Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-039-22598

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: Mitchell Energy Corp. (303) 861-2226

3. ADDRESS OF OPERATOR: 3200 Amoco Bldg., 1670 Broadway, Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 890' FNL 1060' FEL Sec.-23, T-31N, R-4W
At proposed prod. zone: Dakota Formation

5. LEASE DESIGNATION AND SERIAL NO.: SF 078893

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: Rosa Unit

8. FARM OR LEASE NAME:

9. WELL NO.: 84

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec.-23,T-31N,R-4W

12. COUNTY OR PARISH: Rio Arriba

13. STATE: N.M.

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 58 Mi. Northeast of Blanco, New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 890' FNL

16. NO. OF ACRES IN LEASE: 1920

17. NO. OF ACRES ASSIGNED TO THIS WELL: E/ 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: None

19. PROPOSED DEPTH: 8700'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6841' GR

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

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	10 3/4"	32.75#	0-350'	Cement to Surface
9 1/2"	7"	26#	0-4000'	Approx. 400 SX. in 2 Stages
6 1/8"	4 1/2"	11.6#	3600-8700'	Approx. 400 SX

Operator expects to drill to a depth sufficient to test the Dakota for gas. If productive, 4 1/2" casing will be run and set at 8700'. If non-productive, well will be abandoned in a manner consistent with Federal Regulations. Any zones above Dakota will be tested for productivity prior to abandonment.

Exhibits Attached:
Ten Point Compliance Program
Multipoint Requirements for APD
#1 Blowout Preventor Schematic
#2 Location and Elevation Plat
#3 Access Road
#4 Access Road
#5 Radius Map
#6 Production Facilities

This action is subject to administrative appeal pursuant to 30 CFR 290.

#7 Cut and Fill Cross Section
#8 Drilling Rig Layout
#9 Letter of Agent

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

RECEIVED
JAN 9 1981
OIL CON. COM.
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. SIGNED: [signature] TITLE: District Prod. Mngr. DATE: 11/4/80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED AS AMENDED

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

JAN 07 1981

for JAMES F. SIMS
DISTRICT ENGINEER

NMOCC

*See Instructions On Reverse Side

Well C104 for operator change

ok Sm

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.
MITCHELL ENERGY CORPORATION	ROSA UNIT	84

Unit Letter	Section	Township	Range	County
A	23	31N	4W	Rio Arriba

Actual Footage Location of Well: 890 feet from the North line and 1060 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6841	Dakota	Basin Dakota	320 Acres

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

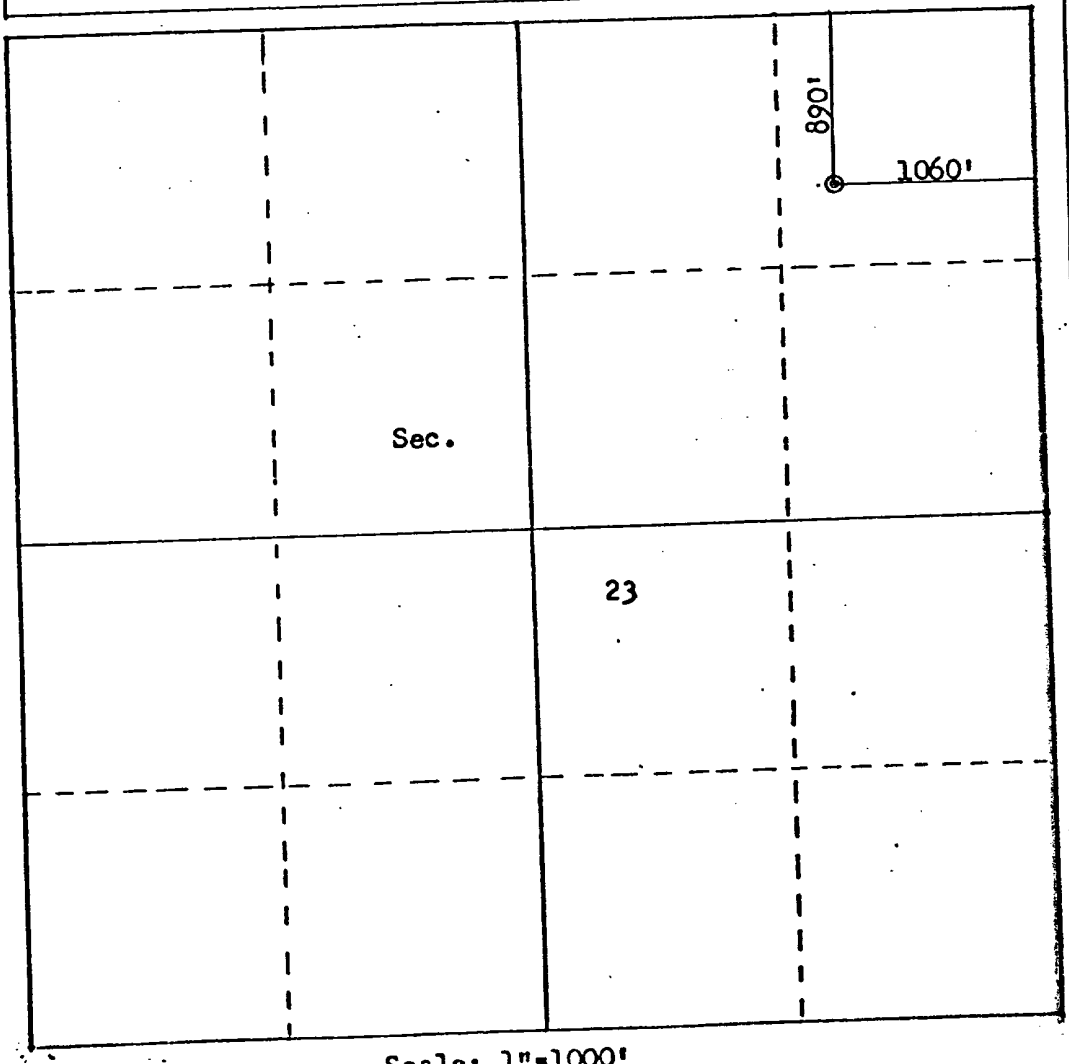
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

☐ 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'

CERTIFICATION

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

Name: Brad W. Fischer

Position: Area Prod. Mgr.

