

**LONE MOUNTAIN PRODUCTION COMPANY**

P.O. BOX 3394  
408 PETROLEUM BUILDING  
BILLINGS, MONTANA 59103-3394  
(406) 245-5077

August 9, 1988

Division of Oil, Gas & Mining  
State of Utah  
3 Triad Center, Suite 350  
355 W. North Temple  
Salt Lake City, UT 84180

Attention: Ron Firth

Dear Ron:

Enclosed for your approval please find, in duplicate, an Application for Permit to Drill covering the drilling of our Quinoco Federal No. 6-5 well in Grand Co., Utah. We hope to drill this well in mid-September, 1988; therefore, your expedient handling of this APD is appreciated.

Please advise if any further information is required. Thank you.

Yours very truly,

Lone Mountain Production Company

  
James G. Routson

JGR:lw

Enclosures

xc: Larry D. Becker

2640  
2326  
314  
(500' est. Unit Boundries)  
(200' tolerance)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

5. LEASE DESIGNATION AND SERIAL NO.  
**U-38842**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
**Quinnoco Federal**

9. WELL NO.  
**6-5**

10. FIELD AND POOL, OR WILDCAT  
**Undesignated - Bar X**

11. SEC., T., R., M., OR BLK.  
AND SURVEY OR AREA  
**SW $\frac{1}{4}$  NW $\frac{1}{4}$  Sec. 6: T17S-R25E SL1**

12. COUNTY OR PARISH  
**Grand**

13. STATE  
**Utah**

APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

**PLUG BACK**  
**AUG 11 1988**

1A. TYPE OF WORK  
**DRILL  DEEPEN  PLUG BACK**

B. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
**Lone Mountain Production Company**

3. ADDRESS OF OPERATOR  
**P.O. Box 3394, 408 Petroleum Bldg., Billings, MT 59103**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface: **1492' FSL, 2326' FWL, Section 6 (NE $\frac{1}{4}$  SW $\frac{1}{4}$ )**  
At proposed prod. zone: **2100' FNL, 1080' FWL, Section 6 (SW $\frac{1}{4}$  NW $\frac{1}{4}$ )**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
**22 miles northwest of Mack, Colorado**

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
**\*-see below-**

16. NO. OF ACRES IN LEASE  
**662.09**

17. NO. OF ACRES ASSIGNED TO THIS WELL  
**170.16**

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.  
surface - **656'**  
At Dakota - **2413'**

19. PROPOSED DEPTH  
**5589' MD, 4965' TVD**

20. ROTARY OR CABLE TOOLS  
**Rotary**

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
**5784' GL, 5795' KB**

22. APPROX. DATE WORK WILL START\*  
**September 15, 1988**

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8" New	32.30# L.S.	300'	200 sacks Class "G" (to surface)
8-3/4"	4-1/2" New	10.5# J-55	5589'	500 sacks 10-0 RFC

\*Item No. 5 (above): Lease Line: 1492' @ surface; 1080' @ Dakota Top.  
Drilling Unit Line: not on drilling unit at surface; 500' @ Dakota Top.

1. Surface formation is the Mesaverde.
2. Anticipated geologic markers are: Castlegate 800' MD (785' TVD), Mancos 1035' MD (990' TVD), Dakota Silt 4949' MD (4415' TVD), Dakota Sand 5029' MD (4490' TVD), Morrison 5250' MD (4681' TVD).
3. Gas is anticipated in the Dakota and Morrison. No oil or other minerals are anticipated. No water sands are expected.
4. Proposed casing program: See Item No. 23 above.
5. Pressure control equipment: See attached Well Control Plan and Schematic of Drilling Contractor's BOP Stack, BOP's will be tested before drilling out from under surface casing and checked daily.

(continued on Page 2.)

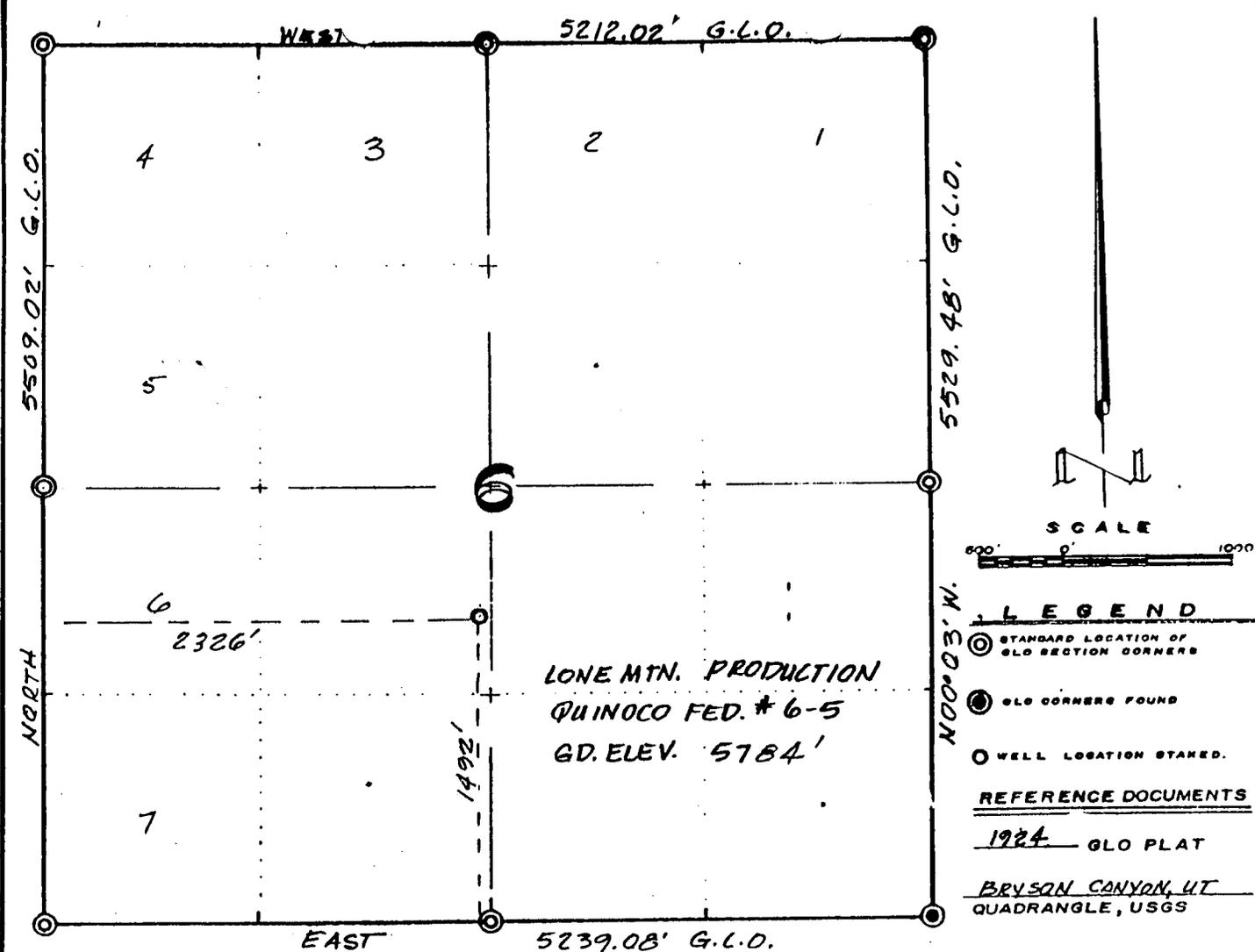
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED James G. Routson TITLE Petroleum Engineer DATE August 9, 1988

