

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Yates Petroleum Corporation
Address: 105 South 4th Street, Artesia, NM 88210
Contact party: Brian Collins Phone: (505) 748-4182
- 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: Brian Collins

Title Engineer

Signature: *Brian Collins*

Date: October 14, 1993

- * 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.

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

New Mexico Energy & Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504

Attn: Mr. David Catanach

Dear Mr. Catanach,

Enclosed please find our application for authorization to inject for the Pennzoil MZ
Federal #1 located in Unit D of Section 11-T18S-R30E of Eddy County.

Sincerely,

Brian Collins
Engineer

BC/th

Enclosures

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

New Mexico Energy & Minerals Department
Oil Conservation Division
Drawer DD
Artesia, NM 88210

Attn: Mr. Mike Williams

Dear Mr. Williams,

Enclosed please find our application for authorization to inject for the Pennzoil MZ
Federal #1 located in Unit D of Section 11-T18S-R30E of Eddy County.

Sincerely,

Brian Collins
Engineer

BC/th

Enclosures

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

Bureau of Land Management
P. O. Box 1778
Carlsbad, NM 88220

Attn: Mr. Shannon Shaw

Dear Mr. Shaw,

Enclosed please find our application for authorization to inject submitted to the NMOCD for the Pennzoil MZ Federal #1 located in Unit D of Section 11-T18S-R30E of Eddy County.

Sincerely,

Brian Collins
Engineer

BC/th

Enclosures

C-108
Application For Authorization To Inject
Yates Petroleum Corporation
Pennzoil "MZ" Federal #1
D 11-T18S-R30E
Eddy County, New Mexico

- I. The purpose of completing this well is to make a disposal well for produced Bone Spring Sand water into the Grayburg and San Andres formations.

Yates Petroleum plans to convert this well to a water disposal well into the Grayburg and San Andres.

- II. Operator: Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210
Brian Collins (505) 748-1471

- III. Well Data: See Attachment A

- IV. This is not an expansion of an existing project.

- V. See attached map, Attachment B

- VI. 4 wells within the area of review penetrate the proposed injection zone. (See Attachment C)

- VII. 1. Proposed average daily injection volume approximately 1,000 BWPD.
Maximum daily injection volume approximately 2,000 BWPD.

2. This will be a closed system.

3. Proposed average injection pressure--unknown.
Proposed maximum injection pressure--642 psi.

4. Sources of injected water would be produced water from the Bone Spring Sand. (Attachment D)

5. See Attachment D.

- VIII. 1. The proposed injection interval is the portion of the Grayburg and San Andres formations consisting of porous sandstone and dolomite from estimated depths:
- | |
|-------------|
| 3208'-3238' |
| 3400'-3410' |
| 3484'-3494' |
| 3570'-3576' |
| 3664'-3712' |

2. Possible Fresh water zones overlie the proposed injection formations at depths to approximately 525' feet. There are no fresh water zones underlying the formation.

- IX. The proposed disposal interval may be acidized with 7-1/2% HCL acid and/or proppant frac'd.

- X. Logs were filed at your office when the well was drilled.

- XI. No windmills exist within a one mile radius of the subject location.

**Application for Authorization to Inject
Pennzoil "MZ" Federal #1**

-2-

- XII. Yates Petroleum Corporation has examined geologic and engineering data and has found that there is no evidence of faulting in the proposed interval.
- XIII. Proof of Notice
 - A. Certified letters sent to the surface owner and offset operators attached. (Attachment E)
 - B. Copy of legal advertisement attached. (Attachment F)
- XIV. Certification is signed.

