Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-043-20553

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 [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: JACK A. COLE

3. ADDRESS OF OPERATOR: P. O. Box 919, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 990'FNL, 850'FEL
At proposed prod. zone: Same

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U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

5. LEASE DESIGNATION AND SERIAL NO.: NM-21454

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Alamos Canyon

9. WELL NO.: No. 14

10. FIELD AND POOL, OR WILDCAT: ~~Wildcat~~ Undes Chacra

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 9-T21N-R6W N.M.P.M.

12. COUNTY OR PARISH: Sandoval

13. STATE: N.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles Southwest of Counselors Trading Post

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
850'	1040	160
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
2000'	1600'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6850'GL

22. APPROX. DATE WORK WILL START*: 6/1/81

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	85'	100 sacks
7 7/8"	4 1/2"	10.50	1600'	250 sacks

All producing intervals in Chacra Formation will be perforated and stimulated as necessary.

EXHIBITS

"A" Location and Elevation Plat.
"B" Ten Point Compliance Program.
"C" Blowout Preventer Diagram.
"D" Multi-Point Requirements for A.P.D.
"E" Access Road to Location.
"F" Radius Map of Field.
"G" Drill Rig Layout.
"H" Fracturing Program Layout.

The gas from this well is not committed.
The NE/4, Section 9 is dedicated to this well.

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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. FOR: JACK A. COLE

SIGNED ORIGINAL SIGNED BY EWELL N. WALSH — Ewell N. Walsh, P. E. TITLE President, Walsh Engr. & Production Corporation DATE 2/16/81

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED AS AMENDED
MAR 24 1981
JAMES F. SIMS
DISTRICT ENGINEER

*See Instructions On Reverse Side

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-7

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

Operator	Lease	Well No.
JACK A. COLE	ALAMOS CANYON	1A

Unit Letter	Section	Township	Range	County
A	9	21N	6W	Sandoval

Actual Footage Location of Well:
990 feet from the North line and 850 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6850	Chacra	Undesignated Chacra	160 Acres

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

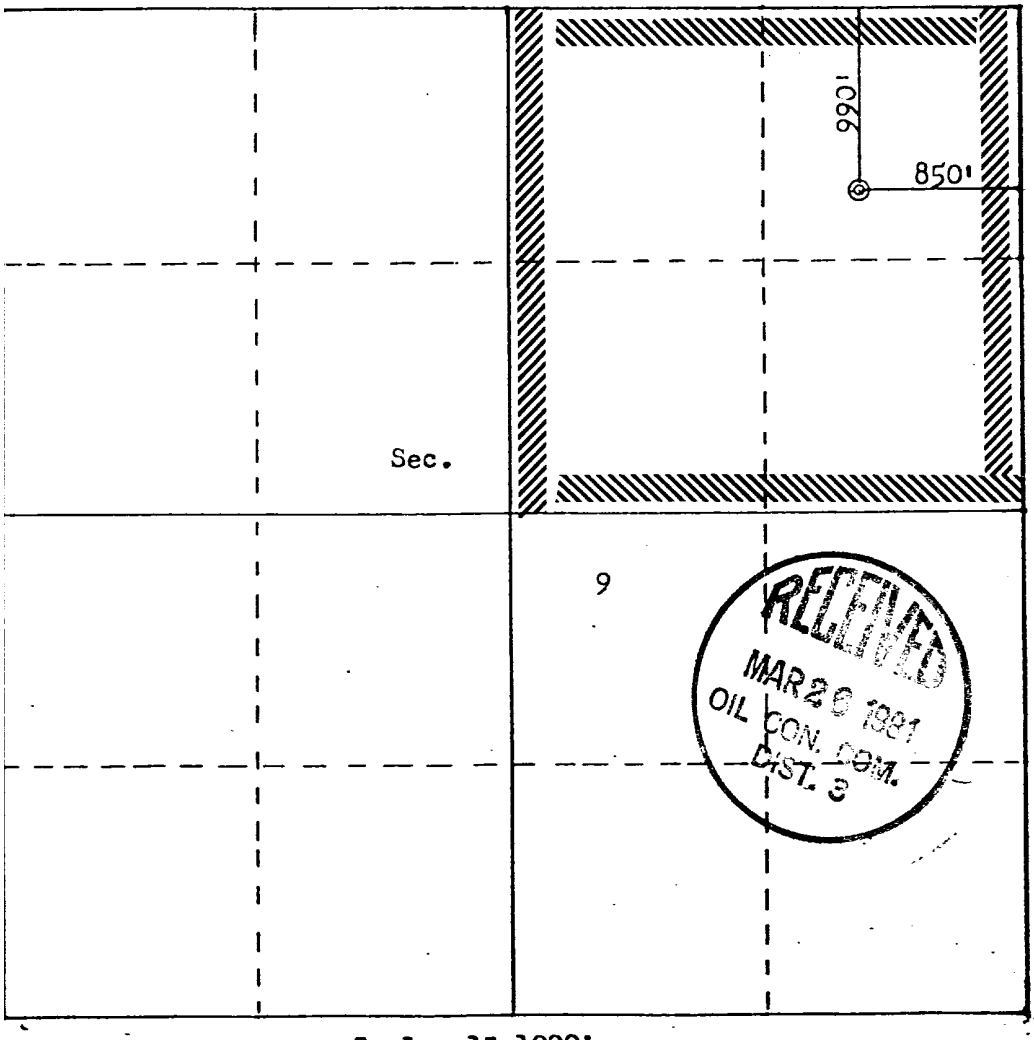
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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 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.



