

Hondo Oil & Gas Company

Box 2208
Roswell, New Mexico 88202
(505)625-8700



RECEIVED

JUL 25 1989

OIL CONSERVATION DIV.
SANTA FE

July 14, 1989

Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Application for permit to convert to Water Injection
H. E. West "B" Well No. 15
1980' FNL & 1980' FEL, Section 10, T-17S, R-31E
Eddy County, New Mexico

Gentlemen:

Please find enclosed Hondo Oil & Gas Company's application for permit to convert the above captioned well into a water injection well.

Copies have been submitted to the surface owner, the offset operators and the NMOCD district office in Artesia.

If you should have any questions, please contact Ron Brown at 505/625-6735.

Sincerely,

A handwritten signature in cursive script that reads "Lisa Bohannon".

Lisa Bohannon
Engineering Technician

:lb

Encl.

Hondo Oil & Gas Company

Box 2208
Roswell, New Mexico 88202
(505)625-8700



July 14, 1989

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

RE: Application for permit to convert to Water Injection
H. E. West "B" Well No. 15
1980' FNL & 1980' FEL, Section 10, T-17S, R-31E
Eddy County, New Mexico

Gentlemen:

According to the Oil Conservation Division Rule 701, a copy of any injection well permit application must be sent to the offset operators and surface owner. Enclosed is a copy of our application for administrative approval to convert the above captioned well to a water injection well.

If you should have any questions, please contact Ron Brown at 505/625-6735.

Sincerely,

A handwritten signature in cursive script that reads "Lisa Bohannon".

Lisa Bohannon
Engineering Technician

:lb

Encl.

Hondo Oil & Gas Company

Box 2208
Roswell, New Mexico 88202
(505)625-8700



July 14, 1989

Texaco Producing Co.
P. O. Box 3109
Midland, Texas 79702

RE: Application for permit to convert to Water Injection
H. E. West "B" Well No. 15
1980' FNL & 1980' FEL, Section 10, T-17S, R-31E
Eddy County, New Mexico

Gentlemen:

According to the Oil Conservation Division Rule 701, a copy of any injection well permit must be sent to the offset operators and surface owner. Enclosed is our application for administrative approval to convert the above captioned well to a water injection well.

If you should have any questions, please contact Ron Brown at 505/625-6735.

Sincerely,


A handwritten signature in cursive script that reads "Lisa Bohannon". The ink is dark and the signature is fluid.

Lisa Bohannon
Engineering Technician

:lb

Encl.

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Hondo Oil & Gas Company
Address: P. O. Box 2208, Roswell, NM 88202
Contact party: Ron Brown Phone: (505)625-6735
- 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 R-2268.
- 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: Ron Brown Title: Petroleum Engineer
Signature:  Date: 7/14/89
- * 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. Current copies of well logs are attached.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
SUPPLEMENTAL INFORMATION
H. E. WEST "B" WELL NO. 15
EDDY COUNTY, NEW MEXICO

ITEM:

III. Well Data

- A. (1) Well Name: H. E. West "B" #15
1980' FNL & 1980' FEL
Section 10, T-17S, R-31E
Eddy County, New Mexico
- (2) Casing Data: (Also see Exhibit "B".)
- Surface Casing:
10 3/4" csg. set @ 780' in a 12 1/2" hole. Cemented with
200 sx. Calculated TOC to be 440'.
- Production Casing:
5 1/2" csg. set @ 3728' in an 8 1/4" hole. Cemented with
100 sx. TOC @ 3290' (CBL).
- (3) Injection Tubing:
2 3/8", 4.7#, 8rd EUE, plastic coated tubing, set @ ±3100'.
A 4 3/4" OH has been drilled from 3728-3952' and an 834'
4" liner has been run with the top of the liner @ 3119'.
The liner was set with 50 sx. cement.
- (4) Packer:
Packer set @ ±3100'.
- B. (1) Injection Formation:
The injection formation will be the Grayburg San Andres.
- (2) Injection Interval:
The injection interval is to be from 3368-3916'.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 2

(3) Original Purpose of Well:

This well was originally drilled, completed and tested in the Grayburg San Andres as a producer through perforations 3515-3540' and 3372-3378'.

