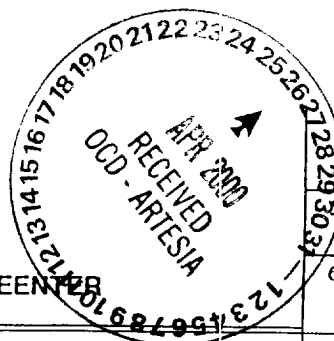


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER



FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

Lease Serial No.  
LC-063105

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator

GP II ENERGY, INC.

8359

3a. Address P O BOX 50682  
MIDLAND TX 79710

3b. Phone No. (include area code)  
915/685.0878

7. If Unit or CA Agreement, Name and No.

NORTH SQUARE LAKE UNIT 25594

8. Lease Name and Well No.

NORTH SQUARE LAKE UNIT 176

9. API Well No.

30-015-31116

10. Field and Pool, or Exploratory  
SQUARE LAKE GB-SA

11. Sec., T., R., M., or Blk. and Survey or Area

Sec. 28, T16S, R31E

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface 1310' FSL & 1310' FEL Unit P

At proposed prod. zone Same UNORTHODX LOCATION

SUBJECT TO  
LIKE APPROVAL  
BY STATE

14. Distance in miles and direction from nearest town or post office\*

7.1 miles NE of Loco Hills

12. County or Parish.

EDDY

13. State

NM

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

10'

16. No. of Acres in lease

280 (Unit 6125)

17. Spacing Unit dedicated to this well

40 ACRES

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

900

19. Proposed Depth

3800'

20. BLM/BIA Bond No. on file

B03128

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

4009' GR

22. Approximate date work will start\*

MAY 1, 2000

23. Estimated duration

DRILL & COMP 30 DAYS

24. Attachments

ROCKWELL CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the  
SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see  
Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the  
authorized officer.

25. Signature

M. A. Sirgo III

Name (Printed/Typed)

M. A. SIRGO, III

Date

3-22-00

Title

AGENT

Approved by (Signature)

Name (Printed/Typed)

Date

Title

Assistant Field Manager,  
Lands And Minerals

Office

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct  
operations thereon.

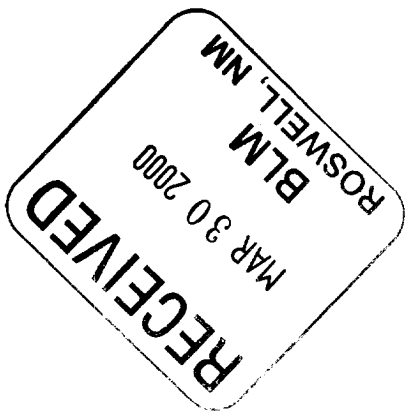
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on reverse)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

acc  
4/6/2000



DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0710

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 57570	Pool Name SQUARE LAKE GB-SA
Property Code	Property Name NSLU	Well Number 176
OGRID No. 008359	Operator Name GP II ENERGY, INC.	Elevation 4009

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	28	16 S	31 E		1310	SOUTH	1310	EAST	EDDY

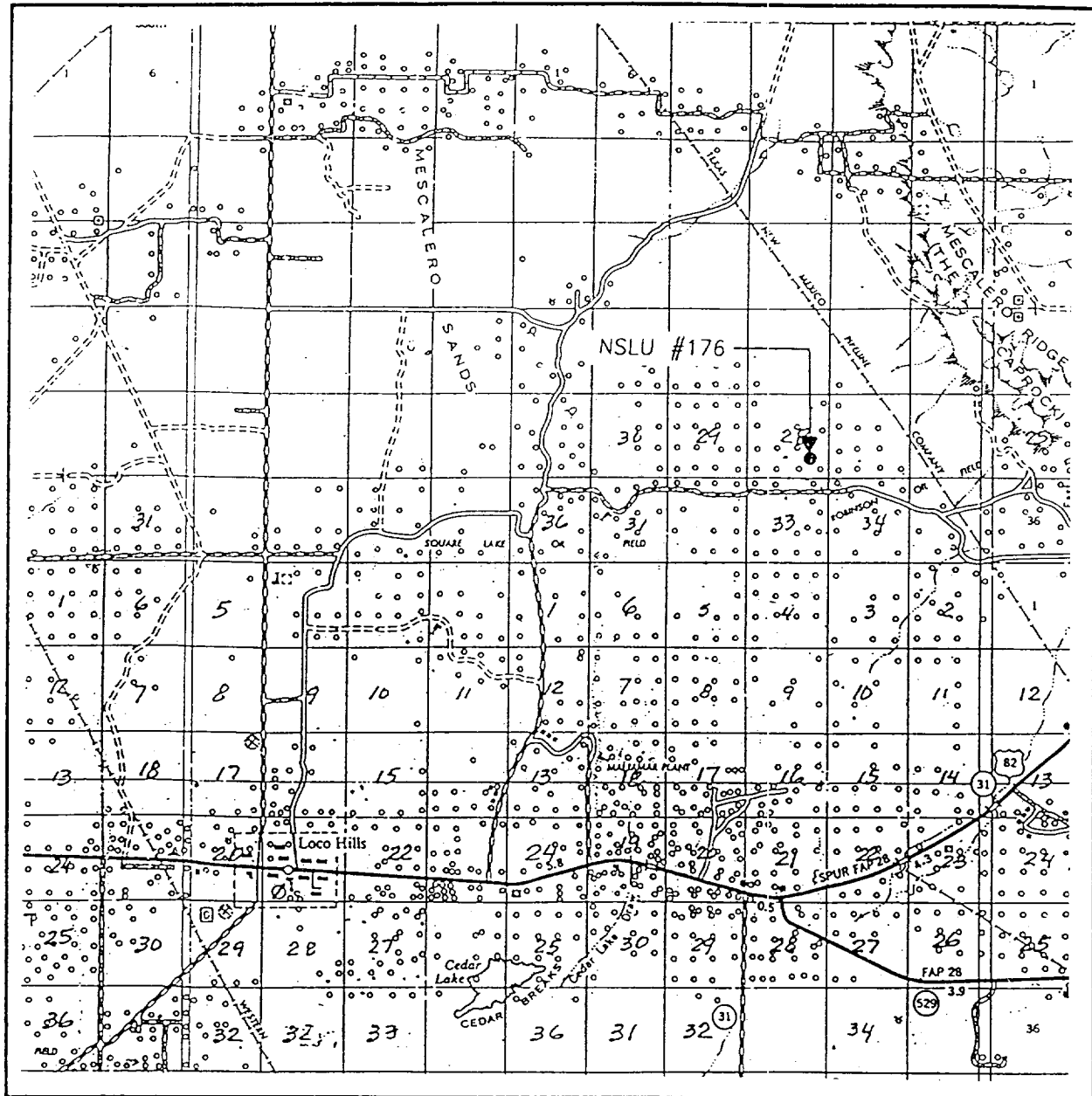
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

