POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (505) 622-1127
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700
ROSWELL, NEW MEXICO 88201

October 18, 1994

Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Proposed Water Disposal Well
Antelope Ridge Unit #5
2310' FSL & 990' FWL
Section 33-23S-34E
Lea County, New Mexico

Gentlemen:

Strata Production Company proposes converting the captioned well for water disposal into the Bell Canyon formation of the Delaware Mountain Group. The well will be used to dispose of produced water from the Delaware formation in the Antelope Ridge Delaware field. Please find enclosed the following data pertinent to our application:

1. Form C-108 with information attached.
2. Area of Review Map.
3. Wellbore Diagram - Antelope Ridge Unit #5.
4. Proposed Wellbore Diagram - Antelope Ridge Unit #5.
5. Logs of proposed disposal zone - Antelope Ridge Unit #5.
6. Copies of public notice and notices to offset operators.
7. Analysis from fresh water source.

Should you have any questions regarding this matter, please contact this office.

Sincerely,

STRATA PRODUCTION COMPANY

Frank S. Morgan
Vice President

FSM:cjg
Enclosures

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: Strata Production Company

Address: P. O. Box 1030, Roswell, New Mexico 88202-1030

Contact party: Frank S. Morgan, Vice President Phone: 505-622-1127

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: Frank S. Morgan Title Vice President/Operations

Signature: Frank S Morgan Date: October 17, 1994

* 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.

ANSWERS TO FORM C-108:

III. See attached well diagram.

IV. No.

V. See attached plat. There are no wells within the area of review. However, there are four (4) Antelope Ridge Unit wells outside of the area of review.

VI. Proposed Injection Well:

Antelope Ridge Unit #5: Located 2310' FSL and 990' FWL of Section 33, Township 23 South, Range 34 East, Lea County, New Mexico. Spud 1/8/75. Set 400' of 16" casing. Cemented with 525 sacks cement. Set 5167' of 10 3/4" casing. Cemented with 1250 sacks cement. Set 12,229' of 7 5/8" casing. Cemented with 865 sacks cement. Set 11,842'-13,987' of 5 1/2" liner. Cemented with 480 sacks cement. TD 14,238'. PBTD 13,987'. Perforated 13,591'-13,811' (2 SPI). Acidize with 3000 gal. Temporarily Abandoned 6/23/75. 1/27/76 cut 7 5/8" casing at 7160' and pulled. Set 50 sack plug at 7090'-7220'. Set 50 sack plug at 5110'-5237'. Set 50 sack plug at 1090'-1217'. Set 10 sack plug at surface and installed marker. Plugged and Abandoned 2/5/76.

Off-Set Wells in Area of Review:

None.

VII/VIII. Injection Zone/Procedure

Zone to be Injected: 5167'-6400'
Open-hole

This interval does not produce oil in the vicinity. The lowest injection zone is approximately 600 feet above the uppermost pay objective in the Antelope Ridge Delaware field. The uppermost injection zone is 2000' below the top of the Delaware. Mudlog shows were not encountered in any of the Antelope Ridge Unit wells in this interval.

TYPE INJECTION SYSTEM:	Closed
PROPOSED DAILY INJECTION RATE:	400 barrels initial (1 BPM)
MAXIMUM DAILY INJECTION RATE:	600 barrels (1.5 BPM)
AVERAGE INJECTION PRESSURE:	350 psi
MAXIMUM INJECTION PRESSURE:	1035 psi

