Foy and Middlebrook
Exploration and Production
310 W. Texas, Suite 2[illegible]
Midland, Texas 79[illegible]
915 687-0144

July 25, 1988

Airborne Express

Rec'd Fed Ex pkg 7-26-88

Case 9456

Oil Conservation Division
310 Old Santa Fe Trail
Room 206
Santa Fe, New Mexico 87504
Attention Mr. David R. Catanach

Application for Appearance
August 17th Hearing
Culp Ranch Unit #2
Chaves County, New Mexico

Gentlemen:

Foy and Middlebrook (F&M) previously requested and had obtained Administrative Order No. SWD-343 to reenter the Mescalero Federal Well No. 1 located in Unit F of Section 11, Township 12 South, Range 30 East, NMPM, Chaves County, New Mexico to complete for injection of produced salt water into the San Andres Formation. F&M now requests said order be cancelled.

F&M recently drilled the Culp Ranch Unit Well #2 in Unit D of above section anticipating Devonian oil production, which was obtained and is being produced in the Culp Ranch Unit Well #1 in unit C. The #2 well was low and recovered a large quantity of Devonian formation water, but did encounter a zone that may be capable of some gas production in the Morrow formation. F&M now requests approval from the OCD to complete subject #2 well for salt water disposal purposes through tubing and into the non-productive Devonian formation, and produce whatever Morrow gas can be obtained up the casing. We desperatly need a power source for the Culp Ranch Unit #1 as it is producing a dead oil with no gas of its own and which is 10 miles from the nearest electric line. We have an even greater need for a disposal system as our current disposal costs are approximately equal to the value received from production. Also, we now intend to reenter the Mescalero Federal No. 1 first referred to above in order to obtain Devonian oil production, therefore that well bore is not available for disposal purposes. Further, the Devonian will be a better disposal zone than the San Andres would have been.

Enclosed is our complete application. Please place said application on the docket for the August 17th hearing so that we may obtain approval to both produce gas from and dispose of salt water into the Culp Ranch Unit #2 Well. Thank you.

Yours truly,

FOY AND MIDDLEBROOK

Steven R. Foy

Steven R. Foy

SRF/lt
encl.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 9456

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: FOY AND MIDDLEBROOK

Address: 310 West Texas, Suite 210, Midland, Texas 79701

Contact party: Steven R. Foy Phone: (915) 687-0144

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.
see attached sheet

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: Attached

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. Attached

IX. Describe the proposed stimulation program, if any. Attached

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.) Attached

* 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. Attached

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. Attached

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
Attached

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: Steven R. Foy Title General Partner

Signature: Steven R Foy Date: 7-25-88

* 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. _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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.

III. WELL DATA FOR DISPOSAL WELLS

A) 1) Lease Name and Well No.

Foy and Middlebrook - Original Operator
Culp Ranch Unit No. 2
Sec. 11, T-12-S, R-30-E (F)
330' FNL & 990' FWL
Chaves County, New Mexico

2) Casing Record:

Type	Hole Size	Csg. Size	Depth Set	Sks Cmt	Remarks
Surface	16"	13-3/8"	450'	475	Cmt Circulated
Intermediate	12-1/4"	9-5/8"	3006'	1520	Cmt Circulated
Prod.	7-7/8"	5-1/2"	10370'	1275	*see remarks above

*Two stage cement job - DV Tool @ 6985'

1st stage 375 sks cmt calculated toc 8500'
2nd stage 900 sks cmt calculated toc 2800'

3) Injection Tubing

10,300' - 2-3/8", 4.7#/ft., N-80, EUE, Tubing, internally plastic coated for salt water disposal service

4) Baker 5-1/2" x 2-3/8", 4544 Model "A-3" Lok-Set Paker w/Side Pocket Mandrel & On-off tool, Double Grip Packer internally coated for salt water disposal service to be set at 10,300' in 10,000# tension.

B) DISPOSAL WELL DATA

1) Injection Formation:

a) Devonian
b) The disposal zone is located in the Graham Springs (Devonian) Field well which is oil productive. This well is located across a down thrown fault below the oil water contact.

