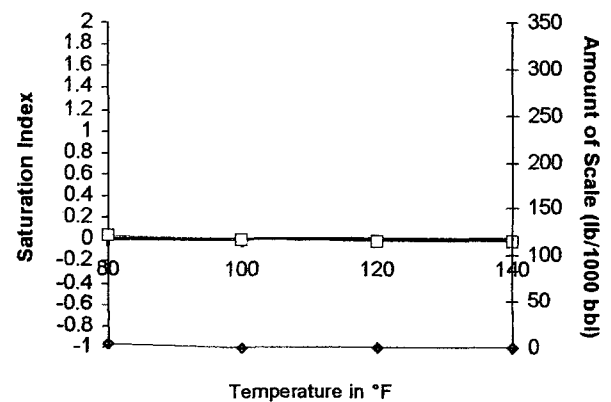
**Anhydrite -  $\text{CaSO}_4$**



**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  
(915) 495-7240

## Water Analysis Report by Baker Petrolite

Company:	MACK ENERGY INCORPORATED	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (505) 910-9389
Area:	ARTESIA, NM	Sample #:	211640
Lease/Platform:	SCHLEY FEDERAL LEASE	Analysis ID #:	32028
Entity (or well #):	15	Analysis Cost:	\$40.00
Formation:	UNKNOWN <i>Empire Yeso, East - Paddock</i>		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 211640 @ 75 °F					
Sampling Date:	2/19/03	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	3/3/03	Chloride:	110711.0	3122.75	Sodium:	66728.6	2902.53
Analyst:	JAMES AHRLETT	Bicarbonate:	477.0	7.82	Magnesium:	1616.0	132.94
TDS (mg/l or g/m3):	186471.6	Carbonate:	0.0	0.	Calcium:	3089.0	154.14
Density (g/cm3, tonne/m3):	1.133	Sulfate:	3393.0	70.64	Strontium:	43.0	0.98
Anion/Cation Ratio:	1	Phosphate:			Barium:	3.0	0.04
		Borate:			Iron:	7.0	0.25
		Silicate:			Potassium:	404.0	10.33
Carbon Dioxide:	180 PPM	Hydrogen Sulfide:		21 PPM	Aluminum:		
Oxygen:	0 PPM	pH at time of sampling:		6.9	Chromium:		
Comments:		pH at time of analysis:			Copper:		
		pH used in Calculation:		6.9	Lead:		
					Manganese:		
					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	0.82	37.77	-0.03	0.00	-0.01	0.00	-0.22	0.00	1.74	1.46	0.44
100	0	0.87	42.46	-0.11	0.00	-0.02	0.00	-0.25	0.00	1.54	1.46	0.59
120	0	0.91	47.73	-0.17	0.00	-0.01	0.00	-0.26	0.00	1.36	1.46	0.77
140	0	0.95	53.29	-0.23	0.00	0.03	71.16	-0.27	0.00	1.20	1.46	0.99

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

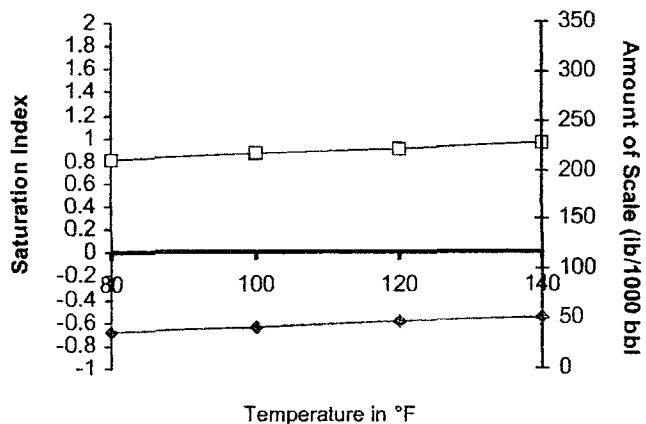
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