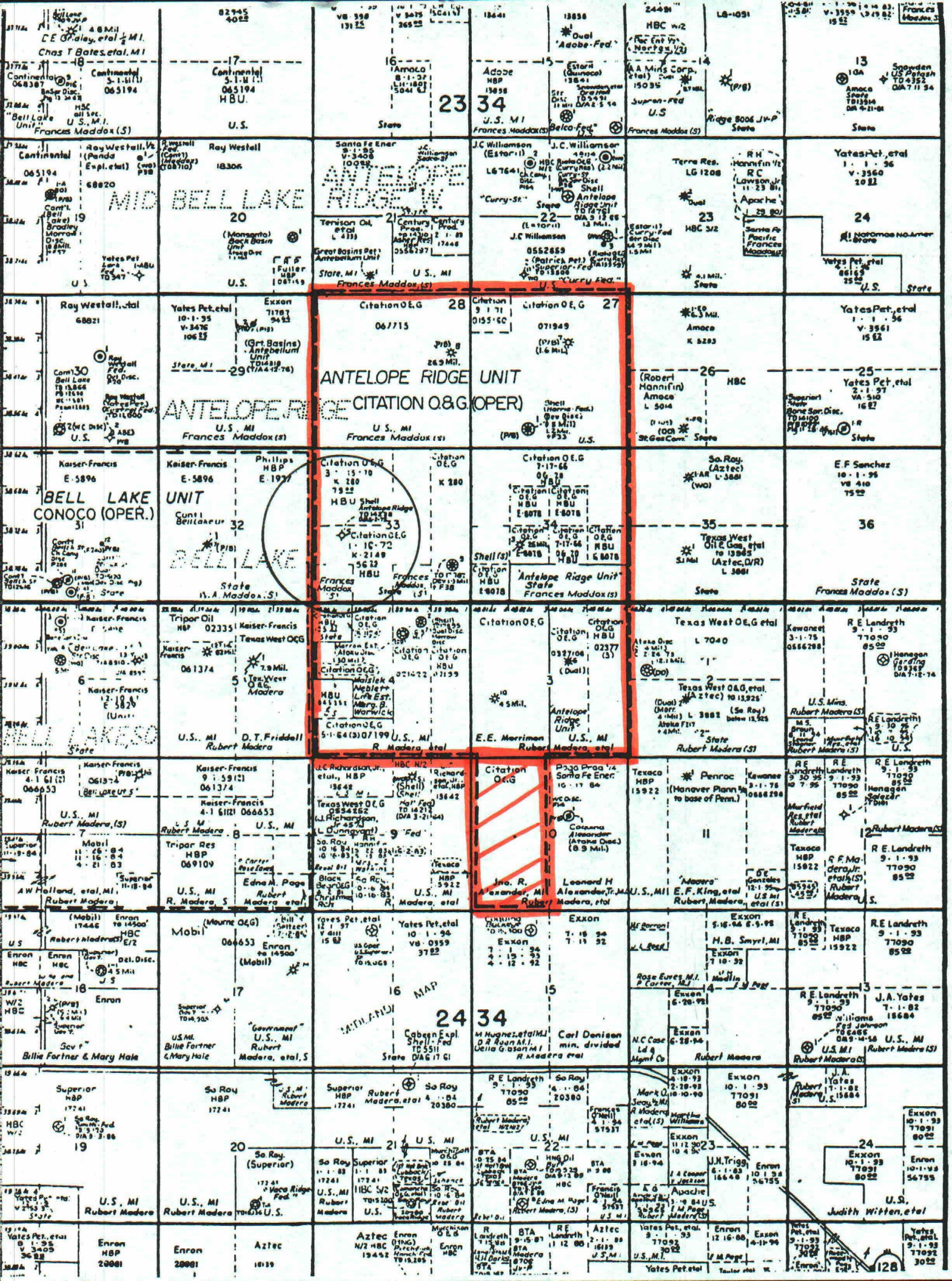
Water Compatibility: The water to be injected will initially be produced from the Papagayo Federal #1 well producing from 6892' to 7656'. Currently the field produces approximately 100 BOPD and 60 BWPD. Additional drilling and workovers in the Delaware are slated for December, 1994, and should produce additional oil and water.

IX. Stimulation Program: Inject 3000 gal 7 1/2% NEFE.

X. See attached log showing open-hole.

XI. Water Analysis attached.

XII. Strata Production Company has examined all available geologic and engineering data in this area and finds no evidence of open faults or other hydrologic connections between the disposal zone and any potable aquifers.