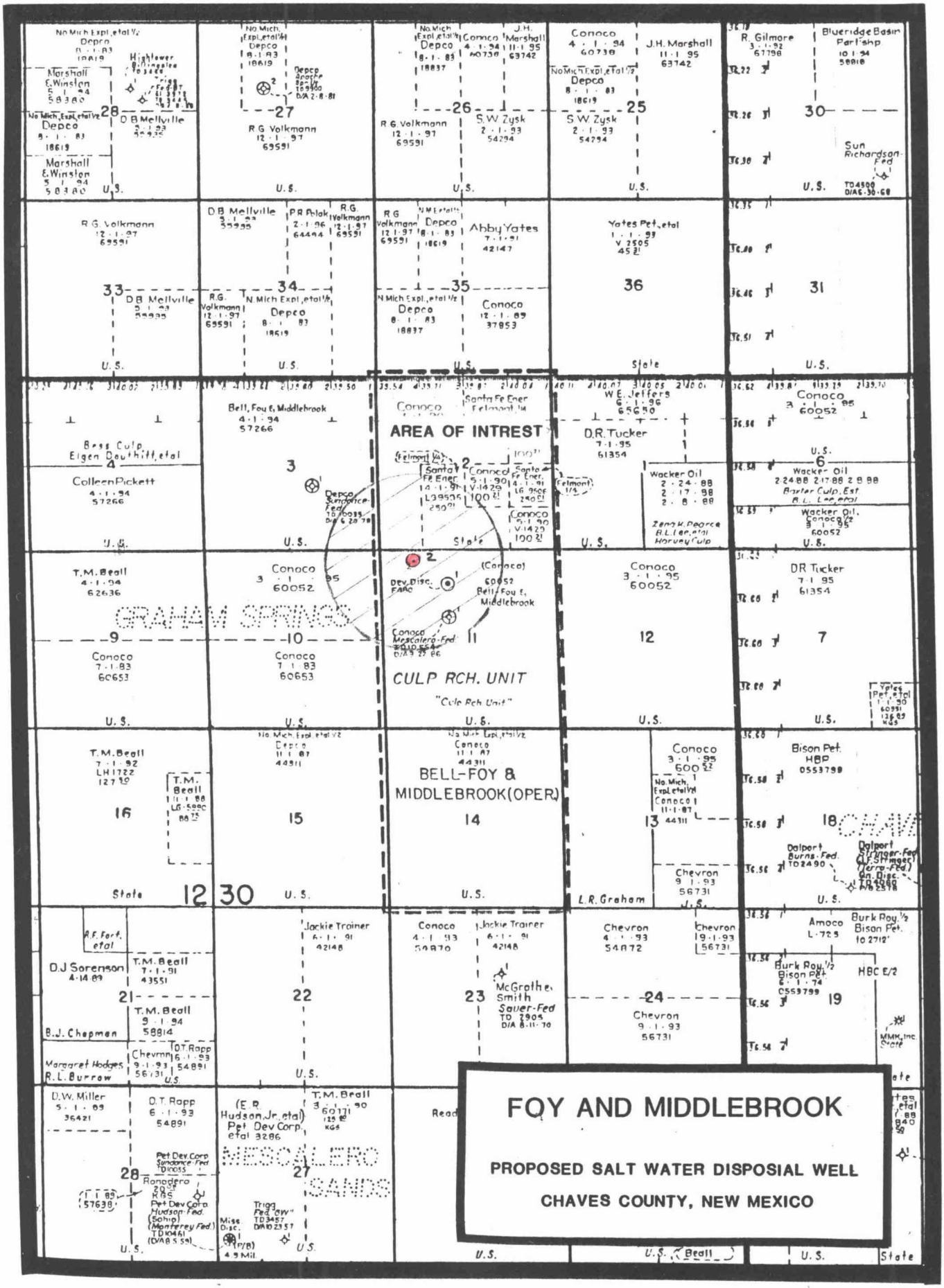
2) Injection Interval:

a) Depth - 10,370' - 10,393' (Open Hole)
b) The zone is currently open hole from 10,370'-393' below the 5-1/2" Csg. set at 10,370'.

3) This well was drilled to 10,370' as a Devonian test. The Devonian was found out to be non-commercial and water productive.

