

Case 8804

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Crown Central Petroleum Corporation

Address: 4000 N. Big Spring, Suite 213, Midland, Texas 79705

Contact party: Ken Kirby Phone: (915) 683-6251

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.

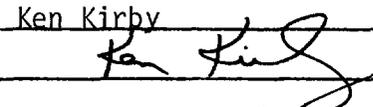
XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

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: Ken Kirby Title Petroleum Engineer

Signature:  Date: 9-25-85

\* 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.

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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.

# CROWN CENTRAL PETROLEUM CORPORATION



PRODUCERS • REFINERS • MARKETERS OF PETROLEUM PRODUCTS AND PETROCHEMICALS  
4000 NORTH BIG SPRING, SUITE 213 • MIDLAND, TEXAS 79705 (915) 683-6251

*Case 8804*

## APPLICATION FOR AUTHORIZATION TO INJECT

### CROWN CENTRAL PETROLEUM CORPORATION'S HUMBLE STATE B-1

#### VI. Wells within Crown's Humble State B-1s Area of Review

Crown Central Petroleum Corp.

Humble State A-1

Unit M, Sec. 21, T8S-33E  
13-3/8" @ 420' with 400 sx. - circulated  
8-5/8" @ 3566' with 300 sx.  
4-1/2" @ 9089' with 300 sx. - TOC @ 7700' (Temp)  
Pumping 17 BOPD from Bough "C"

Humble State A-2

Unit E, Sec. 21, T8S-33E  
13-3/8" @ 417' with 400 sx. - circulated  
8-5/8" @ 3577' with 300 sx.  
4-1/2" @ 9060' with 300 sx.-TOC @ 7700'  
  
plugged back to 4402 with 300 sx., producing  
(pumping) from San Andres perforations  
4300-4285' 2 BOPD

Exxon Corp.

BW #6 (spud 4-19-65)

Unit J, Sec. 21, T8S-33E  
10-3/4" @ 405' with 375 sx.  
7-5/8" @ 3609'  
4-1/2" @ 9100'  
P & A 1975

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Beren Corp.

Levick State #1 (spud 6-6-64)

10-3/4" @ 386' with 300 sx.

7-5/8" @ 3645' with 300 sx.

4-1/2" @ 9070'

Bough C perforations 8996-9005

Well T & A 1975

- VII. (1) Average WI 32 BWPD with an expected maximum of 50 BWPD.
- (2) Closed system.
- (3) Well is expected to take all water on vacuum.
- (4) San Andres and Bough C produced water to be injected with good compatibility. CI. - 165,000.
- VIII. Injection Zone - Pennsylvanian Bough "C", Algal limestone @ ± 9000' (± 15' net pay).
- IX. No stimulation necessary.
- X. Logs previously submitted.
- XI. No water wells within one mile.
- XII. There is no evidence of any connections between the zone of injection (Bough "C") and any fresh water aquifers.
- XIII. See Attached

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HUMBLE STATE "B" LEASE

OFFSET OPERATORS

Exxon Company  
P.O. Box 1600  
Midland, Texas 79702

Beren Corp.  
5101 N. Classen Blvd.  
Suite 205  
Oklahoma City, OK. 73118

SURFACE OWNER

State of New Mexico  
P.O. Box 1148  
Santa Fe, New Mexico 87501

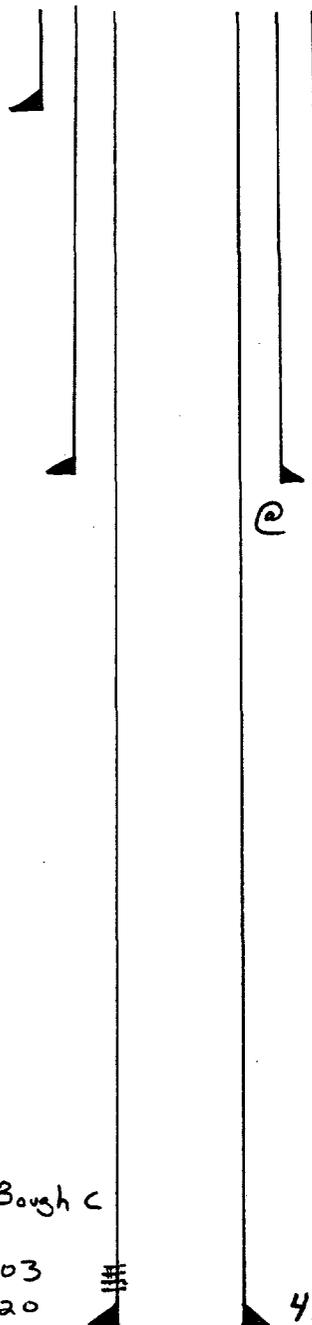
INJECTION WELL DATA SHEET

Crown Central Petroleum Corporation, Humble State B

OPERATOR	LEASE		
1, 1830' FWL & 1980' FSL,	21	8-S	33E
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP RANGE

Schematic

Tabular Data



Surface Casing  
 Size 13-3/8 " Cemented with 400 sx.  
 TOC Circ. feet determined by -  
 Hole size 17-1/4"

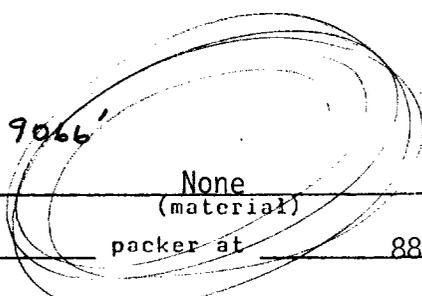
Intermediate Casing  
 Size 8-5/8 " Cemented with 300 sx.  
 TOC 3000' feet determined by calculated  
 Hole size 12-1/4"

Long string  
 Size 4-1/2 " Cemented with 300 sx.  
 TOC 7800 feet determined by Temp. Survey  
 Hole size 7-7/8"  
 Total depth 9066'

Injection interval  
8906 feet to 9020 feet  
 (perforated or open-hole, indicate which)

PENN + Bough C  
 ERFS.  
 906-9003  
 905-9020

4 1/2", 11.6 + 10.5 # @ 9066'



Tubing size 2-3/8" lined with None set in a  
 (material)  
Guiberson Uni-V packer at 8826 feet  
 (brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Pennsylvanian
- Name of Field or Pool (if applicable) Tobac
- Is this a new well drilled for injection?  Yes  No  
 If no, for what purpose was the well originally drilled? production oil well
- 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
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Top of pay @ 4285', San Andres.

