N. M. O. C. C.

Copy to S F

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-21380

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 [X] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Samedan Oil Corporation

3. ADDRESS OF OPERATOR: 2207 Wilco Building, Midland, Texas 79701

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O. C. C.
ARTESIA, OFFICE

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: Unit K, 1980' FS & WL, Sec. 19, T-16-S, R-28-E
At proposed prod. zone: Same

5. LEASE DESIGNATION AND SERIAL NO.: NM 14477
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
7. UNIT AGREEMENT NAME:
8. FARM OR LEASE NAME: Amoco Federal
9. WELL NO.: 2
10. FIELD AND POOL, OR WILDCAT: Undesignated Morrow
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 19, T-16-S, R-28-E
12. COUNTY OR PARISH: Eddy
13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 9 miles northeast of Artesia

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. line, if any): 1980'
16. NO. OF ACRES IN LEASE: 1459.77
17. NO. OF ACRES ASSIGNED TO THIS WELL: 320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: --
19. PROPOSED DEPTH: 9700'
20. ROTARY OR CABLE TOOLS: Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3537.3' G. L.
22. APPROX. DATE WORK WILL START*: October 15, 1974

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
30"	20"	Conductor	40'	Circ. to surface
11"	8 5/8"	24#	1800'	Circ. to surface
7 7/8"	4 1/2"	11.6#	9600'	400 sacks

Plan to drill 30" hole to 40', run 20" conductor pipe and cement to surface. Drill 11" hole to 1800', run 8 5/8" casing and cement to surface. Drill 7 7/8" hole to 9700', run 4 1/2" casing, WOC 12 hrs. and test to 1000#. (DSTs may be run on any formation indicating production during this stage of drilling.) If production is indicated, will complete in productive zone(s) according to the Rules and Regulations of New Mexico Oil Conservation Commission. All pipe-setting and cementing operations will be conducted according to requirements of the proper authorities.

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ARTESIA, NEW MEXICO

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 William S. McCuen TITLE Production Superintendent DATE 8-7-74

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

SUBJECT TO ATTACHED DEEP WELL CONTROL REQUIREMENTS DATED JUN 22 1973

APPROVED
SEP 1974
/s/ R. L. BEEKMAN
ACTING DISTRICT ENGINEER

THIS APPROVAL IS RESCINDED IF OPERATIONS ARE NOT COMMENCED WITHIN 3 MONTHS.
EXPIRES DEC 25 1974

Subject to Communitization agreement prior to production

*See Instructions On Reverse Side

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-685231

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.
Samedan Oil Corporation	Amoco Federal	2

Unit Letter	Section	Township	Range	County
K	19	16 South	28 East	Eddy

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

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3537.3	Morrow	Wildcat	320 Acres

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

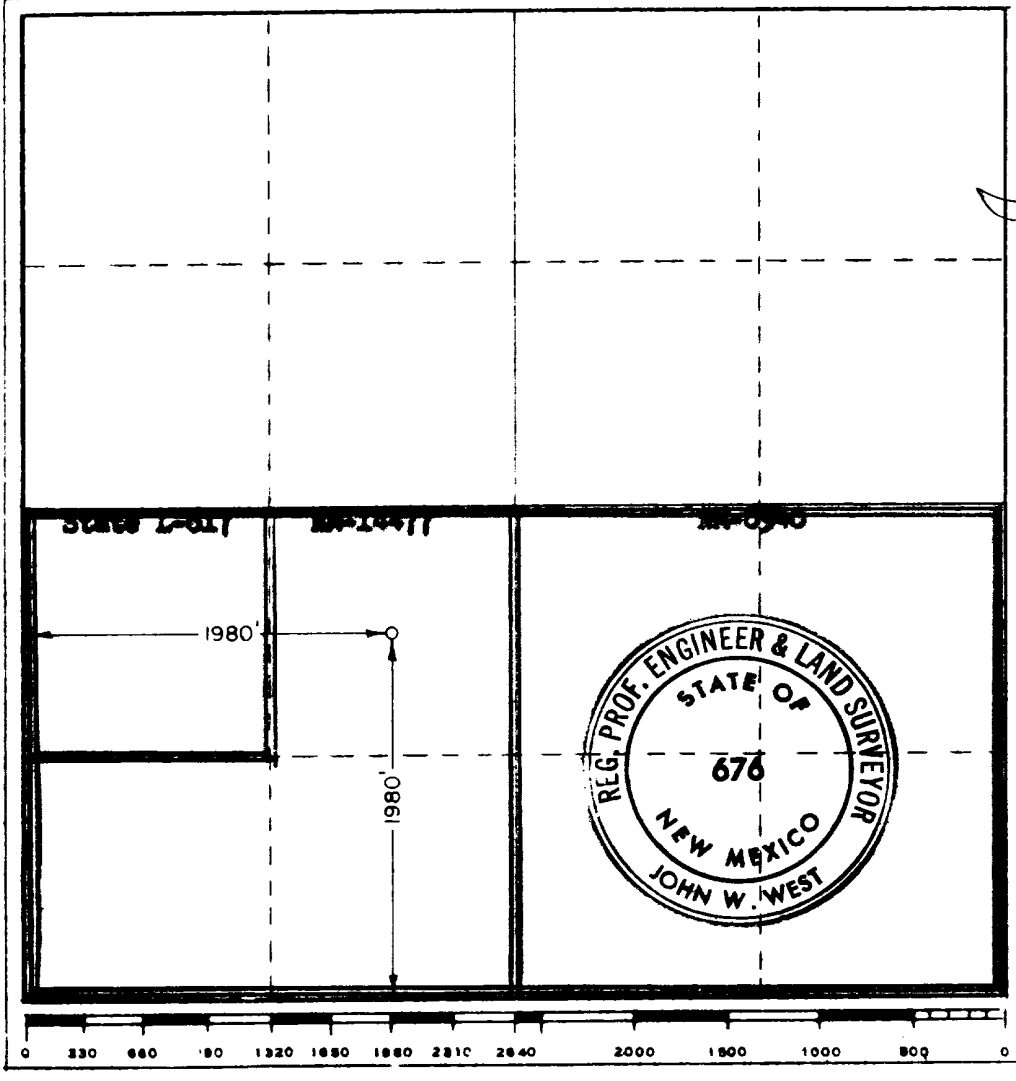
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.) **Will be communitized if commercial production is established.**

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: **William S. McCuen**

Position: **Production Superintendent**

Company: **Samedan Oil Corporation**

Date: **August 7, 1974**

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ARTESIA, NEW MEXICO

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.

Date Surveyed: July 31, 1974

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. 676

DEVELOPMENT PLAN FOR SURFACE USE

Amoco Federal No. 2
1980' FS & WL
Sec. 19, T-16-S, R-28-E
Eddy County, New Mexico

The following is a discussion of the pertinent information concerning any possible effect which Samedan's proposed drilling of the above well may have on the environment or surface condition of the southwest quarter (SW/4) of Section 19, T-16-S, R-28-E, and surrounding acreage.

Item 1: Attached, as a portion of the "Development Plan", are plats, labeled Plat No. 1 and Plat No. 2, showing the existing ranch and county roads to be used in reaching the proposed location, the presence of all surface water supplies within one (1) mile, and the proposed layout of the drilling pad, rig, and mud pits to be used in drilling the above well. These items are discussed further below.

Item 2: Drilling Pad and Pit Location - The drilling pad and reserve pits will be constructed as shown on Plat No. 1. The location will be cleared and leveled and used in its natural condition without caliche. The reserve pit will be lined with a suitable plastic or rubber lining to prevent the loss of drilling fluids by seepage into the surface.

Item 3: Roads - Access to the proposed location will be gained by use of the existing county roads and unimproved ranch roads. The unimproved ranch roads will be graded and leveled sufficient to provide access to vehicular traffic, with minor improvement only as required.

Item 4: Producing Facilities and Flowlines - In the event that the proposed well is completed as a producer, necessary surface producing facilities will be installed on the drilling pad at the well. Only enough flowline would be required to connect the well to such facilities.

Item 5: - Drilling Water Supply - Drilling water will be obtained through arrangements with the surface owner (or lessee on Federal land) and will be taken from the existing surface water supplies or wells within approximately three (3) miles of the proposed location.

Item 6: - Waste Disposal - Wastes (such as drilling mud sacks, barrels, containers, scrap material, and junk) resulting from the drilling of this well will be disposed of in a burn pit adjoining reserve pit.

Item 7: Disposal of Brine and Produced Salt Water - Waste brine and produced salt water will be collected in metal storage tanks and trucked to an approved disposal well.

Item 8: - Restoration of Surface - Following completion of the well, the mud pits will be filled and leveled consistent with the general terrain, and every effort will be made to leave the surface as undisturbed as possible.

Item 9: - Blowout Prevention and Drilling Mud Program - See copy of attached proposed drilling program.

SAMEDAN OIL CORPORATION
WELL PROGRAM SHEET
August 22, 1974

WELL: Amoco Federal No. 2

FIELD: Undesignated Morrow

OPERATOR: Samedan Oil Corporation

ESTIMATED
TOTAL DEPTH: 9700'

OBJECTIVE: Morrow

1. LOCATION: 1980' FSL & 1980' FWL, Sec. 19, T-16-S, R-28-E, Eddy Co., NM

2. ELEVATION: 3537'

3. MEASUREMENTS:

All measurements will be taken from the Kelly Bushing. The permanent datum will be the bradenhead flange. The distance from the bradenhead flange to the Kelly Bushing will be recorded on the logs and drilling report. An instrument will be utilized to record drilling time.

4. HOLE SIZE:

0' to 1800' - 12 1/4"
1800' to T.D. - 7 7/8"

5. HOLE DEVIATION:

Maximum allowable hole deviation will be 5°, limited to 1 1/2° per 100'. Deviation surveys will be run at least once each 500', and the results of each survey will be recorded on the Daily Drilling Report.

6. ESTIMATED FORMATION TOPS:

San Andres	1690'	Upper Penn Mkr.	7480'
Glorieta	3170'	Atoka	8850'
Tubb Sand	4415'	Morrow	9050'
Abo	5160'	Upper Miss. Lime	9345'
Wolfcamp	6410'		

7. DRILLING SAMPLES:

Catch two (2) sets of 10' samples from 1000' to T.D. Ten (10) foot drilling time to be recorded (original and one copy) from 1000' to T.D.

8. BLOWOUT PREVENTERS:

Dual ram, 3000 psi, W.P., hydraulically-operated preventers plus a 3000 psi W.P. Hydril to be installed on 8 5/8" csg. prior to drilling plugs and to be equipped to Samedan's specifications.

9. DRILLING MUD:

0' to 1800' - Drill out of conductor with fresh water and control viscosity at 31-32 sec/1000 cc. Keep weight below10#/gal. Use paper to control seepage. Possible lost circulation in upper part of hole.

1800' to 6400' - Drill out of 8 5/8" csg. with fresh water, while circulating through reserve pit. Use lime for controlled flocculation of solids.

6400' to 8000' - To the existing fluid, add brine water to increase weight to 8.8 to 9.0#/gal. To mud up early use procedure outlined for 8000'.

8000' to 8800' - at 8000' mud up in steel pits with brine water to maintain a weight of 8.8 to 9.0#/gal. Maintain a viscosity of 35 to 36 sec./1000 cc and a fluid loss of 8 to 10 cc. Add 3-5% KCL to system at 8500'. Spike system with nitrate to maintain a concentration of 100 ppm. Have double deck shale shaker in operation at 8000'.

8800' to T.D. - Maintain weight at 9.0#/gal. and viscosity at 35 to 36 sec/ 1000 cc. Reduce fluid loss to 3 to 5 cc. Maintain KCL in system.

10. CASING PROGRAM:

Conductor - 40' of 20"

Surface - 1800' of 8 5/8" 24# K-55 ST & C

Oil String - 9600' 4 1/2" 11.6# K-55 ST & C

11. CEMENTING:

Conductor - Ready-Mix

Surface Casing - Run 8 5/8" casing with notched Texas pattern guide shoe. Insert baffle plate and 3 centralizers. Use top and bottom plugs. Cement with sufficient lite wate cement with 2% gel and 400 sacks Class "H" cement with 2% calcium chloride to circulate to surface. 18 hr. WOC. Test casing to 800 psi for 30 mins. prior to drilling plug.

Oil String - To be developed if required

12. LOGGING:

Compensated Acoustic Velocity Log
Guard Log
Forxo Log

13. FORMATION TESTING:

Wolfcamp
Atoka
Morrow

14. CORING:

None

15. MUD LOGGING: Will be used from 6400' to T.D.

16. COMPLETION PROGRAM: To be furnished as required.

William S. McCuen
Production Superintendent

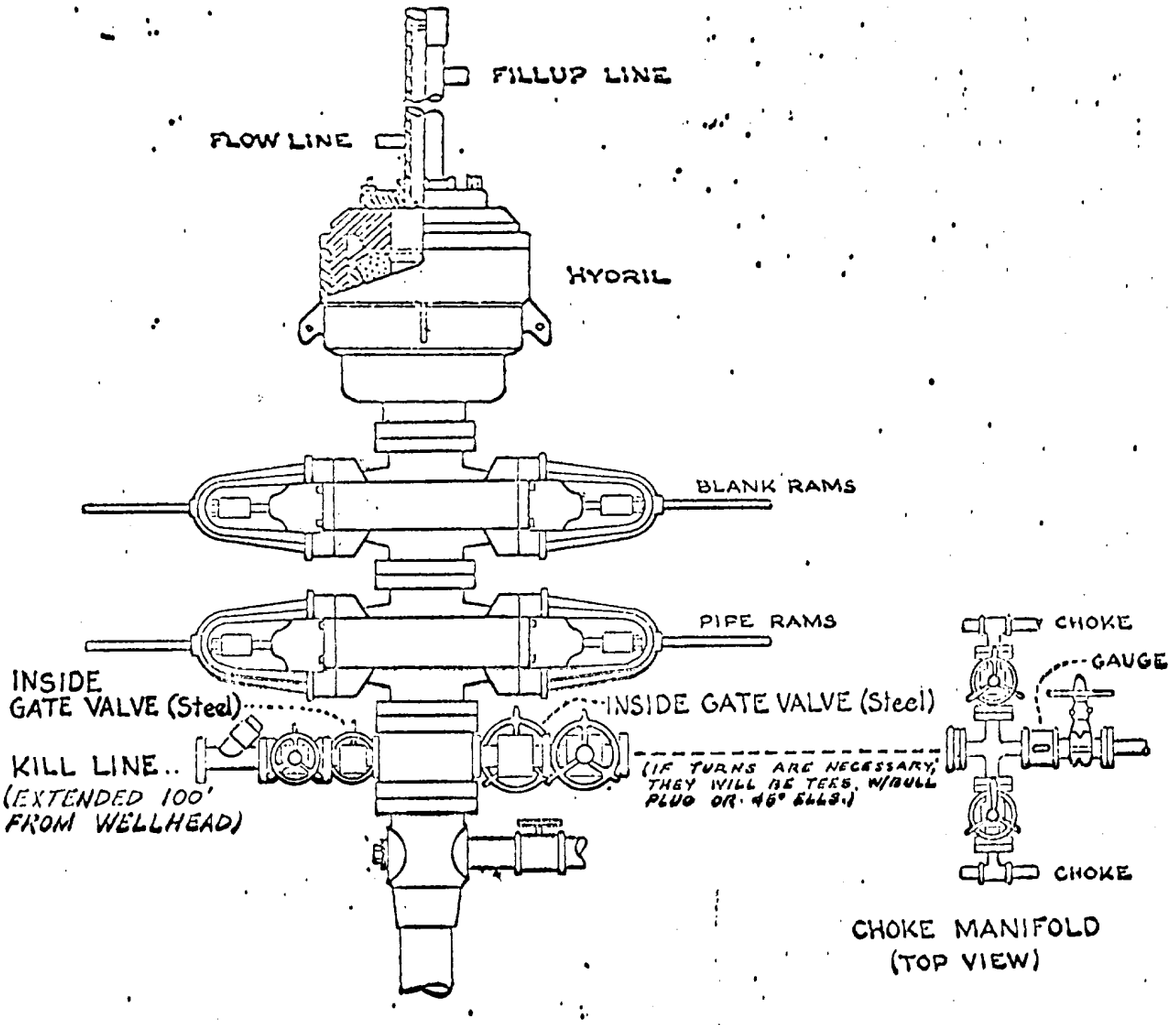
Bob E. Frizzell
Hobbs, NM
505-393-2512 (Off.)
505-392-6080 (Res.)
505-393-7266 (Mob.)

Ron Mercer
Midland, TX
915-683-5536 (Off.)
915-694-4991 (Res.)

Bill McCuen
915-683-5536 (Off.)
915-694-7342 (Res.)

Cliff W. Matthews
Midland, TX
915-683-5536 (Off.)
915-682-0354 (Res.)

BLOWOUT PREVENTER
FOR
MEDIUM PRESSURE WELLS
(900 SERIES MIN.)



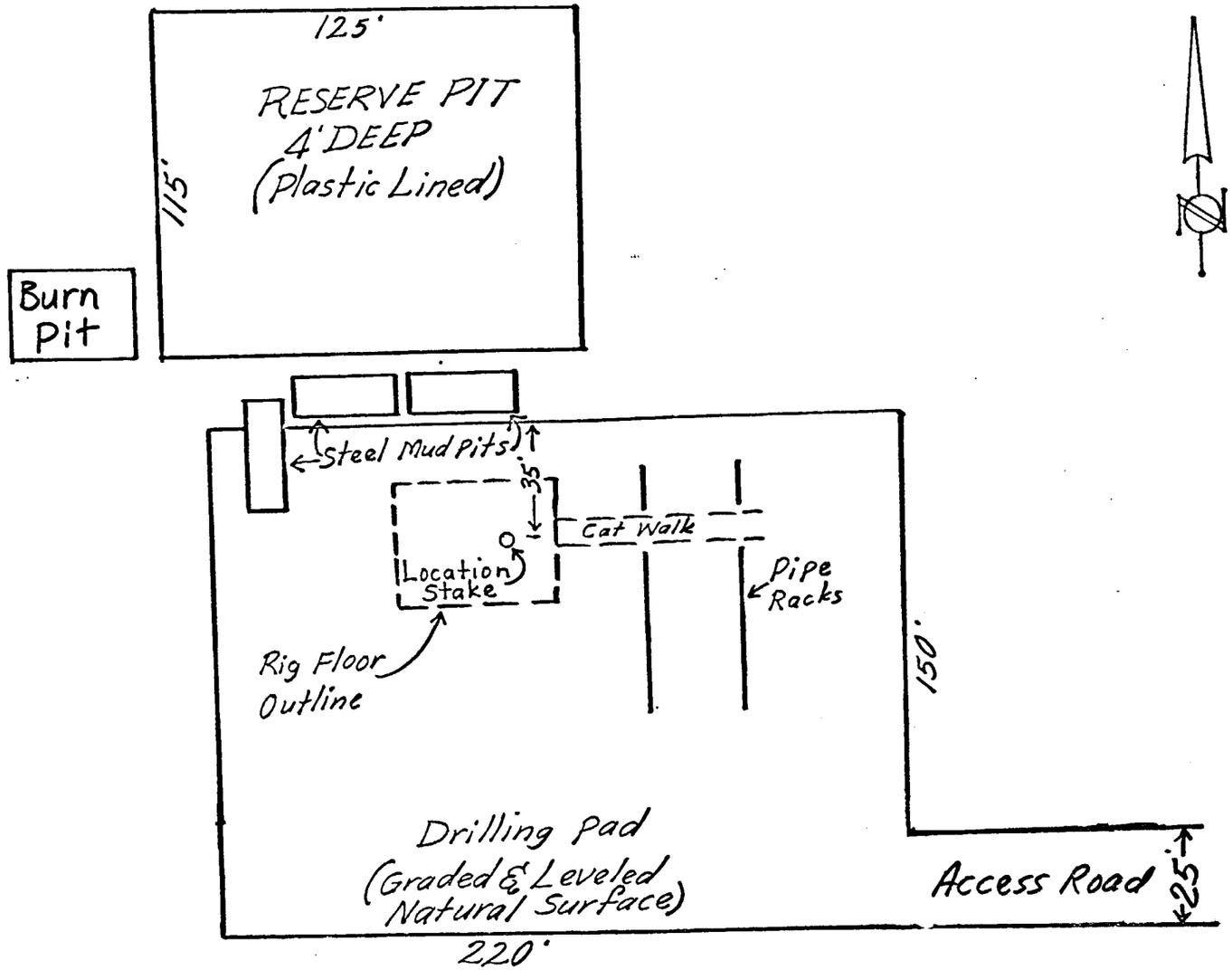
CHOKE MANIFOLD
(TOP VIEW)

NOTE: *Choke manifold to be either 3" or 4".*
To be 900 Series, Minimum.

REQUIREMENTS

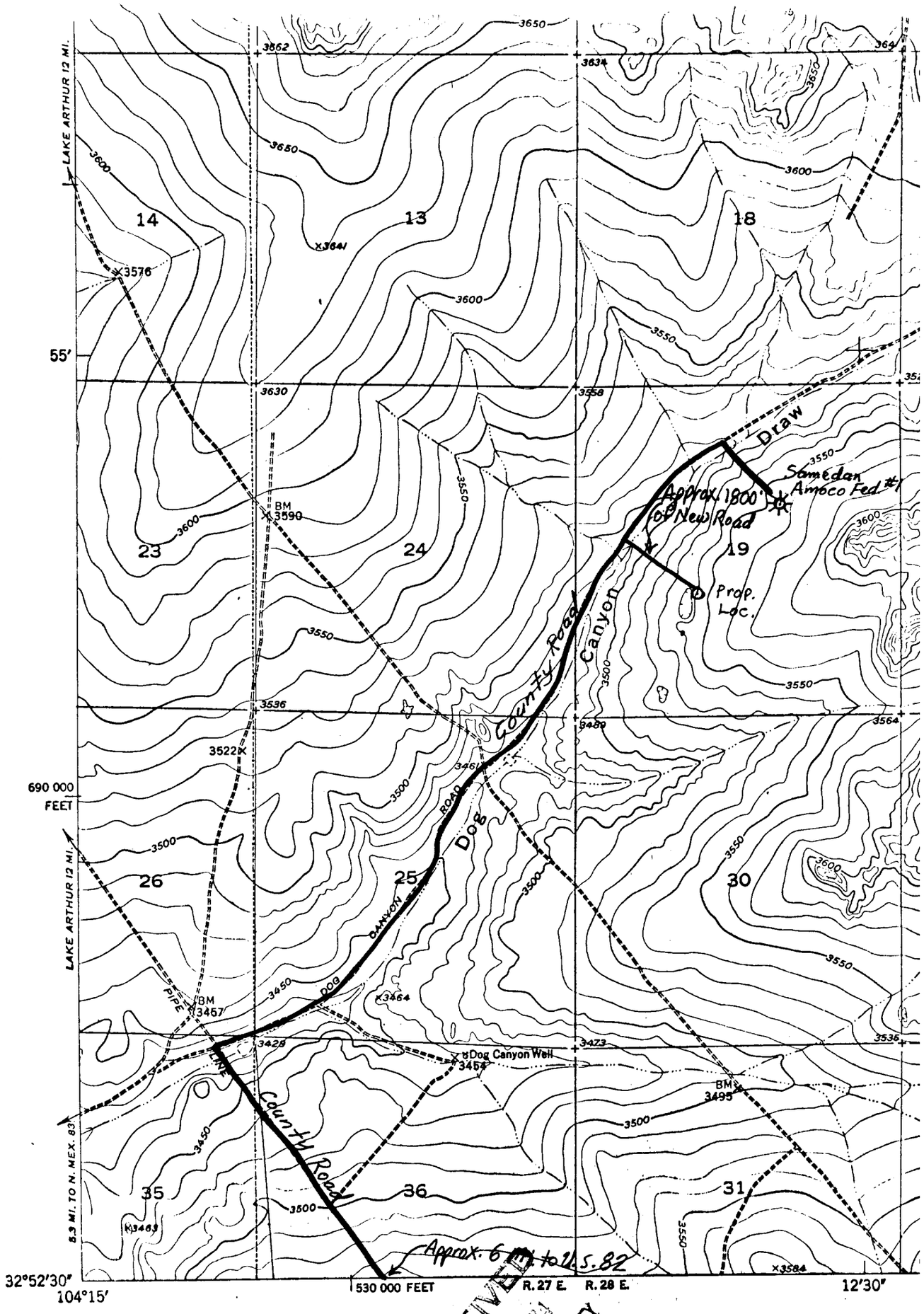
1. Kill Line and Choke Manifold maybe connected to Braden Head at Area Supervisor's discretion in event of low substructure.
2. Hydraulic closing unit required.
3. Steel lines from B.O.P. to closing unit required.

SAMEDAN OIL CORPORATION
ARDMORE, OKLAHOMA
223-4110



Samedan Oil Corporation
Amoco Federal No.2
SW/4 Sec. 19, T-16-S, R-28-E
Eddy County, New Mexico
Scale: 1" = 50'

PLAT NO. 1



Samedan Oil Corporation
Amoco Federal No.2
SW/4 Sec. 19 T-16-S R-28-E
Eddy County, New Mexico
Scale: 1" = 2,000'

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U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

12½°
TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1951

Plat No.2