Company: Mitchell Energy Corp.

Date: 1/20/81

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.

RECEIVED
JAN 27 1981
OIL CON. COM.
DIST. 3

Date Surveyed: October 22, 1980

Registered Professional Engineer and Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

FRED B. KERR, JR.

Exhibit # 2

FORM 24-11

Ten-Point Compliance Program

of NTL-6 Approval of Operations

Attached to form 9-331C
Mitchell Energy Corporation
Rosa Unit #84-23-31-4
NE NE Sec.-23,T-31N,R-4W
890' FNL & 1060' FEL
Rio Arriba, County

1. Geological Name of Surface Formations

The surface formation is Tertiary Rock

2. Estimated Tops of Important Geological Markers

Tertiary Rock	Surface
Pictured Cliffs	3715'
Lewis Shale	3815'
Mesa Verde	5740'
Mancos	6640'
Gallop	6990'
Greenhorn	8310'
Dakota	8510'
Proposed T.D.	8700'

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

Surface to Top Pictured Cliffs	3715'	Water
Lewis Shale	3815'	Gas
Mesa Verde	5740'	Gas
Mancos	6640'	Gas
Gallop	6990'	Gas
Greenhorn	8310'	Gas
Dakota	8510'	Gas

If any water zones are encountered, they will be adequately protected and reported.

4. Casing Program

Hole Size	Interval	Section Length	Size (OD)	Wgt., Grade, and Joint	Condition
14 3/4"	0-350'	350'	10 3/4"	32.75# K-55,ST&C	New
9 1/2"	0-4000'	4000'	7"	26# K-55,ST&C	New
6 1/8"	3600-8700'	5100'	4 1/2"	11.6# K-55,ST&C	New

5. Minimum Specifications for Pressure Control

The blowout preventer equipment will be a 10" - 900 Series. The BOP's will be hydraulically tested to 2000 psi for 30 minutes prior to drilling below surface casing 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. At least one kill line (2") will be installed below BOP rams. Such checks of BOP will be noted on daily drilling reports.

Accessories to BOP will include a kelly cock, floor safety valve, drill string BOP and choke manifold with pressure rating equivalent to the BOP stack.

6. Type and Characteristics of the Proposed Circulating Fluids

A. Surface and intermediate hole (0-4000') - Fresh water gel system, with the following properties:

Weight #/gal.	Viscosity	Water Loss
9-10	35-40	10cc.

B. From under Intermediate (4000'-TD) - Drill with air

7. The Auxiliary Equipment to be Used

A. A kelly cock will be kept in the string.

B. A float will be used if lost circulation conditions do not exist.

C. Visual monitoring of mud tank levels will be required. No special equipment will be used to monitor mud system.

D. A full opening stabbing valve with drill pipe thread 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. Tests will be run based on good shows on recommendations of the Geologist.

B. The logging program will consist of a Dual Induction-Laterolog from surface to total depth, Gamma-Ray Compensated Neutron-Formation Density from 4000' to total depth.

C. No coring is anticipated.

D. Stimulation procedures will be determined after evaluation of logs and well testing. If treatment is indicated, appropriate Sundry Notice will be submitted.

