DRILLING PLAN

MARRON WN FEDERAL COM., Well #1
SE SW Section 27-27N-8W
San Juan County, New Mexico

1. Surface Formation: Tertiary - Wasatch

2. Geologic Markers:

Ojo Alamo (base)	-	2030'
Pictured Cliffs	-	2780'
Chacra	-	3670'
Mesaverde	-	4370'
Mancos	-	5170'

3. Anticipated Mineral Bearing Formations:

Ojo Alamo (Poss. Water)	-	1920'
Pictured Cliffs (Poss. Gas)	-	2780'
Chacra (Poss. Gas)	-	3670'
Mesaverde (Poss. Gas)	-	4370'

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'	- 3300'	Water w/gell chemical addition to maintain hole.
3300'	- 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.

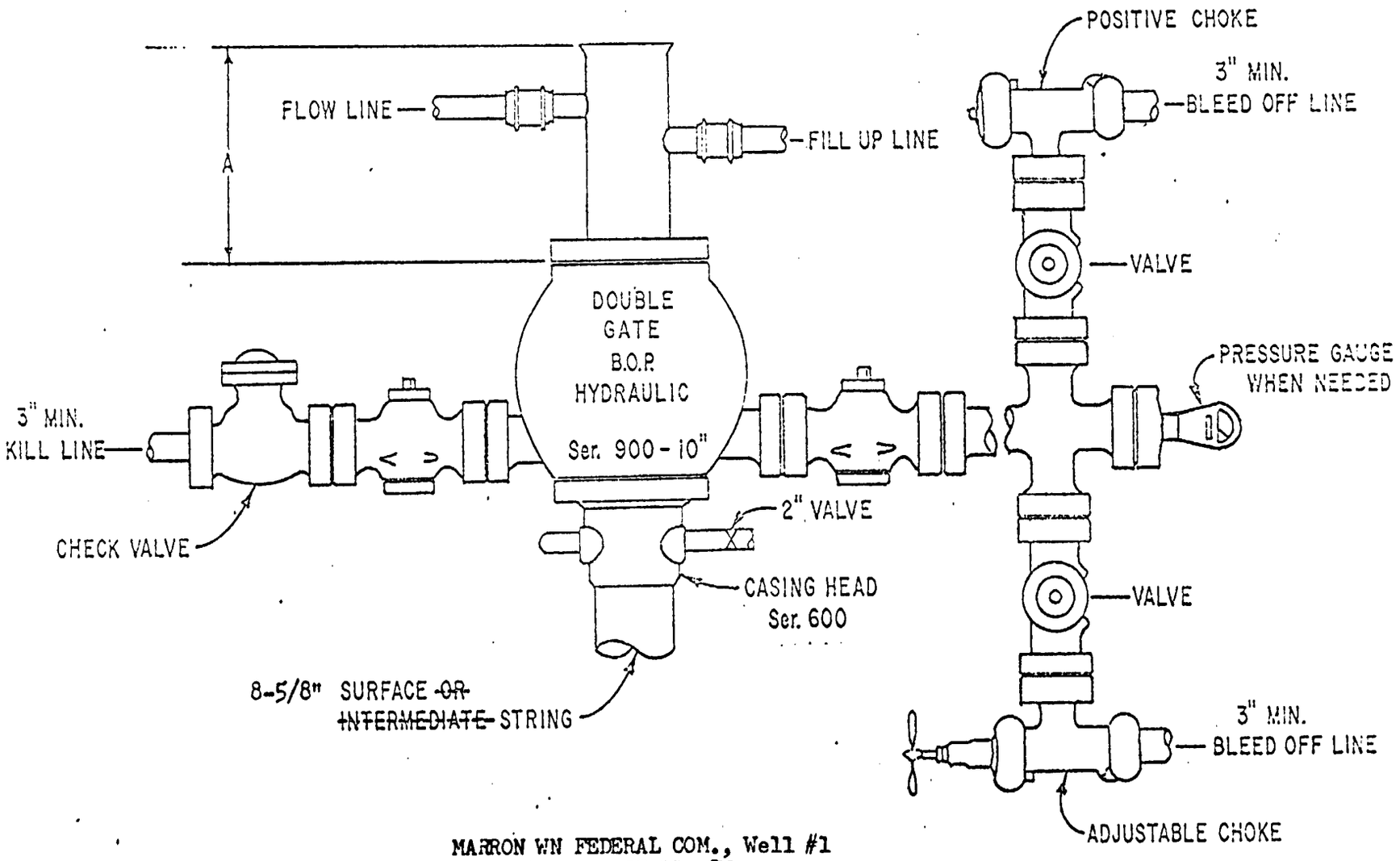
8. Testing, Logging, Coring: At this time no drill stem tests or cores are planned. Hole conditions, or information obtained while drilling, may alter these plans.

