

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

OK 1/7/57  
Wm  
Date 1-7-57

CASE

1185

Hearing Date

12-13-57

My recommendations for an order in the above numbered cases are as follows:

Enter an order approving the Ibbex Company's proposed pilot water flood project. Order should also approve the ~~and~~ <sup>unorthodox</sup> locations of the following wells:

Water Injection Wells:

The Ibbex Company's

Lever State No. 4 - 1065' FSL & 1049' FWL Sec 4, T18S, R28E

" " No. 7 - 247' FSL & 1600' FWL " " "

" " No. 10 - 1061' FSL & 2271' FWL " " "

~~Cowell~~ <sup>Cowell</sup> State No. 1 - 1572' FSL & 1549' FWL " " "

" " No. 10 - 2397' FSL & 2082' FWL " " "

Humble State ~~Eddy~~ No. 4 - 1550' FSL & 2088' FEL " " "

Producing Wells

The Ibbex Company's

Lever State No. 8 - 1075' FSL & 1567' FWL Sec 4, T18S, R28E

Cowell State No. 2 - 1532' FSL & 2088' FWL Sec 4, T18S, R28E

Suggest using a combination of the order in Case 1072 and Order No. R-146 as a guide, also incorporating approval of the above 8 unorthodox locations. (might also look at Order No R-137 and R-137-A)

Sam Miller  
Staff Member

Require monthly injection reports as required under Rules 1119 and 704

*Wm 1/14/57*  
*OFFICE*  
**THE IBEX COMPANY**

*AM 8:15*  
MANUFACTURERS OF NATURAL GASOLINE AND L. P. G. PRODUCTS  
PRODUCERS OF OIL AND GAS

IBEX BUILDING

BRECKENRIDGE, TEXAS

January 14, 1957

Re: Application by The Ibex Company  
for Pilot Water Flood, Section 4,  
T-18-S, R-28-E, Artesia Pool,  
Eddy, County, New Mexico

Oil Conservation Commission  
Capitol Building  
Santa Fe, New Mexico

Attention: Mr. Warren Mankin

Gentlemen:

The following are present well locations, which will be affected by the proposed pilot flood, and which are requested to be included under the application for unorthodox locations:

*/ / /*  
Ibex Levers State #2,3,4,6,7,8 & 10. Units M,N,O,  
Section 4, T-18-S, R-28-E. (Of these #2,  
3,6 & 8 will be producing wells and #4,7  
& 10 will be injection wells. At present  
#2 & #4 are temporarily abandoned wells,  
and #3, 4,6,7,8 & 10 are producing.

*/*  
Ibex Humble State Eddy #1, 4 & 5; Unit J, (4-18S-28E)  
Of these #1 & 5 will be producing wells and  
#4 will be an injection well. At present  
#4 & #5 are temporarily abandoned and #1 is  
producing.

*/*  
Ibex Cowell State #1,2,10,11; Unit K (4-18S-28E). Of  
these #2 and #11 will be producing wells  
and #1 and #10 will be injection wells. All  
four are presently temporarily abandoned.

*/*  
Ibex Welch Solt State #4; Unit L (4-18S-28E). This  
well will be a producing well. It is  
currently temporarily abandoned.

If there is any further question, please advise.

Yours truly,

*Robert H. Vick*

ROBERT H. VICK

## CLASS OF SERVICE

This is a fast message unless its deferred character is indicated by the proper symbol.

# WESTERN UNION

## TELEGRAM

W. P. MARSHALL, PRESIDENT

## SYMBOLS

DL=Day Letter

NL=Night Letter

LT=International Letter Telegram

1201

The filing time shown in the date line on domestic telegrams is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination.

