UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

(reverse side)

5. LEASE DESIGNATION AND SERIAL NO.: NM 7252

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. UNIT AGREEMENT NAME:

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME: Leonard Brothers A

2. NAME OF OPERATOR: TENNECO OIL COMPANY

9. WELL NO: 3

3. ADDRESS OF OPERATOR: 720 So. Colorado Blvd., Denver, Colorado 80222

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED Leonard Queen South

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FNL, 1980' FWL
At proposed prod. zone

RECEIVED
MAY 17 1978
U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 23, T-26S - R37E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: See point 1: B7& C of Surface Use Plan

12. COUNTY OR PARISH: Lea

13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
	240	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
	±3650'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 2990' K.B.

22. APPROX. DATE WORK WILL START*: May 30, 1978

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	±500'	Suff. to circulate to surface
7-7/8"	5-1/2"	15.5#	±3650'	Suff. to circulate back into surface casing.

1. The geologic name of the surface formation is the Ogallala Line.
2&3. Estimated Formation Tops:

Anhydrite	± 1025'	
Salt	± 1130'	
Base Salt	± 2530'	
Yates	± 2725'	Possible oil or gas producer
Seven Rivers	± 2930'	Possible oil or gas producer
Rhodes Marker	± 2950'	
Queen (main pay)	± 3450'	Oil and gas
Penrose	± 3565'	Oil and gas

Unless Drilling Operations have Commenced, this drilling approval expires 6-24-78

WHILE DRILLING AND TESTING

SEE ATTACHED FOR CONDITIONS OF APPROVAL

4. Set and cement 8-5/8" OD, 24#, K-55 surface casing to ±500', with sufficient cement to circulate to surface. Run 5½" OD, 15.5#, K-55 new casing to T.D. and cement with a sufficient amount to circulate up into surface casing. Casinghead will be a 10" 900 Series with a 3000 psi rating.
5. Blowout Preventors: Hydraulic, double ram, 10". One set of rams will be provided for each size drill pipe in the hole. One line will be installed, tested and in working order before drilling below surface casing and shall be maintained ready for use until drilling operations are completed. BOP's, drills and tests will be recorded in the drillers logs.
6. 0-±500' spud mud. 500'-3000' low solids viscosity to clean hole. 3000' - TD gel water viscosity, as needed to log hole . Brine water (10 lb.) used.
7. Auxillary Equipment
   a. Kelly cock will be in use at all times.
   b. Stabbing valve to fit drill pipe will be present on floor at all times.
   c. Mud monitoring will be visual, no abnormal pressures are anticipated in this area.
   d. Floats at bits.
   e. Drill string safety valve(s) to fit all pipe in the drill string will be maintained on the rig floor while drilling operations are in progress.
8. This well will be pump tested after recovery of any load oil or water. No cores will be taken. Logs: DLL-Micro-SFL-GR, CNL-FDC-GR caliper, run GR to surface, run all other logs 100' into salt.
9. No abnormal temperatures or pressures are anticipated.
10. Anticipated starting date will be as soon as possible after archeological clearance is given. The drilling of this well will take approximately 10 days. The gas is dedicated to El Paso Natural Gas Company.
11. Your office (Telephone 505/393-3612) will be notified of spudding in sufficient time to witness cementing operations. Immediate notice will be given on blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life. Prior approval will be obtained before appreciably changing drilling program or commencing plugging operations, plug back work, casing repair work or corrective cementing operations.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED D. D. Wagner TITLE Div. Production Manager DATE 5-11-78

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED AS AMENDED
MAY 24 1978
DATE
A. A. L.
ACTING DISTRICT ENGINEER

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
Tenneco Oil Co.	Leonard Brothers A	3

Unit Letter	Section	Township	Range	County
C	23	26 South	37 East	Lea

Actual Footage Location of Well:
660 feet from the North line and 1980 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
2982.56	Queen - Penrose	Leonard ~~UNDESIGNATED~~ Queen South	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