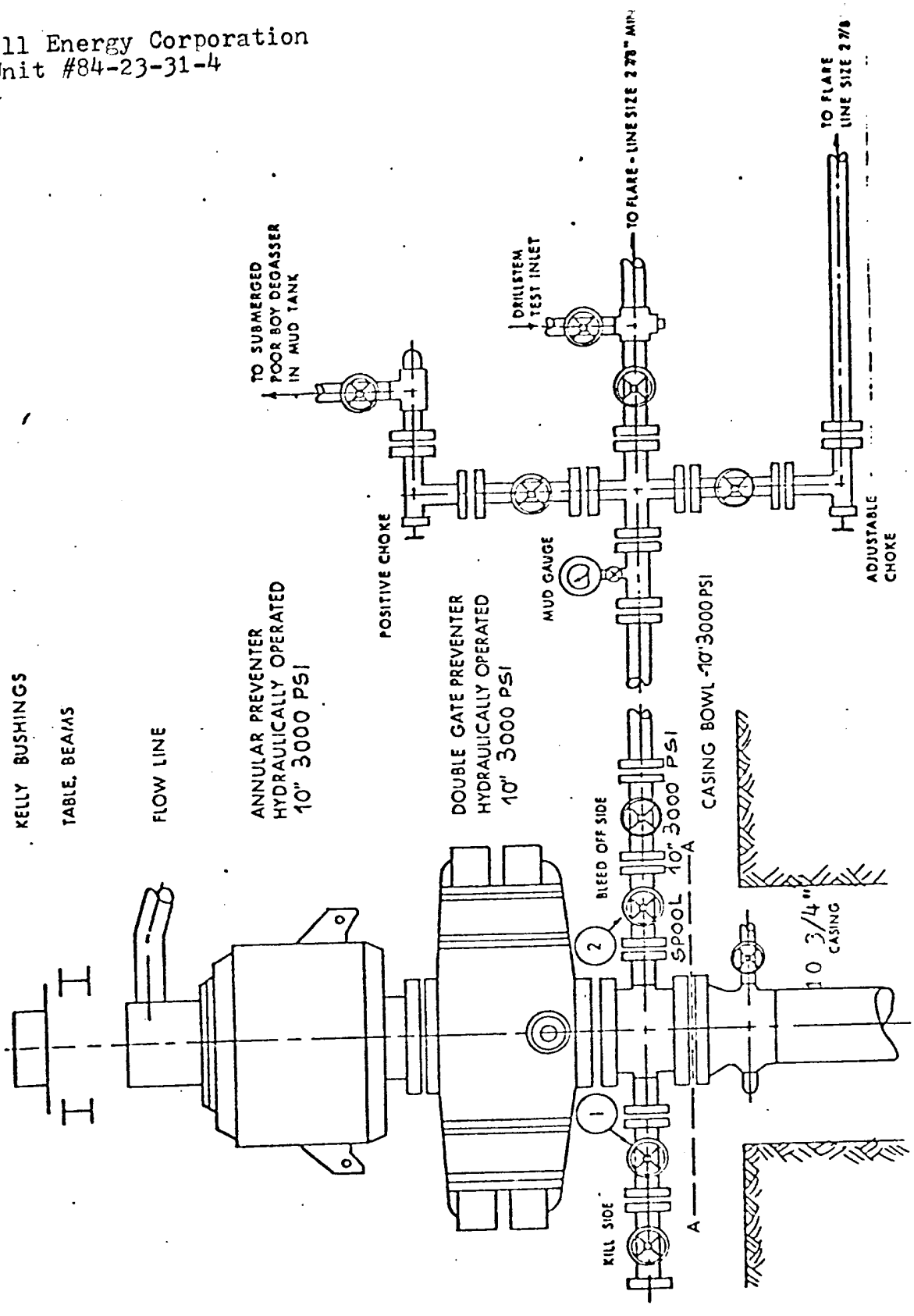
9. Any Anticipated Abnormal Pressures or Temperatures

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 2400 psi. Bottom hole temperature at TD is 200°F.

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 January 1, 1981, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 14 days after spudding the well and drilling to casing point.



PRESSURE CONTROL EQUIPMENT

Exhibit # 1

Attached to form 9-331C
Mitchell Energy Corporation
Rosa Unit #84-23-31-4
NE NE Sec.-23,T-31N,R-4W
890' FNL & 1730' FWL
Rio Arriba, County

1. Existing Roads

A. Proposed well site: See location and elevation Plat Exhibit 2 and Access Road Exhibits 3 & 4.

B. From Blanco, New Mexico proceed East on Highway 64 some 40 miles to Road 310 (improved dirt at mile marker 63 on Highway 64). Go north on 310 some 17.6 miles to flagged well site east of Road 310.

C. All raods to location are color coded on Exhibits 3 & 4. The new access road is traced in black, existing roads are traced in red.

D. No applicable

E. Existing roads within a 1 mile radius of well site are shown on Exhibit 4.

2. Planned Access Roads

Pad borders on existing road and therefore no access road is necessary to pad.

3. Location of Existing Wells

For all existing wells within a one mile radius of Development well see Exhibit 5.

A. There are no water wells within a one mile radius of this location.

B. There is one abandoned well within a one mile radius.

C. There are no temporarily abandoned wells.

D. There are no disposal wells.

E. There are no wells presently being drilled.

F. There are no producing wells.

G. There are no sut-in wells.

H. There are no injection wells.

I. There are not monitoring or observation wells for other uses.

4. Location of Existing and/or Proposed Facilities

A. Within a one-mile radius of location the following existing facilities

are owned or controlled by lessee/ooperator:

(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 the well is productive, new facilities will be as follows:

(1) Production facilities will be located on solid ground of drill pad, as shown on Exhibit 6.

(2) The facilities will be approximately 200' by 150' (see Exhibit 6)

(3) The tank battery will be constructed using a bulldozer to level the site, backhoes to dig trenches and bury lines, and pole trucks, floats and roustabout crews to maneuver and set facility equipment. Construction material will consist of surface soil. No additional material from outside sources is anticipated.

(4) In order to protect livestock and wildlife, pits will be fenced and flagged.

C. Rehabilitation, whether well is productive or dry, will be made on all unused areas in accordance with U. S. Forest Service stipulations.

5. Location and Type of Water Supply

A. The source of water supply is expected to be a water hole located in the NE¼ of the NE¼ of Sec.-7 Twp-31N Rng.-4W (Exhibit 3). If this proves unfeasibe the nearest and most accessible water source will be used.

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 well or constructing access roads into the drilling location unless well is productive. The surface soil materials will be sufficient or will be purchased from Dirt Contractor as needed.

B. No construction materials will be taken off Federal land.

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

D. All major access roads presently exist as shown on Exhibit 3 and 4.

7. Handling of Waste Materials and Disposal

A. Cuttings not retained for evaluation purposes will be dumped into the reserve pit.

B. Drilling fluids will be handled in the reserve pit.

C. Produced water will be dumped to the reserve pit. Produced oil will either be collected in tanks or dumped to the reserve pit, depending on volume and occurence. If the volume of oil is sufficient, it will be trucked from the location.