		<b>OPERATOR CERTIFICATION</b>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.   Signature M. A. SIRGO, III Printed Name AGENT Title MARCH 22, 2000 Date	
		<b>SURVEYOR CERTIFICATION</b>  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  MARCH 1, 2000 Date Surveyed Signature & Seal of Professional Surveyor  00-11-0251 Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12641 MACON McDONALD 12185	

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 16-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1310' FSL & 1310' FEL

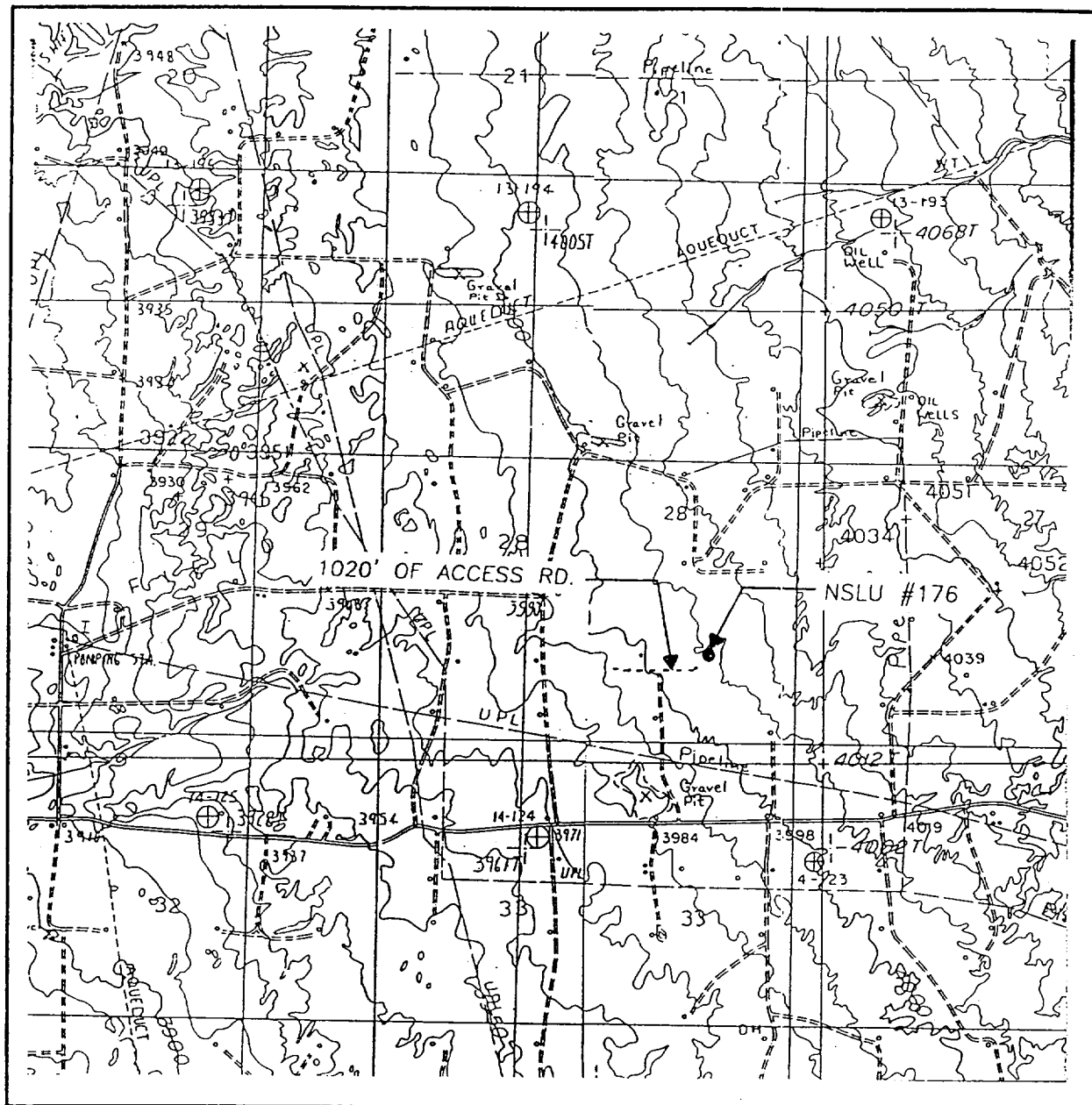
ELEVATION 4009

OPERATOR GP II ENERGY, INC.

LEASE NSLU

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505 393-3117)**

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
HENSHAW TANK - 10'  
MALJAMAR NE - 5'

SEC. 28 TWP. 16-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1310' FSL & 1310' FEL

ELEVATION 4009

OPERATOR GP II ENERGY, INC.

LEASE NSLU

U.S.G.S. TOPOGRAPHIC MAP

HENSHAW TANK, MALJAMAR NE, N.M.

**JOHN WEST SURVEYING**  
**HOBBS, NEW MEXICO**  
**(505 393-3117)**

NOS Format

NOTICE OF STAKING (Not to be used in place of Application for Permit to Drill Form 3160-3)		6. Lease Number LC-063105	
1. Oil well <input checked="" type="checkbox"/> Gas well <input type="checkbox"/> Other <input type="checkbox"/> (Specify)		7. If Indian, Allottee or Tribe Name	
2. Name of Operator GP II ENERGY INC.		8. Unit Agreement Name NORTH SQUARE LAKE UNIT	
3. Name of Specific Contact Person M. A. SIRGO, III		9. Farm or Lease Name NORTH SQUARE LAKE UNIT	
4. Address & Phone No. of Operator or Agent P O BOX 50682 (915) 685-0878 MIDLAND TX 79710 (915) 684-4748		10. Well No. 176	
5. Surface Location of Well 1310' FSL & 1310' FEL Attach: a) Sketch showing road entry onto pad, pad dimensions, and reserve pit. b) Topographical or other accept- able map showing location, access road, and lease boundaries.		11. Field or Wildcat Name GB JACKSON-7 RIVERS-QUEEN GRAYBURG-SAN ANDRES	
		12. Sec., T., R., M., or Blk and Survey or Area SEC 28, T16S, R31E	
15. Formation Objective(s) GRAYBURG-SAN ANDRES	16. Estimated Well Depth 4000'	13. County, Parish or Borough EDDY	14. State NEW MEXICO
17. Additional Information (as appropriate; must include surface owner's name, address, and telephone number)			

18. Signed M. A. Sirgo III Title ENGINEER Date 3-8-00  
M. A. SIRGO, III

Note: Upon receipt of this Notice, the Bureau of Land Management (BLM) will schedule the date of the onsite predrill inspection and notify you accordingly. The location must be staked and access road must be flagged prior to the onsite.

Operators must consider the following prior to the onsite:

- a) H<sub>2</sub>S Potential
- b) Cultural Resources (Archeology)
- c) Federal Right of Way or Special Use Permit

PORTER



CONTOUR INTERVAL:  
HENSHAW TANK - 10'  
MALJAMAR NE - 5'