4) Currently there are no perforated intervals in this well bore.

5) The Morrow Zone from 9654'-9690' which has not been perforated is felt to be gas productive. It is proposed to dually complete this well as a Morrow Gas producer and a Devonian salt water disposal well.


AREA OF INTREST
GRAHAM SPRINGS
CULP RCH. UNIT
"Culp Rch Unit"
BELL-FOY & MIDDLEBROOK(OPER.)
MESCALERO SANDS
FOY AND MIDDLEBROOK
PROPOSED SALT WATER DISPOSIAL WELL
CHAVES COUNTY, NEW MEXICO

VI. Well Data for any well which is located within one-half mile of the proposed disposal well.

A) 1) Lease Name & Well No

Foy and Middlebrook - Operator
Culp Ranch Unit Well No. 1
1890' FWl & 990 FNL
Sec. 11, T-12-S, R-30-E (C)
Chaves County, New Mexico

2) Date Drilled - Nov. 12, 1987

3) Casing and Cement Record:

Type	Hole Size	Csg. Size	Depth Set	Sks Cmt	Remarks
Surface	17-1/2"	13-3/8"	450'	450'	Cmt Circulated
Inter.	11"	8-5/8"	2980'	1450'	Cmt Circulated
Prod.	7-7/8"	5-1/2"	10251'	1180'	*see remarks below

*Two stage cement job - DV Tool @ 6985'

1st stage 200 sks cmt calculated toc 8900'
2nd stage 980 sks cmt calculated toc 2500'

4) Total Depth - 10,280'

5) Completion Record

Open hole 10251 - 280'
Completed Natural
Flow - 480 BOPD, 0 BWPD, Gas TSTM
on 16/64" chk 41.2° API oil FTP 350#

B) Lease Name & Well No.

Foy and Middlebrook - Operator
Conoco - Original Operator
Mescalero Federal Well No. 1
1980' FNL & 1980' FWL
Sec. 11, T-12-S, R-30-E (C)
Chaves County, New Mexico

2) Date Drilled - March 22, 1986

3) Casing and Cement Record:

Type	Hole Size	Csg. Size	Depth Set	Sks Cmt	Remarks
Surface	17-1/2"	13-3/8"	429'	350'	Cmt Circulated
Inter.	12-1/4"	8-5/8"	4300'	2113'	Cmt Circulated
Prod.	*7-7/8"		10554'	1180'	

*No production casing was set

4) Total Depth - 10,554'

5) Completion Record - none

6) Set Cmt Plugs Set as Follows: (March 22, 1986)

(1) Set 85 sx "H" cmt plug from 7670' - 7470'
(2) Set 105 sx "H" cmt plug from 4375' - 4225'. Found top w/wire line at 4231'
(3) Set 45 sx "H" cmt plug from 1675' - 1575'
(4) Set 45 sx "H" plug from 833-733'
(5) Set 20 sx "H" plug from 50' - 0'

7) Attached is a schematic of the Conoco - Mescalero Federal Well No. 1 (F11, 12S, 30E). This well was drilled, never completed, and subsequently plugged and abandoned March 22, 1986. A schematic of the Foy and Middlebrook Culp Ranch Unit No. 1 is also attached.

DATE 5-9-88

PRESENT

WELL DATA SHEET

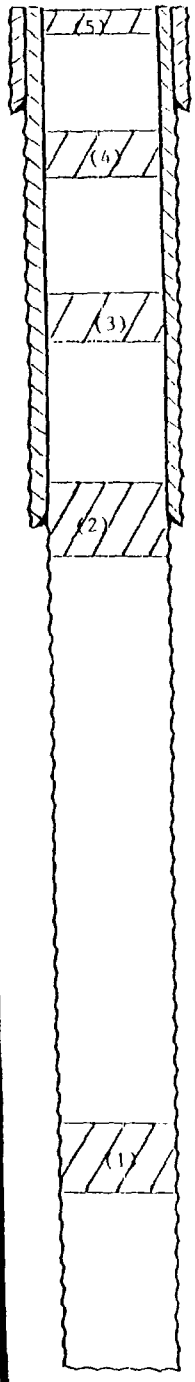
Lease Mescalero Federal Well No. 1

Location 1980' FNL & 1980' FWL, Sec. 11, T-12-S, R-30-E (F) County Chaves State New Mexico

K.B. Elev. 4022'
G.L. Elev. 4003'
D.F. Elev. 4021'

Date Plugged 3-22-86
Formation(s) All zones non-commercial.

