

BETTIS, BOYLE & STOVALL
P. O. BOX 1240
GRAHAM, TX 76450

FAX 817-549-7405 OR PHONE 817-549-0780

OIL CONSERVATION DIVISION
RECEIVED

JUN 24 3 21

June 24, 1992

RELEASE 7-14-92

Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Attn: David Catanach

Re: Application for Authorization to Inject
Littlefield Fed No. 1
NE/4, Sec. 11-T24S-R31E
Eddy Co., NM

Dear Mr. Catanach,

Enclosed please find application for authorization to inject (Form C-108) for the above captioned well. Also attached are the required supporting documentation necessary for this application as well as proof of notice and publication.

I have examined all the available data on the surrounding area including geologic, hydrologic, and engineering data and I find no evidence that there can be any connection between any underground fresh water and the proposed injection zone.

Bettis, Boyle and Stovall requests that you grant administrative approval of this application as soon as possible so that we may commence the re-entry of this well. Should you have any questions please feel free to call me at the number above.

Sincerely,

BETTIS, BOYLE & STOVALL

Steve Gray

Steve Gray
Petroleum Engineer

SG:vu

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Bettis, Boyle & Stovall

Address: P. O. Box 1240, Graham, TX 76450

Contact party: Steve Gray Phone: 817-549-0780

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: Steve Gray Title Petroleum Engineer

Signature: Steve Gray Date: 6/25/92

* 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.

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.

BETTIS, BOYLE & STOVALL
LITTLEFIELD FEDERAL NO. 1
PROPOSED SALTWATER DISPOSAL WELL
SEC. 11, T24S, R31E
EDDY CO., NM

OFFSET OPERATORS

Santa Fe Energy Operating Partners, L.P.
500 W. Illinois
Midland, TX 79701

Bettis, Boyle & Stovall
P.O. Box 1240
Graham, TX 76450

Bran Oil Corporation
P.O. Box 2328
Roswell, NM 88201

Texaco Producing Company
P.O. Box 3109
500 N. Lorraine
Midland, TX 79702

Bettis Brothers, Inc.
500 W. Texas, Suite 830
Midland, TX 79701

SURFACE LESSEE

J.R. Engineering Construction
Attn: Mr. J.R. Richardson
P.O. Box 12237
Odessa, TX 79768

ATTACHMENT TO FORM C-108

WELL DATA

Operator: Bettis, Boyle & Stovall
Well Name: Littlefield Federal No. 1
Location: 660' FNL & 1980' FEL, Sec. 11-T24S-R31E
(This is a re-entry of the Gulf Littlefield Federal "CT" #1)
Existing Casing: 8-5/8" 24# at 365', cemented w/ 150 sx cement
Proposed Casing: 4-1/2" 10.5# J5S set 4800', cemented to surface w/ 1000 sx cement
Tubing: 2-3/8" internally plastic coated at 4550'
Packer: Baker Model R3 - internally plastic coated
Proposed Injection Interval: Bell Canyon (Delaware) through perforations from 4600-4800 feet

PROPOSED OPERATION

Bettis, Boyle & Stovall intends to re-enter the Gulf Littlefield Federal "CT" #1 well for the purpose of making a SWD well. The Littlefield well was drilled as a dryhole to 4656' in 1964. 365' of 8-5/8" casing was left in the well and cemented to surface. Bettis, et al proposes to clean the old wellbore out, deepen to 4800' and run 4-1/2" casing and cement to surface.

Injection fluids will be produced water from offset Brushy Canyon Delaware wells.

1. Proposed average injection volume 600 BWPD.
Proposed maximum injection volume 1000 BWPD.
2. This well be a closed system. Water will be piped from offset wells.
3. Average injection pressure will be 600 psi.
Maximum injection pressure will be 900 psi.
4. Disposed fluid will be produced water from Brushy Canyon Delaware which should be similar in composition to existing water in the Bell canyon Delaware. Chloride content should range from 85,000-110,000 ppm based on surrounding wells.

