

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY30-095-2256  
5. LEASE DESIGNATION AND SERIAL NO.

NM - 05791

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Graham "C" WN Federal Com.

9. WELL NO.

1-A

10. FIELD AND POOL, OR WILDCAT

Blanco Mv &amp; Largo Chacra

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA

Sec. 9-27N-8W

12. COUNTY OR PARISH

San Juan

13. STATE

New Mexico

## 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

Atlantic Richfield Company

## 3. ADDRESS OF OPERATOR

501 Lincoln Tower Bldg., 1860 Lincoln St., Denver, Colo. 80295

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

At surface

Unit 0 - SW SE - 1050' f/South &amp; 1600' f/East lines Sec. 9

At proposed prod. zone

Approx same

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

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## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

1040' f/ each

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

1561' f/ #2

in NE SE Sec. 9

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

604.8' GR

## 16. NO. OF ACRES IN LEASE

1121.95 an

## 19. PROPOSED DEPTH

4665'

## 17. NO. OF ACRES ASSIGNED

TO THIS WELL

320 (E/2); 160 (SE/4) Sec. 9

## 20. ROTARY OR CABLE TOOLS

Rotary

## 22. APPROX. DATE WORK WILL START\*

When appl rec'd

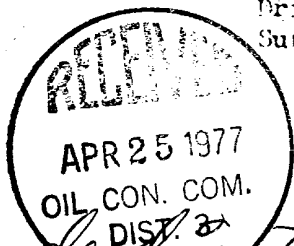
Est. 5/1 to 5-10

## 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#	250'	200 sx (Circ to surf)
7-7/8"	5-1/2"	15.5#	"D.	750 sx (2-stage)

Purpose to drill well to depth sufficient to test the Mesaverde, set production string, perforate, test, stimulate if necessary, and dual complete in the Chacra and Mesaverde formations.

Accumant 471-6, attached are: Certified Location Plat  
Drilling Plan w/ Att.  
Surface Use and Operations Plan w/ Att.



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

*W. A. Walter, Jr.*  
W. A. Walter, Jr.

TITLE

Operations Manager

DATE

4/15/77

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*Ok*

\*See Instructions On Reverse Side

7. The action by either use of this form issued by, or may notations. Consult

Operator <b>Atlantic Richfield Company</b>		Lease <b>Graham "C" WN Federal Com.</b>		Well No. <b>1-A</b>
East Letter <b>0</b>	Section <b>9</b>	Township <b>27 North</b>	Range <b>8 West</b>	County <b>San Juan</b>
A. Well Surface Location of Well:				
<b>1050</b> feet from the <b>South</b> line and		<b>1600</b> feet from the <b>East</b> line		
Grid and Elevation <b>6048</b>	Producing Formation <b>Mesaverde &amp; Chacra</b>	Pool <b>Blanco Mesaverde, Largo Chacra</b>		Dedicated Acreage: <b>320 Mw, 160 Ch Acres</b>

- 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.

