Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-23748

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED
APR 15 1981
O. C. D.
ARTESIA, OFFICE

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

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

2. NAME OF OPERATOR: DAVID FASKEN ✓

3. ADDRESS OF OPERATOR: 608 First National Bank Building, Midland, TX 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1980' FSL & 1650' FWL, Section 35
At proposed prod. zone

5. LEASE DESIGNATION AND SERIAL NO.: LC-072015-C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Maralo Federal

9. WELL NO.: 2

10. FIELD AND POOL, OR WILDCAT: Wild Burton Flat Avalon (Morrow)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Ut-K Sec 35, T-20-S, R-27-E

12. COUNTY OR PARISH: Eddy

13. STATE: New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 6 miles North of Carlsbad

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
1650'	640	320
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**
1650'	11400'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3234.1' GR

22. APPROX. DATE WORK WILL START*: September 1, 1981

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	54.50	400'	350 Lite + 100 "C" CIRCULATE
12-1/4"	8-5/8"	24 & 32	3000'	900 Lite + 200 "C" CIRCULATE
7-7/8"	4-1/2"	11.60 & 13.50	11400'	1st Stage: 1000 "H" 2nd Stage: 1400 "C" 50-50 Pozmix cut DV tool @ 7000'

Please refer to the attached:
1. Drilling & Completion Procedure
2. B.O.P. Specifications
3. Archaeologist's Report

Estimated Tops: 3rd Bone Springs 7820', Penn Lime 9200', Strawn 9700', Atoka 10000', Morrow 10600'.

No abnormal pressure zones anticipated.
Drilling duration estimated @ 45 days.
Gas is dedicated to El Paso Natural Gas Company.

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: Robert H. Angevine TITLE: Robert H. Angevine, Agent DATE: 4-1-81

(This space for Federal or State office use)

APPROVED

PERMIT NO. [redacted] APPROVAL DATE

APPROVED BY: APR 9 1981 TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

(Orig. Sgd.) GEORGE H. STEWART
JAMES A. GILLHAM
DISTRICT SUPERVISOR

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
David Fasken	Maralo Fed.	2

Unit Letter	Section	Township	Range	County
K	35	20 South	27 East	Eddy

Actual Footage Location of Well:
1980 feet from the South line and 1650 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3234.1	Morrow	~~Avalon~~ Undesignated Burton Flat Morrow	320 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).