HENSHAW TANK, MALJAMAR NE, NM

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505 393-3117

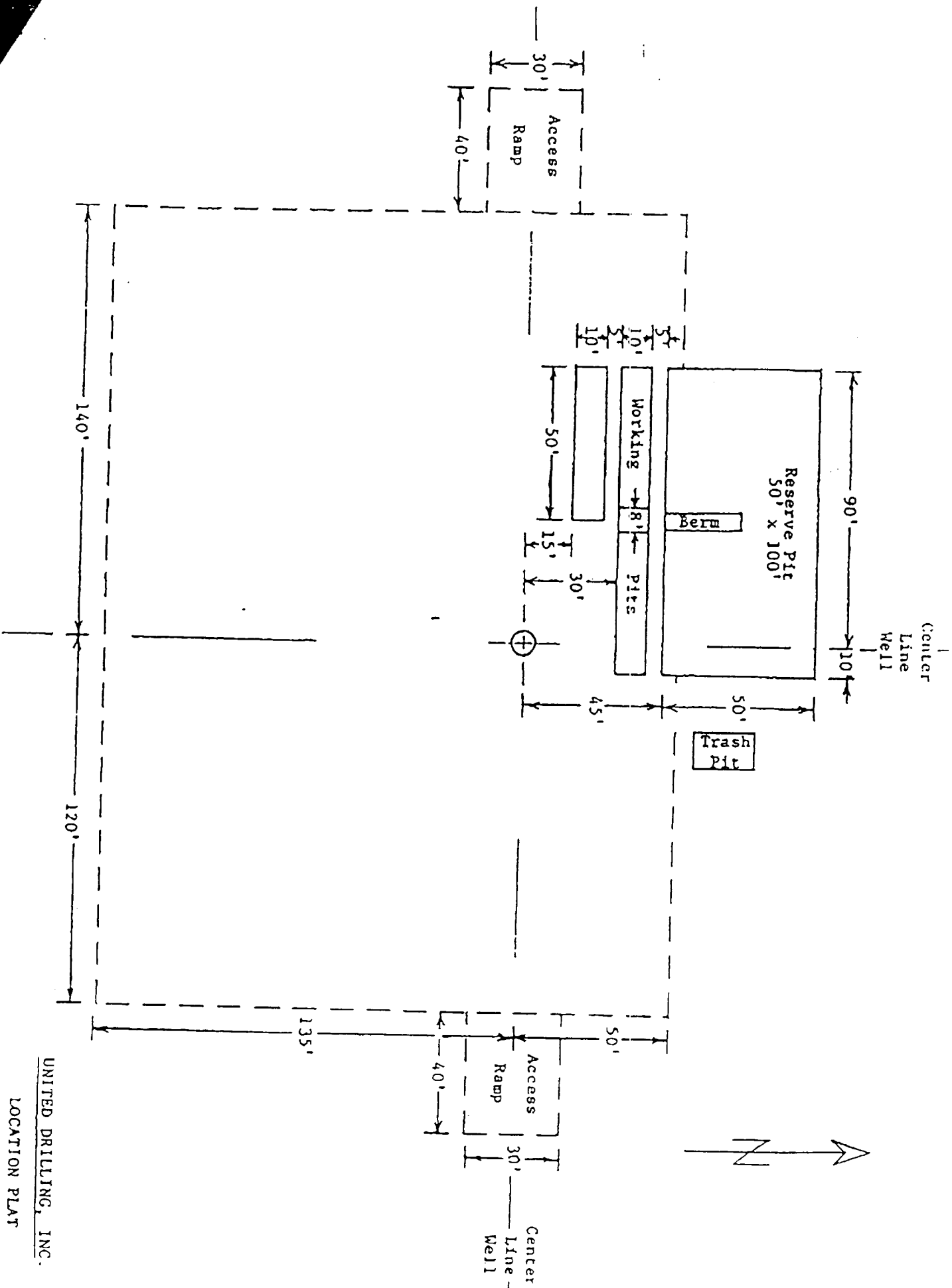


EXHIBIT C

UNITED DRILLING, INC.

LOCATION PLAT

RIG

Scale: 1"=40'



PERTINENT INFORMATION

For

GP II ENERGY, INC.  
No. 176 North Square Lake Unit  
1310' FSL & 1310' FEL Sec. 28, T16S, R31E  
Eddy County, New Mexico  
Federal Lease No. LC-063105

LOCATED: 7.1 air miles northeast of Loco Hills, New Mexico

FEDERAL LEASE NUMBER: LC-063105

DATE ISSUED: November 1, 1991

ACRES IN LEASE: 280 acres

RECORD LESSEE: Dale Resler 50% - Vilas P. Sheldon 50%

BOND COVERAGE: Federal State Wide Blanket Bond  
Federal Bond No. B03128

AUTHORITY TO OPERATE: Transfer of Operating Rights to GP II Energy, Inc.

SURFACE OWNERSHIP: Federal

GRAZING PERMITTEE: E. B. & C. E. Holman Irrevocable Trust  
P. O. Box 84  
Maljamar, New Mexico 88264

POOL RULES: Square Lake Grayburg-San Andres

EXHIBITS: A. Road and Contour Map  
B. Lease and Well Map  
C. Drill Pad Layout  
D. BOP Diagram  
E. Flow Line/Power Map

## SUPPLEMENTAL DRILLING DATA

GP II ENERGY, INC.  
No. 176 North Square Lake Unit  
1310' FSL & 1310' FEL Sec. 28, T16S, R31E  
Eddy County, New Mexico  
Federal Lease No. LC-063105

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Order No. 1:

1. SURFACE FORMATION: Current

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

T. Salt	525	Queen	2200
B. Salt	1360	Grayburg	2852
Yates	1570	San Andres	3208
Seven Rivers	1590		

3. ESTIMATED DEPTHS TO WATER, OIL OR GAS FORMATION:

Water - Possible groundwater from 0' to 75'  
Oil - 2100' to TD  
Gas - None anticipated

4. PROPOSED CASING PROGRAM:

**WITNESS**

8-5/8" Casing - Set at <sup>700'</sup>550' +/- 24# J-55 Surface casing  
5-1/2" Casing - Set at 3800' +/- 15.50# J-55 Production casing  
All strings of casing will be satisfactorily tested to 1000 psi

5. PRESSURE CONTROL EQUIPMENT:

Install a 3000# 10" Shaffer double hydraulic BOP on the 8-5/8" casing prior to drilling into the Queen. Due to depleted nature of the reservoir, it is requested that a waiver be granted to test pressure control equipment to 1000 psi, using rig pump, instead of the normal 2000 psi test. Exhibit D is a diagrammatic sketch of the BOP equipment.

6. CIRCULATING MEDIUM:

Drill with fresh water from surface to setting depth of surface casing. Drill remainder of hole with brine water, using additives to control water loss, viscosity and mud weight.

No. 176 North Square Lake Unit

7. AUXILIARY EQUIPMENT:

Equipment will include a gas detector, pit level monitor and a full-opening safety valve.