Yates Petroleum Corporation
Pennzoil "MZ" Federal #1
D- 11-T18S-R30E

Attachment A
Page 1

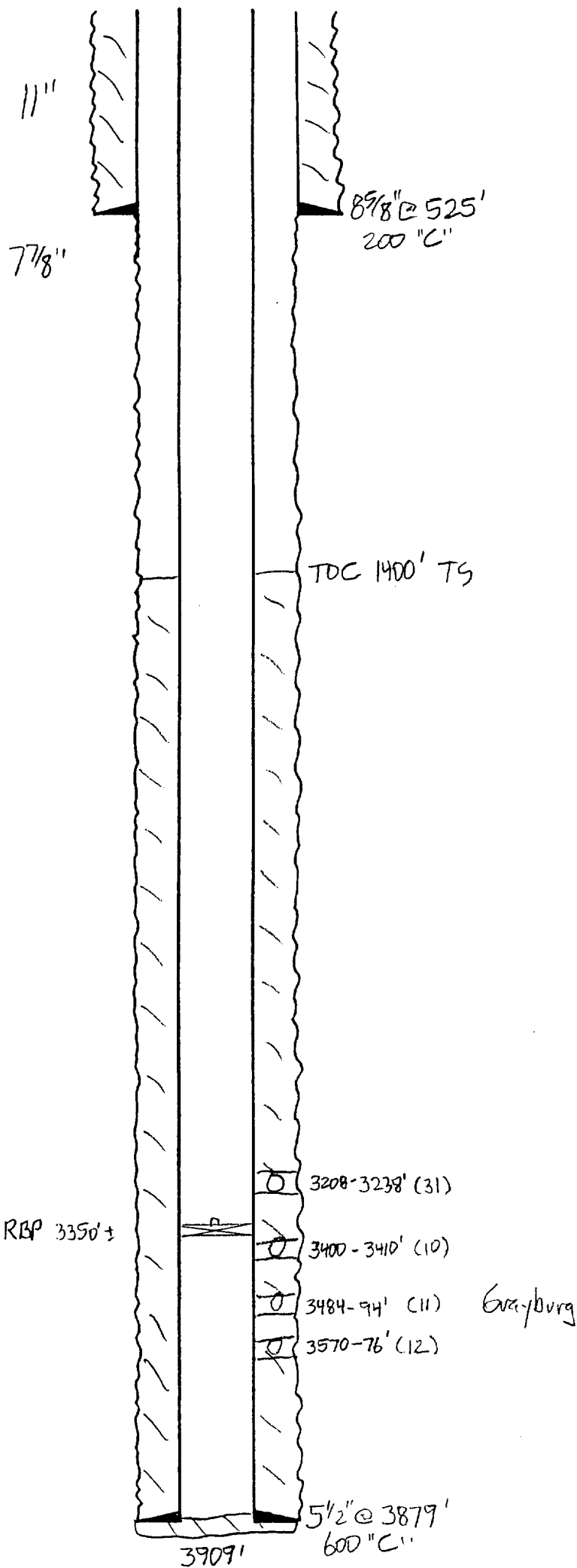
III. Well Data

- A. 1. Lease Name/Location:
Pennzoil "MZ" Federal #1
D-11-T18S-R30E
330' FNL & 330' FWL
2. Casing Strings:
a. Present Well Condition
8 5/8", 23# @ 525' w/200 sx (circ)
5 1/2", 14#, J55 @ 3879' w/600 sx (TOC 1400' TS)
Present Status:
SI. Uneconomic in the Grayburg 3208'-3238', 3400'-3410', 3484'-3494' and 3570'-3576'.
3. Proposed well condition:
2 7/8" 6.5 J55 plastic-coated injection tubing @ 3150'.
4. Propose to use Guiberson or Baker plastic-coated or nickel-plated packer set at 3150'.
- B. 1. Injection Formation: Grayburg/San Andres
2. Injection Interval will be through perforations from approximately 3208'-3712'.
3. Well was originally drilled as a Grayburg oil well. Well will be Grayburg/San Andres water disposal well (3208'-3712') when work is completed.
4. Perforations: 3208'-3238'
3400'-3410'
3484'-3494'
3570'-3576'
5. Next higher (shallower) oil or gas zone within 2 miles--Queen.
Next lower (deeper) oil or gas zone within 2 miles--Bone Spring.