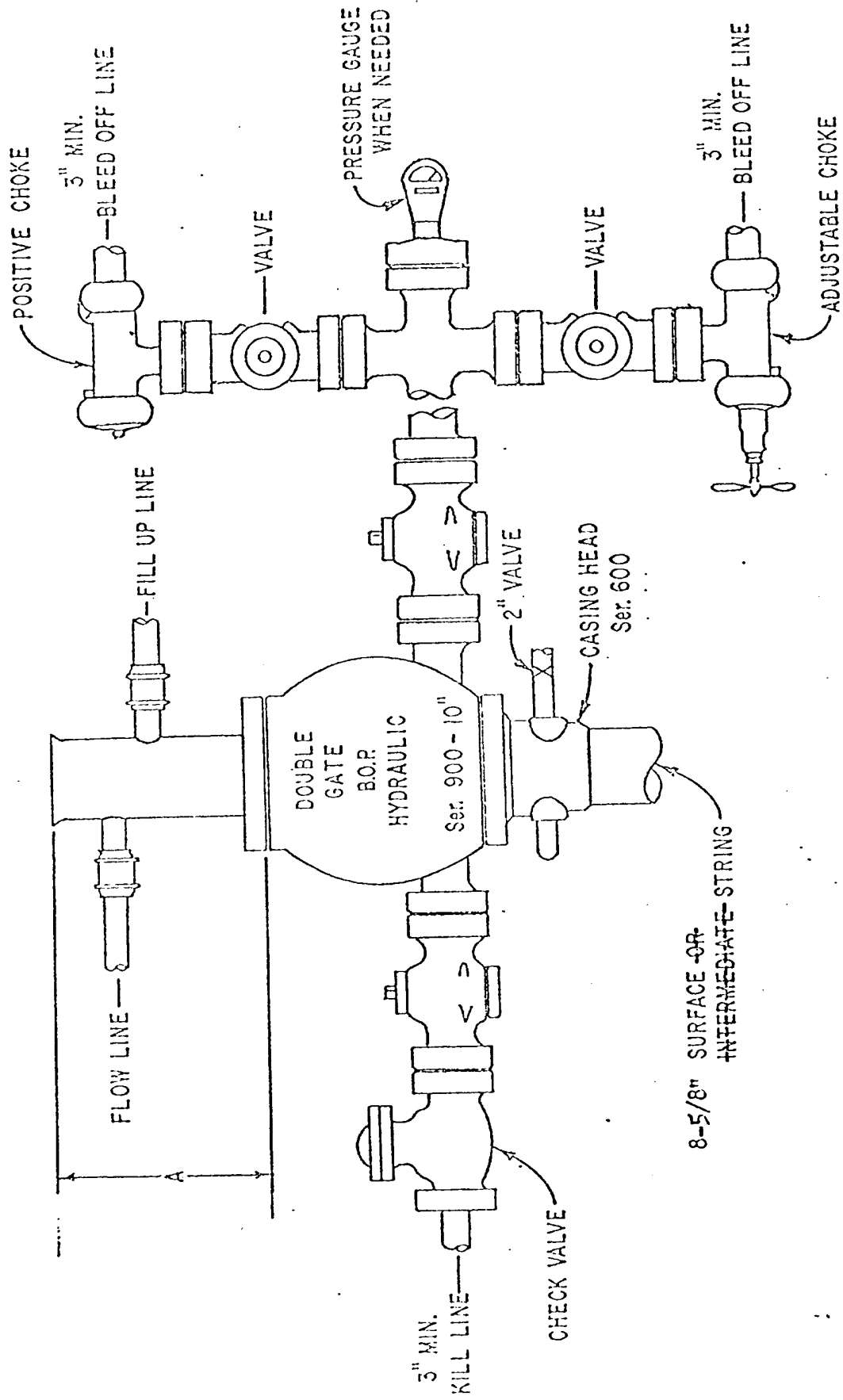
Number of Publications	Number of Authors
1	180
2	100
3	60
4	40
5	30
6	25
7	20
8	15
9	10
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12	4
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Certificate No. 3602  
E.V.Echohawk LS

## DRILLING PLAN

Graham "C" WN Federal Com., Well #1-A  
SW SE Section 9-27N-8W  
San Juan County, New Mexico

1. Surface Formation: Tertiary - Wasatch
2. Geologic Markers: Ojo Alamo (base) - 1470'  
Pictured Cliffs - 2220'  
Chacra - 3160'  
Mesaverde - 3860'  
Mancos - 4665'
3. Anticipated Mineral Bearing Formations: Ojo Alamo (Poss. Water) - 1360'±  
Pictured Cliffs (Poss. Gas) - 2220'  
Chacra (Poss. Gas) - 3160'  
Mesaverde (Poss. Gas) - 3860'
4. Casing Program: Surface - 250'± 8-5/8" OD 24# J-55 New  
Prod'n. - T.D. 5-1/2" OF 15.5# J-55 New
5. Control Equipment: Blowout Preventer - Ram Type, hydraulic operated  
Rams - Two: One blind ram & one pipe ram  
Series - 900 (3000#WP, 6000#T)  
Manufacturer - Cameron or Shaffer  
Pressure test @ 1000 psi prior to drilling  
out of casing string. Operational checks  
to be made daily and on trips.  
Sketch attached.
6. Drilling Fluid: 0 - 250' Gel and lime to drill surface hole and set casing.  
250' - 3000' Water w/gell chemical addition to maintain hole.  
3000' - T.D. Low solids non dispersed: 9-9.2#; vis 38-45;  
water loss 8 cc or less. Maintain weight material  
on location.
7. Auxiliary Equipment: Kelly cock  
Sub on floor with full opening valve for use in drill pipe  
when kelly is not in the string.
8. Testing, Logging, Coring: At this time no drill stem tests or cores are planned.  
Hole conditions, or information obtained while drilling,  
may alter these plans.  
  