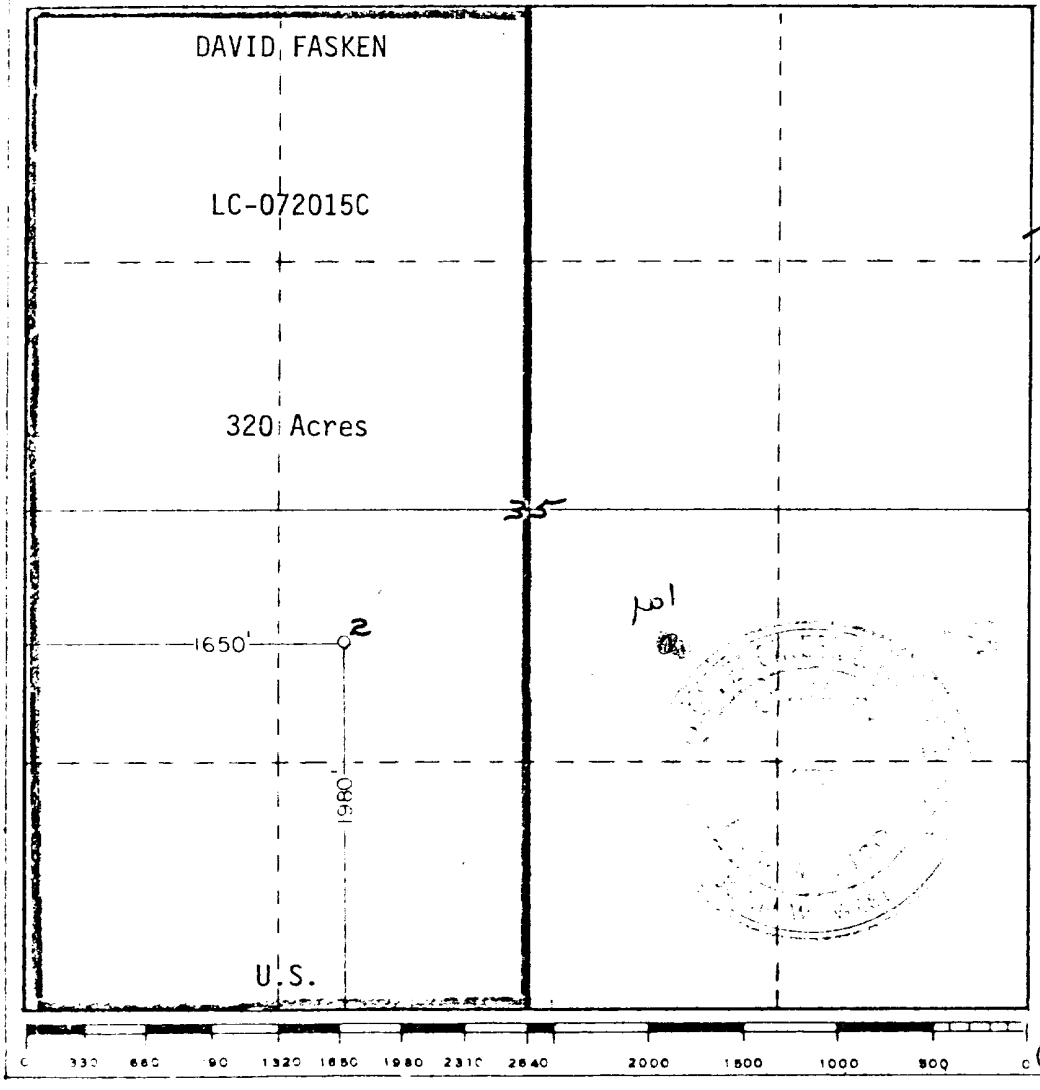
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? Working interest unit w/David Fasken as operator.

[X] Yes [ ] No If answer is "yes," type of consolidation All Federal Acreage & Lease

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.

APR 1981



CERTIFICATION

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

Name: Robert H. Angevine

Position: Agent

Company: DAVID FASKEN

Date: 4-1-81

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.