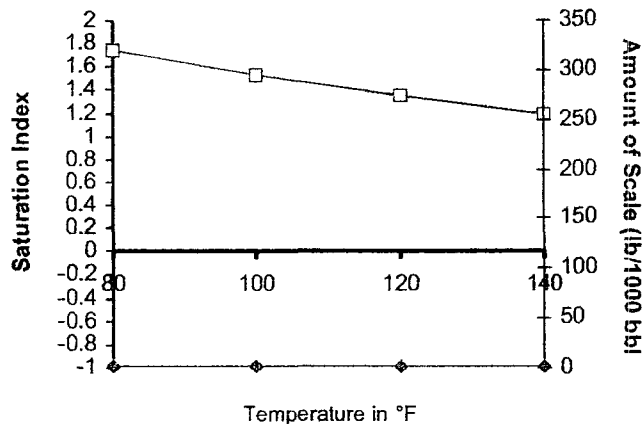
# Scale Predictions from Baker Petrolite

Analysis of Sample 211640 @ 75 °F for MACK ENERGY INCORPORATED, 3/3/03

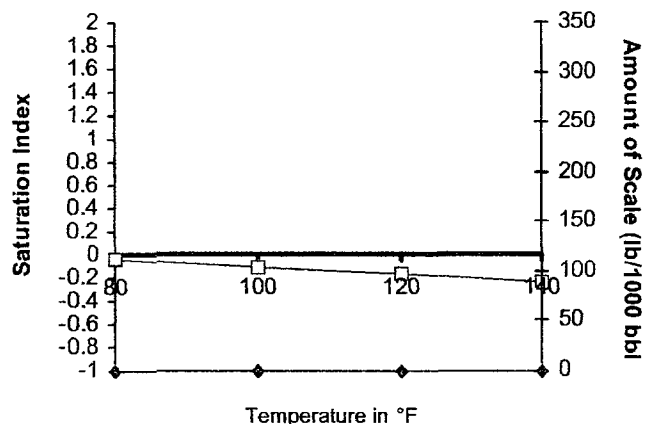
## Calcite - $\text{CaCO}_3$



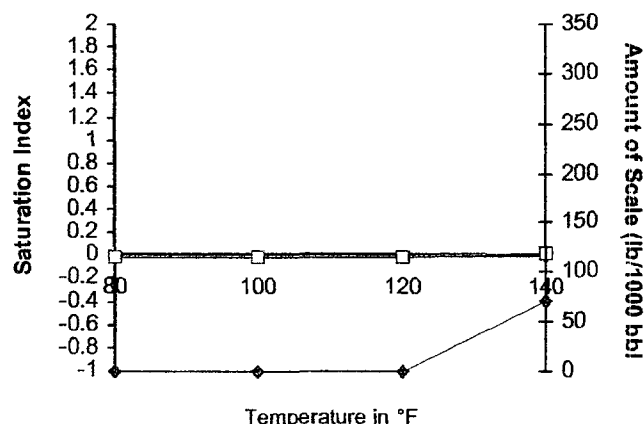
## Barite - $\text{BaSO}_4$



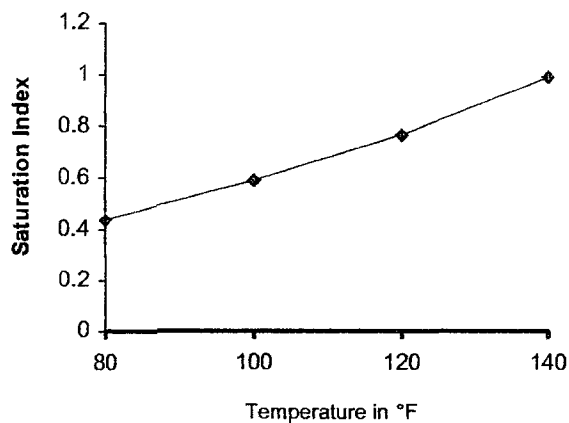
## Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