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1956 NOV 7 PM 3:52

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OIL CONSERVATION COMMISSION=

1956 NOV 7 PM 3 33

107 CAPITOL BLDG SANTAFE NMEX=

ATTN WARREN MANKIN: CONCERNING IBEX COMPANY  
APPLICATION FOR HEARING ON (THREE) ARTESIA FIELD WATER  
FLOOD PILOTS, LOCATION OF PILOT #2 CORRECTED TO ALSO  
INCLUDE PORTION OF SOUTH EAST QUARTER OF SOUTH WEST  
QUARTER SECTION 21 EIGHTEENS 28=E ALSO WISH TO SECURE  
RULING ON PRESENT UNORTHODOX LOCATION IN PILOT AREAS  
AT SAME HEARING. DETAIL LETTER FOLLOWING=

THE IBEX CO ROBT H VICK=

21 EIGHTEENS 28=E

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

# THE IBEX COMPANY

MANUFACTURERS OF NATURAL GASOLINE AND L. P. G. PRODUCTS  
PRODUCERS OF OIL AND GAS

IBEX BUILDING

BRECKENRIDGE, TEXAS

November 8, 1956

Oil Conservation Commission  
107 Capitol Building  
Santa Fe, New Mexico

Attention: Mr. Warren Mankin

Gentlemen:

Following is the detailed information to the "Telegram", sent today, concerning The Ibex Company's application for a formal hearing to secure approval to install three (3) pilot waterfloods in the Artesia Field, Eddy County, New Mexico.

We wish to ammend the information stated in our original application as follows: First, the "Pilot Flood #2" would be as shown on the plat attached thereto. Correct description for location of same would include the SE/4 of SW/4 of Section 21, as well as the upper portion of Section 28, 18-S, 28-E, Eddy County, as shown.

Second, we would like to secure a ruling on unorthodox well locations in the immediate area of the three (3) pilots. We are currently conducting a re-survey of all the present well locations. This will be available at the scheduled hearing. At that time we can definitely specify the wells that will need special spacing ruling. Most of the wells were drilled at an early date before present spacing and unit rulings were enacted. The average spacing we have projected for the proposed pilot floods would be from 10-acre to 15-acre 5-spot patterns. This small spacing would allow faster and more controlled evaluation of the pilot floods. Any expansion of the "pilot floods" might be placed on a much larger pattern, depending upon the above results.

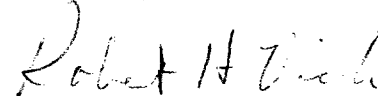
If possible, we would like to secure from the Commission hearing, November 28, 1956, some type of flexible ruling concerning the above point that would enable future expansions and spacing allowances by letter form to the Commission instead of scheduled hearings.

We would also like to discuss the future allowable situation of the proposed waterflood projects. With the thought in mind of establishing some ruling in regard to production, that would allow the most efficient operation of the projects.

2 - Oil Conservation Commission

We will present all of the material you requested at the scheduled hearing in Hobbs, New Mexico.

Sincerely yours,

  
ROBERT H. VICK

rhv/jbm

cc: The Ibex Company  
Box 1110  
Graham, Texas

Mr. Harold Kersey  
Booker Building  
Artesia, New Mexico

Mr. Vilas P. Sheldon  
Carper Building  
Artesia, New Mexico

Mr. Van S. Welch  
Booker Building  
Artesia, New Mexico

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

February 18, 1957

Mr. Robert H. Vick  
The Ibox Company  
P.O. Box 751  
Breckenridge, Texas

Dear Sir:

We enclose a copy of Order R-952 issued February 14th by the Oil Conservation Commission in Case 1185, which was heard December 13th.

Very truly yours,

A. L. Porter, Jr.  
Secretary - Director

bp  
Encl.

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P  
Y

# THE IBEX COMPANY

MANUFACTURERS OF NATURAL GASOLINE AND L. P. G. PRODUCTS

PRODUCERS OF OIL AND GAS

IBEX BUILDING

BRECKENRIDGE, TEXAS

November 2, 1956

Oil Conservation Commission  
Capitol Building  
Santa Fe, New Mexico

Attention: Mr. A. L. Porter

Gentlemen:

The Ibex Company requests a hearing be scheduled to obtain Commission approval to install three (3) pilot water floods in the Premier Sand formation in the Artesia Field of Eddy County, New Mexico. The three (3) separate pilot floods are proposed for the following locations:

- No. 1 - in Section 4, Township 18 South, Range 28 East
- No. 2 - in Section 28, Township 18 South, Range 28 East
- No. 3 - in Section 32, Township 18 South, Range 28 East

Following is the complete information requested according to Rule 701 of the Conservation Commission Rules and Regulations:

I. Field plat, showing all wells in the area and the relative locations of the three (3) separate proposed pilot waterfloods, is attached.