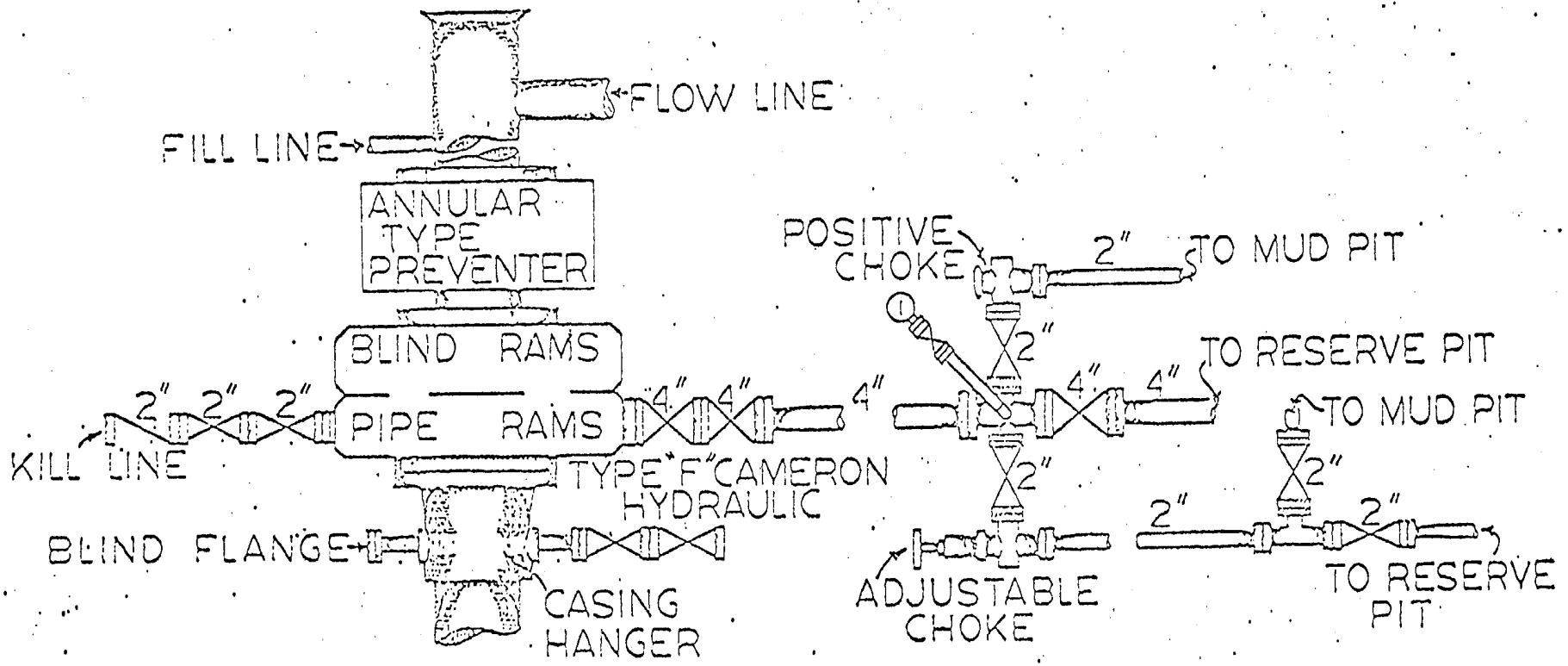
Date Surveyed: 2-9-81

Registered Professional Engineer and/or Land Surveyor

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239

B.O.P. ARRANGEMENT—RIG NO. 7

12" GK HYDRIL 3000 WP
160 GALLON—7 STATION KOOMEY ACCUMULATOR WITH REMOTE CONTROL
5000 LB. WP CHOKE MANIFOLD
13 5/8" TYPE "U" CAMERON 5000 WP, DOUBLE B.O.P.



8/30/78

(915) 683-1893

HENRY ENGINEERING
Petroleum Engineers
807 FIRST NATIONAL BANK BUILDING
MIDLAND, TEXAS 79701

April 1, 1981

RECEIVED
APR 15 1981
O. C. D.
ARTESIA, OFFICE

RECEIVED
APR - 3 1981

U. S. G. S.
P. O. Drawer 1857
Roswell, New Mexico 88201

Attention: George Stewart

Re: David Fasken
Maralo Federal No. 2
1980' FSL & 1650' FWL
Sec. 35, T-20-S, R-27-E
Eddy County, New Mexico

Gentlemen:

On behalf of our client, David Faslen, we are submitting an application to drill the subject well. A list of enclosed exhibits is attached to this letter.

If you require any additional exhibits or data to expedite approval of this drill site, please call me at 1-915-683-1893.