(This space for Federal or State office use)  
PERMIT NO. 43-019-31267 APPROVAL DATE \_\_\_\_\_

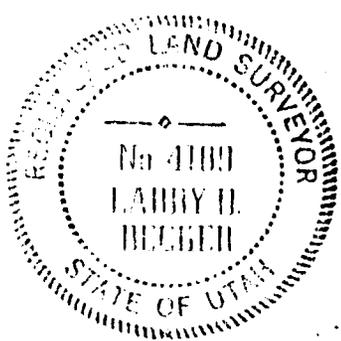
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
DATE 8-18-88  
BY John R. Byrnes  
WELL SPACING: Clause No. 13-6

\*See Instructions On Reverse Side



LONE MTN. PRODUCTION  
 QUINOCO FED. # 6-5  
 G.D. ELEV. 5784'

THIS WELL LOCATION PLAT WAS PREPARED FOR LONE MOUNTAIN PRODUCTION CO.  
 TO LOCATE THE QUINOCO FEDERAL # 6-5, 1472' F.S. L.B.  
2326' F.W.L. IN THE NE 1/4 SW 1/4, OF SECTION 6, T. 17S., R. 25E.  
 OF THE S.L.M. GRAND COUNTY, UTAH



SURVEYOR'S CERTIFICATE

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR IN THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY

*Larry D. Becker*  
 L.S. # 4189

SURVEYED	7-5-88	7-30
DRAWN	7-6-88	7-31
CHECKED	7-6-88	7-31

**ENERGY SURVEYS & ENGINEERING CORP.**

715 HORIZON DRIVE, SUITE 200  
 GRAND JUNCTION, CO 81501  
 (303) 245-7821

SCALE 1" = 1000'
JOB NO
SHEET OF

APPLICATION FOR PERMIT TO DRILL  
Federal No. 6-5  
SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 6: T17S-R25E SLM  
Grand County, Utah  
Lease U-38842

6. Air or mist drilling will be used to drill the surface hole unless water is encountered. If water is encountered, chemical-gel type mud will be used, the well will be mist drilled from under surface casing to total depth.
7. Auxiliary equipment: See Well Control Plan.
8. The logging program will consist of a DIL log and directional log from TD to base of surface casing, GR-FDC-CNL logs from TD to 500' above the Dakota Silt, and from 1200' to 600'. No cores or DST's are planned.
9. No abnormal pressures or temperatures are anticipated. No poisonous gas is anticipated.
10. Anticipated spud date is September 15, 1988. Completion operations should commence within 30 days of rig release.
11. Survey plats are attached.
12. The gas is dedicated to Southwest Gas Company.
13. The spacing unit for this well is the NW $\frac{1}{4}$  of Section 6.
14. The well is being drilled under farmout from Quinoco Petroleum, Inc. and Carson Water Company. (See certification).

WELL CONTROL PLAN

1. Surface Casing: 9-5/8" O.D., 32.3 #/ft., L.S., Short T&S, set at 300' or deeper, cemented with pump and plug method back to the surface or bottom of cellar.
2. Casinghead Flange: 9-5/8" x 10" - 900 series casinghead with two 2" - 2000 psi L.P. outlets.
3. Intermediate Casing: None.
4. Blowout Preventor: A 10" 3000 psig W.P. double gate hydraulic shaffer BOP (or equivalent) with drill pipe rams and blind rams. All fill, kill and choke lines will be minimum of 2" 2000 psi W.P. A Grant rotating head will be used while mist drilling. A new rubber will be installed prior to drilling through the Dakota. BOP's will be worked daily. Blind rams will be checked during trips. BOP's will be tested to 1000 psi prior to drilling shoe joint on surface casing and intermediate casing.
5. Auxiliary Equipment: (a) Drill pipe floats will be allowed at contractor's discretion. (b) Visual monitoring of mist returns will be maintained. (c) Upper kelly cock will be used. (d) Stabbing valve will be kept on floor.
6. Anticipated bottom hole pressure is less than 1000 psi at 4340', or a gradient of .2304 psi/ft. or less. No abnormal temperatures or hydrogen sulfide gas are anticipated.

LONE MOUNTAIN PRODUCTION COMPANY

By:

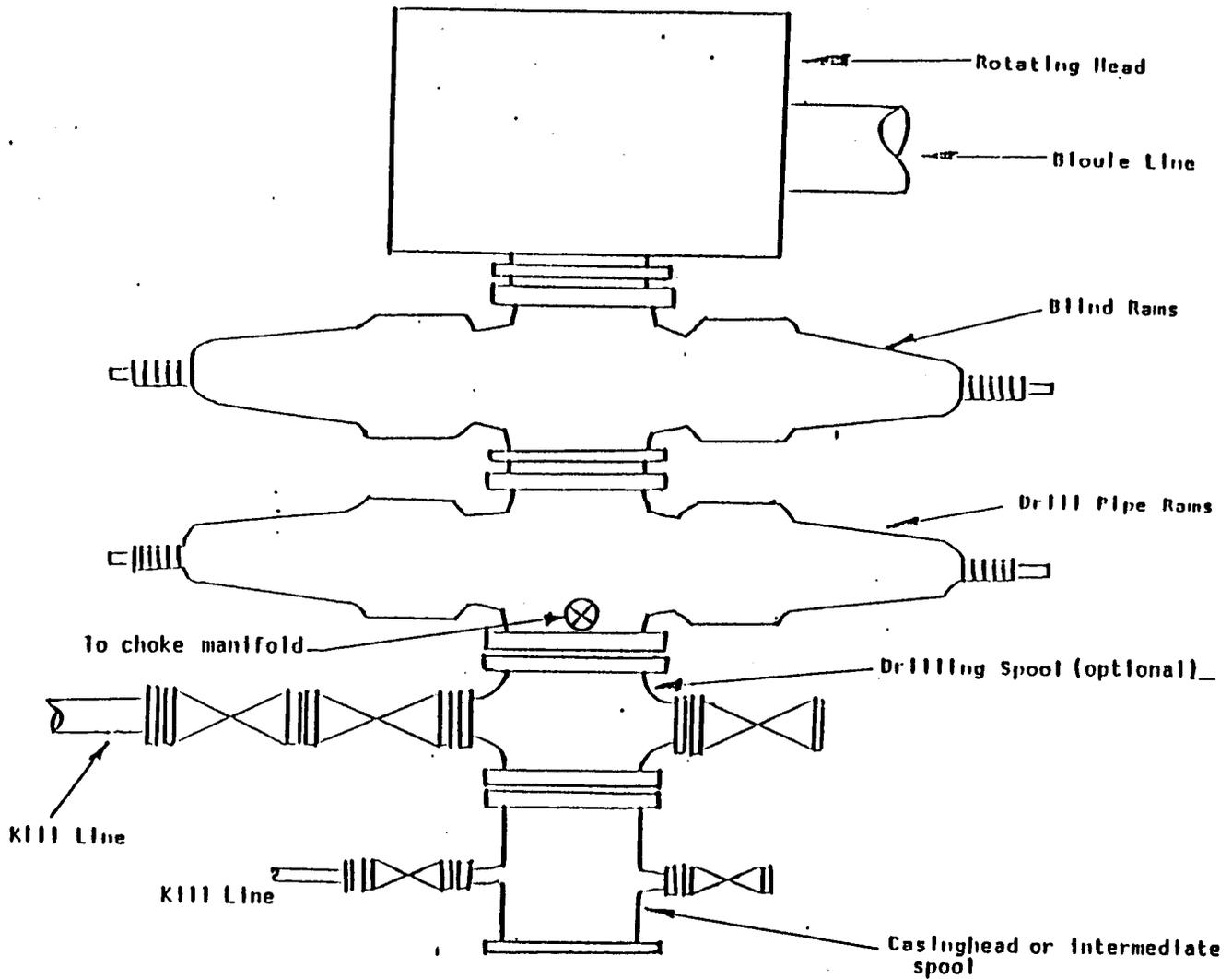


James G. Routson  
Petroleum Engineer

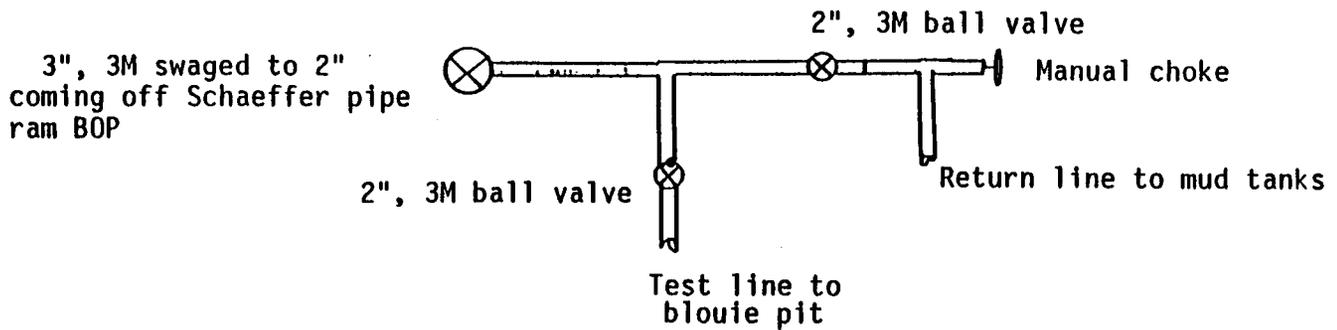
# SCHEMATIC OF BOP STACK

Air drilled wells using 900 series wellhead equipment.

Interval from 300' to total depth.



## CHOKE MANIFOLD



## SURFACE USE PROGRAM

Lone Mountain Production Company  
6-5 Quinoco USA  
SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 6: T17S-R25E, S.L.M.  
Grand County, Utah

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### 1. EXISTING ROADS

See Vicinity Map, Topo and Access Map, and Plat #1. This proposed well is located approximately 22 air miles northwest of Mack, Colorado. It is reached by going west of Mack on Old Highway 6&50 3.5 miles west of the Colorado-Utah border (15.3 miles west of Mack). Turn right and go 5.6 miles to the "T" intersection. Turn right and go 2.6 miles north to the "Y"; turn right and go 7.5 miles up San Arroyo Canyon. All of the existing roads used for access are county roads. Lone Mountain will share maintenance on those gravel/dirt roads with Grand County and the other oil and gas operators in the area. The existing roads are colored green on the reference maps.

### 2. ACCESS ROADS TO BE CONSTRUCTED AND RECONSTRUCTED

The .1 mile of new access road will be constructed with an 18 foot wide running surface with total disturbed width varying from 30 to 40'. Maximum grade will be 10%. No turnouts are necessary. Lone Mountain or its contractor will notify B.L.M. office in Moab, Utah (Phone 801/259-8193) at least 48 hours prior to commencement of any work on this location or roadway.

### 3. LOCATION OF EXISTING WELLS

See Map #3. There are 8 producing wells within 1 mile of the proposed location. Some may be shut in off and on due to gas market conditions.

### 4. LOCATION OF PRODUCTION FACILITIES

a) On Well Pad. See Plat #4. (Paint everything dark green).

b) Off Well Pad. See Map #1.

Lone Mountain Production Company proposes to construct approximately 700' of 3" welded steel pipeline from this well to a gas sales point located on the Federal No. 6-14 location, to the south. The line will be coated, wrapped, and buried approximately 4' deep. The line will follow the existing access road and will be buried on the inside edge of the road. Appropriate markers will be installed. All portions of the line will be on the lease.

5. LOCATION AND TYPE OF WATER SUPPLY

The water source for this well is West Salt Creek. The pickup point is on Old Highway 6&50 about 2.5 miles west of Mack, Colorado. The water will be hauled over the well access road.

6. SOURCE OF CONSTRUCTION MATERIALS

No construction materials will be used other than native materials. Soil from cuts will be used in fills. No outside material will be brought in.

7. METHODS FOR HANDLING WASTE DISPOSAL

Cuttings will be buried in the reserve pit at clean up. Garbage and other waste material will be contained in a trash cage. This cage will be dumped at an approved sanitary land fill. Human waste will be disposed of in chemically treated sanitary pits.

Drilling fluids will be contained in the reserve pit and left to evaporate. Any fluids produced during testing operations will be collected in a test tank. If a test tank is not available, the fluids will be contained in the reserve pit. Any spills of oil, gas, salt water or noxious fluid will be cleaned up and removed.

If the well is productive, produced water will be disposed of on site for 30 days only, or 90 days with the permission of the District Manager. After that time, application will be made for approval of permanent disposal method in compliance with old MMS Order NTL-2B, and the rules and regulations of the State of Utah.

8. ANCILLARY FACILITIES

No ancillary facilities are planned.

9. WELLSITE LAYOUT

See Plat #2 - Pit and Pad Layout  
See Plat #2A- Cross Sections of Pit and Pad  
See Plat #3 - Rig Layout

The location will be constructed large enough to accommodate the drilling rig and associated equipment with allowance made for future completion and fracturing equipment.

The location construction will begin by stripping and stockpiling all available (6") topsoil. The stockpile will be along the northeast side of the location.

The reserve pit will be constructed along the north side of the well pad. The pit will be fenced on three sides during drilling and closed on the fourth side at rig release. The fence will be maintained through completion and while the pit area is drying. The fence will be a 3 stranded barbed wire fence. The pit will be unlined.

10. PLANS FOR RECLAMATION OF THE SURFACE

If the well is productive, the reserve pit will be allowed to dry and then backfilled. All of the area not necessary for production will be resloped, covered with available topsoil and revegetated using a seed formula supplied by the B.L.M.

If the well is abandoned, the entire area of disturbance will be returned to a reasonable contour approximating the topography of the surrounding area. The topsoil will be distributed over the recontoured area and revegetated using the appropriate seed formula.

Clean-up will begin after completion rig release and resloping should be completed by the Fall of 1989.

The Resource Area in Moab, Utah will be called at least 48 hours before work begins on the rehabilitation program.

11. SURFACE OWNERSHIP

All lands involving new construction are Federal lands. Section 6 is the entire lease area.

12. OTHER INFORMATION

The location lies in the bottom San Arroyo Canyon which is part of the extremely rough Book Cliff Area of Eastern Utah and Western Colorado. San Arroyo Canyon drains southerly into the Colorado River.

The location is on the westerly side of drainage on a bench which runs up to the base of the Cliff to the west.

The area has pinyon and juniper trees, greasewood, sagebrush, four wing saltbrush, rabbit brush, bitter brush, serviceberry, shadscale, cactus, Russian thistle, cow pea, crested wheat, curly grass, Indian Rice grass, cheat grass, cattle, sheep, horses, deer, elk, rodents, rabbits, raptors, blue jays, ground sparrow, coyotes, bobcats, and chukar.

A cultural resource survey was done in the past. No new work will be done.

