

marbob
energy corporation

September 25, 1996

Oil Conservation Division
New Mexico Energy and Minerals Department
2040 South Pacheco Street
Santa Fe, New Mexico 87501

Attention: Ben Stone

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

Dear Mr. Stone:

Enclosed is the re-advertisement on the above referenced well in which we had previously sent to you an application for a proposed salt water disposal well. As you will notice, this advertisement includes the items that were not previously advertised.

Thank you for your help in this matter. If you have any questions, please contact me.

Sincerely,

Raye Miller

Raye Miller
Land Department

RM/mm
Enclosure

Affidavit of Publication

No. 15636

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 3 consecutive weeks on

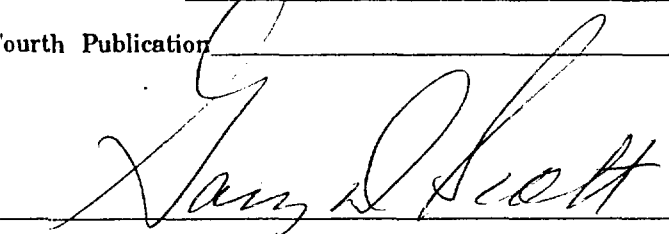
the same day as follows:

First Publication September 20, 1996

Second Publication September 22, 1996

Third Publication September 24, 1996

Fourth Publication _____


Subscribed and sworn to before me this 24th day

of September 19 96



Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1999

SEP 25 1996
Copy of Publication

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. Produced waters will be disposed of into the Upper Pennsylvanian formation through perforations at 8291' to 8650' from the surface. 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, N.M. September 20, 22, 24, 1996.

Legal 15636

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: MARCOB ENERGY CORP. Well: DELTA WING FEDERAL No. 1

Contact: RAYE MILLER Title: V.P. LAND Phone: 505-748-3303

DATE IN 8-21-96 RELEASE DATE 9-5-96 DATE OUT 9-17-96

Proposed Injection Application is for: WATERFLOOD Expansion Initial

Original Order: R- Secondary Recovery Pressure Maintenance

SENSITIVE AREAS

X SALT WATER DISPOSAL Commercial Well

WIPP Capitan Reef

Data is complete for proposed well(s)? Additional Data Req'd

AREA of REVIEW WELLS

0 Total # of AOR

0 # of Plugged Wells

0 Tabulation Complete

0 Schematics of P & A's

0 Cement Tops Adequate

0 AOR Repair Required

INJECTION FORMATION

Injection Formation(s) UPPER PENN 8291-8650 Compatible Analysis YES

Source of Water or Injectate AREA PRODUCTION - MORROW/PENN

PROOF of NOTICE

YES Copy of Legal Notice

YES Information Printed Correctly

YES Correct Operators

YES Copies of Certified Mail Receipts

NO Objection Received

Set to Hearing Date

NOTES:

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL? YES

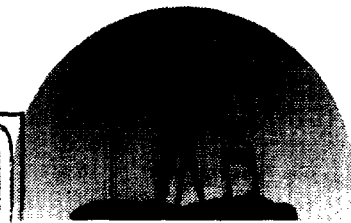
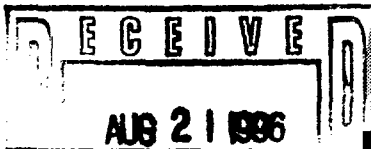
COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<u>Telephoned</u>	<u>Letter</u>	<u>Date</u>	Nature of Discussion <u></u>
2nd Contact:	<u>Telephoned</u>	<u>Letter</u>	<u>Date</u>	Nature of Discussion <u></u>
3rd Contact:	<u>Telephoned</u>	<u>Letter</u>	<u>Date</u>	Nature of Discussion <u></u>

JWD

11/1/60

643

**marbob**
energy corporation

August 19, 1996

Mr. William LeMay
Division Director
Oil Conservation Division
New Mexico Energy and Minerals Department
2040 South Pacheco Street
Santa Fe, New Mexico 87501

Dear Mr. LeMay:

Enclosed herewith, in triplicate, is the application of Marbob Energy Corporation for authority to convert to water disposal the Delta Wing Federal Well No. 1 located 810 feet from the North line and 1980 feet from the East line of Section 15, Township 17 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.