WELL NAME: Pennzoil MZ Fed. 1 FIELD AREA: Loco Hills Q/6B/5A
LOCATION: 330' FNL, 330' FWL 11-18s-30e Eddy NM
GL: 3531' ZERO: 9' AGL: '
KB: 3540' ORIG. DRLG./COMPL. DATE:
COMMENTS:

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET
8 5/8" 23/24 J55 STC	525'
5 1/2" 14 J55 STC	3879'
2 7/8" 6.5 J55 STC	3396'

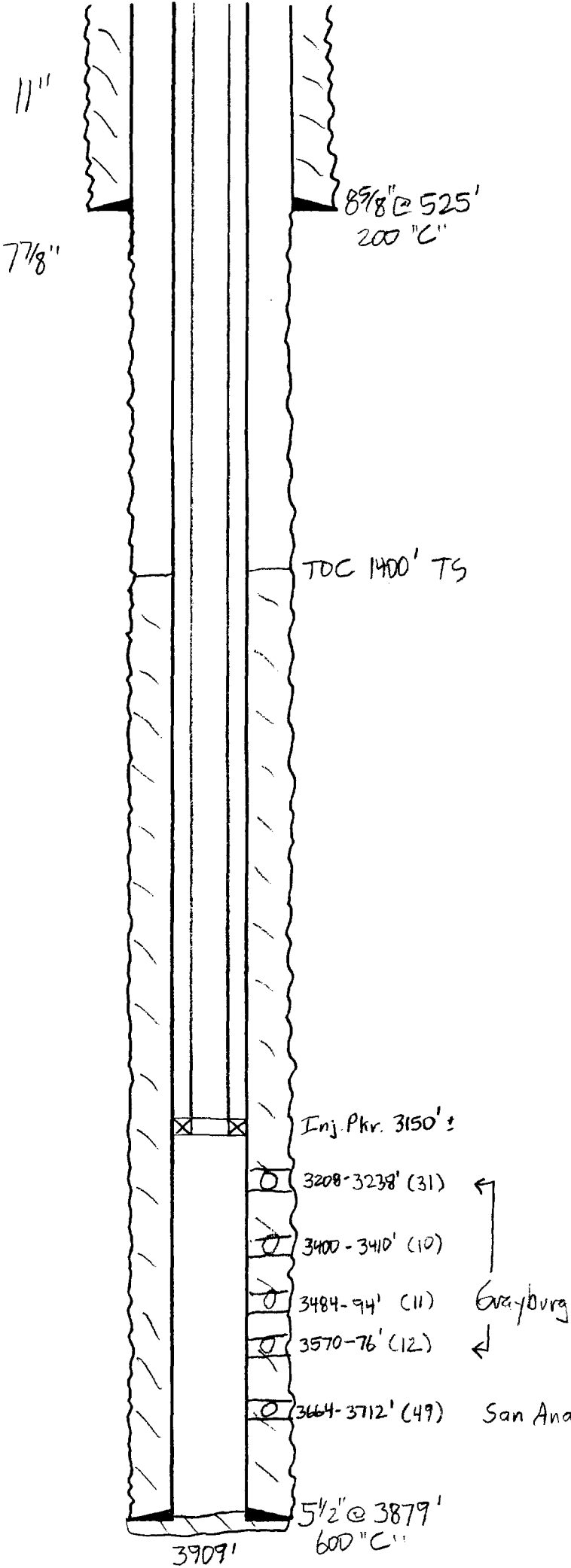


ATTACHMENT A
CURRENT SCHEMATIC

WELL NAME: Pennzoil MZ Fed. 1 FIELD AREA: Loco Hills Q16B/5A
LOCATION: 330' FNL, 330' FWL 11-18.5-3De Eddy NM
GL: 3531' ZERO: 9' AGL:
KB: 3540' ORIG. DRLG./COMPL. DATE:
COMMENTS:

CASING PROGRAM:

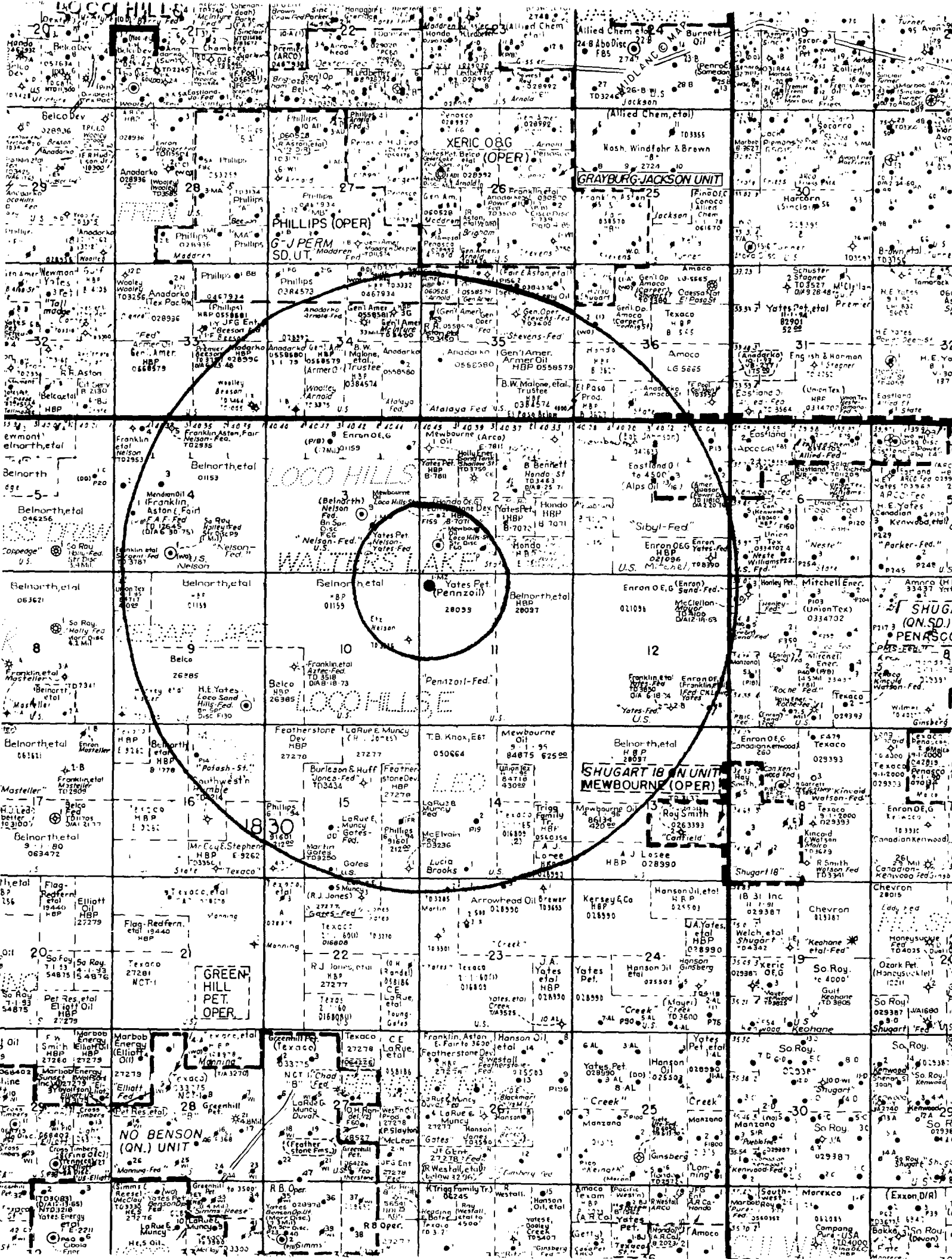
SIZE/WT./GR./CONN.	DEPTH SET
8 5/8" 23/24 J55? STC	525'
5 1/2" 14 J55 STC	3879'
2 7/8" 6.5 J55 STC Plastic lined	3150'



