

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

SCHALK DEVELOPMENT CO.

3. ADDRESS OF OPERATOR

P.O. BOX 25825 / ALBUQUERQUE, NM 87125

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

790' FSL, 790' FEL, Sec.16, T25N, R3W

At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15 Miles, Lindrith, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

790'

16. NO. OF ACRES IN LEASE

520

17. NO. OF ACRES ASSIGNED
TO THIS WELL

160

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2640'

19. PROPOSED DEPTH

6130

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

7335 GR

22. APPROX. DATE WORK WILL START*

February 1, 1978

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	24#	150'	150 Sacks Circulated
7-7/8"	4-1/2"	10.5#	6130	300 Sacks

FORMATION TOPS

OJO Alamo	3360'	Cliff House	5465'
Kirtland	3503'	Menneffee	5553'
Fruitland	3687'	Point Lookout	5953'
Pictured Cliffs	3830'	Mancos	6128'
Chacra	4672'	Total Depth	6130'

gas not identified

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

TITLE

Managing Partner

DATE

9/13/78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

ok Frank

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACERAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator ARAPAHOE DRILLING COMPANY				Lease Schalk 41		Well No. 3	
Unit Letter P	Section 16	Township 25 NORTH	Range 3 WEST	County RIO ARriba			
Actual Surface Location of Well: 790 feet from the SOUTH line and 790 feet from the EAST line							
Ground Level Elev. 7335	Producing Formation Mesa Verde		Pool Willkat Blanco Mesa Verde	Dedicated Acreage: 160		Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 communization, unitization, forced-pooling, etc?

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

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

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

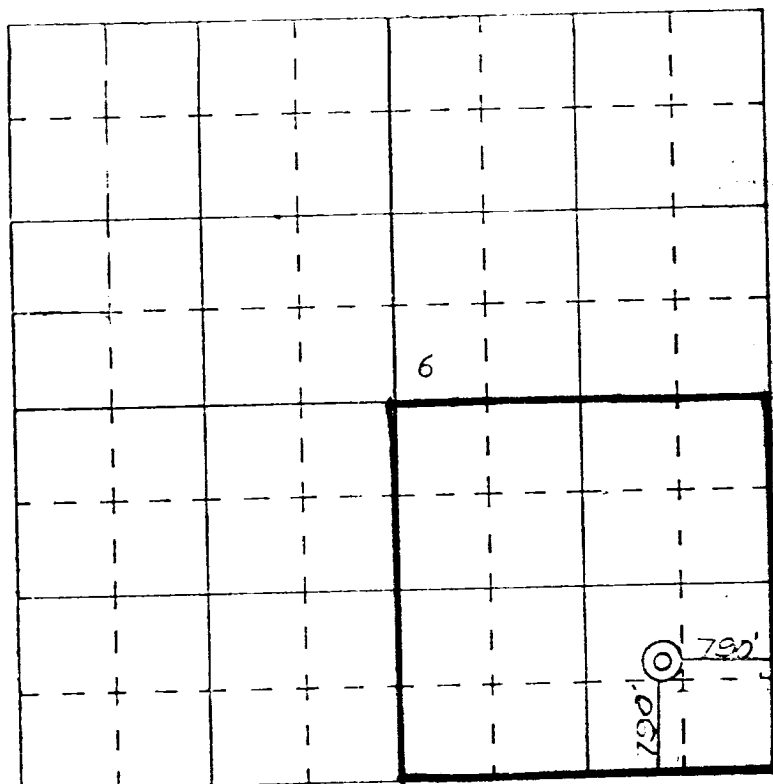
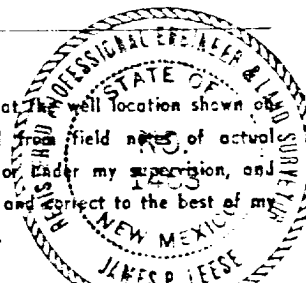
CERTIFICATION

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

John E. Schalk
 Name
John E. Schalk
 Position
Managing Partner
 Company
Arapahoe Drilling Co.
 Date
12-12-77

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.