Waters to be disposed of will consist of Grayburg, and San Andres production water from the Grayburg Jackson Seven Rivers, Queen, Grayburg, San Andres Pool.

Application is made pursuant to Rule 701 D of the Division Rules Regulations for Administrative Approval for disposal into the Upper Pennsylvanian formation which is nonproductive of oil or gas within a radius of one half mile from the proposed injection well.

Publication of Marbob's intent to utilize the subject well for water disposal has been made in the Artesia Daily Press, and copies of this application have been furnished to each leasehold operator within one half mile of the well. The United States of America is the owner of the surface of the land upon which the well is located.

Your approval of the subject application at the expiration of the required 15-day waiting period is respectfully requested.

Sincerely,

Raye Miller
Land Department

RM/mm

**BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION
APPLICATION FOR ADMINISTRATIVE APPROVAL
MARBOB ENERGY CORPORATION
FOR CONVERSION TO WATER DISPOSAL
THE
DELTA WING FEDERAL WELL NO. 1**

Located 810' FNL and 1980' FEL Section 15-17S-29E
Eddy County, New Mexico

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APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no

II. Operator: Marbob Energy Corporation

Address: P. O. Box 227, Artesia, New Mexico 88211-0227

Contact party: Raye Miller Phone: 505/748-3303

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 ☒ 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.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 fresh water from two or more fresh water 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 source 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: Raye Miller Title Attorney-in-Fact

Signature: Raye Miller Date: 8/20/96

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Marbob Energy Corporation Delta Wing Federal

OPERATION

LEASE

1 810' FNL & 1980' FEL Section 15-17S-29E

WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE

Schematic

Tabular Data

Surface Casing

Size 13 3/8 " Cemented with 425 gr.

IOC Surface feet determined by Circulate

Hole size 17 1/2

Intermediate Casing

Size 8 5/8 " Cemented with 2300 gr.

IOC 45' feet determined by Temp Survey

Hole size 11

Long string

Size 5 1/2 " Cemented with 1150 gr.

IOC 6400' feet determined by Temp Survey

Hole size 7 7/8

Total depth 10,950

Injection Interval

CIBP @ 8315' 8291 feet to 8650 feet
(perforated or open-hole, indicate which)

CIBP @ 10,100 + 35' cmt

CIBP @ 10535 + 35' cmt

13 3/8
@ 446'

8 5/8
@ 4500'

5 1/2 @ 10950

Tubing size 2 7/8" lined with Plastic Coated set in a

(material)

Guiberson Uni VI packer at 8241 (+) (-) feet

(brand and model)

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Upper Pennsylvanian

2. Name of Field or Pool (if applicable) N/A

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

If no, for what purpose was the well originally drilled? Oil & Gas Production

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) 10,654 - 10,778 (Morrow)
8390-8412, 8422-8428, 8522-8528, 8532-8536, 8792-8802 (Cisco Penn)

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (unplugged) in this area. Underlying pools Grayburg Morrow producing from 10,770', Grayburg Atoka North producing from 10,342'. Overlying pool - Grayburg Jackson Seven Rivers, Queen, Grayburg, San Andres producing from 2100' - 5000'.

WELL DATA

A review of the records indicate there are no wells which have been drilled to the depth of the proposed disposal zone within the area of review.

DATA SHEET

1. Proposed Rate of Injection

- A. Average daily rate of injection: 5,000 barrels
- B. Maximum daily rate of injection: 10,000 barrels

2. Type of System

System will be closed

3. Anticipated Injection Pressure

It is anticipated that the injection pressure will be nominal but in no event would the pressure exceed 0.2 psi per foot of depth to the top of the injection zone.

