STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

12-10-93

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

SWD-545

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:
MC
DHC
NSL
NSP
SWD X
WFX
PMX

Gentlemen:

I have examined the application for the:

Barbara Fasken — Wingard — #13-P — 24-12-37
Operator — Lease & Well No. — Unit — S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

BARBARA FASKEN
FASKEN OIL AND RANCH INTERESTS
303 WEST WALL AVENUE, SUITE 1900
MIDLAND, TEXAS 79701-5116
(915) 687-1777

December 6, 1993

Oil Conservation Division
Mr. Ben Stone
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for
Authorization to Inject
Barbara Fasken-Operator
Wingerd #13
Sec 24, T-12S, R-37E
Gladiola Field
Lea County, New Mexico

Dear Mr. Stone:

All supporting data for the above noted application are attached. The proposed injection interval is 11,862'-11,898'. The well will be equipped with 3-1/2" tubing in 5-1/2" casing. Fasken requests permission to set the injection packer at +/- 11,000' for the following reasons:

1. To avoid setting in 6 degree deviation at +/-11,775'.
2. To allow more clearance between the 3-1/2" collars and the 5-1/2" casing. The 5-1/2" 17#/ft casing is set surface-11,100'; 20#/ft below 11,100'.
3. The squeezed Mississippian perfs 11,192-232' will be below the packer thereby ensuring a positive tubing/casing annulus integrity test.

The only well within the area of review with Mississippian perforations is the Fasken Wingerd #2. The Wingerd #2 was authorized for disposal into the Devonian and Mississippian zones by Administrative Order SWD-533 dated 9-20-93. During the well #2 workover the Devonian zone was found to be capable of flowing oil at commercial quantities. The well is currently flowing from the Devonian with Mississippian perfs open under the packer. A downhole commingling request has been made assigning 0% of the production to the Mississippian.

Sincerely,

Carl Brown

Carl Brown
Petroleum Engineer

CWB/cb
cc: File

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

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Barbara Fasken

Address: 303 W. Wall, Suite 1900, Midland, TX 79701

Contact party: Carl W. Brown Phone: (915) 687-1777

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

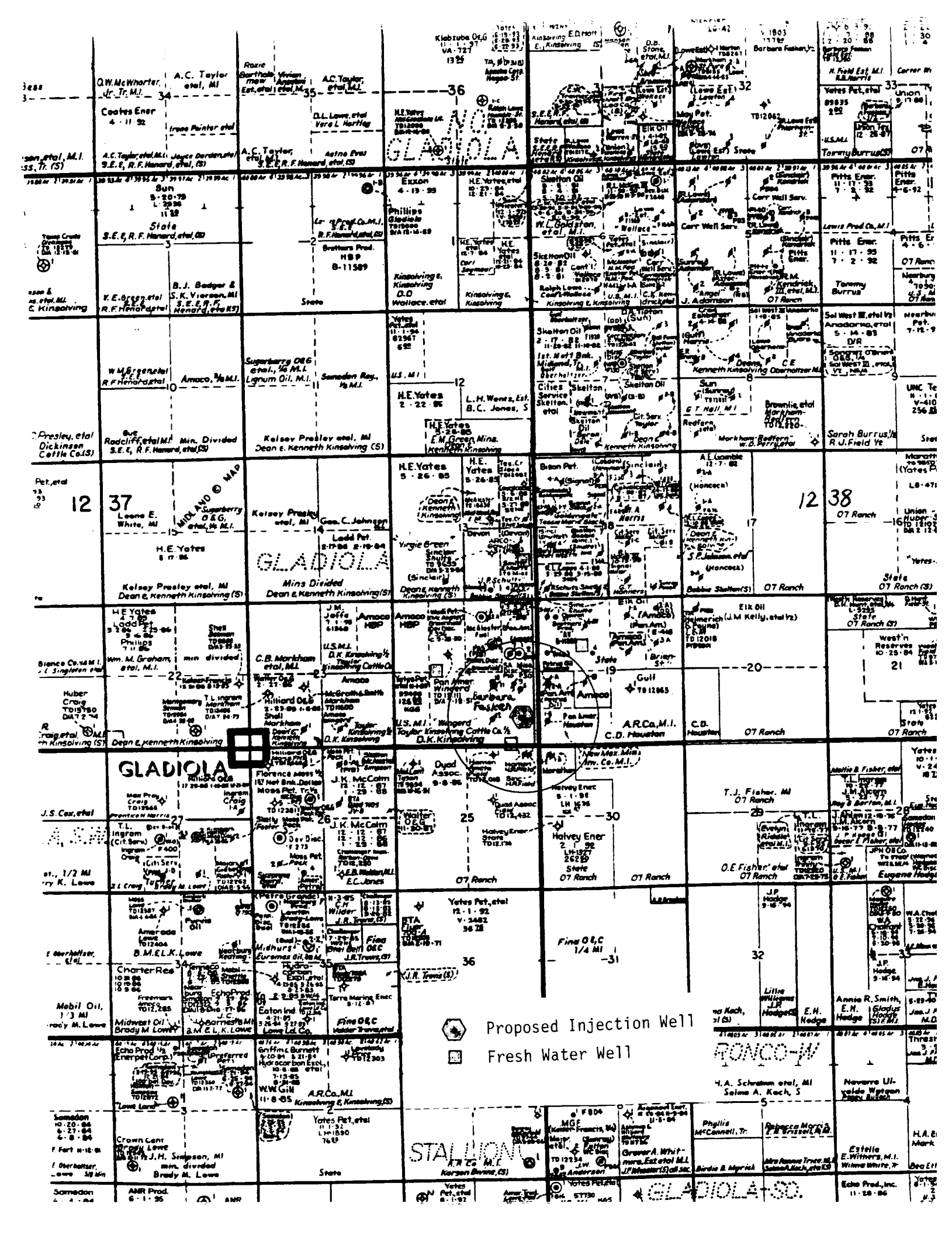
I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Carl W. Brown Title Petroleum Engineer