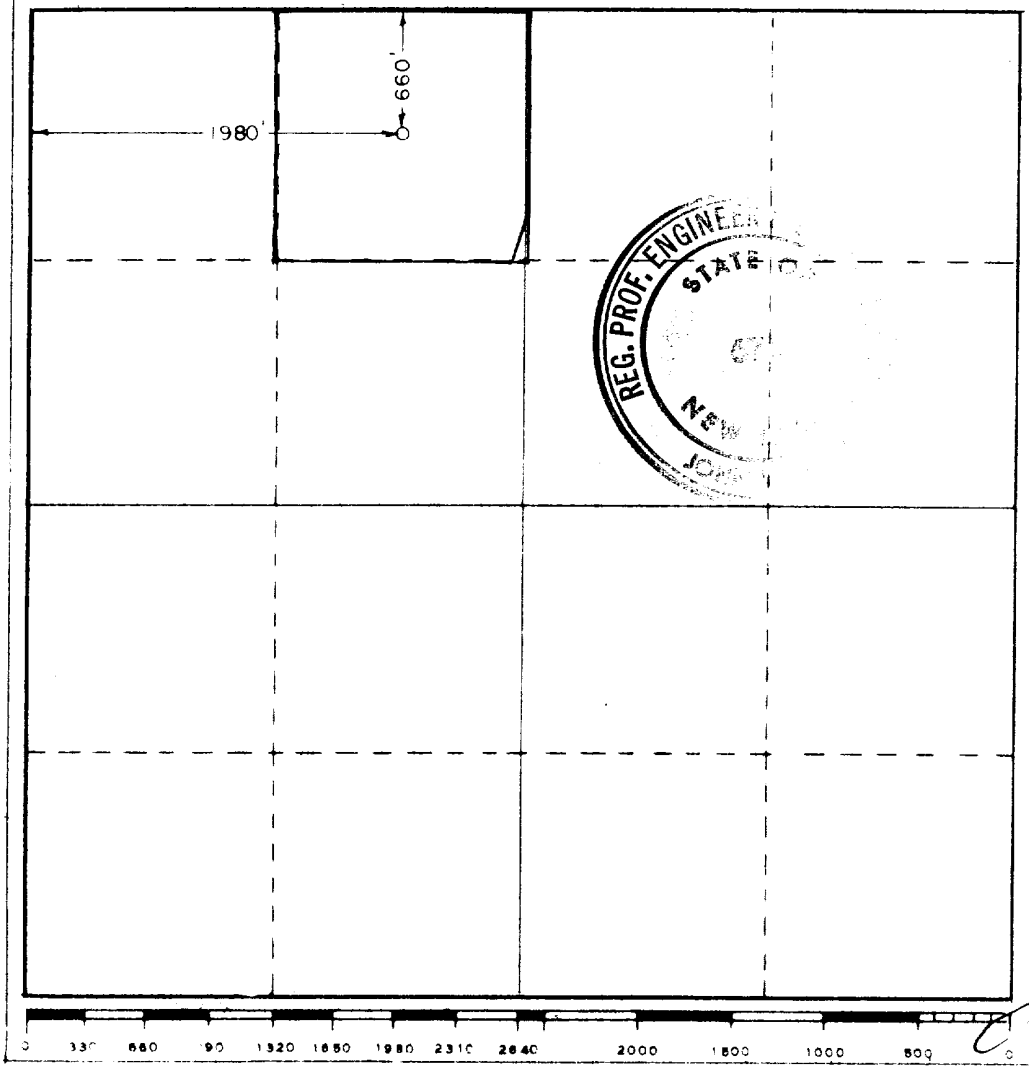
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: T. L. Drake

Position: Production Analyst

Company: Tenneco Oil Company

Date: 1/9/78

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 knowledge and belief.

December 19, 1977

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. John W. West 676
Ronald J. Eidson 3239

LEONARD BROTHERS A #3

1. Existing Roads

A. Proposed Well Site Location:

The proposed well site has been staked under the direction of a registered land surveyor. The proposed well site was staked 1980' FWL and 660' FNL, Section 23, Township 26 South, Range 37 East Lea County, New Mexico. (See exhibit I - Surveyors Plot)

B. Planned Access Route:

The planned access route exits from Jal, New Mexico south southeast on New Mexico Highway 18 approximately 7.5 miles to the junction of an improved gravel road. It then proceeds easterly for about a mile, then it turns north for one-third mile then west one-third mile. (See Exhibits II and III)

C. Access Roads Labelled:

Color Code: Red - improved surface
Blue - new access road.

D. Not applicable - the proposed well is a development well.

E. The proposed well is a development well, see exhibit III for existing roads within a one mile radius.

F. Existing Road Maintenance or Improvement Plan:

The existing gravel, caliche and sandy roads will require minimal maintenance. The new access will require some work to allow for proper drainage.

2. Planned Access Roads

A. Width:

The average width of the road will be twelve feet.

B. Maximum Grades:

The maximum grades will be about one percent, because the area is nearly level with some rolling sand hills.

C. Turnouts:

There are no turnouts planned.

D. Drainage Design:

The road will be center crowned to allow drainage. Water bars will be constructed to prevent erosion. The road will be flat primarily, however, if grades are necessary, they shall not be more than 3:1.

2. Planned Access Roads (cont'd)

E. Culverts Use Major Cuts and Fills:

The terrain is relatively flat and drainages are not too numerous. Culverts will probably not be needed because we can slope dry drainage crossings to maintain normal drainage.

F. Surfacing Material:

Six inches of caliche will be wetted, bladed and compacted to make the road surface.

G. Gates, Cattleguards, Fence Cuts:

No gates, cattleguards or fences will be needed.

H. New Roads Centerlined Flagged:

The proposed road has been center lined staked.

3. Location of Existing Wells

The proposed well is a development well. Exhibit IV shows existing wells within a one mile radius.

A. Water Wells: none
B. Abandoned Wells: none
C. Temporarily Abandoned Wells: none
D. Disposal Wells: none
E. Drilling Wells: See exhibit IB
F. Producing Wells: See exhibit IV
G. Shut-in Wells: none
H. Injection Wells: #7 SW/SW Section 13
I. Monitoring or Observation Wells: none.

4. Location of Existing and/or Proposed Facilities

A. Existing facilities within one mile owned or controlled by Lessee/ Operator:
NOTE: The flowline shown on exhibit V carrys oil, water and gas to the battery. Tenneco owns no lines beyond that point.

