

KELLAHIN, KELLAHIN and AUBREY

Attorneys at Law

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W. Thomas Kellahin

Karen Aubrey

Jason Kellahin

Of Counsel

Telephone 982-4285

Area Code 505

Telefax No. (505) 982-2047

April 6, 1990

RECEIVED

APR 6 1990

OIL CONSERVATION DIVISION

9929

Mr. William J. LeMay
Oil Conservation Division
Post Office Box 2265
Santa Fe, New Mexico 87501

Re: Socorro Petroleum Company
Keel-West Waterflood Project

Dear Mr. LeMay:

On behalf of Socorro Petroleum Company, please set the enclosed Application to add an additional injection well and to increase the injection limitation pressure in the Grayburg Jackson Seven Rivers Queen Grayburg San Andres Pool in Eddy County for the next available Examiner's hearing, scheduled for May 2, 1990.

The following is suggested as a possible advertisement for this case:

Application of Socorro Petroleum Company for Amendment to Division Order R-2268 to add another injection well and to increase the injection pressure limitation for the Keel-West Waterflood Project, Eddy County, New Mexico. Applicant in the above styled cause, seeks an order increasing the surface injection pressure as determined from step-rate tests for 16 injection wells and approval of the H.B. West "B" No. 24 Well, Unit A, Section 10, as an injection well all in the Grayburg San Andres formation of the Loco Hills Pool within the project area being all of Section 3, 4, 5, 6, 7, 8, 9 and 10 for T17S, R31E, Eddy County, New Mexico.

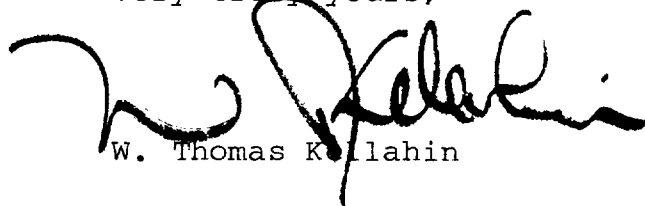
By copy of this letter and enclosed Application, we are notifying all interested parties that they have the right to appear at the hearing either in support of or opposition to

KELLAHIN, KELLAHIN and AUBREY

William J. LeMay
April 6, 1990
Page 2

the Application. Should they desire further information they may contact the undersigned or Wyatt Fender, Socorro Petroleum Company, (915) 687-4338.

Very truly yours,

A handwritten signature in black ink, appearing to read 'W. Thomas Kellahin', written over the typed name.

W. Thomas Kellahin

WTK/tic

xc: Wyatt Fender, Socorro

xc: Certified Mail Return Receipt
All interested parties listed in
Exhibit "C" to Application

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APR 6 1990

STATE OF NEW MEXICO
DEPARTMENT OF ENERGY AND MINERALS
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION
OF SOCORRO PETROLEUM COMPANY FOR
AMENDMENT OF ORDER R-2268 TO ADD
AN ADDITIONAL INJECTION WELL AND TO
INCREASE THE INJECTION PRESSURE
LIMITATION FOR THE KEEL-WEST
WATERFLOOD PROJECT,
EDDY COUNTY, NEW MEXICO

CASE NO. 9927

A P P L I C A T I O N

COMES NOW SOCORRO PETROLEUM COMPANY, by and through its attorneys, Kellahin, Kellahin & Aubrey, and applies to the New Mexico Oil Conservation Division for an order amending Order R-2268 for the Keel-West Waterflood Project, Eddy County, New Mexico, to add an additional injection well and to increase the injection limitation pressure to 450 psi above the formation parting pressure as determined from step-rate tests for injection wells set forth on Exhibit "A" attached hereto, and in support thereof would show:

1. Applicant is the operator of the Keel-West Waterflood, Eddy County, New Mexico as shown on Exhibit "B" attached hereto.

EXHIBIT "A"