Logs: Open Hole - Dual Induction Laterolog-8 TD - Surf. Casing  
Simultaneous FDC-CNL TD - 2000' ±  
Cased Hole - GR-Correl, and CBL w/Var. Dens.
9. Abnormal Pressures, Temperatures, Potential Hazards: There are no abnormal  
pressures, temperatures, or potential hazards in the area. The maximum  
anticipated pressure is 950 psi. Weight material will be maintained on  
location and BOP will be pressure tested and kept in good working condition.
10. Starting Date- Completion: Upon receipt of the District Engineer's approval to  
drill, building of the road and location will be commenced, requiring  
approximately 5 days. Moving in and rigging up should require 4 days.  
Drilling to T.D., logging, and setting casing is estimated to require  
13 days. Perforating, testing, treating if required, and completion  
should require an additional 12 days, or an estimated total of 34 days.  
In the event of delays (rig, services, materials, etc.) the overall time  
could be considerably extended.  
  
NTL-6 indicates a minimum of 30 days are required to obtain approval, in  
which case operations could not be commenced until about May 15, 1977.  
Also, this is the 1st well of a five well drilling program, after completion  
of the road and location, moving in and drilling operations are estimated  
to commence about May 5th, 1977, depending upon when approval received.



Graham "C" Wm Federal Com, Well #1-A  
 SW SE Section 9-27N-8W  
 San Juan County, New Mexico

## SURFACE USE AND OPERATIONS PLAN

Graham "C" WN Federal Cow, Well #1-A  
SW SE Section 9-27N-8W  
San Juan County, New Mexico

1. Existing Roads: As shown on the attached "Existing Road, Map 1" and "Existing Road - Planned Road, Map 2". The main access is East from Blanco, New Mexico on Hwy 17 approx. 1-3/8 miles, then turning right (southeasterly) along the east side of Canon Largo. From the turn-off, proceed approx. 4 miles southeasterly along the east side of Canon Largo to "Fivemile Crossing" and cross to the west side of Canon Largo. "Fivemile Crossing" is in the SW/4 Sec. 26-29N-8W. From "Fivemile Crossing", proceed approx. 8-1/2 miles southeasterly, turning southerly, along the west side of Canon Largo to a right-hand turnoff in the SW NW Sec. 10-27N-8W. Turn right, then left in a South-Southwesterly direction about 1/4 mile. From this point the new access road to location will need to be constructed. An alternate route is southeasterly from "Fivemile Crossing", up Carrizo Creek, crossing Carrizo Creek, back northwesterly along the west side of Carrizo Creek, then southeasterly along the east side of Canon Largo, crossing to the west side in the NW/4 Section 3-27N-8W. This route is not set forth, or color coded on the attached maps.

None of the existing roads will require improvement.

Existing roads as set forth above, and roads within a 1-mile radius are colored "red" on the attached map. The access road to be constructed is colored "blue".

2. Planned Access Road: The planned access road to be constructed will leave the existing road just east of the C E/2 Sec. 9-27N-8W as shown on Map 2. This will be on the 1st major "shelf" above Canon Largo. The road will be approx. 1700' southwesterly to the location, generally along the same contour, having no grades in excess of 8%. A minimum amount of grading will be done and the natural drainage will be altered very little, if any. There will be no major cuts or fills, culverts, turnouts, gates, cattleguards, or fence cuts. The width will be approximately 18', or sufficient to handle drilling equipment. The surface area is sandy, gravel, and rock, and no special surfacing material will be required.
3. Existing Wells: As shown on the attached Map. All wells are gas wells.
4. Existing/Proposed Facilities: Atlantic's facilities within a one mile radius are as follows:
  - Well #1, NE/4 Sec 9, dual PC & Mv - 2 gas lines to gas gathering company facilities, approx 100' each, buried.
  - Well #2, NE SE Sec. 9, PC - 1 gas line approx 100' to gas gathering company facilities, buried. Meter house at tie-in.
  - Well #3, NW/4 Sec. 15, PC - 1 gas line approx 100' to gas gathering company facilities, buried.

This well is proposed as a dual Chacra & Mesaverde completion. The maximum facilities anticipated to be required would be two tanks and two production units. This will depend on the amount of liquids produced. All facilities would be located on the drill pad, and there would not be any additional surface disturbance. The tank(s) pad would be approx 18' x 36' (two tanks) x 10" high with 4" peagravel or sand on top. The production unit(s) pad would be approx 18' x 24' (incl small drain pit) and the unit(s) erected on concrete piers. The drain pit will be fenced for protection of livestock and wildlife. The area not required for facilities, or operation of the well, will be contoured as near as possible to the original contours, and restored as directed by the Bureau of Land Management.