13. LESSEE'S OR OPERATOR'S REPRESENTATIVES AND CERTIFICATION

-James G. Routson  
Lone Mountain Production Company  
P. O. Box 3394  
Billings, Montana 59103  
Office Phone: (406) 245-5077  
Home Phone: (406) 245-8797

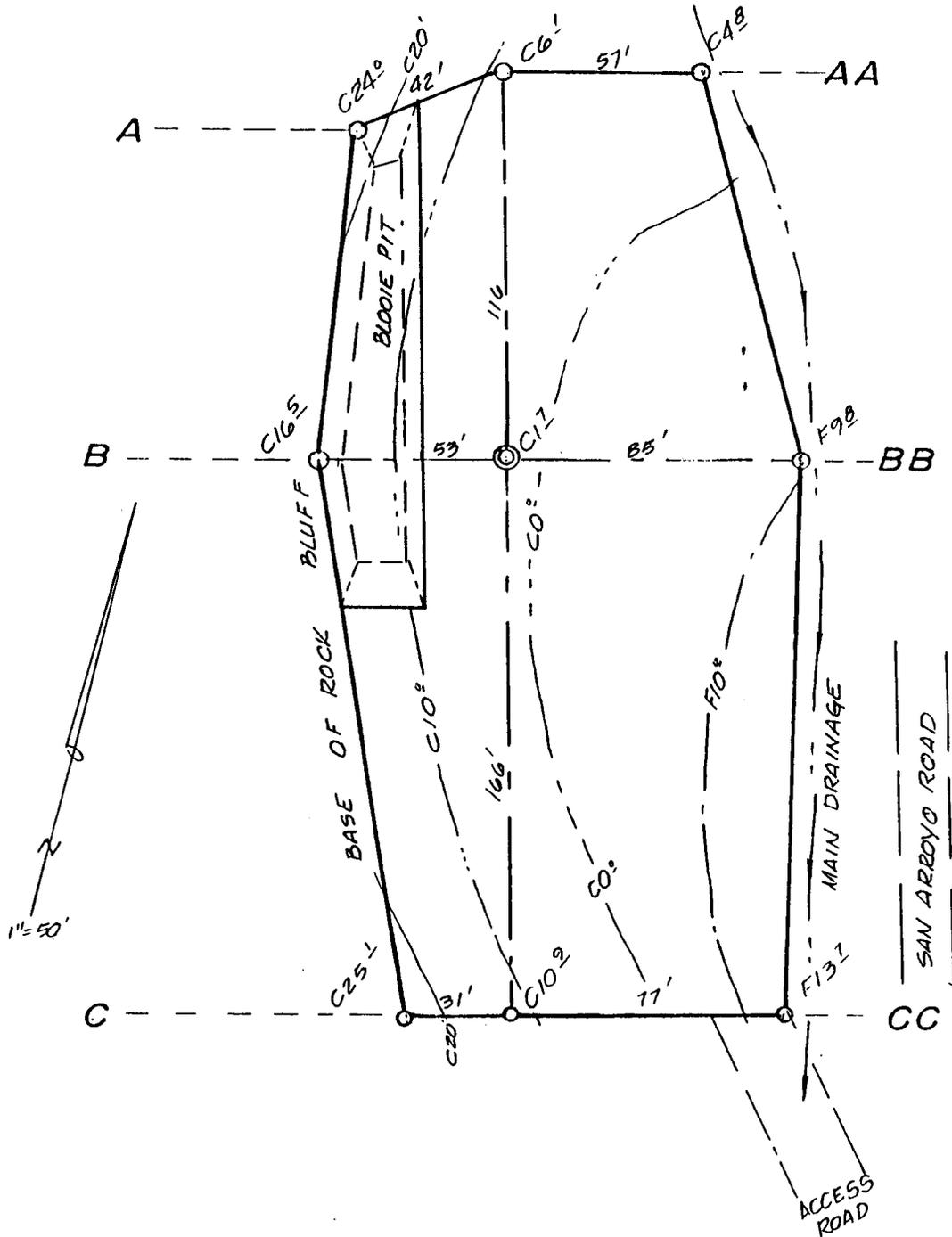
-Larry D. Becker,  
Field Consultant  
739 27 Road  
Grand Junction, Colorado 81506  
Phone: (303) 245-7221

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

August 9, 1988  
date

James G. Routson  
James G. Routson

# PIT & PAD LAYOUT

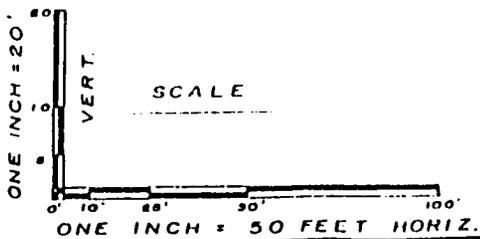
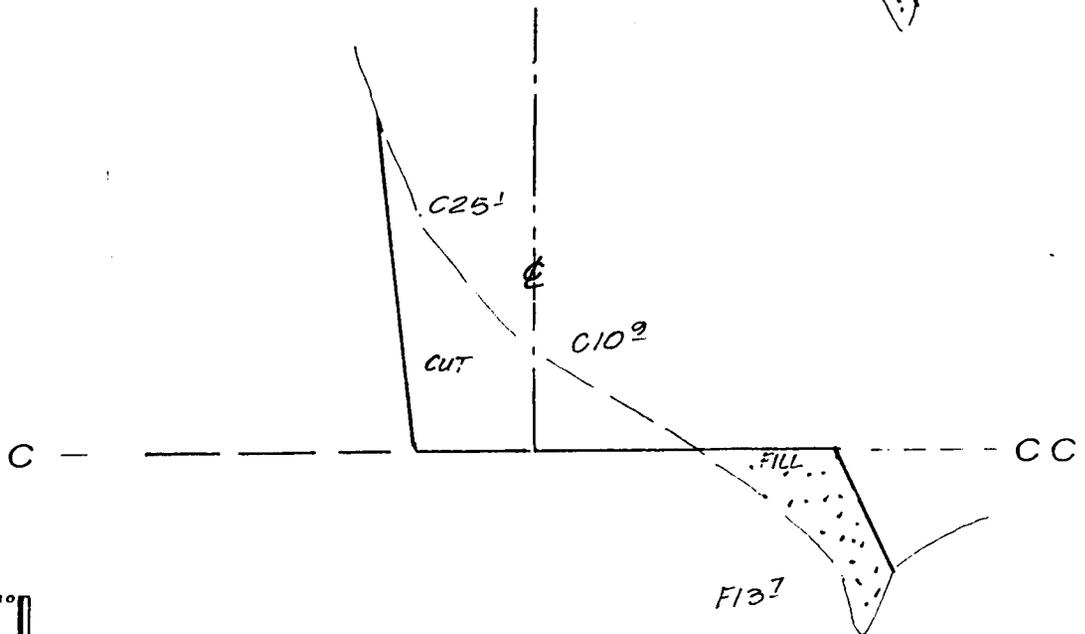
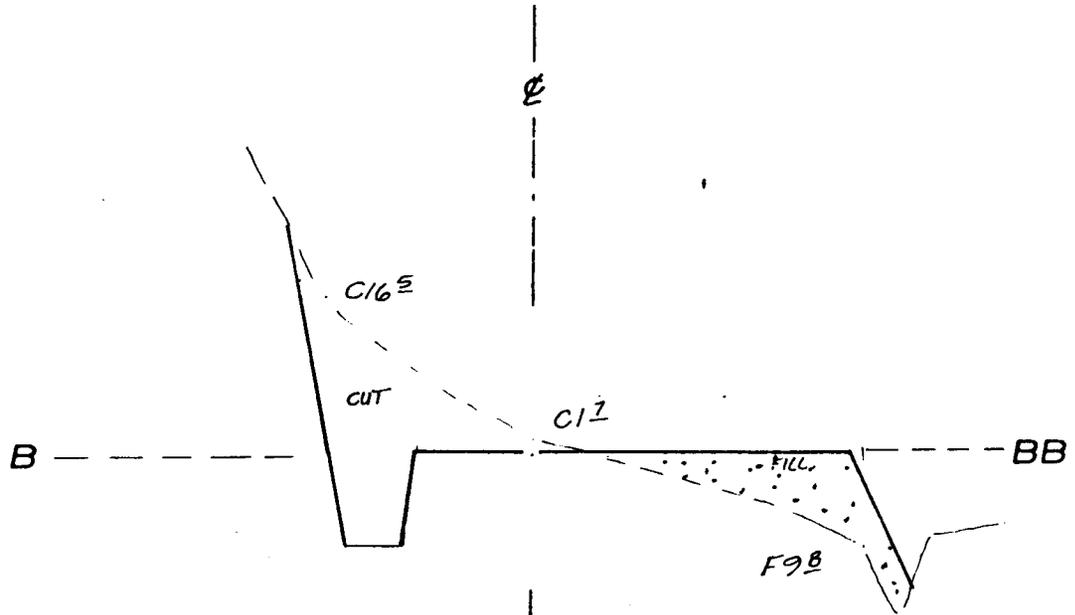
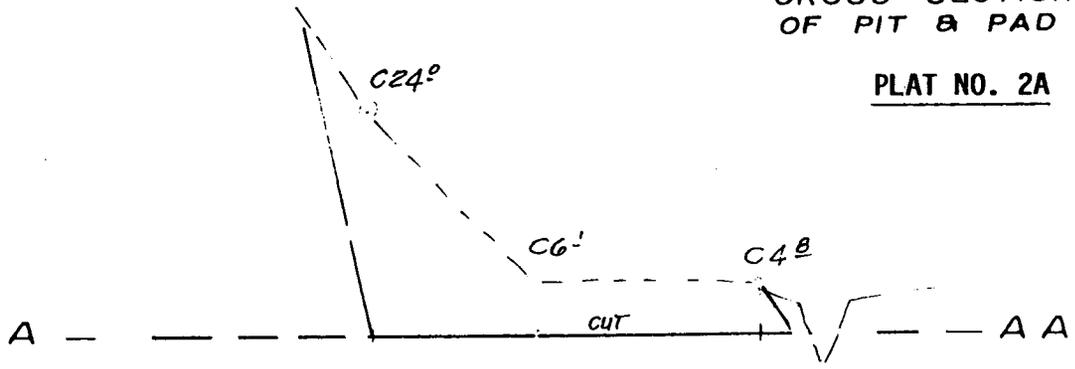


