

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNM
Driller DD
Artesia, NM 88210FORM APPROVED
Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
DEVON ENERGY OPERATING CORPORATION3. Address and Telephone No.
20 NORTH BROADWAY, SUITE 1500, OKLAHOMA CITY, OKLAHOMA 73102 (405)562-45604. Location of Well (Footage, Sec., T., R., M., or Survey Description)
720' FSL & 1980' FWL, Sec. 3-T17S-R31E

UT. N

5. Lease Designation and Serial No.

LC 029426 B

6. If Indian, Allottee or Tribe Name

NA

7. If Unit or CA, Agreement Designation

NA

8. Well Name and No.

WEST 'B' #44

9. API Well No.

30-015-26574

10. Field and Pool, or Exploratory Area

GRAYBURG-JACKSON

11. County or Parish, State

EDDY CO., NEW MEXICO

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Altering Casing	<input checked="" type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Other _____	<input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

This well is currently producing from perforations 3294' to 3925' overall. A CIBP is set @ 3925' covering perforations 3925' to 4088'. Devon Energy Operating Corporation plans to drill out the CIBP, perforate additional perfs up to 3228', acidize the interval 3228' to 4088' w/15% NEFE acid and convert the well to water injection.

See attached state application for authority to inject.

DEC 14 '94

RECEIVED
NOV 11 11 21 AM '94

14. I hereby certify that the foregoing is true and correct

Signed Randy Jackson
(This space for Federal or State office use)Title RANDY JACKSON
District EngineerDate 11/16/94Approved by Orig. Signed by Adam SalamehTitle Petroleum EngineerDate 12/13/94Conditions of approval, if any: Subject to
Like Approval
By State

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☒ Secondary Recovery ☒ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: Devon Energy Operating Corporation

Address: 20 N. Broadway, Suite 1500, Oklahoma City, OK 73102-8260

Contact party: Randy Jackson Phone: (405) 552-4560

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. Refer to Attachment V

* 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. Refer to Attachment VI

VII. Attach data on the proposed operation, including: Refer to Attachment VII

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. Refer to Attachment VIII

IX. Describe the proposed stimulation program, if any. It is anticipated the interval 3228'-4065' will be acidized w/15% NEFE acid prior to initial injection.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.) Copies of current logs are on file.

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

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. Refer to Attachment XII

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: Randy Jackson

Title: District Engineer

Signature: Randy Jackson

Date: 11/18/94

* 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.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division

ATTACHMENT III (tabular)

WELL DATA

- A. (1) H. E. West "B" #44
720' FSL & 1980' FWL
Section 3-T17S-R31E
Eddy County, NM
- (2) Casing Data: Also see Attachment III (schematic).
Surface: 8 5/8" set @ 566' cemented with 400 sx in a 12 1/4" hole.
Production: 5 1/2" set @ 4400' cmt'd w/3625 sx in a 7 7/8" hole. Circ.
Liners: None.
- (3) Injection Tubing: 2 3/8", 4.7#, J-55, 8rd EUE plastic coated set at 3150'.
- (4) Packer: Baker, tension (or equivalent) set @ 3175' in tension.
- B. (1) Injection Formation: The injection formation will be the Grayburg San Andres.
- (2) Injection Interval: The injection interval is to be from perforations @ 3228'-4065'.
- (3) Original Purpose of Well: The well was originally drilled, completed and tested in the Grayburg San Andres as a producer from perforations 3294'-4008'. Later a CIBP was set @ 3925' reducing the prodjcing interval to 3294'-3844'.
- (4) Added Perforated Intervals: After the CIBP is drilled out and cased hole logs evaluated, additional perforations may be added in the 3228'-4065' interval.
- (5) Higher/Lower Oil Zones: The top of the Seven Rivers is at +/- 2199' and there is no known lower oil zone.

Schematic: See Attachment III (schematic).

devon

OPERATING CORPORATION
 30 North Broadway, Suite 1800
 Oklahoma City, Oklahoma 73102-6280
 Telephone: (405) 826-5611
 Fax: (405) 822-4880

WELLBORE SCHEMATICWELL: H.E. West "B" No. 44LOCATION: 720' FSL & 1980' FWL3-17S-31EEddy Co., N.M.**Present****Proposed**

8 5/8" @ 566' w/ 400 sx.
 Cmt. Circ. 12 1/4" hole

Top perf. 3294'CIBP @ 3925'Str. perf. 4088'

5 1/2" @ 4400' w/ 3625 sx.
 Cmt. Circ. 7 7/8" hole

2 7/8" 4.7# J-55
 Plastic lined

Baker tensile pk.
 @ 3175'

Top perf. @ 3228'BTM perf. @ 4065'4400'

ATTACHMENT VII

PROPOSED OPERATION

1. Average daily injection rate - 500 BWPD.
 Maximum daily injection rate - 600 BWPD.
2. Type of system - closed.
3. Average injection pressure - 1900 psi.
 Maximum injection pressure - 2500 psi.
4. Source of injection water - Produced water from the Keel West plus make up
 water from Keel West fresh water system.
5. N. A.

ATTACHMENT VIII

GEOLOGY AND LITHOLOGY

The proposed injection zone is in the Greyburg San Andres from 3228' to 4065'. The Greyburg 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 sources of drinking water overlying or underlying the proposed injection zone.

ATTACHMENT XII

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

ATTACHMENT XIV

PROOF OF NOTICE

Devon Energy Operating Corporation (applicant) is the operator of all wells within the area of review. The Bureau of Land Management is the surface owner. They have been notified by BLM Sundry Notice.