5. Water Supply: Due to drought conditions, water is in very short supply in the area and it is anticipated that Braden Head water from wells in Canon Largo will be used, primarily, Graham #8, NW/4 Sec. 3-27N-8W, and Marron #7, NE/4 Sec. 22-27N-8W. Both sources shown on Map 2. The water will be trucked and no new roads, or road improvements, will be required.
6. Construction Materials: Since the surface is sandy, gravel and rocky, no construction materials will be required.

7. Waste Disposal: Cuttings and drilling fluids will be disposed of in the reserve pit. A trash, or burn, pit will be used to dispose of trash, garbage, etc. If the reserve pit is sufficiently dry when the well is completed, both the reserve pit and trash pit will be filled upon completion of the well. If not, the trash pit will be filled upon completion of the well, and the reserve pit will be fenced to be filled when sufficiently dry.
- Any produced fluids will be disposed of in the reserve pit. Any oil accumulations on the reserve pit during drilling and completion will be skimmed and disposed of immediately after the completion rig is moved off. Oil produced during completion will be held in a temporary tank for later disposition. Trash and debris cleanup will commence as soon as completion rig move out, and final cleanup and contouring will begin as soon as possible.
8. Ancillary Facilities: No ancillary facilities are proposed.
9. Well Site Layout: Per the attached sketches. The reserve pit, which will be approximately 25' x 75', will be unlined.
10. Restoration of Surface: Upon completion of the well, the drill site will be cleaned, rat and mouse holes filled, and trash pit filled. If sufficiently dry the reserve pit will be filled. If not, any oil accumulation will be removed and the pit fenced for protection of livestock and wildlife. Other than the area needed for operation and production facilities, the site will be contoured as near as possible to its original state. Gas line ditch will be backfilled and the access road graded for proper drainage and minimum surface damage. Reseeding, or any other restoration, will be as specified by the Bureau of Land Management.
11. Other Information: This location is on the first "shelf" above Canon Largo, sloping from south & west downward to North & east, primarily south-north. The surface is sandy, gravel and rocky. Vegetation is scrubby pinon and juniper trees, scattered yucca, prickly pears, mormon tea and sparse clumps of native grasses. There are no dwellings in the area and no water wells; the closest water being in Canon Largo, occasionally.

The lands involved are Federal lands in an established gas field. There is some sheep and cattle grazing in the area. To our knowledge there are no archeological, historical, or cultural sites which will be involved, or in the area.

With the short period of operations and restoration of the surface, any disturbance to vegetation and wildlife, will be temporary and minimal. It is not anticipated that there will be any substantial impact on the environment.

12. Lessee's or Operator's Representative:

Mr. W. A. Walther, Jr.  
Atlantic Richfield Company  
1860 Lincoln Street, Suite 501  
Denver, Colorado 80295  
Phone: A/C 303 573-4049  
Res: A/C 303 798-5729