GEOLOGIC INFORMATION

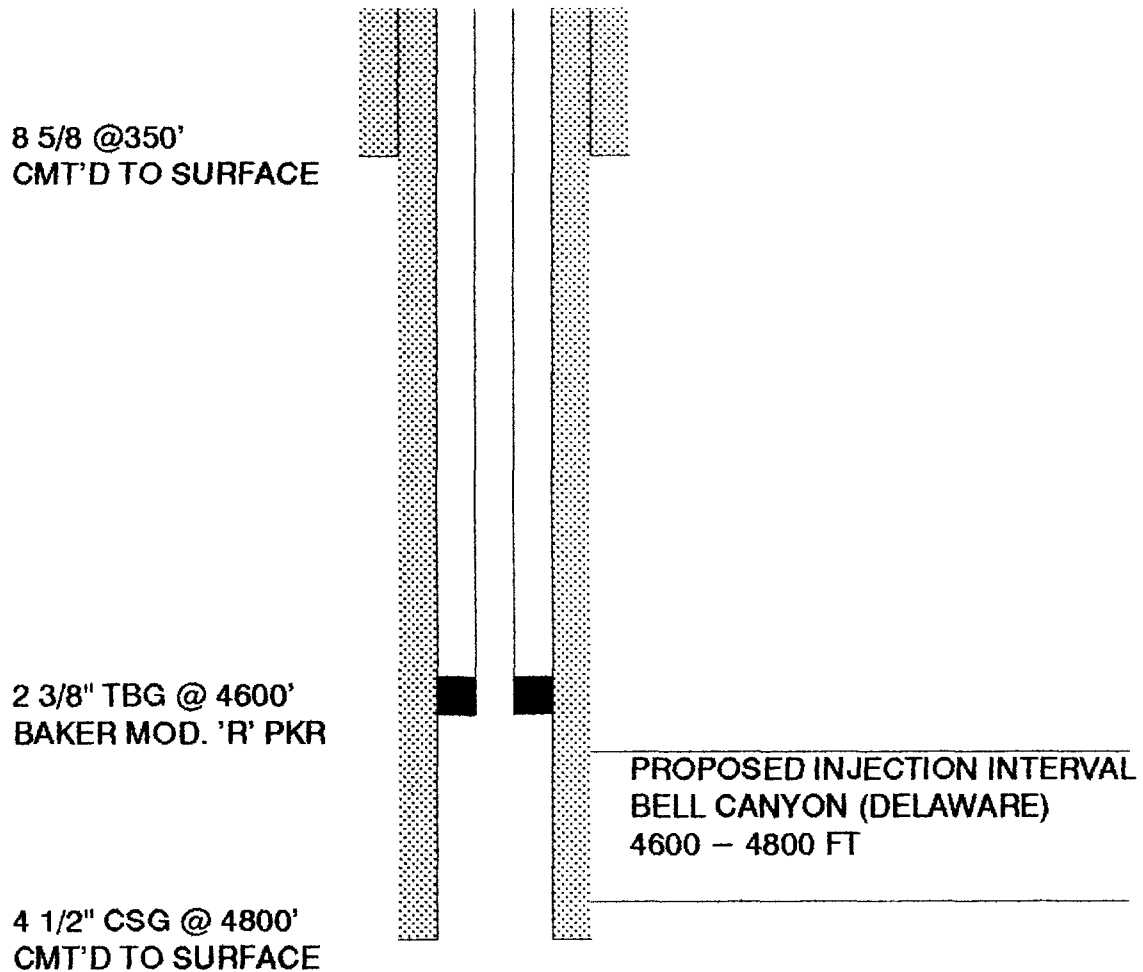
The Delaware was topped at 4528' in the Littlefield Federal. The Delaware is a sequence of sands and shales that is approximately 3900' in thickness at this location. These numerous sandstones are generally porous, permeable and water bearing. Immediately above the Delaware is a massive anhydrite and salt section from approximately 1000' to 4500' in depth. The only available fresh water in the area is above 365'.

ADDITIONAL INFORMATION

A search of this area reveals there are no fresh water wells located within 2 miles of this location therefore no analysis is submitted.