CUT 7500 C.Y.  
FILL 5000 C.Y.

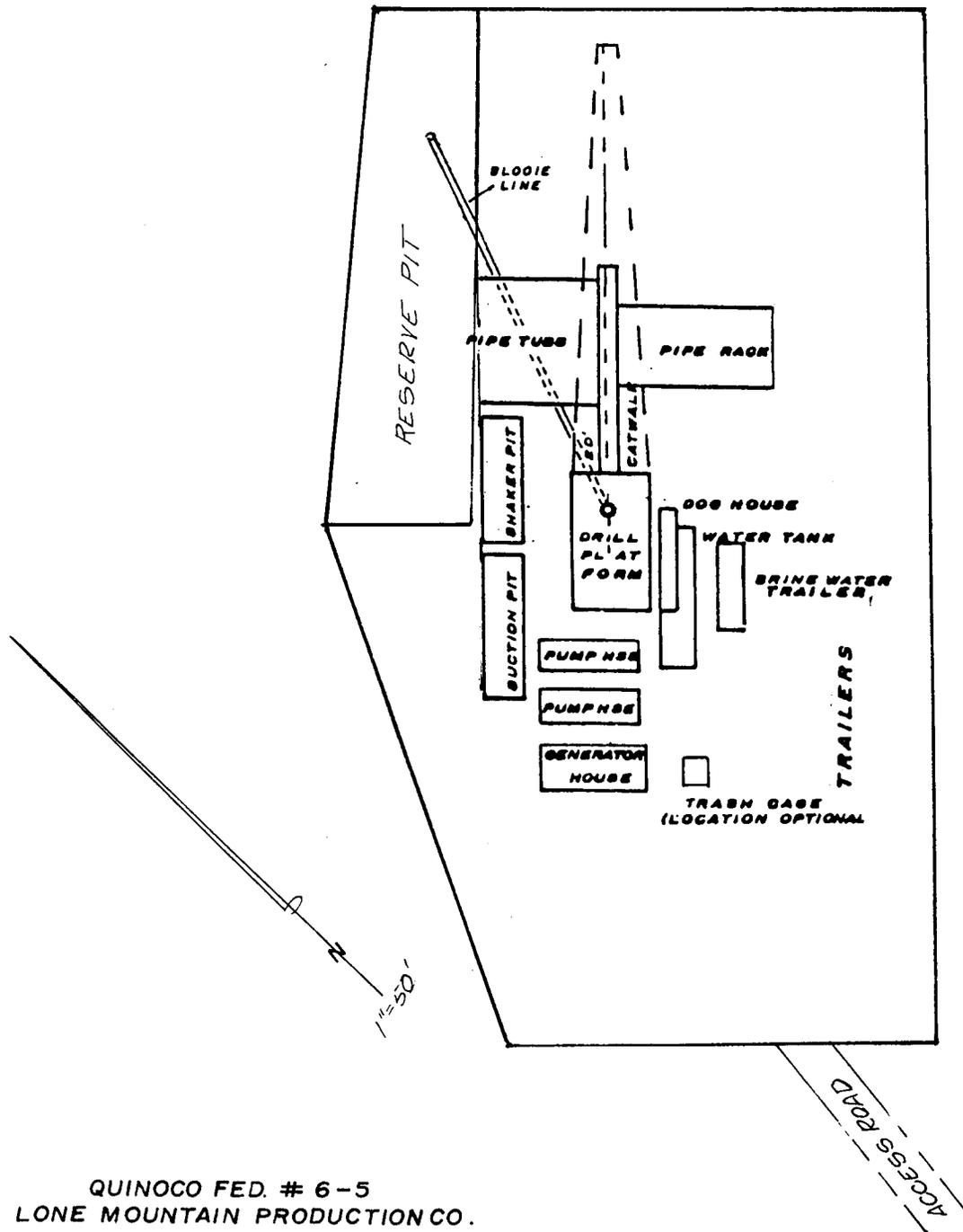
QUINOCO FED. # 6-5

CROSS-SECTIONS  
OF PIT & PAD

PLAT NO. 2A



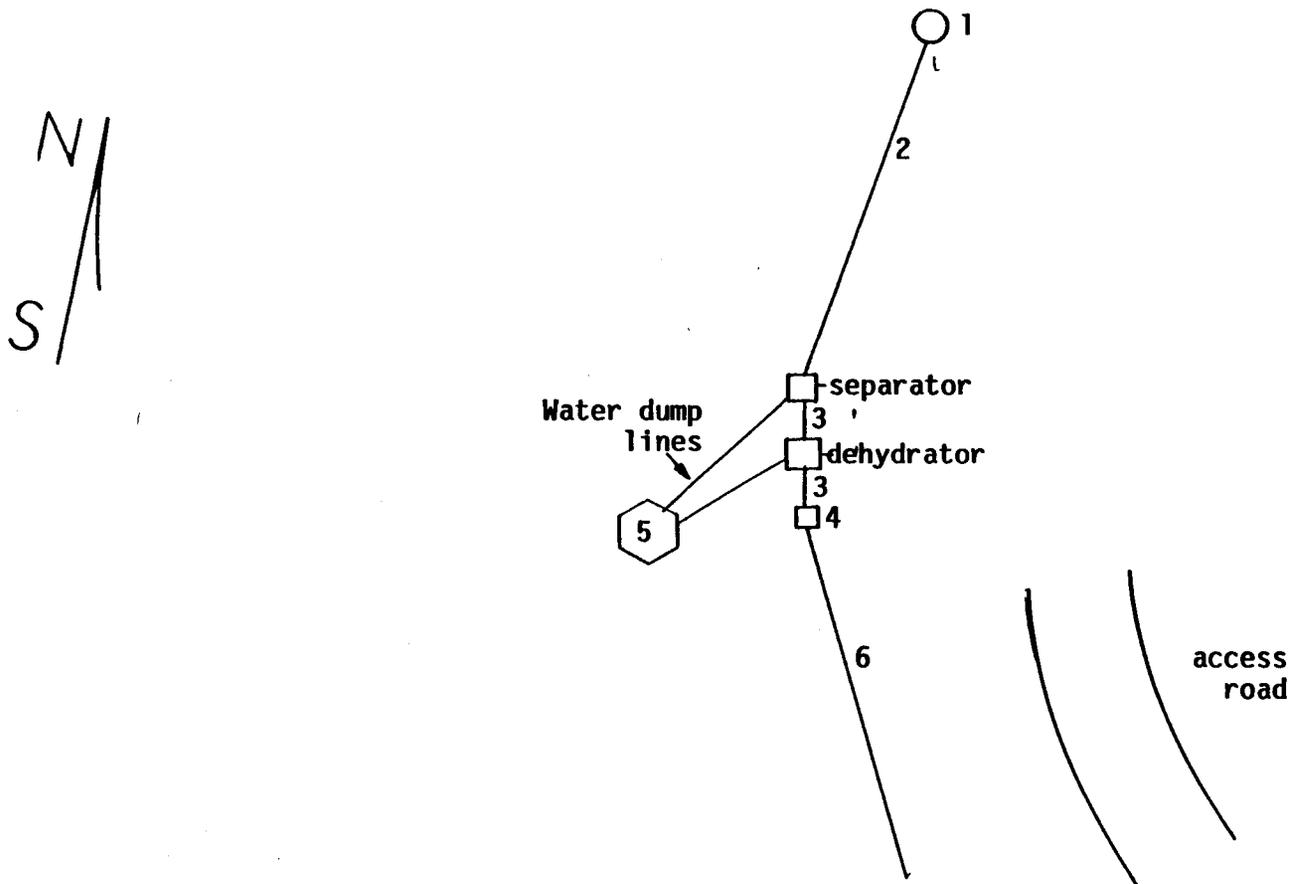
PLAT NO. 3  
RIG LAYOUT



QUINOCO FED. # 6-5  
LONE MOUNTAIN PRODUCTION CO.

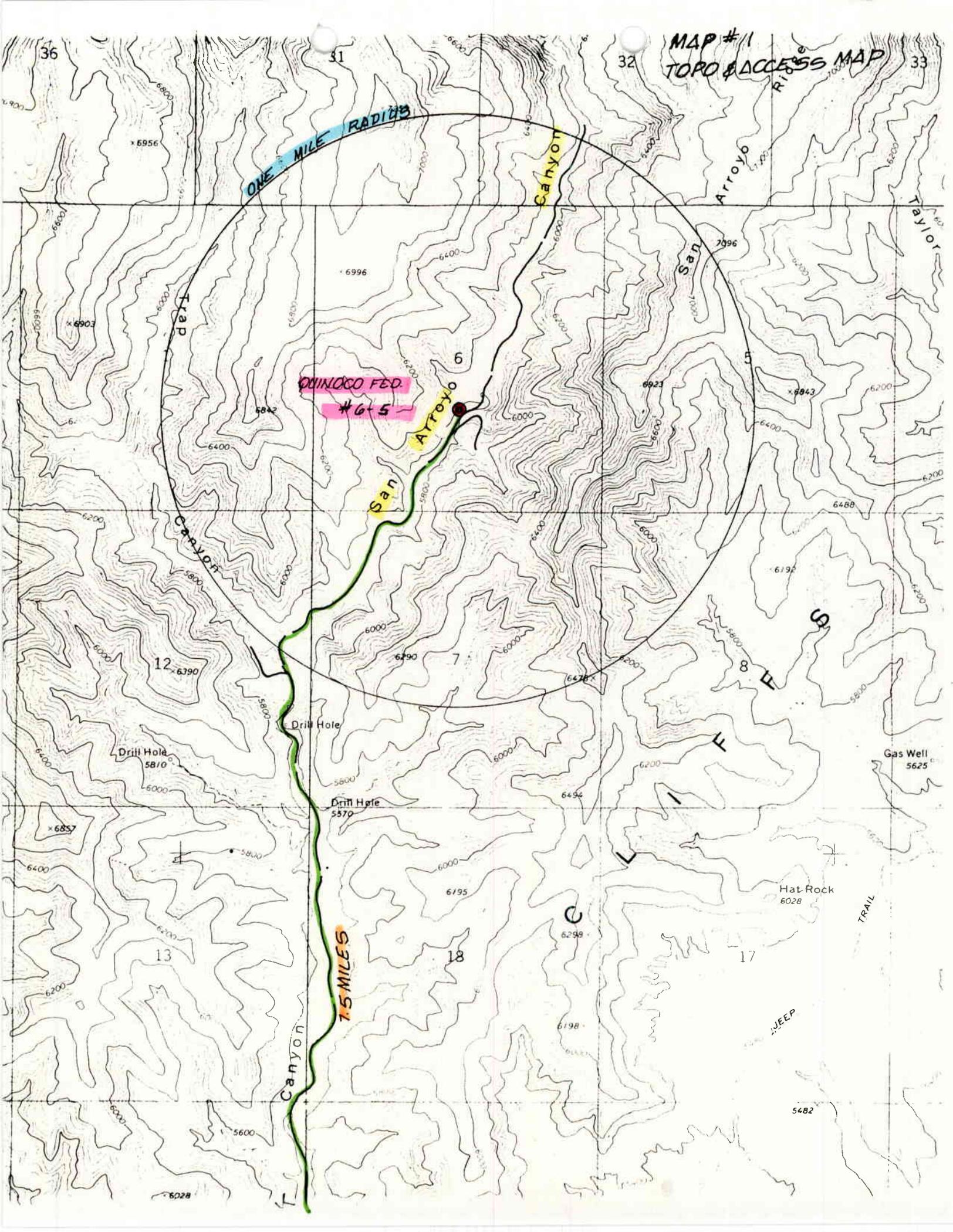
PLAT NO. 4  
FACILITIES SCHEMATIC

Federal No. 6-5



1. Wellhead will be a 9-5/8" Larkin Fig. 92 or equivalent. Tubing head will be a 4-1/2" x 6" - 900 Series with two 2" 3000 psi screwed valves. Tree will be 2" screwed x 2000 psi W.P.
2. Line between wellhead and separator will be approximately 100 feet in length and constructed of 2-3/8" .218 wall seamless, welded, wrapped, and buried approximately 5 feet deep.
3. Lines between separator and dehydrator, and dehydrator and meter run, will be 2-3/8" OD seamless, .218 wall, selded, coated, wrapped, and buried, and will be approximately 25 feet in length.
4. Meter run will be American 2" run, or equivalent, 1000 psi static rating, 100" of water differential rating.
5. Pit will be 10' x 10', enclosed by dikes and fenced.
6. Pipeline will be as described in Item 4(B) of the Surface Use Plan.