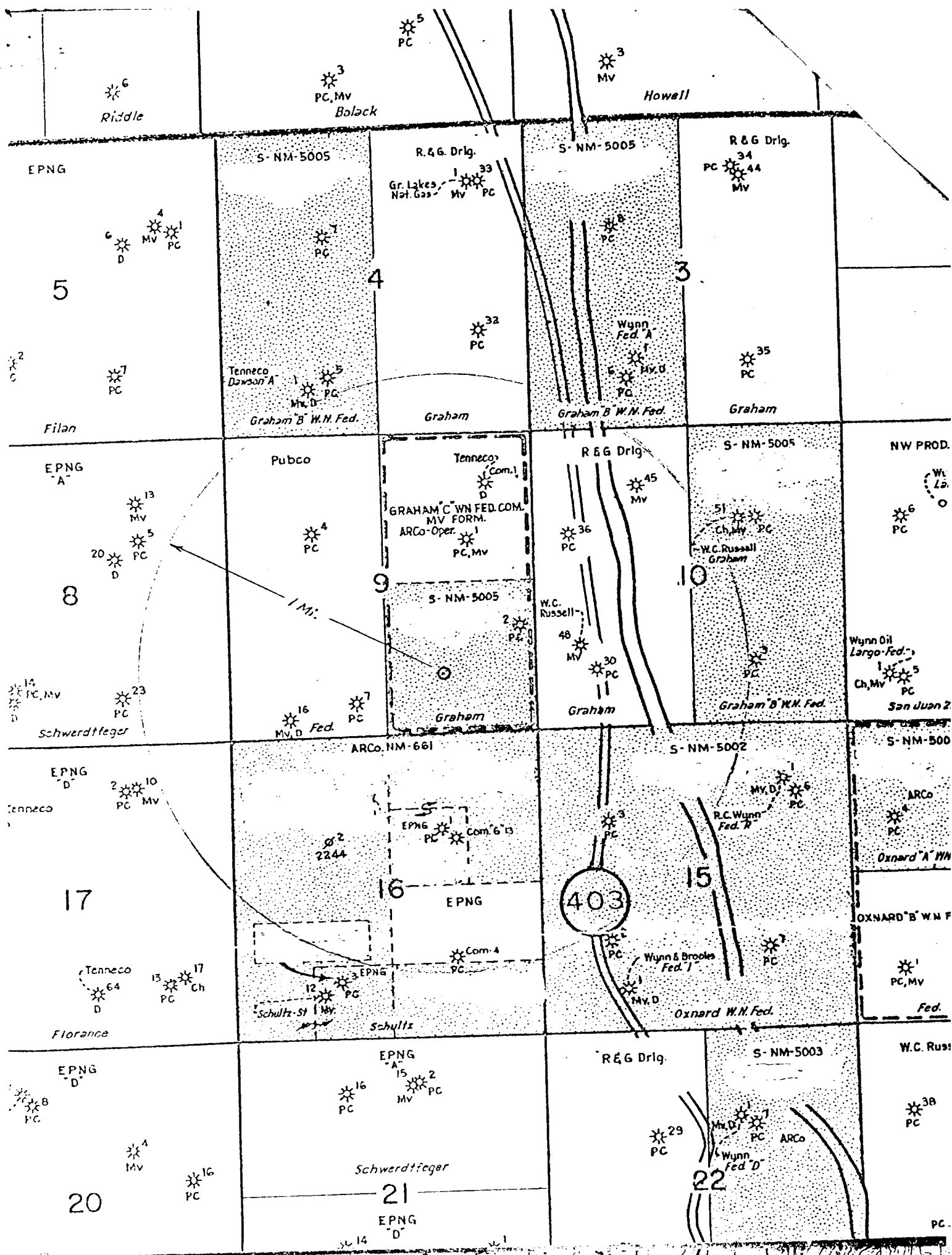
Mr. B. J. Sartain  
Atlantic Richfield Company  
1860 Lincoln Street, Suite 501  
Denver, Colorado 80295  
Phone: A/C 303 573-4053  
Res: A/C 303 770-7849

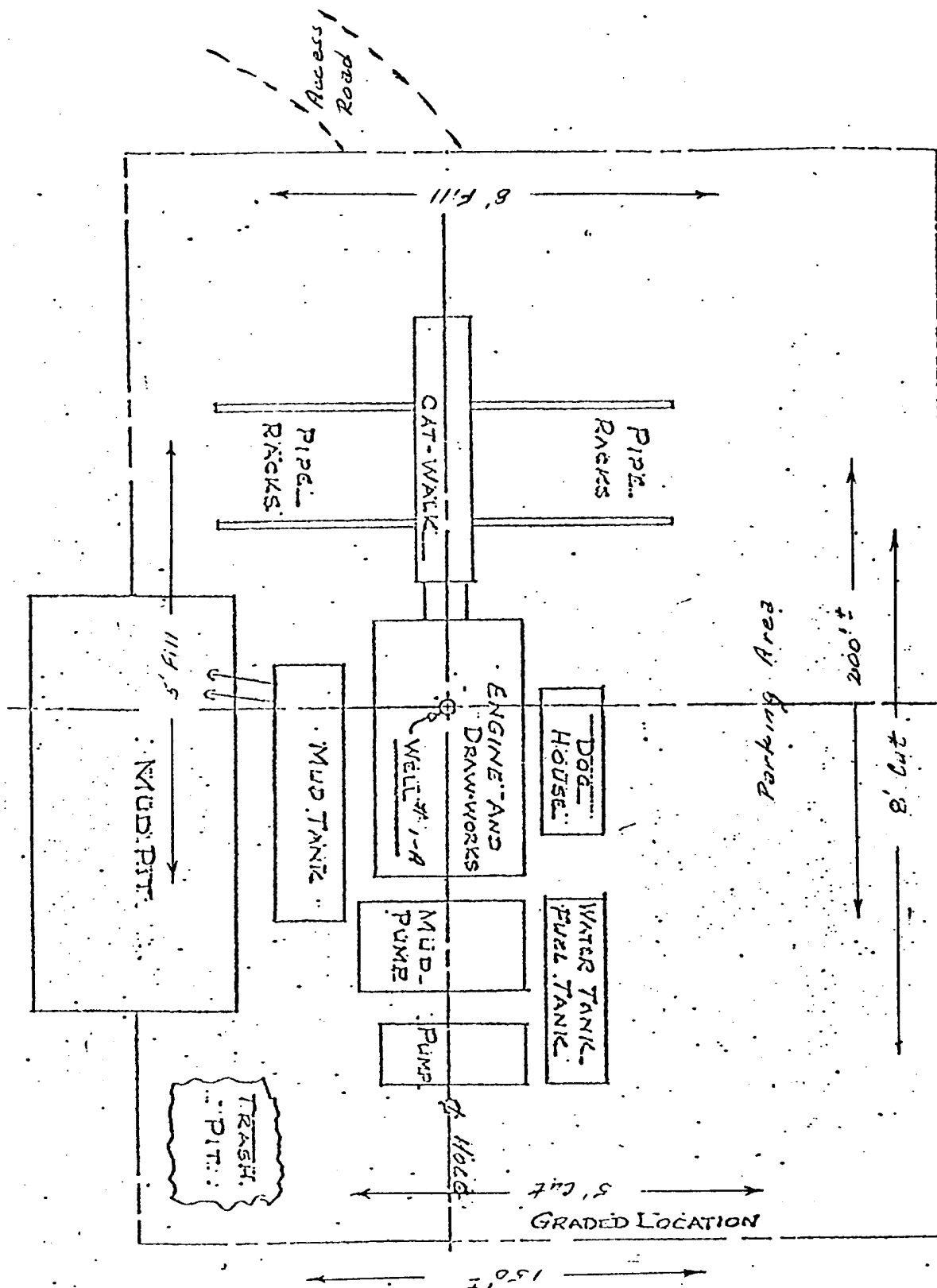
Local Representative: Mr. J. E. Taylor  
Atlantic Richfield Company  
P. O. Box 2197  
Farmington, New Mexico 87401  
Phone: A/C 505 325-7527  
Res: A/C 505 325-7968