8. TESTING, LOGGING AND CORING PROGRAM:

Samples: Samples will be caught at 10' intervals from below the surface casing to total depth.

DST and Cores: None anticipated

Logging: Density-Neutron Log, Gamma Ray-Neutron Log

9. ABNORMAL PRESSURES, TEMPERATURES OR HYDROGEN SULFIDE:

No abnormal pressure or temperatures anticipated. Precautions will be taken to monitor possible traces of hydrogen sulfide gas in the Grayburg. See H2S Plan attachment.

10. ANTICIPATED STARTING DATE:

Drilling will commence upon Federal and State approval. Drilling and completion will require about 30 days.

## GP II ENERGY, INC.

### ATTACHMENT

#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

##### I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
2. The proper use and maintenance of person protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probably H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

##### II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H<sub>2</sub>S.

1. Well Control Equipment:
  - A. Flare line with electronic igniter or continuous pilot.
  - B. Choke manifold with a minimum of one remote choke.
  - C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
  - D. Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head, and flare gun with flares.
2. Protective Equipment for Essential Personnel:
  - A. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.
3. H2S Detection and Monitoring Equipment:
  - A. Two portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
  - B. One portable SO2 monitor positioned near flare line.
4. Visual Warning Systems:
  - A. Wind direction indicators as shown on well site diagram.
  - B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
5. Mud Program:
  - A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.
  - B. A mud-gas separator and an H2S gas buster will be utilized.
6. Metallurgy:
  - A. All drill strings, casings, tubing, wellhead, blowout preventors, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
  - B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:
  - A. Radio communications in company vehicles including cellular telephone and two-way radio.
  - B. Land line (telephone) communications at field office.
8. Well Testing:
  - A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.

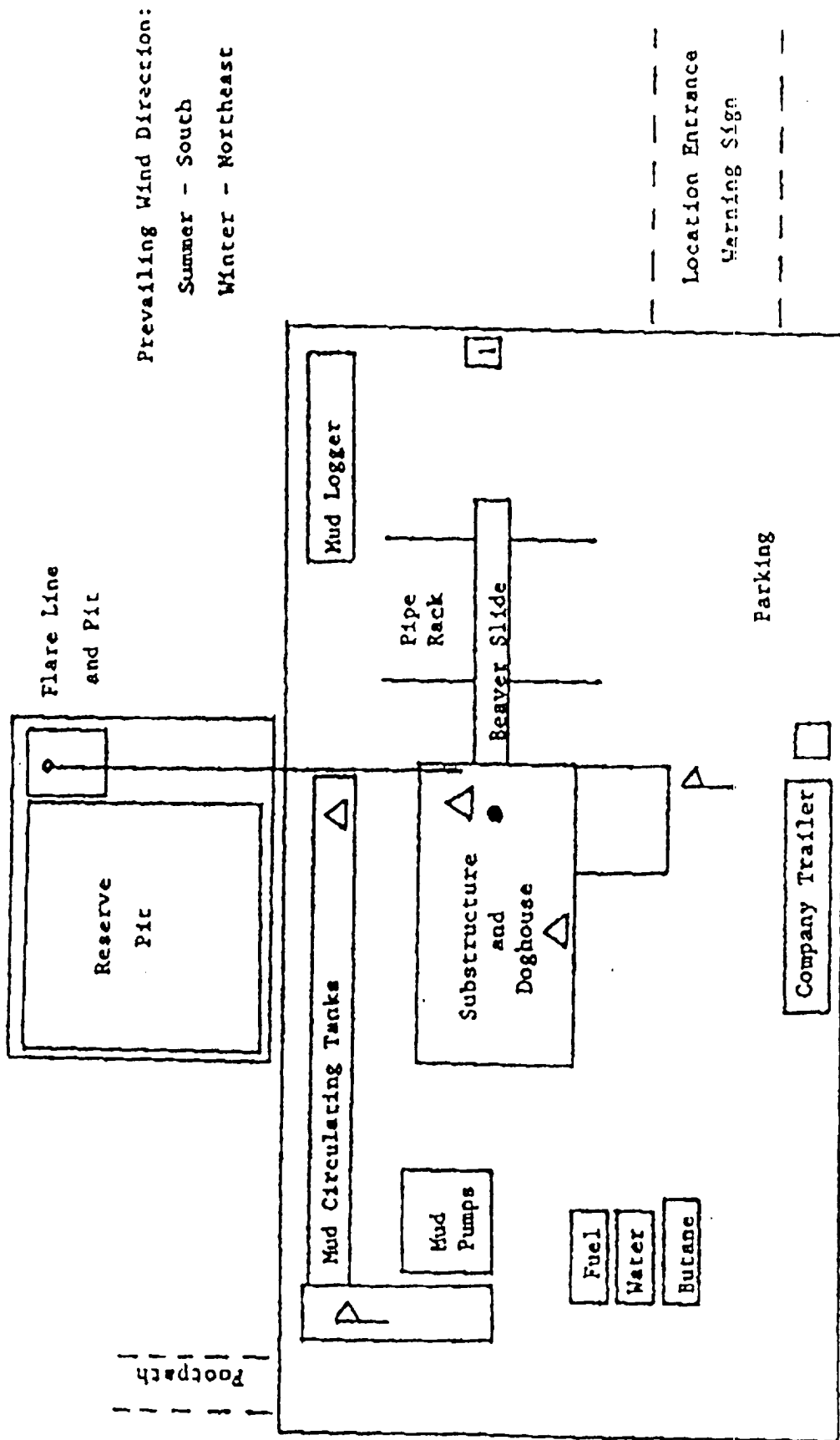
# WARNING

YOU ARE ENTERING AN H<sub>2</sub>S AREA  
AUTHORIZED PERSONNEL ONLY

1. BEARDS OR CONTACT LENSES NOT ALLOWED
2. HARD HATS REQUIRED
3. SMOKING IN DESIGNATED AREAS ONLY
4. BE WIND CONSCIOUS AT ALL TIMES
5. CHECK WITH GP II ENERGY BEFORE ENTERING

GP II ENERGY, Inc.