ANTELOPE RIDGE UNIT
CITATION O&G (OPER)
ANTELOPE RIDGE
BELL LAKE
MID BELL LAKE
BELL LAKE UNIT
CONOCO (OPER.)
ANTELOPE RIDGE W.
Citation O.E.G
Shell
Exxon
Mobil
Enron
Yates Pet.etal
Ray Westall,etal
Kaiser-Francis
Texas West O.E.G etal
Frances Maddox (S)
U.S., MI
State

NO. BELL LAKE

29.1 BCFG
57 MBO

4.8 BCFG
132 MBO

0.25 BCFG
1.3 MBO

5.1 BCFG
257 MBO

NA

1.6 BCFG
44 MBO

7

8

ANTELOPE RIDGE, N

TD 80

10

0.2 BCFG

6.7 MBO

.002 BCFG

AA

J/A 4141

199 MBO

4.7 BCFG
21 MBO

3.9 MBO

TD [illegible]

9

10

J/A 1061
4.38 BCFG
57 MBO

2.6 BCFG
20 MBO

.33 BCFG
1.2 MBO

11

.1 MBO

18

17

16

15

14

1

Cont'l.
Bell Lake Unit

.86 BCFG

.8 MBO

7.6 BCFG
136 MBO

R-34-E

11.2 BCFG
155 MBO

1.05 BCFG
12 MBO

6.0 BCFG
144 MBO

Snowden, etal
Hall
TD 8491

19

20

ANTELOPE RIDGE, W.

21

22

23

TD 8710

1.1 BCFG
.6 MBO

MID BELL LAKE

TD 8347

.02 BCFG

.9 MBO

T-23-E

6.0 BCFG
4 MBO

46.7 MBO

.8 MBO

T/A 13959

1.07 BCFG
17 MBO

TD 13500

19.5 BCFG
254 MBO

10.4 BCFG
110 MBO

.7 MBO

30

29

28

27

26

25

.7 MBO

(TD [illegible])

6.1 MBO

.16 BCFG
15 MBO

TD [illegible]

10.02 BCFG
140 MBO

1.2 BCFG
23 MBO

(Shell)
(Harris-Fed.)

28.8 BCFG
340 MBO

9.4 BCFG
113 MBO

ANTELOPE RIDGE

6.0 BCFG
1 MBO

15 MBO

31

32

33

34

35

36

Del: 5.5 MBO
Bsp: 194 MBO

Del: 21 MBO
Bsp: 74 MBO

TD 12616
5.5 MBO

.03 BCFG

6.2 BCFG

TD 14288

3.1 BCFG
68 MBO

16 BCFG
326 MBO

.09 BCFG
5 MBO

1.2 BCFG
5 MBO

210 MBO

6

5

4

3

2

1

33.2 BCFG
14 MBO

4.2 BCFG
1.6 MBO

T/A 8910

JVA 8897

26.9 BCFG
89 MBO

BELL LAKE, SO.

11 BCFG
188 MBO

Shell
Shell-Fed.

24.2 BCFG
318 MBO

.3 BCFG

2.6 BCFG
40 MBO

3.0 BCFG
140 MBO

3.3 BCFG
173 MBO

7

8

9

10

11

12

.5 BGFG

1.5 BCFG

.2 BCFG
3 MBO

1.1 BCFG

EXHIBIT #2

18

17

16

15

14

13

4.1 BCFG
7 MBO

4.1 BCFG
9 MBO

0.1 BCFG

TD 14305

R-34-E

= Delaware Mtn Group
= Bone Spring Formation
= All Formations below the Bone Spring

