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

9-23-92

BRUCE KING
GOVERNOR

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

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

Acct 499

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

Gentlemen:

I have examined the application for the:

Tipperary (Buffalo Pipeline Corp.) Southland Royalty State D #1-H 31-10-33
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

Tipperary
CORPORATION

633 Seventeenth Street
Suite 1550
Denver, Colorado 80202

Friday, September 18, 1992

Mr. Jerry Sexton
District Supervisor
Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241-1980

Re: Application for Authority to Inject (C-108)
Burro Pipeline Corporation
Lea County, New Mexico

Dear Mr. Sexton,

Please find enclosed Burro Pipleine Corporation's application for authority to inject for a proposed salt water disposal well in Lea County, New Mexico. Our proposal is to reenter a currently plugged salt water disposal well and recomplete the well for present disposal needs of the Burro Pipeline system.

I have also sent the original and a copy to Mr. William Lemay in the Santa Fe office of the Division. If you should need any further assistance in this matter, please feel free to call me at (303) 293-9379.

Sincerely,

Mark Amershek
Engineering Analyst

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: BURRO PIPELINE CORPORATION

Address: 633 17th STREET, SUITE 1550, DENVER, COLORADO 80202

Contact party: MR. CARTER G. MATHIES Phone: 303-293-9379

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: CARTER G. MATHIES Title PRESIDENT

Signature: Carter G. Mathies Date: 9/18/92

* 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. _____

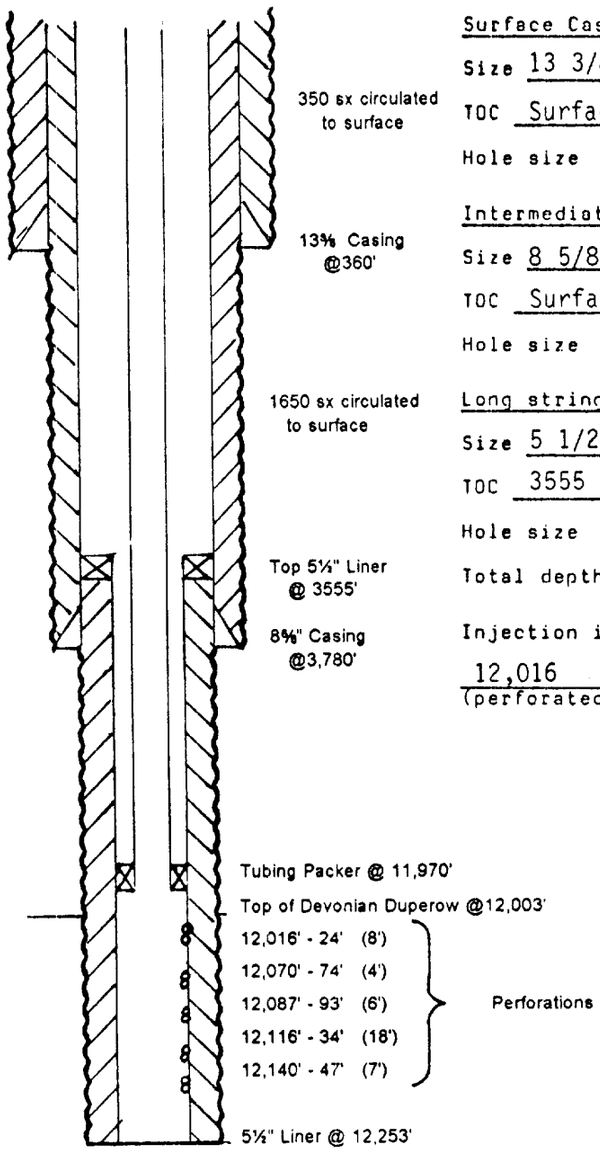
DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

INJECTION WELL DATA SHEET

SOUTHLAND ROYALTY COMPANY		STATE "D" #1		
OPERATOR		LEASE		
1980 FNL 660 FEL		Sec. 31 (SENE)	10S	33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE

LEA COUNTY, NEW MEXICO

Schematic



Tabular Data

Surface Casing

Size 13 3/8" " Cemented with 350 sx.