(4) Added Perforated Intervals: (Also see Exhibit "B".)

This well was perforated from 3799-3916', 3392-3752' and 3368-3378' for conversion to an injector.

(5) Higher/Lower Oil Zones:

The top of the Seven Rivers is @ $\pm 2300'$ and there is no lower oil zone.

V. Map:

See Exhibit "A".

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 3

VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #18

Location: 660' FSL & 1980' FEL, (N) Section 3, T-17S, R-31E

Completion Date: 12/58

Surface Casing: 10 3/4" set @ 797', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3725', cemented with 100 sx.

Total Depth: 3996'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3393-3401', 3430-3435', 3443-3448', and 3456-3464'. Added perforations from 3523-3527', 3540-3548' and 3555-3560'. Deepened and converted to injection through existing perforations and new perforations from 3386-3705' and OH 3725-3994'.

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #42

Location: 2105' FNL & 660' FEL, (H) Section 10, T-17S, R-31E

Completion Date: 2/89

Surface Casing: 8 5/8" set @ 641', cemented with 400 sx.

Production Casing: 5 1/2" set @ 3985', cemented with 1250 sx.

Total Depth: 4004'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3398-3524', 3546-3599' and 3614-3791'.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15

Page 4

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #24

Location: 660' FNL & 660' FEL, (A) Section 10, T-17S, R-31E

Completion Date: 1/60

Surface Casing: 8 5/8" set @ 815', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3604', cemented with 100 sx.

Liner: 4" set from 3200-4008', cemented with 50 sx.

Total Depth: 4008'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3396-3402' and 3550-3560'. Converted to injection with the addition of perforations 3430-3438', 3448-3456' and 3462-3468'. Deepened, ran liner and will inject through new perforations.

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #13

Location: 1980' FNL & 660' FWL, (E) Section 10, T-17S, R-31E

Completion Date: 10/57

Surface Casing: 10 3/4" set @ 739', cemented with 100 sx.

Production Casing: 7" set @ 3525', cemented with 100 sx.

Liner: 5" set from 3094-3897', cemented with 150 sx.

Total Depth: 3900'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3318-3326' and 3356-3374'. Deepened and converted to injection through perforations 3737-3864' (CIBP set @ 3720'), 3568-3696' and 3312-3519'.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 5

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #14

Location: 1980' FSL & 1980' FWL, (K) Section 10, T-17S, R-31E

Completion Date: 1/58

Surface Casing: 8 5/8" set @ 762', cemented with 100 sx.

Production Casing: 7" set @ 3563', cemented with 100 sx.

Liner: 5" set from 3300-3953', cemented with 150 sx.

Total Depth: 3953'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3380-3396'. Converted to injection with the addition of perforations from 3343-3351', 3496-3500', 3505-3513' and 3526-3537' and the OH interval 3563-3632'. Deepened, ran liner and will inject through new perforations.

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #38

Location: 2085' FNL & 1980' FWL, (F) Section 10, T-17S, R-31E

Completion Date: 12/88

Surface Casing: 8 5/8" set @ 596', cemented with 400 sx.

Production Casing: 5 1/2" set @ 3960', cemented with 1300 sx.

Total Depth: 3960'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3364-3562', 3587-3727' and 3757-3910'.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15

Page 6

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #34

Location: 1980' FSL & 660' FEL, (I) Section 10, T-17S, R-31E

Completion Date: 10/88

Surface Casing: 8 5/8" set @ 629', cemented with 450 sx.

Production Casing: 5 1/2" set @ 3885', cemented with 1650 sx.

Total Depth: 3885'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3341-3583' and 3616-3802'. Converted to injection through existing perforations.