ANTELOPE RIDGE DELAWARE PROSPECT
CUMULATIVE PRODUCTION MAP

PRESENTED BY SCOTT EXPLORATION INC., GEOLOGY BY JOHN WORRALL

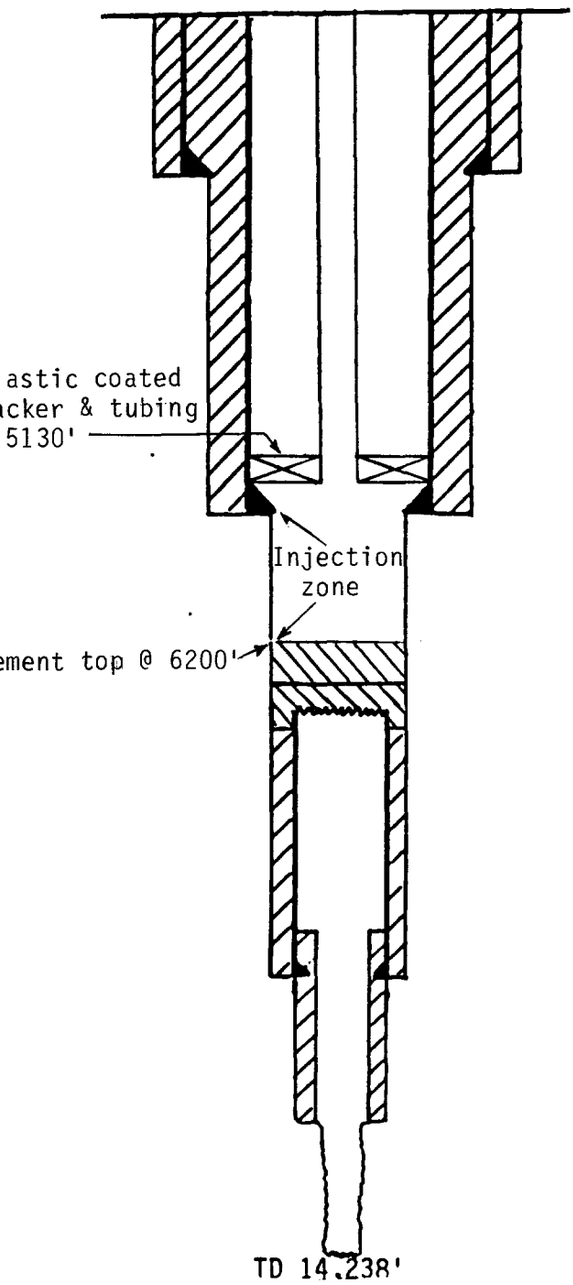
All Production Through April 30, 1993.

NDE: Not Deep Enough
NLTI: No log this interval
NA: Not Available

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
Strata Production Company	Antelope Ridge Unit			
WELL NO.	**FOOTAGE LOCATION**	**SECTION**	**TOWNSHIP**	**RANGE**
5	2310' FSL & 990' FWL	33	35S	34E

Schematic



Tabular Data

Surface Casing

Size 16 " Cemented with 525 sx.

TOC Circulated feet determined by Circulated

Hole size 17¼

Intermediate Casing

Size 10 3/4 " Cemented with 1250 sx.

TOC Circulated feet determined by Circulated

Hole size 12½

Long string

Size None " Cemented with _____ sx.

TOC 6200 feet determined by Survey

Hole size 8 5/8"

Total depth 6200

Injection interval

5170 feet to 6200 feet
(perforated or open-hole, indicate which)

Recompletion for SWD

1) MI Completion unit. Dig out cellar & N.U. to 10 3/4" csg. Rig-up reverse unit & prep to drill out plugs.
2) P.U. & go in hole w/10½" bit. Clean out plugs at:surface, 1090'-1217', 5110'-5237'. Circ hole clean. TOH w/ tools
3) TIH w/ RBP. Set tools @ 5130'±. Test 10 3/4" csg. to 750# for 30min. TOH w/ tools.
4) TIH w/ work string & tag up on plug at 7090'. Set cement plug from 7090'± to no less than 6200'. TOH w/work string
5) TIH w/ Pkr & set @ 5130'±. Acidize open-hole from 5167' to 6200' w/ 3000 gal 7½% NEFE. Swab back. TOH w/ Pkr.
6) P.U. Plastic coated 2 3/8" tbg w/ zinc or Plastic coated Loc-set pkr 10 3/4". Circ hole w/ pkr fluid & set pkr @ 5130'±.
7) Flange-up & build well head. Ready for injection.

Tubing size 2 3/8" lined with Plastic (material) set in a

10 3/4" Loc-set (plastic or zinc coated) (brand and model) packer at 5130 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Upper Delaware

2. Name of Field or Pool (if applicable) none

3. Is this a new well drilled for injection? / Yes XX No

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

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) yes-

   Top perf 13,591' to 13,987' Casing cutoff @ 7160' w/50 sx plug from 7090 ' to 7220'. Will put cement plug to 6200'.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. The lowest injection zone is approximately 600 feet above the uppermost pay objective in the Antelope Ridge Delaware field. The uppermost injection zone is 2000' below the top of the Delaware.