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 3 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 32 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 2nd 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 20th-25th.



MARRON WN FEDERAL COM., Well #1
SE SW Section 27-27N-8W
San Juan County, New Mexico

SURFACE USE AND OPERATIONS PLAN

MARRON WN FEDERAL COM., WELL #1
SE SW Section 27-27N-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. 1-3/4 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-9W. From "Fivemile Crossing", proceed approx 7 miles southeasterly, then turning right about the C SE/4 Sec. 33-28N-8W, up Fresno Canyon-Hollis Pass Road. Follow road to top of Blanco Mesa, then generally south to the SW/4 Sec.33-27N-8W (approx 10 mi after leaving Canon Largo). Turn back northeasterly to location, approx 1-1/2 miles. 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 near the disconnected well in SW/4 Sec. 27, go west approx 200' to the location. A minimum amount of grading will be done and the natural drainage will be altered very little, if any. No grades will be in excess of 8%. There will be no major cuts, fills, culverts, turnouts, gates, cattleguards, or fence cuts. The width will be approx 18', or sufficiant to handle drilling equipment. The surface area is sandy with rock, and no special surfacing material will be required.

3. Existing Wells: As shown on the attached Map. One well is shut-in and disconnected, as shown.

4. Existing/Proposed Facilities: Atlantic's facilities within a one mile radius are as follows: Well #4, NW NW Sec. 27 and Well #6, NW SW Sec. 26, both Pictured Cliffs gas wells, approx 100' of gas line to gas gathering company facilities, buried.

   This well is a proposed dual Chacra & Mesaverde completion. The maximum facilities anticipated to be required would be two tanks and tow 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 units 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 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 with rock, 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 willbe used to dispose of trash, garbage, ect..(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 completi will be held in a temporary tank for later disposition. Trash and debris cleanup will commence as soon as completion rig moves out, and final cleanup and contourin 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 approx. 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 originan state. Gas line ditch will be backfilled and the access road graded for proper drainage and minimum surface damage. Reseeding, of any other restoration, will be as specified by the Bureau of Land Management.

11. Other Information: This location is on a relatively flat slope, west to east, requiring approximately a 2' cut on the west side and 2' fill on the east side. The surface is sandy with some rock. Vegetation is sparse ycca, sage brush, scattered clumps of native grass, prickly pears, etc.. There are no dwellings in the area and no water wells; the closest water being Canon Largo, occasionally.

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

With the short period of operations and the 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