II. Production of the subject area is obtained from the "Premier Sand" of the lower Grayburg formation.

III. Proposed water injection will be through the indicated wells, shown on the attached plats, into the Premier Sand section of the Grayburg.

IV. A copy of the Radioactivity Log of a well in the vicinity of the proposed pilot floods is attached.

V. All proposed intake wells will be re-entered, cleaned out and  $4\frac{1}{2}$ " casing set and cemented on the immediate top of the Premier Sand. All other zones will be cased or plugged off so as to isolate the water injection to the Premier Sand.

November 2, 1956

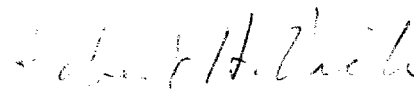
VI. Fresh water is to be used for injection purposes. The water is to be produced from presently completed water wells in the respective areas. All subject water wells are completed in a sand and gravel interval at 340' to 375' depth. None of the three (3) respective areas from which fresh water shall be produced are included in any presently established water basin. The Ibex Company has made formal application for water prospecting rights covering all the subject areas.

VII. The operator of the proposed projects will be The Ibex Company, Box 752, Breckenridge, Texas, Attention: Mr. Robert H. Vick.

Anything that you may do to schedule the earliest possible date for the requested hearing will be greatly appreciated.

Sincerely yours,

THE IBEX COMPANY



Robert H. Vick  
Waterflood Engineer

rhv/jbm  
attachments (2)

cc: The Ibex Company, Box 1110, Graham, Texas  
Harold Kersey, Booker Building, Artesia, New Mexico  
E. E. Nearburg, Box 5613, Roswell, New Mexico  
Vilas P. Sheldon, Carper Building, Artesia, New Mexico  
Van S. Welch, Booker Building, Artesia, New Mexico



WATERFLOOD DATA FOR HEARING BEFORE  
COMMISSION

OPERATOR The Ibex Company

DATE December 1, 1956

LEASE OR LEASES See Attached List

FIELD Portion of Artesia Field

COUNTY Eddy Co., N.M.

RESERVOIR "Premier Sand" of Grayburg Formation

Date of completion of first well in reservoir 1924

List other operators injecting into this reservoir in this field Red Lake Unit  
(2 miles North) has been injecting water into the same sand, but different reservoir,  
for 16 months.

(Include plat of field showing lease or leases to be flooded, present producing wells, proposed injection wells, well locations on offset leases, etc.)

I. Reservoir and fluid characteristics

A. Information on entire reservoir

1. Name of reservoir "Premier Sand" of Grayburg Formation
2. Estimated productive area of entire reservoir 1500 acres
3. Composition (sand, limestone, dolomite, etc.) sand
4. Structure stratigraphic trap  
structure and isopach maps included  
(Include structural and cross-section maps)
5. Type drive during primary production solution gas
6. Original reservoir pressure unknown
7. Was gas cap present originally? unknown At present? no

B. Information on proposed project area

(Eventual total: Approx. 600 ac)

1. Number of productive acres in lease or leases to be flooded 35 ac in pilot.
2. Average depth to top of pay (feet) 1950' (or 1600'± sub sea)
3. Estimated average effective thickness (feet) 15' (from isopach map)
4. Estimated average porosity (%) 14%
5. Average horizontal permeability (mds.) 50 Range 0-150
6. Connate water content (% of pore space) 15
7. Gravity of oil (API) 35°
8. Viscosity of oil (centipoises) Est at 10 cp.

