

Hondo Oil & Gas Company

Box 2208
Hillwell, New Mexico 88202
505/625-8700



RECEIVED

JUL 25 1989

OIL CONSERVATION DIV.
SANTA FE

July 18, 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. 13
1980' FNL & 660' FWL, 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,



Lisa Bohannon
Engineering Technician

LB/jw

Encl.

Hondo Oil & Gas Company

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



July 18, 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. 13
1980' FNL & 660' FWL, 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". The signature is written in dark ink and is positioned below the word "Sincerely,".

Lisa Bohannon
Engineering Technician

LB/jw

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: Ron Brown by LB Date: 7/18/89
- * 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. Copies of current logs are attached.

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H.E. WEST "B" WELL NO. 13

ITEM:

III. Well Data

- A. (1) Well Name: H.E. West "B" #13
1980' FNL & 660' FWL
Section 10, T17S, R31E
Eddy County, New Mexico
- (2) Casing Data: (Also see Exhibit "B")
- Surface Casing:
10 3/4" csg. set @ 739', cemented with 100 sx.
- Production Casing:
7" csg set @ 3535', cemented with 100 sx. TOC @ 2390'
(temperature survey).
- (3) Injection Tubing:
2 3/8", 4.7#, 8rd EUE plastic coated tbg set @ ± 3260'.
- A 6 1/4" OH has been drilled from 3630-3900' and a 5" liner has been set from 3094-3897'. The liner was cemented with 150 sx.
- (4) Packer:
Packer set @ ± 3260'.
- B. (1) Injection Formation:
- The injection formation will be the Grayburg San Andres.
- (2) Injection Interval:
- The injection interval is to be from 3312-3696'.

HONDO OIL & GAS COMPANY
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(3) Original Purpose of Well:

This well was originally drilled, completed and tested in the Grayburg Jackson as a producer through perforations 3318-3326' and 3356-3374'.

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

This well was perforated from 3737-3864' (CIBP was set @ 3720') 3568-3696' and 3312-3519' for conversion to an injector.

(5) Higher/Lower Oil Zones:

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

V. Map:

See Exhibit "A".

HONDO OIL & GAS COMPANY
APPLICATION FOR AUTHORITY TO INJECT
H.E. WEST "B" WELL NO. 13
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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #12

Location: 1980' FNL & 1980' FEL, (G) Section 9, T17S, R31E

Completion Date: 9/56

Surface Casing: 9 5/8" csg set @ 668', cemented with 100 sx.

Intermediate Casing: 7" csg set @ 3158', cemented with 200 sx.

Production Casing: 5" csg set @ 3864', cemented with 500 sx.

Total Depth: 3864'

Completion: Completed in the Grayburg San Andres as a producer from OH 3139-3744'. Deepened, ran 5" casing and converted to injection through perforations 3260-3330', 3350-3633' and 3676-3830' (CIBP set @ 3660').

Operator: Hondo Oil & Gas Company

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

Location: 1980' FSL & 660' FEL, (I) Section 10, T17S, R31E

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.

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H.E. WEST "B" WELL NO. 13
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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

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

Location: 660' FNL & 1980' FWL, (C) Section 10, T17S, R31E

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.

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #15

Location: 1980' FNL & 1980' FEL, (G) Section 10, T17S, R31E

Completion Date: 6/58

Surface Casing: 10 3/4" set @ 780', cemented with 200 sx.

Production Casing: 5 1/2" set @ 3728', cemented with 100 sx.

Liner: An 834', 4" liner with the top of the liner @ 3119', cemented with 50 sx.

Total Depth: 3952'

Completion: Completed in the Grayburg San Andres as a producer through perforations 3515-3540' and 3372-3378'. Deepened, ran liner and converted to injection through perforations 3799-3916', 3392-3752' and 3368-3378'.

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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #17

Location: 1980' FSL & 660' FEL, (I) Section 9, T17S, R31E

Completion Date: 10/58

Surface Casing: 10 3/4" set @ 747', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3670', cemented with 100 sx.

Liner: 4" set @ 3000-3878', cemented with 50 sx.

Total Depth: 3878'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3338-3356'. Converted to injection with the addition of perforations from 3296-3624'. Converted to single WIW by setting a packer @ 3242'. Deepened, ran liner, and will inject through new perforations.

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #16

Location: 660' FSL & 660' FWL, (M) Section 3, T17S, R31E

Completion Date: 8/58

Surface Casing: 10 3/4" set @ 765', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3673', cemented with 100 sx.