The primary objective was the Devonian.



Cut 13-3/8" & 9-5/8" csg off 4' below GL. Weld plate on 13-3/8" & install marker.

~~13-3/8~~ N.A.#
Gr. N.A. Thd. ST&C
Set @ 429'
w/ 350 Sks.
Hole Size 16"
Cement circulated.
Tested csg to 600#
Held O.K.

9-5/8 " 36 #
Gr. K-55 Thd. LT&C
Set @ 4300
w/ 2113 Sks.
Hole Size 12-1/4"
Cement circulated.
Tested csg to 1040#
Held O.K.

Top of Devonian 10,259'
Well P&A. Did not run prod. csg.

Hole Size 8-3/4"

3-22-86

Set Cmt Plugs Set as Follows:

(1) Set 85 sx "H" cmt plug from 7670' - 7470'
(2) Set 105 sx "H" cmt plug from 4375' - 4225'. Found top w/wire line at 4231'
(3) Set 45 sx "H" cmt plug from 1675' - 1575'
(4) Set 45 sx "H" plug from 833' - 733'
(5) Set 20 sx "H" plug from 50' - 0'

DST Results

UNDESIGNATED - DEVONIAN - CHAVES COUNTY, NEW MEXICO - 1.0000000
API NUMBER: 30-005-21052 AFE NUMBER: 40-20-4285
D & T MESCALERO 11 NO. 1 - OBJECTIVE: 10,700' DEVONIAN
LOCATION: 1980' FNL & 1980' FWL OF SECTION 11, T-21S, R-30E
TD: 10,554'PBTD: NA RBM: NAGL ELEV: NA DATE SPUD: 1/14/86
RIG REL: 1/22/86 COMPLETED: P&A FORMATION: DEVONIAN PERFS: NONE WORK DONE: Ran 13 jts 13-3/8" surface csg. RU Dowell. Cemented csg w/350 sx class "C" w/4% gel. Returns to surface. Tested to 600 psi w/no leaks. RU Schlumberger. Logged well w/GR-DLL-MSFL-CAL & NGT-LDT-CNL-EDC from 4296'-1500' (GR-CAL to 500'). 2nd run w/GR-LSS from 4296'-2200'. Ran 103 jts 9-5/8", 36#, K-55 LT&C intermediate csg. RU Dowell. Cmtd csg w/1163 class "C" light + 18% salt & 950 sx class "C" + 2% CACL2. Returns to surface. Tested to 1040 psi w/no leaks. RU Schlumberger. Logged well w/DLL-MSFL-GR-CAL from 10,483'-4300' & CBL-LDT-EDC-GR-CAL from 10,404'-4300'. 3rd run w/LSS-GR from 8970'-4300'. DST #2: Flopetrol-Johnston 10,222'-10,550'. Surface performance: Steady increasing blow to 15.37 psi during IF; increased to 69.45 psi during FF. Drill Pipe Recovery: 8571' total fluid; slightly oil cut mud. Sample chamber recovery: Pressure: 40 psi Cu.ft. Gas: ;0.01 C.C. Oil: 520 C.C. Water: 1870 C.C. Mud: 10 Tot. Liq.: 2400 API Gravity: 39.4 at 60°F 40 at 68°F. Drill Pipe Recovery: 486' Gas & Scavenger cut drilling fluid: 2.67 bbls. Total fluid sample chamber recovery: Pressure: 200 psi DST #3. Baker-Lynes Testing 10,259'-10,305'. Surface Performance: First flow inc. to 1.5 oz.; second flow incr. to 51 psi, third flow 21 psi, ran nitrogen to blow down drill pipe, ran third flow to get fluid to surface-no pressure data. Drill Pipe Recovery: 660' oil, 5694' heavy oil cut water; 1500' water. Pit Recovery: 23 BO, 113 BW Sample Chamber Recovery: Chamber contaminated - not reported. Set blanced cmt plug from 10,259'-9540' w/410 sx class "H" cmt. DST #4, no test, pkrs failed. DST #5: Flopetrol-Johnston 9322-9543'. Surface Performance: Initial Flow inc to 81 psi; second flow inc from 1.37 psi to 4.07 psi; third flow inc from 3.47 psi to 3.81 psi. Drill Pipe Recovery: 486' gas & scavenger cut drilling fluid; 2.67 bbls total fluid. Sample Chamber Recovery: Pressure 200 psi. All zones non-commercial. RU Dowell. Set 85 sx "H" cmt plug from 7620'-7470'. Set 105 sx class "H" cmt plug from 4375'-4225'. RU wireline & tagged top of cmt top at 4231'. Set 45 sx class "H" cmt plug from 1675'-1575'. Set 45 sx class "H" cmt plug from 833'-731'. Cut off 13-3/8" & 9-5/8" csg 4' below GL. Set 50' class "H" surface plug w/20 sx & 3% CACL2. Welded plate onto 13-3/8" csg & placed well abandonment marker 4' above GL.
Final Report