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 Atlantic Richfield Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

4-18-77  
Date

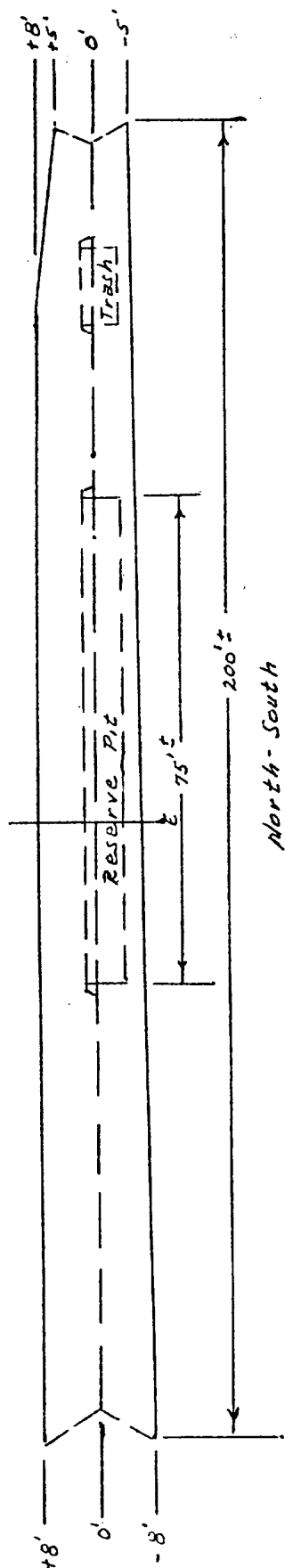
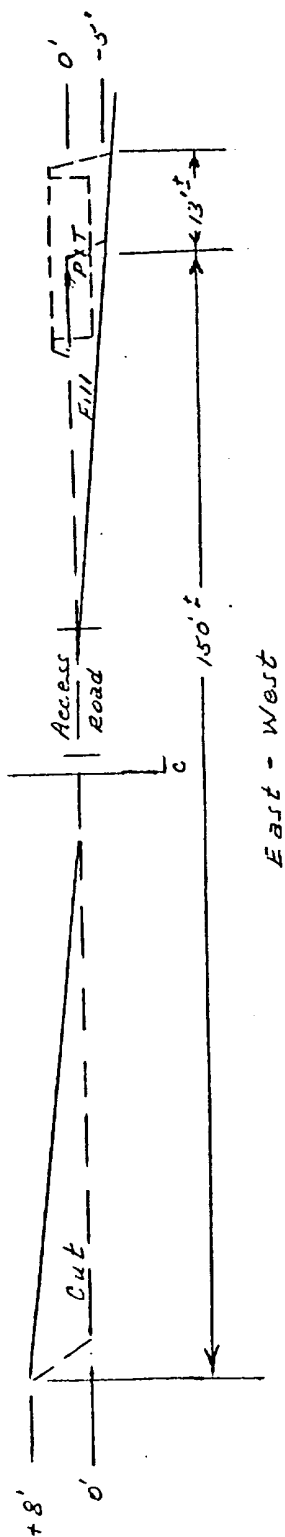
W. A. Walther, Jr.  
W. A. Walther, Jr.  
Operations Manager