(1) Tank batteries - see exhibit V
(2) Production facilities - see exhibit V
(3) Oil Gathering Lines - see exhibit V
(4) Gas Gathering Lines - see exhibit V
(5) Injection Lines - Exhibit V to Leonard Brothers #7 SW/SW 13, 26S, 37E.
(6) Disposal Lines- none

B. New Facilities in the event of Production:

(1) Proposed lines - exhibit V
(2) Dimensions of facilities. N/A will use Leonard Brothers "A" Battery SW/NE Sec 23, T26S, R37E.

4. Location of Existing and/or Proposed Facilities (cont'd)

B. New Facilities in the event of Production: (cont'd)

(3) Construction materials will be native to the site. No battery will be constructed, as the Leonard Brothers "A" Battery will be used SW/NE Sec 23, T26S, R37E.

(4) Pumping units will be guarded to prevent contact with any moving parts which would present a potential hazard to wildlife.

(5) Proposed power line right of way is shown on Exhibit VII.

C. Rehabilitation of Disturbed Areas:

Follwing the completion of construction, those areas required for continued production will be graded to provide drainage and minimize erosion. Those areas unnecessary for use will be graded to blend with surrounding topography, per BLM recommendations.

5. Location and Type of Water Supply

A. Location and type of water supply;
Water will be hauled from Jal, New Mexico.

B. Water Transportation System:
Water trucks will be used.

C. Water Wells - n/a

6. Source of Construction Materials

A. Materials:

Construction materials will consist of soil native to the site.

B. Land Ownership:

The planned site and access road is on federal land administered by the Bureau of Land Management.

C. Materials Foreign to the Site:

Caliche, for road surfacing and if needed on location will be acquired from caliche pits located in Sections 14, 15 and 23 T26S, R37E.

D. Access Roads:

No additional access roads will be required.

7. Methods for Handling Waste Disposal

A. Cuttings:

Cuttings will be contained in the reserve pit.

B. Drilling Fluids:

Drilling fluids will be retained in the reserve pit.

C. Produced Fluids:

Produced fluids, including produced water will be collected in the reserve pit. Any small amount of hydrocarbon that may be produced during testing will be retained in the reserve pit. Prior to clean up operations the hydrocarbon material will be skimmed.

D. Sewage:

Sanitary facilities for sewage disposal will consist of at least one pit toilet, during the drilling operation. The pit will be backfilled immediately following completion of the drilling operation.

E. Garbage:

There probably will not be much putriscible garbage to dispose of. However, it will be disposed of along with the refuse in a constructed burn pit, which will be fenced. The small amount of refuse will be burned and the pit will be covered with a minimum 36 inch cover upon completion.

F. Clean-Up of Well Site:

Upon the release of the drilling rig, the surface of the drilling pad will be prepared to accomodate a completion rig, if testing indicates potential productive zones. In either case, the "mouse hole" and "rat hole" will be covered to eliminate a potential hazard to livestock. The reserve pit will be fenced to prevent entry of livestock until the pit is backfilled. Reasonable clean up will be performed prior to final restoration of the site.

8. Ancillary Facilities

None required.

9. Well Site Layout

A. No major cuts and fills will be necessary.

B. Location of pits etc. See exhibit VI

C. Rig orientation etc. See exhibit VI

D. Lining of pits:

9. Well Site Layout (cont'd)

D. Lining of pits: (cont'd)

Pits will be lined with plastic and covered with a fine mesh netting, if necessary, for the protection of wildlife if fluids are found to be toxic.

10. Plans for Restoration of Surface

A. Reserve pit cleanup:

The pit will be fenced prior to rig release and shall be maintained until clean-up. Prior to backfilling any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit shall be backfilled with soil excavated from the site and with soil adjacent to the reserve pit. The restored surface of the reserve pit will be contoured as needed, to minimize erosion. The reserve pit area will be seeded per BLM recommendations during the appropriate season following final restoration of the site.

B. Restoration Plans - Production Developed:

The reserve pit will be backfilled and restored as described under Item A. In addition those disturbed areas not required for production will be graded to blend with the surrounding topography, and seeded. The portion of the drill pad required for production and turning areas will be graded to minimize erosion and provide access to production facilities under inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those under Item C below.

C. Restoration Plan - No Production Developed:

The reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the drilling pad will be restored. The site will be contoured to blend with the surrounding topography. The site will be seeded according to BLM recommendations. If the new access road is not required for other development plans, it will be obliterated and restored, seeded per BLM recommendations.

D. Rehabilitation time table:

Upon completion of operations, the initial clean up of the well site will be performed. Final restoration of the site will be performed as soon as possible according to procedural guidelines published by the USGS and BLM. Seeding of the disturbed areas which are no longer required will be performed during the appropriate season, following final restoration.

11. Other Information

A. Surface Description:

(continued on page 6.....)

11. Other Information (cont'd)

A. Surface Description: (cont'd)

The well site is located in low rolling sand hills, sandy soil and sparse vegetation, consisting of grasses and semi-arid plant life such as yucca, prickly pear cactus, shinnery oak, devils claw, and mesquite.

B. Surface Use Activities:

The surface is federally owned and managed by the BLM. The surface use is some grazing for livestock. However, the predominant surface use is mineral exploration and production.