PROOF OF PUBLICATION

Proof of publication from the Carlsbad Current-Argus is enclosed.

Affidavit of Publication

№ 16143

State of New Mexico,
County of Eddy, ss.

November 15, 1994

Legal Advertisement

Notice is hereby given that Devon Energy Operating Corporation is applying to the New Mexico Oil Conservation Division to convert the following well to an injection well for secondary recovery purposes:

H.E. West "B" #44
720' FSL & 1980' FWL
Section 3-T17S-R31E
Eddy County, NM

The intended purpose of this well is to inject produced waters into the Grayburg-San Andres formations to enhance oil production through secondary recovery. Maximum injection rates of 600 bwpd and a maximum pressure of 2500 psig are expected.

Interested parties must file objections or requests for hearing within 15 days to the following commission:

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

Randy Jackson
District Engineer
Devon Energy Operating Corporation
20 North Broadway, Suite 1500
Oklahoma City, OK
(405) 552-4560

Amy McKay
being first duly sworn, on oath says:

That she is Business Manager of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

November 15, 1994
_____, 19____
_____, 19____
_____, 19____
_____, 19____
_____, 19____

That the cost of publication is \$ 25.70,
and that payment thereof has been made and will
be assessed as court costs.

Amy McKay

Subscribed and sworn to before me this

16th day of November, 1994

Donna Crump

My commission expires 8/01/98

Notary Public

ATTACHMENT VI

H. E. West "B" #50	50' FSL & 1400' FWL Sec. 3-17S-31E	3/4/93	7/21/93	Producing Oil	TD 4356' PBTD 4285'	13 3/8" @ 576' w/1250 ex. Circ. to surface. 5 1/2" @ 4356' w/1900 ex. Circ. to surface. Completed in the Grayburg San Andres as a producer thru perfs 3300'-4052' (286 holes).
H. E. West "B" #55	1972' FSL & 2078' FWL Sec. 3-17S-31E	2/21/93	5/6/93	Injection	TD 4300' PBTD 4265'	13 3/8" @ 575' w/300 ex. Circ cmt. 8 5/8" @ 1768' w/850 ex. Circ. cmt. 5 1/2" @ 4266' w/1000 ex. Circ. cmt. Completed as an oil producer thru perfs 4142'-4206' (92 holes) from the Grayburg San Andres. Well converted to injection thru Grayburg San Andres perfs 3314'-4206'.
H. E. West "B" #49	1303' FSL & 1303' FWL Sec. 3-17S-31E	4/5/93	8/29/93	Producing Oil	TD 4350' PBTD 4276'	8 5/8" @ 618' w/300 ex. Circ. 5 1/2" @ 4350' w/1300 ex. Circ. Completed as a producer from the Grayburg San Andres thru perfs 3314'-3532' (50 holes). Additional perfs 3360'-3532' (280 holes).
H. E. West "B" #40	560' FNL & 660' FWL Sec. 10-17S-31E	12/22/88	2/2/89	Producing Oil	TD 4021' PBTD 3956'	8 5/8" @ 603' w/350 ex. Circ to surface. 5 1/2" @ 4021' w/1250 ex. Circ to surface. Completed in the Grayburg San Andres as a producer from perfs 3345'-3941' (170 holes). Acidized w/1,000 gals acid. Frac'd w/36,000 glas x-linked gelled water & 76,000# 20/40 sand.
H. E. West "B" #23	1980' FSL & 1980' FWL Sec. 3-17S-31E	8/59	9/59	P&A	TD 3557' P&A 4/82	8 5/8" @ 797' w/100 ex. 5" @ 3456' w/100 ex. Completed as a Grayburg San Andres producer thru perfs 3413'-3421' & 3429'-3435'. Deepened to 3557' and perf'd 3374'-3384' & open hole 3456'-3557'. Converted to injection. P&A 4/82 (see attached schematic).
H. E. West "A" #17	660' FSL & 660' FEL Sec. 4-17S-31E	12/12/89	1/6/90	Producing Oil	TD 3954' PBTD 3906'	8 5/8" @ 575' w/350 ex cmt. Circ. to surface. 5 1/2" @ 3948' w/1150 ex cmt. Circ. to surface. Completed as a producer from the Grayburg San Andres formation thru perfs 3273'-3839'.
H. E. West "A" #16	1980' FNL & 1980' FWL Sec. 3-17S-31E	12/4/88	1/12/89 Recompleted 8/8/89	Producer	TD 4076' PBTD 4076'	8 5/8" @ 644' w/400 ex. Circ. to surface. 5 1/2" @ 4076' w/1250 ex. Completed as an oil producer in the Grayburg San Andres thru perfs 3415'-3953'.

10 3/4" @ 765' w/100 ex.
5 1/2" @3673' w/100 ex. TOC @ 2660' (CBL).
Liner: 4" set from 3264'-3978' w/75 ex.
Completed in the Grayburg Sand Andres as a producer from
perfs 3370'-3384' and 3570'-3578'. Added perfs from 333:
3341', 3394'-3397', 3439'-3497', and 3501'-3520'. Deepen
to 3978' and ran 4" liner. Perf'd 3792'-3961', 3546'-3742'
and 3333'-3523'. Converted well to injection.
8 5/8" @ 627' w/400 ex. Circ to surface.
5 1/2" @ 4082' w/1350 ex. Circ to surface.
Completed as a producing oil well thru perfs 3410'-4038' in
the Grayburg San Andres. The interval was acidized w/15%
NEFE acid. No fracturing.