1-915-684-4748



- △ - H2S Monitors with alarms at the bell nipple and shale shaker
- P - Wind Direction Indicators
- - Safe Pyloting areas with caution signs and protective breathing equipment Min. 150 feet from wellhead. 1 designates primary area



## MULTI-POINT SURFACE USE AND OPERATIONS PLAN

GP II ENERGY, INC.  
No. 176 North Square Lake Unit  
1310' FSL & 1310' FEL Sec. 28, T16S, R31E  
Eddy County, New Mexico  
Federal Lease No. LC-063105

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed in rehabilitating the surface after completion of the operation so that a complete appraisal can be made of the environmental effects associated with the operation.

### 1. EXISTING ROADS:

- A. Exhibit A is a portion of a road map showing the location of the proposed well as staked. The well is approximately 7.1 air miles northeast of Loco Hills, New Mexico.
- B. Directions: Go east from Loco Hills, New Mexico on Hwy 82 a distance of 3.0 miles. Turn north on Skelly Road, which is County Road 221. Go 6.75 miles north and turn east on lease road. Follow lease road 3.5 miles and turn north. Travel 1020' down new access road to proposed location.

### 2. PLANNED ACCESS ROAD:

- A. Length and Width: The new road will be about 1020' long and about 12' wide.
- B. Surfacing Material: The new road and well pad will be surfaced with 6" of existing surface material supplemented with caliche where necessary.
- C. Maximum Grade: Less than 1%.
- D. Turnouts: No traffic turnouts are necessary.
- E. Drainage Design: The road will be constructed with a 6" crown to provide proper drainage.
- F. Culverts: None necessary.
- G. Cuts and Fills: Construction of the drill pad will require 8' of cut with 8' of fill. Surface soil will be stockpiled on the edge of the location for use in rehabilitating the disturbed area.
- H. Gates, Cattle Guards: None necessary.

### 3. LOCATION OF EXISTING WELLS:

- A. See Exhibit B

No. 176 North Square Lake Unit

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. The flow line for the NSLU No. 176 well will travel down existing lease roads 3000' to the south where an existing North Square Lake Unit battery is located, or a new facility will be constructed on the well pad depending on well results.
- B. The power line will be constructed from the NSLU No. 176 well, to the existing lease power line located 1350' east of the pad. See Exhibit E.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. Fresh water for drilling from surface to 500'+- will be obtained from a commercial source and trucked over existing roads. Lease brine water will be used to finish drilling and completing.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Any caliche necessary for surfacing the road and pad will be purchased from a federal pit located in the SESE Sec. 5, T17S, R31E.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during test will be disposed of in the drilling pits. Oil produced during test will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be compiled with.
- E. Trash, waste paper, garbage, debris or junk will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

No. 176 North Square Lake Unit

9. WELL SITE LAYOUT:

- A. The wellsite, surrounded by a 400' x 400' area has been surveyed and flagged.
- B. Dimensions and relative location of the drill pad and pit are shown on Exhibit C.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the well is nonproductive, the disturbed area will be rehabilitated to surface owner requirements and will be accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The wellsite and access road are flat except for sand dunes. The project area generally drains southwest toward Cedar Lake Draw.
- B. Soil: The surface soil is fine with occasional caliche and chert inclusions.
- C. Flora and Fauna: Vegetation consists of oak shinners, mesquite, sagebrush, yucca, and various weeds and grasses. Ground cover is about 15%. Wildlife in the area is that typical of semiarid desert land, such as coyotes, rodents, reptiles and birds.
- D. Ponds or Streams: None.
- E. Residences and Other Structures: None in this area.
- F. Archaeological, Historical and Other Cultural Sites: A review by Archaeological Survey Consultants indicated that there are no cultural sites within the project area. An Archaeological report has been furnished to BLM.
- G. Land Use: The surface is used for cattle grazing.
- H. Surface Ownership: The drillsite and access road are located on federal surface. The grazing lessee is E. B. & C. E. Holman Irrevocable Trust, P. O. Box 84, Maljamar, New Mexico 88264.

12. OPERATOR'S REPRESENTATIVE:

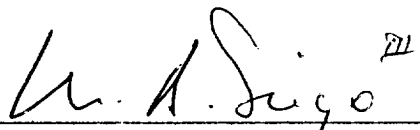
Representative responsible for assuring compliance with the approved Surface Use Plan:

No. 176 North Square Lake Unit

13. CERTIFICATION:

I hereby certify that I, or person under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge true and correct; that the work associated with the operations proposed herein will be performed by GP II Energy, Inc. and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: 3-22-00

  
\_\_\_\_\_  
M. A. Sirgo, III  
Permit Agent for: GP II Energy, Inc.