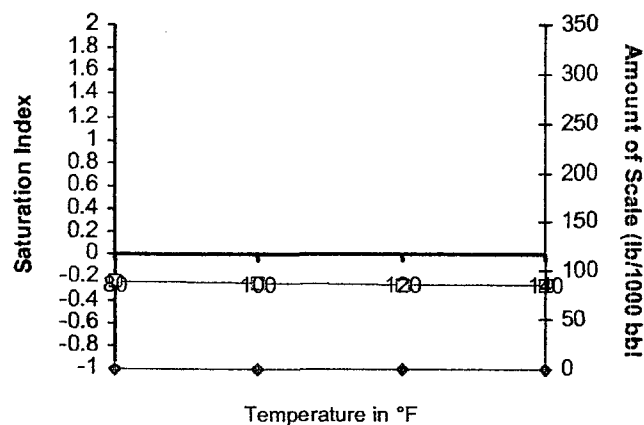
## Anhydrite - $\text{CaSO}_4$



## 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: MACK ENERGY INCORPORATED Sales RDT: 33512  
Region: PERMIAN BASIN Account Manager: WAYNE PETERSON (505) 910-9389  
Area: ARTESIA, NM Sample #: 329109  
Lease/Platform: DIAMOND BACK Analysis ID #: 52313  
Entity (or well #): 1 Analysis Cost: \$40.00  
Formation: UNKNOWN *Granger Upper Penn*  
Sample Point: WELLHEAD

Summary		Analysis of Sample 329109 @ 75 °F					
Sampling Date:	6/15/05	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	6/21/05	Chloride:	122248.0	3448.17	Sodium:	56570.4	2460.67
Analyst:	STACEY SMITH	Bicarbonate:	62.2	1.02	Magnesium:	2165.0	178.1
TDS (mg/l or g/m3):	198414.7	Carbonate:	0.0	0.	Calcium:	16143.0	805.54
Density (g/cm3, tonne/m3):	1.139	Sulfate:	556.0	11.58	Strontium:	343.0	7.83
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.1	0.
		Borate:			Iron:	25.0	0.9
		Silicate:			Potassium:	302.0	7.72
Carbon Dioxide:	50 PPM	Hydrogen Sulfide:		2 PPM	Aluminum:		
Oxygen:	0 PPM	pH at time of sampling:		6.5	Chromium:		
Comments:		pH at time of analysis:			Copper:		
RESISTIVITY - 0.044 OHM-M @		pH used in Calculation:		6.5	Lead:		
75°F					Manganese:		
					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	0.16	1.16	-0.20	0.00	-0.18	0.00	-0.22	0.00	-0.66	0.00	0.11
100	0	0.23	1.74	-0.27	0.00	-0.18	0.00	-0.23	0.00	-0.85	0.00	0.14
120	0	0.29	2.32	-0.32	0.00	-0.16	0.00	-0.24	0.00	-1.01	0.00	0.17
140	0	0.36	2.89	-0.37	0.00	-0.11	0.00	-0.23	0.00	-1.16	0.00	0.2

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

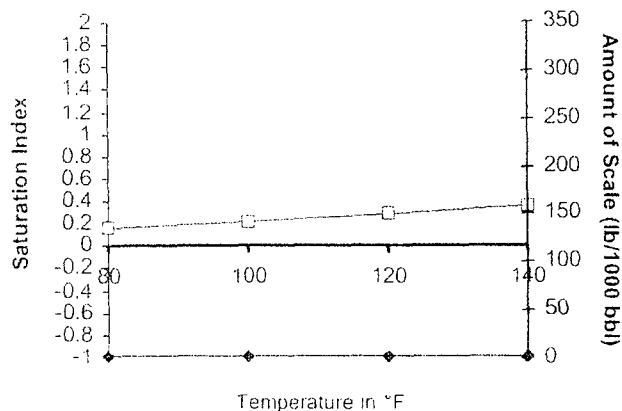
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

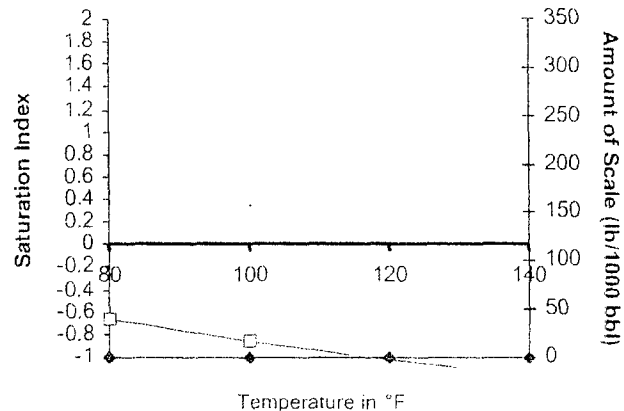
# Scale Predictions from Baker Petrolite