Scale: 1"=1000'

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OIL CON. COM.
DIST. 3

CERTIFICATION

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

FOR: JACK A. COLE
ORIGINAL SIGNED BY
EWELL N. WALSH

Name: Ewell N. Walsh, P. E.
President

Position

Walsh Engineering & Prod. Corp

Company

2/16/81

Date

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
December 1980

Registered Professional Engineer and Land Surveyor

Fred B. Kerr Jr.

Certificate No.
3950 KERR, JR.

FORM 24-11

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM

OF NTL-6 APPROVAL OF OPERATIONS

Attached to Form 9-331C

JACK A. COLE
ALAMOS CANYON NO. 14
990'FNL, 850'FEL, Sec. 9-T21N-R6W
Sandoval County, New Mexico

1. The Geologic Surface Formation

Tertiary Wasatch - San Jose

2. Estimated Tops of Important Geologic Markers

Ojo Alamo	410'
Fruitland Shale	610'
Pictured Cliffs	930'
Lewis	1110'
Chacra	1360'
Mesa Verde	1710'

3. Estimated Depths of Anticipated Water, Oil, Gas or Minerals

Ojo Alamo, water
Pictured Cliffs, water
Chacra, gas
Mesa Verde, water

4. The Proposed Casing Program

Hole Size	Interval	Section Length	Size (OD)	Weight, Grade and Joint	New or Used
12¼"	85'	85'	8-5/8"	24# K-55 8 round ST&C	New
6½"	85'-TD	1600'	4 1/2	9.50 K-55 8 round ST&C	New

Walsh ENGINEERING & PRODUCTION CORP.

Cement Program

Surface - 8-5/8": 100 Sacks Class "B", 3% $CaCl_2$ & 1/4 lb. Flocele per sack.

Production - 4 1/2" 500 gallons mud flush followed by 150 sacks 65-35 Pozmix (12% Gel) with 6 1/4 lbs. Gilsonite per sack followed by 100 sacks 50-50 Pozmix wit 6 1/4 lbs. Gilsonite and 6 lbs. salt per sack.

5. The Operator's Minimum Specifications for Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to the full working pressure after nippling 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 the hole. Such checks of BOP will be noted on daily drilling reports.

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

6. The Type and Characteristics of the Proposed Circulating Muds

Mud system will be gel-chemical with adequate stocks of sorptive agents on site to handle possible spills of fuel and oil in the surface. Heavier muds will be on location to be added if pressure requires.

Interval	Type	Weight/Gal.	Viscosity (Sec.)	Water Loss	Additives
0-85	Spud Mud	9.5	50	N.C.	Lime
85-1600	Sater base	9.2	35	6.0	CMC & Starch

7. The Auxiliary Equipment to be Used

(a) A float will be used at the bit.

(b) The mud system will be monitored visually.

(c) A stabbing valve will be on the floor to be stabbed into the drill pipe when kelly is not in the string.