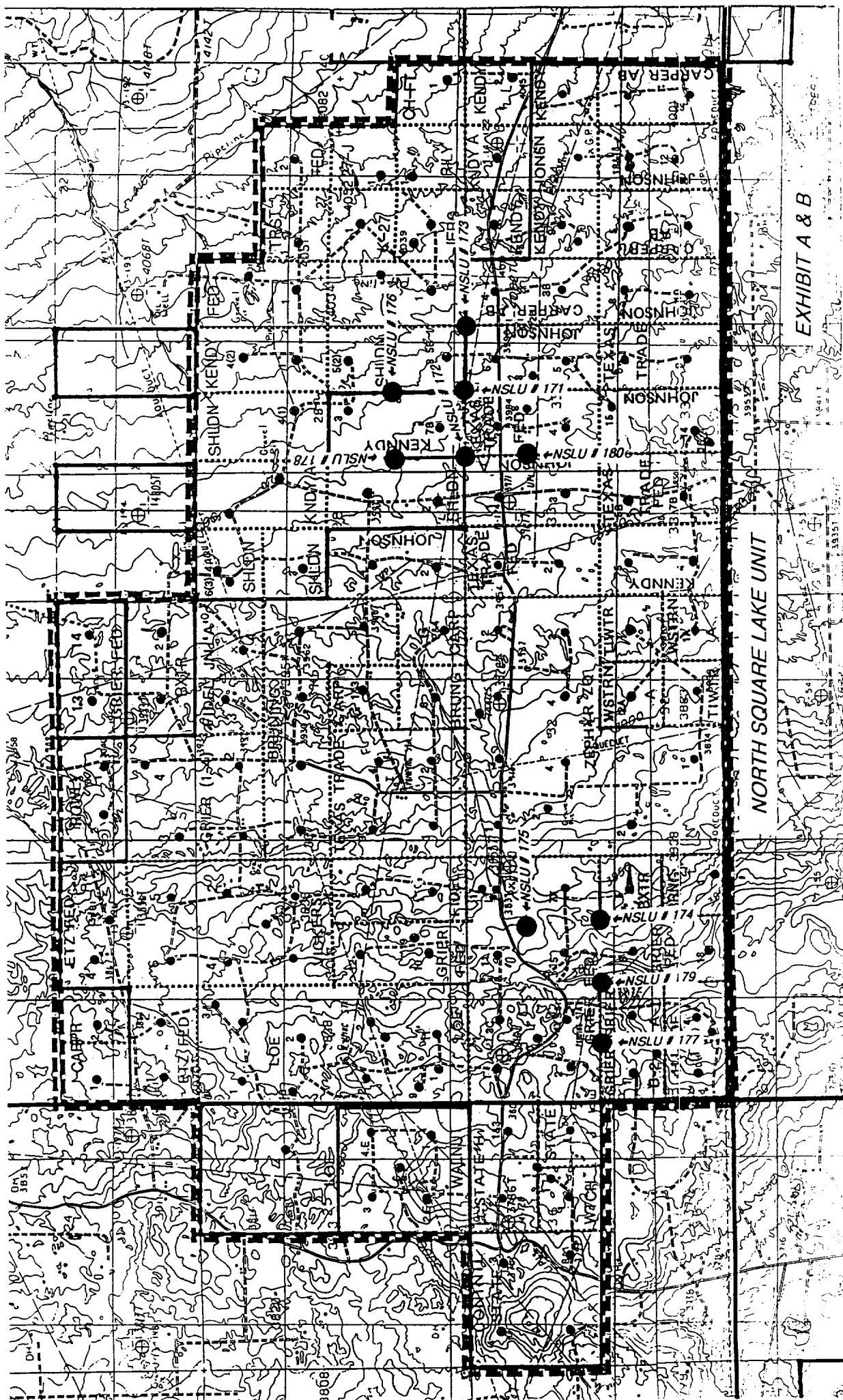


EXHIBIT A & B

NORTH SQUARE LAKE UNIT

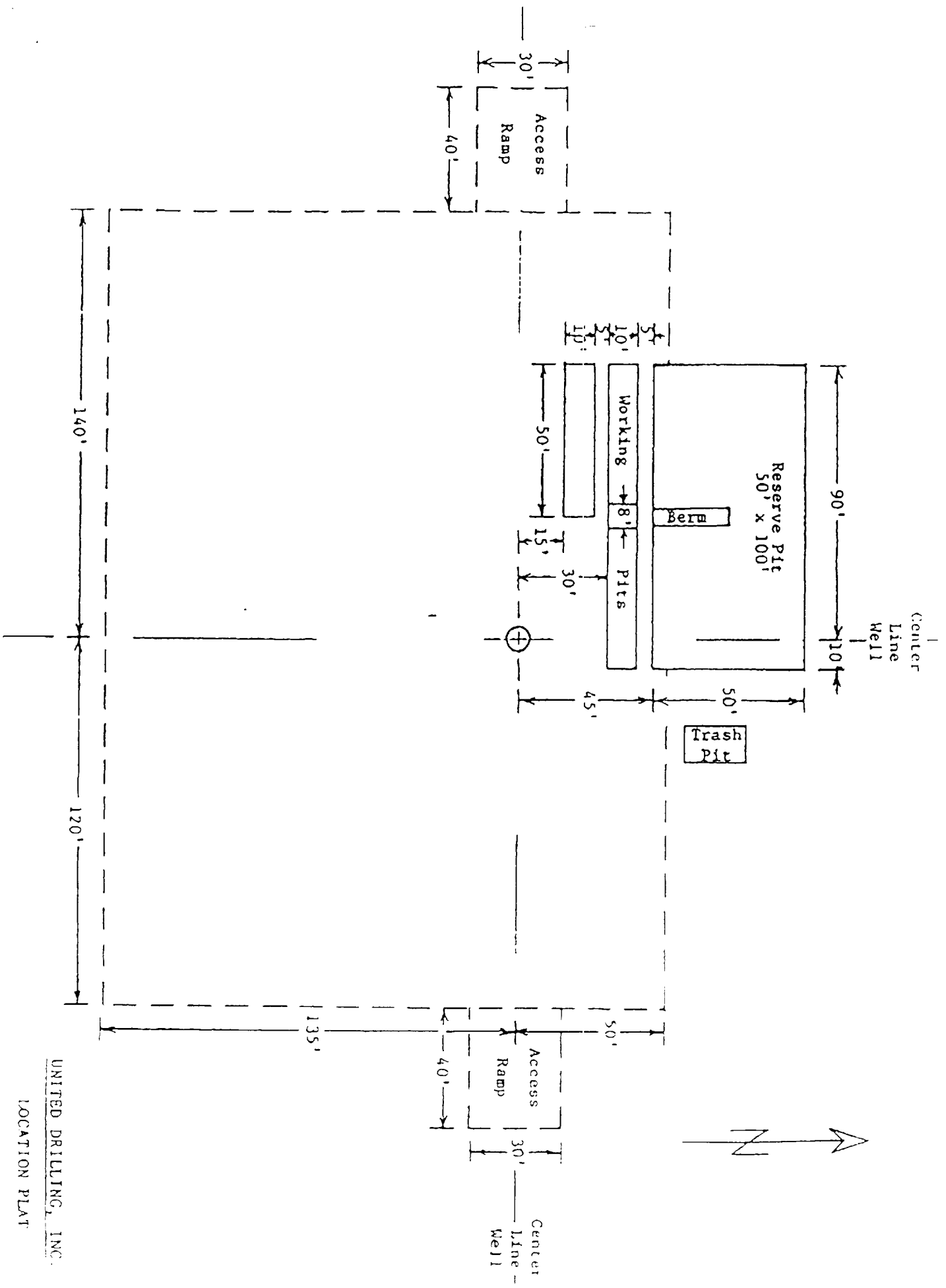
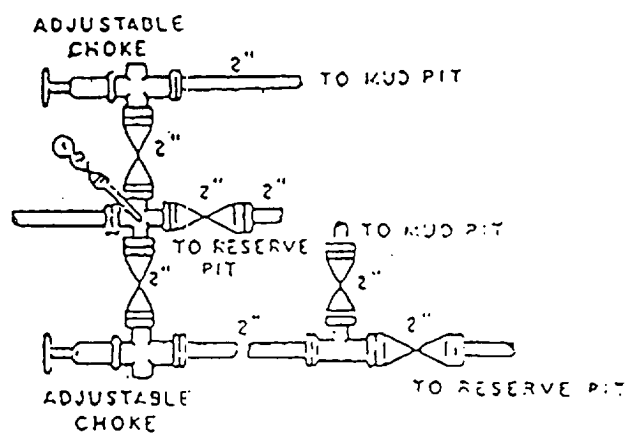