C. Proximity of Water, Dwellings, Historical Sites:

1. Water:
   There are no reservoirs or streams in the immediate area.
2. Occupied Dwellings:
   There are no occupied dwelling or buildings in the area.
3. Sites:
   An archeological reconnisance will be performed for this location.

12. Operator's Field Representative

Donald S. Barnes
Division Drilling Engineer
Tenneco Oil Company
Penthouse
720 South Colorado Boulevard
Denver, Colorado 80222
(303) 758-7130 Ext. 212

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true ane correct; and that the proposed work performed by Tenneco Oil Company and its contractors and sub-contractors will conform to this plan.

Date: 5-11-78

D. D. Myers
Division Production Manager

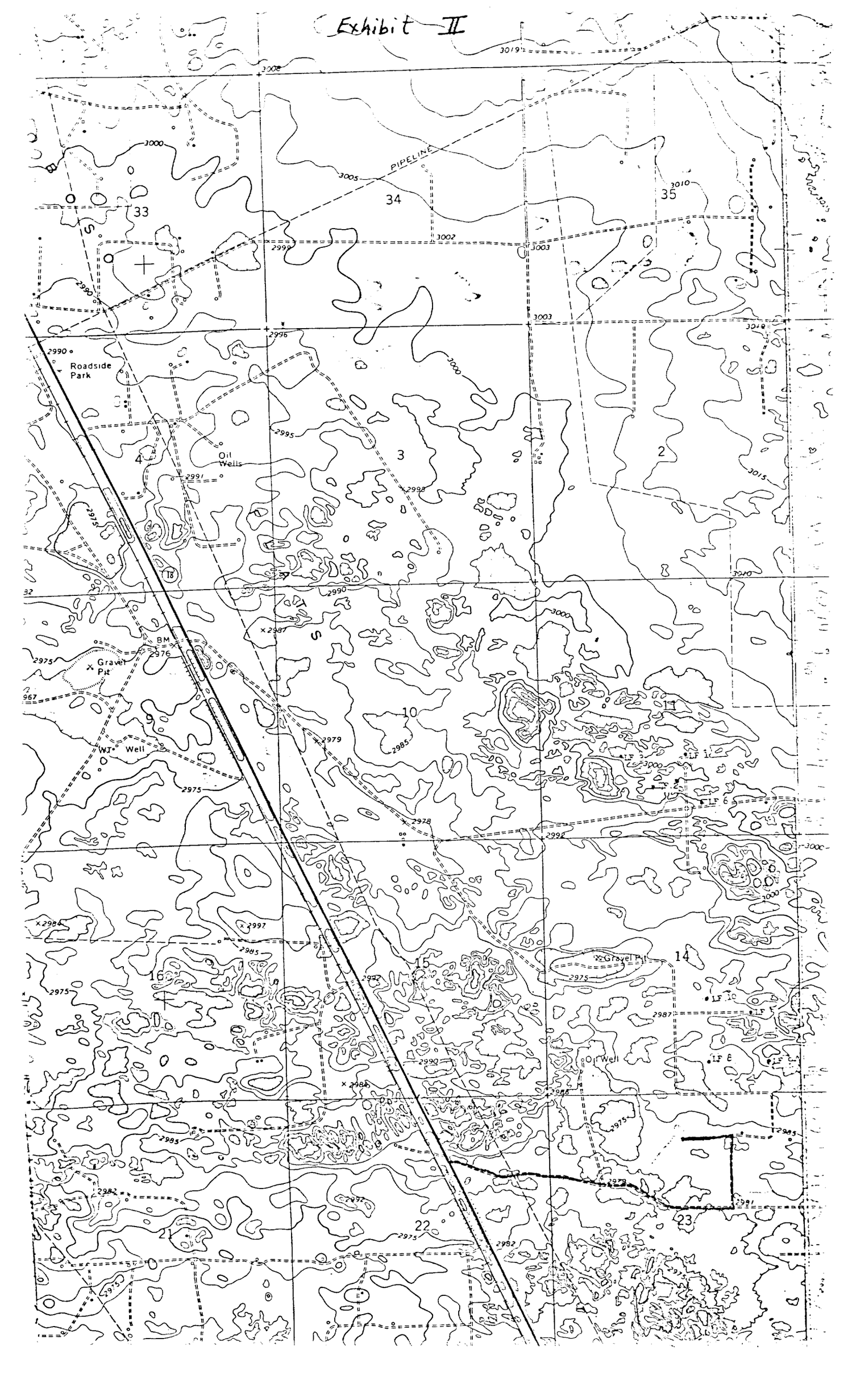
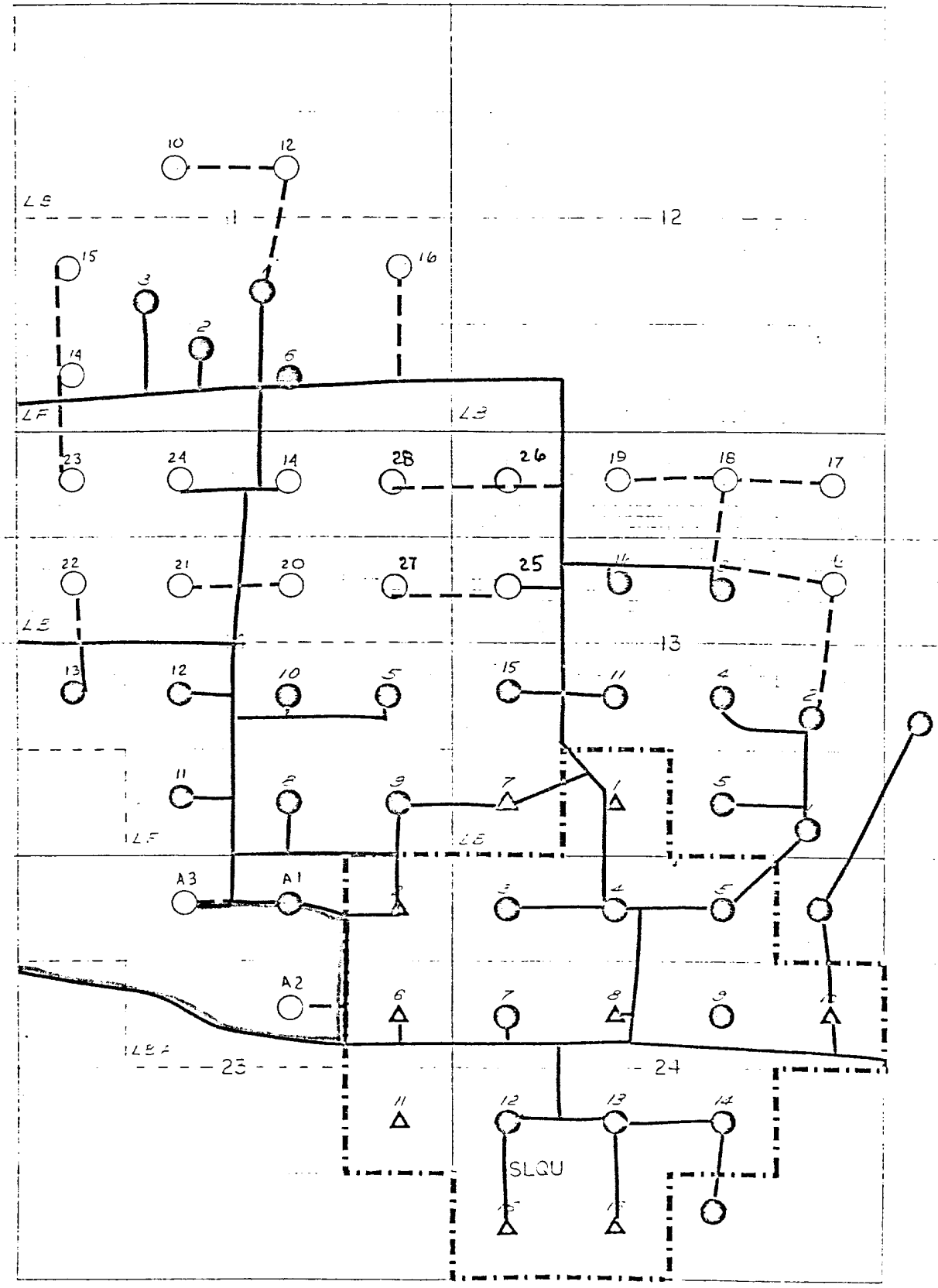