8. The Testing, Logging and Coring Programs to be Followed

(a) DST - None

(b) Logging - IES and CNL-FDC

(c) Coring - None

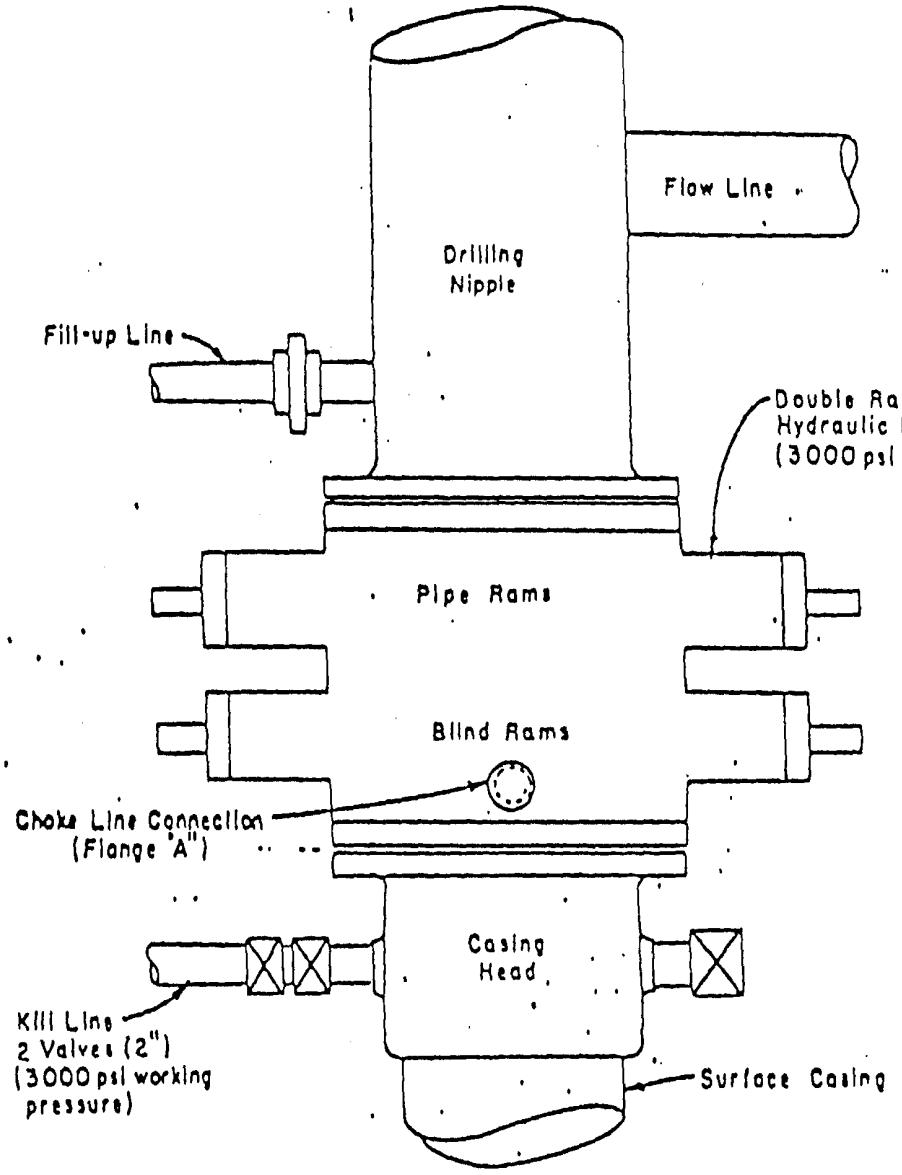
9. Any Anticipated Abnormal Pressures or Temperatures

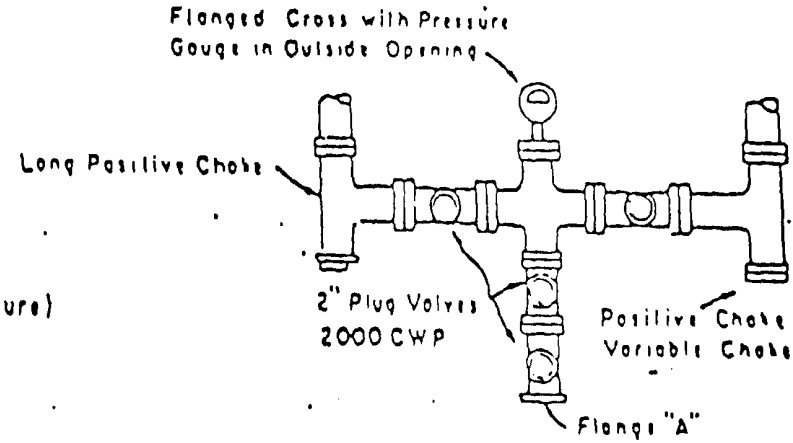
No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Bottom hole pressure expected is 300 psig.

