

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
1625 N. French Dr.
Hobbs, NM 88240

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

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.

5. Lease Serial No.
0476 NM 61605

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

6. If Indian, Allottee or Tribe Name
7. If Unit or CA/Agreement, Name and/or No.

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

8. Well Name and No.
FEDERAL 21 3

2. Name of Operator
EOG RESOURCES, INC.

Contact: BEV HATFIELD
E-Mail: beverly_hatfield@eogresources.com
30-025-30690

3a. Address
P.O. BOX 2267
MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 915.686.3689 Ext: 3689
Fx: 915.686.3765

9. API Well No.

10. Field and Pool, or Exploratory
CORBIN; WOLFCAMP, SOUTH

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

Sec 21 T18S R33E Mer SENW 2007FNL 2124FWL

11. County or Parish, and State
LEA COUNTY, NM

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

TYPE OF SUBMISSION

TYPE OF ACTION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

- ☐ Acidize
☐ Alter Casing
☐ Casing Repair
☐ Change Plans
☐ Convert to Injection

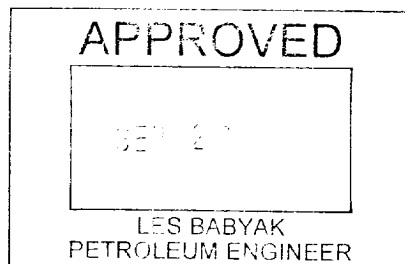
- ☐ Deepen
☐ Fracture Treat
☐ New Construction
☐ Plug and Abandon
☐ Plug Back

- ☐ Production (Start/Resume)
☐ Reclamation
☐ Recomplete
☐ Temporarily Abandon
☒ Water Disposal

- ☐ Water Shut-Off
☐ Well Integrity
☐ Other

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.)

WATER DISPOSAL INFORMATION.



**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

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

Name (Printed/Typed) BEV HATFIELD

Title

Signature

Date 08/30/2001

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 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.

Water Production & disposal Information

FEDERAL 21 #3
NM100176

In order to process your disposal request, the following information must be completed:

1. Name of formations producing water on the lease. WOLFCAMP
2. Amount of water produced from all formations in barrels per day. 10 BWPD
3. Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. (one sample will suffice if the water is commingled)
4. How water is stored on the lease. IN 500 BBL FIBERGLASS TANK
5. How water is moved to the disposal facility. BY WATER TRANSFER PUMP.
6. Identify the Disposal Facility by :
 - A. Facility operators name. E.O.G. RESOURCES, INC.
 - B. Name of facility or well name & number. WEST CORBIN FEDERAL #16
 - C. Type of facility or well (WDW)(WIW) etc. WDW
 - D. Location by 1/4 1/4 SWSE section 7 township 18S range 33E
7. Attach a copy of the State issued permit for the Disposal Facility.

Submit to this office, 414 West Taylor, Hobbs, NM 88240, the above required information on a Sundry Notice 3160-5. Submit 1 original and 5 copies, within the required time frame. (This form may be used as an attachment to the Sundry Notice.) Call me at 505-393-3612 if you need to further discuss this matter.



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ADMINISTRATIVE ORDER NO. SWD-389

APPLICATION OF MERIDIAN OIL, INC.

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Under the provisions of Rule 701(B), Meridian Oil, Inc. made application to the New Mexico Oil Conservation Division on June 4, 1990, for permission to complete for salt water its West Corbin Federal Well No. 16, located in Unit O of Section 7, Township 18 South, Range 33 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; and
- (3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met.
- (4) No objections have been received within the waiting period prescribed by said rule.

IT IS THEREFORE ORDERED THAT:

- (1) The applicant herein, Meridian Oil, Inc. is hereby authorized to complete its West Corbin Federal Well No. 16 located in Unit O of Section 7, Township 18 South, Range 33 East, NMPM, Lea County, New Mexico, in such a manner as to permit the injection of salt water for disposal purposes into the Bone Spring formation at approximately 8666 feet to approximately 8982 feet through 2 7/8- inch plastic-lined tubing set in a packer located at approximately 8600 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.