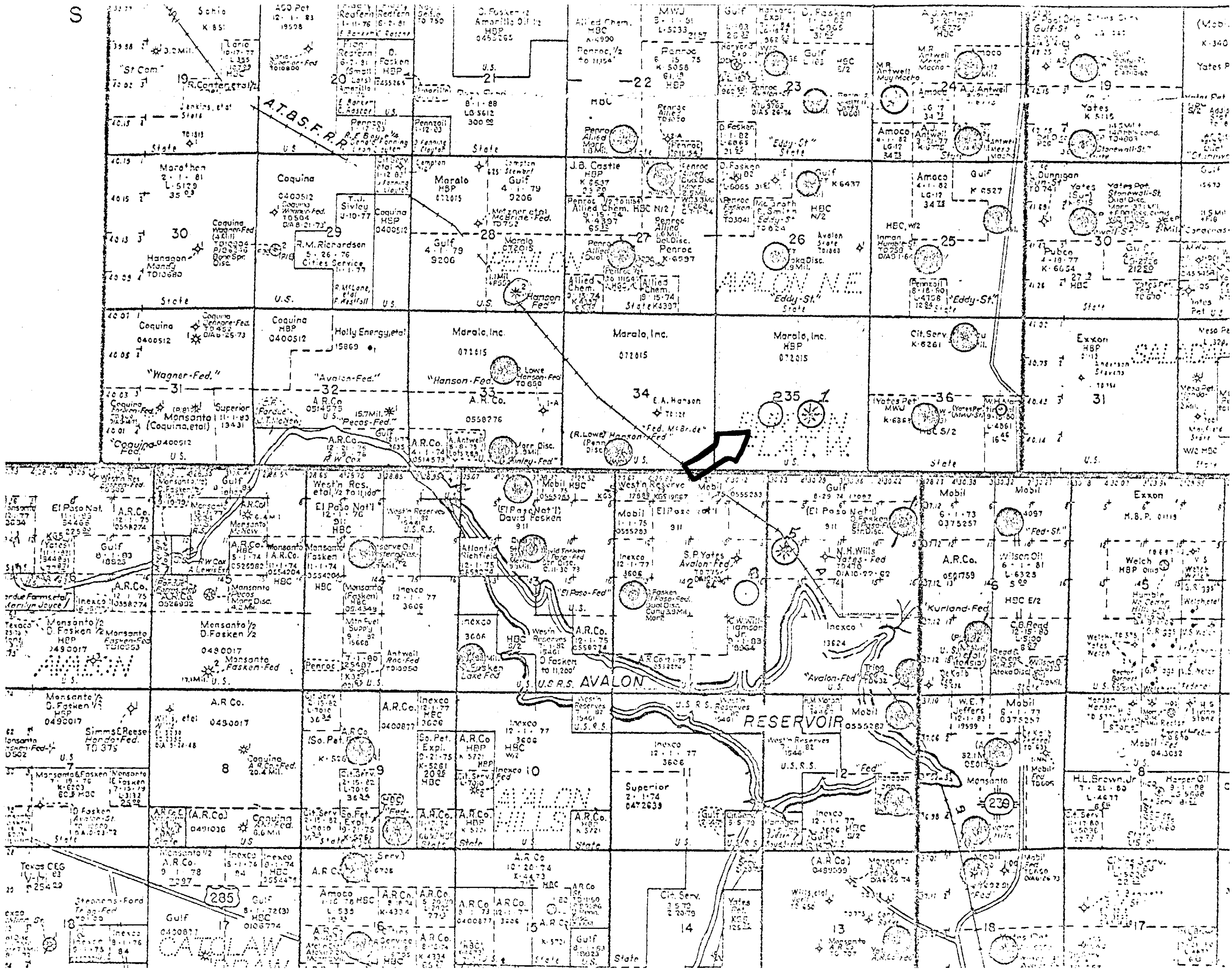
Yours truly,

HENRY ENGINEERING

Robert H. Angevine

Robert H. Angevine

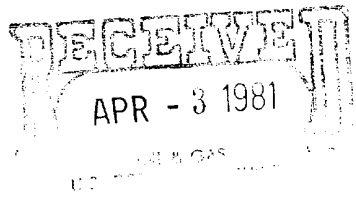
RHA:jcs
Enclosures


S
A.T.&S.F.R.R.
"Wagner-Fed."
"Avalon-Fed."
"Hanson-Fed."
"Eddy-St."
AVALON N.E.
Maralo, Inc.
U.S.R.S. AVALON
RESERVOIR
AVALON HILLS
CATCLAW
285
239

MULTIPOINT SURFACE USE AND OPERATIONS PLAN

for

DAVID FASKEN



Maralo Federal No. 2

1980' FSL & 1650' FWL, Sec. 35, T-20-S, R-27-E

Eddy County, New Mexico

1. Existing Roads. The attached plat of a portion of the Lake McMillan, South, New Mexico, quadrangle shows existing roads in the Lake Avalon area and in the vicinity of the proposed wells. Existing Eddy County maintained roads will be utilized.