Liner: 4" set from 3264-3978', cemented with 75 sx.

Total Depth: 3978'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3370-3384' and 3570-3578'. Added perforations from 3333-3341', 3394-3397', 3439-3497' and 3501-3520'. Deepened, ran liner and converted to injection through perforations 3792-3961', 3546-3742' and 3333-3523'.

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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #40

Location: 560' FNL & 660' FWL, (D) Section 10, T17S, R31E

Completion Date: 2/89

Surface Casing: 8 5/8" set @ 603', cemented with 350 sx.

Production Casing: 5 1/2" set @ 4021', cemented with 1250 sx.

Total Depth: 4021'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3345-3425', 3475-3547', 3585-3746' and 3792-3941'.

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #32

Location: 1980' FSL & 660' FWL, (L) Section 10, T17S, R31E

Completion Date: 9/88

Surface Casing: 8 5/8" set @ 582', cemented with 450 sx.

Production Casing: 5 1/2" set @ 3954', cemented with 1600 sx.

Total Depth: 3954'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3314-3319', 3391-3424', 3451-3484' and 3529-3754'. Added perforations from 2186-2379'.

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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #21

Location: 660' FSL & 660' FWL, (L) Section 10, T17S, R31E

Completion Date: 5/59

Surface Casing: 10 3/4" set @ 734', cemented with 100 sx.

Production Casing: 5 1/2" set @ 3802', cemented with 125 sx.

Total Depth: 3917'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3362-3370'. Added perforations from 3416-3775'. Deepened and converted to injection through existing perforations and added new perforations from 3576-3773', 3294-3511' and OH 3802-3917'.

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #36

Location: 1980' FNL & 660' FWL, (H) Section 9, T17S, R31E

Completion Date: 11/88

Surface Casing: 8 5/8" set @ 541', cemented with 400 sx.

Production Casing: 5 1/2" set @ 3883', cemented with 1300 sx.

Total Depth: 3883'

Completion: Completed in the Grayburg San Andres as a producer from perforations 3199-3234', 3267-3462' and 3494-3821'.

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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #41

Location: 660' FSL & 2020' FWL, (N) Section 10, T17S, R31E

Completion Date: 2/89

Surface Casing: 8 5/8" set @ 602', cemented with 400 sx.

Production Casing: 5 1/2" set @ 4008', cemented with 1250 sx.

Total Depth: 4008'

Completion: Completed in the Grayburg San Andres as a producer
from perforations 3301-3543', 3593-3793', 3831-3847'
and 3875-3943'.

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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

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

Location: 1980' FSL & 1980' FWL, (K) Section 10, T17S, R31E

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, T17S, R31E

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.

Liner: 5" set from 3300-3953', cemented with 150 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
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H.E. WEST "B" WELL NO. 13
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VI. Wells in Area of Review:

Operator: Hondo Oil & Gas Company

Well Name: H.E. West "B" #28

Location: 660' FNL & 660' FEL, (A) Section 9, T17S, R31E

Completion Date: 12/63

Surface Casing: 8 5/8" set @ 550', cemented with 240 sx.

Production Casing: 5 1/2" set @ 3850', cemented with 300 sx.

Total Depth: 3850'

Completion: Completed in the Grayburg San Andres as an injector through perforations 3289-3849'. Added new perforations from 3270-3823'.

Operator: Viking Energy Corporation

Well Name: ARCO Federal #1

Location: 660' FNL & 1980' FEL, (B) Section 10, T17S, R31E

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. 13
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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 3312-3696'. 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 3568-3696' with 4000 gal 15% NeFe acid and frac'd with 25,000 gal 30# cross-linked gelled water + 40,000# 20-40 sand.
Acidized 3312-3519' with 6000 gal 15% NeFe acid and frac'd with 31,800 gal 30# gel + 40,000# 20-40 sand.

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. 13
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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:

None with area of review.

Affidavit of Publication

Copy of Publication

No. 12845

18951

104214

STATE OF NEW MEXICO,
County of Eddy:

.....Gary D. Scott..... being duly
sworn, says: That he is thePublisher..... of The
Artesia Daily Press, a daily newspaper of general circulation,
published in English at Artesia, said county and state, and that
the hereto attachedLegal 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 for1..... days
consecutive weeks on
the same day as follows:

First PublicationJuly 16, 1989.....

Second Publication

Third Publication

Fourth Publication

and that payment therefor in the amount of \$.....
has been made.

Subscribed and sworn to before me this19th..... day
ofJuly....., 19 89.....

