NM OIL CONS COMMISSION
Drawer DD
Artesia, NM 88210

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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
[X] Oil Well [ ] Gas Well [ ] Other

2. Name of Operator
GP II ENERGY, INC.

3. Address and Telephone No.
P.O. BOX 50682 MIDLAND, TX 79710 (915) 684-4748

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1610 FNL 1650 FEL
SEC 34 T26S R29E

5. Lease Designation and Serial No.
LC-065928 A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
LITTLEFIELD BO FEDERAL # 5

9. API Well No.
30-015-26423

10. Field and Pool, or Exploratory Area
BRUSHY DRAW

11. County or Parish, State
EDDY COUNTY

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
[X] Notice of Intent	[ ] Abandonment	[ ] Change of Plans
[ ] Subsequent Report	[ ] Recompletion	[ ] New Construction
[ ] Final Abandonment Notice	[ ] Plugging Back	[ ] Non-Routine Fracturing
	[ ] Casing Repair	[ ] Water Shut-Off
	[ ] Altering Casing	[X] Conversion to Injection
	[ ] Other _____	[ ] 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.)*

SEE ATTACHED WELL DATA & PROCEDURE LETTER

RECEIVED
AUG 11 1995
OIL CON. DIV.
DIST. 2

Subject to
Like Approval
by State OCD

14. I hereby certify that the foregoing is true and correct
Signed _____ Title PRESIDENT Date 7-18-95

(This space for Federal or State office use)
Approved by (ORIG. SGD.) JOE G. LARA Title PETROLEUM ENGINEER Date 8/9/95
Conditions of approval, if any:

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

GP II ENERGY, INC.

P.O. BOX 50682 MIDLAND, TEXAS 79710 (915)684-4748 FAX(915)570-4748

July 17, 1995

J. C. Williamson
214 W. Teras
Midland, Texas 79701

Attn: Production Department

Re: Littlefield BO Federal
Well #5
1610 FNL 1650 FEL
Section 34 T26S R29E
Eddy County, New Mexico

Dear Sir:

GP II Energy, Inc. proposes to convert the above mentioned oil well to a disposal well in the Cherry Canyon (Buffalo Wallow) Sand beginning September 1, 1995.

The appropriate forms and application to do so have been filed with the necessary offices in New Mexico.

Sincerely yours,

George P. Mitchell, II
President

GPM:gm

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPAR NT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

RECEIVED
JUL 20

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: GP II ENERGY, INC.

Address: P.O. Box 50682 Midland, Texas 79710

Contact party: Joe Compton Phone: 915-686-8964

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 _____.

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: George P. Mitchell Title President

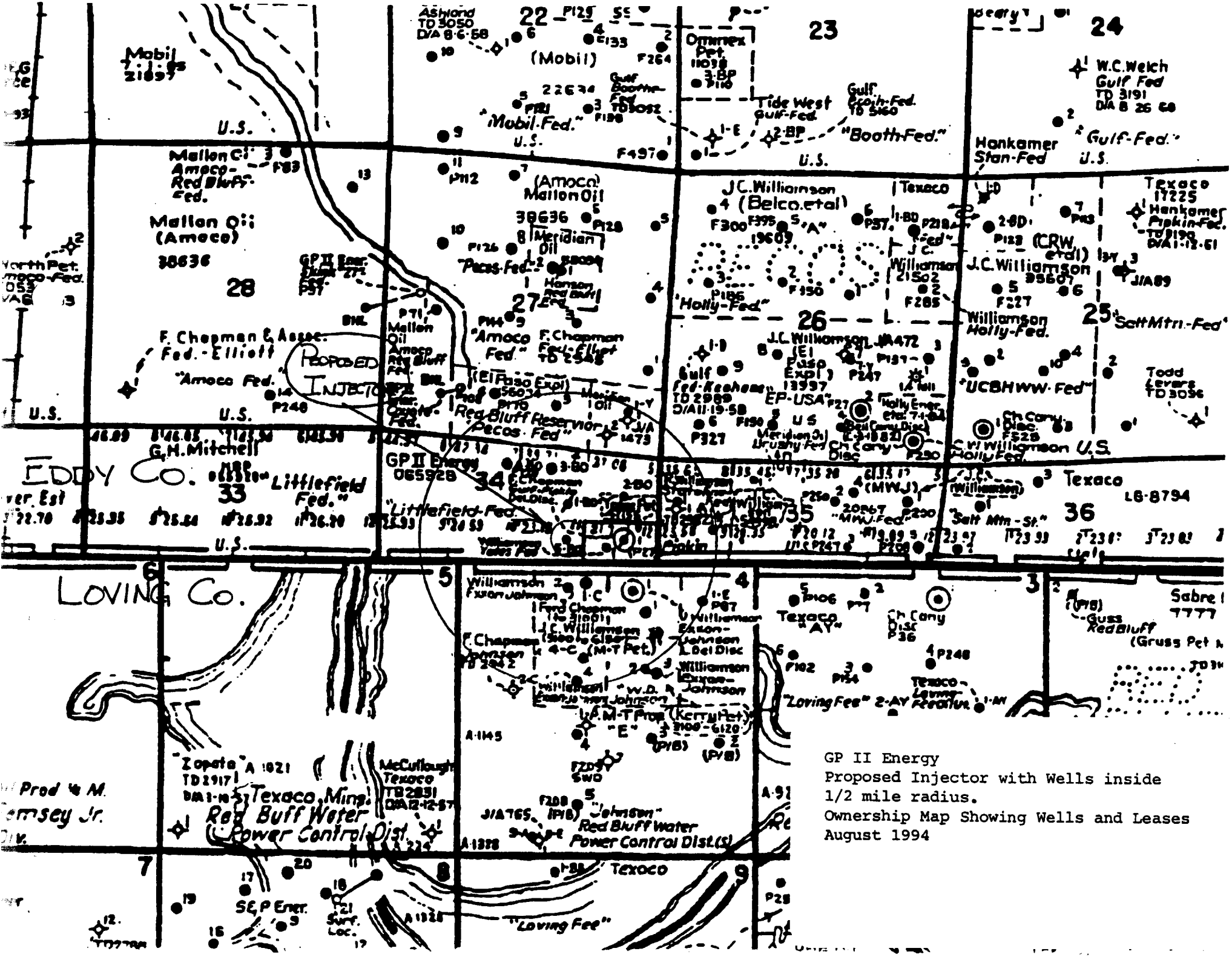
Signature: George P. Mitchell Date: 7-18-85