D. A portable toilet will be provided for human waste.

E. Garbage and other waste - a trash/burn pit will be constructed and fenced with woven wire, at the commencement of operations, to prevent wind scattering trash before being burned or buried.

F. All pits will be filled and the well site will be leveled and reseeded, as per Forest Service specifications, when pits are dry enough to fill and weather permits. Only that part of the pad required for producing facilities will be kept in use. In the event of a dry hole, only a dry hole marker will remain.

8. Ancillary Facilities

None

9. Well Site Layout

A. Drill pad cross sections: see Exhibit # 7.

B. Drilling equipment location: see Exhibit # 8.

C. Rig orientation: see Exhibit # 8.

D. Reserve pit will not be lined.

10. Plans for Restoration

A. Upon completion of operations and if the well is to be abandoned, the location will be backfilled, leveled and contoured to as nearly the original topography as is feasible as soon as the pits have dried. Waste pits will be backfilled. The location will be reseeded as per Forest Service recommendations.

All spoils materials will be segregated according to combustibility and burned or buried.

B. Revegetation will be achieved by seeding with a seed mixture recommended by the Forest Service. Access roads built by Mitchell Energy Corporation will be rehabilitated in the same manner as the location, if the well is to be abandoned.

C. 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 clean-up are accomplished.

D. If any oil is on the pits and is not immediately removed after operations ceases, the pit containing the oil or other adverse substances will be flagged and fenced. Other clean-up will be done as needed. Planting and revegetation is considered best in Spring 1981, unless requested otherwise.

11. Other Information

A. The soil is sandy clay loam. The location sits in rocky, hilly canyon bottom with alluvial surface deposits, and sandstone outcrops. The vegetation is sagebrush, rabbitbrush, mountain mahogany, pinnon, juniper, spruce, greaseweed, and galleta.

B. The primary surface use is for grazing. The surface is owned by the U. S. Government.

C. (1) The closest live water is Bancos Canyon Wash as shown on Exhibit 4. Water flow in the wash is intermittant and during runoff only.

(2) The closest occupied dwelling is the Bixler Ranch located approximately 1½ miles north of Highway 64 on Road 310.

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

D. There are no reported restrictions or reservations noted on the oil and gas lease.

E. Drilling is planned for on or about January 1, 1981, that the casing point will be reached within 14 days after commencement of drilling.