.....
Notary Public, Eddy County, New Mexico

My Commission expiresSeptember 23, 1991.....

LEGAL NOTICE

Hondo Oil & Gas Company
has applied for authority to
convert the H. & West "B"
Well No. 13, located 1980'
FNL. & 660' FNL, Section
10, T-17N, R-17E, 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
3312-3600'. 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 12845

I.D.

103001

<input checked="" type="checkbox"/> EXPENSE	<input type="checkbox"/> CAPITAL	APPROVAL	DATE
ACCOUNT # 8400-039			

SENDER: Complete Items 1 and 2 when additional services are desired, and complete Items 3 and 4.
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. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. ☐ Restricted Delivery
↑(Extra charge)↑ ↑(Extra charge)↑

3. Article Addressed to: <i>Bureau of Land Management P.O. Box 1778 Carlsbad, NM 88220</i>	4. Article Number <i>P663 397 634</i>
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
5. Signature — Addressee <i>X</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent <i>X</i>	
7. Date of Delivery	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

SENDER: Complete Items 1 and 2 when additional services are desired, and complete Items 3 and 4.
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. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. ☐ Restricted Delivery
↑(Extra charge)↑ ↑(Extra charge)↑

3. Article Addressed to: <i>NMOCB P.O. Drawer DD Artesia, NM 88210</i>	4. Article Number <i>P663 397 635</i>
	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
5. Signature — Addressee <i>X</i>	8. Addressee's Address (ONLY if requested and fee paid)
6. Signature — Agent <i>X</i>	
7. Date of Delivery	

PS Form 3811, Mar. 1987

★ U.S.G.P.O. 1987-178-268

DOMESTIC RETURN RECEIPT

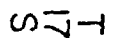
MOB 125

● **SENDER:** Complete Items 1 and 2 when additional services are desired, and complete Items 3 and 4.

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. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1. ☒ Show to whom delivered, date, and addressee's address. ☐ Restricted Delivery
 †(Extra charge)† †(Extra charge)†

3. Article Addressed to: <i>Oil Conservation Division</i> <i>P.O. Box 2088</i> <i>Santa Fe, NM 87501</i>	4. Article Number <i>663 397 433</i>
5. Signature -- Addressee <i>X</i>	Type of Service: <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail
6. Signature -- Agent <i>X</i>	Always obtain signature of addressee or agent and <u>DATE DELIVERED</u> .
7. Date of Delivery	8. Addressee's Address (ONLY if requested and fee paid)