Exhibit II
PIPELINE
Roadside Park
Oil Wells
Gravel Pit
BM
WI Well
Oil Well
Gravel Pit
33
34
35
4
3
2
9
10
11
16
15
14
21
22
23

Exhibit II

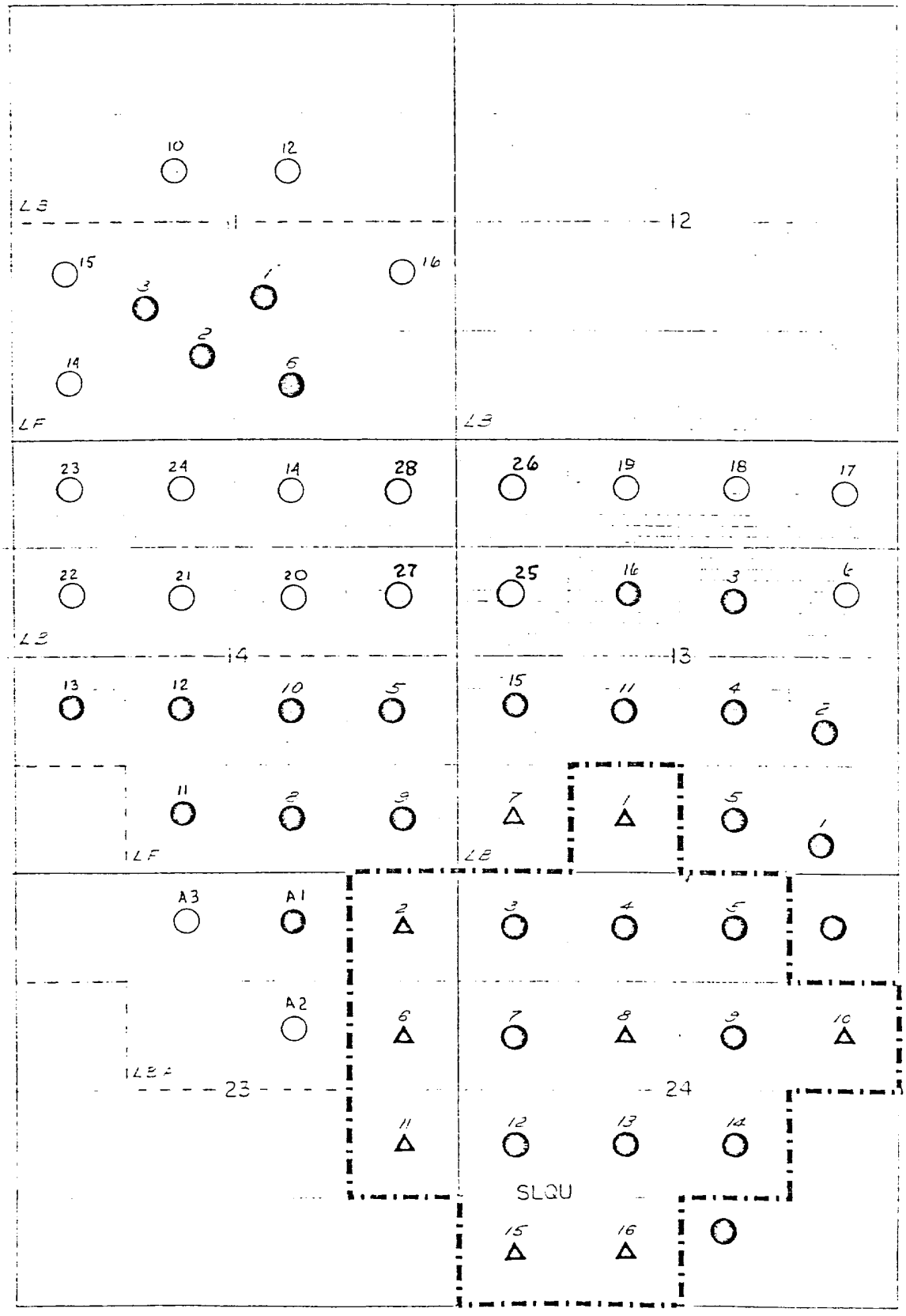