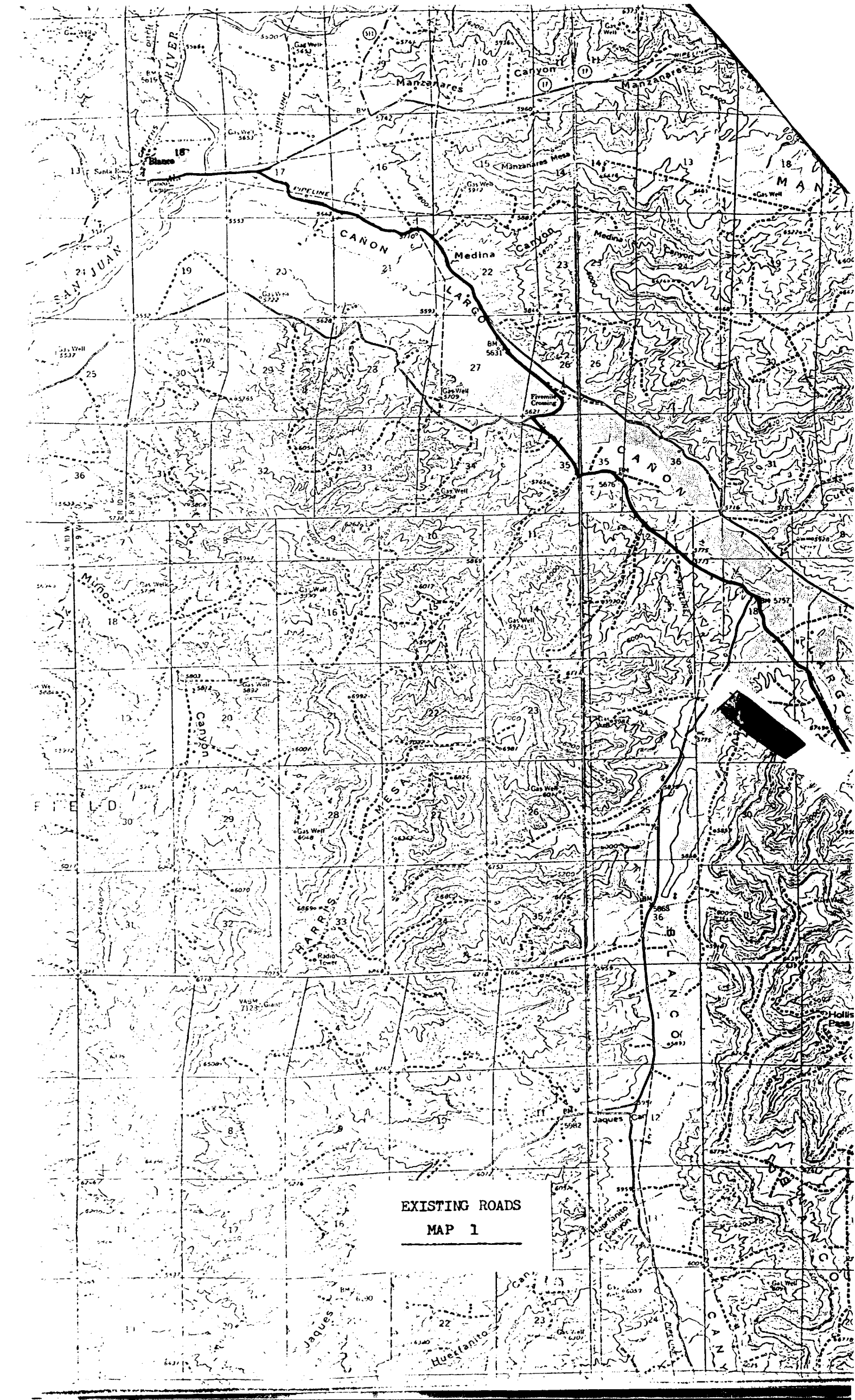


GRAHAM "C" WN FEDERAL COM., Well #1-A  
 SW SE Section 9-27N-8W  
 San Juan County, New Mexico