2. Planned Access Road. The attached plat referred to in 1. above shows the planned new access road as a single dashed line high-lighted in red. The new road bed will be 12' wide by 30' long with no major cuts or fills to be encountered. Due to the short length, no turnouts will be required. No fences will be cut and no cattleguards will be required.

3. Location of Existing Wells. Existing wells are shown on a portion of E. Eddy County map.

4. Location of Tank Batteries, Production Facilities, etc. All condensate tanks, separators, dehydrators and/or gas meters will be located at the well site.

5. Location and Type of Water Supply. A water supply well is shown on the Lake McMillan, South, New Mexico, quadrangle located 2900' FEL & 2800' FNL, Section 3, T-21-S, R-26-E, NMPM, Eddy County, New Mexico. This well was drilled by David Fasken and has supplied drilling water for seven gas wells.

6. Methods for Handling Waste Disposal. Cuttings from the well bore will be contained in conventional earth reserve pits. The top soil will be used in the pit walls and used to cover the pits after they have been dried and leveled.

   Garbage will be burned in a burner pit dug in the reserve pit excavation in an area cleared of all flammable vegetation and materials.

   The only salts and chemicals anticipated to be used will be in the drilling mud and will be buried after the mud in the reserve pit with the cuttings has dried.

   Sewage will be disposed of into a temporary septic tank dug at the rig trailer house. This will be filled with dirt, covered with top soil and leveled at the completion of the well.

   Drilling fluids will be allowed to dry in the reserve pits and will be buried with the cuttings and backfilled with top soil.

   Produced oil and water will be contained in test tanks and the oil trucked to the nearest pipeline and the water hauled by transport truck to the nearest commercial disposal well and injected therein.

7. Ancillary Facilities. None are planned.

8. Well Site Layout. See attached plat.

9. Restoration of the Surface. The location will be reshaped to the original contour of the surface except for the area needed to service the well. Unnecessary pad and roadway will be "ripped" to help with recovery of natural plants.

START: 60 Days after completion of well.
END: 120 Days after completion of well.

10. Other Information. All lands are Federal ownership. The surface is utilized for cattle grazing and administered by the Bureau of Land Management.

11. Operator's Representative.

James B. Henry, Agent for David Fasken
Henry Engineering
807 First National Bank Building
Midland, Texas 79701