MAP #1  
TOPO & ACCESS MAP



ONE MILE RADIUS

QUINOCO FED.  
#6-5

San Arroyo Canyon

7.5 MILES

San Arroyo Canyon

36

31

32

33

12

13

18

17

Drill Hole 5810

Drill Hole 5370

Gas Well 5625

Hat Rock 6028

TRAIL

JEEP

5482

6208

6494

6198

6298

6195

6290

6478

6192

6488

6923

7996

6996

6956

6907

6903

6903

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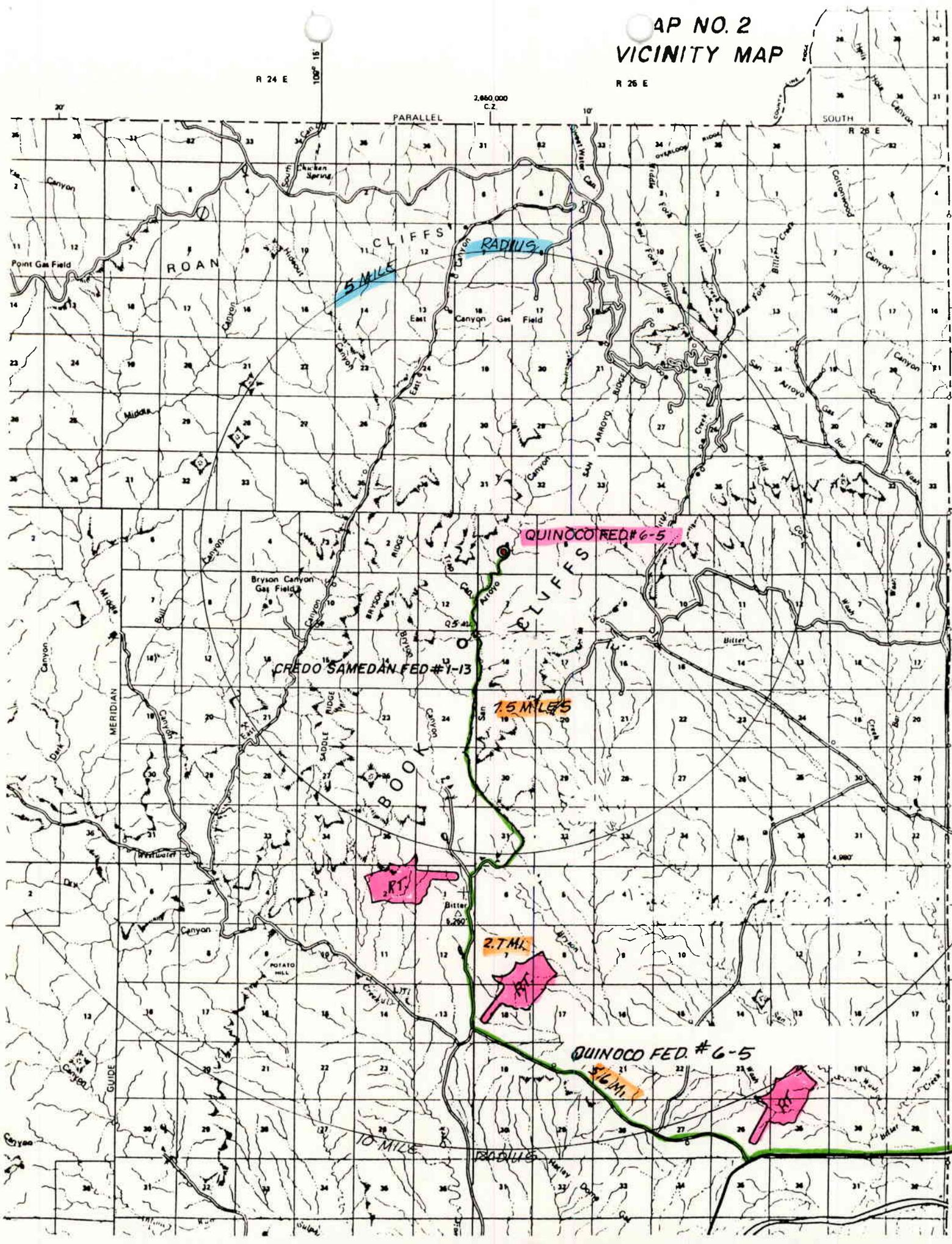
AP NO. 2  
VICINITY MAP

R 24 E

106° 15'