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 1733 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 Bone Spring formation. 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 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 706 and 1120 of the Division Rules and Regulations.

Administrative Order No. SWD-389

Meridian Oil, Inc.

June 21, 1990

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Approved at Santa Fe, New Mexico, on this 21st day of June, 1990.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read 'William J. Lemay', written over the printed name.

WILLIAM J. LEMAY
Director

S E A L



Champion
Technologies, Inc.

Committed To Improvement

Water Analysis Report

9/4/2001

Address:

Lease: Federal 21

Formation:

Customer: EOG Inc.

Attention: Dirk Ellyson

CC: Jerry Ball; Ray Foote Glen Carter

Target Name: Federal 21 #3

Sample Point:

Sample Date: 08/30/2001

Test Date:

Water Analysis(mg/L)

Calcium	1123
Magnesium	583
Barium	1
Strontium	21
Sodium(calc.)	8040
Bicarbonate Alkalinity	73
Sulfate	80
Chloride	16000

Appended Data(mg/L)

CO2	90
H2S	86
Iron	92

Physical Properties

Ionic Strength(calc.)	0.51
pH(calc.)	
Temperature(°F)	90
Pressure(psia)	50
Density	8.48

Additional Data

Specific Gravity	1.02
Total Dissolved Solids(Mg/L)	25899
Total Hardness(CaCO3 Eq Mg/L)	5197

Dew Point	
Lead	
Zinc	

Calcite Calculation Information

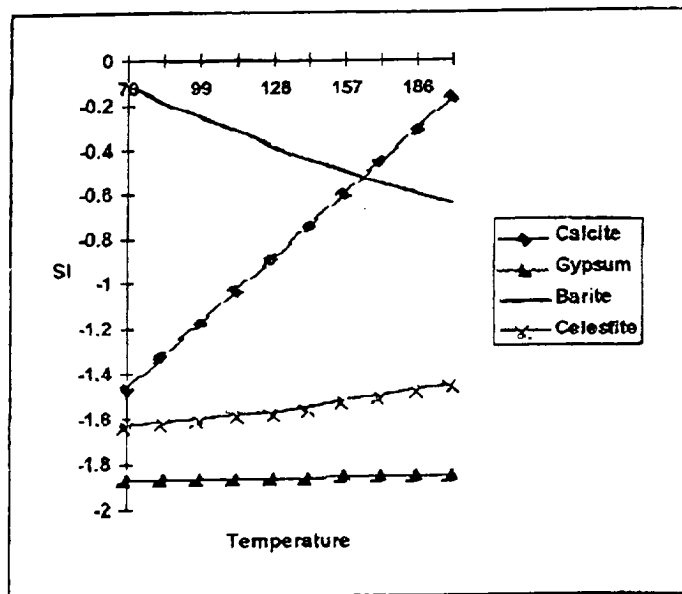
Calculation Method	Value
Known pH	6.37

Remarks:

SI & PTB Results

Scale Type	SI	PTB
Calcite (Calcium Carbonate)	-1.26	
Gypsum (Calcium Sulfate)	-1.85	
Hemihydrate (Calcium Sulfate)	-1.77	
Anhydrite (Calcium Sulfate)	-2.08	
Barite (Barium Sulfate)	-0.19	
Celestite (Strontium Sulfate)	-1.61	

Saturation Indices



Saturation Index Data Points

	Calcite	Gypsum	Barite	Celestite
70	-1.46	-1.85	-0.09	-1.63
84	-1.31	-1.85	-0.17	-1.61
99	-1.17	-1.85	-0.24	-1.60
113	-1.02	-1.85	-0.30	-1.58
128	-0.88	-1.85	-0.37	-1.57
142	-0.73	-1.85	-0.43	-1.55
157	-0.59	-1.84	-0.48	-1.52
171	-0.44	-1.84	-0.54	-1.50
186	-0.30	-1.84	-0.58	-1.47
200	-0.15	-1.84	-0.63	-1.45