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (505) 622-1127
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700
ROSWELL, NEW MEXICO 88201

October 17, 1994

Hobbs Daily Sun
P. O. Box 860
Hobbs, New Mexico 88241-0860

Re: Legal Publications

Gentlemen:

Enclosed herewith please find a Legal Notice to be published in your newspaper at the earliest possible date.

Please publish the notice one (1) time only and forward an Affidavit of Publication along with your invoice to:

Strata Production Company
ATTN: Frank S. Morgan
P. O. Box 1030
Roswell, New Mexico 88202-1030

Should you have any questions regarding this matter, please contact this office. Thank you for your cooperation.

Sincerely,

STRATA PRODUCTION COMPANY

Frank S. Morgan
Vice President

FSM:cjg
Enclosure

PUBLIC NOTICE

APPLICATION FOR WATER DISPOSAL

Strata Production Company, P. O. Box 1030, Roswell, New Mexico 88202-1030, (Contact: Frank S. Morgan, 505-622-1127), has filed Application with the Oil Conservation Division, Energy, Minerals and Natural Resources Department, State of New Mexico, for Administrative Approval and authority to inject salt water into the Antelope Ridge Unit #5 well located 2310' FSL and 990' FWL of Section 33, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico.

The purpose of the water injection well is to dispose of salt water produced from the producing Delaware formations as currently designated by the Oil Conservation Division and as may be extended by additional drilling.

Water to be disposed will be injected into the Bell Canyon formation of the Delaware Mountain group at an interval between 5167 feet to 6200 feet beneath the surface.

The minimum injection rate is expected to be approximately 350 barrels of water per day. The maximum injection rate is expected to be approximately 600 barrels of water per day.

Minimum injection pressure is expected to be approximately 300 PSI. The maximum injection pressure is expected to be approximately 1035 PSI.

Any interested party may file an objection to the Application or may request a public hearing. Any objection or request for hearing must be filed with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87504-2088 within 15 days from the date of publication.

STRATA PRODUCTION COMPANY

By: Frank S. Morgan

Frank S. Morgan
P. O. Box 1030
Roswell, New Mexico 88202-1030
Telephone 505-622-1127

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, Kathi Bearden

General Manager

of the Hobbs Daily News-Sun, a daily newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of _____

one weeks.
Beginning with the issue dated
October 23, 19 94
and ending with the issue dated
October 23, 19 94

Kathi Bearden
General Manager
Sworn and subscribed to before
me this 31 day of
October, 19 94
Charlene Ferrell
Notary Public.

My Commission expires
March 15, 1997
(Seal)

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

LEGAL NOTICE
October 23, 1994
PUBLIC NOTICE
APPLICATION FOR WATER DISPOSAL

Strata Production Company, P.O. Box 1030, Roswell, New Mexico 88202-1030, (Contact: Frank S. Morgan, 505-622-1127), has filed Application with the Oil Conservation Division, Energy, Minerals and Natural Resources Department, State of New Mexico, for Administrative Approval and authority to inject salt water into the Antelope Ridge Unit #5 well located 2310' FSL and 990' FWL of Section 33, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico.

The purpose of the water injection well is to dispose of salt water produced from the producing Delaware formations as currently designated by the Oil Conservation Division and as may be extended by additional drilling.

Water to be disposed will be injected into the Bell Canyon formation of the Delaware Mountain group at an interval between 5167 feet to 6200 feet beneath the surface.

The minimum injection rate is expected to be approximately 350 barrels of water per day. The maximum injection rate is expected to be approximately 600 barrels of water per day.

Minimum injection pressure is expected to be approximately 300 PSI. The maximum injection pressure is expected to be approximately 1035 PSI.

Any interested party may file an objection to the Application or may request a public hearing. Any objection or request for hearing must be filed with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87504-2088 within 15 days from the date of publication.

