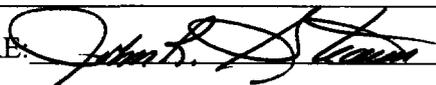


APPLICATION FOR AUTHORIZATION TO INJECT

JUN - 7

- I. PURPOSE: Secondary Recovery Pressure Maintenance XX Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: John R. Stearns, d/b/a., Stearns
ADDRESS: HC 65 Box 988 Crossroads, NM 88114
CONTACT PARTY: John R. Stearns PHONE: 675-2356
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. CELL ABOVE (505) 369-5015
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes XX 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 geologic data on the injection zone including appropriate lithologic detail, geologic 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 sources 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 sources 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: John R. Stearns TITLE: Owner
SIGNATURE:  DATE: 6-2-99

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate 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 the 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

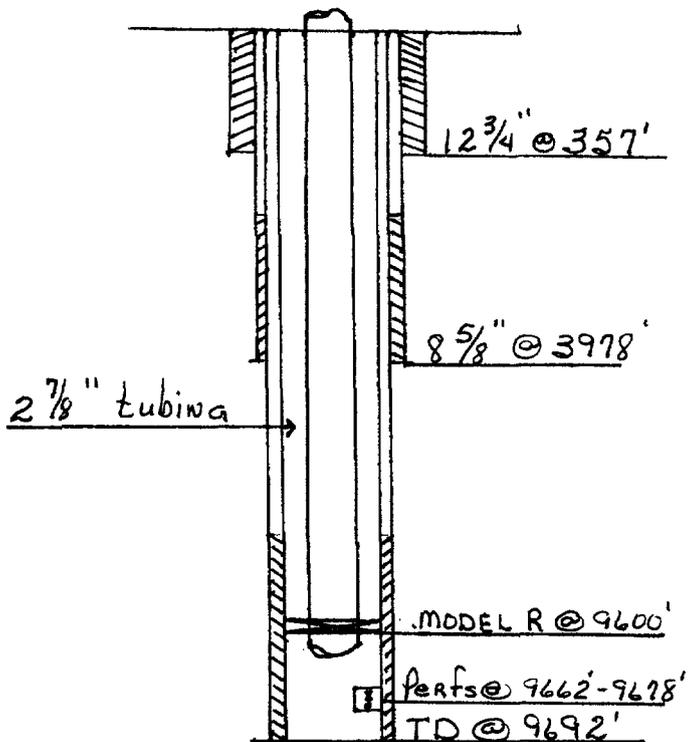
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

Operator John R. Stearns dba Stearns Lease Gray #1
 #1 660' FNL 3300 FEL 18 9S 34E
 Well No. Footage Location Section Township Range
 Lea, New Mexico
 County

Schematic

Tabular Data



Surface Casing
 Surface Casing 12 3/4" Cemented With 375 sx.
 TOC Surface feet determined by Circulation
 Hole size 15"
Intermediate Casing
 Size 8 5/8" Cemented with 300 sx.
 TOC 2700 feet determined by Circulation
 Hole size 11"
Long String
 Size 5 1/2" Cemented with 500 sx.
 TOC 7900 feet determined by Circulation
 Hole size 7 7/8"
 Total depth 9692'
Injection Interval
9662 feet to 9678 feet
 (Perforated or open hole, indicate which.)

Tubing size 2 7/8" lined with IPC & PVC set in a Model R
 (Material) (Brand or Model)
 packer at 9600 feet, or describe any other casing-tubing seal.

Other Data

1. Name of the injection formation Bough C Penn Formation
2. Name of field or pool, (if applicable). Vada Penn
3. Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? Penn Oil Production
4. Has the well been perforated in any other zone (s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug (s) used).
None
5. Give the depth to and the name of any overlying and/or underlying oil or gas zones (pools) in this area.
Abo-approx. 7900' San Andres-approx. 4800'

Tabulation of data on all wells of Public Record in the Area of Review

Willow Creek Resources, Inc.
DeSchmidt Federal #1

1980' FNL 660' FEL Sec. 13 T9S - R33E
Drilled 1/4/1979 Total Depth 9700'
Perfs. @ 9644-9664 P & A 3/7/1996

12 3/4" csg in 17" hole set @ 452' w/450 sx TOC suf.
8 5/8" csg in 11" hole set @ 3930' w/750 sx TOC 1880'
5 1/2" csg in 7 7/8" hole set @ 9700' w/325 sx
TOC 7900'

Maurice L. Brown Company
Sheridan #1

660' FSL 660' FEL Sec. 12 - T9S - R33E
Drilled 8/14/1972 Total Depth 9655'
Perfs. @ 9620'-9640' P & A 2/16/1978

11 3/4" csg in 15" hole set @ 375' w/350 sx TOC sur.
8 5/8" csg in 11" hole set @ 4000' w/375sx TOC 3000'
5 1/2" csg in 7 7/8" hole set @ 9655' w/400 sx
TOC 7500'

Read & Stevens, Inc.
Duncan Comm. #1

1980' FSL 660' FWL Sec. 18 - T9S - R34E
Drilled 12/28/1971 Total Depth 9691'
Perfs. @ 9632'-9652' P & A 10/26/1983

12 3/4" csg in 15" hole set @ 351 w/375 sx TOC sur.
8 5/8" csg in 11" hole set @ 3983' w/300 sx TOC 2700'
5 1/2" csg in 7 7/8" hole set @ 9691' w/500 sx
TOC 7900'

Maurice L. Brown Company
US Young Comm. #1

1980' FSL 1980' FEL Sec 7 - T9S - R34E
Drilled 7/6/1971 Total Depth 9706'
Perfs. @ 9648'-9668' P & A 10/23/79

12 3/4" csg in 17" hole set @ 370' w/ 350 sx TOC sur.
8 5/8" csg in 11" hole set @ 3964' w/375 sx no TOC
5 1/2" csg in 7 7/8" hole set @ 9706' w/400 sx
TOC 4000'

Maurice L. Brown Company
Keohane #1

3300' FEL 660' FSL Sec. 7 - T9S - R34E
Drilled 8/26/1971 Total Depth
Perfs. @ 9634'-9661' P & A

13 3/8" csg in 17.5" hole set @ 350' w/375 sx TOC sur
8 5/8" csg in 11" hole set @ 4000' w/375 sx TOC 2500'
5 1/2" csg in 7 7/8" hole set @ w/ 400 sx
TOC 4000'

Amoco Production Company
Pruitt "B" #1

1980' FSL 1980' FEL Sec. 18 - T9S - R34E
Drilled 10/701972 Total Depth 9718'
Perfs. @ 9669'-9692' P & A

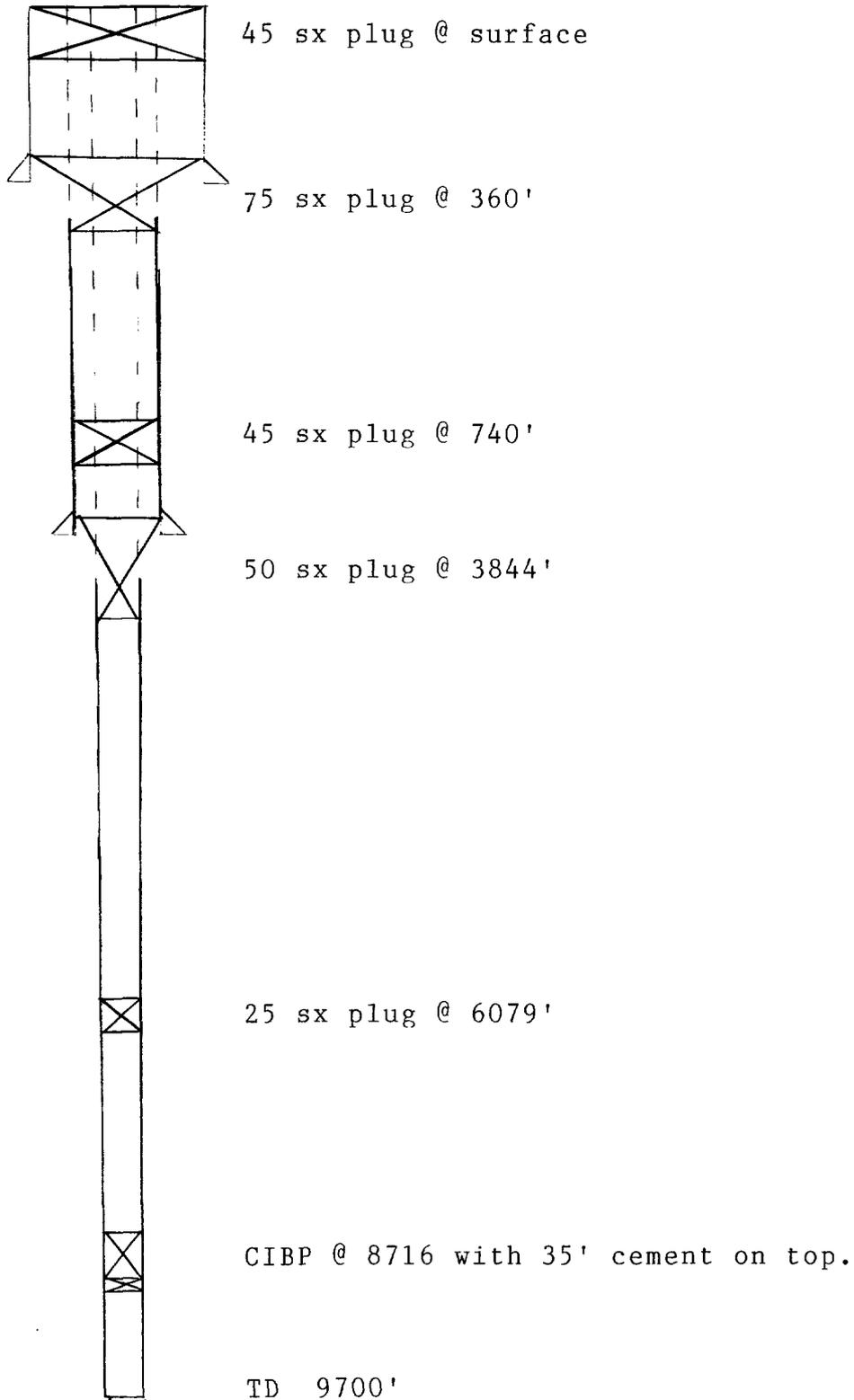
12 3/4" csg in 17" hole set @ 355' w/ 350 sx TOC sur.
8 5/8" csg in 11" hole set @ 3956' w/400sx TOC 3956'
5 1/2" csg in 7 7/8" hole set @ 9718' w/300sx
TOC 7400'

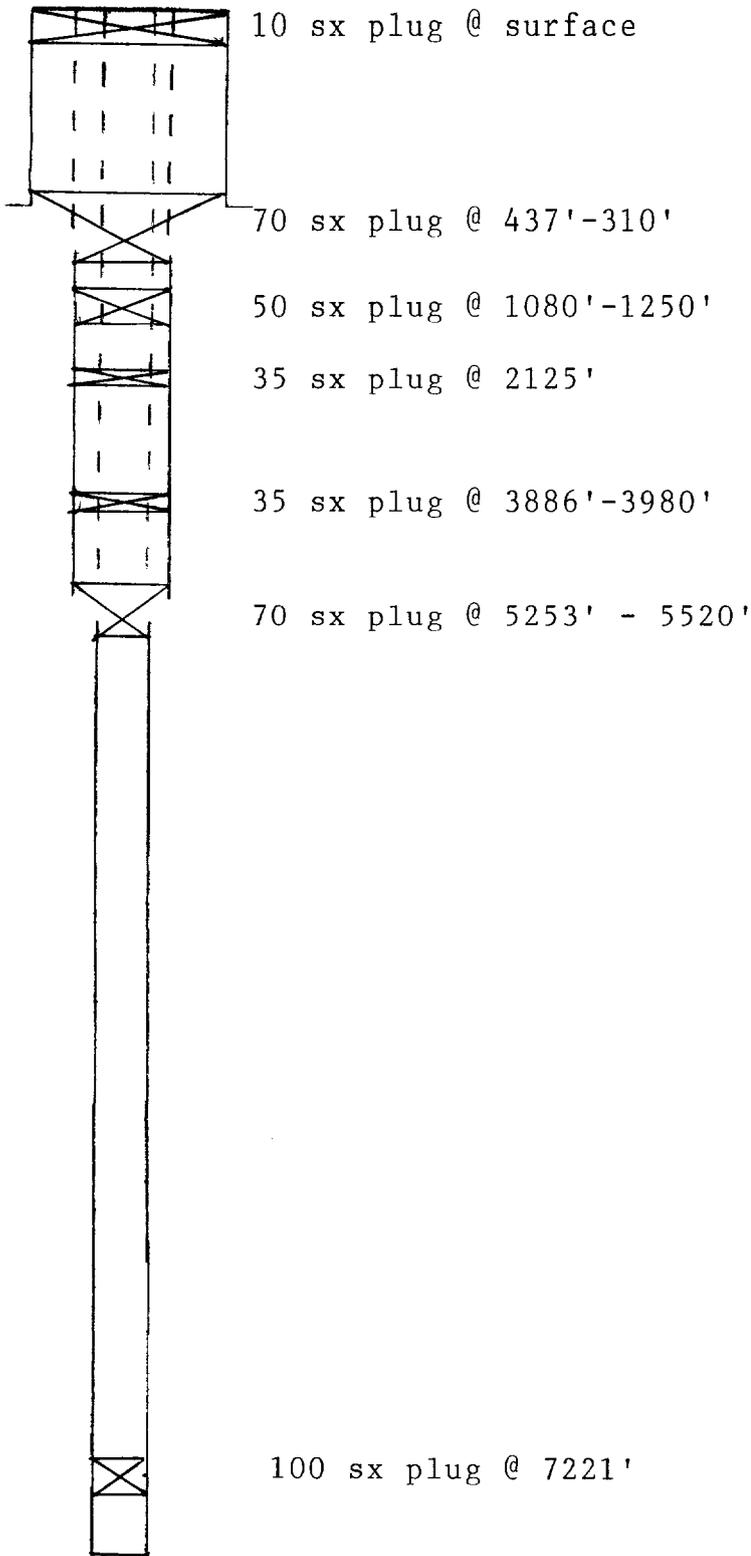
Amoco Production Company
Pruitt "B" #2

660' FNL 1980' FEL Sec. 18 - T9S - R34E
Drilled 9/16/1971 Total Depth 9710'
Perfs. @ P & A 2/3/1983

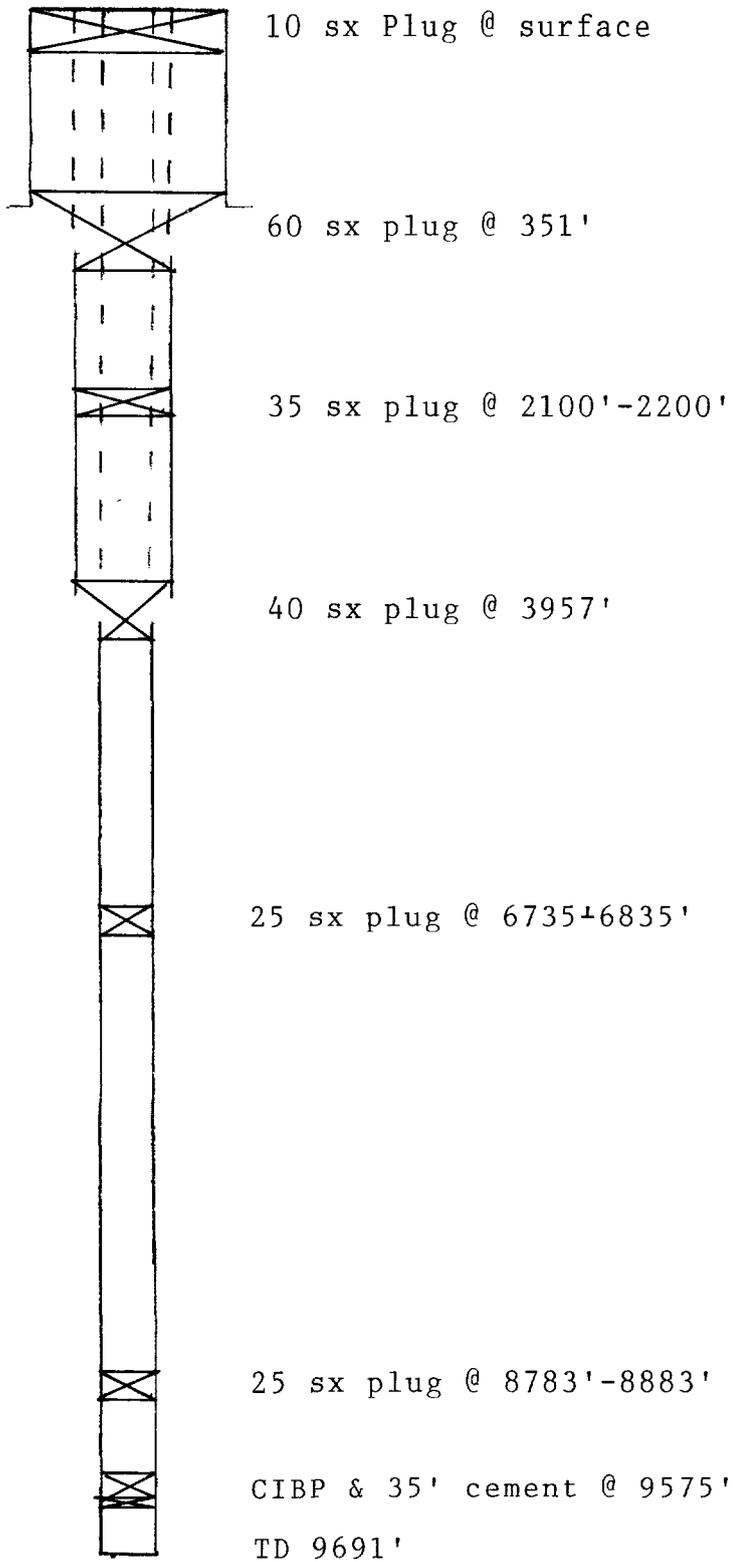
12 3/4" csg in 17" hole set @ 320' w/ 350 sx TOC sur.
8 5/8" csg in 11" hole set @ 3955' w/ ~~280~~ no TOC 450' 325'
5 1/2" csg in 7 7/8" hole set @ 9710' w/ 600sx no Toc

Willow Creek Resources, Inc.
DeSchmidt Federal #1
1980' FNL, 660' FEL
Sec 13-T9S-R33E

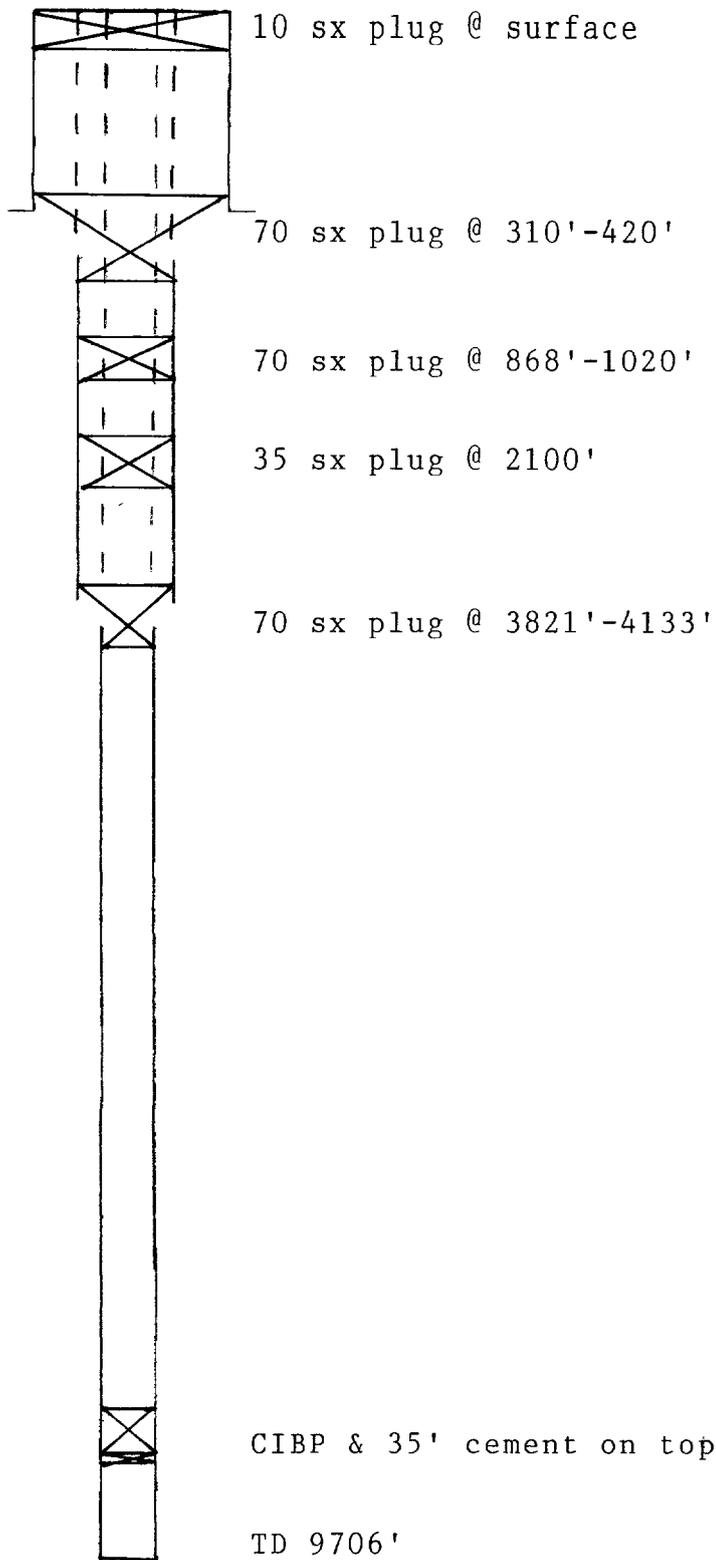




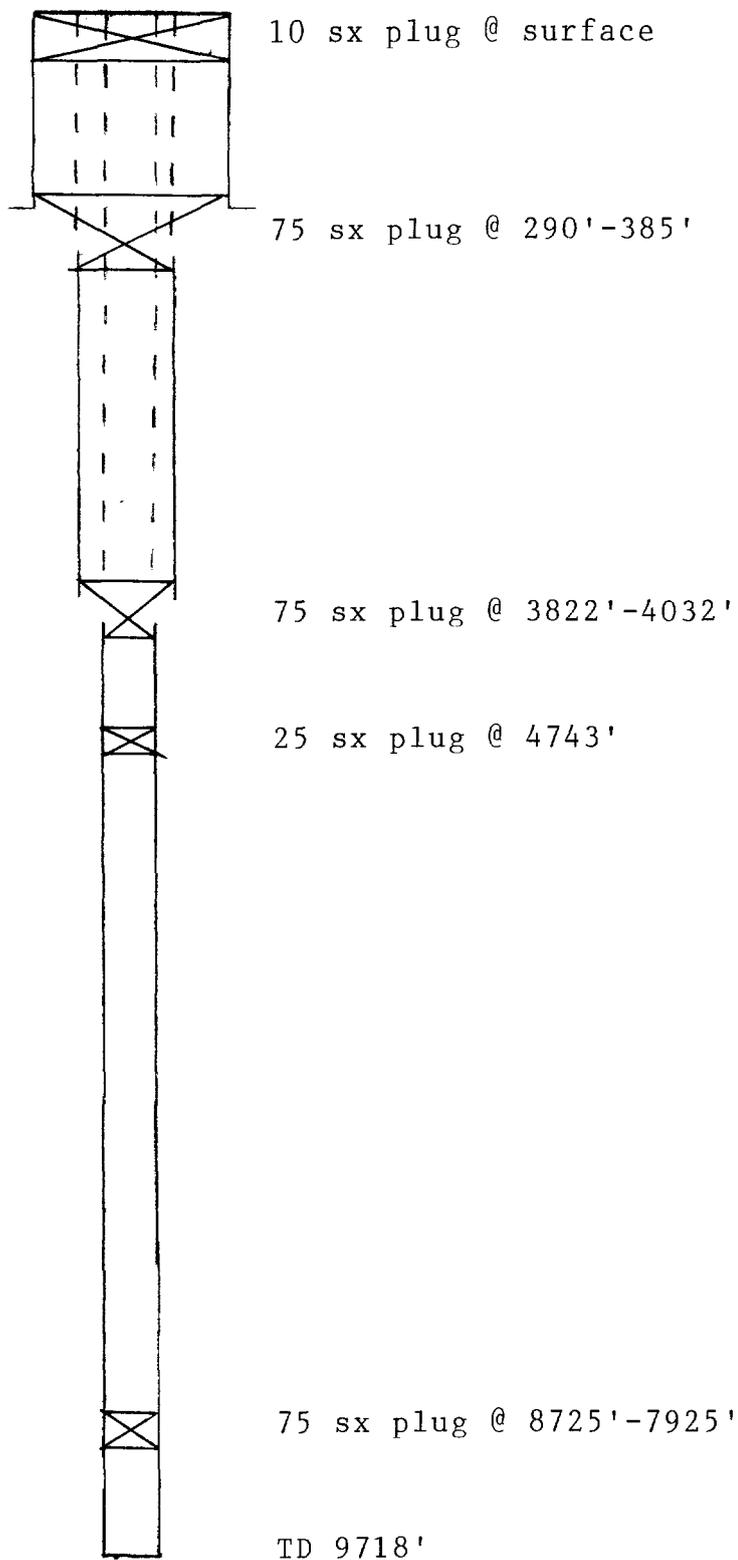
Maurice L. Brown Company
 Sheridan #1
 660' FSL, 660' FEL
 Sec. 12-T9S-R33E



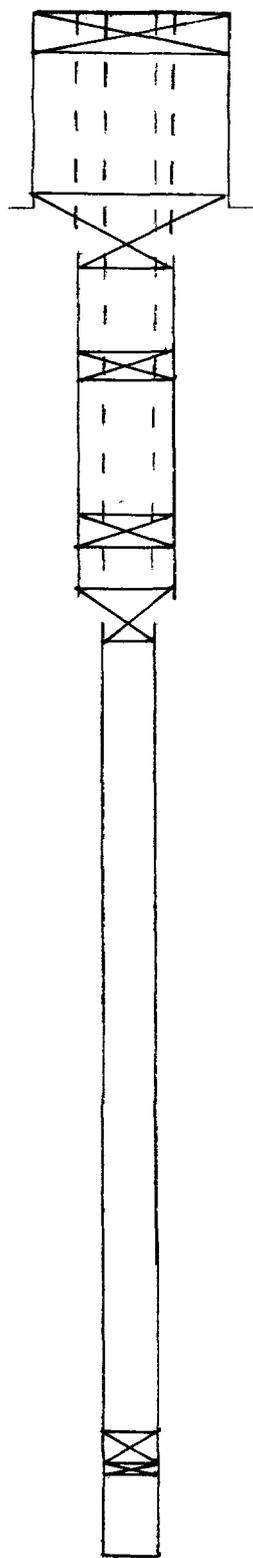
Read & Stevens, Inc.
 Duncan Comm. #1
 1980' FSL, 660' FWL
 Sec. 18-T9S-34E



Maurice L. Brown Company
 US Young Comm. #1
 1980' FSL, 1980' FEL
 Sec. 7-T9S-R34E



Amoco Production Co.
Pruitt "B" #1
1980' FSL, 1980' FEL
Sec. 18-T9S-R34E



10 sx plug @ surface

50 sx plug @ 320'

50 sx plug @ 680'-780'

50 sx plug @ 2657'-2700'

50 sx plug @ 4000'

Amoco Production Co.
Pruitt "B" #2
660' FNL, 1980' FEL
Sec. 18-T9S- R34E

CIBP & 75sx plug @ 9220'-9608'

TD 9710'

SUPPLEMENTAL DATA

Form C - 108

- VII. 1. Proposed average daily injection rate is 2000 B/D with an anticipated rate of 2500 B/D.
2. The injection system will be open.
3. The injection pressure at the well head is anticipated to be no more than 100 psi.
4. Source of the injection fluid will be from the Bough "C", San Andres, Devonian, and Wolfcamp zones.
5. There are no active Penn wells within the prescribed Area of Review or within a two (2) square mile area of the proposed injection well.
- VIII. 1. The Bough "C" or Penn Zone is a fine crystalline vuggy limestone of the Pennsylvanian Age, identified by late Criso Fossils. The gross zone is normally 20'-30' thick and in the proposed injection well is found at a depth of 9662'-9678'.
2. Fresh water zones are almost non-existent in this area. A few wells of low capacity have been found at a depth of 90-250 feet.
- IX. 1. No stimulation of the well is planned except for acid to be dumped down tubing.
- X. 1. Well logs are on file with the OCD. Last production on the well was February of 1999. Due to low production, the well is non-economic to produce.

Pro-Kem, Inc.

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : N/A
 Lease : Delbert Brown
 Well No. : # 1
 Lab No. : 041799.001

Sample Loc. : Fresh Water
 Date Analyzed: 17-April-1999
 Date Sampled : 15-April-1999

ANALYSIS

- | | | | |
|----|------------------------------------|----------|--------|
| 1. | pH | | 7.890 |
| 2. | Specific Gravity 60/60 F. | | 1.006 |
| 3. | CaCO ₃ Saturation Index | @ 80 F. | +0.633 |
| | | @ 140 F. | +1.333 |

Dissolved Gasses

- | | MG/L | EQ. WT. | *MEQ/L |
|---------------------|----------------|---------|--------|
| 4. Hydrogen Sulfide | Not Present | | |
| 5. Carbon Dioxide | Not Determined | | |
| 6. Dissolved Oxygen | Not Determined | | |

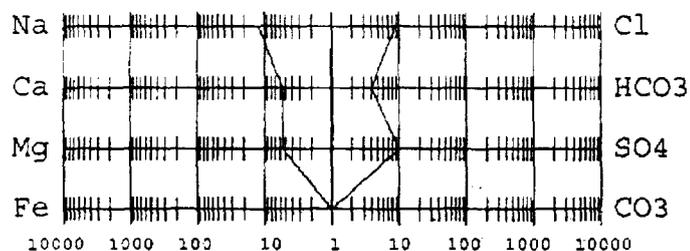
Cations

- | | | | | | |
|--------------|---------------------|----------------|---|--------|-------|
| 7. Calcium | {Ca ⁺⁺ } | 104 | / | 20.1 = | 5.17 |
| 8. Magnesium | {Mg ⁺⁺ } | 63 | / | 12.2 = | 5.16 |
| 9. Sodium | {Na ⁺ } | 270 | / | 23.0 = | 11.74 |
| 10. Barium | {Ba ⁺⁺ } | (Calculated) | | | |
| | | Not Determined | | | |

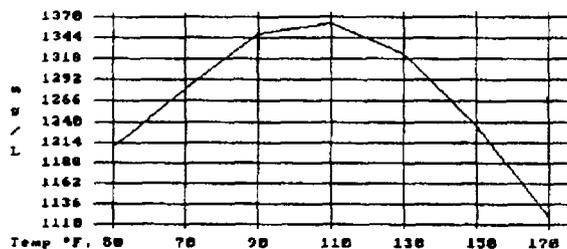
Anions

- | | | | | | |
|---|----------------------------------|-------|------|--------|------|
| 11. Hydroxyl | {OH ⁻ } | 0 | / | 17.0 = | 0.00 |
| 12. Carbonate | {CO ₃ ⁼ } | 0 | / | 30.0 = | 0.00 |
| 13. Bicarbonate | {HCO ₃ ⁻ } | 229 | / | 61.1 = | 3.75 |
| 14. Sulfate | {SO ₄ ⁼ } | 475 | / | 48.8 = | 9.73 |
| 15. Chloride | {Cl ⁻ } | 300 | / | 35.5 = | 8.45 |
| 16. Total Dissolved Solids | | 1,441 | | | |
| 17. Total Iron (Fe) | | 7 | / | 18.2 = | 0.36 |
| 18. Total Hardness As CaCO ₃ | | 520 | | | |
| 19. Resistivity @ 75 F. (Calculated) | | 4.777 | /cm. | | |

LOGARITHMIC WATER PATTERN *meq/L.



Calcium Sulfate Solubility Profile



COMPOUND	EQ. WT.	X	*meq/L	= mg/L.
Ca(HCO ₃) ₂	81.04		3.75	304
CaSO ₄	68.07		1.43	97
CaCl ₂	55.50		0.00	0
Mg(HCO ₃) ₂	73.17		0.00	0
MgSO ₄	60.19		5.16	311
MgCL ₂	47.62		0.00	0
NaHCO ₃	84.00		0.00	0
NaSO ₄	71.03		3.14	223
NaCl	58.46		8.45	494

*Milli Equivalents per Liter

This water is mildly corrosive due to the pH observed on analysis.
 The corrosivity is increased by the content of mineral salts in solution.

XII
AFFIRMATIVE STATEMENT

As required by Item XII of form C-108, John R. Stearns dba. STEARNS, has examined available geologic and engineering data and found no evidence of open faults or other hydrologic connection between the disposal zone and any other underground source of drinking water.

Stearns

HC 65 Box 988
Crossroads, NM 88114
505-675-2356

April 26, 1999

TO WHOM IT MAY CONCERN:

JOHN R. STEARNS, d/b/a STEARNS, has made application with the Oil Conservation Division of the Energy and Minerals Department of the State of New Mexico for the purpose of operating a disposal well located as follows, to wit:

660 feet from the North line, 3300 feet from the East line of Section 18, township 9 South, Range 34 East, N.M.P.M., Lea County, New Mexico. Said well more commonly known as the Gray #1.

The proposed well will dispose liquids into the Penn Zone pursuant to the application enclosed herewith.

Z 265 929 080

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	<i>Delbert Brown</i>
Street & Number	<i>SRDAD Bullock 467</i>
Post Office, State & ZIP Code	<i>Parkdale, NM 88130</i>
Postage	<i>JUN 09 1999 33</i>
Certified Fee	<i>1.40</i>
Special Delivery Fee	<i>08-16</i>
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	<i>1.25</i>
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	<i>\$ 2.98</i>
Postmark or Date	

PS Form 3800, April 1995

LEGAL NOTICE

John R. Stearns, dba, Stearns, HC 65 Box 988, Crossroads, NM 88114, 505-675-2356, is making an application to the State of New Mexico, Oil Conservation Division for a permit to dispose of produced water into the Gray #1. The well located 660' FNL and 3300' FEL, Sec. 18-T9S-R34E, Lea County, New Mexico. Injection will be into the Bough "C" (Penn) Formation at a depth of 9662'-9678', anticipated rates of 2000-2500 B/D at 0 pressure.

Interested parties may file objections or request a hearing within 15 days to the Oil Conservation Division, 2040 S. Pacheco, Santa Fe, New Mexico 87505.

Published in the Lovington Daily Leader June 3, 1999.

ILLEGIBLE

6/14/99



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

6/14/99

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

GOVERNOR

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:

Stearns Gray #1-C-18-9s-34e
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK-

Yours very truly,

Chris Williams

Chris Williams
Supervisor, District 1

/ed

7-19-99

To: MARK Ashley

From: John STEARNS
Fax # 505-675-2339

2 paged including cover page.

18-11-11
 11-11-11
 11-11-11
 11-11-11
 7-15-99
 * with no in [illegible] [illegible]

ILLEGIBLE

XIV.

As required by Item XIV of form C-108, John R. Stearns dba. STEARNS, has examined lease holder records at the courthouse and with the Bureau of Land Management and found to the best of my knowledge that none of the minerals within the area of review (one-half mile radius) is leased.