Business Phone: 1-915-683-1893
Home Phone: 1-915-694-0137

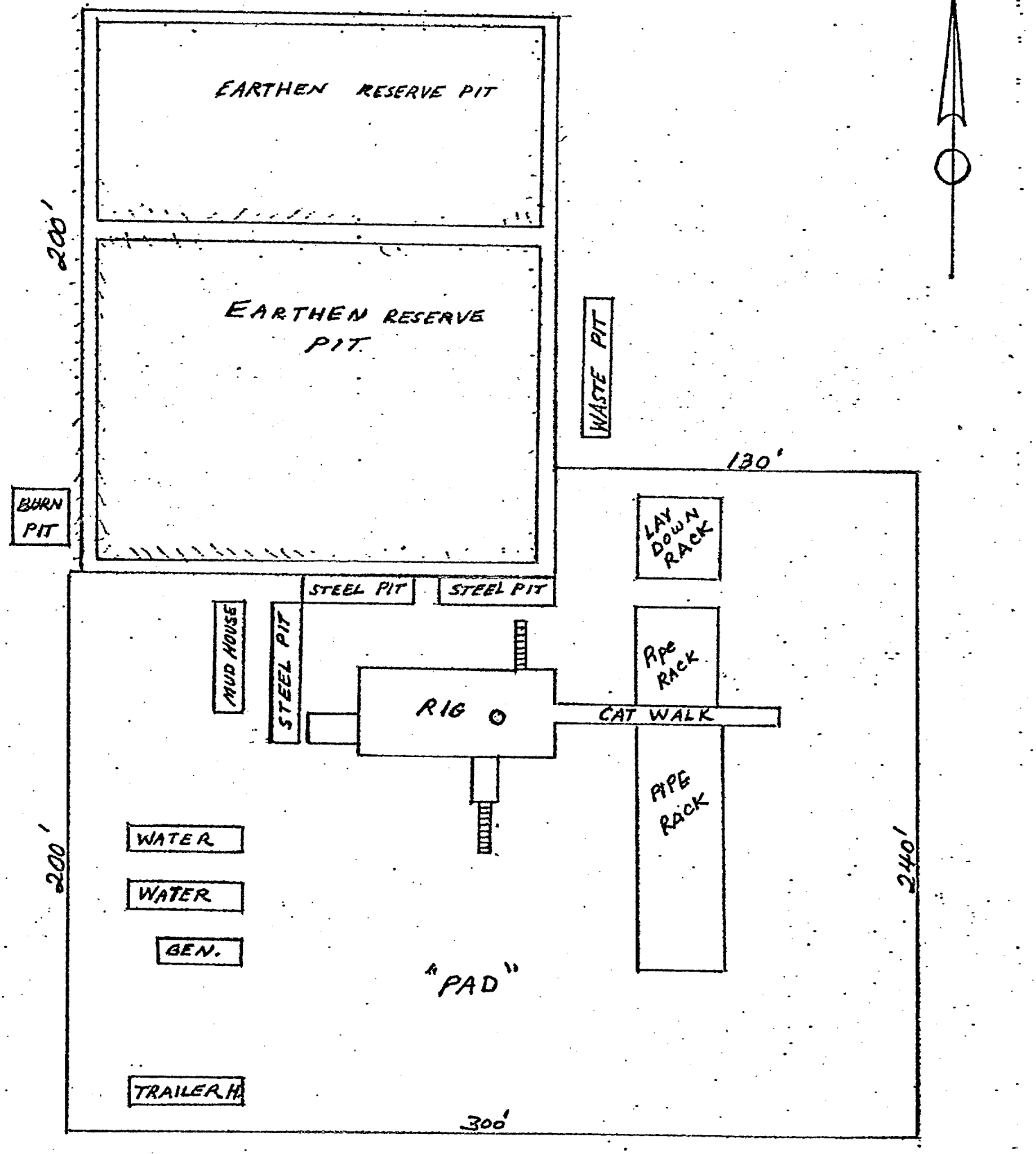
12. Certification.

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 David Fasken and his contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

April 1, 1981

Robert H. Angevine
Robert H. Angevine
Agent for David Fasken

RHA:jcs



HENRY ENGINEERING
MIDLAND, TEXAS

RIG & WELL SITE PLAT

RECOMMENDED DRILLING & COMPLETION PROCEDURE

A.F.E. NO. 463

David Fasken ---------- MARALO FEDERAL NO. 2 ----- Avalon (Morrow) Field
Eddy County, New Mexico

1. Drill 17-1/2" hole to 400' with spud mud.

2. Set 13-3/8" casing at 400', cement to surface and install 12" x 3000 psi W.P. casinghead and B.O.P. stack. (Estimate 350 sxs Halliburton Lite w/1/2# Flocele per sack and 2% CaCl, slurry weight 12.7 ppg, yield 1.85 cf/sx, plus 100 sxs Class "C" with 2% CaCl.)

3. Drill 12-1/4" hole to 3000' with fresh water, control seepage with paper. Dry drill if complete loss of returns is encountered.

4. Set and cement 8-5/8" casing at 3000' with sufficient cement to circulate (Estimate 900 sxs Halliburton Lite with 1/2# Flocele per sack plus 2% CaCl, slurry weight 12.7 ppg, yield 1.85 cf/sx, plus 200 sxs Class "C" with 2% CaCl, slurry weight 14.8 ppg.) W.O.C. 18 hours. If cement does not circulate, run temperature survey and stage cement outside pumped through 1" tubing using Class "C" with 4% CaCl and/or fill up with ready mix concrete - 6 sxs mix with pea gravel aggregate. Install 12" - 3000# W.P. x 10" - 5000# W.P. spool with secondary seal, bit guide, B.O.P.'s, Hydril and choke manifold.