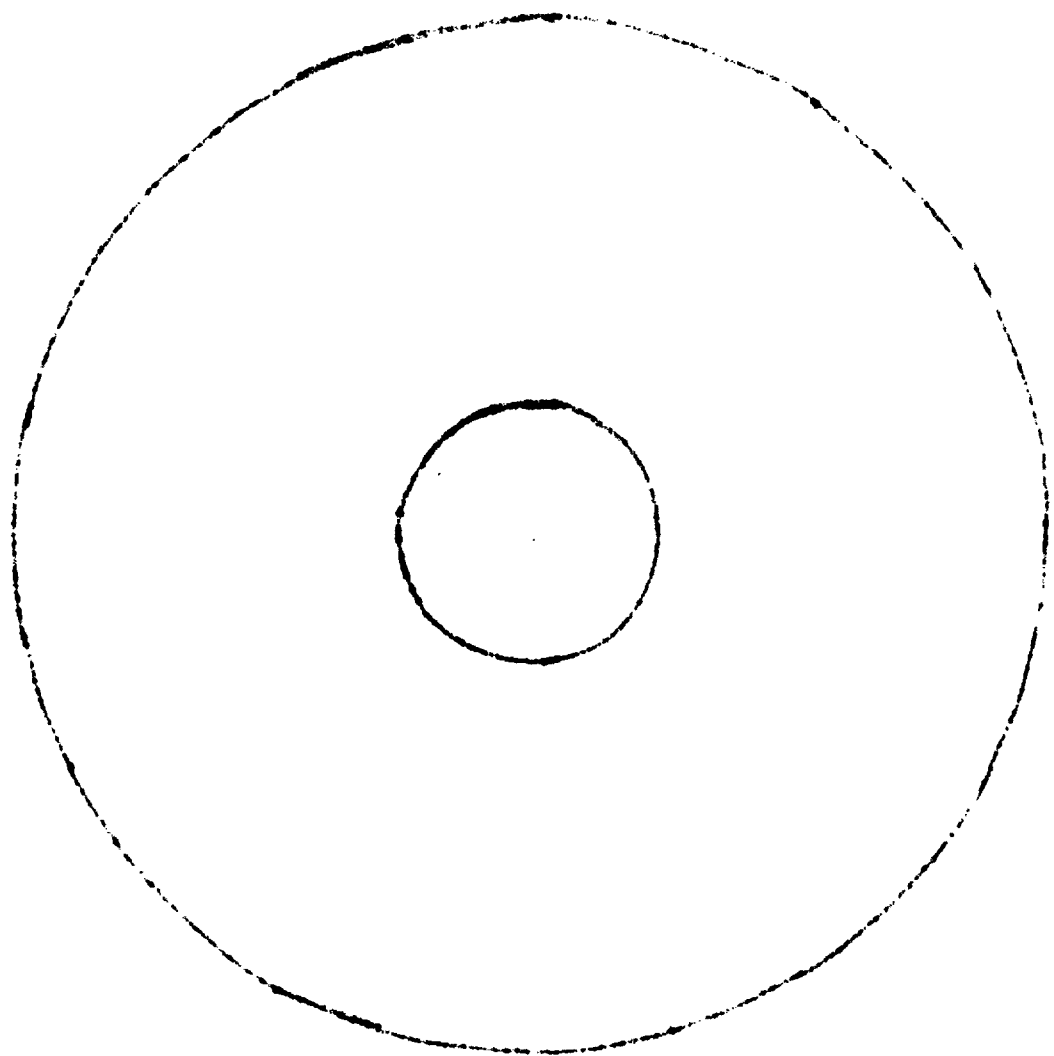
ATTACHMENT A
PROPOSED SCHEMATIC

3208 - 3712

Eliminate the perforation
Because the well open
in the SA interval



YATES PETROLEUM CORPORATION
PENNZOIL "MZ" FEDERAL #1
PROPOSED SALT WATER DISPOSAL WELL
SEC. 11-T18S-R30E
330'FNL & 330'FWL
EDDY COUNTY, NEW MEXICO