No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for June 1, 1981 or as soon as possible after examination and approval of drilling requirements. Operations should be completed within Ten days.





PLAN VIEW - CHOKE MANIFOL

Diagram

JACK A. COLE
ALAMOS CANYON NO. 14
990'FNL, 850'FEL, Sec. 9-T21N-R6W
Sandoval County, New Mexico

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Attached to Form 9-331C

JACK A. COLE
ALAMOS CANYON NO. 14
990'FNL, 850'FEL, Sec. 9-T21N-R6W
Sandoval County, New Mexico

1. Existing Roads

A. The proposed well site and elevation plat is shown as EXHIBIT "A".

B. Directions: South from Bloomfield, N.M. on highway 44 to Counselors Trading Post. Turn right onto dirt road for approximately 9 1/2 miles. Turn left approximately 1 1/2 miles to location.

C. All roads to location are indicated
Existing roads will be improved.

D. Exploratory wells, existing roads:

N/A

E. Development wells, existing roads:

See Exhibit "E"

F. Improvement and maintenance:

Existing roads need no improvement. Access road will be improved and maintenance will be performed as required.

2. Planned Access Roads

Exhibit " E" Access road, 1/2 mile, will have maximum width of 20'. No turnouts, no culverts, no gates, cattleguards or fence cuts. Surfacing material will be native soil.

3. Location of Existing Wells

For all existing wells within one mile radius of development well, see EXHIBIT "F".

(1) There are no water wells within a one mile radius of this location.

(2) There is one abandoned well in this one mile radius.

(3) There are no temporarily abandoned wells.

(4) There are no disposal wells.

(5) There are no wells presently being drilled.

(6) There are no producing wells within this one mile radius.

(7) There are two shut-in wells.

(8) There are no injection wells.

(9) There are no monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

A. Within one mile radius of location, the following existing facilities are owned or controlled by lessee/operator:

(1) Tank Batteries: None

(2) Production Facilities: None

(3) Oil Gathering Lines: None

(4) Gas Gathering Lines: None

(5) Injection Lines: None

(6) Disposal Lines: None

B. If production is obtained, new facilities will be as follows:

(1) All production facilities will be located on the pad.

(2) All well flow lines will be buried and will be on the well site and battery site.

(3) Drill pad will be 200 feet long and 155 feet wide.

(4) No construction materials for battery site and pad will be necessary.

(5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.

(6) Rehabilitation whether well is productive or dry, will be made on all unused areas in accordance with BLM stipulations.

5. Location and Type of Water Source

A. The source of water will be Chapman water hole at Escrito, N.M.

B. Water will be transported by truck over existing roadways.

C. No water well is to be drilled on this lease.

6. Construction Materials

A. No construction materials are needed for drilling and access roads into the drilling location unless production is obtained. The surface soil materials will be sufficient or will be provided by the Dirt Contractor as needed.

B. No construction materials will be taken off Federal or Indian Lands.

C. All surface soil materials for construction of access roads are sufficient.

D. All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

(1) Drill cuttings will be buried in the reserve pit and covered.

(2) Drilling fluids will be handled in the reserve pit.

(3) Any fluids provided during drilling test or while making production test will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt waters or other noxious fluids will be cleaned up and removed.

(4) Chemical facilities will be provided for human waste.

(5) Garbage and non-flammable waste and salts and other chemicals produced during drilling or testing will be handled in trash pit. Flammable waste will be disposed of in burn pit. Drill fluids, water drilling mud and tailings will be kept in reserve pit, as shown on EXHIBIT "G". Reserve pit will be fenced on three sides and the fourth side fenced upon removal of the rig.

(6) After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. Any dangerous open pit will be fenced during drilling and kept closed until such time as the pit is leveled.

8. Ancillary Facilities

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

(1) EXHIBIT "G" is the Drill Pad Layout.

Topsoil, if removal required, will be stockpiled per BLM specifications determined at time of pre-drill inspection.

(2) EXHIBIT "G" is a plan diagram of the proposed rig and equipment reserve pit, burn and trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be a trailer on site.

(3) The reserve pits will not be lined. Steel mud tanks may be used during drilling operations.

10. Plans for Restoration

(1) Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.

(2) The soil banked material, if removal required, will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the

(3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from becoming entrapped; and the fencing will be maintained until leveling and cleanup is accomplished.

(4) The rehabilitation operations will begin as soon as possible after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best from July 15 to September 15, unless requested otherwise.