TOC Surface feet determined by Circulation

Hole size 17"

Intermediate Casing

Size 8 5/8" " Cemented with 1650 sx.

TOC Surface feet determined by Circulation

Hole size 12 1/4"

Long string

Size 5 1/2" " Cemented with 446 sx.

TOC 3555 feet determined by Circulation

Hole size 7 7/8"

Total depth 12,253'

Injection interval GROSS

12,016 feet to 12,147 feet
(perforated or open-hole, indicate which)

Tubing size 2 7/8 N-80 lined with Fiberglass (material) set in a

ELDER, SURELOCK (brand and model) packer at 11,970 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) N. Bagley

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

If no, for what purpose was the well originally drilled? Originally dry hole in 1957

Re-entered & completed as SWD well by Southland in March 1967, P&A in April 1983

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)

No

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

Canyon 9601, Strawn 10,045

Section XIII.

a. Proof that a copy of this application has been sent to the owner of the land will be furnished to the Division at a later date.

b. There are no leasehold operators within one-half mile of the well location.

c. Proof of publication (notice published 09/21/92 in Hobbs New Sun) will be furnished to the Division at a later date.

Application For Authorization To Inject

Section VI.

There are no wells of public record within the area of review which penetrate the proposed injection zone. The only known well within the review area was the State of New Mexico "E" #1 well which was plugged and abandoned 02/23/57.

Section VII.

Proposed Operation:

1a. Proposed average daily rate is 5,000 bbls.

1b. Proposed maximum daily rate is 6,000 bbls.

1c. Proposed volume of water to be injected 57,000,000 bbls.

2. System is closed.

3a. Proposed average injection pressure is 0 psig.

3b. Proposed maximum injection pressure is 825 psig.

4. The requested injection of fluid will be produced water from the North Bagley (Pennsylvanian) Field.

5. Chemical analysis of produced waters in milligrams per liter (mg/L) from the North Bagley (Pennsylvanian) and Bagley (Devonian) Fields are listed below:

Ion	Pennsylvanian Formation Water	Devonian Formation Water
Sodium/Potassium	22,300	14,039
Calcium	2,600	1,700
Magnesium	724	504
Sulfate	364	1,699
Chlorides	40,600	24,500
Bicarbonates	509	685

Section VIII.

a. A copy of the wireline acoustic velocity log of the Devonian Formation State "D" #1 (31-10S-33E) is attached indicating the requested injection zone with perforations. The approximate thickness of the Devonian in the area of the requested injection is estimated to be 1,000 feet. The depth to the top of the Devonian #1 is 12,002 feet and total depth is 12,240 feet.

b. The Teritiary Ogallala Formation is the major aquifier within six miles of the State "D" #1. Other minor aquifers found six miles and beyond are the Cretaceous Limestone and the Triassic Devonian Dockum Group. The base of the Triassic Dockum Group from ground level is appoximately 1,745 feet. In the surrounding area of the State "D" #1 the Ogallala rests on the Triassic Dockum Group. (Reference: U.S.G.S. "Ground Water Conditions in Northern Lea County, New Mexico", 1963)

Section IX.

No stimulation progarm proposed.

Section X.

All logging and test data are on file with the Division from the original completion of the State "D" #1 well by Southland Royalty in 1967.

Section XI.

There are no known fresh water wells within one mile of the disposal well. We are currently contacting the surface owner to verify the existence of any fresh water wells. This information will be sent to the Division when received from the surface owner.

Section XII.

Surface geologic maps, wireline logs and published literature were reviewed for the presence of faulting in the area of the requested injection well. There was no evidence of surface or subsurface faults within three miles of the State "D" #1 well that could connect the injection zone and the drinking water aquifers.