

Jack Ahlen
CONSULTING GEOLOGIST
533 PETROLEUM BUILDING
ROSWELL, NEW MEXICO 88201

August 13, 1996

State of New Mexico
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Rand Carroll

**RE: Administrative Approval
For Water Disposal
Delta Wing Federal #1
810' FNL and 1980' FEL
Section 15-17S-29E
Eddy County, New Mexico**

Dear Mr. Carroll:

The above referenced water disposal unit lies within the recently extended Roswell Underground Water Basin. On February 8, 1993, the New Mexico Engineer issued Special Order Number 147. The preamble states, among other things:

Par. III Whereas, the Roswell Underground Water Basin boundaries, as presently defined, do not include certain adjacent areas which are a part of the underground water basin having reasonable ascertainable boundaries and in which new appropriations of water might impair existing water rights.

Par. IV Whereas the surface and underground waters in some areas within the boundaries of this basin may be interrelated.

The two mile radius circle contains in excess of 200 wells drilled from a few feet to approximately 11,000 feet deep. There is no record of any fresh or potable waters being tested from any of these wells. A search of records in the State Engineers office indicates there are no water wells in the ½ mile area of review. A physical search of the land surface reveals no evidence of potable water except the commercial fresh water pipeline used by ranchers in the area.

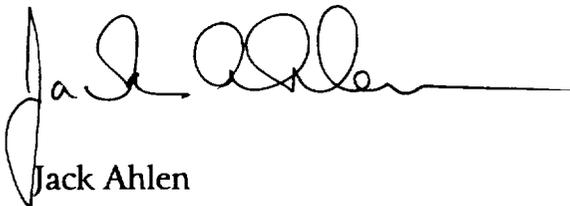
Examination of sample logs and electric logs reveals that surface rock consists of

Upper Permian Quartermaster red shales and siltstones. The Rustler formation consisting of anhydrite and dolomite is present from 150 to 300 feet below the surface and the Salado salt occurs immediately below that.

The lack of any evidence of naturally occurring potable water and the nature of the surface and subsurface sediments within the area of review suggest that paragraphs III and IV of the order are not valid presumptions for the extension of the Roswell Underground Water Basin to this area.

We thereby request your granting the above referenced administrative approval to dispose of produced waters into the Pennsylvanian formation at a depth of 8291 to 8650 feet.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jack Ahlen", with a long horizontal line extending to the right from the end of the signature.

Jack Ahlen

STIMULATION PROGRAM

The proposed injection well was originally drilled in April, 1990 as a Morrow test. Thirteen and three-eighths inch casing was set at 446' with 425 sacks of cement which was brought back to surface. Eight and five-eighths inch casing was set at 4500' and cemented with 2300 sacks with a top of cement at 45'. Five and one-half inch casing was set at 10,950' with two stages of cement totaling 1150 sacks with the DV tool set at 6981 and the top of cement being 6400'. Bridge plugs have been set at various depths below 8300'. It is proposed to drill out the top plug and clean out well bore to 10,100'. Drill out cement and test. We may need to squeeze cement into the original perfs below 8700', then perforate the following: 8291 - 8306, 8390 - 8432, 8520 - 8535, 8550 - 8650. It may be necessary to open perfs with approximately 1000 gallons of 15% NE acid.

LOGGING AND TESTING DATA

Logs on the subject well (Dual Laterlog, Sonic Log, and Gamma Ray Log) are on file at the Artesia Oil Conservation Division. These logs were run around April 30, 1990.

FRESH WATER ANALYSIS

There is a stock water well located in the NW/4 of the NW/4 of Section 22. This well is about 120' in depth. A copy of the water analysis taken from this well is attached as Exhibit A. This water well is approximately 5514' in distance from the proposed disposal well.

HALLIBURTON SERVICES

(Section XI, Form C-108)

ARTESIA DISTRICT

MAY 25 1993

LABORATORY REPORT

No. W171-93

TO Marbob Energy Corporation

Date May 23, 1993

P. O. Box 304

Artesia, NM 88210

The report is the property of Halliburton Services and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Services

Submitted by _____ Date Rec. May 22, 1993

Well No. Water Well _____ Depth _____ Formation _____

Field Barnesville Draw Road _____ County _____ Source _____

Resistivity 7.03 @ 70°

Specific Gravity .. 1.0015 @ 70°

pH 7.8

Calcium 2,761

Magnesium 983

Chlorides 500

Sulfates 200

Bicarbonates 488

Soluble Iron 0

Remarks:

Respectfully submitted

Analyst: Eric Jacobson - Operations Engineer

HALLIBURTON SERVICES

NOTICE:

This report is for information only and the content is limited to the sample described. Halliburton makes no warranties, express or implied, as to the accuracy of the contents or results. Any user of this report agrees Halliburton shall not be liable for any loss or damage, regardless of cause, including any act or omission of Halliburton, resulting from the use hereof

AFFIRMATIVE STATEMENT

Applicant hereby affirms that he had examined the available geologic and engineering data and finds no evidence of open faults or other hydrologic connection between the disposal zone and any underground source of drinking water.