WELL	LOCATION	U-S-T-R	CURRENT LIMIT	REQUESTED LIMIT
H. E. WEST "A" NO.8	1980'FNL & 660'FWL	E-03-17S-31E	672 PSIG	2407 PSIG <i>R-2268</i>
H. E. WEST "A" NO.9	1980'FSL & 660'FEL	I-04-17S-31E	672 PSIG	2250 PSIG <i>R-2268</i>
H. E. WEST "A" NO.11	1980'FNL & 1980'FWL	G-03-17S-31E	688 PSIG	2203 PSIG <i>WFX-587</i>
H. E. WEST "A" NO.14	720'FSL & 1980'FEL	O-04-17S-31E	643 PSIG	2203 PSIG <i>WFX-585</i>
H. E. WEST "A" NO.15	660'FNL & 330'FEL	A-03-17S-31E	696 PSIG	2203 PSIG <i>WFX-587</i>
H. E. WEST "B" NO.12	1980'FNL & 1980'FEL	G-09-17S-31E	652 PSIG	1872 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.13	1980'FNL & 660'FWL	E-10-17S-31E	662 PSIG	2027 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.15	1980'FNL & 1980'FEL	G-10-17S-31E	674 PSIG	2266 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.16	660'FSL & 660'FWL	M-03-17S-31E	667 PSIG	2203 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.18	660'FSL & 1980'FEL	O-03-17S-31E	677 PSIG	2350 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.20	660'FSL & 1980'FEL	O-10-17S-31E	671 PSIG	2203 PSIG <i>WFX-587</i>
H. E. WEST "B" NO.21	660'FSL & 660'FWL	M-10-17S-31E	659 PSIG	2075 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.22Y	660'FSL & 1990'FEL	O-09-17S-31E	648 PSIG	2118 PSIG <i>WFX-585</i>
H. E. WEST "B" NO.24	660'FNL & 660'FEL	A-10-17S-31E	675 PSIG	2203 PSIG <i>NEW</i>
H. E. WEST "B" NO.34	1980'FSL & 660'FEL	I-10-17S-31E	668 PSIG	2203 PSIG <i>WFX-587</i>
H. E. WEST "B" NO.43	660'FSL & 760'FWL	M-09-17S-31E	628 PSIG	2470 PSIG <i>WFX-585</i>

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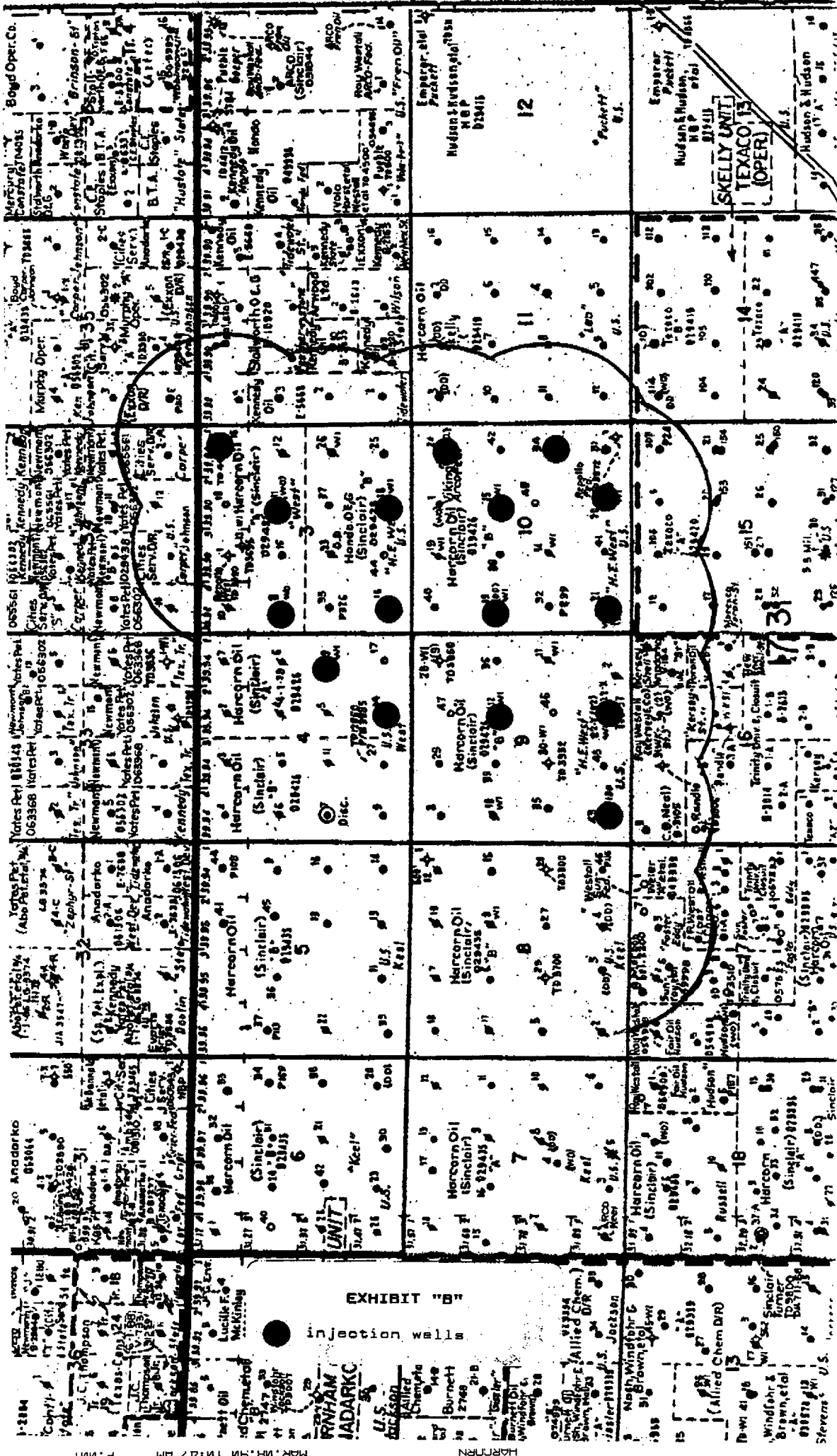


EXHIBIT "B"

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2. The Applicant, Socorro Petroleum Company, is the current operator of Keel-West Waterflood Project approved by Division Order R-2268, R-2268-A, R-2268-B and WFX-585 and WFX-587.

