

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. TYPE OF WORK
DRILL ☒ DEEPEN ☐ PLUG BACK ☐

2. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐

3. NAME OF OPERATOR
Jack A. Cole

4. ADDRESS OF OPERATOR
P. O. Box 191, Farmington, New Mexico 87401

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface ☒ 870/N and 1830/W, Sec. 7-T21N-R6W
At proposed prod. zone ☐ Same

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15 miles SW Counselors, N.M.

7. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
870

8. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
2200'

9. ELEVATIONS (Show whether DF, RT, GR, etc.)
6777 GR.

10. NO. OF ACRES IN LEASE
600

11. NO. OF ACRES ASSIGNED TO THIS WELL
160

12. PROPOSED DEPTH
1700

13. ROTARY OR CABLE TOOLS
Rotary

14. APPROX. DATE WORK WILL START*
August 1, 1980

PROPOSED CASING AND CEMENTING PROGRAM

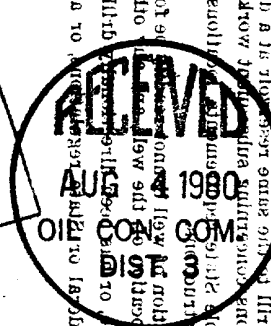
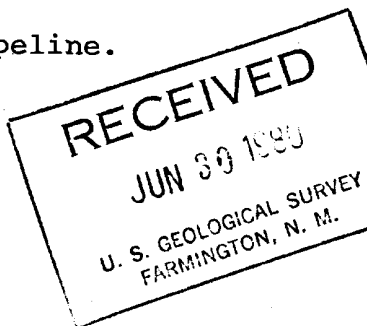
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24.0	120	Circulate
6 3/4	4 1/2	10.5	1700	150 sacks

It is proposed to drill to TD of 1700'. Run ES-Ind and Gamma-Ray Density logs and run 4 1/2" casing to TD, raising cement to surface. Perforate casing opposite Chacra sand and sand-water frac treat down casing. Run 1 1/2" tubing and complete as Chacra natural gas well.

Gas is not dedicated to pipeline.

See Attached.

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".



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.

SIGNED Jack A. Cole TITLE Operator DATE June 25, 1980

(This space for Federal or State office use)