August 13, 1996

Bogle Farms
1207 Pecan
Artesia, New Mexico 88210

RE: Proposed Disposal Well

Gentlemen:

Enclosed please find an application for a proposed salt water disposal well located in Section 15, Township 17 South, Range 29 East, Eddy County, New Mexico. If you have any questions regarding this application, please contact me at 505/748-3303.

If you have no objection to the proposed disposal well, please sign below and return one copy of this letter to Marbob Energy Corporation.

Sincerely,

David Martin
Land Department

DM/mm
Enclosures

BOGLE FARMS has no objection to the proposed disposal well.

By: _____

Title: _____

Date: _____



August 13, 1996

Mack Energy Corporation
Post Office Box 960
Artesia, New Mexico 88211

RE: Proposed Disposal Well

Gentlemen:

Enclosed please find an application for a proposed salt water disposal well located in Section 15, Township 17 South, Range 29 East, Eddy County, New Mexico. If you have any questions regarding this application, please contact me at 505/748-3303.

If you have no objection to the proposed disposal well, please sign below and return one copy of this letter to Marbob Energy Corporation.

Sincerely,

David Martin
Land Department

DM/mm
Enclosures

MACK ENERGY CORPORATION has no objection to the proposed disposal well.

By: _____

Title: _____

Date: _____



August 13, 1996

Bureau of Land Management
1717 West Second Street
Roswell, New Mexico 88201

RE: Proposed Disposal Well

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If you have no objection to the proposed disposal well, please sign below and return one copy of this letter to Marbob Energy Corporation.

Sincerely,

David Martin
Land Department

DM/mm
Enclosures

BUREAU OF LAND MANAGEMENT has no objection to the proposed disposal well.

By: _____

Title: _____

Date: _____



August 13, 1996

H. L. Brown
Post Office Box 2237
Midland, Texas 79702

RE: Proposed Disposal Well

Gentlemen:

Enclosed please find an application for a proposed salt water disposal well located in Section 15, Township 17 South, Range 29 East, Eddy County, New Mexico. If you have any questions regarding this application, please contact me at 505/748-3303.

If you have no objection to the proposed disposal well, please sign below and return one copy of this letter to Marbob Energy Corporation.

Sincerely,

David Martin
Land Department

DM/mm
Enclosures

H. L. BROWN has no objection to the proposed disposal well.

By: _____

Title: _____

Date: _____

Affidavit of Publication

Copy of Publication

No. 15591

AUG 19 1996

STATE OF NEW MEXICO,

County of Eddy:

Gary D. Scott being duly

sworn, says: That he is the Publisher of The

Artesia Daily Press, a daily newspaper of general circulation,

published in English at Artesia, said county and state, and that

the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia

Daily Press, a daily newspaper duly qualified for that purpose

within the meaning of Chapter 167 of the 1937 Session Laws of

the state of New Mexico for 1 consecutive weeks on

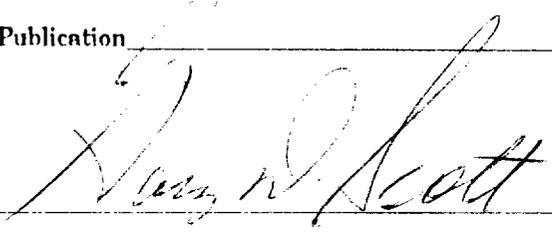
the same day as follows:

First Publication August 15, 1996

Second Publication _____

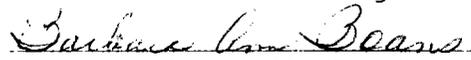
Third Publication _____

Fourth Publication _____



Subscribed and sworn to before me this 15th day

of August 19 96



Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1999

LEGAL NOTICE

Pursuant to State of New Mexico Oil Conservation Division Rule 701-B-3 Marbob Energy Corporation gives public notice that it is the intent of Marbob Energy Corporation to utilize the Delta Wing Federal Well No. 1, located 810' from the North line and 1980' from the East line of Section 15, Township 17 South, Range 29 East, Eddy County, New Mexico, N.M.P.M. for the underground disposal of produced water in the area. Disposal will average 5,000 barrels per day but could go as high as 10,000 barrels per day. Maximum injection pressure will not exceed 1729 pounds per square inch. Questions regarding this proposal may be directed to Raye Miller, P.O. Box 227, Artesia, New Mexico 88210, Telephone 748-3303. Objections to this proposal or request for hearing on the matter, together with the reasons therefore, must be filed in writing with the Oil Conservation Division, 2040 South Pacheco Street, Santa Fe, New Mexico 87505 within fifteen (15) days of this notice.

Published in the Artesia Daily Press, Artesia, New Mexico August 15, 1996.

Legal 15591