

# N. M. Oil Cons. Division

811 S. 1ST ST.  
ARTESIA, NM 88210-2834

C/SF

Form 3160-5  
(JUNE 1990)

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

### 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.

FORM APPROVED

Budget Bureau No. 1004-0135

Expires March 31, 1993

5. Lease Designation and Serial No.  
NM- 04082

6. If Indian, Allote or Tribe Name

N/A

7. If Unit or CA, Agreement Designation

N/A

8. Well Name and No.  
Big Eddy Unit 12

9. Well API No.  
30-015-20225

10. Field and Pool, or Exploratory Area  
Big Eddy, Bone Springs

11. County or Parish, State

Eddy County, NM

SUBMIT IN TRIPLICATE

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other:

2. Name of Operator

Mallon Oil Company

3. Address and Telephone No.

P.O.Box 3256 Carlsbad, NM 88220

(505) 885-4596

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

660' FSL and 660' FWL (Unit D)

Sec. 21, T-20S, R-31E

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

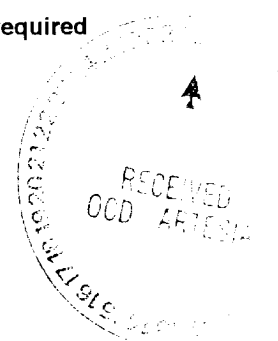
☒ Dispose Water

(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 zone.)\*

Mallon Oil Company request approval for method of water disposal for this well. The required information is listed below.

1. The producing formation is the Bone Springs.
2. This well is currently producing 1/10th bbls water per day.
3. Copy of water analysis is attached.
4. Water is stored on this lease in a 300 bbl tank.
5. The water is trucked from this lease to an approved disposal facility.
6. The disposal facility is the Mallon 34, Federal No. 1 well located in the NW/NW of Section 34, T-19S, R-34E, Lea Co. NM. The NMOCD permit number is SWD 598. A copy of the injection permit is attached.



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

Signed

*Mike Braswell*

Title

Production Superintendent

Date

9/20/99

Mike Braswell

(THIS SPACE FOR FEDERAL OR STATE OFFICE USE)

Approved By

(ORIG. SGD.) DAVID R. GLASS

Title

PETROLEUM ENGINEER

Date

SEP 27 1999

Conditions of approval, if any:

SEE ATTACHED FOR

CONDITIONS OF APPROVAL

Title 18 U. S. C. Section 1001, makes it a crime for any person knowingly and willfully to make 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



## Water Analysis Report by Baker Petrolite

### MALLON OIL COMPANY

BIG EDDY UNIT  
WELL #12  
WELLHEAD

Account Manager  
CURRY FRUIT

Summary		Analysis of Sample 23922 @ 75°F					
Sampling Date	8/27/99	<b>Anions</b>	<b>mg/l</b>	<b>meq/l</b>	<b>Cations</b>	<b>mg/l</b>	<b>meq/l</b>
Analysis Date	8/31/99	Chloride	110000	3103	Sodium	65885	2857
Analyst	SHAWNA MATTHEWS	Bicarbonate	12.2	0.20	Magnesium	N/A	N/A
		Carbonate	N/A	N/A	Calcium	5000	250
TDS (mg/l or g/m <sup>3</sup> )	181697	Sulfate	700	14.6	Strontium	N/A	N/A
Density (g/cm <sup>3</sup> or tonne/m <sup>3</sup> )	1.125	Phosphate	N/A	N/A	Barium	N/A	N/A
Anion/Cation Ratio	1.00	Borate	N/A	N/A	Iron	300	10.7
		Silicate	N/A	N/A	Potassium	N/A	N/A
Carbon Dioxide	900 PPM				Aluminum	N/A	N/A
Oxygen		Hydrogen Sulfide		0 PPM	Chromium	N/A	N/A
					Copper	N/A	N/A
		pH at time of sampling		5.20	Lead	N/A	N/A
		pH at time of analysis			Manganese	N/A	N/A
		pH used in Calculations		5.20	Nickel	N/A	N/A

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000bbl						
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.	-2.24	-0.50	-0.48	N/A	N/A	0.55	
100	0.	-2.15	-0.58	-0.49	N/A	N/A	0.67	
120	0.	-2.06	-0.65	-0.48	N/A	N/A	0.78	
140	0.	-1.96	-0.70	-0.44	N/A	N/A	0.89	