11. Other Information

(1) Soil: Sandy Clay Loam
Vegetation: Sage Brush, Blue grama, galletta

(2) The primary surface use is for grazing. The surface is owned by the BLM.

(3) The closest live water is the None

The closest occupied dwellings - 2 miles

There are no known archaeological, historical, or cultural heritages that will be disturbed by this drilling.

(4) Restrictions: Operator must have all rights from surface to base of Chacra

(5) Drilling is planned for on or about June 1, 1981 Operations should be completed within 5 days.

12. Lessee's or Operator's Representative

Ewell N. Walsh, P.E. President
Walsh Engineering & Production Corporation
P. O. Box 254
Farmington, New Mexico 87401
Telephone: (505) 327-4892, 24 hrs.

13. Certification

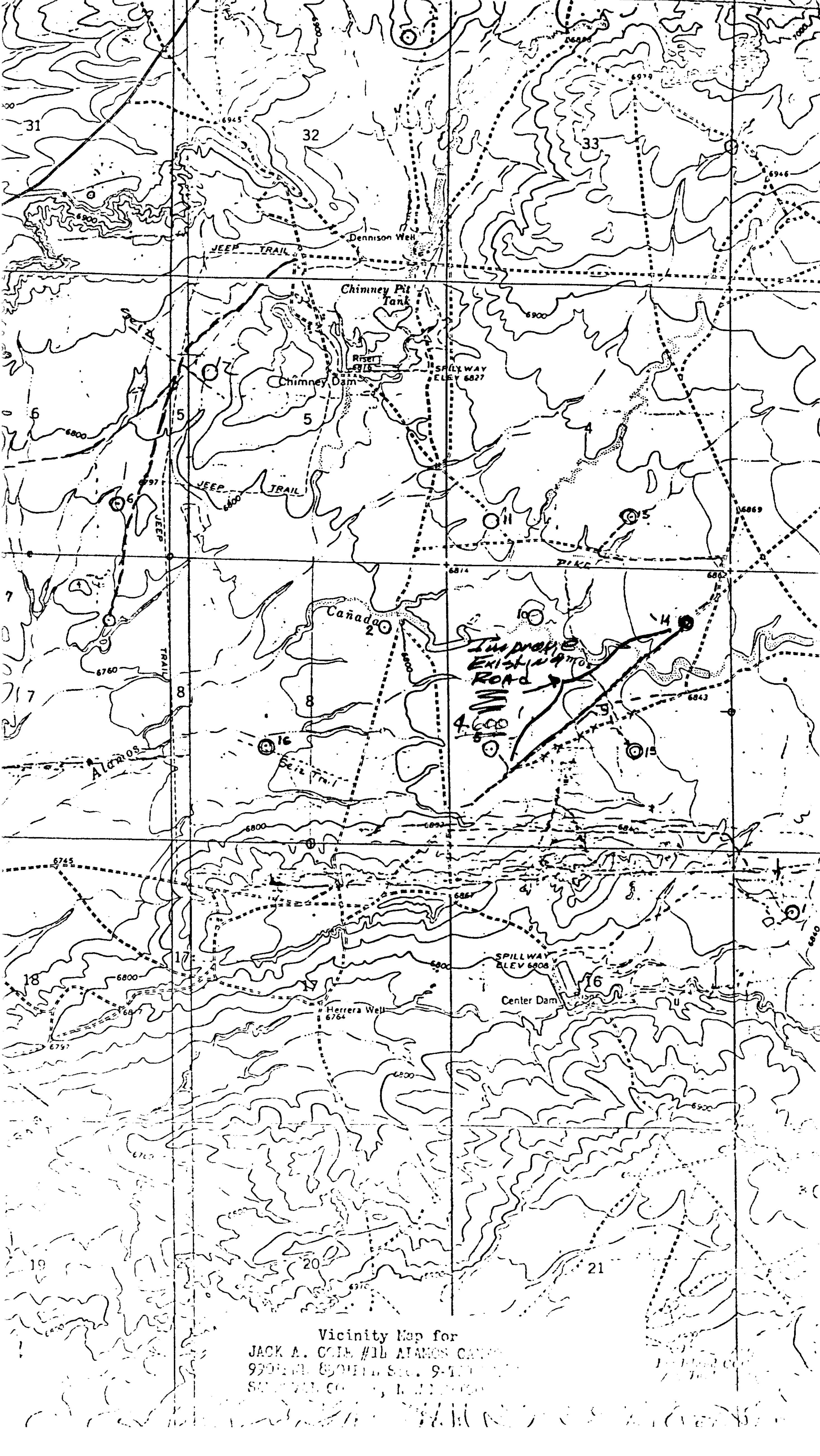
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Jack A. Cole and its contractors and subcontractors in coformity with this plan and the terms and conditions under which it is approved.