5. On or before 8000' test 8-5/8" casing to 2200 psig and test B.O.P.'s, choke manifold and all wellhead valves to 3000 psig and Hydril to 1500 psig.

6. Install PVT, flow line sensor, and rotating head at 8000'.

7. Drill 7-7/8" hole to estimated T.D. of 11,400' with fresh water. Control seepage with paper and P_h at 11.0 with lime.

8. At 8000' add potash to 4% KCl concentration, increase viscosity with salt water gel as required to maintain good hole conditions. Decrease water loss as necessary with salt water C.M.C. and starch. At top of Morrow reduce water loss to 10 cc and maintain to T.D.

9. Drill stem test all shows (test each Morrow Sand separately).

10. Run logs (combination CNL-FDC w/Gamma Ray, DLL and Dip Meter).

11. Set and cement 4-1/2" production casing (resin coated and centralized through pay zones) in two stages with D.V. tool at 7000'.

    First Stage: 500 sxs Class "H" cement with 3.0# KCl per sx, 1/4# Flocele and 0.8% Halad-22 plus 0.4% CFR-2, slurry weight 15.6 ppg, yield 1.19 cf/sx, plus 500 sxs Class "H" with 3.0# KCl plus 0.8% Halad-22 plus 0.4% CFR-2, slurry weight 15.6 ppg, yield 1.18 cf/sx. Open D.V. tool and circulate 6 hours.

    Second Stage: 1400 sxs Class "C" - 50-50 Pozmix with 2% Gel, slurry weight 13.7 ppg, yield 1.36 cf/sx.

12. Install 10" - 5000 psi W.P. x 6" - 5000 psi W.P. tubinghead and Christmas Tree.

13. Run temperature survey to locate cement top.

14. Rig down and move out rotary tools.

Recommended Drilling & Completion Procedure
A.F.E. No. 463
David Fasken - Maralo Federal No. 2
Avalon (Morrow) Field
Eddy County, New Mexico