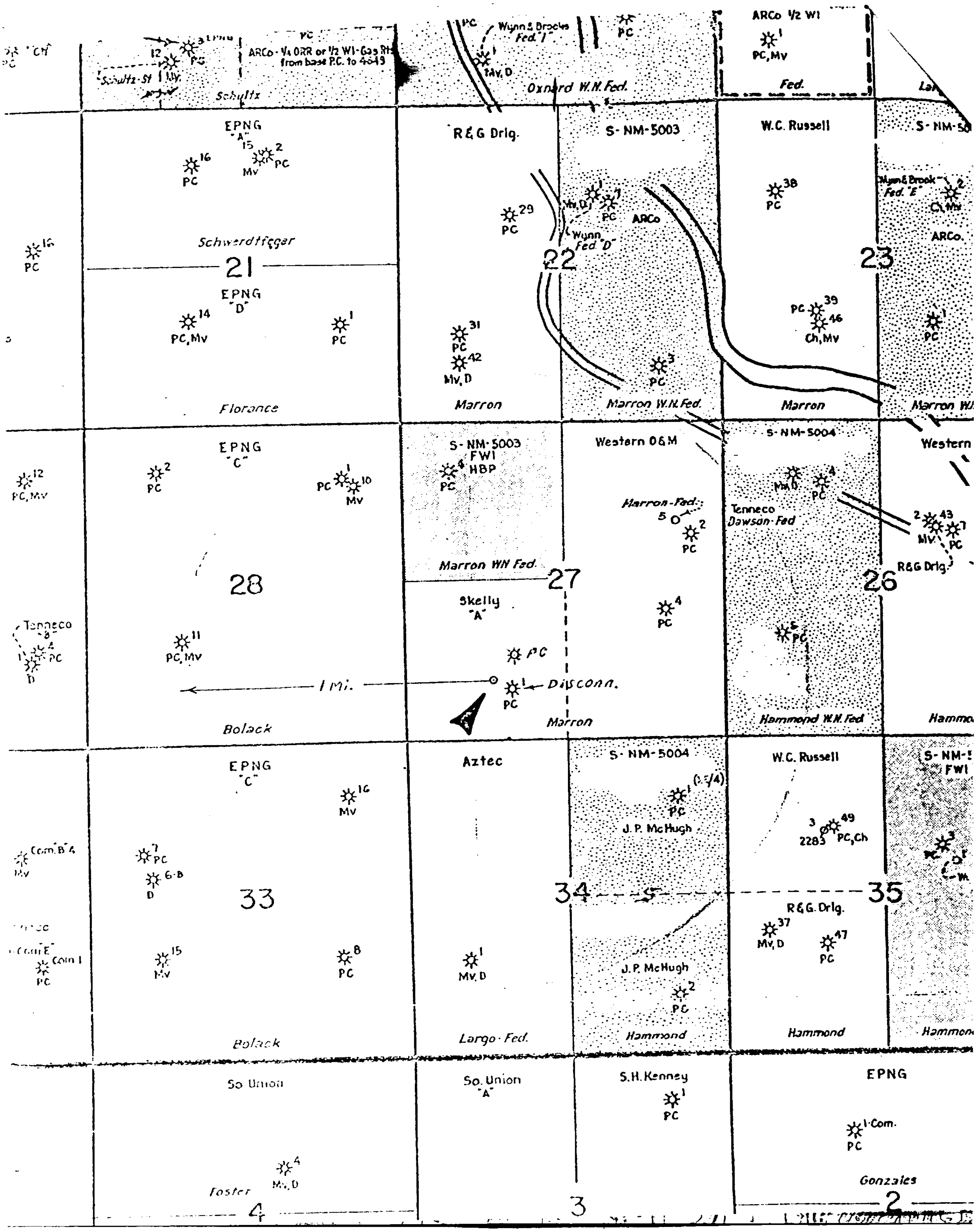
Mr. B. J. Sartain
Atlantic Richfield Company
1860 Lincoln Street, Suite 501
Denver, Colorado 80295
Phone: A/C 303 573-4053
Res: A/C 303 770-7849

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 subsontractors in conformity with this plan and the terms and conditions under which it is approved.

4-18-77
Date

W. A. Walther, Jr.
Operations Manager



ARCo - 1/4 ORR or 1/2 WI - Gas Rts from base P.C. to 4649
Schultz
Wynn & Brooks Fed. "I"
Oxnard W.N. Fed.
ARCo 1/2 WI
PC, Mv
Fed.
EPNG "A"
R & G Drlg.
S-NM-5003
W.C. Russell
S-NM-5
Schwerdtfeger
21
22
23
ARCo
Wynn Fed. "D"
Wynn & Brook Fed. "E"
ARCo.
EPNG "D"
PC, Mv
Ch, Mv
Mv, D
Florance
Marron
Marron W.N. Fed.
Marron
EPNG "C"
S-NM-5003 FWI HBP
Western O & M
S-NM-5004
Western
Marron-Fed. 5
Tenneco Dawson Fed
R&G Drlg.
28
27
26
Marron WN Fed.
Skelly "A"
Tenneco "B"
1 Mi.
Disconn.
Bolack
Marron
Hammond W.N. Fed
EPNG "C"
Aztec
S-NM-5004
W.C. Russell
J. P. McHugh
2283
PC, Ch
33
34
35
R&G. Drlg.
Mv, D
J. P. McHugh
Bolack
Largo-Fed.
Hammond
Hammond
So Union
So. Union "A"
S.H. Kenney
EPNG
1-Com.
Gonzales
Foster
4
3
2

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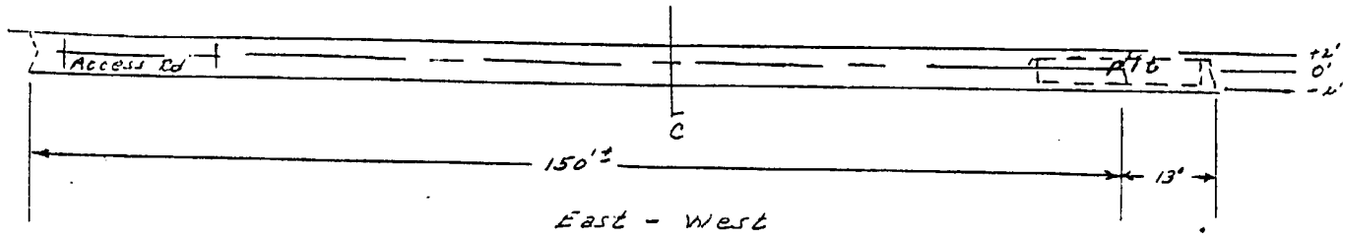

