

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED M. OIL CONS. COMMISSION
P.O. BOX 1980
JAN 12 1994
HOBBS, NEW MEXICO 88240

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

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
Mitchell Energy Corporation

3. Address and Telephone No.
P. O. Box 4000, The Woodlands, TX 77387-4000

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1980' FWL & 1650' FNL, Unit F, Sec 28, T20S, R33E

5. Lease Designation and Serial No.
NM 89889

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
Tomahawk #28 Fed Com #1

9. API Well No.
30-025-31895

10. Field and Pool, or Exploratory Area
Salt Lake, S. (Morrow)

11. County or Parish, State

Lea, NM

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 Plans
☐ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion to Injection
☒ Dispose Water

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.)*

Produced water disposal

- A) Producing water from the Morrow formation.
B) Producing 4 BWPD.
C) Current water analysis attached.
D) Produced water stored in 210 bbl closed top fiberglass tank on location.
E) Water is hauled by Maclaskey Oilfield Services, Inc. tank truck.
F) Disposal well is the Cooper Disposal Well G-8 located SW/NE, Sec 8, T20S, R37E, operated by Rice Engineering. The NMOC permit number is R-6855.

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

Signed [Signature] Title Staff Production Engineer

Date 1/11/94

(This space for Federal or State office use)

Approved by [Signature]
Conditions of approval, if any:

Title Production Engineer

Date 2/8/94

- ATTACHED -

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.

*See Instruction on Reverse Side

BUREAU OF LAND MANAGEMENT
CARLSBAD RESOURCE AREA

Disposal of Produced Water From Federal Wells

Conditions of Approval

Approval of the produced water disposal methodology is subject to the following conditions of approval:

1. This agency be notified of any change in your method or location of disposal.
2. Compliance with all provisions of NTL-2B.
3. This agency shall be notified of any spill or discharge as required by NTL-3A.
4. This agency reserves the right to modify or rescind approval whenever it determines continued use of the approved method may adversely affect the surface or subsurface environments.
5. All aboveground structures on the lease shall be painted sandstone brown, Federal Std. 595-20318, or 30318, within 90 days if you have not already done so.
6. Any on lease open top storage tanks or pits shall be covered with a wire screen or plastic/nylon netting to prevent entry by birds and other wildlife.
7. This approval does not constitute right-of-way approval for any off lease activities. If water is transported via a pipeline that extends beyond the lease boundary, then you need to submit within 30 days an application for right-of-way approval to the Realty Section in this office if you have not already done so.

MARTIN WATER LABORATORIES, INC.

P.O. Box 1468 Phone 943-3234 or 563-1040
Monahans, Texas 79756

RESULT OF WATER ANALYSES

709 W. Indiana Phone 683-4521
Midland, Texas 79701

TO: Mr. Greg Colburn
400 W. Illinois, Suite 1000, Midland, TX 79701

LABORATORY NO. 19425
SAMPLE RECEIVED 1-7-94
RESULTS REPORTED 1-7-94

API WATER ANALYSIS REPORT FORM

Company <u>Mitchell Energy Corporation</u>			Sample No.	Date Sampled <u>1-6-94</u>
Field	Legal Description		County or Parish <u>Lea</u>	State <u>NM</u>
Lease or Unit <u>Tomahawk 28 Federal</u>	Well <u>#1</u>	Depth	Formation	Water, B/D
Type of Water (Produced, Supply, etc.)		Sampling Point		Sampled By

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	<u>2,197</u>	<u>95.5</u>
Calcium, Ca	<u>114</u>	<u>5.7</u>
Magnesium, Mg	<u>40</u>	<u>3.3</u>
Barium, Ba		

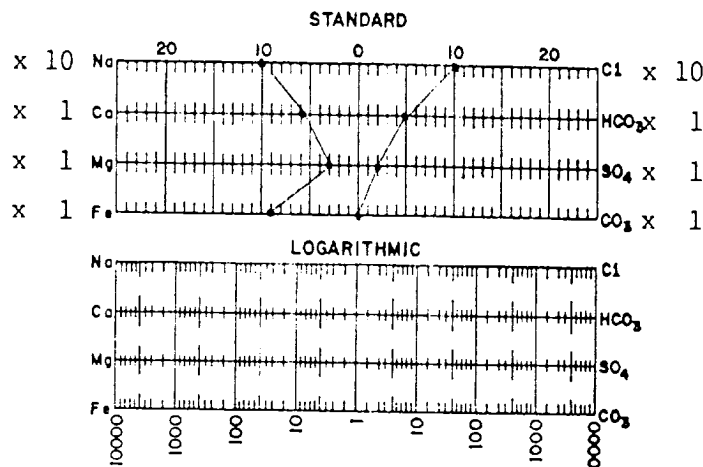
OTHER PROPERTIES

pH	<u>5.90</u>
Specific Gravity, 60/60 F.	<u>0.9860</u>
Resistivity (ohm-meters) <u>77°F.</u>	<u>0.920</u>
Total Hardness, as CaCO ₃	<u>450</u>

ANIONS

Chloride, Cl	<u>3,480</u>	<u>98.1</u>
Sulfate, SO ₄	<u>70</u>	<u>1.5</u>
Carbonate, CO ₃	<u>0</u>	<u>0.0</u>
Bicarbonate, HCO ₃	<u>300</u>	<u>4.9</u>

WATER PATTERNS — me/l



Total Dissolved Solids (calc.)
6,201

Iron, Fe (total) 244 8.7
Sulfide, as H₂S 0.0

REMARKS & RECOMMENDATIONS: We are not familiar with the circumstances involved herein or where this well is located. We do receive the implication from the results herein that this is likely predominantly a condensed water vapor from a gas well but, apparently, involved something in the liquid other than water since the specific gravity is abnormally low. Contact us for any assistance in interpretation of these results relative to your objective.

Waylan C. Martin

Waylan C. Martin, M.A.