Plug Back Total Depth Surface
Total Depth 10,554'
Well Name Mescalero Federal No. 1

DATE 5-9-88

WELL DATA SHEET

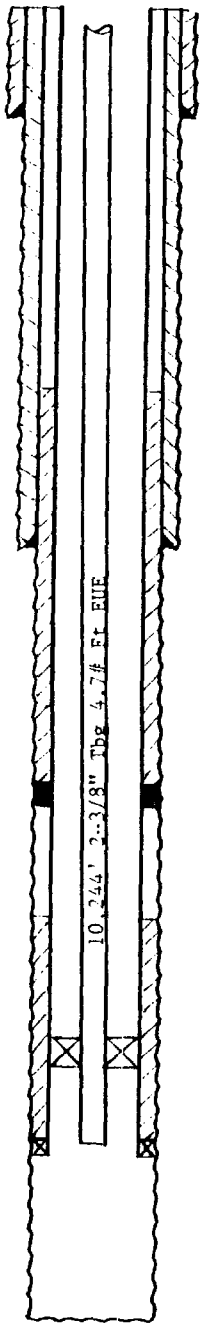
Lease Culp Ranch Unit Well No. 1

Location 990' FNL & 1980' FWL, Sec. 11, T-12-S, R-30-E County Chaves State New Mexico

K.B. Elev. 4024'
G.L. Elev. 4005.5
D.F. Elev. 4006

Date Completed 11-12-87
Formation(s) Devonian

Open hole 10,251' - 280'. Completed natural, flow 480 BOPD, 0 BWPD, Gas TSTM, FTP 350#, 16/64" Chk. 41.2° API oil.



13-3/8" 48 #
Gr. N.A. Thd. ST&C
Set @ 450'
w/ 450 Sks.
Hole Size 17-1/2"
Cement circulated

TOC @ 2500'
calculated

8-5/8" " 24 & 32 #
Gr. J-55 Thd. LT&C
Set @ 2980'
w/ 1450 Sks.
Hole Size 11"
Cement circulated

DV tool 6985'

TOC @ 8900'
calculated

Baker Model "R-3 Double Grip" pkr at 10,147'

Top of Devonian 10,240'

5-1/2 " 17 #
Gr. K & N Thd. LT&C
Set @ 10,251' w/pkr shoe
w/ 1180 Sks.
Hole Size 7-7/8"
Open Hole 10,251 - 282'

DST #1
10,179-244' No recovery, DST failed.

DST #2
10,170-282' (Devonian). Rec 9998' free oil, no wtr, & 175 bbl 40° gravity in tank, sampler rec 2255 cc oil + .0325 ft^3 gas, DST No. 2 as follows

IHP	5000#
15 min Preflow	1649# - 2062#
60 min ISIP	4036#
60 min 2nd FP	2319# - 3743#
120 min FSIP	4036#
FHP	5000#
BHT	157°F

Gas & fluid to surface in 30 mins. after flow

Plug Back Total Depth 10,280'
Total Depth 10,280'
Well Name Culp Ranch Unit #1

VII. Data For the Proposed Disposal Well

1) Average daily rate 500 BWPD increasing to a maximum daily rate of 2500 BWPD.