STRATA PRODUCTION COMPANY
By: Frank S. Morgan
P.O. Box 1030
Roswell, New Mexico 88202-1030
Telephone 505-622-1127

DUE DATE		
11/4/1		
	ACCT. BLOCK	AMOUNT
500 125 272 334	X01	

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (505) 622-1127
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700
ROSWELL, NEW MEXICO 88201

November 9, 1994

CERTIFIED/RETURN RECEIPT REQUESTED
Citation Oil & Gas Corporation
8223 Willow Place South, Suite 250
Houston, Texas 77070-5623

Re: Salt Water Disposal Well
Antelope Ridge Unit #5
Section 33-23S-34E
Lea County, New Mexico

Gentlemen:

As an operator of an oil and gas lease within one-half mile of the Antelope Ridge Unit #5 well located 2310' FSL and 990' FWL of Section 33, Township 23 South, Range 34 East, Lea County, New Mexico, please note the following.

Strata Production Company is filing Application to the New Mexico Oil Conservation Division for authority to convert the hole to a water disposal well for the re-injection of water produced from the Antelope Ridge Delaware field into porous zones in the Upper Bell Canyon formation.

Consequently, and pursuant to the rules and regulations of the NMOCD, enclosed please find a copy of the NMOCD form C-108 which is the Application for Authorization to Inject.

If you have an objection to the Application or feel that a public hearing is necessary, please contact the NMOCD, P. O. Box 2088, Santa Fe, New Mexico 87504-2088. You may also contact Mr. Frank S. Morgan, Strata Production Company, P. O.Box 1030, Roswell, New Mexico 88202-1030, telephone 505-622-1127.

If you do not have objections to the above mentioned Application, please sign one copy of this letter in the space provided and return to the undersigned.

Sincerely,
Frank S. Morgan cjg
STRATA PRODUCTION COMPANY

Frank S. Morgan
Vice President

We do not object to the Application.
CITATION OIL & GAS CORPORATION

By:_____
Dated:_____

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (505) 622-1127
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700
ROSWELL, NEW MEXICO 88201

November 9, 1994

CERTIFIED/RETURN RECEIPT REQUESTED
Phillips Petroleum Company
Partnership Operation East Manager
P. O. Box 1967
Houston, Texas 77251-1967

Re: Salt Water Disposal Well
Antelope Ridge Unit #5
Section 33-23S-34E
Lea County, New Mexico

Gentlemen:

As an operator of an oil and gas lease within one-half mile of the Antelope Ridge Unit #5 well located 2310' FSL and 990' FWL of Section 33, Township 23 South, Range 34 East, Lea County, New Mexico, please note the following.

Strata Production Company is filing Application to the New Mexico Oil Conservation Division for authority to convert the hole to a water disposal well for the re-injection of water produced from the Antelope Ridge Delaware field into porous zones in the Upper Bell Canyon formation.

Consequently, and pursuant to the rules and regulations of the NMOCD, enclosed please find a copy of the NMOCD form C-108 which is the Application for Authorization to Inject.

If you have an objection to the Application or feel that a public hearing is necessary, please contact the NMOCD, P. O. Box 2088, Santa Fe, New Mexico 87504-2088. You may also contact Mr. Frank S. Morgan, Strata Production Company, P. O.Box 1030, Roswell, New Mexico 88202-1030, telephone 505-622-1127.

If you do not have objections to the above mentioned Application, please sign one copy of this letter in the space provided and return to the undersigned.

Sincerely,

STRATA PRODUCTION COMPANY
Frank S. Morgan
Frank S. Morgan
Vice President

We do not object to the Application.
PHILLIPS PETROLEUM COMPANY

By:_____
Dated:_____

POST OFFICE DRAWER 1030
ROSWELL, NM 88202-1030

STRATA PRODUCTION COMPANY

TELEPHONE (505) 622-1127
FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700
ROSWELL, NEW MEXICO 88201

November 9, 1994

CERTIFIED/RETURN RECEIPT REQUESTED
J. W. Neal
419 W. Cane
Hobbs, New Mexico 88240

Re: Salt Water Disposal Well
Antelope Ridge Unit #5
Section 33-23S-34E
Lea County, New Mexico

Gentlemen:

As a surface lease owner of an oil and gas lease within one-half mile of the Antelope Ridge Unit #5 well located 2310' FSL and 990' FWL of Section 33, Township 23 South, Range 34 East, Lea County, New Mexico, please note the following.