Analysis of Sample 329109 @ 75 °F for MACK ENERGY INCORPORATED, 6/21/05

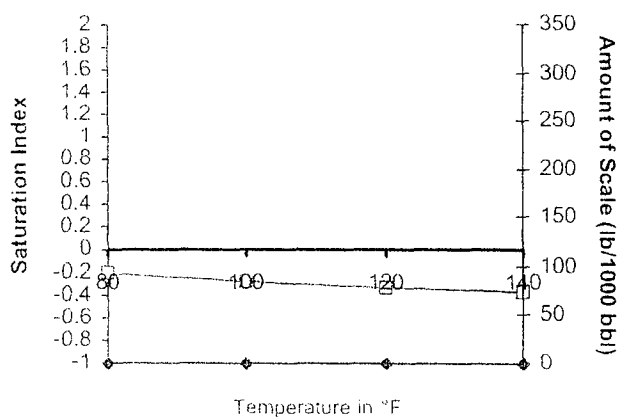
Calcite -  $\text{CaCO}_3$



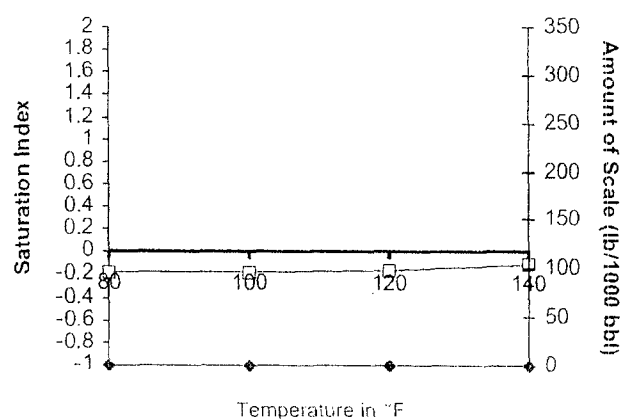
Barite -  $\text{BaSO}_4$



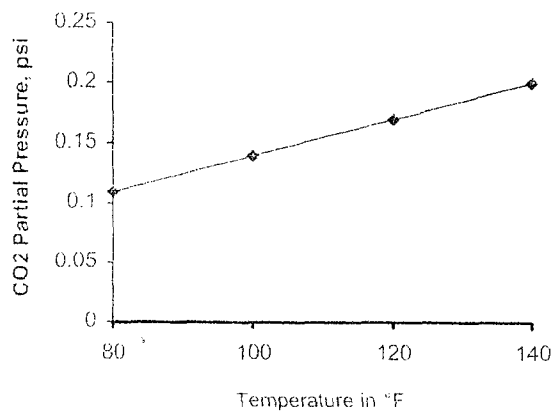
Gypsum -  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



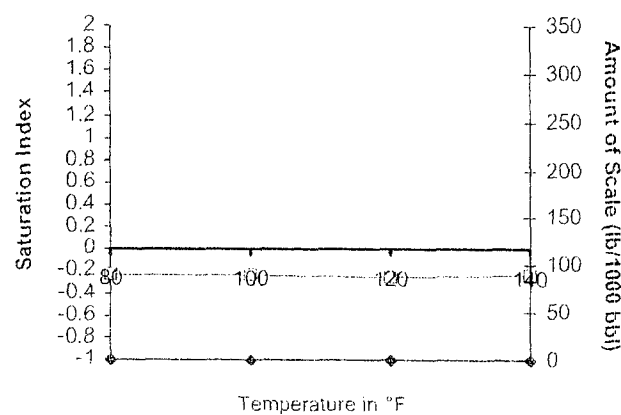
Anhydrite -  $\text{CaSO}_4$



Carbon Dioxide Partial Pressure



Celestite -  $\text{SrSO}_4$



Blue Streak Federal #1  
Sec. 29 T17S R29E  
1980 FSL & 660 FEL

- 3) There is a windmill  $\frac{1}{2}$  mile south of this well. It is not producing therefore we are unable to acquire a sample.
- 4) BLM.