12. Lessee's and Operator's Representative

S. J. Pagano
Agent for Mitchell Energy Corp.
7892 So. Garfield Way
Littleton, Colorado 80122

(303) 771-9799

Mr. S. J. Pagano

Mitchell Energy Corp.
3200 Amoco Building
1670 Broadway
Denver, Colorado 80202

(303) 861-2226

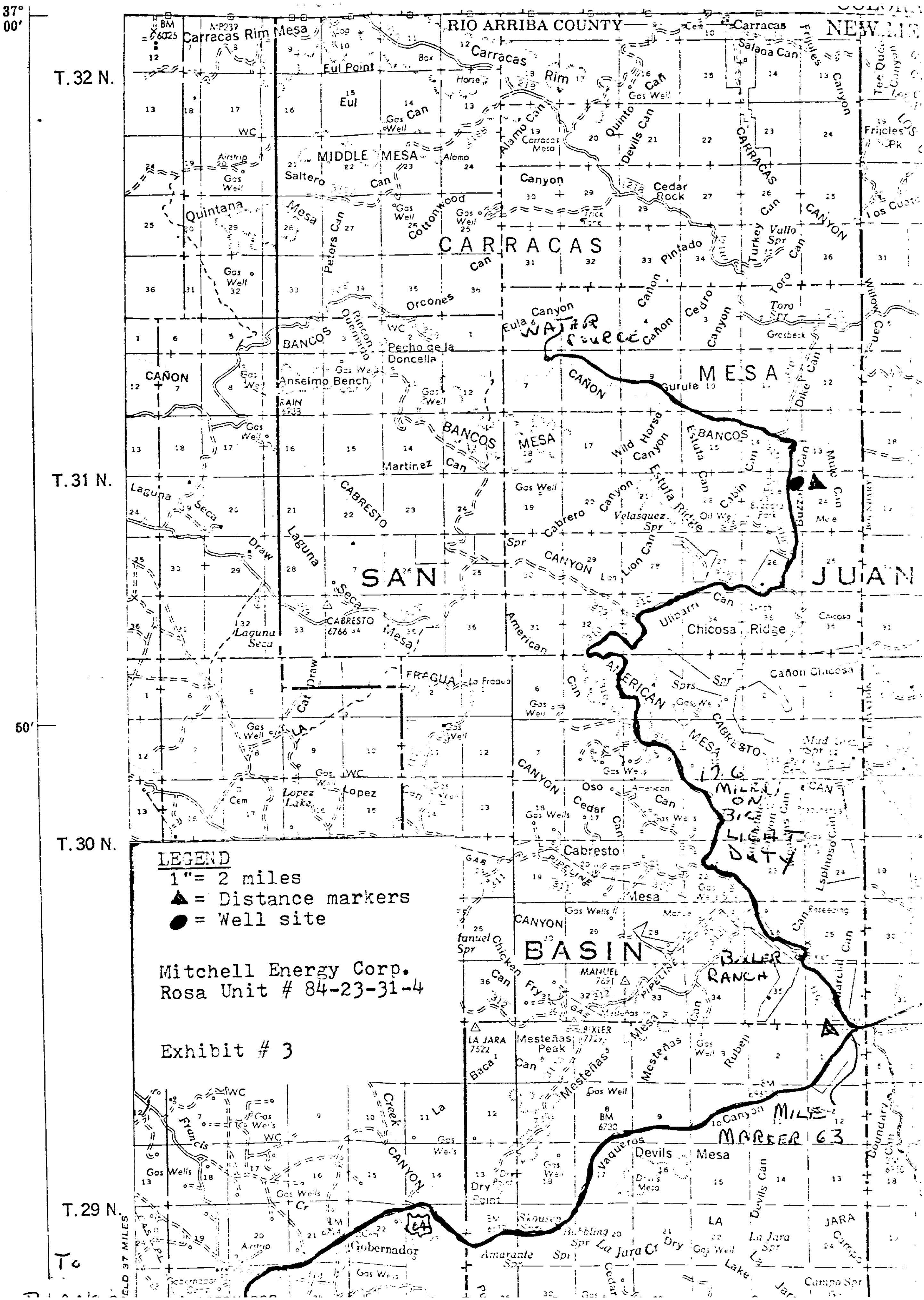
Mr. Brad Fischer

13. Certification

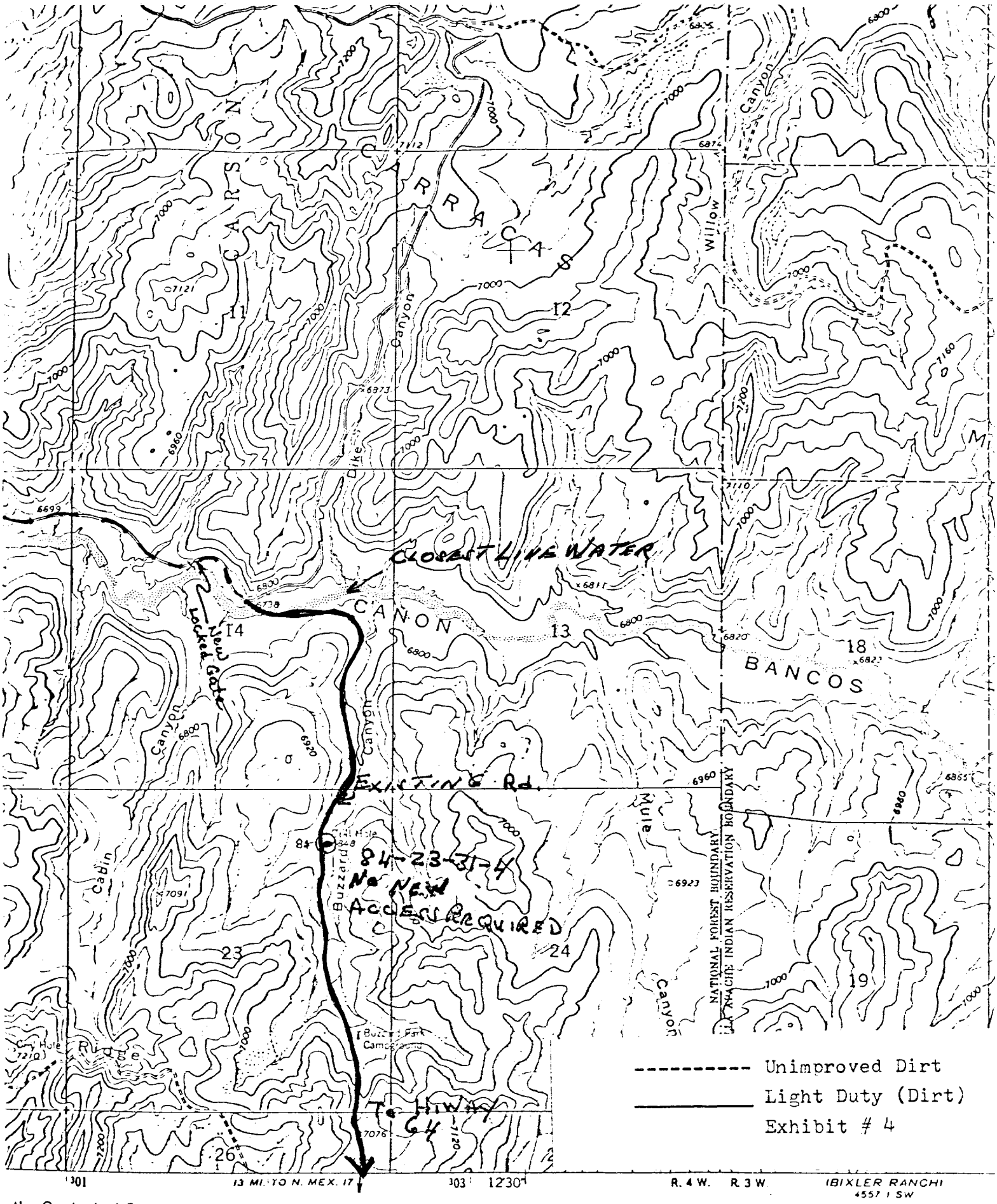
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access road; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with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