Strata Production Company is filing Application to the New Mexico Oil Conservation Division for authority to convert the well to a water disposal well for the re-injection of water produced from the Antelope Ridge Delaware field into porous zones in the Upper Bell Canyon formation.

Consequently, and pursuant to the rules and regulations of the NMOCD, enclosed please find a copy of the NMOCD from C-108 which is the Application for Authorization to Inject.

If you have an objection to the Application or feel that a public hearing is necessary, please contact the NMOCD, P. O. Box 2088, Santa Fe, New Mexico 87504-2088. You may also contact Mr. Frank S. Morgan, Strata Production Company, P. O.Box 1030, Roswell, New Mexico 88202-1030, telephone 505-622-1127.

If you do not have objections to the above mentioned Application, please sign one copy of this letter in the space provided and return to the undersigned.

Sincerely,

STRATA PRODUCTION COMPANY

Frank S. Morgan
Vice President

We do not object to the Application.
J. W. NEAL

By:_____
Dated:_____

ENVIRO-CHEM

P. O. BOX 668
HOBBS, NEW MEXICO 88240
(505) 393-1917

WATER ANALYSIS REPORT

Company: Strata Production
Lease: Papa Gyo
Well: Fed. #1
Sample Point: Wellhead

Date: 11-22-94
Date Sampled: 11-15-94
Analysis No: E112

	ANALYSIS		mg/L	meq/L
1.	pH	5.8		
2.	Specific Gravity	1.220		
	DISSOLVED GASSES			
3.	H2S	6.0 PPM		
4.	Dissolved Oxygen	N/A		
5.	Dissolved CO2	576.0 PPM		
	CATIONS			
6.	Calcium	Ca	31262.4	1560.0
7.	Magnesium (calculated)	Mg	5080.8	418.0
8.	Sodium (calculated)	Na	92544.7	4025.4
	ANIONS			
9.	Methyl Orange Alkalinity	CaCO3	171.0	
10.	Bicarbonate	HCO3	208.6	3.4
11.	Chloride	Cl	212552.9	5995.8
12.	Sulfate	SO4	200.0	4.2
13.	Total Dissolved Solids		341883.4	
14.	Total Hardness	CaCO3	98989.0	
15.	Total Iron	Fe	34.0	

PROBABLE MINERAL COMPOSITION

Compound	Equiv wt	X	meq/L	=	mg/L
Ca(HCO3)2	81.0		3.4	=	277
CaSO4	68.1		4.2	=	283
CaCl2	55.5		1552.4	=	86144
MgCl2	47.6		418.0	=	19899
NaCl	58.4		4025.4	=	235246

SCALE TENDENCY REPORT

Calcium Carbonate Scaling Tendency

S.I. = at 80 degrees F
S.I. = at 100 degrees F
S.I. = at 120 degrees F
S.I. = at 140 degrees F

Calcium Sulfate Scaling Tendency

S. = at 80 degrees F
S. = at 100 degrees F
S. = at 120 degrees F
S. = at 140 degrees F

Calculation for MPY loss: 24.0 MPY

REMARKS: Don Canada / Copy / File Scaling Tendencies out of calculation range.

ENVIRO-CHEM

P. O. BOX 668
HOBBS, NEW MEXICO 88240
(505) 393-1917

WATER ANALYSIS REPORT

Company: Strata Production
Lease:
Well: Fresh Water
Sample Point: tank

Date: 11-22-94
Date Sampled: 11-15-94
Analysis No: E113

	ANALYSIS		mg/L	meq/L
1.	pH	8.0		
2.	Specific Gravity	1.005		
	DISSOLVED GASSES			
3.	H2S	0.0 PPM		
4.	Dissolved Oxygen	N/A		
5.	Dissolved CO2	8.0 PPM		
	CATIONS			
6.	Calcium	Ca	136.3	6.8
7.	Magnesium (calculated)	Mg	53.5	59.6
8.	Sodium (calculated)	Na	1315.3	1.0
	ANIONS			
9.	Methyl Orange Alkalinity	CaCO3	390.0	
10.	Bicarbonate	HCO3	475.8	7.8
11.	Chloride	Cl	2111.8	59.6
12.	Sulfate	SO4	50.0	1.0
13.	Total Dissolved Solids		4142.6	
14.	Total Hardness	CaCO3	560.5	
15.	Total Iron	Fe	0.0	