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #19

Location: 660' FNL & 1980' FWL, (C) Section 10, T-17S, R-31E

Completion Date: 1/59

Surface Casing: 10 3/4" set @ 785', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3501', cemented with 100 sx.

Liner: 4" set from 3300-3998', cemented with 50 sx.

Total Depth: 3998'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3422-3430'. Converted to injection with the addition of perforations from 3438-3441' and 3378-3389' and the OH interval 3501-3585'. Converted to single WIW by setting a BP @ 3466'. Deepened, ran liner and will inject through new perforations.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 7

Operator: Hondo Oil & Gas Company

Well Name: H. E. West "B" #20

Location: 660' FSL & 1980' FEL, (O) Section 10, T-17S, R-31E

Completion Date: 2/59

Surface Casing: 10 3/4" set @ 797', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3635', cemented with 100 sx.

Liner: 4" set from 3177-3966', cemented with 50 sx.

Total Depth: 3971'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3398-3410', 3542-3556' and 3603-3611'. Added perforations from 3359-3364'. Deepened and converted to injection through perforations 3858-3937', 3677-3839' and 3353-3634'.

Operator: Texaco Producing Co.

Well Name: Lea "C" #10

Location: 1980' FNL & 660' FWL, (E) Section 11, T-17S, R-31E

Completion Date: 8/72

Surface Casing: 8 5/8" set @ 620', cemented with 350 sx.

Production Casing: 5 1/2" set @ 3939', cemented with 1600 sx.

Total Depth: 3940'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3385-3883'.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 8

Operator: Viking Energy Corporation

Well Name: ARCO Federal #1

Location: 660' FNL & 1980' FEL, (B) Section 10, T-17S, R-31E

Completion Date: 11/78

Surface Casing: 8 5/8" set @ 850', cemented with 400 sx.

Production Casing: 4 1/2" set @ 5515', cemented with 850 sx.

Total Depth: 5515'

Completion: Tested first in the Paddock through perforations 5314-5426' and then plugged back to 4300'. Next, tested the Lovington Sand through perforations 3710-3718' and then plugged back to 3680'. Completed as a producer from the Grayburg San Andres perfs. 3402-3443' and 3538-3576'. P&A'd well 1/79.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 9

VII. Proposed Operations Data:

- (1) Average daily injection rate - 150 BWP
Maximum daily injection rate - 200 BWP
- (2) Type of system - closed
- (3) Average injection pressure - 1900 psi
Maximum injection pressure - 2200 psi
- (4) Source of injection water - water produced from the Keel West plus make-up water from the Keel West fresh water system.

VIII. Geological Data:

The proposed injection zone is in the Grayburg San Andres from 3368-3916'. The Grayburg formation consists primarily of Quartz sand with cementation. The San Andres formation consists primarily of Dolomite with intermingled stringers of Quartz sand with Dolomite cementation.

Surface formation is cretaceous and has no known source of drinking water. Also, there are no known underground sources of drinking water overlying or underlying the proposed injection zone.

IX. Stimulation Program:

Acidized 3799-3916' with 2000 gal. 15% NEFE acid and 4000 gal. 20% CRA acid. Acidized 3392-3752' with 6000 gal. 15% NEFE acid and frac'd with 50,000 gal. cross-linked gel + 90,000# 20-40 sand. Acidized 3368-3378' with 4000 gal. 15% NEFE acid.

X. Well Logs:

Copies of the current well logs are attached.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H. E. WEST "B" WELL NO. 15
Page 10

XI. Chemical Analysis of Fresh Water:

There are no known producing fresh water wells within one mile of the proposed injection well.

XII. Upon examination of the available geologic and engineering data, no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water was found.