**Pennzoil "MZ" Federal #1
Form C-108**

Tabulation of Data on Wells Within Area of Review

<u>Well Name</u>	<u>Operator</u>	<u>Type</u>	<u>Spud</u>	<u>Completed</u>	<u>Total Depth</u>	<u>Producing Zone</u>	<u>Perforations</u>	<u>Completion Information</u>
Loco Hills State #4	Mewbourne Oil	Oil	04/20/92	06/16/92	7500'	Bone Spring	6995'-7141'	13-3/8" @ 540' w/250 SX 8-5/8" @ 3697' w/2010 SX 5-1/2" @ 7500' w/1015 SX 2-7/8" @ 6901'
Loco Hills State #2	Mewbourne Oil	Oil	03/13/91	04/29/91	7235'	Bone Spring	6858'-6948'	13-3/8" @ 526' w/500 SX 8-5/8" @ 3630' w/1700 SX 5-1/2" @ 7235' w/1030 SX
Loco Hills State #1	Mewbourne Oil	Oil	11/11/90	02/21/91	11625'	Strawn	10614'-10620'	13-3/8" @ 530' w/855 SX 8-5/8" @ 3603' w/1450 SX 5-1/2" @ 11625' w/700 SX
Farm Nelson #1	Etz & Cone	D&A	04/07/37	06/06/39	3326'			8-1/4" @ 551' w/50 SX

700 @ 7790 by
CBL

Top of San Andres - 3636'
790 y B.S. - 4834'

TRETOLITE®**Chemicals and Services**

TRETOLITE

16010 Barker's Point Lane • Houston, Texas 77079
713 558-5200 • Telex: 4620346 • FAX: 713 589-4737Reply to: P.O. Box FF
Artesia, New Mexico 88210
(505) 746-3588 Phone
(505) 746-3580 Fax**WATER ANALYSIS REPORT**
-----Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : WALTER LAKE
Well : #1
Sample Pt. : WATER TANKDate : 05/03/93
Date Sampled : 04/27/93
Analysis No. : 147

ANALYSIS		mg/L		* meq/L
-----		----		-----
1. pH	7.5			
2. H ₂ S	POSITIVE			
3. Specific Gravity	1.075			
4. Total Dissolved Solids		120465.9		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO ₂		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO ₃)				
10. Methyl Orange Alkalinity (CaCO ₃)				
11. Bicarbonate	HCO ₃	403.0	HCO ₃	6.6
12. Chloride	Cl	72633.0	Cl	2048.9
13. Sulfate	SO ₄	1500.0	SO ₄	31.2
14. Calcium	Ca	5480.0	Ca	273.5
15. Magnesium	Mg	1388.1	Mg	114.2
16. Sodium (calculated)	Na	39061.8	Na	1699.1
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO ₃)		19400.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt	X meq/L	= mg/L

273	*Ca <----- *HCO ₃	Ca (HCO ₃) ₂	81.0	6.6	535
-----	/----->	CaSO ₄	68.1	31.2	2126
114	*Mg -----> *SO ₄	CaCl ₂	55.5	235.6	13074
-----	<-----/	Mg (HCO ₃) ₂	73.2		
1699	*Na -----> *Cl	MgSO ₄	60.2		
-----		MgCl ₂	47.6	114.2	5436
Saturation Values Dist. Water 20 C		NaHCO ₃	84.0		
CaCO ₃	13 mg/L	Na ₂ SO ₄	71.0		
CaSO ₄ * 2H ₂ O	2090 mg/L	NaCl	58.4	1699.1	99294
BaSO ₄	2.4 mg/L				

REMARKS:

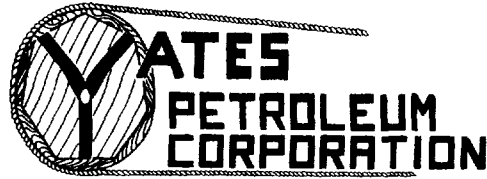
----- L. MALLET / FILE

Petroliite Oilfield Chemicals Group

Respectfully submitted,
STEVE HOLLINGER

ATTACHMENT E

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

Mewbourne Oil Company
550 W. Texas
St. 1020
Midland, TX 79701

Gentlemen,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Pennzoil MZ Federal #1 located in Unit D of Section 11-T18S-R30E of Eddy County.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Brian Collins'.