11/13/80
Date

B. Fischer
Mr. Brad Fischer
District Production Manager



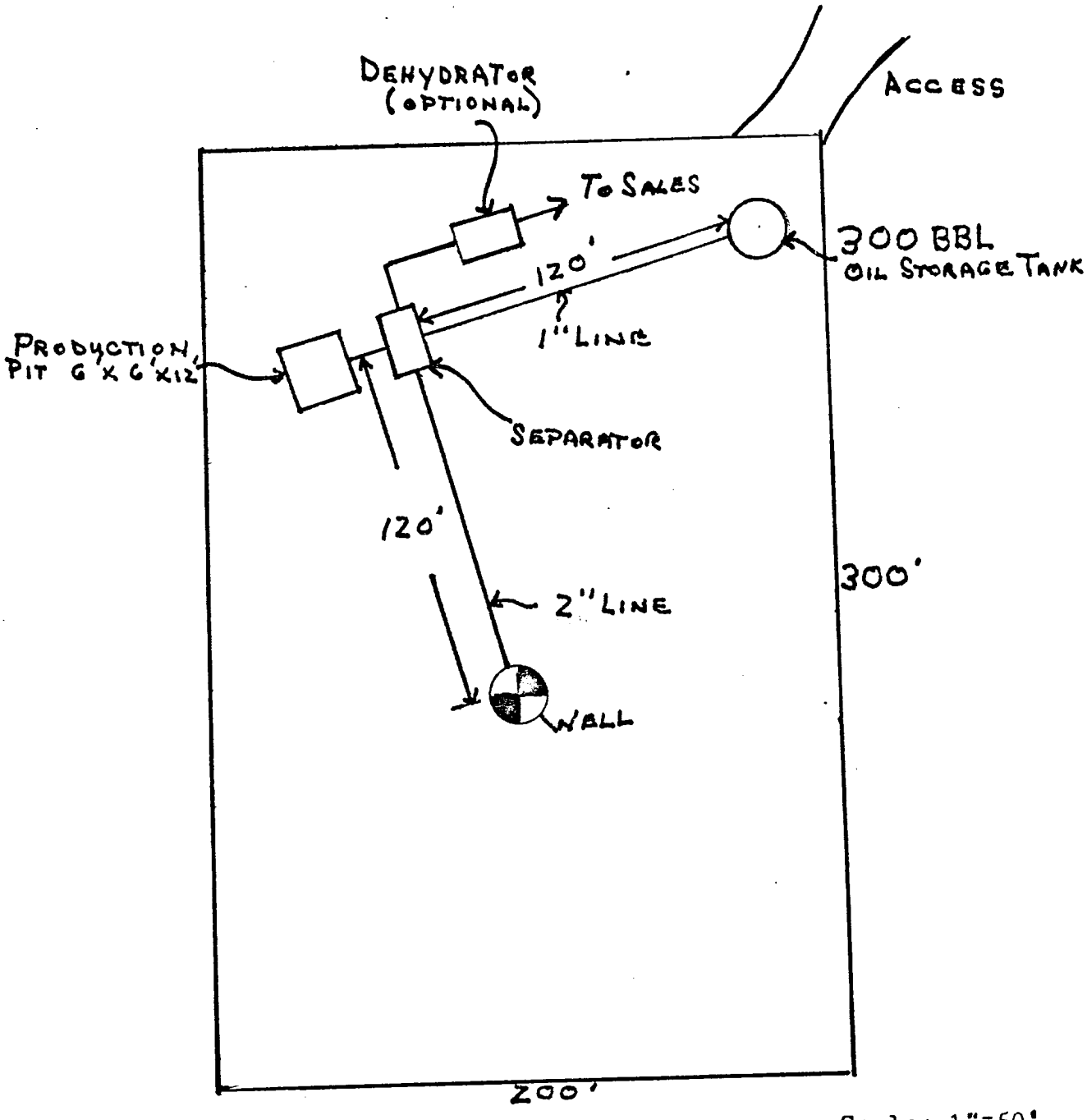
LEGEND
1"= 2 miles
= Distance markers
= Well site
Mitchell Energy Corp.
Rosa Unit # 84-23-31-4
Exhibit # 3
RIO ARRIBA COUNTY
NEW MEXICO
37° 00'
50'
T. 32 N.
T. 31 N.
T. 30 N.
T. 29 N.
CARRACAS
CARRACAS MESA
SAN JUAN
BASIN
MIDDLE MESA
Carracas Rim Mesa
Eul Point
Quintana Mesa
BANCOS MESA
Anselmo Bench
Pecho de la Doncella
Laguna Seca Mesa
CABRESTO
FRAGUA
Chicosa Ridge
AMERICAN MESA
Cabresto Mesa
Mesteñas Peak
Devils Mesa
Gobernador
WATER SLUICE
12.6 MILES ON BIG LEFT DUTY
BIXLER RANCH
MILE MARKER 63
To



the Geological Survey

om aerial photographs
cked 1963

Vicinity Map for
MITCHELL ENERGY CORP. #84 ROSA UNIT
890'FNL 1060'FEL Sec. 23-T31N-R4W
RIO ARRIBA COUNTY, NEW MEXICO



Scale: 1"=50'

PRODUCTION FACILITIES

Mitchell Energy Corp.
Rosa Unit # 84-23-31-4

Exhibit # 6

N

Exhibit # 5
Existing wells and production facilities
(1) Dry hole- Colo. Oil And Gas
Rosa Unit 84-23-31-4