Signature: Carl W. Brown Date: 12-6-93

* 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


GLADIOLA
GLADIOLA
GLADIOLA
STALLION
RONCO-M
GLADIOLA-SO.
Proposed Injection Well
Fresh Water Well

VI. Table of wells within area of review and schematics of P&A wells is attached.

VII. 1. Average Daily Rate: 2500 BWPD
Maximum Daily Rate: 5000 BWPD

2. Closed System

Average Pressure: Vacuum initially

3. Maximum Pressure: 500 PSI

4. Water Sources: Gladiola-Devonian produced water.

VIII. The proposed injection zone is the Devonian age dolomite at a depth of approximately 11,860' with a gross thickness of +/- 250'.

Fresh water aquifer at this site is the Ogalalla found from near surface to a depth of 300'.

IX. Propose to stimulate the existing perforations 11862-11898 with 6,000 gallons 15% HCL acid.

X. Logs have been filed with OCD.

XI. Chemical analysis of fresh water wells is attached.

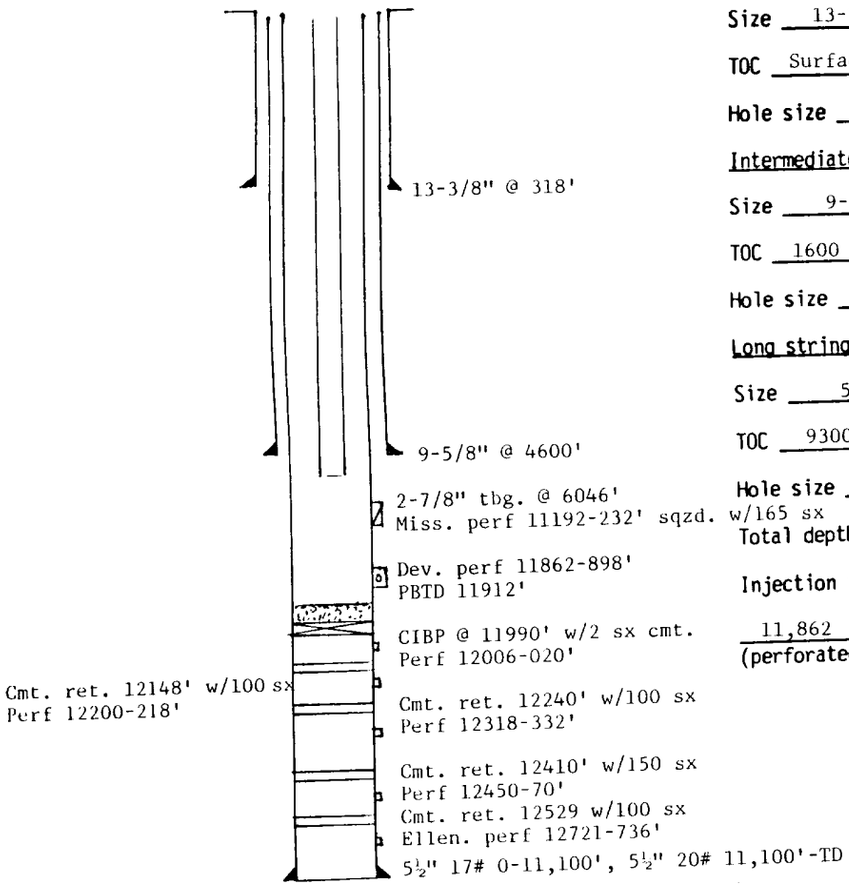
XII. Applicant attests that a thorough examination has been made of all available geologic, engineering, and well data and that no hydorlogic connection exists between the proposed injection interval and the overlying fresh water aquifer.

XIII. Proof of Notice in area newspaper will be forwarded under separate cover.

INJECTION WELL DATA SHEET

Barbara Fasken	Wingerd			
OPERATOR	LEASE			
13	990' FSL, 660' FEL	24	T12S	R37E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

Schematic



Tubular Data

Surface Casing

Size 13-3/8" Cemented with 380 sx.

TOC Surface feet determined by Circulation

Hole size 17½"

Intermediate Casing

Size 9-5/8" Cemented with 1500 sx.

TOC 1600 feet determined by Calc.

Hole size 12¼"

Long string

Size 5½" Cemented with 1100 sx.

TOC 9300 feet determined by Temp. Survey

Hole size 7-7/8"

Total depth 12,945'

Injection interval

11,862 feet to 11,898 feet perforated

(perforated or open-hole, indicate which)

Tubing size 3½" lined with plastic coating (material) set in a

Watson Arrowset I (brand and model) packer at ±11,000 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Devonian

2. Name of Field or Pool (if applicable) Gladiola

3. Is this a new well drilled for injection? ___ Yes X No

   If no, for what purpose was the well originally drilled? Completed as Devonian oil producer 10-24-56

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) Miss. 11192'-11232' sqzd. w/165 sx CIBP @ 11990' w/2 sx PBTD 11912', Dev. perf 12006-20', cmt. ret. 12148' w/100 sx, Dev. perf 1220-218, cmt. ret. 12240' w/100 sx Dev. perf 12318-332', cmt. ret. 12410' w/150 sx, Dev. perf 12450-470', cmt. ret. 12529' w/100 sx Ellenburger perfs 12721-736'.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area.

   Wolfcamp ±9400', Mississippian ±11150'