2-16-81
Date

ORIGINAL SIGNED BY
EWELL N. WALSH

Ewell N. Walsh, P.E.
President
Walsh Engineering & Production Corp.

Walsh ENGINEERING & PRODUCTION CORP.



Vicinity Map for
JACK A. COLE #1L ALAMOS CA...
990' ... 850' ... SEC. 9-T...
S... CO..., N. ...

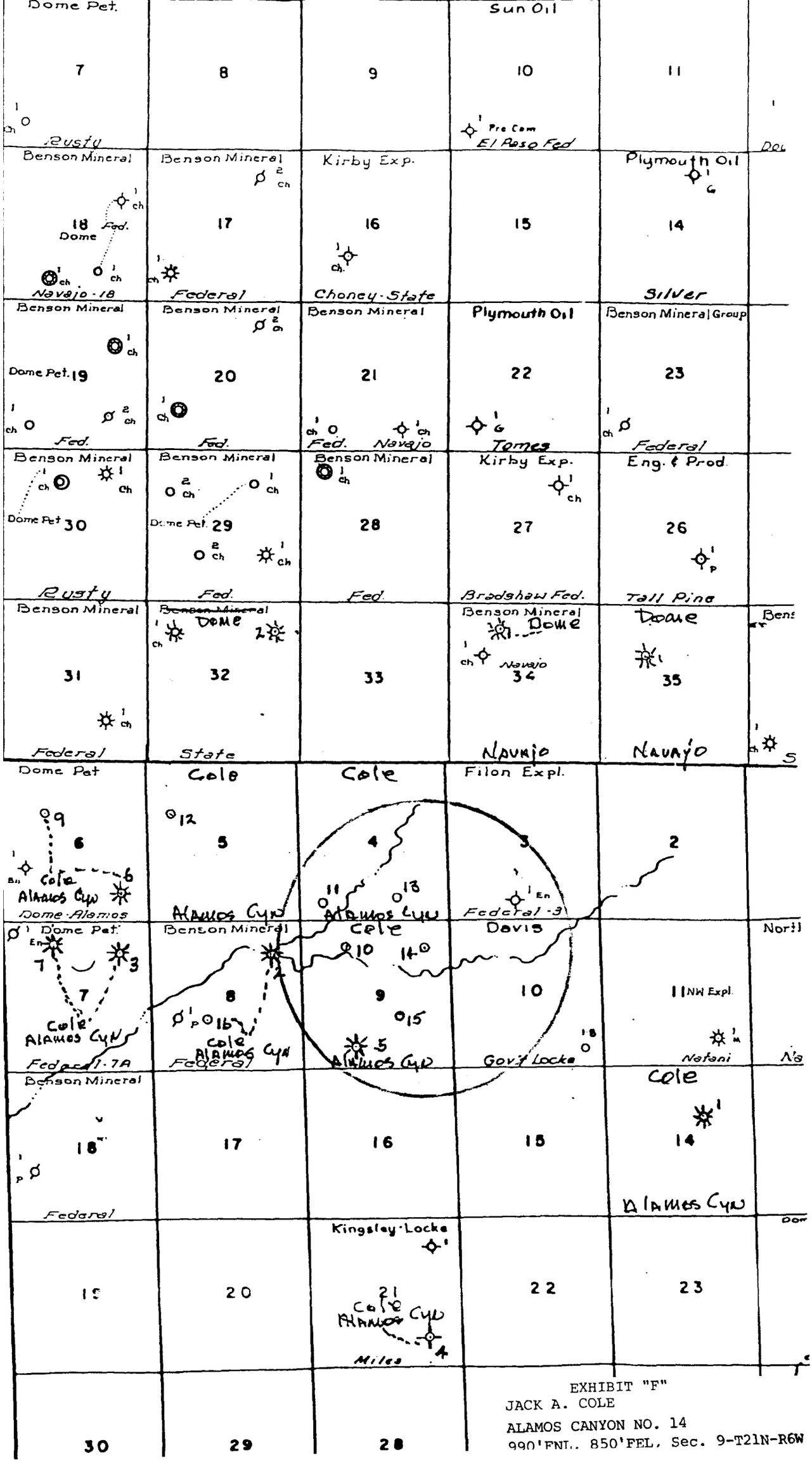
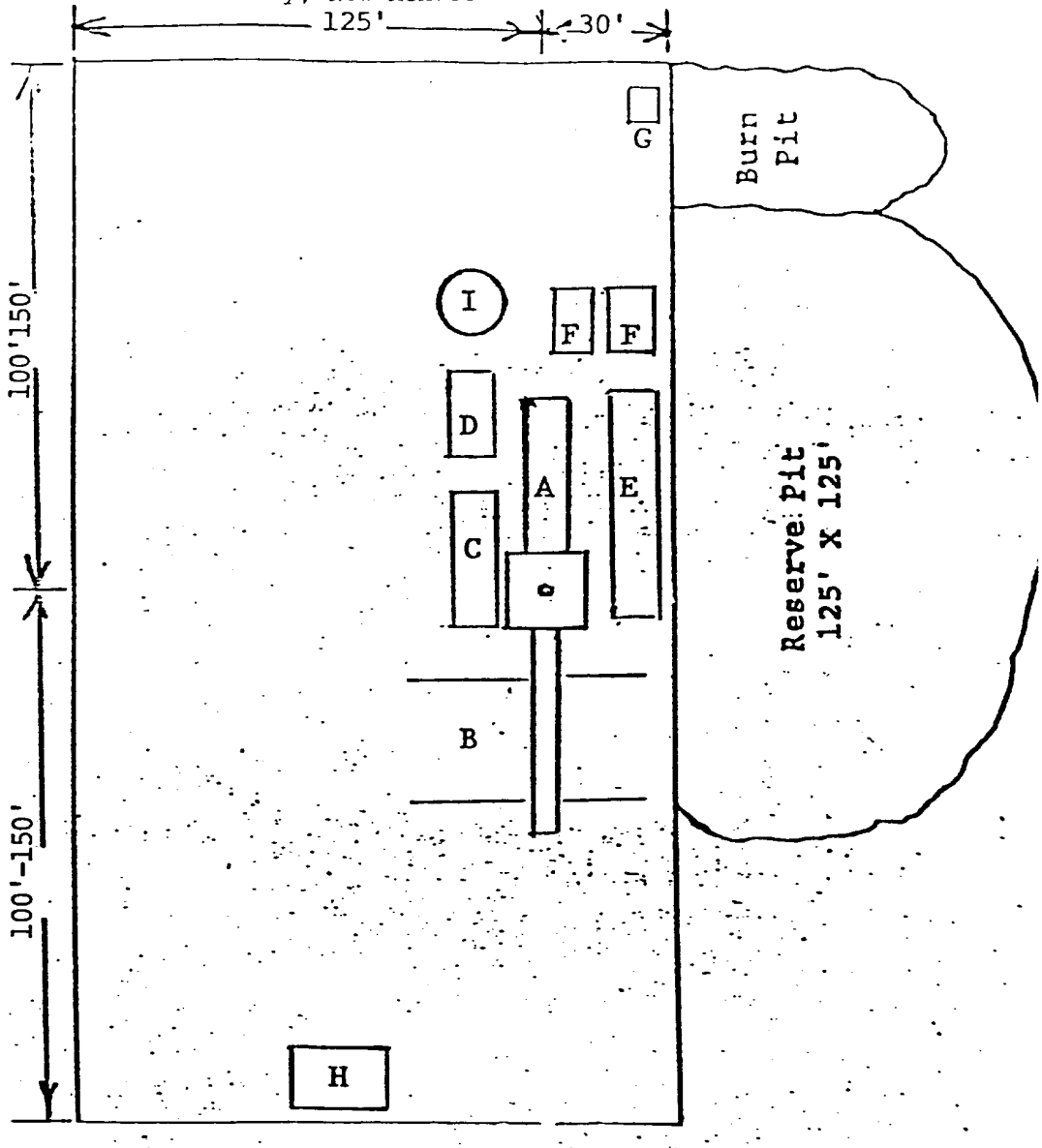


EXHIBIT "F"
JACK A. COLE
ALAMOS CANYON NO. 14
990'FNL, 850'FEL, Sec. 9-T21N-R6W

EXHIBIT "G"

Drill Rig Layout

JACK A. COLE
ALAMOS CANYON NO. 14
990'FNL, 850'FEL, Sec. 9-T21N-R6W
Sandoval County, New Mexico