4. Source of Injection Water

Source of disposal water is Seven Rivers, Grayburg, and San Andres wells located in Section 10, 11, 13, 14, 15, 22, 23, 24, 25, 26, and 27, of Township 17 South, Range 29 East, See Attachment VII (a) for analysis of disposal water.

5. Disposal Zone Water Analysis

Disposal is to be into a zone not productive of oil or gas within one half mile of the proposed well. In our application for disposal in the Dodd Well No. 1 in June, 1993 the following information was submitted: A review of the records revealed that there are not any analysis of water from this zone on file. Water analysis records were checked with Halliburton to no avail. A review was made with Mark Ashley of the Artesia Oil Conservation Division for material on this zone in this area. We anticipate that the formation water will contain lower chlorides than our disposal water but that it will be compatible with the formation since this zone is currently being used for disposal of similar produced water in a disposal well two miles away in unit letter E of Section 27, Township 17 South, Range 29 East.

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

August 13, 1996

Marbob Energy Corporation
Post Office Box 227
Artesia, New Mexico 88211-0227

**RE: Administrative Approval
For Water Disposal
Delta Wing Federal No. 1
810' FNL and 1980' FEL
Section 15-17S-29E
Eddy County, New Mexico**

Gentlemen:

I have previously prepared three exhibits and one table in support of your request for a water disposal well into the Pennsylvanian Formation at a depth of 8291' to 8650' in the above referenced well.

Exhibit I is the previously submitted Exhibit I for the Saber Federal #1 disposal well. It is a structure map at the top of a correlative Penn marker zone. All wells which have penetrated the disposal zone have been posted to the map and show the appropriate datum. A two-mile radius circle has been inscribed on the map for aid in identifying wells deep enough to be included in table 1 at Appendix A. The map shows regional dip to the southeast into the Delaware Basin with local terracing which may be associated with upper Pennsylvanian reefing. Disposal in the Saber Federal is into the mid Penn reef beds while the Delta Wing Federal will be into the upper Pennsylvanian sediments.

Exhibit II is a land map showing all wells drilled in the area. I have examined all available records and data and find that no other well has been drilled within a one-half mile radius which penetrates the proposed disposal zone. Oil has been produced from beds immediately below the disposal zone in the Depco Inc. #1 Conoco State, Unit K, Section 15, at a depth of 8768' to 8787'. A total of 265 BO, 478 BW, and 2.864 MMCFG was produced from June 2, 1977 until March 28, 1978. The zone was subsequently squeezed and the well was perforated in a deeper zone at 9820' to 9847'.

HALLIBURTON SERVICES

(Section VII, C-108)

ARTESIA DISTRICT

LABORATORY REPORT

No. W167 & W168-93TO Marbob Energy CorporationDate May 20, 1993P. O. Box 304Artesia, NM 88210

This 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. _____

Well No. _____ Depth _____ Formation _____

Field _____ County _____ Source _____

Burch KeelyMary Dodd AResistivity 0.066 @ 70° 0.060 @ 70°Specific Gravity .. 1.0979 @ 70° 1.1250 @ 70°pH 7.0 7.0Calcium 4,379 3,332Magnesium 2,081 2,890Chlorides 84,000 111,000Sulfates 1,000 400Bicarbonates 976 1,403Soluble Iron 0 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.

No other well has produced oil or gas from or near the disposal zone within the two-mile radius.

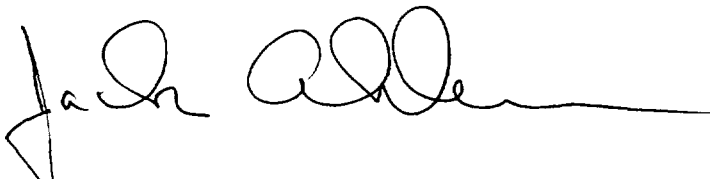
Appendix A tabulates all wells drilled through the zone of interest within two miles of the proposed disposal well. The list shows well name, location, total depth and pay zone where appropriate.