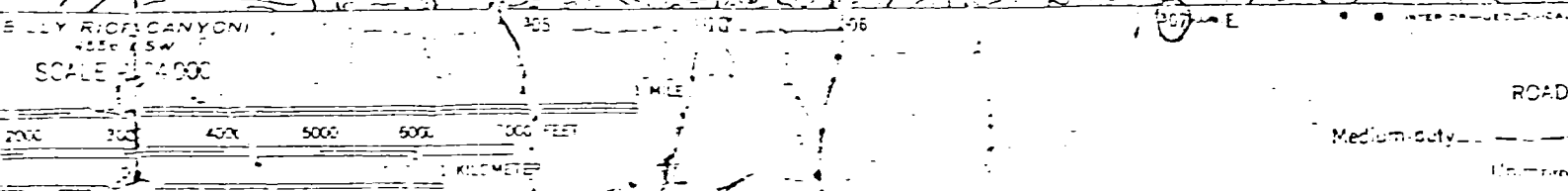
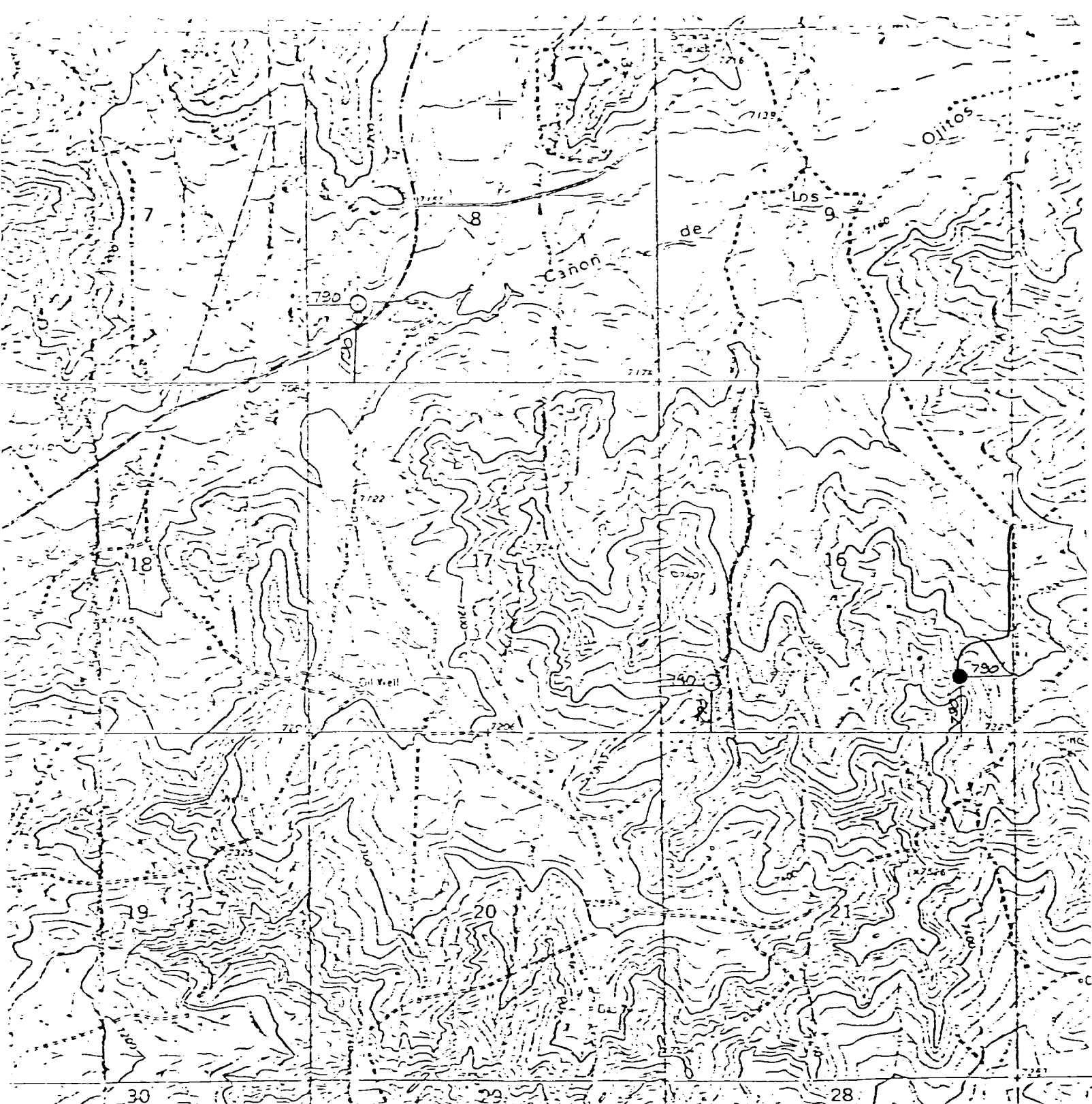
28 November, 1977
 Date Surveyed
James P. Leese
 Registered Professional Engineer
 and/or Land Surveyor **James P. Leese**



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

1463
 Certificate No.



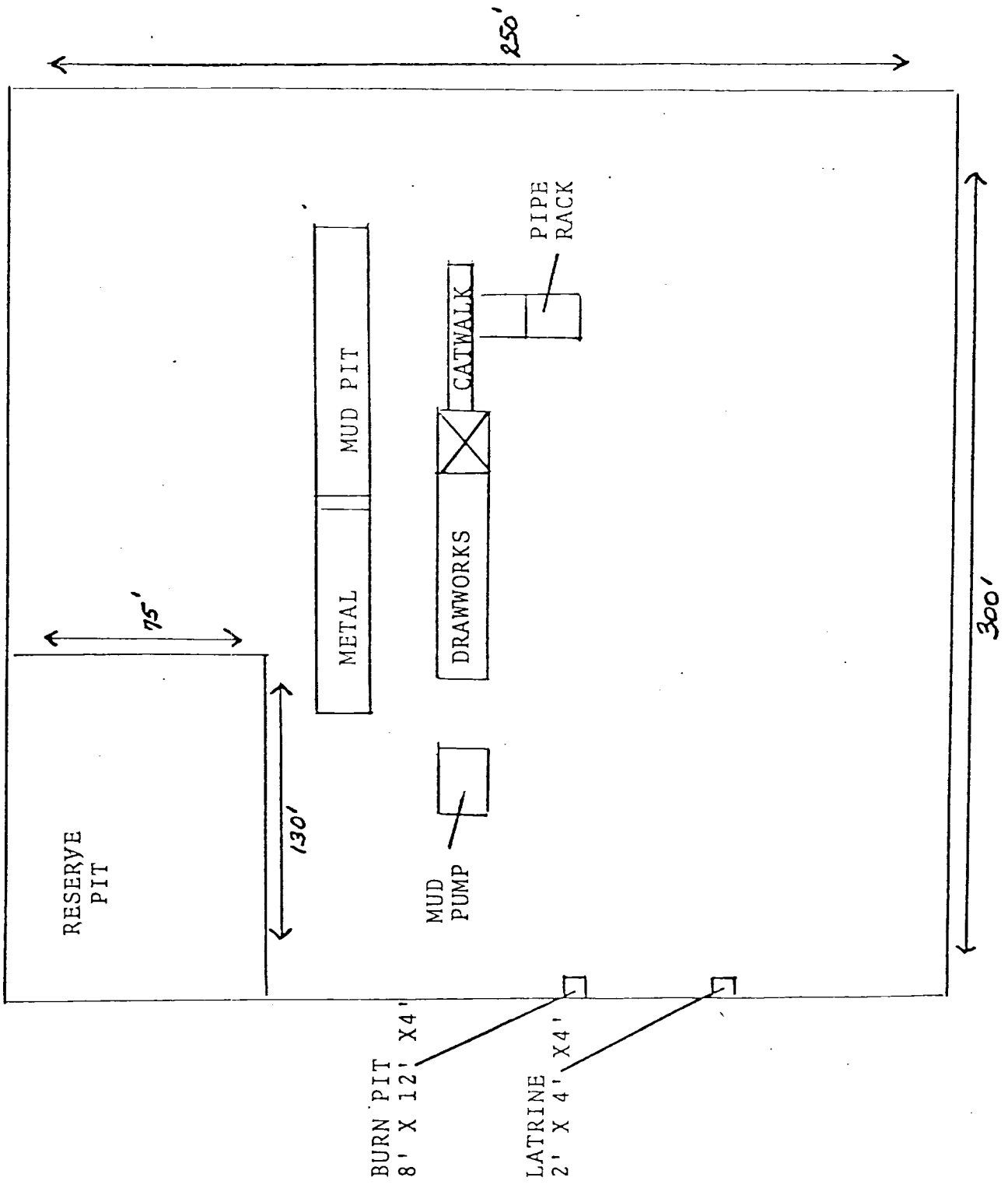
GROUP INTERVAL 20 FEET
ELEVATION MEANS SEA LEVEL

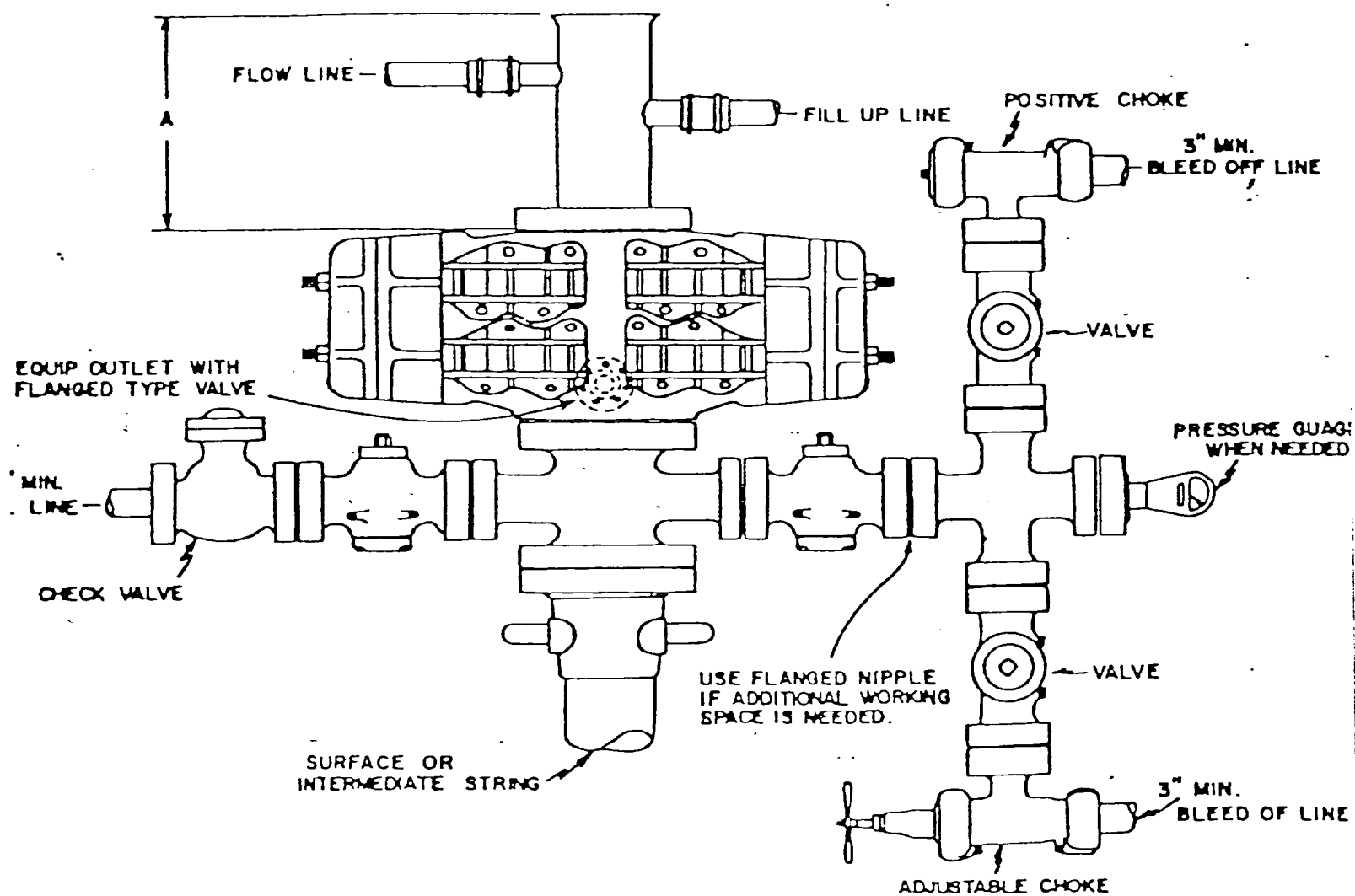
VICINITY MAP
JOHN SCHALK

Well Locations in Sec 8 & 16,
T25N, R3W, N.M.F.M., Rio Arriba
County, New Mexico

Scale 1" = 2000' Date 11/20/77

WITH NATIONAL MAP ACCURACY STANDARDS
N. DENVER, COLORADO 80225 OR WASHINGTON, D. C. 20242
LEGEND AND SYMBOLS IS AVAILABLE ON REQUEST





Multi-Point Surface Use and Operations Plan

1. Existing roads: Attached map shows existing road running along the East line.
2. Planned Access road: Will depart from main (existing) road and run 790' west to proposed sight.
3. Location of Existing wells: Getty Oil Company, C.W. Roberts #5, SE - NW - Sec. 17, T-25N, R-3W, Rio Arriba County, New Mexico.
4. Location of existing and/or proposed facilities: None.
5. Location and type of water supply: Water will be taken from a water hole 15 miles away and transported by truck to location.
6. Source of construction materials: None.
7. Methods for handling waste disposal: Cuttings to be disposed of in a reserve pit; a burn pit to be used for disposal of trash, garbage, etc.; and covered on clean-up of location.
8. Ancillary facilities: None
9. Well site layout: Per attached drawing.
10. Restoration of surface: Upon completion of drilling operations, the disturbed surface area will be restored as near as practical to its original contours. If sufficient top soil is encountered, it will be stockpiled for restoration of surface. Restoration will be to the satisfaction of the United States Geological Survey.
11. This location slopes at an increase of 10' per 200' to the South. There will be approximately a 10' cut on the South side of the proposed location. Vegetation is sage brush, Pinon and Juniper trees. The surrounding area is comparable and any disturbances to the wildlife will be only temporary. With the restoration of surface, surface damage will be minimal.
12. Lessee's or Operator's Representative: John E. Schalk, P. O. Box 25825, Albuquerque, New Mexico, 87125; or J. D. Christesson, 2301 Southside River Road, Farmington, New Mexico, 87401.

CERTIFICATION

I hereby certify that I, or persons 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; and, that the work associated with the operations proposed herein will be performed by Arapahoe Drilling Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date 9/13/78


John E. Schalk
Managing Partner

Report 77-SJC-203
Permit 75-NM-013

An Archaeological Clearance Survey of
Three Proposed Well Locations & Access Roads
Conducted for Arapaho Drilling Company

Dabney Ford
Cultural Resource
Management Program
San Juan Campus
N. M. State University
30 November 1977

An Archaeological Clearance Survey of
Three Proposed Well Locations & Access Roads
Conducted for Arapaho Drilling Company

On November 26, 1977, Dabney Ford of the Cultural Resource Management Program, NMSU, San Juan Campus, conducted an archaeological clearance survey at the request of Mr. J. E. Schalk, Arapaho Drilling Company. Present during the survey were Mr. John Ahlm and Ms. Lois Phillips from Arapaho Drilling Company and Messers. Curtis Stocking and Allan Stocking from San Juan Engineering. The well locations and access roads are on Fee lands with Federal minerals and were surveyed under Federal Antiquities permit 75-NM-013.

METHODOLOGY

The well locations were surveyed by walking transects, 75 feet apart, over the entire easement and the flagged routes of the access roads were walked the full distance.

GENERAL RECOMMENDATIONS

No cultural resources warrenting changes in the original construction plan were found and full archaeological clearance is recommended for the three well locations.

SCHALK 41-1

Fee surface, Federal minerals

The proposed well location, 300 X 300 feet, is in the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 16, Township 25 North, Range 3 West, N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The well will

be 790 feet from the south line and 790 feet from the west line of Section 16. There will be direct access to an existing road.

Vegetation includes sagebrush, Yucca baccata, galleta, blue grama, tumbleweed, juniper, piñon, alkali sacaton, muhly, and seeded grasses all growing in the gravelly sandy loam. The valley bottom and slight slope in rolling terrain have a north northeasterly drainage pattern. Surface deposits are alluvium and sandstone outcrops locally. The area has been chained for sagebrush eradication and had a juniper push and burn.

Approximately five PI Rosa Gray sherds were found scattered over the easement. Less than five lithics; 1 obsidian flake, 1 chalcedony flake, and several chert flakes, were also found on the location. Density of these artifacts was 1 sherd and 1 lithic per 10 square meters. No depressions, rock or artifact concentrations, or soil anomalies were found to suggest the presence of a pithouse. Due to the extensive surface disturbance (sagebrush chaining and juniper push/burn) the artifacts found cannot be considered in original context. In light of the above information it was felt that the cultural artifacts found did not warrant relocation of the easement. Therefore, archaeological clearance is recommended.

SCHALK 41-2

Fee surface, Federal minerals

The proposed location, 300 X 300 feet, is in the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of Section 8, Township 25 North, Range 3 West,

N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The well will be 1190 feet from the south line and 790 feet from the west line of Section 8. The access road, 20 feet wide and approximately 200 feet long, will approach the location from the east.

Vegetation includes sagebrush, rabbitbrush, juniper, piñon, alkali sacaton, blue grama, tumbleweed, and seeded grasses growing in a loamy clay. The swale or slight drainage has been chained for sagebrush eradication. Drainage is southerly and alluvium is the dominant surface deposit.

No cultural resources were found and clearance is recommended.

SCHALK 41-3

Fee surface, Federal minerals

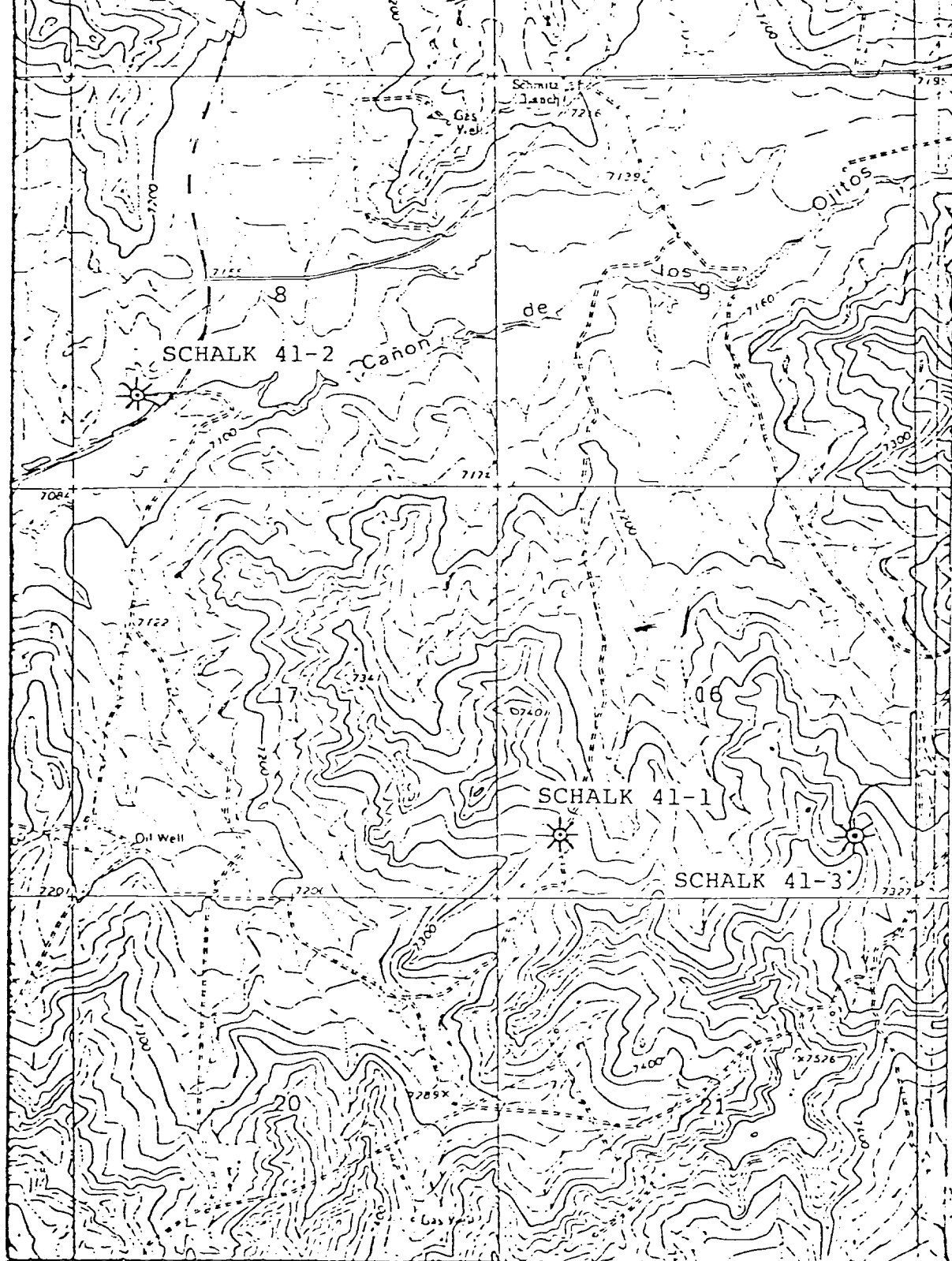
The proposed well location, 300 X 300 feet, is in the NW¼ of the SE¼ of the SE¼ of Section 16, Township 25 North, Range 3 West, N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The well will be 790 feet from the south line and 790 feet from the east line of Section 16. The access road, 20 feet wide and 2000 feet long, will parallel the fence (and section) line for approximately 1100 feet then follow the drainage contours to the well approaching the location from the north.

Vegetation includes juniper, piñon, gambel's oak, blue grama, sagebrush, snakeweed, Eriogonum spp., rabbitbrush, tumbleweed, galleta, bee weed, and seeded grasses (majority of area has been sagebrush chained). Soil is a gravelly loamy sand in the valley

bottom and on the terrace slope. Local drainage patterns are northerly and alluvium is the dominant surface deposit.

Two sherds of Gallena Plain and less than 5 chert flakes were found on the location. These are the result of alluvial deposition, washing down from the sandstone ridges south and east of the location and are not in original context. No cultural resources were found on the access road right-of-way. Therefore, full archaeological clearance is recommended.

SCHMITZ RANCH QUADRANGLE
NEW MEXICO-RIO ARriba CO
7.5 MINUTE SERIES (TOPOGRAPHIC)
T25N R3W



SURFACE REHABILITATION AGREEMENT

THIS AGREEMENT as of Oct 14, 1978,
by and between Fony Schmitz, hereinafter
called "Surface Owner", and Schalk Development Company,
hereinafter called "Operator".

WITNESSETH:

WHEREAS, Operator desires to construct a location
for the drilling of a natural gas well and/or oil well on
surface land owned by Surface Owner.

NOW, THEREFORE, in consideration of the premises,
Surface Owner and Operator agree as follows:

- 1) Operator will construct or cause to
be constructed an access road to the
proposed location from the nearest
existing road as the terrain will
allow. The road will be permanently
maintained to allow access to the
location throughout the drilling
operation and while the well is in
a producing state.
- 2) Upon completion of drilling operations,
Operator will restore the disturbed
surface area as near as practical to
its original condition, except for
permanent facilities necessary to
producing a natural gas or oil well.
Restoration will follow the guide-
lines as set forth by the U. S.
Geological Survey.

IN WITNESS WHEREOF, the parties hereto have caused
this agreement to be duly executed on the day and year first
above written.

OPERATOR
Schalk Development Company

SURFACE OWNER

BY

John A. Allen Jr

BY

Fony Schmitz