**BETTIS, BOYLE, & STOVALL
LITTLEFIELD FEDERAL NO. 1**

SECTION 11-T24S-R31E



Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

E. C. Cantwell, being first duly sworn,
on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

JUNE 25, 1992
_____, 19____
_____, 19____
_____, 19____
_____, 19____

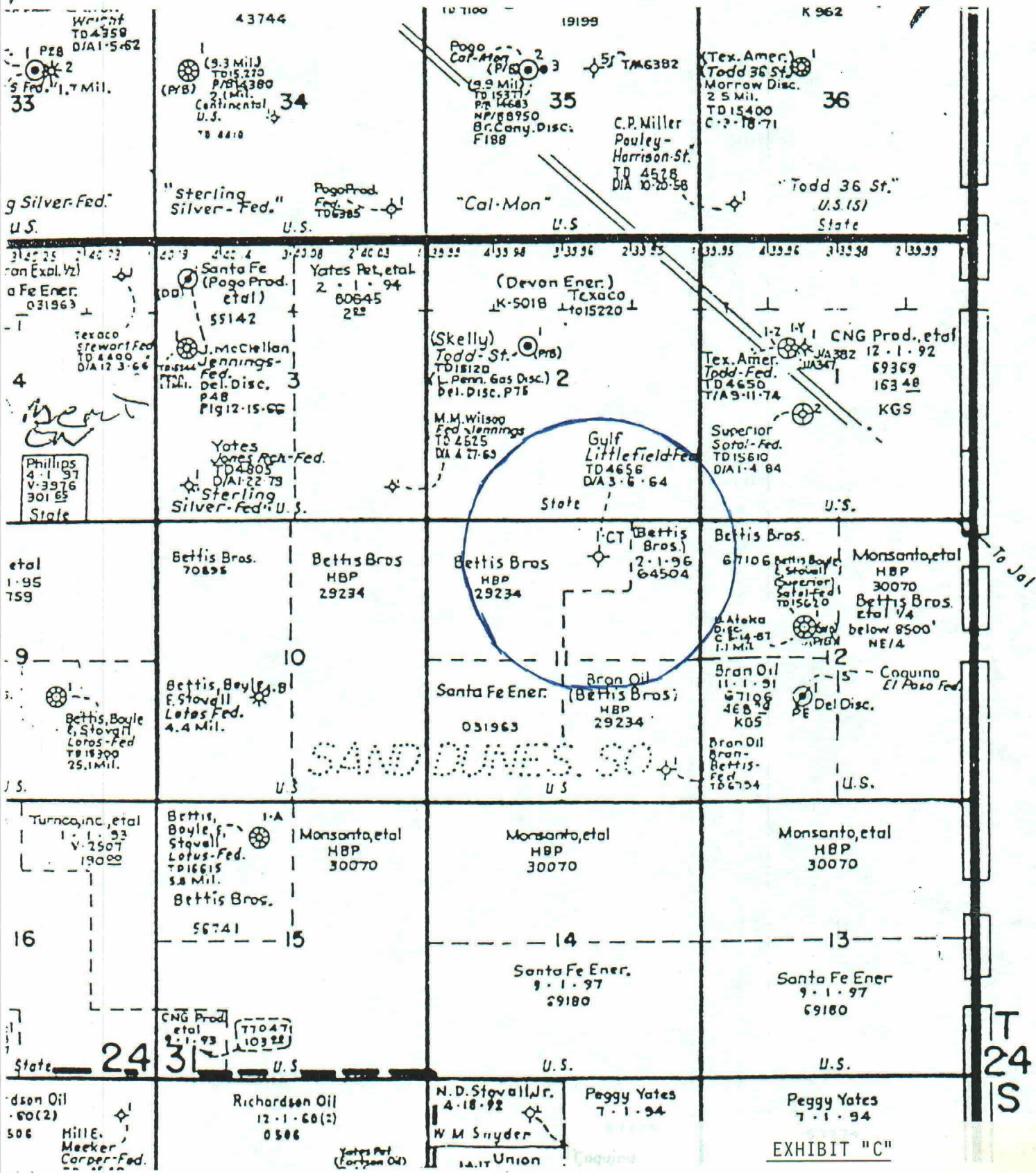
that the cost of publication is \$ 10.55,
and that payment thereof has been made
and will be assessed as court costs.