3. The Keel-West Waterflood Project includes 16 wells located as shown on Exhibits "A" and "B" all in Township 17 South, Range 31 East, Loco Hills Pool.

4. In Addition, Applicant seeks approval of the H.B. West "B" Well No. 24, Unit A, Section 10, for injection.

5. Decline curve analysis indicates that 1,480,000 barrels of oil may be recovered as a result of increasing the injection pressure for the injection wells in the Keel-West Waterflood.

6. Log analysis of injection wells indicate that all injected water is being contained within the Grayburg San Andres formation.

7. A study of the area has shown that under the current limitation of .2 psi/ft. maximum surface injection pressure, water cannot be injected in volumes required to meet the economic limits for conducting an efficient waterflood project.

8. Injection conducted at 450 psi above the parting pressure of the formation will create a fracture that will not propagate outside of the vertical limits of the Grayburg San Andres formation.

9. The improved injectivity from increased pressure limitation for the waterflood operations in the Keel-West Unit will result in an estimated additional 1,480,000 barrels of oil being recovered from the area.

10. That a new pressure limitation of 450 psi above the formation parting pressure as determined by step-rate tests is requested for the Keel-West Unit wells as tabulated on Exhibit "A" attached hereto.

11. That attached hereto as Exhibit "C" is a list of names and addresses of all interested parties to whom Applicant has sent notice of the hearing of the Application set for May 2, 1990 in accordance with the requirements of Rule 1207(4).

12. That approval of the Application will prevent waste, protect correlative rights, and will not constitute a risk to fresh water sources.

WHEREFORE, Applicant requests that this matter be set for hearing and that after notice and hearing the Application be granted as requested.

Respectfully submitted,

KELLAHIN, KELLAHIN & AUBREY

By


W. Thomas Kellahin

EXHIBIT "C"

Texaco, Inc.
Attn: R.R. O'Dwyer
P.O. Box 2100
Denver, CO 80201

Marbob Energy Company
Attn: Debra Rich
11352 Lovington Highway
Artesia, NM 88201-0217

Ray Westall
P.O. Box 4
Loco Hills, NM 88255

Yates Petroleum
Attn: Theresa Padilla
Yates Building, Suite 1300
South 4th
Artesia, NM 88210

Anadarko Petroleum
Attn: Bill Griffin
400 W. Illinois, Suite 1300
P.O. Box 2497
Midland, TX 79702

Murphy Operating, Inc.
Attn: Mark Murphy
P.O. Box 2648
Roswell, NM 88201

Kennedy Oil Company
Attn: Peggy Runyon
P.O. Box 47
Mayhill, NM 88339

Morexco, Inc.
Attn: Chuck Morgan
P.O. Box 481
801 West Texas
Artesia, NM 88210

Ernest Closuit, Sr. Trust
c/o Ernest Closuit, Jr.
Fort Worth Club Tower, P-1, Suite B
Fort Worth, Texas 76102

Trinity University
Attn: Mr. Baxter
Oil and Gas Division
715 Stadium Drive
San Antonio, TX 78284

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

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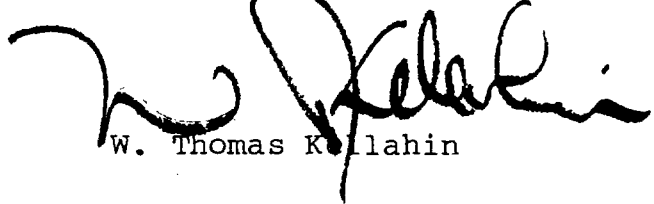
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Ray Westall
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Loco Hills, NM 88255

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Attn: Theresa Padilla
Yates Building, Suite 1300
South 4th
Artesia, NM 88210

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Attn: Bill Griffin
400 W. Illinois, Suite 1300
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Mayhill, NM 88339

Morexco, Inc.
Attn: Chuck Morgan
P.O. Box 481
801 West Texas
Artesia, NM 88210

Ernest Closuit, Sr. Trust
c/o Ernest Closuit, Jr.
Fort Worth Club Tower, P-1, Suite B
Fort Worth, Texas 76102

Trinity University
Attn: Mr. Baxter
Oil and Gas Division
715 Stadium Drive
San Antonio, TX 78284

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