SURFACE OWNER:

Federal land

OFFSET OPERATOR:

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

Affidavit of Publication

Copy of Publication

No. 12841

104210

18951

STATE OF NEW MEXICO,
County of Eddy:

..... Gary D. Scott being duly
sworn, says: That he is the Publisher of The
Artesia Daily Press, a daily newspaper of general circulation,
published in English at Artesia, said county and state, and that
the hereto attached Legal Notice

.....
was published in a regular and entire issue of the said Artesia
Daily Press, a daily newspaper duly qualified for that purpose
within the meaning of Chapter 167 of the 1937 Session Laws of
the State of New Mexico for 1 consecutive weeks on
the same day as follows:

First Publication July 16, 1989

Second Publication

Third Publication

Fourth Publication

and that payment therefore in the amount of \$
has been made. *[Signature]*

Subscribed and sworn to before me this 19th day
of July, 1989.

[Signature]
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991

LEGAL NOTICE

Hondo Oil & Gas Company
has applied for authority to
convert the H. E. West "B"
Well No. 15, located 1980'
FNL & 1980' FEL, Section
10, T-17S, R-31E, Eddy Coun-
ty, New Mexico, into a water
injection well. Water produced
from the Keel West plus
make-up water from the Keel
West fresh water system will
be injected into the Grayburg
San Andres formation from
3368-3916'. The maximum
daily injection rate will be 200
BWPD with a maximum pres-
sure of 2200 psi.
Interested parties must file ob-
jections or requests for hear-
ing with the Oil Conservation
Division, P.O. Box 2088,
Santa Fe, New Mexico 87501,
within 15 days of this notice.
Ron Brown
Petroleum Engineer
Hondo Oil & Gas Company
P.O. Box 2208
Roswell, New Mexico 88202
(505) 625-8760
Published in the Artesia Daily
Press, Artesia, N.M. July 16,
1989.

Legal 12841

I.D.

103001

<input checked="" type="checkbox"/> EXPENSE	<input type="checkbox"/> CAPITAL	APPROVAL	DATE
ACCOUNT # 84 LD. 039			

<p>SENDER: Complete Items 1 and 2 when additional services are desired, and complete Items 3 and 4.</p> <p>Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. <u>The return receipt fee will provide you the name of the person delivered to and the date of delivery.</u> For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.</p> <p>1. <input checked="" type="checkbox"/> Show to whom delivered, date, and addressee's address. 2. <input type="checkbox"/> Restricted Delivery</p> <p style="text-align: center;">↑(Extra charge)↑ ↑(Extra charge)↑</p>	
<p>3. Article Addressed to:</p> <p>Texaco Producing Co. P. O. Box 3109 Midland, TX 79702</p>	<p>4. Article Number</p> <p>P663397628</p> <p>Type of Service:</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature — Addressee</p> <p>X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature — Agent</p> <p>X</p>	
<p>7. Date of Delivery</p>	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

<p>SENDER: Complete Items 1 and 2 when additional services are desired, and complete Items 3 and 4.</p> <p>Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. <u>The return receipt fee will provide you the name of the person delivered to and the date of delivery.</u> For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.</p> <p>1. <input checked="" type="checkbox"/> Show to whom delivered, date, and addressee's address. 2. <input type="checkbox"/> Restricted Delivery</p> <p style="text-align: center;">↑(Extra charge)↑ ↑(Extra charge)↑</p>	
<p>3. Article Addressed to:</p> <p>Oil Conservation Division P. O. Box 2088 Santa Fe, NM 87501</p>	<p>4. Article Number</p> <p>P663397631</p> <p>Type of Service:</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature — Addressee</p> <p>X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature — Agent</p> <p>X</p>	
<p>7. Date of Delivery</p>	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

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<p>3. Article Addressed to:</p> <p>Bureau of Land Management P. O. Box 1778 Carlsbad, NM 88220</p>	<p>4. Article Number</p> <p>P663397629</p> <p>Type of Service:</p> <p><input type="checkbox"/> Registered <input type="checkbox"/> Insured</p> <p><input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD</p> <p><input type="checkbox"/> Express Mail</p> <p>Always obtain signature of addressee or agent and DATE DELIVERED.</p>
<p>5. Signature — Addressee</p> <p>X</p>	<p>8. Addressee's Address (ONLY if requested and fee paid)</p>
<p>6. Signature — Agent</p> <p>X</p>	
<p>7. Date of Delivery</p>	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