2) This will be a closed system designed to keep oxygen from entering the SWD well. An oil blanket will be kept in the disposal tank. A Water leg will keep the oil blanket from being pumped down the disposal well.

3) Initially the disposal well should be on a vacuum. The maximum pressure will not exceed 500 PSI.

4) There are a number of Devonian disposal wells in Eddy, Lea and Chaves Counties, New Mexico. Quite often produced Devonian water is disposed by using these wells. Since Devonian water will be disposed into the Devonian formation there should be no major compatibility problem. An analysis of the Devonian water is attached.

P O BOX 1468
MONAHANS TEXAS 79756
PH. 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

LABORATORY NO. 288349

TO: Bell, Foy & Middlebrook
310 West Texas, Suite 210, Midland, TX

SAMPLE RECEIVED 2-26-88

RESULTS REPORTED 3-1-88

COMPANY Bell, Foy & Middlebrook LEASE Culp Ranch Unit

FIELD OR POOL Wildcat

SECTION ___ BLOCK ___ SURVEY ___ COUNTY Chaves STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Recovered water - taken from Culp Ranch Unit #1. 2-25-88

NO. 2

NO. 3

NO. 4

REMARKS: Devonian

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0337			
pH When Sampled				
pH When Received	6.49			
Bicarbonate as HCO_3	651			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	5,200			
Calcium as Ca	1,660			
Magnesium as Mg	255			
Sodium and/or Potassium	15,716			
Sulfate as SO_4	2,194			
Chloride as Cl	25,922			
Iron as Fe	3.3			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	46,399			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.175			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The above results correlate well with our nearest Devonian records in the Caprock field.

Form No. 3

By W. Reagan White, B.S.

cc: Mr. Robert Setzler, Midland

(4)

VIII. GEOLOGIC DATA FOR DISPOSAL ZONE

Name: Devonian

Depth: 10,369 - 10,393'

Thickness: 24'

Lithology: Dolomite: White - Buff - Tan, fine - med. crystalline.

Porosity: Estimated, 5 - 10 %

Resistivity: Estimated, 10 - 20 ohms. 100% water.

Recovered 4464' Formation Water on DST #3; 10,366-10,393'.

The Ogallala appears to be the only source of potable ground water in this area. Depth to groundwater in the Ogallala does not exceed 500 feet in this area. There are no known sources of drinking water below the injection interval.

IX. Workover Procedure

A) Set anchors. Move in double drum pulling unit. Install BOP. Text BOP to 200#. Test casing to 1000#.

B) Drill out cement stage tool and plug at 5980' (tool length 1.84') using 8 - 3-1/2" drill collars, 4-3/4" tri-cone bit, 5-1/2" casing scraper and 2-7/8" work string.

C) After drilling out stage tool, pressure test 5-1/2" casing to 1000#.

D) Run 2-7/8" tubing with 4-3/4" bit and bottom hole assembly to top of float collar located at 10,328'. Drill out float collar, shoe joint and formation packer shoe set at 10,370' (total length 42.00').

E) Clean out open hole from 10,370'-10,393'. Continue to drill until bit wears out or a total depth of 10,420' is reached or until circulation is lost.

F) Pull tubing and bit out of hole. RU logging unit. Run Gamma Ray-Compensated Neutron log from TD to 8450'. Set on depth to SDL-DSN log dated 7-12-88. POH. GIH with cement bond log. Check cement bond from bottom of casing at 10,370' to top of cement for 1st stage. POH to DV tool at 5980' and find top and bottom of second stage cement. Finish POH.

G) RIH w/2-7/8" tubing and RTTS packer. Set packer at 10,350'. Spot 100 gallons 20% NeFe acid to within 100' of bottom of tubing. Shut bypass. Pressure annulus to 1500#. Displace acid into Devonian zone at 3-5 BPM at anticipatd WHTP of 3000#.

H) After acidizing obtain step-rate injection test using formation water form Well No. 1.