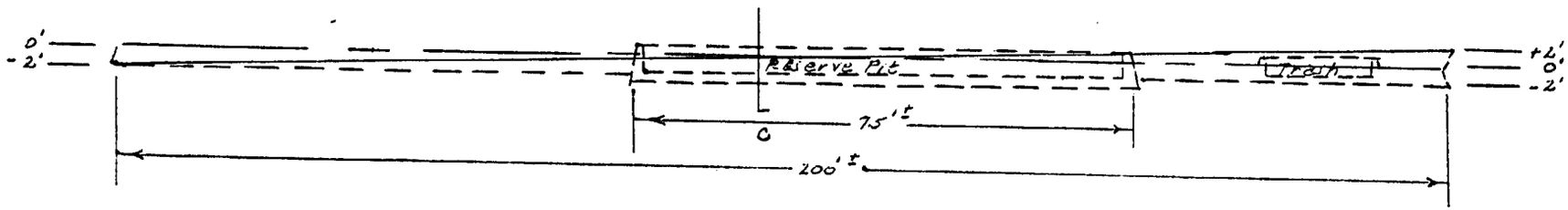

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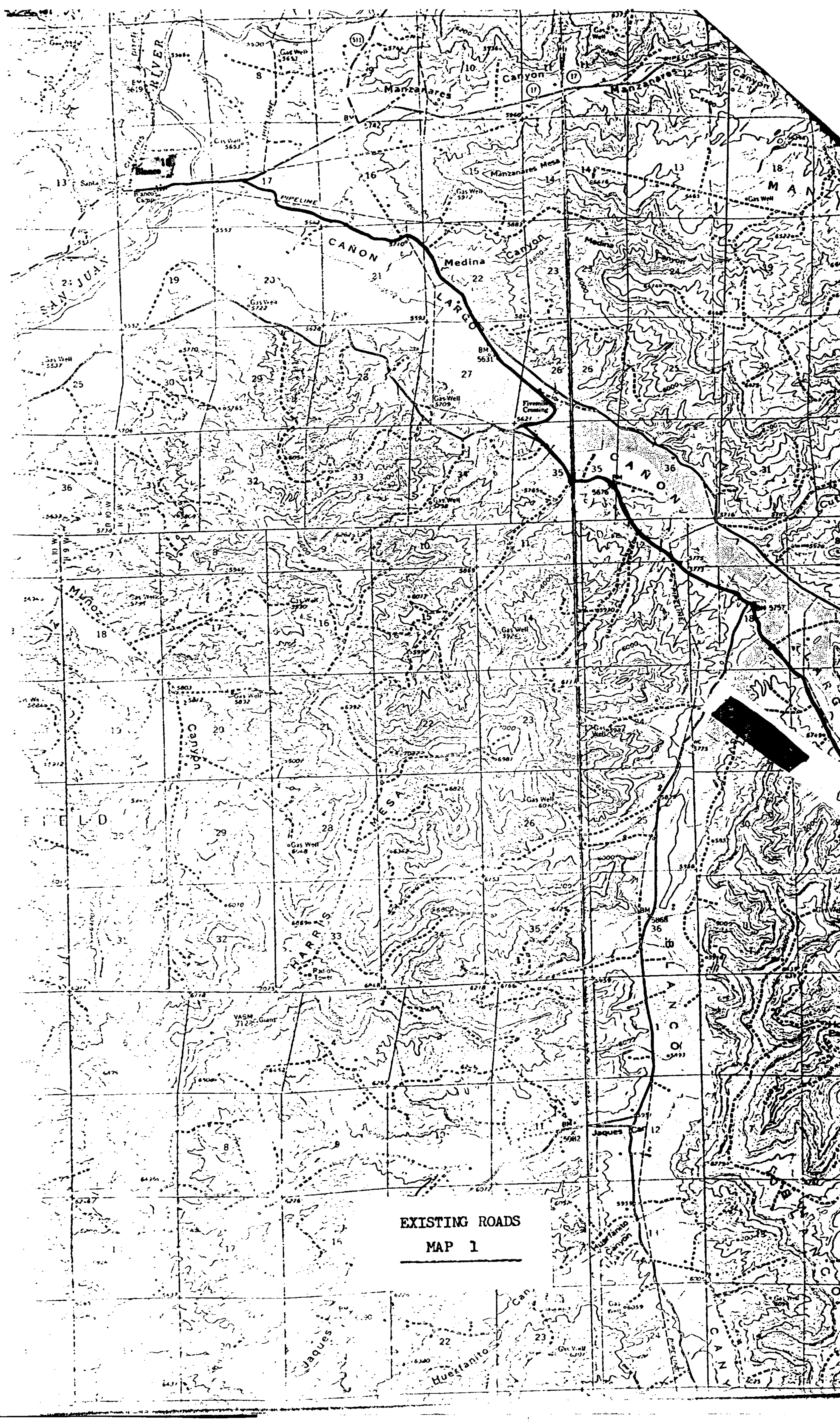
