Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-039-21656

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM - 18322

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: ---

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

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

7. UNIT AGREEMENT NAME: ---

8. FARM OR LEASE NAME: Schalk 29-4

2. NAME OF OPERATOR: John E. Schalk

9. WELL NO.: 10

3. ADDRESS OF OPERATOR: P. O. Box 25825, Albuquerque, New Mexico 87125

10. FIELD AND POOL, OR WILDCAT: ~~Gobernador~~ Pic. Cliffs

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 950' FSL, 800' FWL, Section 23, Township
At proposed prod. zone: 29 North, Range 4 West

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 23, T-29N, R-4W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 55 miles East of Blanco, New Mexico

12. COUNTY OR PARISH: Rio Arriba | 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 800'

16. NO. OF ACRES IN LEASE: 640

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.: ---

19. PROPOSED DEPTH: 4520'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 7322' GR

22. APPROX. DATE WORK WILL START*: 3-15-78

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	8-5/8"	23#	250'	200 sacks
7-7/8"	4-1/2"	10.5#	4520'	350 sacks

FORMATION TOPS

Kirtland	3864'
Fruitland	3959'
Pictured Cliffs	4069'
TD	4520'

Gas is dedicated

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 John E. Schalk TITLE Operator DATE 1-13-78

(This space for Federal or State office use)

PERMIT NO. ---

APPROVAL DATE ---

APPROVED BY ---

TITLE ---

DATE ---

CONDITIONS OF APPROVAL, IF ANY:

RECEIVED
FEB 17 1978
U. S. GEOLOGICAL SURVEY
DURANGO, COLO.

FEB 22 1978
OIL CON. COM.
DIST. 3

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
JOHN SCHALK	SCHALK 29-4	10

Unit Letter	Section	Township	Range	County
M	23	29 NORTH	4 WEST	RIO ARRIBA

Actual Footage Location of Well:
990 feet from the SOUTH line and 800 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
7322	Pic. Cliffs	~~Gobernador~~ Choya Mesa Pic. Cliffs	160 Acres

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

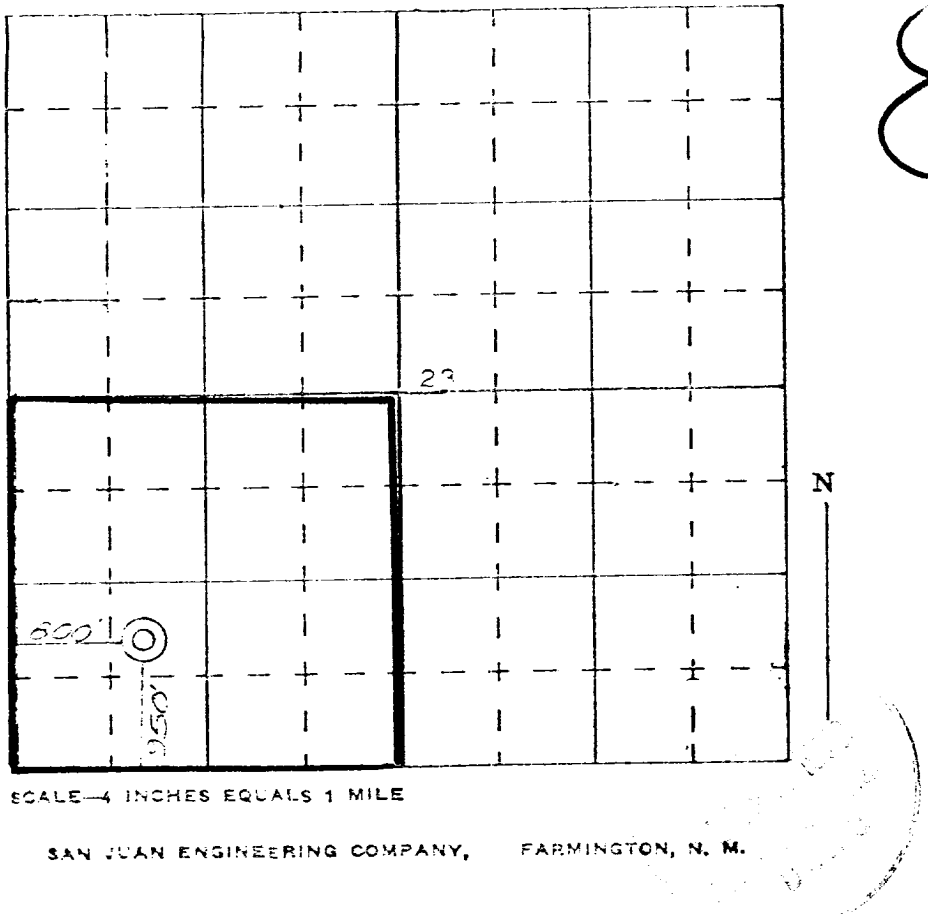
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 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.



SCALE—4 INCHES EQUALS 1 MILE

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

CERTIFICATION

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

Name: John E. Schalk

Position: Operator

Company: John E. Schalk

Date: 1-13-78

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.

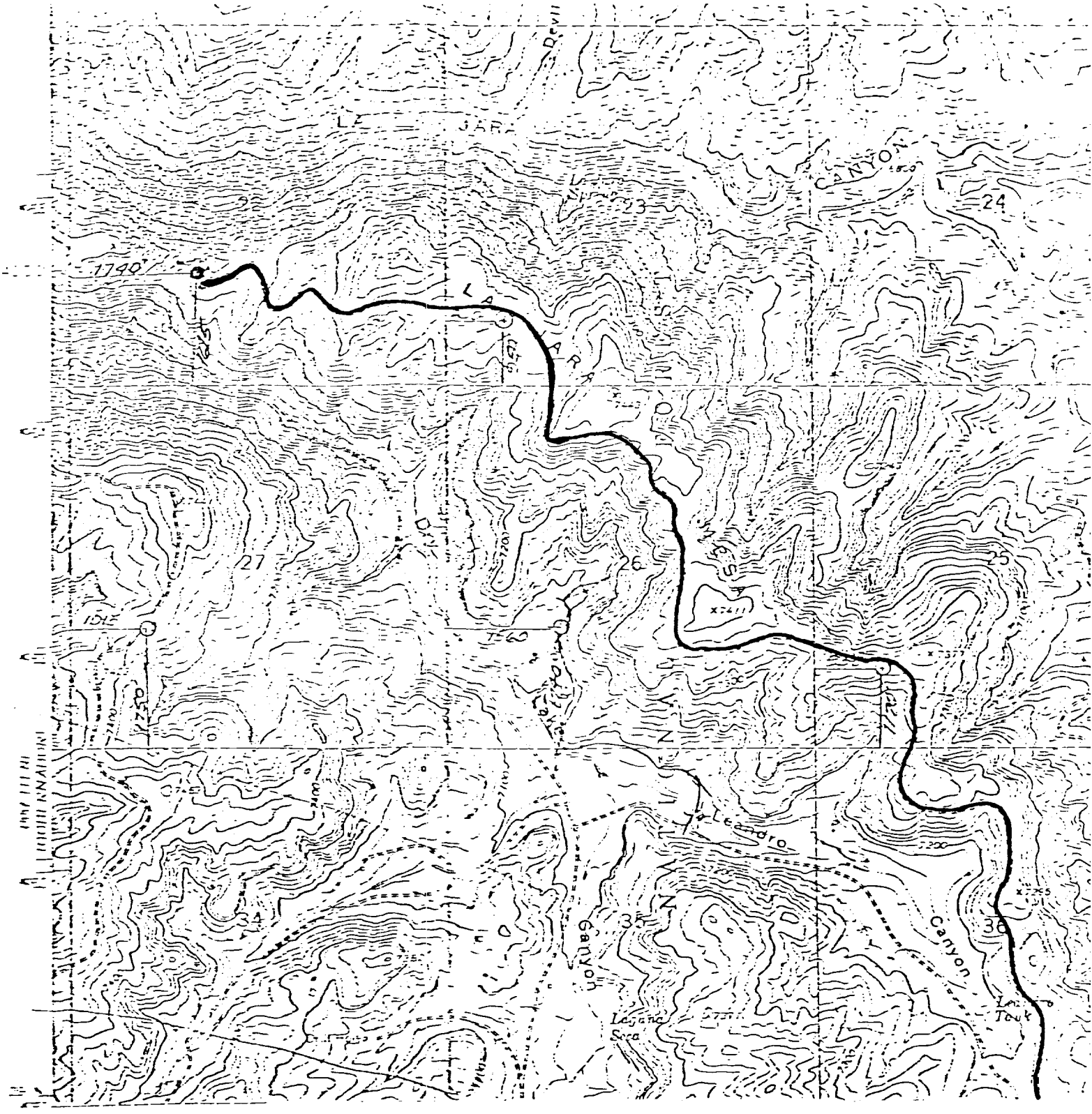
2 December 1977

Date Surveyed

James P. Leese

Registered Professional Engineer and/or Land Surveyor James P. Leese

Certificate No. 1463



Existing road ——————

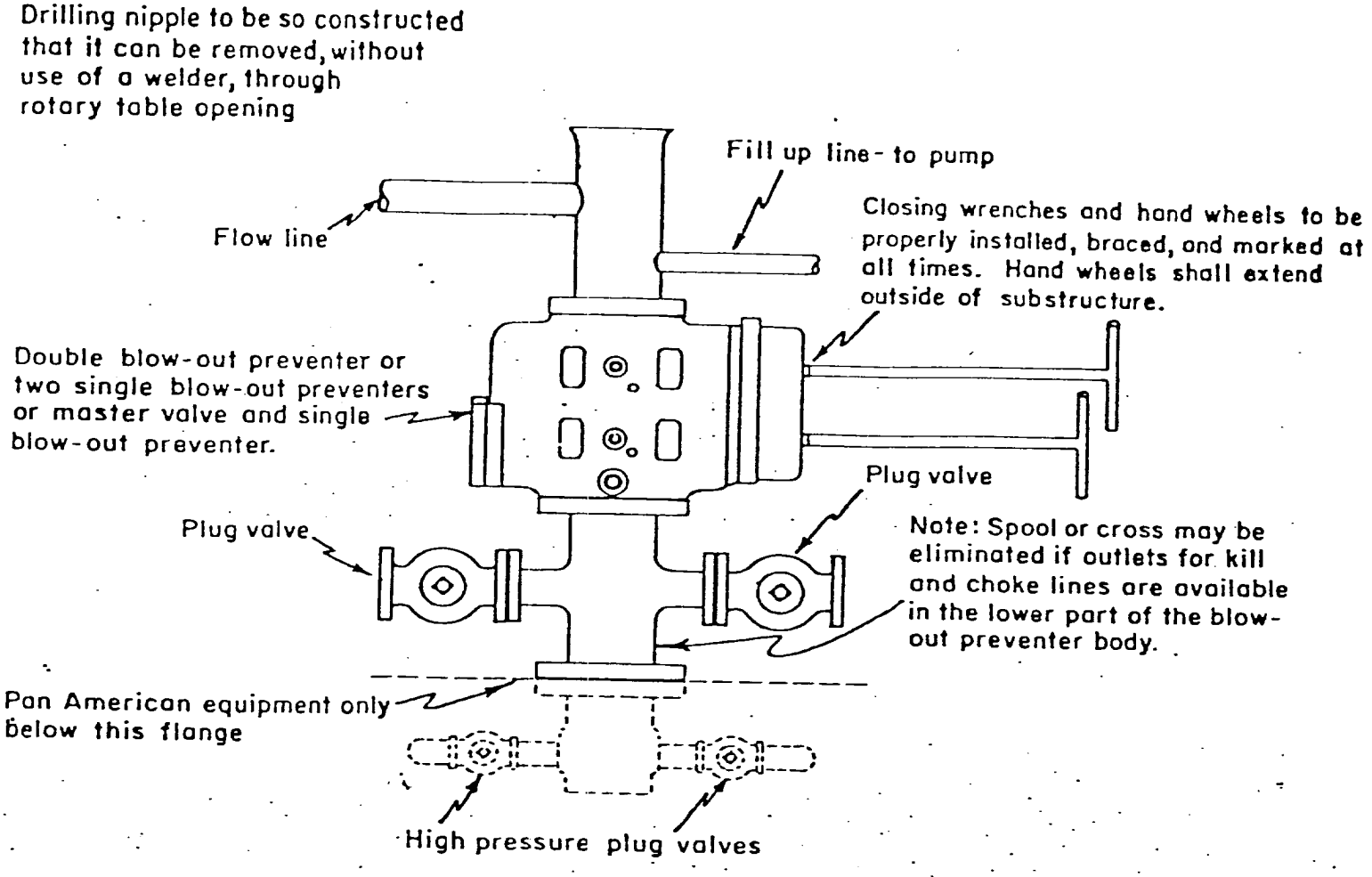
Schalk 29-4 Well No. 10

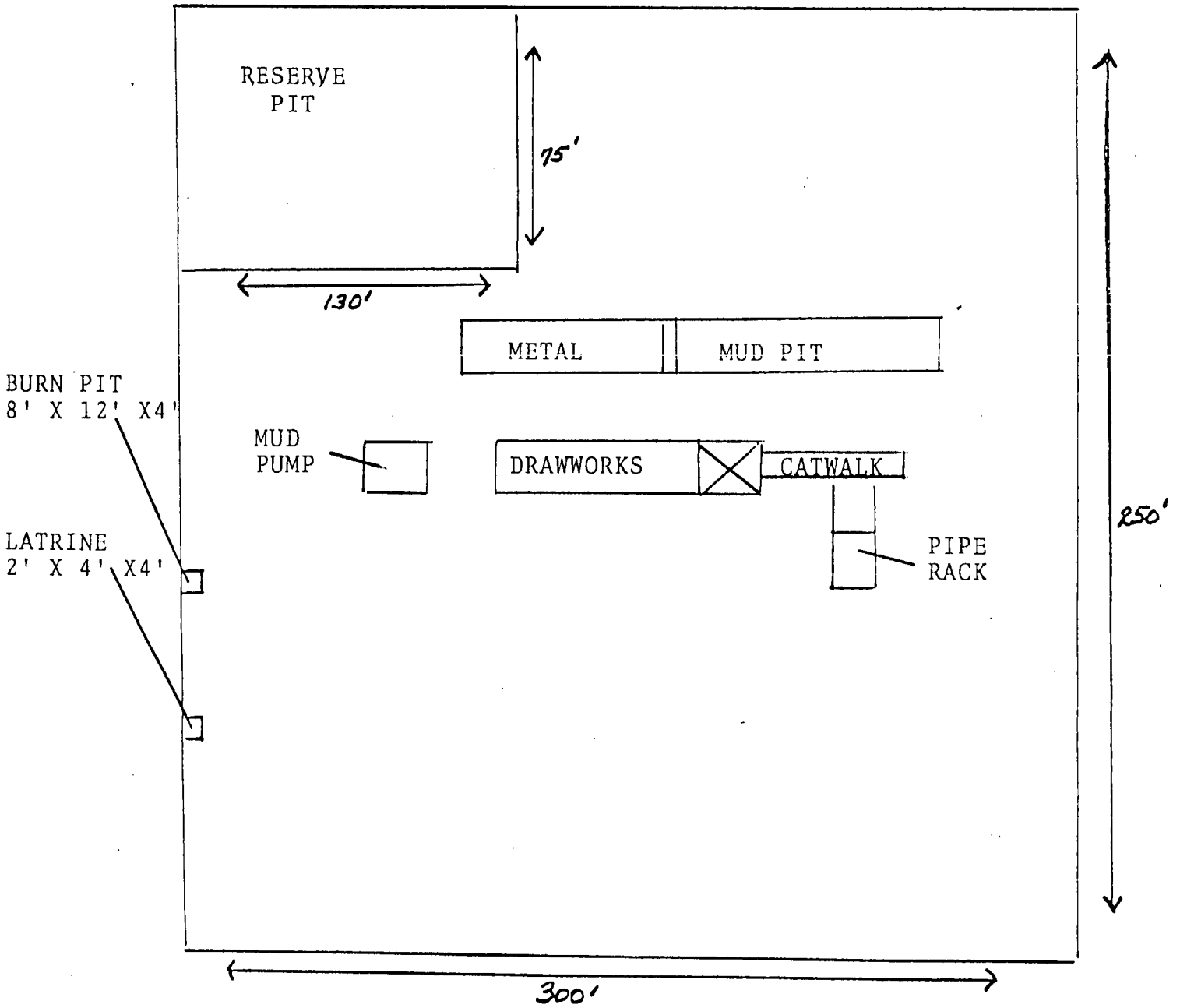
Section 23, Township 29 North, Range 4 West

950' FSL, 800' FWL

Rio Arriba County, New Mexico

BLOW-OUT PREVENTER HOOK-UP




RESERVE
PIT
75'
130'
METAL
MUD PIT
BURN PIT
8' X 12' X4'
MUD
PUMP
DRAWWORKS
CATWALK
LATRINE
2' X 4' X4'
PIPE
RACK
250'
300'

Multi-Point Surface Use and Operations Plan

1. Existing roads: Attached map shows existing road running from the Western boundry of the section to the proposed location.

2. Planned Access road: None.

3. Location of Existing wells: None.

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. Ancilary 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 500' to the West. There will be approximately a one foot cut on the West 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 1-13-78

John E. Schalk
Operator

Form Approved
OMB No. 40-R3405

United States Department of Agriculture
Forest Service

SPECIAL USE APPLICATION AND REPORT

Ref: FSM 2712

FOREST SERVICE USE ONLY

a. Record no. (1-2)	b. Region (3-4)	c. Forest (5-6)
70	--	--
d. District (7-8)	**e. User number (9-12)**	**f. Kind of use (13-15)**
--	----	---
g. State (16-17)	**h. County (18-20)**	**k. Card No. (21)**
--	---	1

PART I - APPLICATION *(To be completed by applicant)*

Application is hereby made for a permit to use National Forest land as indicated below:

1. Description of land: *(Attach MAP or PLAT)*

A one acre plat in the SW/4 of Section 23, Township 29 North, Range 4 West, Rio Arriba County, New Mexico.

2. Purpose of use.

Construction and drilling of the Schalk 29-4 Well No. 10 gas well located 950' From the South Line, 800' From the West Line of Section 23, Township 29 North, Range 4 West, Rio Arriba County, New Mexico.

3. Land Area applied for *(For Rights-of-Way show length and width and convert to acres; for other uses show acres)*

Length in: (Miles) or (Feet) × **Width** (Feet) = (Acres)

4. Improvements

a. Description

Improvements will consist of a one acre gas well location, an access road, collection pits, and other paraphenalia necessary for the drilling maintenance and production of natural gas.

b. Plans attached ☐ Yes ☐ No. If "NO" show date plans will be furnished _____

c. Estimated cost	d. Construction will begin within	e. Construction will be completed within
$ $5,000.00	1 (Months)	2 (Months)

Date of Application	Applicants name and signature	Applicant's address
1-13-78	John E. Schalk (OVER) Operator	P. O. Box 25825 Albuquerque, N. M. 87125 (ZIP Code)

2700-3 (7/71)

Report 77-SJC-204
Permit - New Mexico Forest Service

An Archaeological Clearance Survey of Five Proposed Well Locations & One Access Road Conducted for Schalk Production Company

Submitted by
Dabney Ford
Cultural Resource
Management Program
San Juan College
N.M. State University
8 December 1977

An Archaeological Clearance Survey of Five Proposed Well Locations & One Access Road Conducted for Schalk Production Company

On December 2, 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, Schalk Production Company. Mr. John Ahlm, Schalk representative, was present during the survey. All of the well locations and the access road are on Carson National Forest land and were surveyed under a New Mexico Forest Service permit.

The most recent listings of the National Register of Historic Places have been consulted and no sites which appear on the Register and no sites which have been nominated to the Register occur on the project area. This proposal complies with the provisions of the Historic Preservation Act of 1966 and with Executive Order 11593. It is recommended that archaeological clearance be given.

METHODOLOGY

The well locations were surveyed by walking transects, 75 feet wide, over the entire easement. The access route was inspected by walking down the centerline the length of the road.

GENERAL RECOMMENDATIONS

No cultural resources warrenting relocation of well locations or road were found and full archaeological clearance is recommended.

SCHALK 29-4 #6 Carson National Forest

The proposed well location, 300 X 300 feet, is in the NE¼ of the SW¼ of the SW¼ of Section 25, Township 29 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The north boundry of the location borders on an existing access road thus no additional construction is necessary.

Piñon, juniper, Yucca baccata, mullen, sagebrush, indian rice-grass, blue grama, Gambel's oak, and snakeweed are growing in the sandy clay loam. The well, on the north edge of La Jara Mesa, is in broken terrain. Drainage is both northerly and southerly with alluvial and talus surface deposits. Local outcrops of sandstone are abundant.

No cultural resources were found and clearance is recommended.

SCHALK 29-4 #7 Carson National Forest

The proposed well location, 300 X 300 feet, is in the SW¼ of the NE¼ of the SW¼ of Section 26, Township 29 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The access road, 20 feet wide and approximately 4,000 feet long, takes off from the Leandro -Dry Lake Cañon road in Section 35. It traverses the North ½ of the North ½ of Section 35, enters the West ½ of the East ½ of the SW¼ of Section 25, and approaches the location from the southwest.

Vegetation includes juniper, piñon, sagebrush, snakeweed, blue

grama, alkali sacaton, and Gambel's oak growing in a sandy loam. The valley bottom is level with a northeasterly slope into La Jara Canon. Alluvium is the dominant surface deposit and sandstone outcrops are abundant.

No cultural resources were found on the well location and archaeological clearance is recommended.

Three to five Rosa gray sherds and less than five lithics were found along the access road. Extensive examination of the surrounding area revealed a PII - PIII occupation site, SJC-153, on a bench directly above the area in question (see map 1 and accompanying site description and survey report). The sherds and lithics found in the road right-of-way have washed off the sandstone bench and are not in original context. There is no evidence (concentration of artifacts, soil stain, depressions, or hearth area) that the site extends down off the bench into the road easement. The site is not visible from the road and is in no danger of being disturbed during construction. Therefore, full archaeological clearance of the access road right-of-way is recommended.

SCHALK 29-4 #8 Carson National Forest

The proposed well location, 300 X 300 feet, is in the SE¼ of the NW¼ of the SW¼ of Section 27, Township 29 North, Range 9 West, N.M.P.M., in Rio Arriba County, New Mexico(Figure 1). The well is adjacent to an existing access road and no additional construction is necessary.

Pinon, juniper, blue grama, galleta, sagebrush, and buckbrush

are growing in the sandy clay loam. The terrace ridge top is level with a southerly drainage. Surface deposits are alluvium and sandstone outcrops locally.

No cultural resources were found and clearance is recommended.

SCHALK 29-4 #9 Carson National Forest

The proposed well location, 300 X 300 feet, is in the SE¼ of the NW¼ of the SW¼ of Section 22, Township 29 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The western boundry of the location borders on an existing location and will utilize the existing access.

Vegetation includes pinon, juniper, sagebrush, Gambel's oak, indian ricegrass, blue grama, Eriogonum, tumbleweed, and seeded grasses growing in the sandy clay loam. The terrace slope is broken with a west southwesterly drainage. Sandstone outcrops are abundant and alluvium is the dominant surface deposit.

No cultural resources were found and clearance is recommended.

SCHALK 29-4 #10 Carson National Forest

The proposed well location, 300 X 300 feet, is in the NW¼ of the SW¼ of the SW¼ of Section 23, Township 29 North, Range 4 West, N.M.P.M., in Rio Arriba County, New Mexico (Figure 1). The north edge of the location borders on an existing road thus no additional access is required.

Vegetation includes juniper, piñon, sagebrush, Yucca baccata, blue grama, indian ricegrass, seeded grasses, Eriogonum, rabbitbrush, and snakeweed growing in the sandy clay loam. La Jara mesa top is level with a southerly drainage. Alluvium is the dominant surface deposit and sandstone outcrops are abundant.

No cultural resources were found and archaeological clearance is recommended.

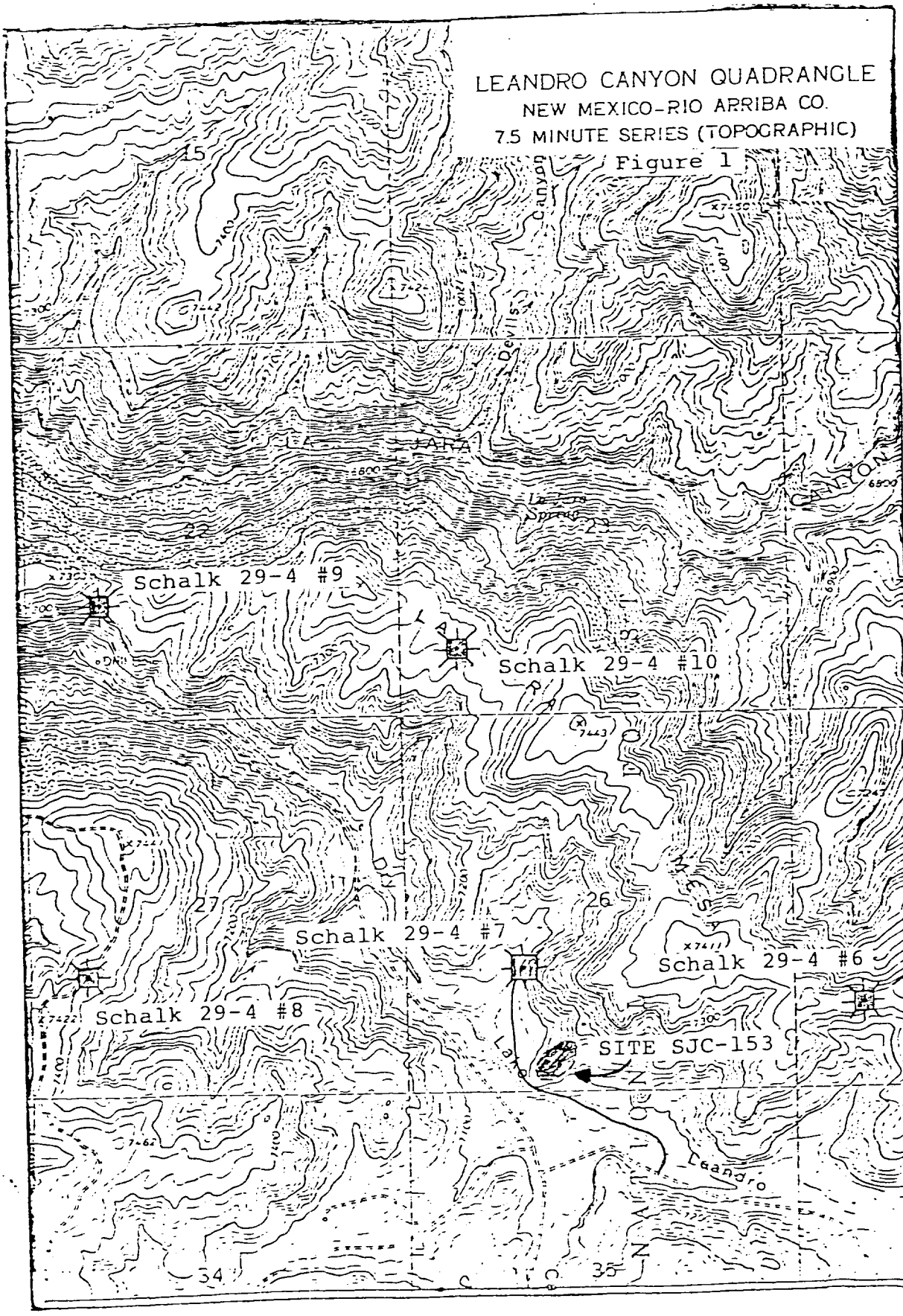
SITE SJC-153

The site consists of an extensive sherd and lithic scatter covering an area approximately 30m X 100m. It is located atop a low sandstone bench extending in a southerly direction into Leandro Canon. The sherds have a maximum density of 10 - 15 sherds per square meter over a 10 X 20 meter square area. The majority are Gallena gray wares with less than 5% corrugated gray wares. One sherd of red ware was found but is probably an oxidized Gallena and a carbon painted black on gray, probably Rosa or Gallena black on white. The lithics, 98% chert 2% obsidian were in the form of flakes, debitage, one core, and one projectile point. Maximum density of the flaked rock is 3 - 5 lithics per square meter over a 10 X 20 meter square area.

Although no readily definable structures can be seen on the surface, the possibility of pithouses is strong. There are two subtle depressions on the south side of the bench. The grass and sagebrush in these depressions are slightly more lush than the surrounding vegetation. There are no artifact concentrations or soil stains to provide a more comclusive statement.

It appears that the site continues along the entire southern edge of the bench which forms the southern limit of La Jara mesa. The canon bottom of the Leandro Dry Lake drainage is broad and flat, offering ample potential crop land, and the alluvial fans at the base of the bench would provide excellent farming soil.

The site has had considerable alluvial deposition thus the cultural fill should be protected and relatively deep. Potential is high for recovering pollen, flotation, and carbon samples in good context. There is an existing road on the flood plain below the site which will be utilized as a well access road (to Schalk 29-4 #7). The site is not visible from this road and the road will not endanger the site.


LEANDRO CANYON QUADRANGLE
NEW MEXICO-RIO ARRIBA CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)
Figure 1
Schalk 29-4 #9
Schalk 29-4 #10
Schalk 29-4 #7
Schalk 29-4 #6
Schalk 29-4 #8
SITE SJC-153
15
22
27
26
34
35
Leandro

;U San Juan Campus Archeological Survey Schalk Project SITE NO.: L.A. _____

Site name SJC-153 Field number same

S½X¼ of the SE ¼ of the SW¼, Sec. 26, T. 29 (N) S., R. 4 (W) E, County Rio Arriba State NM

Map source USGS 7.5 min. Leandro Canyon, New Mexico Elevation 7100

Drainage: primary Leandro Canyon secondary La Jara Canyon

Location on a low sandstone bench jutting out (in a southerly direction) into Leandro Canyon

Nearest town Gobernador Nearest highway (17) Accessibility: foot X sedan X 4-wh. dr. ___ backhoe ___

Ownership Carson National Forest

Informant ___

Stake location ___

SITUATION *(check ✓)*: Valley bottom ___ Bench X Slope ___ Ridge ___ Mesa top ___ Cliff edge ___ Overhang ___ Cave ___ Dune ___

Area of site 300m X 100m

Other ___

FEATURES *(Indicate number)*: Pit houses X Kivas ___ Surface rooms: Slab ___ Masonry ___ Adobe ___ Other ___

Refuse area *(direction)* S&E Hearths ___ Burials ___ Sherd/Chipping area N, S, E Grids/Dams/Terraces ___ Pictographs/Petroglyphs ___

Trails/Steps ___ Other ___

PLAN: 1-room ___ Linear ___ Arc ___ L-shaped ___ C-shaped ___ F-shaped ___ E-shaped ___ ( )-shaped ___ Enclosed plaza: by a wall ___

by rooms ___ Scattered X Indeterminate ___ Other ___

Single-tier ___ Double-tier ___ ___-tiers ___ Part double-tier ___ Part ___ tier ___ Orientation ___ Exposure S SE

Nature & depth of fill alluvial deposition - 1-2.5m Est. Wall height 2m Stratified? ___

Condition: Undisturbed ___ Eroded ___ Pot-hunted ___ Pottery/Artifact abundance: 10's, 100's, 1000's, 50-75 . Modern structure ___

Surface: Level ___ Uneven ___ Slopes to *(direction)* S Surface deposits: Alluvium X Colluvium ___ Aeolian ___ Talus ___

Residual Sandstone Soil: Rocky ___ Gravelly ___ Sandy X Clayey ___ Other silty loam

Local rock outcrops: Sandstone X Limestone ___ Shale ___ Caliche ___ Basalt ___ Tuff ___ Other ___

Arable land *(type, distance & direction)* Farm floodplain and alluvial fan 50m W,S,and E

Water *(distance & direction)*: River ___ Arroyo 75m Confluence ___ Spring ___ Seeps ___

Bedrock pool ___ Permanent? ___ Local vegetation patterns pinon, juniper, blue grama, sagebrush, alkali sacaton, snakeweed, gambel's oak

Photo: B/W ___ Color ___

Other resources within 1.5 miles of La Jara Canon with springs & seeps and less than ½ mile from spring in Dry Lake Canyon. [illegible] conservation

Field remarks Excellent location for habitiation site. Alluvium deep for pithouse construction. Flood plain and especially alluvial fans optimal for non-arable agriculture.

References Mera '35, Hall '44, Dick '76, Hawley Ellis '36. Report 77-SJC-204

~~FOR INFORMATION ONLY~~

Excavation requirements: Labor 5 person crew Time 10 days Equipment ___

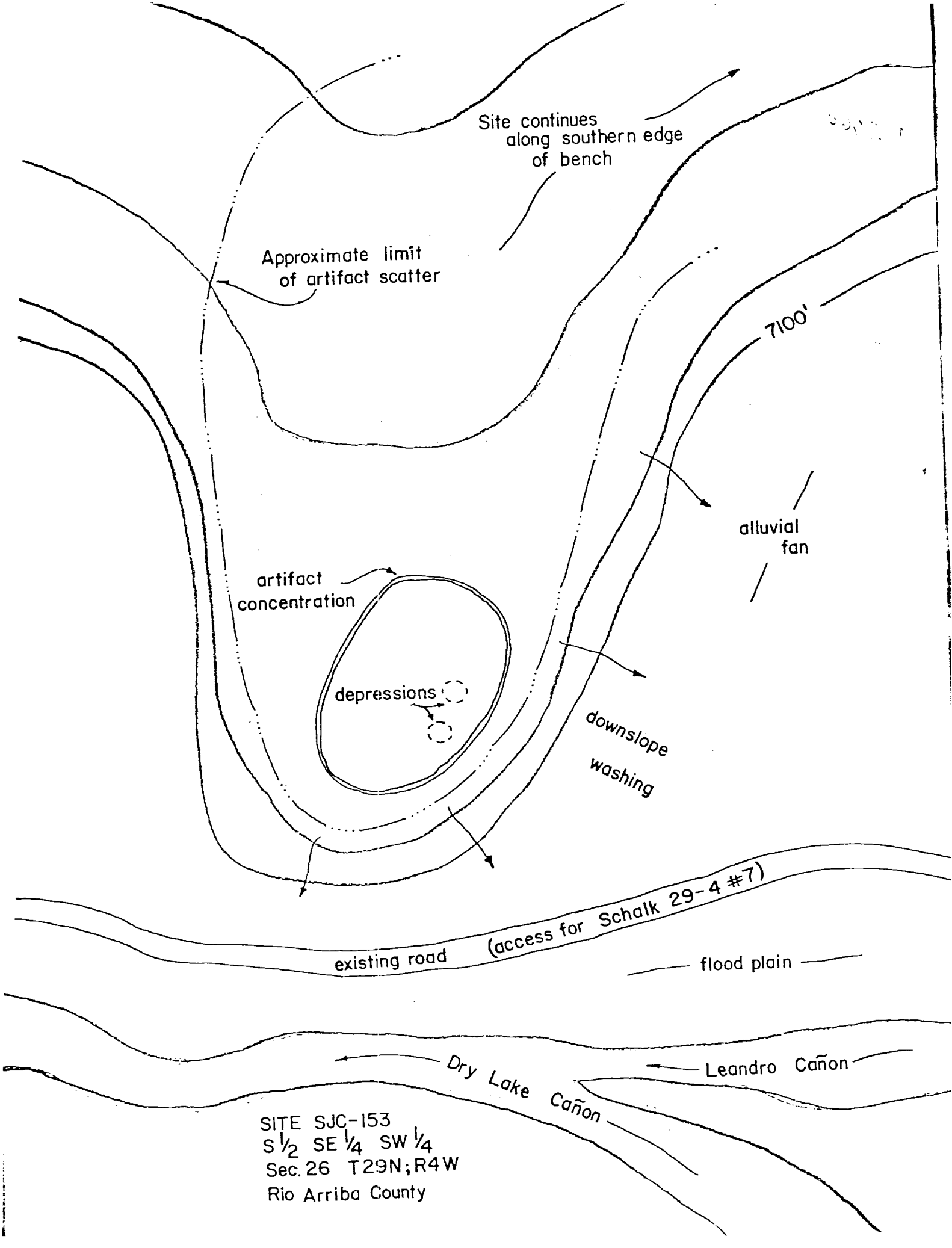
CULTURE Largo Gallina / Anasazi Phase/Date PII - PIII / 1150 - 1250 AD

Zone ___ Locality ___ Lab. class 1 2 3 4 5 6 7 8 9 10 ___

Lab. remarks ___

Field recorder Dabney Ford Date 12/2/77 Collections storage ___ Catalogue Nos. ___

Drawer ___ Bulk ___


Site continues
along southern edge
of bench
Approximate limit
of artifact scatter
7100'
alluvial
fan
artifact
concentration
depressions
downslope
washing
existing road
(access for Schalk 29-4 #7)
flood plain
Dry Lake Cañon
Leandro Cañon
SITE SJC-153
S ½ SE ¼ SW ¼
Sec. 26 T29N; R4W
Rio Arriba County