E C Cantwell

Subscribed and sworn to before me this
25 day of JUNE, 1992

My commission expires 6/01/96
Notary Public

JUNE 25, 1992
CARLSBAD CURRENT
ARGUS LEGAL NOTICE
BETTIS, BOYLE & STOVALL HAS APPLIED TO RE-ENTER THE GULF OF MEXICO FEDERAL "CT" NO. 1 WELL LOCATED 660' FNL AND 1980' FEL OF SEC. 11, T24S, R31E, EDDY COUNTY, NEW MEXICO FOR THE PURPOSE OF MAKING A SALTWATER DISPOSAL WELL. PROPOSED INJECTION INTERVAL WILL BE THE BELL CANYON (DELAWARE) AT A DEPTH OF 4700'. MAXIMUM EXPECTED INJECTED VOLUME IS 800 BBLS. WATER PER DAY WITH PRESSURE OF 750 PSI. 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 OF THIS NOTICE. QUESTIONS SHOULD BE DIRECTED TO MR. STEVE GRAY, c/o BETTIS, BOYLE & STOVALL, P.O. BOX 1240, GRAHAM, TX 76450



BETTIS, BOYLE & STOVALL
PROPOSED RE-ENTRY
LITTLEFIELD FEDERAL #1
660' FNL & 1980' FEL
SECTION 11 - T24S - R31E
Eddy Co., NM

P 046 248 532



**Receipt for
Certified Mail**

INTERNATIONAL MAIL
No Insurance Coverage Provided
Do not use for International Mail

Texaco Producing Company
P.O. Box 3109
Midland, TX 79702

PS Form 3800, June 1991

Postage	\$ 0.52
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.52
Postmark or Date	

P 046 248 533



**Receipt for
Certified Mail**

INTERNATIONAL MAIL
No Insurance Coverage Provided

J. R. Engineering Construction
Attn: Mr. J.R. Richardson
P.O. Box 12237
Odessa, TX 79768

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TOTAL Postage & Fees	\$ 2.52
Postmark or Date	

P 046 248 531



**Receipt for
Certified Mail**

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Bran Oil Corporation
P. O. Box 2328
Roswell, NM 88201

PS Form 3800, June 1991

Postage	\$ 0.52
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.52
Postmark or Date	JUN 25 1992

P 046 248 530



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail

Santa Fe Energy
500 W. Illinois
Midland, TX 79701

PS Form 3800, June 1991

Postage	\$ 0.52
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.52
Postmark or Date	JUN 25 1992

P 046 248 534



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail

BETTIS BROTHERS, INC.
500 WEST TEXAS
SUITE 830
MIDLAND, TEXAS 79701

PS Form 3800, June 1991

Postage	\$ 0.52
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$ 2.52
Postmark or Date	JUN 25 1992

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BETTIS, BOYLE & STOVALL
P.O. BOX 1240
GRAHAM, TX 76450
817-549-0780 FAX-817-549-7450

July 14, 1992

Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, NM 87501

Attn: Mr. Ben Stone

RE: Application for
Authorization to Inject
Littlefield Federal #1
NE/4, Sec. 11-T24S-R31E
Eddy Co., NM

Dear Mr. Stone:

In reference to your telephone conversation today, please find enclosed a copy of the certified/return receipt for proof of notice to the Bureau of Land Management on the above subject application. We outlined all of our procedures on Sundry; however, we failed to send the BLM a copy of the actual application we filed with your office. Thank you for bringing this to our attention.

Should we need to provide additional information, please advise.

Sincerely,

BETTIS, BOYLE & STOVALL



Kim Ligon
Production Analyst

KL
Encl.

P 046 248 509



**Receipt for
Certified Mail**

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

**BUREAU OF LAND MANAGEMENT
P. O. BOX 1778
CARLSBAD, NM 88220**

PS Form 3800, June 1991

Postage	\$0.75
Certified Fee	1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	1.00
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$2.75
Postmark or Date	