APPROVED BY AS AMERICAN TITLE AS AMERICAN APPROVAL DATE June 25, 1980

APPROVED BY AS AMERICAN TITLE AS AMERICAN APPROVAL DATE June 25, 1980

*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

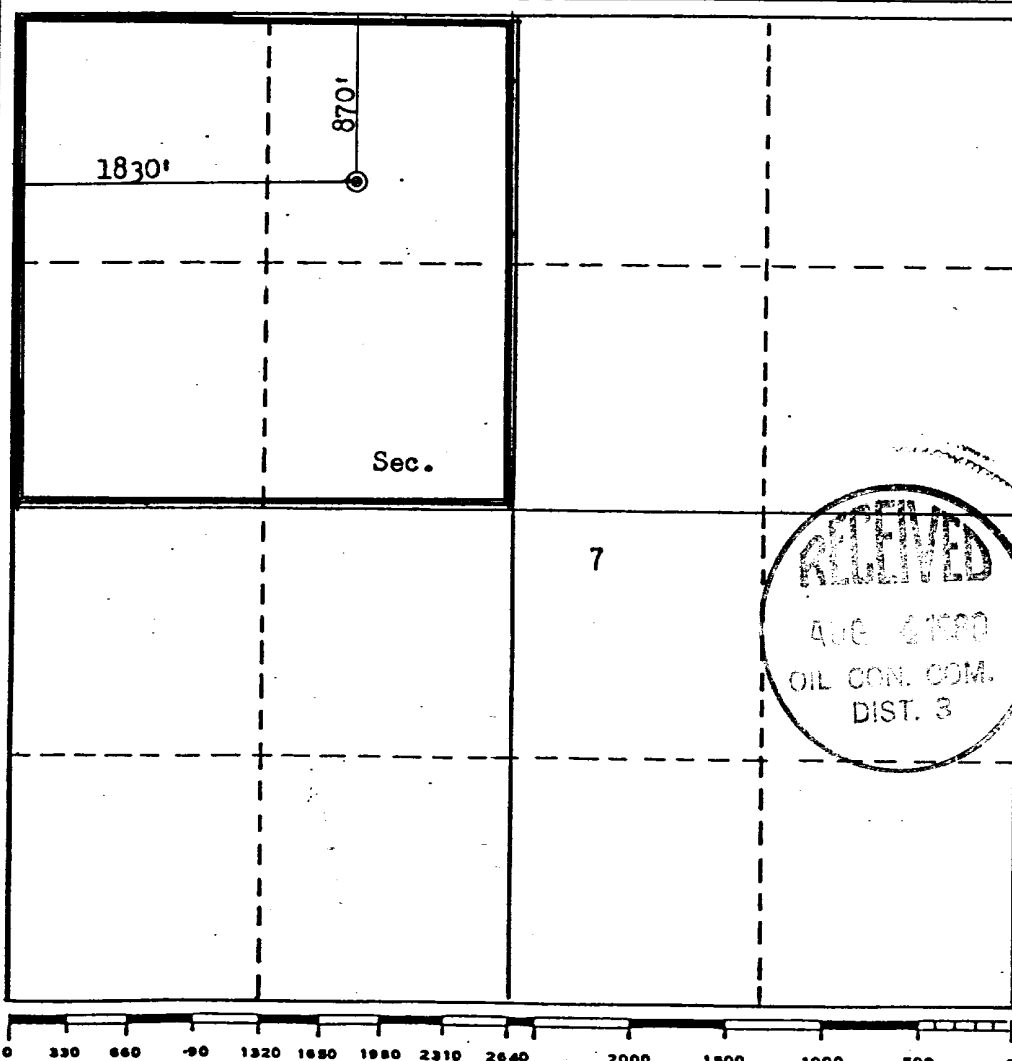
Operator JACK A. COLE			Lease ALAMOS CANYON		Well No. 7
Unit Letter C	Section 7	Township 21N	Range 6W	County Sandoval	
Actual Footage Location of Well: 870 feet from the North line and 1830 feet from the West line					
Ground Level Elev. 6777	Producing Formation Chacra		Pool Wildcat	Dedicated Acreage: 160.59.42 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 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
Jack A. Cole
Position
Operator
Company

Date
June 25, 1980

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
May 2, 1980
Registered Professional Engineer
and/or Land Surveyor
Fred B. Kerr, Jr.
Certificate No. **3950**
B. KERR, JR.

JACK A. COLE
PETROLEUM GEOLOGIST
P.O. BOX 191
FARMINGTON, NEW MEXICO 87401
(505) 325 - 1415

APPENDUM TO INTENT TO DRILL APPLICATION

Jack A. Cole
Alamos Canyon No. 7
870/N and 1830/W Sec. 7-T21N-R6W
Sandoval County, New Mexico

1. A schematic diagram of the blowout prevention equipment is enclosed. The BOP's will be hydraulically tested to the full working pressure after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24 hour period as will blind rams each time pipe is pulled out of hole. Such checks of BOP equipment will be noted on daily drilling reports.

Accessories to the BOP will include floor safety valve, and choke manifold with pressure rating equivalent to the BOP stack.