PROBABLE MINERAL COMPOSITION

Compound	Equiv wt	X	meq/L	=	mg/L
Ca(HCO3)2	81.0		6.8	=	551
CaSO4	68.1		1.0	=	73
CaCl2	55.5		1.0	=	63
MgCl2	47.6		2.4	=	112
NaCl	58.4		57.2	=	3343

SCALE TENDENCY REPORT

Calcium Carbonate Scaling Tendency

S.I. = 1.0 at 80 degrees F S.I. = 1.1 at 100 degrees F
S.I. = 1.1 at 120 degrees F S.I. = 1.2 at 140 degrees F

Calcium Sulfate Scaling Tendency

S. =1662 at 80 degrees F S. =1674 at 100 degrees F
S. =1665 at 120 degrees F S. =1651 at 140 degrees F

Calculation for MPY loss: 2.2 MPY

REMARKS: Don Canada / Copy / File

Schlumberger

COMPOSITE BOREHOLE COMPENSATED SONIC LOG AND COMPENSATED NEUTRON FORMATION DENSITY

COUNTY LEA
FIELD or LOCATION ANTELOPE RIDGE
WELL ANTELOPE RIDGE UNIT #5
COMPANY SHELL OIL COMPANY

COMPANY SHELL OIL COMPANY

WELL ANTELOPE RIDGE UNIT #5

FIELD ANTELOPE RIDGE MORROW

COUNTY LEA STATE NEW MEXICO

Location: 2310' FSL & 990' FWL
Sec. 33 Twp. 23-S Rge. 34-E

Other Services: DIL, ML

Permanent Datum: G.L. Elev.: 3522
Log Measured From: K.B. 19 Ft. Above Perm. Datum
Drilling Measured From: K.B.

Elev.: K.B. 3541
D.F.
G.L. 3522

Date	2-13-75	4-2-75
Run No.	ONE (BHC)	TWO (CNL-FDC)
Depth—Driller	12020	14249
Depth—Logger	12029	14226
Btm. Log Interval	12027	14225
Top Log Interval	SURF	11900
Casing—Driller	10 3/4 @5167	7 5/8 @12229 @ @
Casing—Logger	5166	12219
Bit Size	9 1/2	6 1/2
Type Fluid in Hole	BRINE	BENEX, FRESH MUD
Dens. / Visc.	8.9 / N.A.	13.1 / 39
pH / Fluid Loss	10 / NA ml	9 / 14 ml ml ml
Source of Sample	PIT	PIT
R_m @ Meas. Temp	.092@46 °F	2.25 @70 °F @ °F
R_{mf} @ Meas. Temp	.0923 46 °F	0.69 @70 °F @ °F
R_{mc} @ Meas. Temp	- @ °F	- @ °F @ °F
Source: R_{mf} / R_{mc}	M /	M /
R_m @ BHT	.027@158 °F	.86 @182 °F @ °F
Time Circulation Stopped	0300	1400: 4-1
Time Logger on Bottom	0830	0100: 4-2
Max. Rec. Temp.	158 °F	182 °F °F
Equip. / Location	7732 HOBBS	7679 HOBBS
Recorded By	KEMPER	WALLS
Witnessed By	HENNING	SAUER

PROPERTY OF Permian Basin Association, ROSWELL, N.M. 88201

CALIPER HOLE DIAM IN INCHES	DEPTHS	CORRECTION DRAMS/CC

DETAIL LOG

5 100

CALIPER DIAM IN INCHES 6 — 16	DEPTH IN FEET	INTERVAL TRANSIT TIME MICROSECONDS PER FOOT 1 30, 2 9,
		100 — 70 — 40
GAMMA RAY API UNITS	RUN 1 (BHC)	160 — 130 — 100

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

12-1-94

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

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

SWD-578

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

Gentlemen:

I have examined the application for the:

Strata Prod. Co Antelope Ridge Unit #5-L 33-23-34
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed