

HOLLAND & HART<sup>LLP</sup>  
ATTORNEYS AT LAW

DENVER • ASPEN  
BOULDER • COLORADO SPRINGS  
DENVER TECH CENTER  
BILLINGS • BOISE  
CHEYENNE • JACKSON HOLE  
SALT LAKE CITY • SANTA FE  
WASHINGTON, D.C.

P.O. BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
110 NORTH GUADALUPE, SUITE 1  
SANTA FE, NEW MEXICO 87501-6525

TELEPHONE (505) 988-4421  
FACSIMILE (505) 983-6043

William F. Carr

wcarr@hollandhart.com

October 24, 2002

**HAND-DELIVERED**

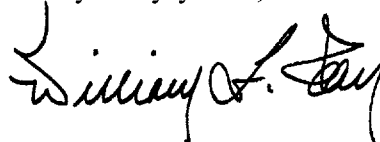
Lori Wrotenbery, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

Re: Application of Seely Oil Company for approval of a waterflood project and qualification of the project for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico.

Dear Ms. Wrotenbery:

Enclosed are two copies of an amended Oil Conservation Division Form C-108 that is Seely Oil Company's application for a waterflood project in the EK Penrose Sand Unit. This application was previously submitted on October 22. We have also included a revised notification list; these notice letters are being sent today by certified mail. The legal advertisement previously submitted has not changed.

Very truly yours,



William F. Carr

WFC:keh  
Enclosures

cc: Mr. C. W. Stumhoffer

02 OCT 25 AM 8:35  
RECEIVED

SEELY OIL COMPANY

815 WEST TENTH STREET

FORT WORTH, TEXAS 76102

OIL CONSERVATION DIVISION  
FORM-108

Application of Seely Oil Company  
For a Secondary Recovery Project  
EK Penrose Sand Unit  
Lea County, New Mexico

RECEIVED  
OCT 25 AM 8:35  
OIL CONSERVATION DIV.

I. Purpose

Application is made for authorization to inject water into the Penrose formation underlying various leases in Sections 24 & 25-T18S-R33E and Sections 19, 20, 29 & 30-T18S-R34E, Lea County, New Mexico, as shown on the enclosed map. This project would be classified as a secondary recovery project for recovering hydrocarbons that cannot be recovered by primary means.

II. Operator

Seely Oil Company  
815 W. 10<sup>th</sup> Street  
Fort Worth, Texas 76102

Phone Number: (817) 332-1377

III. Injection Well Data

A well data sheet is attached for each of the wells that we propose for water injection. Six (6) wells are scheduled to be converted to water injection, one (1) well is to be deepened and completed in the injection zone, one (1) well is to be recompleted in the injection zone, and one (1) to be drilled.

All of the proposed injection wells are shown on the attached Plan of Development map.

IV. Existing Project

The proposed project is not an expansion of a previous project

V. Ownership

A lease ownership map is enclosed which identifies all wells and lease ownership within two (2) miles of any of the seven (7) proposed injection wells. A separate map is attached on which the area of review has been identified by drawing a one-half mile circle around each injection well.

VI. Well Data

There are forty-three (43) wells that have been drilled through the Penrose formation within the area of review. Sixteen (16) have been plugged and abandoned or plugged back out of the Penrose, and the remainder are active. Available data for each well is enclosed on the well data sheets as well as all necessary schematics for injection wells and plugged and abandoned wells.

VII. Project Data

1. The proposed daily average water injection is estimated to be 100 barrels per day for each of the proposed seven (7) injection wells.
2. All oil and water produced will be separated and stored in covered production tanks; thus, this is a closed system.
3. Initially the injection wells may take water on a vacuum, but as the reservoir fills a positive surface injection pressure will be required to inject water. The maximum injection pressure will also be determined by proposed step-rate pressure tests. At no time prior to the step-rate tests will the injection pressure exceed a pressure limitation of 0.2 PSIG per foot of depth to the top of the injection interval.
4. The source of injection fluid will be produced water from the producing wells within the unit and produced water from nearby Bone Springs production.
5. No water compatibility problems are expected since compatibility tests were performed on various water samples from the proposed water sources and the water produced within the unit area.

VIII. Geologic Information

The Penrose Sand is a member of the Guadalupian series of Permian Age.

The productive sand is a grey, fine to medium grain, friable quartz sandstone. The thickness varies from a few feet to about ten feet. The sand appears to be a wedge or bar deposit isolated by hard dense anhydrite above the pay and a red silty sand with calcerous or anhydritic cementation below the porosity developments. The productive Penrose in this area develops porosity in the very top of the Penrose. The Ogollala aquifer is overlying the proposed injection zone at a depth of 250-300 feet.

IX. Stimulation Program

Each of the currently producing wells has previously received a fracture treatment which are outlined on the enclosed well data sheets.

The wells that will be converted to water injection may require a small clean-up acid treatment in the amount of about 1,000 to 2,000 gallons prior to injection. Any wells that are drilled for injection will be acidized with a small clean-up acid job and fracture treated with 10,000 to 20,000 gallons and 15,000 to 30,000 lbs. sand.

- X. All well logs and test data have been previously submitted to the Oil Conservation Division.
- XI. No known fresh water wells are located within one mile of any injection well.
- XII. Available engineering and geologic data show no evidence of open faulting or any other hydrologic connection between the injection zone and any underground source of drinking water.

XII. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
DAVID L. HENDERSON  
PETROLEUM ENGINEER

October 10, 2002

## OFFSET OPERATORS

### Section 24-T18S-R33E

BP America  
501 Westlake Park Blvd.  
Houston, Texas 77253

Devon SFS Operating, Inc.  
P. O. Box 730292  
Dallas, Texas 75373-0292

### Section 25-T18S-R33E

Concho Oil & Gas Corp.  
110 West Louisiana, Suite 410  
Midland, Texas 79701

C. W. Trainer  
P. O. Box 754  
Midland, Texas 79702

BTA Oil Producers  
104 S. Pecos  
Midland, Texas 79701

### Section 19-T18S-R34E

Devon SFS Operating, Inc.  
P. O. Box 730292  
Dallas, Texas 75373-0292

### Section 20-T18S-R34E

Concho Oil & Gas Corp.  
110 West Louisiana, Suite 410  
Midland, Texas 79701

Section 29-T18S-R34E

C. W. Trainer  
P. O. Box 754  
Midland, Texas 79702

Rhombus Energy  
200 N. Lorraine, Suite 1270  
Midland, Texas 79701

Section 30-T18S-R34E

C. W. Trainer  
P. O. Box 754  
Midland, Texas 79702

Yates Petroleum Corporation  
105 S. Fourth St.  
Artesia, New Mexico 88210

Kaiser Francis  
Box 21468  
Tulsa, Oklahoma 74121-1468

**REVISED NOTICE LIST**

Application of Seely Oil Company  
For Certification of the Waterflood Project  
For the Incentive Tax Rate Pursuant to the  
Enhanced Oil Recovery Act  
E-K Penrose Sand Unit, Lea County, New Mexico

BP America  
501 Westlake Park Blvd.  
Houston, Texas 77253

Devon SFS Operating, Inc.  
P. O. Box 730292  
Dallas, Texas 75373-0292

Concho Oil & Gas Corp.  
110 West Louisiana, Suite 420  
Midland, Texas 79701

C. W. Trainer  
P. O. Box 754  
Midland, Texas 79702

BTA Oil Producers  
104 S. Pecos  
Midland, Texas 79701

Rhombus Energy  
200 N. Lorraine, Suite 1270  
Midland, Texas 79701

Yates Petroleum Corporation  
105 S. Fourth Street  
Artesia, New Mexico 88210

Kaiser Francis  
Box 21468  
Tulsa, Oklahoma 74121-1468

McElvain Oil & Gas Ltd.  
1050 7<sup>th</sup> Street, Suite 1800  
Denver, Colorado 80265

Ralph C. McElvain, Jr.  
5318 S. Cottonwood Club Drive  
Salt Lake City, Utah 84117

Jacquelin M. Withers  
11578 Lost Tree Way  
North Palm Beach, FL 33408

McElvain Oil Company  
Attn: David P. McElvain  
14828 Pellbrook  
Addison, Texas 75240