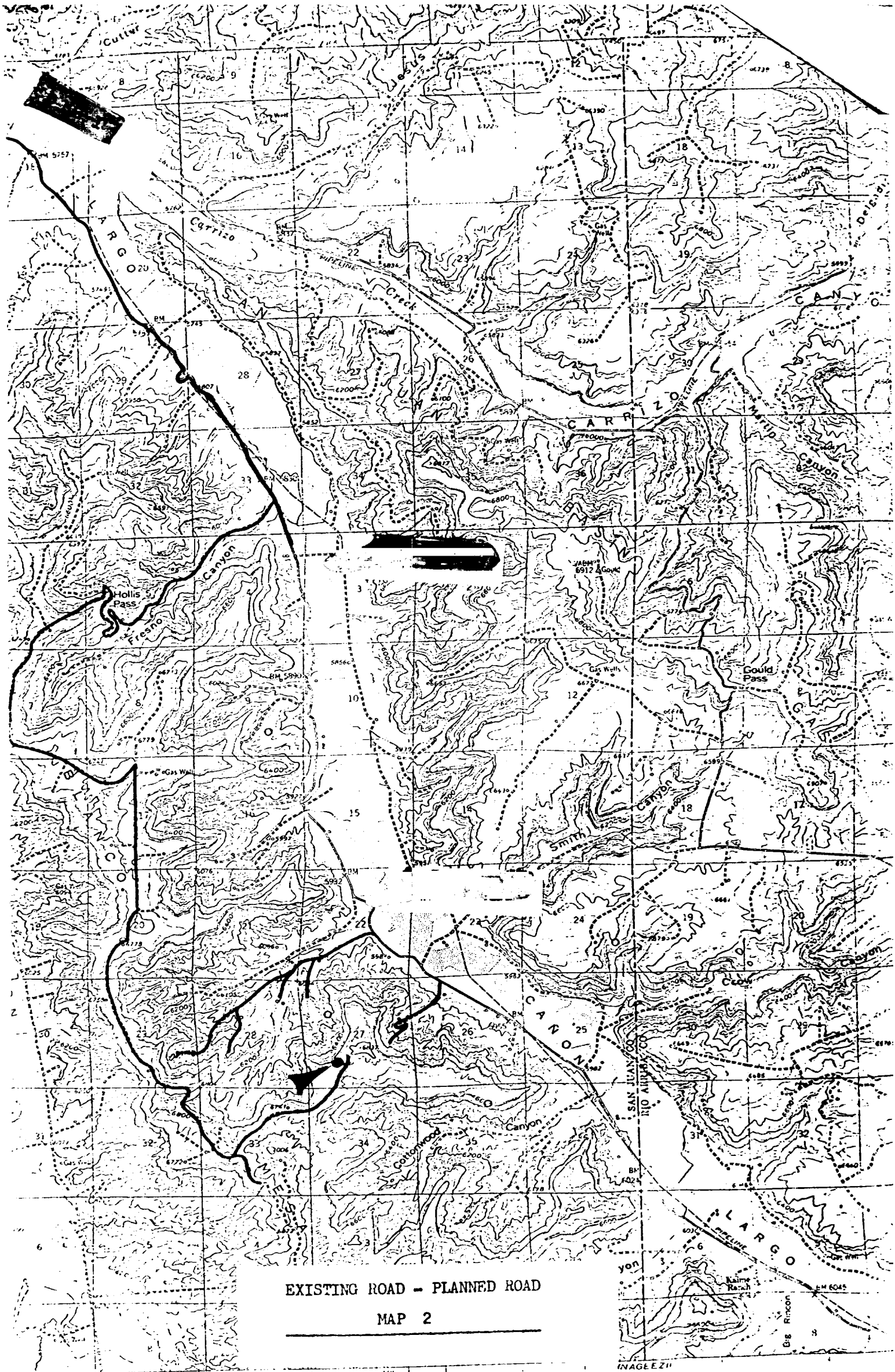


EXISTING ROADS

MAP 1



EXISTING ROAD - PLANNED ROAD

MAP 2