* 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 district office.

List of Enclosures

1. Ownership map showing location of proposed injector and surrounding wells.
2. Well data and Proposed Procedure.
3. Wellbore schematic with proposed changes.
4. Copy of electric log.
5. Water analysis of produced water from producing zone.
6. Wellbore schematics of dry holes within 1/2 mile radius of proposed injector.
7. Well data - Scout tickets of all wells within 1/2 mile radius of proposed injector.
   Secs. 27, 34, & 35, T26S, R29E, Eddy Co., NM
   Sec. 4. Blk. 57, T1, T&P RR, A-1328 Sur. Loving Co., TX



GP II Energy
Proposed Injector with Wells inside
1/2 mile radius.
Ownership Map Showing Wells and Leases
August 1994

Well Data and Proposed Procedure:

GP II Energy, Inc. proposes to convert the following oil well to a disposal well in the Cherry Canyon (Buffalo Wallow) Sand beginning September 1, 1995.

GP II Energy
Littlefield BO Federal #5
1610 FNL, 1650 FEL
Sec. 34, T26S, R29E
Eddy County, NM
G.L. 2882 K.B. 2888
(Vertical well)

The subject well was spudded 10-27-90 as a development oil well. Surface casing (8 5/8") was set at 384' with 250 sacks Class C cement circulated to surface. Production casing (4 ½") was set to 5035 with a D.V. tool set at 3475'. The first stage comprised 415 sacks and 785 sacks were pumped on the second stage which brought cement to 795'(calculated). The well was perforated from 4898-4970 w/16 holes and acidized with 1000 gal. 15% NEFE. The well was then stimulated with 41,000 gals. and 15,000 #12-20 frac sand. The well was subsequently completed as an oil well in the Brushy Draw Delaware field on January 2, 1991.

GP II Energy proposes to isolate the perforations from 4898-4970 with a cast iron bridge plug set at 4880. The Cherry Canyon Sand (shown on the accompanying log) will be perforated from 4823-4850 above the bridge plug. A Baker Model AD-1 Tension will be set packer at 4806' and produced lease water from the Williamson sands and the Ramsey sands will be injected into the perforations at 4823-4850.

The formation in which GP II Energy proposes to inject is the Buffalo Wallow, Cherry Canyon Sand. As shown on the attached Compensated Neutron Log from the Littlefield BO 5, this formation was encountered at a drill depth of 4811' (-1923' Subsea) and the base of the sand was found at a depth of 4866' (-1978' Subsea). Sample analysis of cuttings (GP II Energy, Littlefield BO Federal #5) from the zone indicate the sand to be a fine-grained, well sorted, light tan to buff sand with visible porosity. Log calculations indicate the sand to have an average porosity of 24% and maximum porosity of 27%.

In the immediate area, the Williamson Sand produces from an average depth of approximately 4900 (-2012' Subsea). The Williamson Sand exhibits usual porosities from 12% to 24%. As stated previously, this zone occurs in the proposed injector at a depth of 4890'(-2002' Subsea), 10' below the proposed placement of the cast iron bridge plug.

Also in the immediate area, the Ramsey sand produces from an average depth of approximately

2850' (+38' Subsea). The Ramsey sand occurs in this well at a depth of 2880' (+8' Subsea). This sand usually exhibits porosities in the range of 18% to 25%.

To the best of the operator's knowledge, there are no fresh water wells within a mile of the proposed injectors. The Pecos River is within a ½ mile of the injector but is protected downhole by the appropriate casing design and on the surface by proper lines and vessels as required by federal and state authorities.

GP II proposes to inject approximately 500 Bbls of produced water daily and expects injection pressures no greater than 750 psi during the life of the project.

The attached water analysis from the Littlefield lease wells is representative of the fluids that will be injected. GP II Energy has no water analyses from the proposed injection zone but believes that the water produced from the Williamson Sand is similar to and compatible with the waters in the proposed injection zone because of the geologic similarity of the sands and proximity to the Williamson Zone.