SOUTH LEONARD AREA

Roads

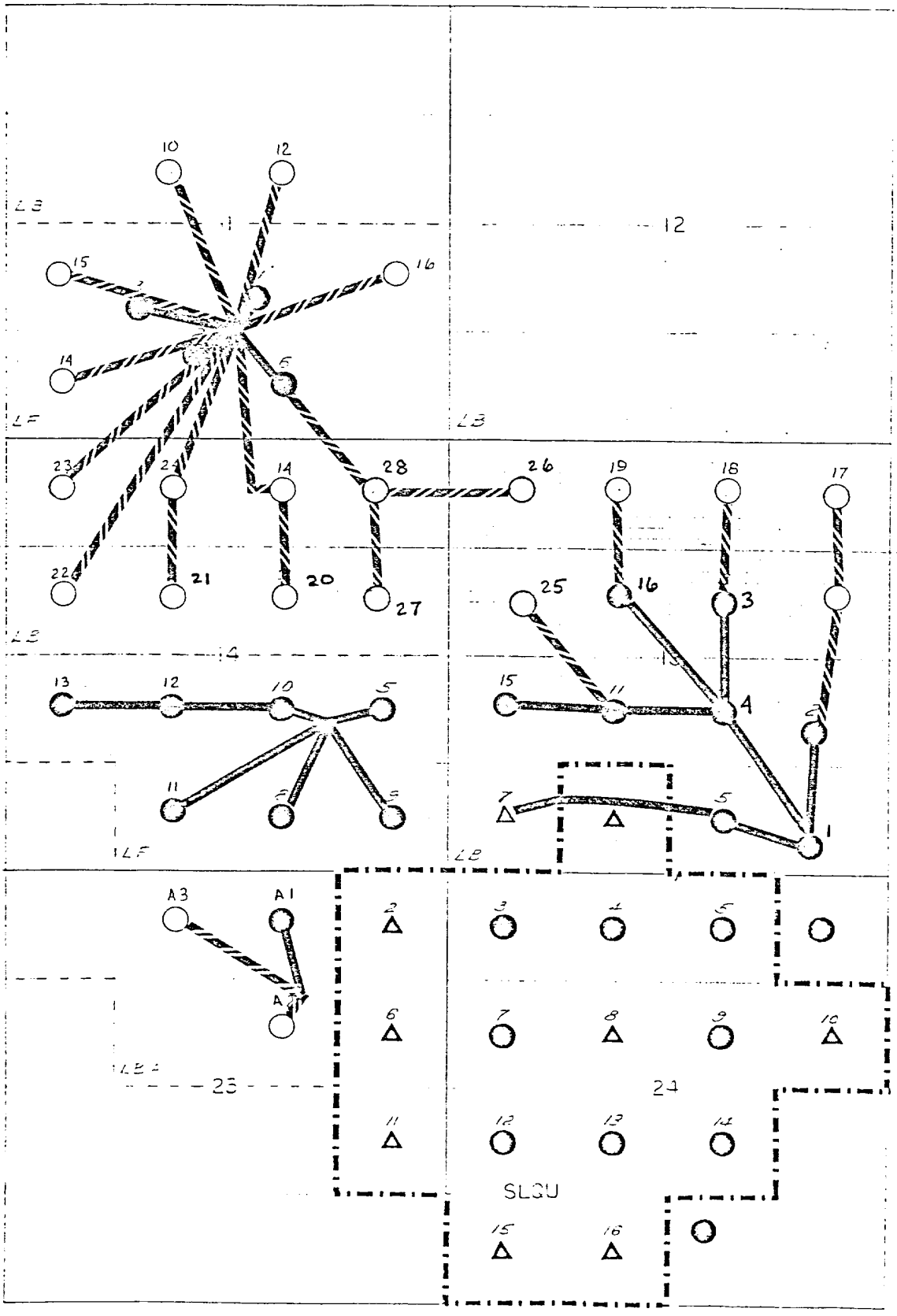
Existing —— Proposed - - -

Exhibit IV



SOUTH LEONARD AREA

Exhibit V



SOUTH LEONARD AREA

