Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-043-60034

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

b. TYPE OF WELL
OIL WELL [ ] GAS WELL [ ] OTHER Gas Storage SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
Southern Union Exploration Company

3. ADDRESS OF OPERATOR
First International Bldg., Suite 1800, Dallas, Texas 75270

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
N 404' from the South Line & 2080' from the West line.
At proposed prod. zone
Same as above.

5. LEASE DESIGNATION AND SERIAL NO.
14-08-0001-12395

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME
Las Milpas Gas Storage

8. FARM OR LEASE NAME
San Ysidro

9. WELL NO.
8

10. FIELD AND POOL, OR WILDCAT
~~Wildcat~~ Las Milpas Gas Storage

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec 20, T15N, R1E, N.M.P.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
5 miles west of San Ysidro, New Mexico

12. COUNTY OR PARISH
Sandoval

13. STATE
New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
404 ft.

16. NO. OF ACRES IN LEASE
2560

17. NO. OF ACRES ASSIGNED TO THIS WELL
Gas Storage

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
2080 ft.

19. PROPOSED DEPTH
2500 ft.

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5829 ft. Ungraded Ground Level

22. APPROX. DATE WORK WILL START*
June 15, 1977

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"	24.0#	450 ft.	365 sacks
7 7/8"	5 1/2"	15.50#	2500 ft.	360 sacks 1st stage
				270 sacks 2nd stage

1. We propose to mud drill a 7 7/8" hole to total depth of approx. 2500 ft.

2. It is our intention to core the Aqua Zarco formation and the Poleo formation.

3. Run 5 1/2", 15.50#, K-55 casing to total depth of 2500 ft. R.K.B. 1st Stage cemented w/approx. 360 sacks of cement. Stage collar will be set at approx. 1100 ft. and will cement 2nd stage with 270 sacks of cement.

4. The Aqua Zarco formation will be perforated and evaluated for possible gas storage.

5. 2" E.U.E., 4.70#, J-55 tubing will be run and set at approx. 2435 ft. R.K.B.

RECEIVED
MAY 31 1979
OIL CON. COM.
DIST. 3

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 Ronald [signature] TITLE Drilling & Production Engineer DATE 5/23/79

(This space for Federal or State office use)

PERMIT NO. ______________ APPROVAL DATE ______________

APPROVED BY ______________ TITLE ______________ DATE ______________
CONDITIONS OF APPROVAL, IF ANY:

ok Frank

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.
~~GAS COMPANY OF NEW MEXICO~~ Southern Union Exploration Co.		~~14-08-0001-12595~~ San Ysidro		8

Unit Letter	Section	Township	Range	County
N	20	15 NORTH	1 EAST	SANDOVAL

Actual Footage Location of Well: 404 feet from the SOUTH line and 2080 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
5829	Aqua Zarca	~~None~~ La Milgas Gas Storage	~~Gas Storage~~ Acres

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

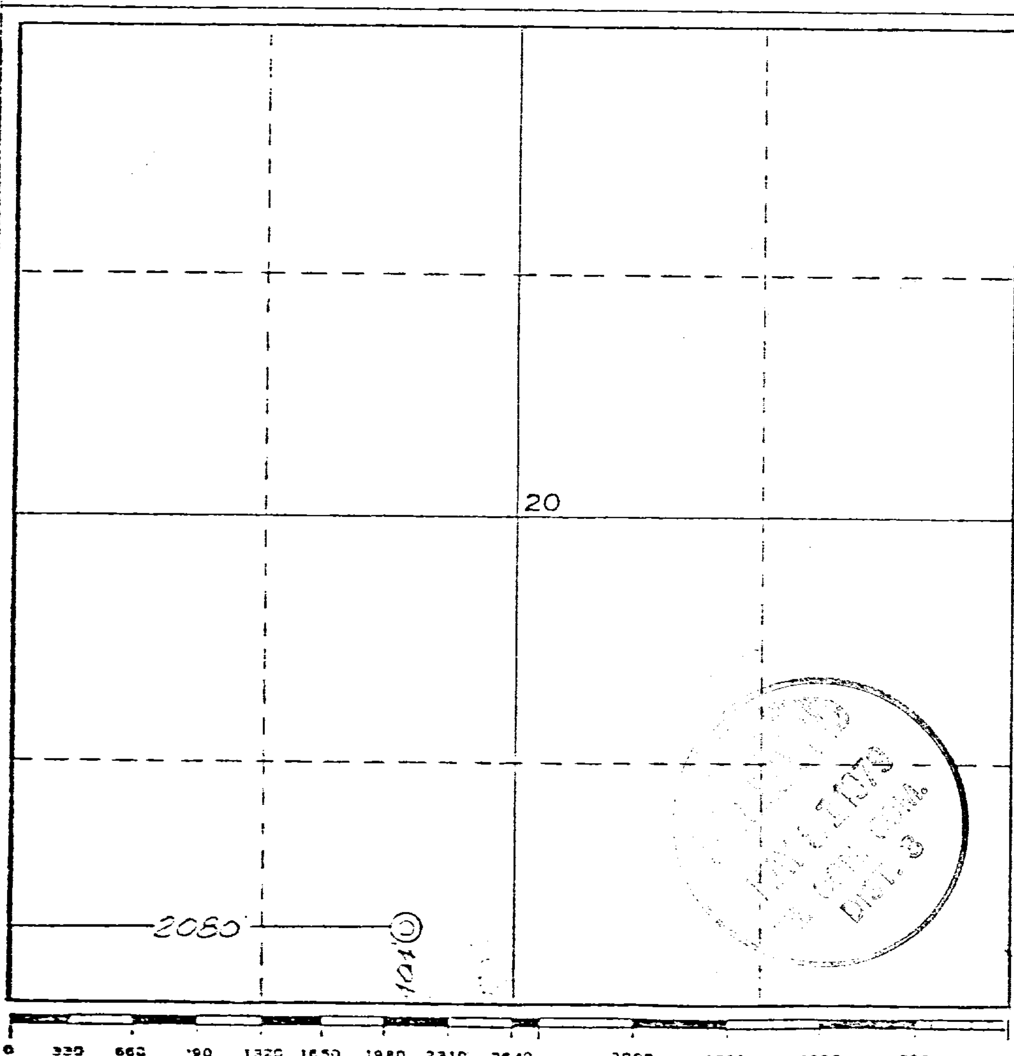
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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: [signature]

Position: Drilling & Production Engineer

Company: Southern Union Exploration Co

Date: May 16, 1979

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.

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR STATE OF NEW MEXICO NO. 1463 JAMES P. LEESE

Date Surveyed: 8 May 1979

Registered Professional Engineer and/or Land Surveyor: [signature] James P. Leese

Certificate No. 1463

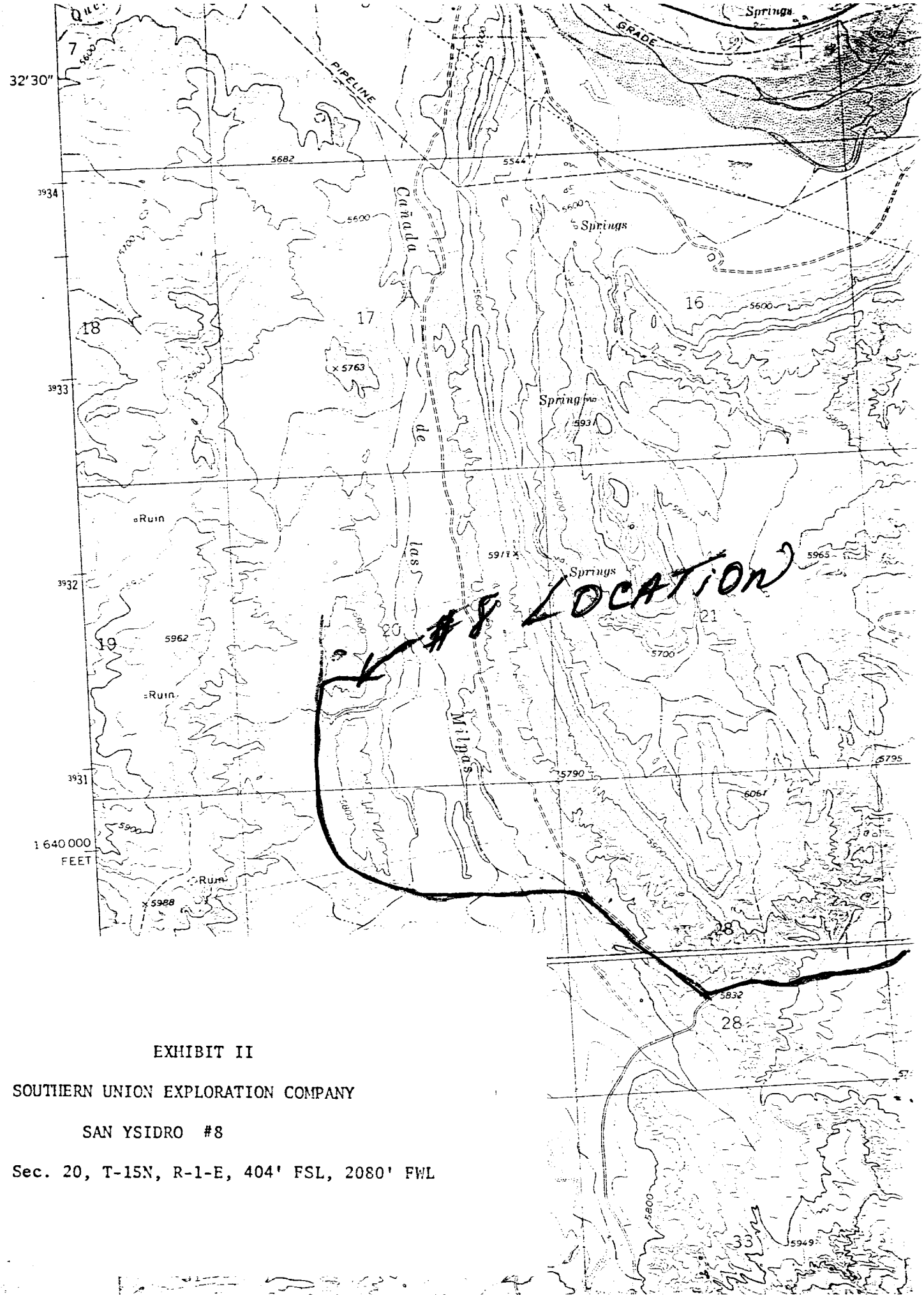


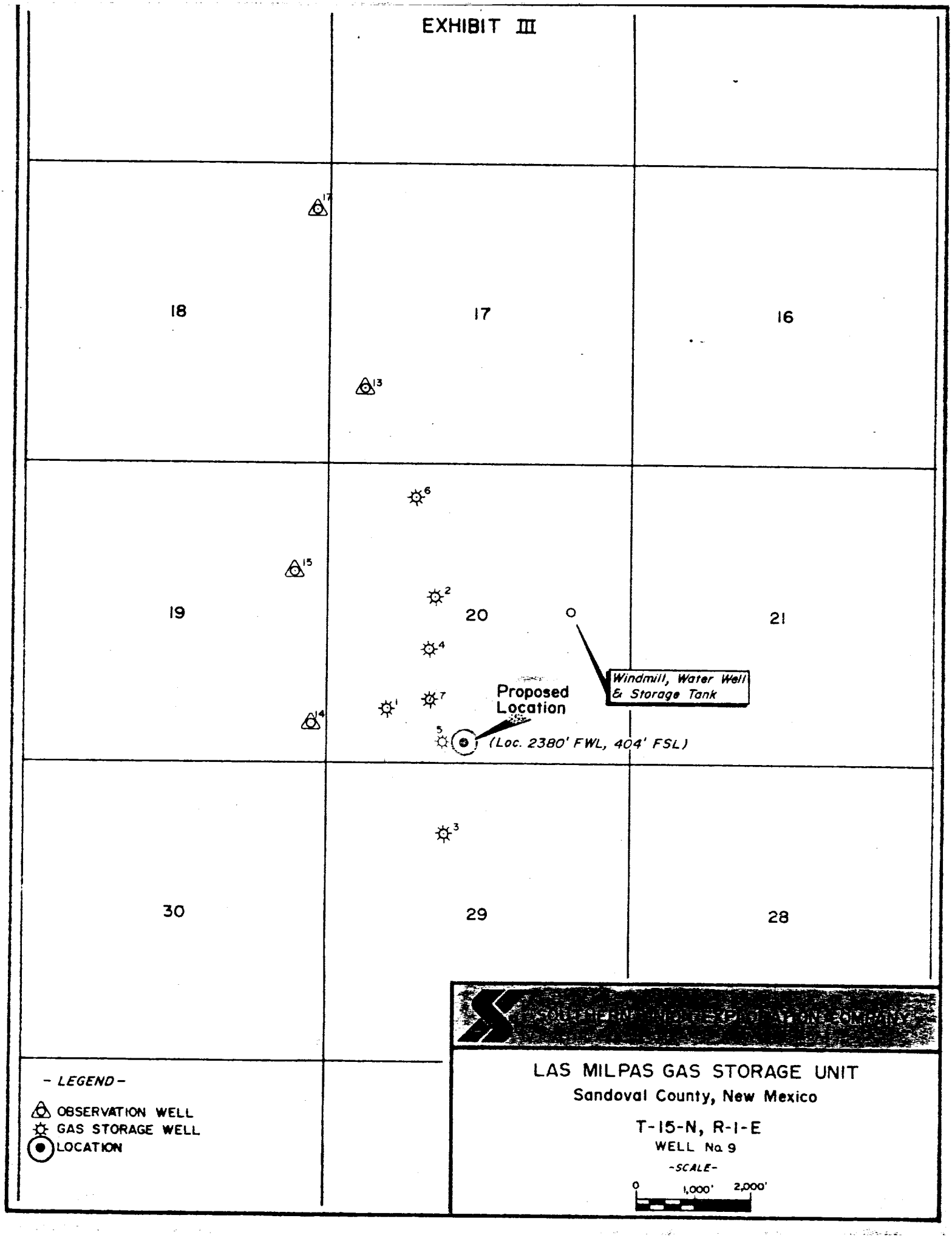
EXHIBIT II

SOUTHERN UNION EXPLORATION COMPANY

SAN YSIDRO #8

Sec. 20, T-15N, R-1-E, 404' FSL, 2080' FWL

EXHIBIT III

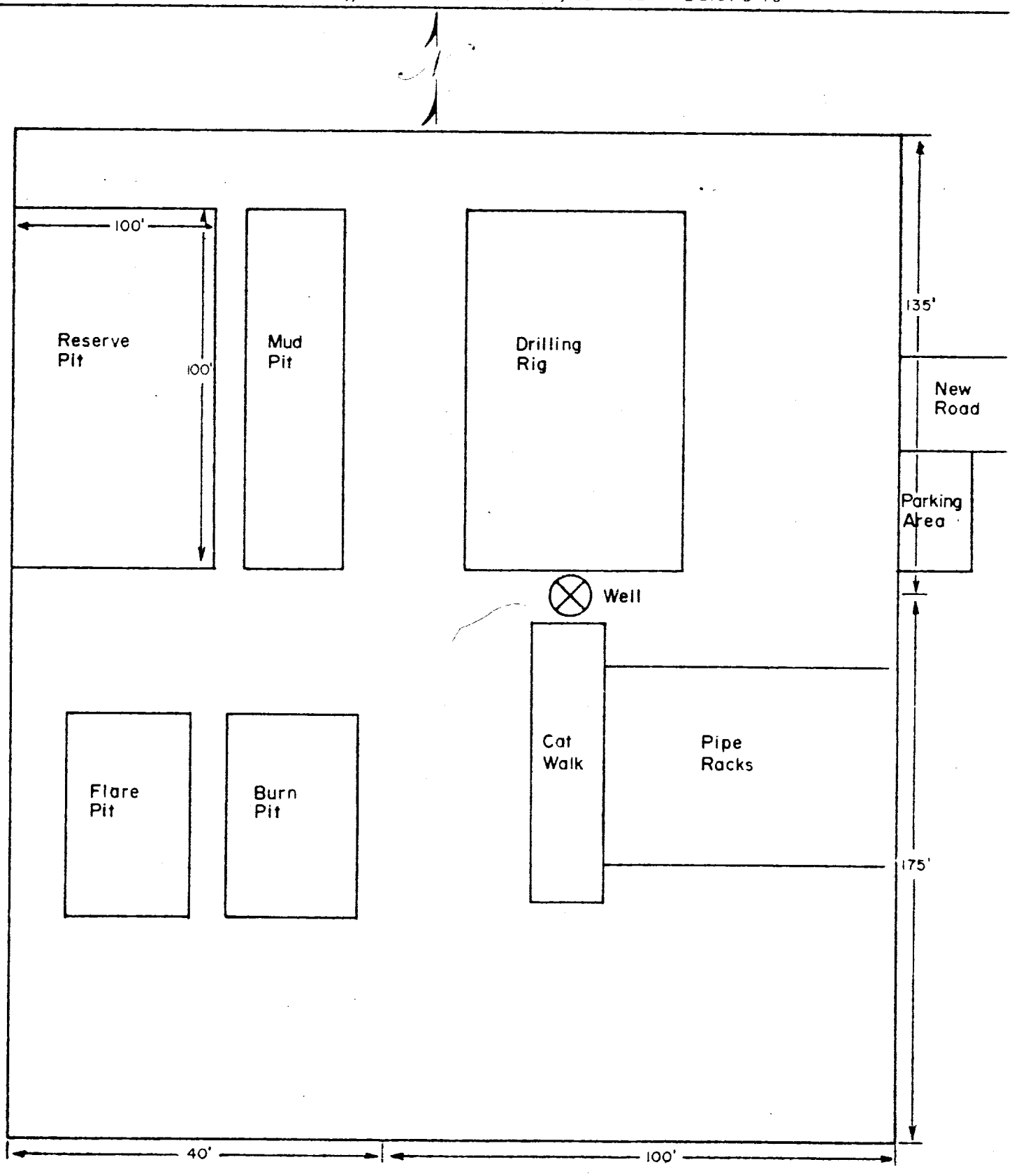

18
17
16
19
20
21
30
29
28
Windmill, Water Well & Storage Tank
Proposed Location
(Loc. 2380' FWL, 404' FSL)
- LEGEND -
OBSERVATION WELL
GAS STORAGE WELL
LOCATION
LAS MILPAS GAS STORAGE UNIT
Sandoval County, New Mexico
T-15-N, R-1-E
WELL No. 9
-SCALE-
0
1,000'
2,000'

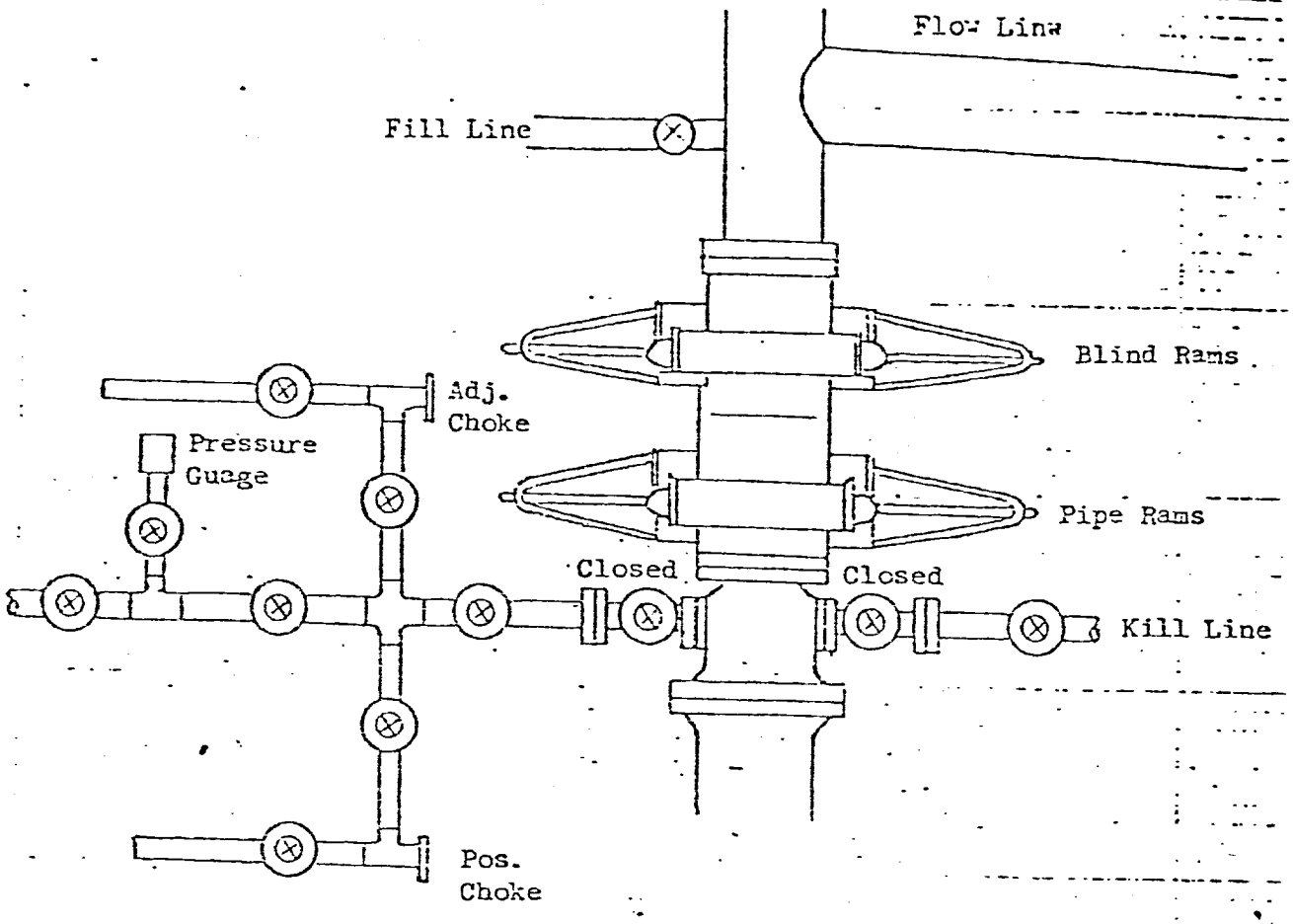
SOUTHERN UNION EXPLORATION COMPANY

CALCULATION SHEET

Subject: Drilling Well Site Layout - Las Milpas Gas Storage Unit Well No. 9 EXHIBIT IV

Location: Section 20, T-15-N, R-1-E, Sandoval County, New Mexico / 2380' FWL, 404' FSL **Date:** 5-79





All valves 2"

All BOPs, flanges, spools, valves, & lines must be series 900 or 3000 psi working press.

Choke manifold must be at ground level and extended out from under substructure.

SOUTHERN UNION EXPLORATION COMPANY
First International Bldg.
Suite 1800
Dallas, Texas 75270

REQUIRED MINIMUM BLOWOUT PREVENTOR HOOKUP

1. Existing Roads

A. Proposed Well Site Location: The proposed well site location was surveyed and staked by a registered land surveyor and is located 404' from the south line and 2080' from the west line, Section 20, T15N, R1E, Sandoval County, New Mexico. (See Exhibit I Surveyor's Plat.)

B. Planned Access Route: The planned access route begins 2.38 miles south of San Ysidro, New Mexico on Highway #44, and extends 6 miles to the well location on hard surface road.

C. Access Road Labelled:

Color Code: Red - Improved Surface
Blue - New Access Road

D. Not Applicable - The proposed well is a development well.

E. See Exhibit II for existing roads within a one mile radius.

F. The existing roads will require minimal maintenance.

2. Planned Access Roads

(All roads are existing roads.)

A. Width: The average width of the road is twelve feet.

B. Maximum Grades: The maximum grade on the proposed road will be approximately 10%.

C. Turnouts: There are no turnouts planned as sight distance is sufficient.

D. Drainage Design: The road is center crowned to allow drainage. The road is flat primarily.

E. Culverts Use Major Cuts and Fills: No culverts will be needed in building this road. No cuts or fills will be needed.

F. Surfacing Material: Native soil has been wetted, bladed and compacted to make the road surface, which is existing.

G. Gates, Cattleguards, Fence Cuts: No gates, cattleguards or fences will be needed.

H. New Roads Centerlined Flagged: Existing roads.

3. Location of Existing Wells

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

A. Water Wells : 3
B. Abandoned Wells: None
C. Temporarily Abandoned Wells: None
D. Disposal Wells: None
E. Drilling Wells: None
F. Gas Storage Wells: 7
G. Shut-In Wells: None
H. Injection Wells: None
I. Monitoring or Observation Wells: 2

4. Location of Existing and/or Proposed Facilities

A. Existing facilities within one mile owned or controlled by Lessee/Operator:

1. Tank batteries - N/A
2. Production facilities - N/A
3. Oil Gathering Lines - N/A
4. Gas Gathering Lines - N/A
5. Injection Lines - N/A
6. Disposal Lines - N/A

B. New facilities in the event of production:

1. New facilities will be within the dimensions of the drill pad.
2. Dimensions are shown on Exhibit IV.
3. Construction Materials/Methods: Construction materials will be native to the site. Facilities will consist of a well pad.
4. Protection of Wildlife/Livestock: New facilities will be fenced as needed to protect livestock or wildlife.
5. New facilities will consist of a wellhead.

C. Rehabilitation of Disturbed Areas:

Following 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 surroundings topography per BLM recommendations.

5. Location and Type of Water Supply

A. Location and type of water supply: Water will be hauled from a near by well.

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

C. Water Wells: Near by.

6. Source of Construction Materials

   A. Materials: Construction materials will consist of soil native to the site. Any topsoil, if present, will be stripped and stockpiled as needed.

   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: N/A

   D. Access Roads: No additional 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 driller operations. 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 release of the drilling rig, the surface of the drilling pad will be prepared to accommodate 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. See Exhibit IV.

9. Well Site Layout (Cont'd)

B. Location of pits, etc. See Exhibit IV.

C. Rig orientation, etc. See Exhibit IV.

D. Lining of Pits: Pits will not be lined. They will be 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 clean up: 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 the 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, per BLM recommendations. 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, if will be obliterated and restored and 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: The surface description of the proposed site where the actual well is located is in a very hilly area of the Las Milpas Gas storage area.

B. Surface Use Activities: The surface is federally owned and managed by the BLM. The predominant surface use is mineral exploration and production.

C. Proximity of Water, Dwelling and Historical Sites:

1. Water: There is a water well about one mile from the immediate area.

2. Occupied Dwelling: There are two trailer houses within 300 yards of the locations which are occupied.

3. Site: An archeological reconnaissance has been performed for this location and clearance has been granted.

12. Operator's Field Representative

Ronald M. Sentz
Drilling & Production Engineer
Southern Union Exploration Company
1800 First International Building
Dallas, Texas 75270

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 and correct; and that the proposed work performed by Southern Union Exploration Company and its contractors and subcontractors will conform to this plan.

DATE: 5/23/79 Ronald M. Sentz