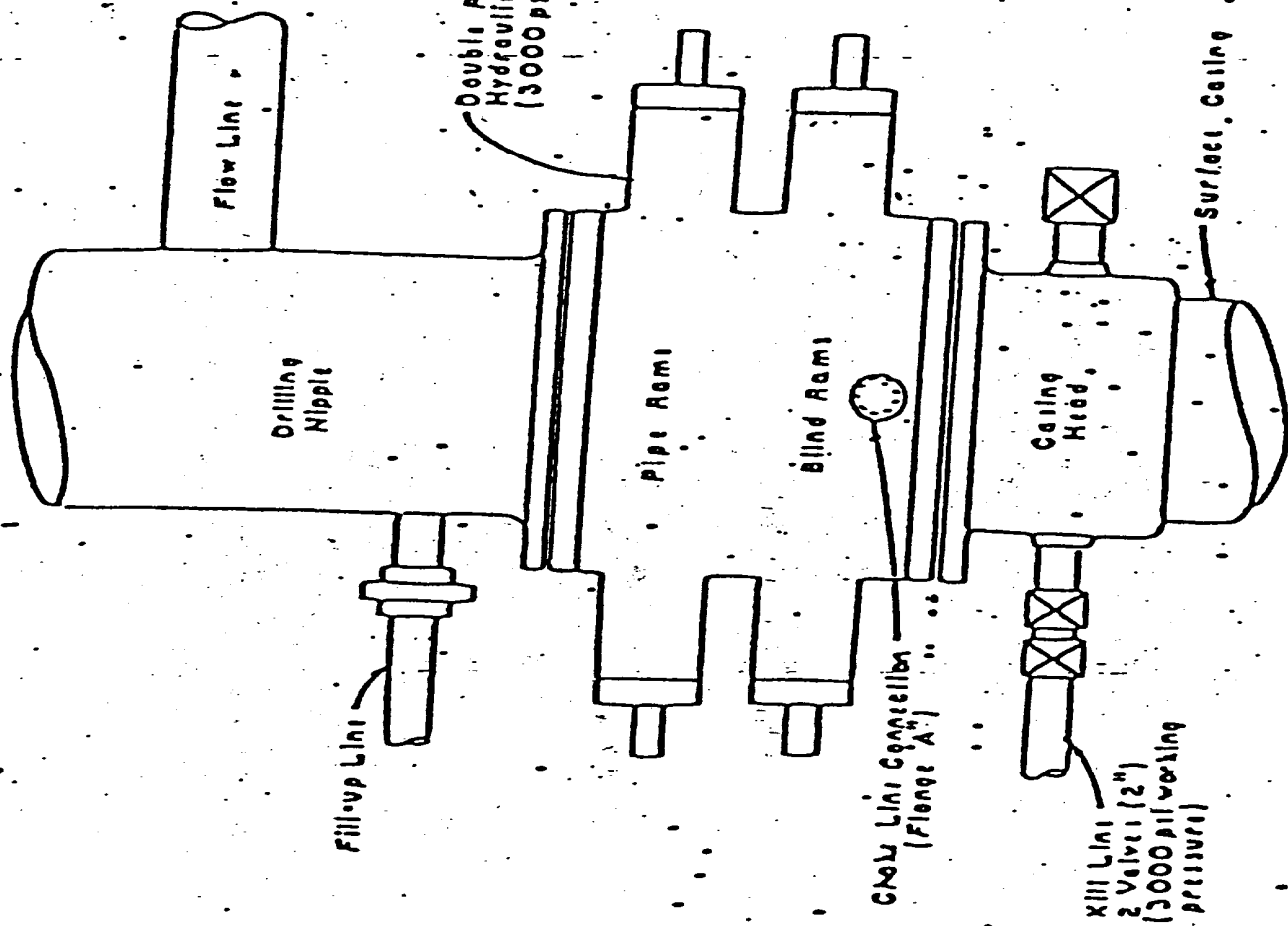
2. All casing and tubing strings will be new. The 8 5/8" surface casing will be 24.0 lb/ft, K-55 8 round ST&C. The 4 1/2" casing will be K-55 8 round ST&C.
3. The type of cement to be used is as follows:
 8 5/8" surface casing: Circulate 100 sacks of Class B, 2% CaCl₂.
 4 1/2" production casing: 150 sacks 50-50 pozmix, 2% gel to raise to surface.
4. The surface formation is Tertiary Wasatch-San Jose.
5. The estimated tops of geologic markers:

Ojo Alamo Sand	410
Fruitland Shale	610
Pictured Cliffs Sand	930
Lewis Shale	1110
Chacra Sand	1360
Mesaverde Sand	1710
6. Anticipated water zones:

Ojo Alamo Sand
Pictured Cliffs Sand
Mesaverde Sand
7. Anticipated gas bearing zone:

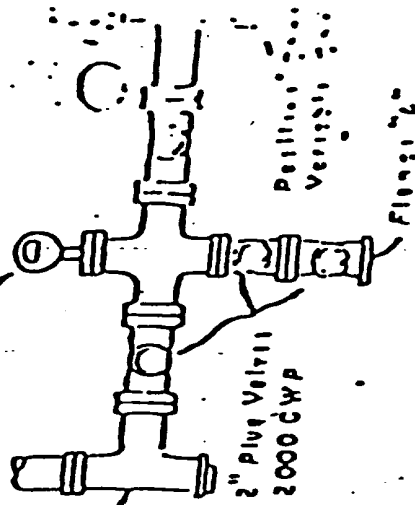
Chacra Sand

8. To protect the Ojo Alamo aquifer it is proposed to cement the production string from TD to the surface.

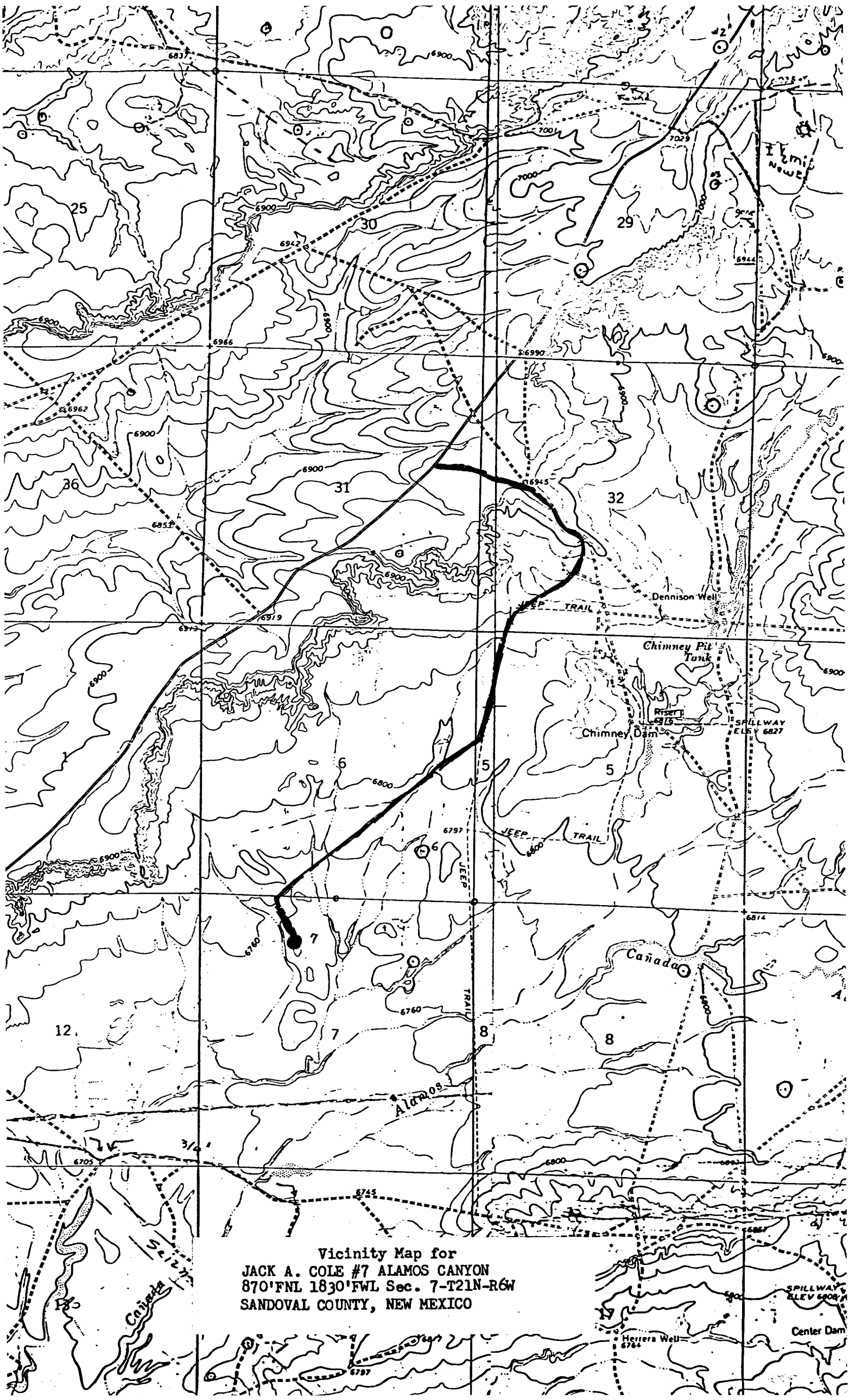


Flanged Cross with Pressure Gauge in Outside Opening

Long Positive Choke



PLAN VIEW - CHOKE MANIFOLD



Vicinity Map for
JACK A. COLE #7 ALAMOS CANYON
870'FNL 1830'FWL Sec. 7-T21N-R6W
SANDOVAL COUNTY, NEW MEXICO

JACK A. COLE
PETROLEUM GEOLOGIST
P.O. BOX 191
FARMINGTON, NEW MEXICO 87401
(505) 325 - 1415

June 25, 1980

United States Department of Interior
Geological Survey
P. O. Box 959
Farmington, New Mexico 87401

Reference: 13 Point Environmental Program - Jack A. Cole -
Alamos Canyon #7, 870/N and 1830/W Sec. 7-T21N-R6W
Sandoval County, New Mexico

Gentlemen:

In compliance with governmental requirements, I hereby respectfully submit the following environmental data to accompany the application for permit to drill the above referenced test well.

1. Access to location from N.M. Highway 44, turn right at Counselors New Mexico, on main road. Travel south approximately 12 miles and turn left approximately 3 miles, all on existing roads.
2. Existing road to be utilized to within $\frac{1}{4}$ mile of drillsite from which point a minimum width graded access road to be prepared to drillsite.
3. Well location as shown on attached survey plat and map.
4. Lateral road to well location as described in Item 2.
5. If gas production established, adequate production facilities to be installed immediately west of wellsite to accommodate a pipeline connection.
6. Water will be trucked to location from nearest source, Chapman water hole at Lybrook.
7. A reserve pit will be utilized for waste disposal. Trash will be buried 4 feet below surface.
8. No camps are planned.

9. No airstrips are planned.
10. Location layout indicated on attached plat as furnished by Aztec Drilling Company.
11. Following drilling, mud pits to be fenced and allowed to dry, then filled with surface soil previously evacuated. Location, except for wellhead site and production equipment, to be restored to original condition as much as practicable.
12. The location is located in an area of relatively flat topography. No major rivers are in the immediate vicinity.
13. Three sides of reserve pit shall be fenced during drilling operations and the fourth side to be fenced after rig moves.

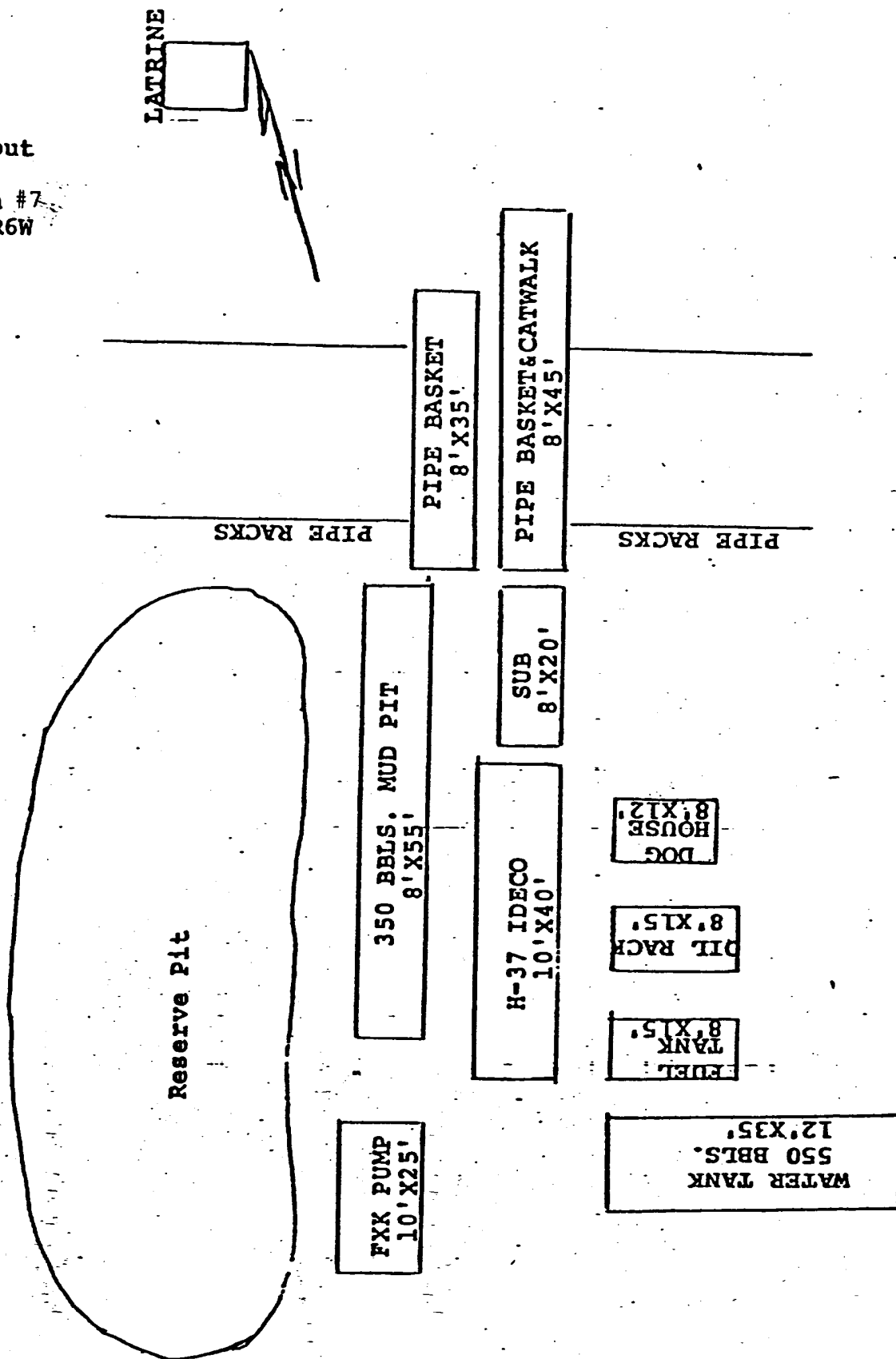
Very truly yours,



Jack A. Cole

JAC:njs

Location Layout
 Jack A. Cole
 Alamos Canyon #7
 Sec. 7-T21N-R6W



Aztec Well Service
 Rig No. 1

JACK A. COLE
PETROLEUM GEOLOGIST
P.O. BOX 191
FARMINGTON, NEW MEXICO 87401
(505) 325 - 1415

June 25, 1980

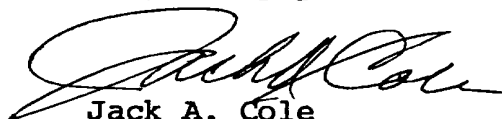
United States Geological Survey
P. O. Box 959
Farmington, New Mexico 87401

Certification: Operator's Representative-Jack A. Cole,
P. O. Box 191, Farmington, New Mexico
(505) 325-1415 - Alamos Canyon #7

Gentlemen:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site and access routes; that I am familiar with the conditions that 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 Jack A. Cole, and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Very truly yours,



Jack A. Cole
Operator's Representative

JACK A. COLE
PETROLEUM GEOLOGIST
P.O. BOX 191
FARMINGTON, NEW MEXICO 87401
(505) 325 - 1415

JACK A. COLE
ALAMOS CANYON #7
870/N and 1830/W Sec. 7-T21N-R6W
Sandoval County, New Mexico

Seven Point Well Control Program

1. Surface Casing.
See Application for Permit to Drill.
2. Spools and Flanges.
 - A. Surface Casing - 10", Series 600, 1500 psi W.P.
 - B. Production, 10", Series 600, 1500 psi W.P.
 - C. Tubing Head - Series 600, 1500 psi W.P.
3. Intermediate Casing.
None
4. Blowout Preventers.
Production Hole - 10", 300 psi
Fill, kill and choke manifold - 5000 psi W.P.
5. Additional Equipment (If necessary)
 - A. Kelly Cock
 - B. Bit Float
 - C. Degasser
 - D. Pit Level Indicator
 - E. Sub with Valve for drill pipe.
6. Anticipated Bottom Hole Pressure.
1000 psi. Current mud program is for 9.2 lb./gal. mud with hydrostatic head of 1500 psi at 3000 feet. Mud weight will be increased if necessary for higher pressures.
7. Drilling fluid.
Low solids. Low water loss.