Exhibit III is a structure cross section from the proposed disposal well southeast to the Little Wing Federal Com #1 as indicated on the structure map. The disposal zone is indicated by the dark shaded intervals marked in the depth column between 8291' and 8650'. This zone was perforated and tested over a 9 day period by Oryx in a workover attempt searching for oil or gas. The well produced 1504 barrels of brackish water. Log analysis suggests chemical analysis might detect 5000 to 6000 parts per million chloride. Beds of equivalent age are marked by correlation lines between the wells. The heavy correlation line marks the top of a zone designated Penn marker. Your previously approved water disposal wells are completed in the dolomite porosity located approximately 50 to 150 feet below this marker. Water recovered from the proposed disposal zone is quite similar to water tested from the dolomite below the Penn marker. There are no indications that you will have fluid incompatibility problems between the disposal fluids and formation fluids.

The area of review lies within the recently extended (State Engineer Special Order No. 147, Feb. 8, 1993) Roswell Underground Water Basin. There are no windmills, stock tanks, springs or other natural sources of potable water visible within the area of review. There are no other known sources of naturally occurring potable water in the subsurface within the area of review. Ranchers use a fresh water pipeline for domestic purposes in this area.

Your request appears to meet the geological requirements for administrative approval of this project.

Respectfully submitted,



Jack Ahlen

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE



DELTA WING FEDERAL NO. 1 DISPOSAL WELL
Appendix A
Deep Wells Within Two Mile Radius of Proposed Disposal Well

Well Name	Location				TD	Pay Zone
	Unit	Sec	Tsp	Rng		
Oryx Energy Delta Wing Federal #1	B	15	17S	29E	10,950	Morrow 10,654'-10,778'
Oryx Energy Delta Wing Federal #2	N	11	17S	29E	10,910	Morrow 10,762'-10,806'
Oryx Energy Little Wing Federal Com #1	L	14	17S	29E	11,025	Morrow 10,728'-10,748'
Depco, Inc. Conoco State Com #1	K	15	17S	29E	11,100	Atoka 10,308'-10,316' Cisco 8,768'-8,787' 9,820'-9,847'
Sunray Mid-Continent Oil Dodd "A" #21X	O	15	17S	29E	11,242	Orig. P & A Queen/San Andres 2,364'-3,416'
Brown, H.L. Jr. Dodd Federal #1	P	15	17S	29E	10,864	Morrow 10,770'-10,790'
Fina Oil Chem Muskegon "16" #1	N	16	17S	29E	11,500	P & A
El Paso Leonard State #3 Tenneco GJ West Coop Unit #52	P	16	17S	29E	10,966	Orig. P & A Grayburg San Andres 2,247' - 2,748'
Santa Fe Energy Operating Muskegon "20" State Com #1	H	20	17S	29E	10,957	Morrow 10,581'-10,764'
Mana Resources, Inc. State "21" #1	P	21	17S	29E	10,835	Morrow 10,748'-10,774'
El Paso Leonard State #2 Tenneco Oil Co. State "I" #17	H	21	17S	29E	12,196	Orig P&A San Andres 2,650' - 2,752'
Meridian Oil, Inc. Leonard State Com #1	E	22	17S	29E	11,441	Atoka 10,342'-10,360' 10,680'-10,760'
Moran Drlg & Prod. Corp. Dodd #1	J	22	17S	29E	10,880	P & A

DELTA WING FEDERAL NO. 1 DISPOSAL WELL
Appendix A
Deep Wells Within Two Mile Radius of Proposed Disposal Well

Page 2

General American Oil Co Burch "C" #15	D	23	17S	29E	12,260	Orig TA San Andres
Pogo Producing Company Saber Federal #1	B	11	17S	29E	10,910	D & A
General American-Texas Keely "C" #45	H	13	17S	29E	11,402	Temp Abd Grayburg
Mack Energy Corp	O	28	17S	29E	10,890	Morrow 10,762'-10,784' PB to Grbg/SanAn 2,617'-3,314'

LARGE FORMAT
EXHIBIT HAS
BEEN REMOVED
AND IS LOCATED
IN THE NEXT FILE