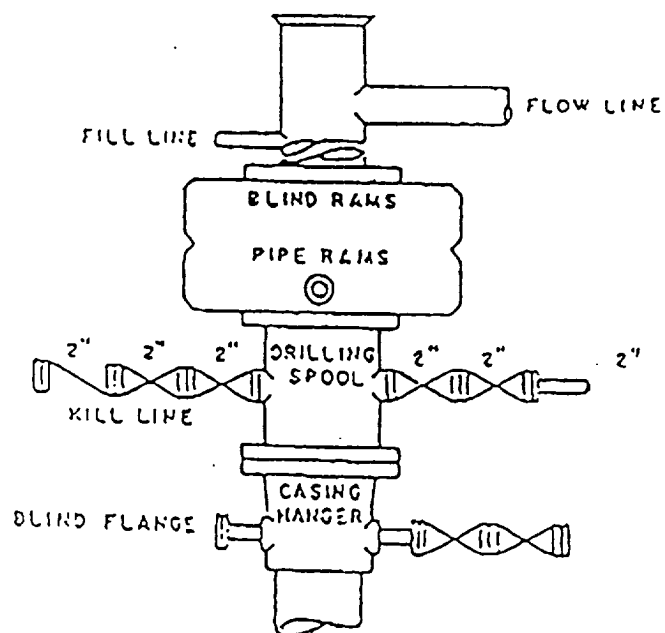


EXHIBIT C



BOP DIAGRAM

3000# Working Pressure  
Rams Operated Daily

R30

FIG 5  
A 31 E