FLOWLINES FOR 1978

Existing Proposed

Exhibit VI Facility: Leonard Brothers A-3

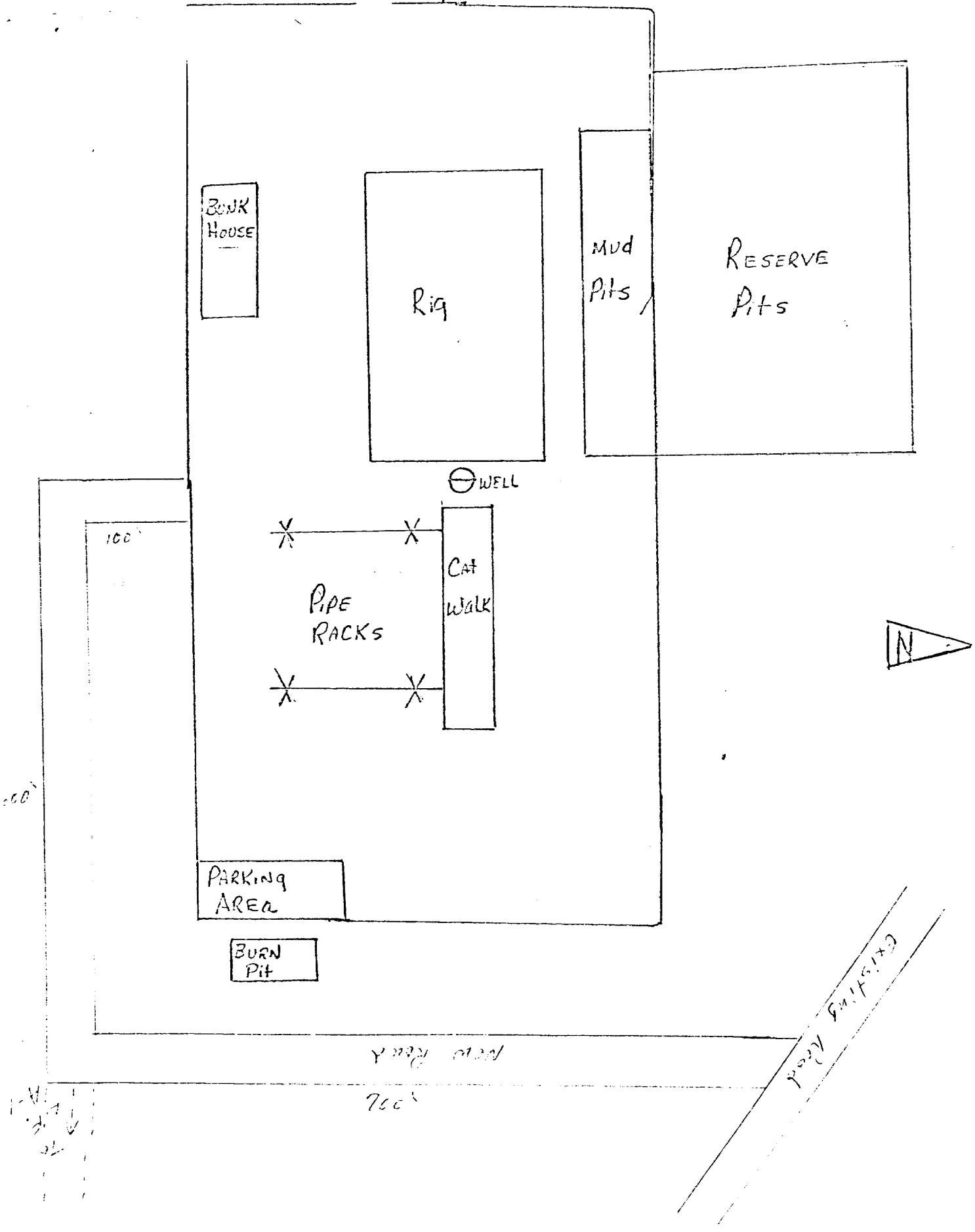
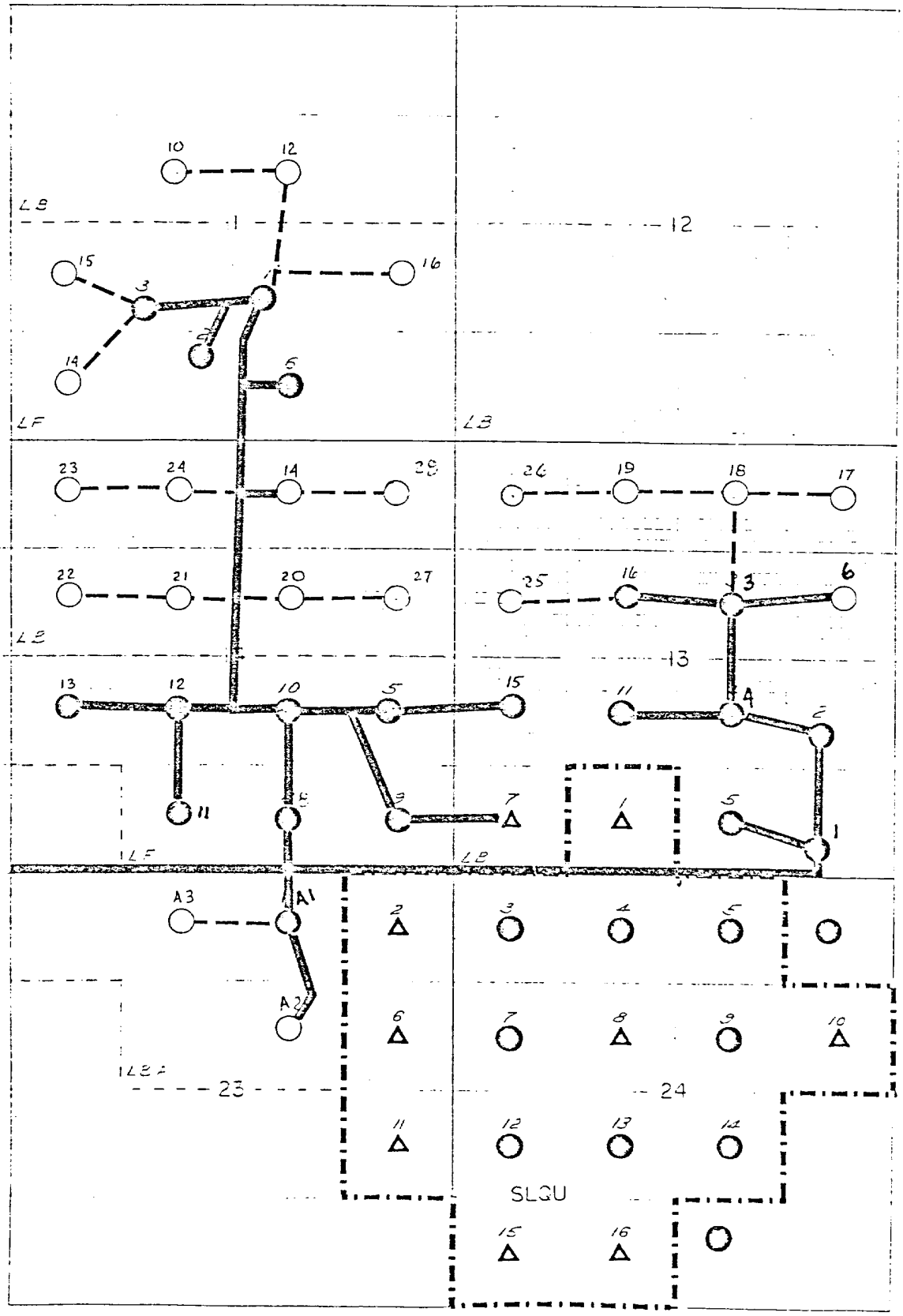


Exhibit VII



SOUTH LEONARD AREA

Power Distribution Lines for 1978

Existing — — Proposed

U. S. Geological Survey

HOBBS DISTRICT

Tenneco Oil Company
No. 3 Leonard Brothers "A"
NE¼NW¼ Sec. 23-26S-37E
Lea County, N. M.

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.

2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.

3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.

4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.

5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.

6. Operator will provide the dirt contractor with a copy of the enclosed Bureau of Land Management "Standard Requirements for all Drilling in Relation to Oil and Gas Activities in the Roswell Distrct" prior to commencing construction of road, pad, or other associated developments.

7. In the event the oil or gas test results in a dry hole, the drill pad and access road will be ripped in accordance with "BLM Roswell District's Ripping Recommendations for Caliche or Compacted Drill Pads and Access Roads". (Reseeding of the affected areas may be required at the discretion of the BLM authorized officer).

   All ripped surfaces are to be protected from vehicular travel by constructing a dead-end ditch and earthen barricade at the entrance to these ripped areas. The barricade is to be constructed using spoil material from the ditch and should be of sufficient magnitude to discourage vehicle entry.

8. All above ground structures, not subject to applicable conservation and safety requirements, shall be painted to blend with the natural surroundings. The paint used should be a nonglare, nonreflective, flat, or semi-gloss that simulates Fed. Stand. No. 595, color 30318.