Roberta M. Regan Trust  
Bank of America NA, Trustee  
P. O. Box 830308  
Dallas, Texas 75283-0308

Kenneth Smith  
267 Smith Ranch Road  
Hobbs, NM 88240-8514

Commissioner of Public Lands  
New Mexico State Land Office  
Attention: Pete Martinez  
Post Office Box 1148  
Santa Fe, NM 87504-1148

Bureau of Land Management  
Attention: Armando Lopez  
2909 W. 2<sup>nd</sup> Street  
Roswell, New Mexico 88201



HOLLAND & HART <sup>LLP</sup>  
ATTORNEYS AT LAW

DENVER • ASPEN  
BOULDER • COLORADO SPRINGS  
DENVER TECH CENTER  
BILLINGS • BOISE  
CHEYENNE • JACKSON HOLE  
SALT LAKE CITY • SANTA FE  
WASHINGTON, D.C.

P.O. BOX 2208  
SANTA FE, NEW MEXICO 87504-2208  
110 NORTH GUADALUPE, SUITE 1  
SANTA FE, NEW MEXICO 87501-6525

TELEPHONE (505) 988-4421  
FACSIMILE (505) 983-6043

William F. Carr

wcarr@hollandhart.com

October 24, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

**TO: SURFACE OWNERS AND LEASEHOLD OPERATORS WITHIN 1/2  
MILE OF EACH PROPOSED INJECTION WELL IN THE EK PENROSE  
SAND UNIT AREA.**

Re: Application of Seely Oil Company for approval of a waterflood project,  
and for qualification of the project for the Recovered Oil Tax Rate  
pursuant to the Enhanced Oil Recovery Act, Lea County, New Mexico.

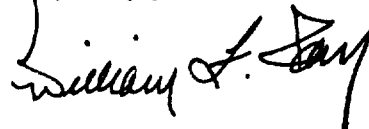
Ladies and Gentlemen:

Enclosed is a copy of the application of Seely Oil Company (Oil Conservation Division Form C-108) in the above-referenced case for approval of a waterflood project in the proposed EK Penrose Sand Unit Area. Water will be injected into the unitized interval of the Penrose formation and the proposed waterflood project is fully described in the application.

This application has been set for hearing before a Division Examiner on November 14, 2002. You are not required to attend this hearing, but as an owner of the surface of the land upon which the injection well will be located, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 1208.B to file a Pre-hearing Statement three days in advance of a scheduled hearing. This statement must include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

Very truly yours,



William F. Carr  
Attorney for Seely oil Company

Enclosure

## APPLICATION FOR AUTHORIZATION TO INJECT

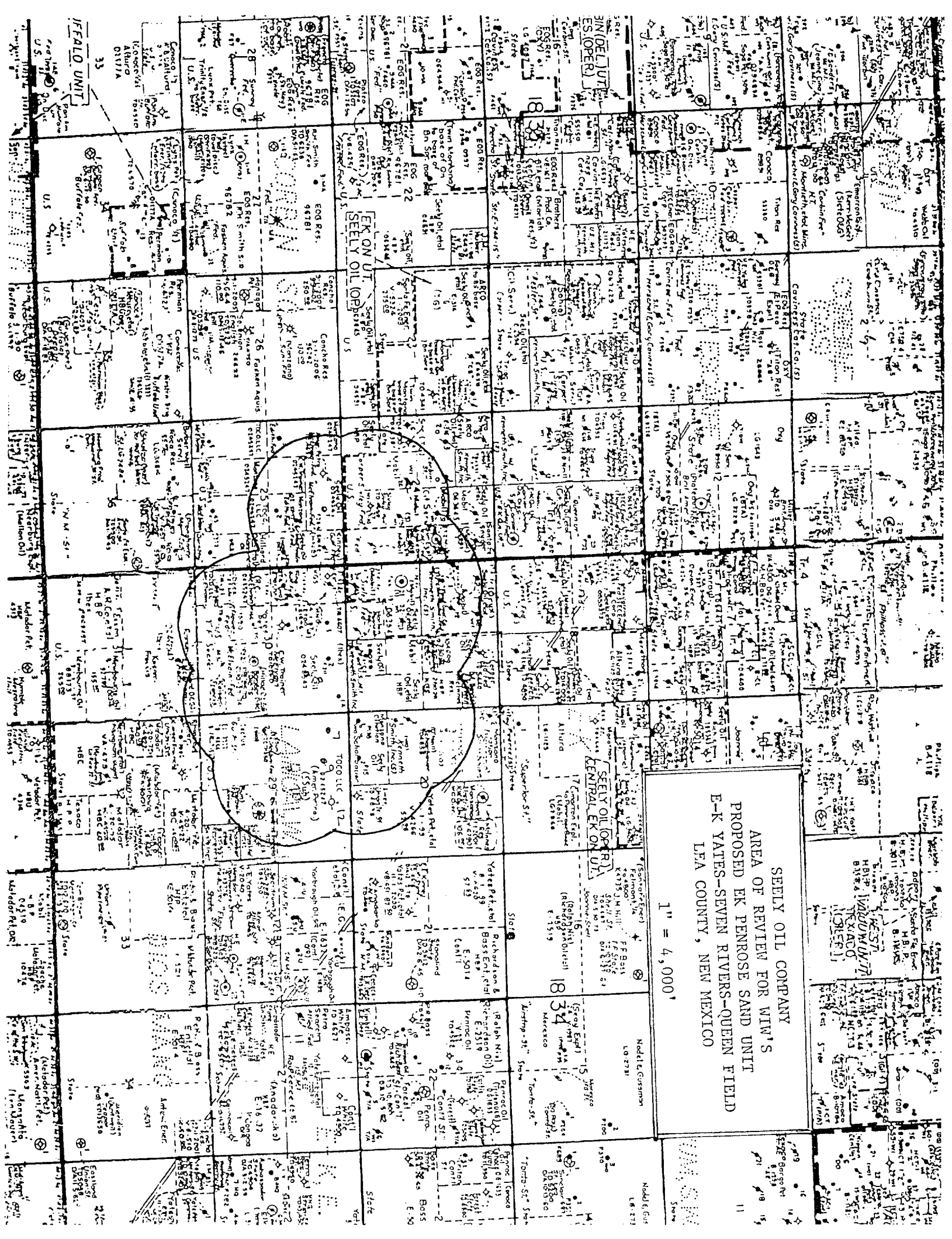
- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ Yes ☒ No
- II. OPERATOR: Seely Oil Company  
ADDRESS: 815 W. 10th St., Fort Worth, Texas 76102  
CONTACT PARTY: David L. Henderson PHONE: 817/332-1377
- III. WELL DATA: 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 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: David L. Henderson TITLE: Vice President  
SIGNATURE: David L. Henderson DATE: 10/10/02
- 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

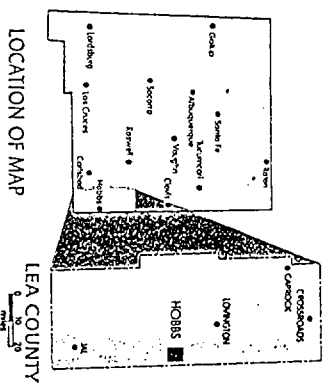
Proposed EK Penrose Sand Unit  
EK-Yates-Seven Rivers-Queen  
Lea County, N.C.

SEELY OIL COMPANY  
AREA OF REVIEW FOR WIM'S  
PROPOSED EK PENROSE SAND UNIT  
E-K YATES-SEVEN RIVERS-QUEEN FIELD  
LEA COUNTY, NEW MEXICO








1" = 4,000'



## R 34 E



## EK Penrose Sand Unit

-  Wells to be Converted to W.I.
-  Wells to be Deepened for W.I.
-  Wells to be Drilled for W.I.
-  Current Petroleum Producers
-  Wells to be Re-entered for Production
-  Wells to be Dilled
-  Wells to be Plugback for Production

**1/2 Mile**

**1/2 Mile**

# UNIT MAP

Lea County, New Mexico

Latest Revision: 9-9-02