15. Set mast anchors and move in pulling unit.

16. Pressure test casing and Christmas Tree to 4500 psig.

17. Run 2-3/8" tubing N-80,EUE 8RD c/w AB modified couplings, and packer.

18. Displace fluid in well with 3% KCl water containing oxygen scavenger and corrosion inhibitor.

19. Set packer and install Christmas Tree.

20. Swab sluid level to 9000' in tubing.

21. Run Gamma Ray correlation log and perforate Morrow for production.

22. Test well.

23. Stimulate as needed - acid and/or frac.

24. Clean up "load fluid" and test.

25. Run C.A.O.F.P. and pressure build up.

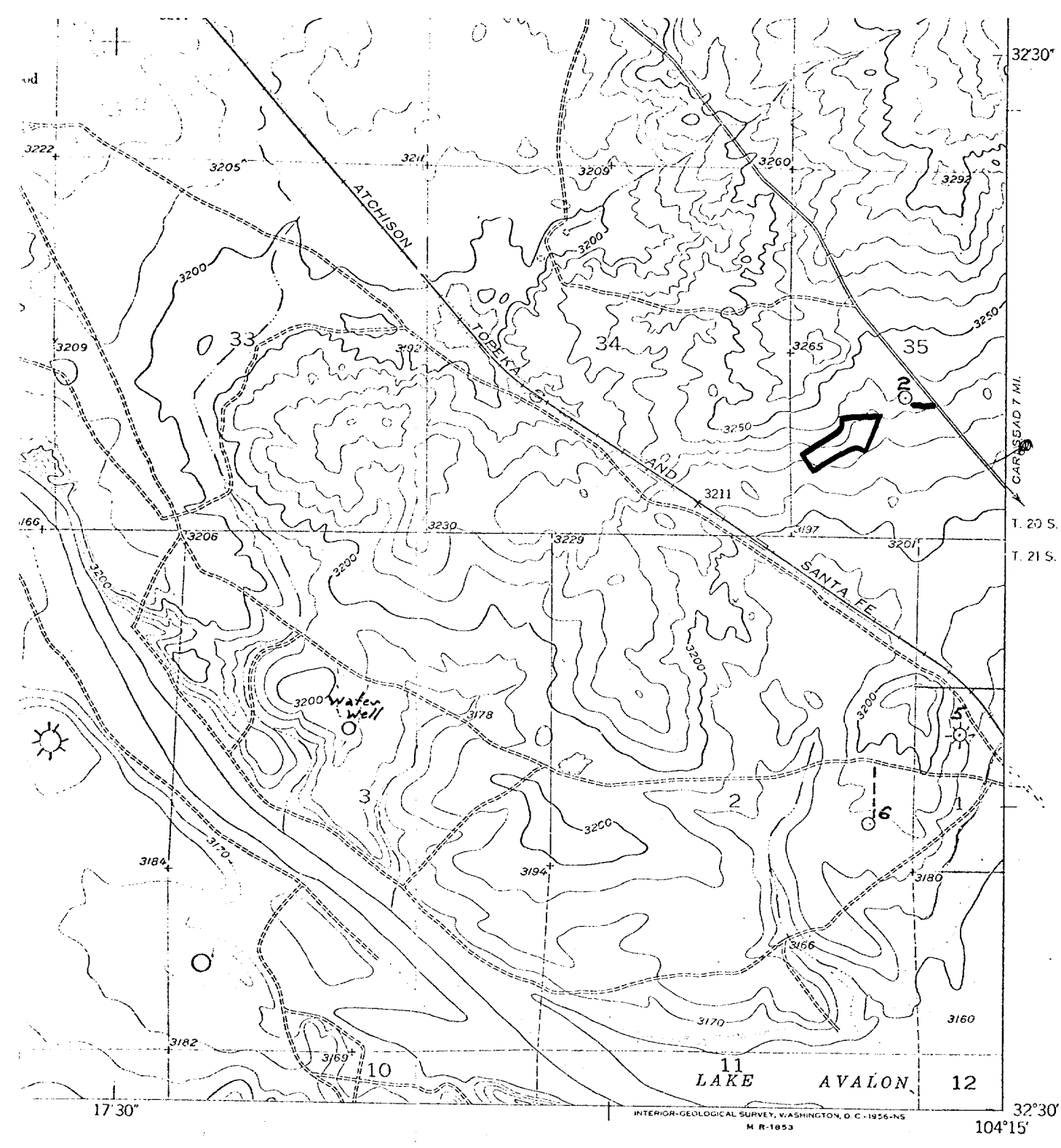
26. Install surface equipment.

RECOMMENDED CASING PROGRAM

A.F.E. NO. 463

David Fasken ---------- MARALO FEDERAL NO. 2 ----- Avalon (Morrow) Field
Eddy County, New Mexico

	Footage	Size	Weight	Grade	Thread
Surface Casing	400'	13-3/8"	54.50#/ft.	J-55	ST&C
Intermediate Casing	2,500'	8-5/8"	24#/ft.	J-55	ST&C
	500'	8-5/8"	32#/ft.	J-55	ST&C
	3,000'				
Oil String Casing	2,000'	4-1/2"	11.60#/ft.	N-80	Buttress
	8,300'	4-1/2"	11.60#/ft.	N-80	LT&C
	1,100'	4-1/2"	13.50#/ft.	N-80	LT&C
	11,400'				
Tubing	11,400'	2-3/8"	4.70#/ft.	N-80	EUE8RD AB Modified



1 MILE

ROAD CLASSIFICATION

Heavy-duty — Light-duty

Medium-duty — Unimproved dirt

U. S. Route — State Route

(CARLSBAD)
1:62 500

QUADRANGLE LOCATION

LAKE MC MILLAN SOUTH, N. MEX.

N3230—W10415/7.5

1955

25, D.C.