I) Release the RTTS packer and POH. RIH w/a 45A4 Baker model lok-set retrievable casing packer 5-1/2" - 17# internally plastic coated with a Baker model "FMH" side pocket mandrel and Baker model "RL" on-off connector w/1" plug installed in profile nipple on 2-7/8" work string. Set packer at 10,350'. POH.

J) Mix 1800# KCl, 1 gallon Lo Surf and 1 gallon clay stabilizer w/225 barrels fresh water to make 2% KCl water.

K) Pick up RTTS packer and bridge plug. RIH. Set retrievable bridge plug at 9700'. POH. Spot, using 2% KCl water, 100 gallons 7-1/2% Morrow flow acid across interval 9669' to 9557'. Pull packer up to 9500'.

L) Swab well down to 5800'. This will leave the well 1000# under balanced.

M) Set packer at 9500'. Fill 2-7/8" x 5-1/2" casing annulus w/2% KCl water. Run perf gun with collar locator. Set gun on depth. Place 1000# on casing annulus and monitor. Close wire line lubricator. Perf Morrow zone with 1-11/16" tubing gun from 9669-9654' at 4 JSPF.

N) Allow pressure to stabilize. Pull perf gun out of hole. Flow test well. Allow well to clean up. Obtain 4 point potential test.

O) If well does not flow, swab to kick it off. If necessary open bypass on packer, spot 1000 gallons 7-1/2% Morrow Flo acid to within 50' of bottom of the tubing. Shut bypass and acidize zone, dropping 40 balls, pumping at 3-4 BPM with anticipated WHTP of 5500 psi. Then swab and flow test. Obtain 4 point potential test.

P) Pump 5-10 barrels 2% KCl water down tubing. Open packer bypass. After the well equalizes this should place the fluid at 3500' FS which should hydrostatically balance the well bore fluid and formation pressure.

Q) Set over and pull retrievable bridge plug at 9700'. POH.

R) Pick up plastic coated injection tubing and top of on-off tool. RIH. Latch on to packer assembly.

S) Install wellhead, unload casing using nitrogen. Let Morrow flow and clean-up.

T) Shut well in. Run retrievable dummy valve on wireline. Seat into side pocket mandrel. POH. GIH with overshot on wireline, retrieve 1" blanking plug in P142.

U) Place Devonian on SWD service & flow Morow up 5-1/2" casing annulus.

DATE 2 88

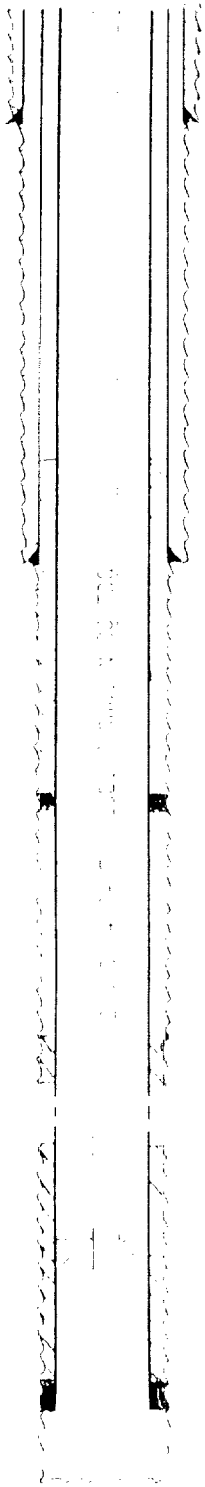
PROPOSED
WELL DATA SHEET

Lease [illegible] Ranch Unit Well No. 2

Location 330' FNL & 990' FWL Sec. 11
T 12-S, R-30 E County Chaves State Texas

K. B. El. = 4011.5
G. L. El. = 3993
D. F. El. = NA

Date Completed
Formation(s) Devonian
Morrow



13-3/8" 48 #
Gr. H-40 Thd. STC
Set @ 450
w/ 475 Sks.
Hole Size 17-1/2"
Cement Circulated

TOC 2800' (calc) 2nd stage 900 sks

8-5/8" 32# & 24 #
Gr. K&N Thd. STC
Set @ 3006'
w/ 1520 Sks
Hole Size 11"
Cement Circulated

DV Tool at 5980'