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

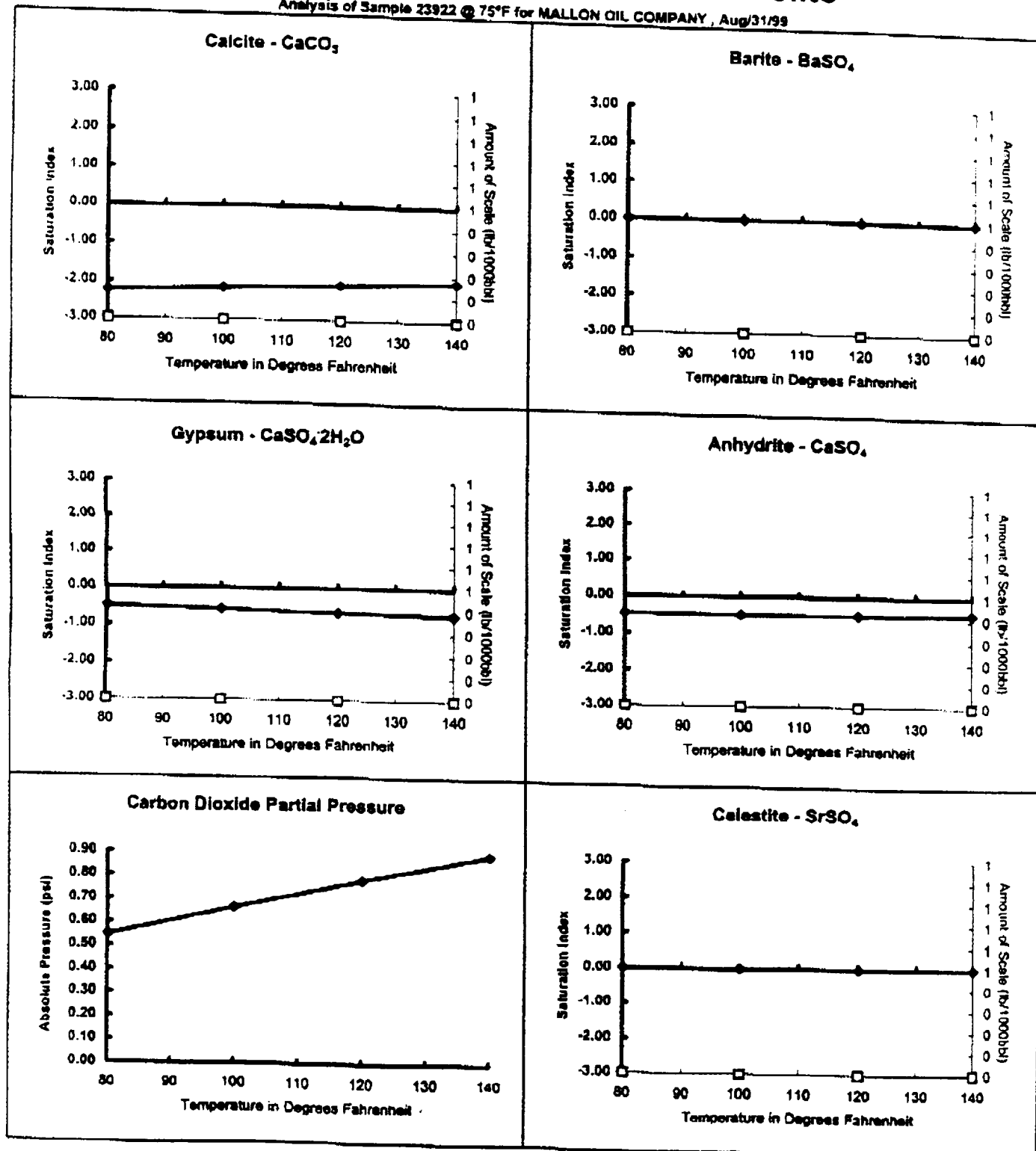
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

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 23922 @ 75°F for MALLON OIL COMPANY, Aug/31/99





**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87605  
(505) 827-7131

**AMENDED ADMINISTRATIVE ORDER SWD-598**

**APPLICATION OF MALLON OIL COMPANY FOR SALT WATER DISPOSAL, LEA  
COUNTY, NEW MEXICO.**

**ADMINISTRATIVE ORDER  
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Mallon Oil Company made application to the New Mexico Oil Conservation Division on June 7, 1995, for permission to complete for salt water disposal its Mallon '34' Federal Well No.1 located 660 feet from the North line and 990 feet from the West line (Unit D) of Section 34, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico.

**THE DIVISION DIRECTOR FINDS THAT:**

- (1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;
- (2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met; and
- (4) No objections have been received within the waiting period prescribed by said rule.

**IT IS THEREFORE ORDERED THAT:**

The applicant herein, is hereby authorized to complete its Mallon '34' Federal Well No.1 located 660 feet from the North line and 990 feet from the West line (Unit D) of Section 34, Township 19 South, Range 34 East, NMPM, Lea County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Seven Rivers and San Andres formations at approximately 3956 feet to 6112 feet through 2 7/8-inch plastic-lined tubing set in a packer located at approximately 3856 feet.

**IT IS FURTHER ORDERED THAT:**

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

*Amended Administrative Order SWD-598*

*Mallon Oil Company*

*July 23, 1996*

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Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 791 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Seven Rivers and San Andres formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Hobbs district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Hobbs district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

**PROVIDED FURTHER THAT,** jurisdiction of this cause is hereby retained by the Division for the entry of such further order or orders as may be deemed necessary or convenient for the prevention of waste and/or protection of correlative rights; upon failure of the operator to conduct operations in a manner which will ensure the protection of fresh water or in a manner inconsistent with the requirements set forth in this order, the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

*Amended Administrative Order SWD-598*

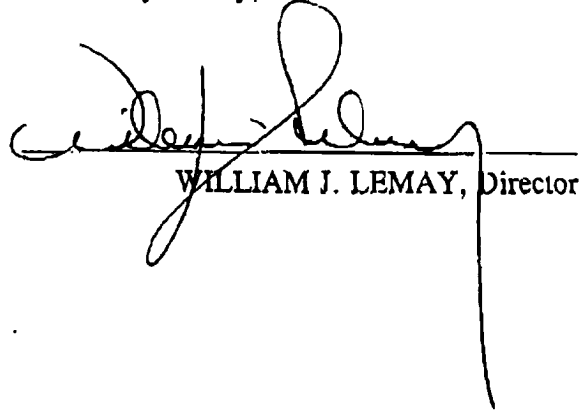
*Mallon Oil Company*

*July 23, 1996*

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Approved at Santa Fe, New Mexico, on this 23rd day of July, 1996.



WILLIAM J. LEMAY, Director

WJL/BES

xc: Oil Conservation Division - Hobbs  
Bureau of Land Management - Carlsbad