A - Rig
B - Piperacks
C - Doghouse and Water Tank
D - Fuel
E - Mud Pit
F - Pumps
G - Toilet
H - Trailer House
I - Oil Storage

Walsh ENGINEERING & PRODUCTION

EXHIBIT "H"

Fracturing Program
Layout

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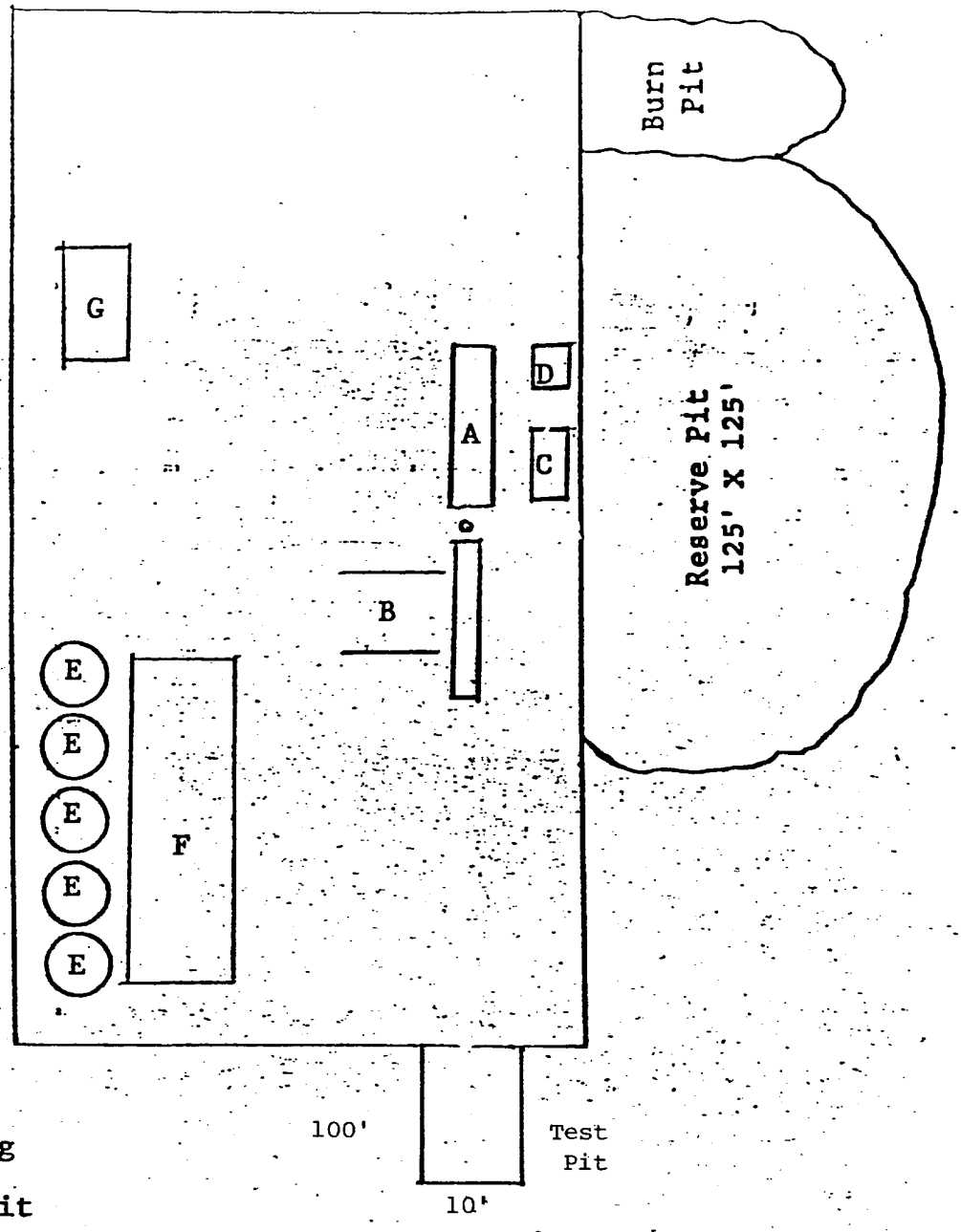
ALAMOS CANYON NO. 14
990'FNL, 850'FEL, Sec. 9-T21N-R6W
Sandoval County, New Mexico



A - Completion Rig
B - Pipe Racks
C - Circulating Pit
D - Pump
E - Frac Water Tanks
F - Area Frac Equipment
G - Trailer House

Walsh ENGINEERING & PRODUCTION C