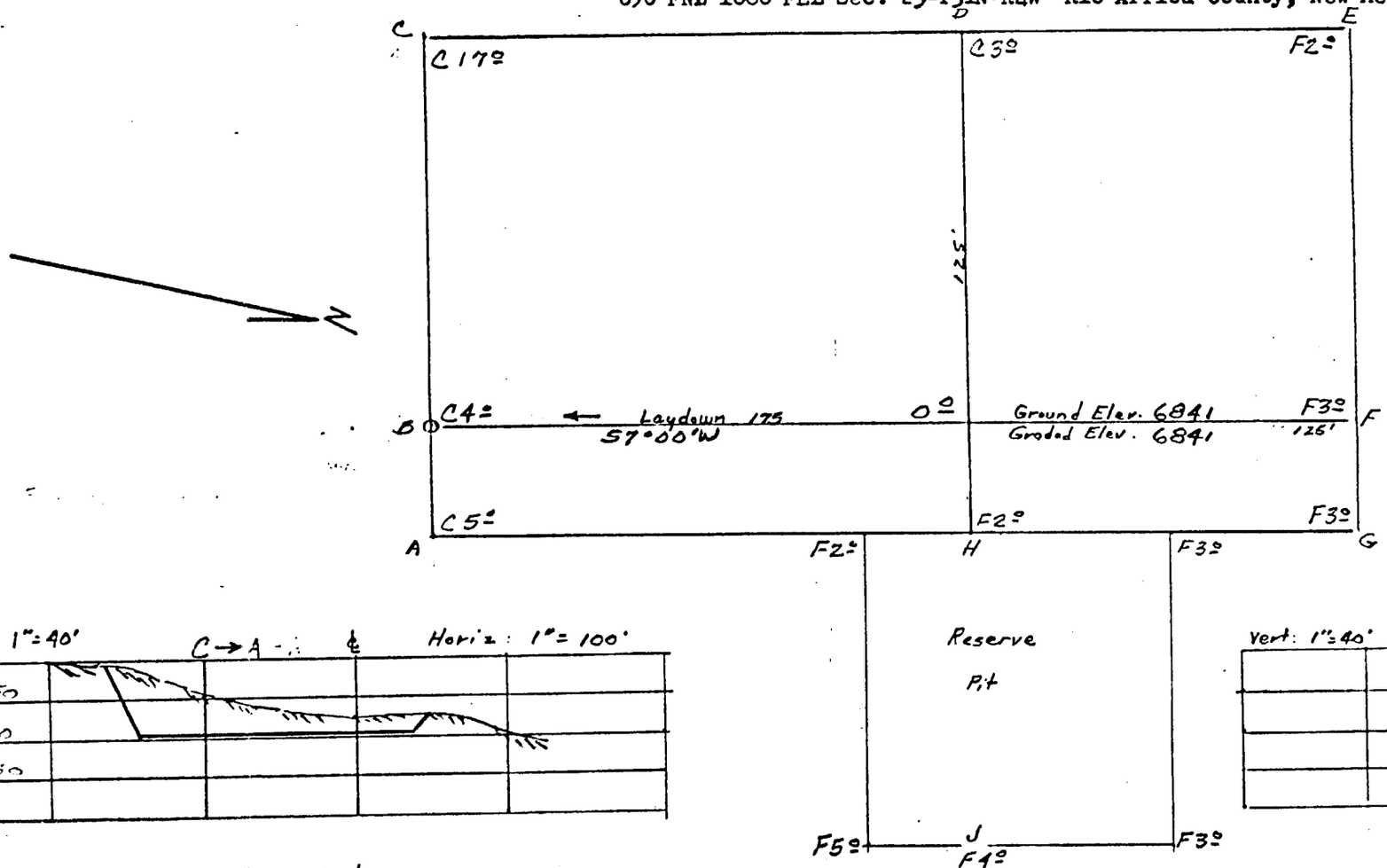
0 1000 2000 3000 4000 5000

he Geological Survey

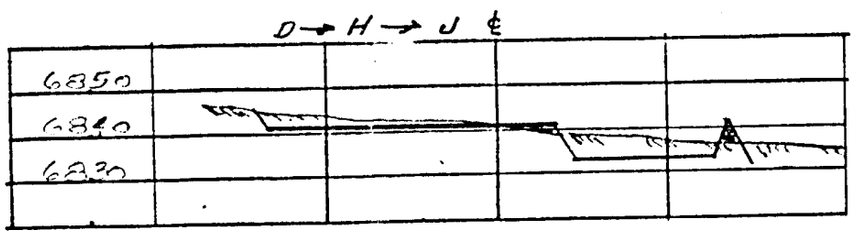
aerial photographs
ed 1963

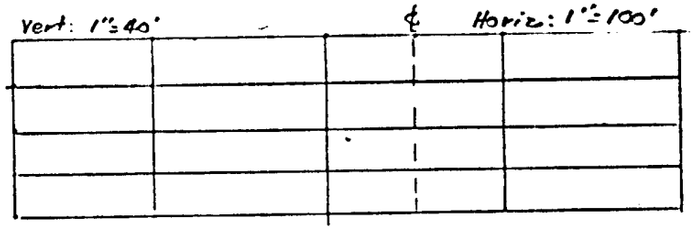
Vicinity Map for
MITCHELL ENERGY CORP. #84 ROSA UNIT
890'FNL 1060'FEL Sec. 23-T31N-R4W
RIO ARRIBA COUNTY, NEW MEXICO

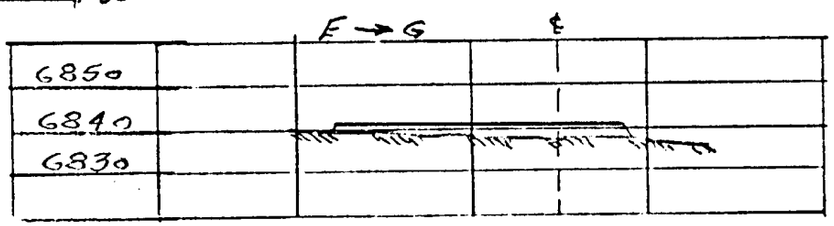
MITCHELL ENERGY CORP. #84 ROSA UNIT
890'FNL 1060'FEL Sec. 23-T31N-R4W Rio Arriba County, New Mexico



Scale 1"=50'







KERR LAND SURVEYING
Date: 11/1/80

Exhibit # 7

November 4, 1980

Mr. Salvatore J. Pagano
7892 South Garfield Way
Littleton, Colorado 80122

Re: Filing NTL-6 and APD Form 9-331C
MITCHELL ENERGY CORPORATIONS
Rosa Unit #84
NE/NE Section 23-T31N-R4W
890' FNL & 1060' FEL
Rio Arriba County, New Mexico

Gentlemen:

This is to confirm our understanding with you that Mr. Salvatore J. Pagano is authorized to act as our agent in the following capacities:

A. In supervision of surveying and staking, and preparing and filing necessary application, permits, and compliance programs, including complete NTL-6 reports and H2S Contingency Plan.

B. In accepting on our behalf any changes to location, proposed facilities and/or surface use plan and compliance program requested at on-site inspections, when we are unable to have a Company representative present. Such changes will then be binding upon us or designated Operator.

MITCHELL ENERGY CORPORATION

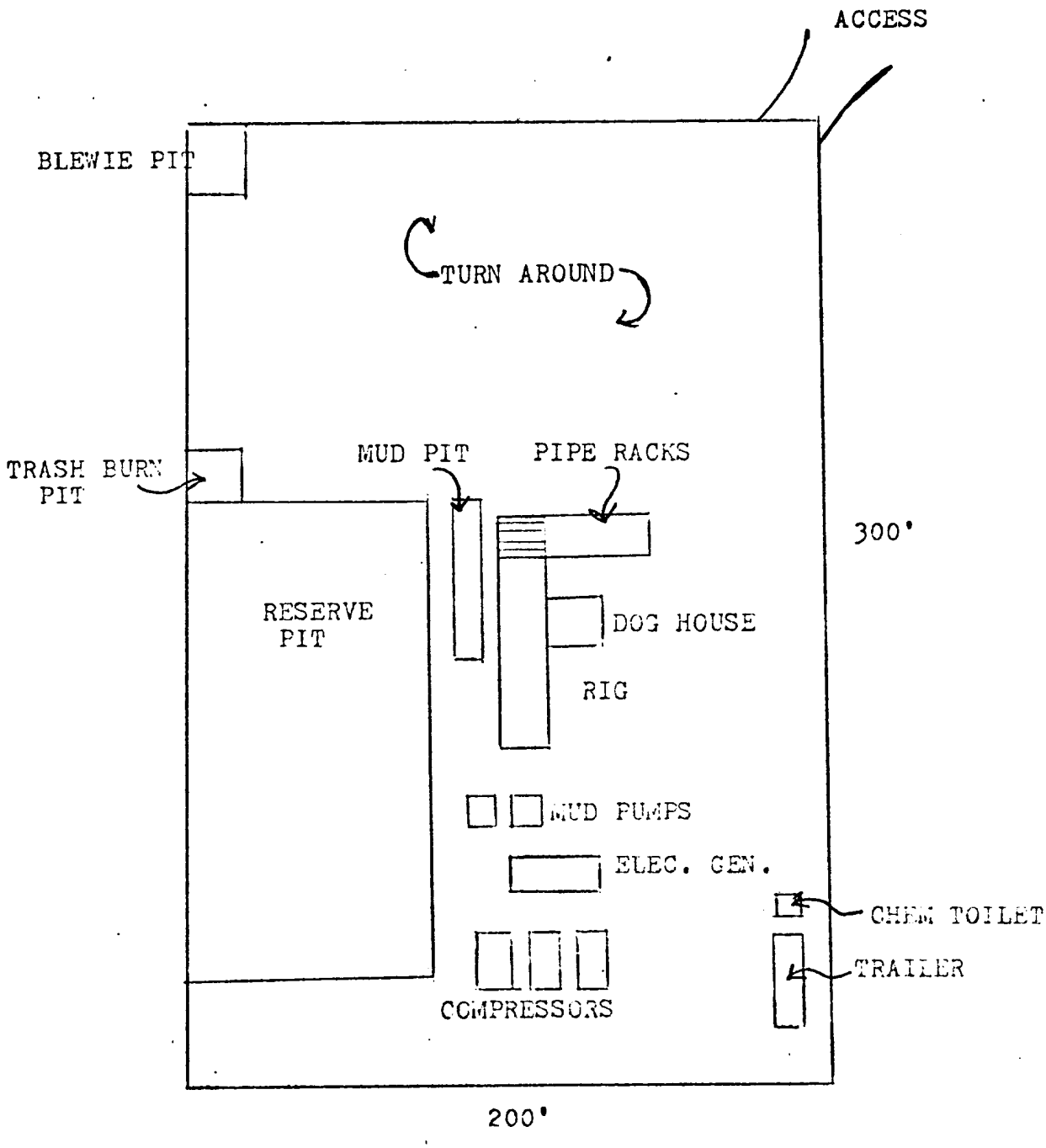
By _____
Brad W. Fischer

Title Area Production Manager

Date 11/4/80

BWF:jms

Exhibit #9



N

DRILL RIG LAYOUT

Scale: 1"=50'

Mitchell Energy Corporation
Rosa Unit #84-23-31-4

Exhibit #8