II. Primary production history and present status

1. Date first well completed on lease or leases 1925
2. Oil, gas, water production history by months since date of discovery to present time. (Suggest data be presented graphically as well as in tabular form.) \*See below.
3. Stage of depletion of project area stripper
4. Number of producing wells on each lease in project area total of 16
5. Average daily oil production per well at present time 1 to 5 bbl/day
6. Cumulative oil production to date from lease or leases to be flooded  
Approximately 930,000 bbls total from the area.
7. Estimated oil saturation at present time (% of pore space) 31%
8. If project area has had gas repressuring, give details and results, such as cumulative gas injected, number of injection wells, by-passing or high gas-oil ratio experience, production increases.

**No artificial stimulation except some sand fracturing of late.**

\*  
No individual well or lease production histories are available, since some wells and leases outside the area were included in some of the operators' production reports.

- III. Injection (Presently completed water wells indicated on plat.)
1. Source of injected water (formations, depths) Red Sand formation @ 300'-400'
  2. Fresh or salt water fresh
  3. Open or closed system semi-closed
  4. Treatment of injected water filtering and chemical treatment as needed
  5. Pattern and spacing simulated five-spot, approximately 16 acres each.
  6. Initial injection pressure to be used (psi) as needed--est. at 500 to 800 psi
  7. Estimated initial per well rate of injection (bbls.) 300 BWPD
  8. Will oil wells be converted into injection wells or will injection wells be drilled? (If to be converted, give well numbers.) Yes. (See attached plat)

9. Will additional oil wells be drilled? Yes Location 330' FNL

& 330' FWL of SW/4 of SE/4 Section 4, T-18S, R-28E.

IV. Results expected

1. Estimated residual oil saturation at abandonment (% of pore space) 20%
2. Estimated ultimate additional oil that will be recovered as a direct result of injection (bbls.) 820,000
3. Estimated original oil in place (bbls.) 4,000,000.

V. Recommendations and reasons therefor: Installation of secondary recovery measures is the only present means available to recover approximately 800,000 bbls of oil that would otherwise be wasted in the form of non-recoverable reserves.

PILOT FLOOD #1

List of all leases in this area operated by The Ibex Company:

1. Ibex Cowell State: Unit K of Section 4.
2. Ibex Solt State: Units B, F, G of Section 4 and  
Units A, B, L, O & P of Section 5.
3. Ibex Daugherty State: Unit D of Section 4.
4. Ibex Daugherty State Solt: Unit E of Section 4.
5. Ibex Levers State: Unit B of Section 8, Units M, N, & O of  
Section 4, and Unit I of Section 5.
6. Ibex C. J. Williams State: Unit L of Section 17 and Unit H  
of Section 5.
7. Ibex Humble State Stout: Unit I of Section 4.
8. Ibex Humble State: Unit C of Section 4.
9. Ibex Humble State Eddy: Unit J of Section 4.
10. Ibex Welch Solt State: Unit L of Section 4.

All of the above leases are in T-18-S, R-28-E. Relative positions are indicated on the submitted plat.

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

July 17, 1959

Mr. Jack Campbell  
Box 721  
Roswell, New Mexico

Dear Mr. Campbell:

On behalf of your client, Graridge Corporation, we  
enclose two copies of Order No. R-952-A and Order  
No. R-966-E issued July 15, 1959, by the Oil Conserva-  
tion Commission.

Very truly yours,

A. L. PORTER, Jr.  
Secretary-Director

ir/

Enclosures

C  
O  
P  
Y

OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 7-1-59

CASE NO. \_\_\_\_\_

HEARING DATE 6-24-59

My recommendations for an order in the above numbered case(s) are as follows:

1. ~~Approve~~ Grayridge applications to allow administrative approved injection wells for the Artesian Pilot flood #1.
2. approve 15 non std. locations as listed in section 3 of application.
3. approve 5 wells for capacity allowables as listed in section 3 of application.

*Thos. H. White*

\_\_\_\_\_  
Staff Member