Brian Collins
Engineer

BC/th

Enclosures

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

Enron Oil & Gas Company
P. O. Box 2267
Midland, TX 79702

Gentlemen,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Pennzoil MZ Federal #1 located in Unit D of Section 11-T18S-R30E of Eddy County.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Brian Collins'.

Brian Collins
Engineer

BC/th

Enclosures

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

Williams & Son Cattle Company
P. O. Box 30
Maljamar, NM 88264

Gentlemen,

Enclosed please find a copy of form C-108 (Application for Authority to Inject) on Yates' Pennzoil MZ Federal #1 located in Unit D of Section 11-T18S-R30E of Eddy County.

Should you have any questions, please feel free to contact me at (505) 748-1471.

Sincerely,

Brian Collins
Engineer

BC/th

Enclosures

MARTIN YATES, III
1912 - 1985
FRANK W. YATES
1936 - 1986



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210
TELEPHONE (505) 748-1471

S. P. YATES
CHAIRMAN OF THE BOARD
JOHN A. YATES
PRESIDENT
PEYTON YATES
EXECUTIVE VICE PRESIDENT
RANDY G. PATTERSON
SECRETARY
DENNIS G. KINSEY
TREASURER

October 14, 1993

Artesia Daily Press
503 W. Main
Artesia, NM 88210

Gentlemen,

Yates Petroleum Corporation desires to place a public notice in your newspaper for one day. The notice is enclosed.

Please place this notice in your paper on Sunday, October 17, 1993, and forward a copy of it along with your billing as soon as possible to:

Yates Petroleum Corporation
105 S. 4th Street
Artesia, NM 88210
Attn: Brian Collins

If you have any questions, please contact me at 748-4182. Thank you for your cooperation in this matter.

Sincerely,

Brian Collins
Engineer

BC/th

Enclosure

Attachment F

Legal Notice

Yates Petroleum Corporation, 105 South Fourth Street, Artesia, NM 88210, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The proposed well, the "Pennzoil MZ Federal #1" located 330'FNL & 330'FWL of Section 11, Township 18 South, Range 30 East of Eddy County, New Mexico, will be used for saltwater disposal. Disposal waters from the Bone Spring Sand will be injected into the Grayburg/San Andres at a depth of 3208'-3712' with a maximum pressure of 642 psi and a maximum rate of 2,000 BWPD.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, NM 87501, within 15 days. Additional information can be obtained by contacting Brian Collins at (505) 748-4182.

CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: YATES PETRO. CORP. Well: PENNZON MZ FED #1
Contact: BRIAN COLLINS Title: ENG. Phone: 748-4182
DATE IN 10-19-93 RELEASE DATE 11-1-93 DATE OUT _____

Proposed Injection Application is for: ☐ WATERFLOOD ☐ Expansion ☐ Initial

Original Order: R- _____ ☐ Secondary Recovery ☐ Pressure Maintenance

SENSITIVE AREAS

☒ SALT WATER DISPOSAL

☐ WIPP ☐ Capitan Reef ☐ Commercial Operation

Data is complete for proposed well(s)? ☐ Additional Data _____

AREA of REVIEW WELLS

☐ Total # of AOR ☐ # of Plugged Wells
☐ Tabulation Complete ☐ Schematics of P & A's
☐ Cement Tops Adequate ☐ AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) _____

Source of Water _____ Compatible _____

PROOF OF NOTICE

☐ Copy of Legal Notice ☐ Information Printed Correctly
☐ Correct Operators ☐ Copies of Certified Mail Receipts
☐ Objection Received ☐ Set to Hearing _____ Date

NOTES: _____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL _____

COMMUNICATION WITH CONTACT PERSON:

1st Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____	Date	_____	Nature of Discussion	_____
2nd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____	Date	_____	Nature of Discussion	_____
3rd Contact:	<input type="checkbox"/> Telephoned	<input type="checkbox"/> Letter	_____	Date	_____	Nature of Discussion	_____