DOMESTIC RETURN RECEIPT

Hondo Oil & Gas Company
Application to Inject
H. E. West "B" Well No. 15
Eddy County, New Mexico

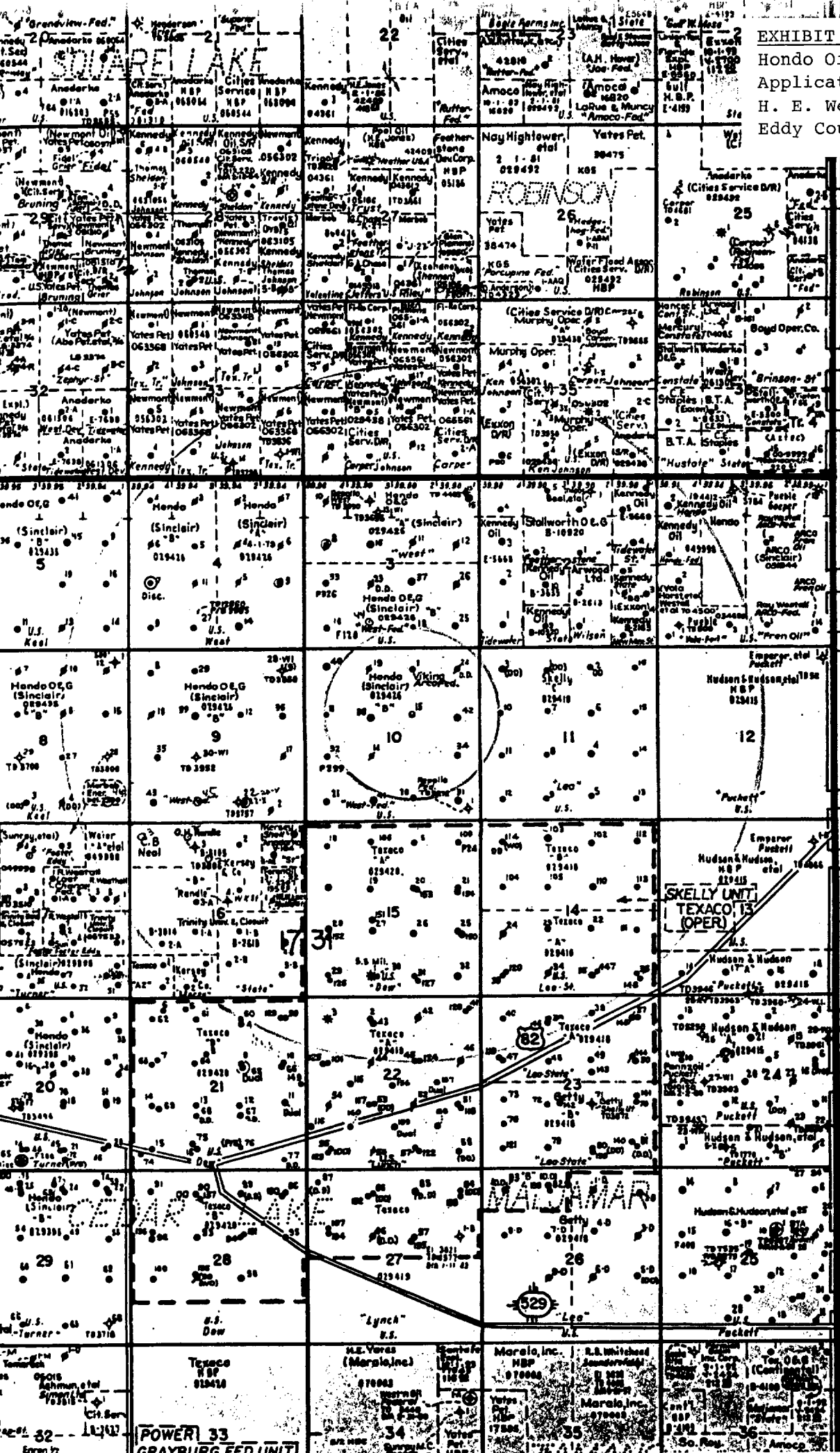


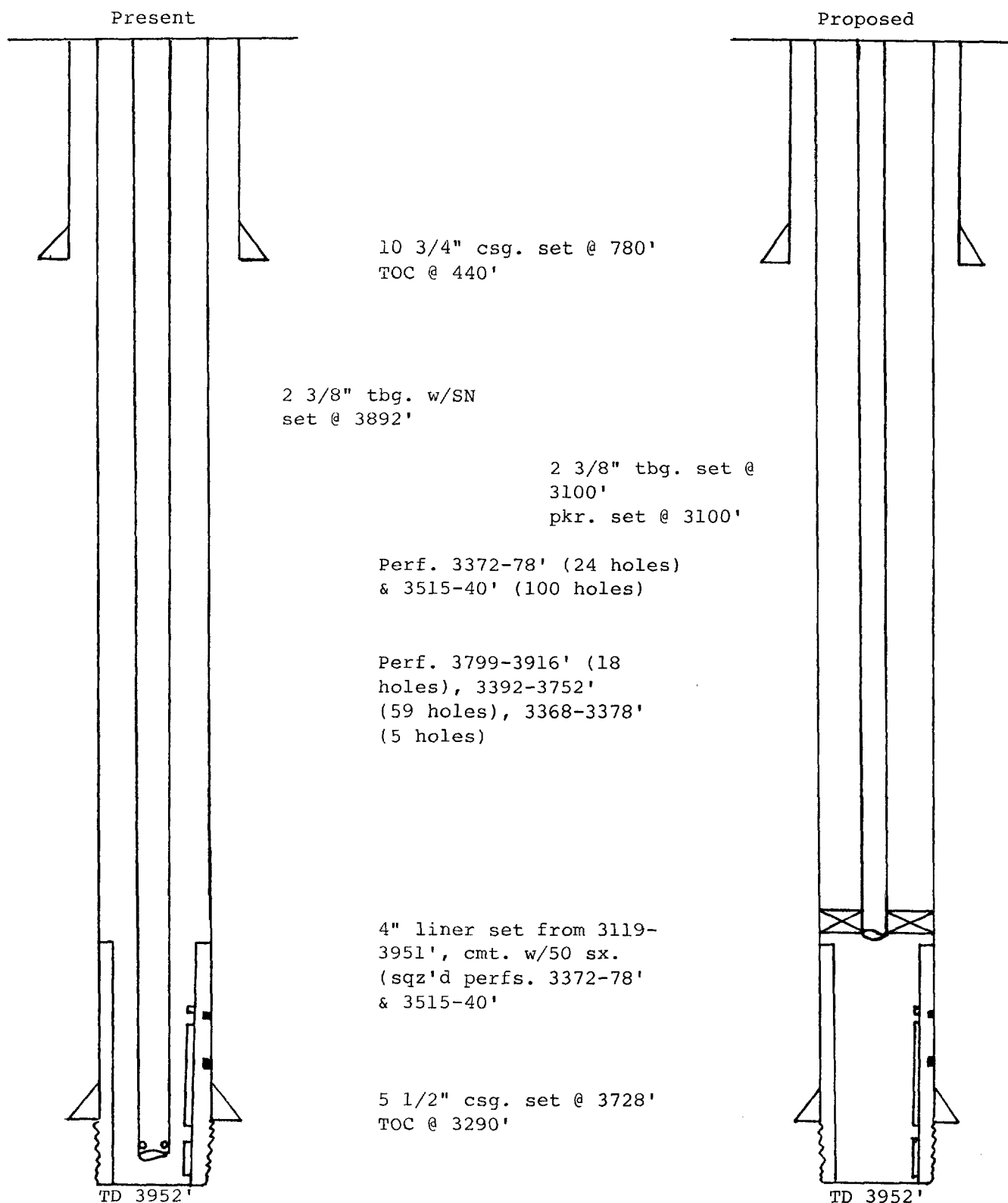
EXHIBIT "B"