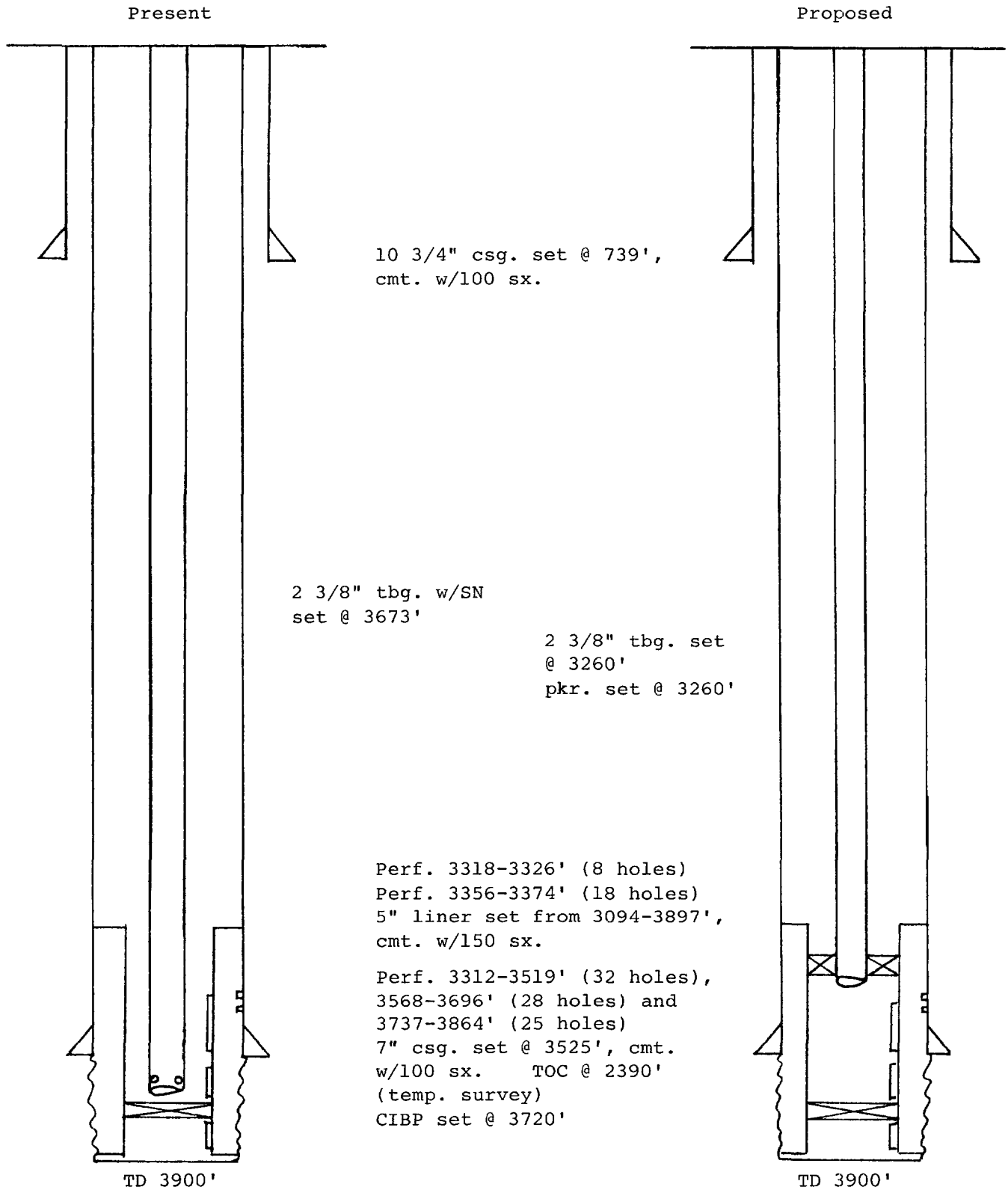


Hondo Oil & Gas Company
H. E. West "B" Well No. 13
Eddy County, New Mexico

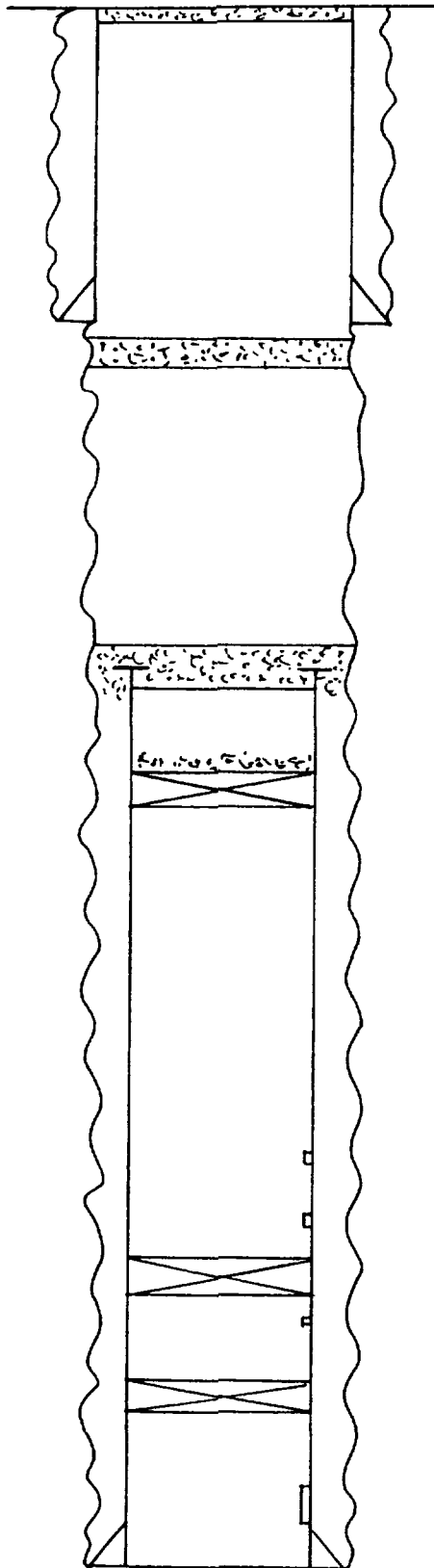
EXHIBIT "B"

Hondo Oil & Gas Company
H. E. West "B" Well No. 13
Eddy County, New Mexico

H. E. WEST "B" WELL NO. 13



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'