TOC 8500' (calc) 1st stage 375 sks

Proposed Morrow Gas
Perf 9654' 9669'

Baker Lok Set Pkr w/
on-off sealing connecto
and side pocket mandrel
with retrievable dummy valve
at 10,300'

5-1/2" 17 #
Gr. K&N Thd LTC
Set @ 10,370' w/
Formation Pkr Shoe
Hole Size 7-7/8"

Devonian SWD
Open Hole

Plug Back Total Depth 10,393'
Total Depth 10,393'
Well Name Culp Ranch Unit #2

X. Logs are currently in the mail to the NMOCC.

Culp Ranch Unit #2

KB 4011

Yates	1583	(+2473)
San Andres	2828	(+1183)
Tubb	5660	(-1649)
Abo	6486	(-2475)
Base of Abo Shale	6945	(-2934)
Wolfcamp	7586	(-3575)
Cisco	8182	(-4171)
Canyon	8502	(-4491)
Strawn	8880	(-4869)
Atoka	9160	(-5149)
Mississippian	9684	(-5673)
Woodford	10,333	(-6322)
Devonian	10,355	(-6344)
TD	10,393	(-6382)

Logs indicate possible production between 9,000- 9,700' within the Atoka/Morrow.

XI. A chemical analysis for fresh water is attached.

XII. All available data have been examined and there is no evidence that open faults or other hydrologic connection exists between the disposal zone and any underground source of drinking water.

XIII. A copy of proof of notice has been mailed to the Roswell Daily Record; 7-25-88. A copy of proof of notice is enclosed.

P O BOX 1468
MONAHANS TEXAS 79756
PH 943-3234 OR 563-1040

Martin Water Laboratories, Inc.

709 W INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Bell, Foy & Middlebrook
310 West Texas, Suite 210, Midland, TX

LABORATORY NO. 588199
SAMPLE RECEIVED 5-23-88
RESULTS REPORTED 5-24-88

COMPANY Bell, Foy & Middlebrook LEASE Culp Ranch Unit
FIELD OR POOL Graham Springs
SECTION 11 BLOCK ____ SURVEY T-12S & R-30E COUNTY Chaves STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Ogallala water - taken from windmill ½ mile north of Culp Ranch Unit #1. 5-21-88
NO. 2 Ogallala water - taken from windmill 3/4 mile northwest of Culp Ranch Unit #1. 5-21-88
NO. 3
NO. 4
REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0020	1.0028		
pH When Sampled				
pH When Received	7.36	9.77		
Bicarbonate as HCO_3	173	83		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	168	95		
Calcium as Ca	48	27		
Magnesium as Mg	11	7		
Sodium and/or Potassium	6	87		
Sulfate as SO_4	25	113		
Chloride as Cl	9	21		
Iron as Fe	0.48	0.24		
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	273	378		
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	34.00	18.00		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Carbonate, as CO_3	0	41		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

By
Waylan C. Martin, M.A.

cc: Mr. Robert Setzler, Midland

(12)

Foy and Middlebrook

Exploration and Production
[illegible] W. Texas, Suite [illegible]
Midland, Texas [illegible]
915 [illegible] 9144

Roswell Daily News
P.O. Box 1897
Roswell, New Mexico 88202-1897

July 25, 1988

Dear Ms. Linda Burkholder:

Please run attached "Proof-of-Notice" in your Paper as soon as possible. Please return to Foy and Middlebrook a copy of the notice which has been notarized along with the bill for your services.

Yours very truly,

Foy and Middlebrook

Steven R. Foy
General Partner

Foy and Middlebrook, 310 West Texas, Suite 210, Midland, Texas 79701, Phone (915) 687-0144, Mr. Steven Foy, proposes to convert the Culp Ranch Unit #2 into a salt water disposal well. This well is located 330' FNL & 990'FWL, Section 11, T-12-S, R-30-E, Chaves County, New Mexico. Injection will be into open hole from 10,370-10,393' into the Devonian formation. Initial injection pressure is anticipated to be 0# with the maximum pressure not to exceed 500#. Should anyone object, please file your objection with the NMOCC, P. O. Box 2088, Sante Fe, New Mexico 87501 within 15 days after this notice has been published.