Hondo Oil & Gas Company

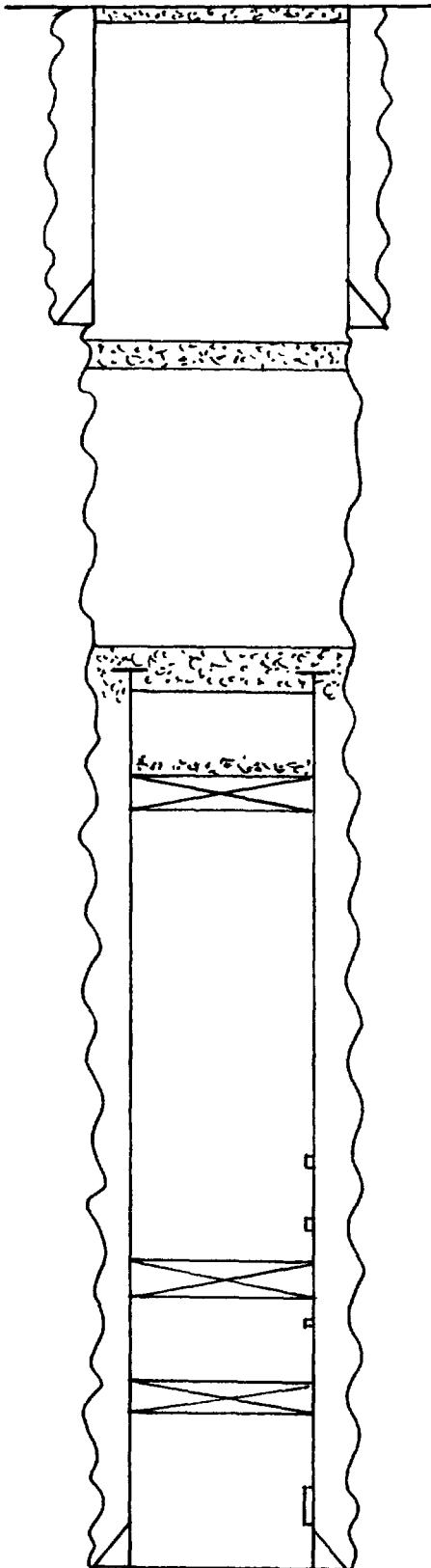
H. E. West "B" Well No. 15

Eddy County, New Mexico

H. E. WEST "B" WELL NO. 15



VIKING ENERGY CORPORATION
ARCO-FEDERAL #1
660' FNL & 1980' FEL
Section 10, T-17S, R-31E
Eddy County, New Mexico



8 5/8" csg. set @ 810', cmt. w/400 sx.

Plugged well as follows:

- (1) set CIBP @ 2280' w/35' cmt. on top
 - (2) 25 sx. cmt. plug at 4 1/2" csg. stub (est. to be 1800')
 - (3) 35 sx. cmt. plug @ 860'
 - (4) 20' cmt. plug @ surf.
- cut 4 1/2" csg. @ approx. 1800' and pulled

Perf. 3402-3443'

Perf. 3538-3576'

Plugged back to 3680' w/CIBP

Perf. 3710-3718'

Plugged back to 4300' w/CIBP

Perf. 5314-5426'

4 1/2" csg. set @ 5515', cmt. w/850 sx.

TD 5515'