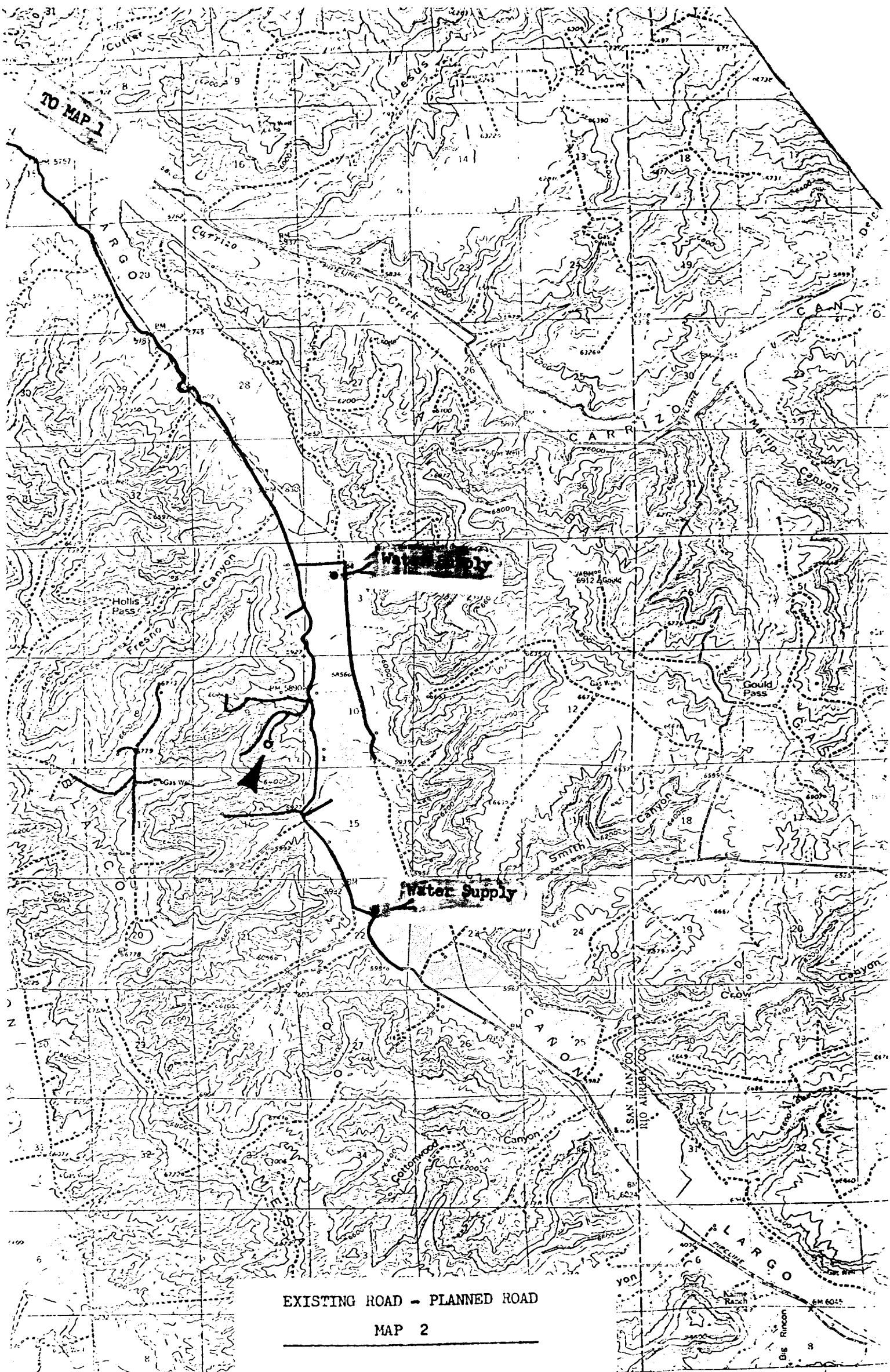




GRAHAM "C" WN FEDERAL COM., WELL #1-A  
 SW SE Section 9-27N-8W  
 San Juan County, New Mexico



EXISTING ROADS  
MAP 1

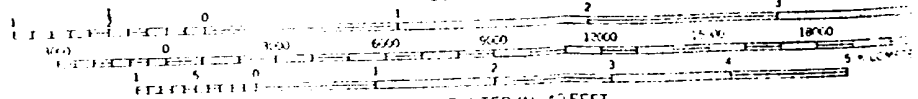


EXISTING ROAD - PLANNED ROAD

MAP 2

by the Geological Survey

methods from aerial  
photos 1959  
in American datum  
and coordinate system



SCALE 1:62,500

CONTOUR INTERVAL 40 FEET  
DATUM IS MEAN SEA LEVEL