505-748-9817  
505-217-1142  
505-746-2240  
Gatheroom, Workshop, Storage

### LEGAL NOTICE

COG Operating LLC, 550 W. Texas Suite 1300, Midland, TX 79701, has filed an Application with the New Mexico Oil Conservation Division seeking authorization to inject produced salt water in the Blue Streak Federal #1 Section 29, Township 17 South, Range 29 East, NMPM, Eddy County, New Mexico. The water will be injected into the Cisco formation at a disposal depth of 9150 feet to 9400 feet. Water will be injected at a maximum surface pressure of 300 pounds and a maximum injection rate of 3000 BWPD. Any interested party with questions or comments may contact Jerry W. Sherrell at Mack Energy Corporation, Post Office Box 960, Artesia, New Mexico 88211-0960 or call (505) 748-1288. 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.

Published in the Artesia Daily Press, Artesia, New Mexico, November 16, 2006.

Legal 19487



## Inactive Well List

**Total Well Count:953 Inactive Well Count:3 Since:9/3/2005**

**Printed On: Monday, November 27 2006**

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	Days in TA
1	30-025-27073	JALMAT YATES UNIT #010	4-7 -25S-37E	M	229137	COG OPERATING LLC	P	I	05/2001		T	1862
1	30-025-26870	JALMAT YATES UNIT #026	2-18-25S-37E	E	229137	COG OPERATING LLC	P	I	09/1995		T	2117
1	30-025-34973	MC FEDERAL #005	N-21-17S-32E	N	229137	COG OPERATING LLC	F	O	07/2003	PADDOCK	T	1857

WHERE Ogrid:229137, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15

# Injection Permit Checklist

SWD Order Number 1059 Dates: Division Approved \_\_\_\_\_ District Approved \_\_\_\_\_

Information Request Letter or Email sent 11/20/06

Well Name/Num: BLUE STREAK FEDERAL #1 Date Spudded: 8/11/74

API Num: (30-) 015-21308 County: EDDY

Footages 1980 FSL / 660 FEL Sec 29 Tsp 17S Rge 29E

Operator Name: COG OPERATING LLC Contact Jerry W. Sherrill

Operator Address: 550 W. TEXAS, SUITE 1300 MIDLAND TX 79701

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	17 1/2 11 3/4	344'	300	Surf
Intermediate	11 8 5/8	2657'	300	1620' c.c.
Production	7 7/8 5 1/2	6689'	750	6689' c.c.
Last DV Tool		10417'		
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion ☒ After Conversion ☒ Re-Entry of P&A well

Checks (Y/N): Well File Reviewed ☒ ELogs in Imaging ☒

Intervals:	Depths	Formation	Producing (Yes/No)
<del>Salt/Potash</del>			
<del>Capitan Reef</del>			
<del>Cliff House, Etc.</del>			
Formation Above	7309'	WC	
Top Inj Interval	9150'	CISCO	
Bottom Inj Interval	9400'	CISCO	
Formation Below	9798'	S. Plam	

1830 PSI Max. WHIP  
☒ Open Hole (Y/N)  
☒ Deviated Hole (Y/N)

Fresh Water Site Exists (Y/N) ☒ Analysis Included (Y/N) ☒

Salt Water Analysis: Injection Zone (Y/N/NA) ☒ Disposal Waters (Y/N/NA) ☒ Types: SG, SA, PDK

Affirmative Statement Included (Y/N) ☒ Newspaper Notice Adequate (Y/N) ☒ Well Table Adequate (Y/N) ☒

Surface Owner BLM Noticed (Y/N) ☒ Mineral Owner(s) BLM

AOR Owners: Conchitas, Hayco, Hancha, OXY, RKC, WGRAM Noticed (Y/N) ☒

CID/Potash/Etc Owners: \_\_\_\_\_ Noticed (Y/N) ☒

AOR Num Active Wells 1 Repairs? ☒ Producing in Injection Interval in AOR ☒

AOR Num of P&A Wells 0 Repairs? ☒ Diagrams Included? ☒

Data to Generate New AOR Table ☒ New Table Generated? ☒

	STR	E-W Footages	N-S Footages
Wellsite			
Northeast			
North			
Northwest			
West			
Southwest			
South			
Southeast			
East			

Conditions of Approval:

1. P&A Section
2. GEL SECTION
- \_\_\_\_\_
- \_\_\_\_\_

RBDMS Updated (Y/N) ☒

UIC Form Completed (Y/N) ☒

This Form completed \_\_\_\_\_