2,060,000  
C. 2

R 26 E



5 MILE RADIUS

QUINOCO FED. # 6-5

CREDO SAMEDAN FED. # 1-13

1.5 MILES

RT

2.7 MI.

QUINOCO FED. # 6-5

10 MILE RADIUS

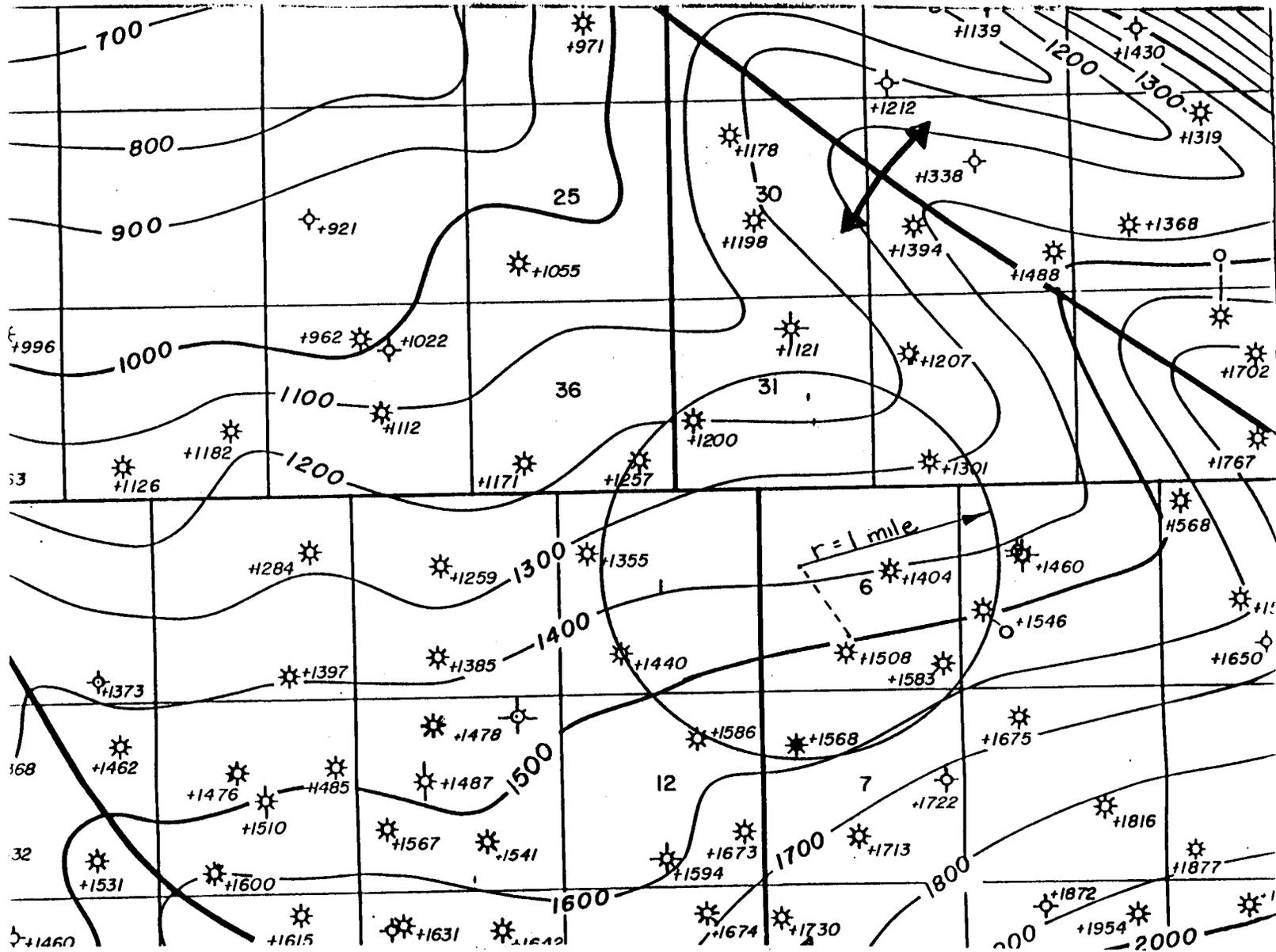
RADIUS

SOUTH

TO G

MAP NO. 3

WELL MAP



WELLS WITHIN 1 MILE OF PROPOSED NO. 6-5

T17S-R24E

SE $\frac{1}{4}$  SW $\frac{1}{4}$  Section 1: Quinoco No. 1-14 Reinauer

T17S-R25E

NW $\frac{1}{4}$  SW $\frac{1}{4}$  Section 5: TX0 #2 Hancock-Federal (surface only)

SW $\frac{1}{4}$  NE $\frac{1}{4}$  Section 6: Quinoco No. 6-7 Federal

SE $\frac{1}{4}$  SW $\frac{1}{4}$  Section 6: Quinoco No. 6-14 Federal

SE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 6: Quinoco No. 6-16 Federal

SW $\frac{1}{4}$  NW $\frac{1}{4}$  Section 7: Quinoco No. 7-4 Federal

T16S-R24E

SE $\frac{1}{4}$  SE $\frac{1}{4}$  Section 36: Quinoco No. 36-16 State

T16S-R25E

NW $\frac{1}{4}$  SW $\frac{1}{4}$  Section 31: Quinoco No. 31-12 Calvinco

SE $\frac{1}{4}$  SW $\frac{1}{4}$  Section 32: Ultramar No. 1-Utah State

CERTIFICATION

I, James G. Routson, the Vice-President of Lone Mountain Production Company, do hereby certify that Lone Mountain Production Company has the contractual right to drill the Federal No. 6-5 on Lease No. U-38842, under a Farmout Agreement with Quinoco Petroleum, Inc. and Quinoco's Income Funds, which own a combined 80% leasehold interest. I further certify that Farmout negotiations are in progress with Carson Water Company, which holds the remaining 20% interest.

August 9, 1988  
date

James G. Routson  
James G. Routson  
Vice-President  
Lone Mountain Production Company

Attest:

Bonnie M. Paul  
Bonnie M. Paul, Assistant Secretary

STATE OF MONTANA            )  
  ) ss.  
County of Yellowstone ),

On this 9th day of August, 1988, personally appeared before me, a Notary Public for the State of Montana, James G. Routson, who, being by me duly sworn, did say that he is the Vice-President of Lone Mountain Production Company, and that said instrument was signed in behalf of said corporation and that the seal affixed to said instrument is the corporate seal of said corporation, and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors, and said James G. Routson acknowledged said instrument to be the free act and deed of said corporation.

Given under my hand and seal the day and year first above written.

Dean Gruwell  
Notary Public for the State of Montana.  
Residing at Billings, Montana.  
My commission expires 1-17-90

OPERATOR Lone Mountain Prod. Co. DATE 8-11-88

WELL NAME Quinoco Federal 6-5

surface  
SEC NESW 6 T 17S R 25E COUNTY Grand

BHT SW NW

43-019-31267  
API NUMBER

Fcd.  
TYPE OF LEASE

CHECK OFF:

PLAT

*ok per BLM*  
 BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

Nearest well ok under Cause No. 13-6

Need water permit

Designation of operator / Certification letter ok per Carol BLM-Meeb

APPROVAL LETTER:

SPACING:  R615-2-3 \_\_\_\_\_ UNIT \_\_\_\_\_  R615-3-2

13-6 3-26-87  R615-3-3  
CAUSE NO. & DATE

STIPULATIONS:

1-Water Permit



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

355 West North Temple

3 Triad Center, Suite 350

Salt Lake City, Utah 84180-1203

801-538-5340

August 18, 1988

Lone Mountain Production Company  
P. O. Box 3394  
408 Petroleum Building  
Billings, Montana 59103

Gentlemen:

Re: Quinoco Federal 6-5 - NE SW Sec. 6, T. 17S, R. 25E - Grand County, Utah  
1492' FSL, 2326' FWL - BHL 2100' FNL, 1080' FWL

Approval to drill the referenced well is hereby granted in accordance with the Order of Cause No. 13-6 dated March 26, 1987 subject to the following stipulations:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
3. Submittal of the Report of Water Encountered During Drilling, Form OGC-8-X.
4. Prompt notification if it is necessary to plug and abandon the well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or Jim Thompson, Lead Inspector, (Home) 298-9318.
5. Compliance with the requirements of Rule R615-3-22, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Page 2  
Lone Mountain Production Company  
Quinoco Federal 6-5  
August 18, 1988

6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-019-31267.

Sincerely,



R.J. Firth  
Associate Director, Oil & Gas

lr  
Enclosures  
cc: Branch of Fluid Minerals  
D. R. Nielson  
8159T

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**  
AUG 26 1988

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

LCR

LEASE DESIGNATION AND SERIAL NO.

U-38842

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK

DRILL

DEEPEN

OIL GAS & MINING  
PLUG BACK

b. TYPE OF WELL

OIL WELL

GAS WELL

OTHER

SINGLE ZONE

MULTIPLE ZONE

2. NAME OF OPERATOR

Lone Mountain Production Company

3. ADDRESS OF OPERATOR

P.O. Box 3394, 408 Petroleum Bldg., Billings, MT 59103

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

At surface

1492' FSL, 2326' FWL, Section 6 (NE 1/4 SW 1/4)

At proposed prod. zone

2100' FNL, 1080' FWL, Section 6 (SW 1/4 NW 1/4)

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

22 miles northwest of Mack, Colorado

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)

\*-see below-

16. NO. OF ACRES IN LEASE

662.09

17. NO. OF ACRES ASSIGNED TO THIS WELL

170.16

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

surface - 656'  
At Dakota - 2413'

19. PROPOSED DEPTH

5589' MD, 4965' TVD

20. ROTARY OR CABLE TOOLS

Rotary

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

5784' GL, 5795' KB

22. APPROX. DATE WORK WILL START\*

September 15, 1988

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8" New	32.30# L.S.	300'	200 sacks Class "G" (to surface)
8-3/4"	4-1/2" New	10.5# J-55	5589'	500 sacks 10-0 RFC

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

*James G. Routson*  
James G. Routson

TITLE

Petroleum Engineer

DATE

August 9, 1988

(This space for Federal or State office use)

PERMIT NO.

43-019-31267

APPROVAL DATE

APPROVED BY

/s/ Gene Nodine

TITLE

District Manager

DATE

8/23/88

CONDITIONS OF APPROVAL, IF ANY:

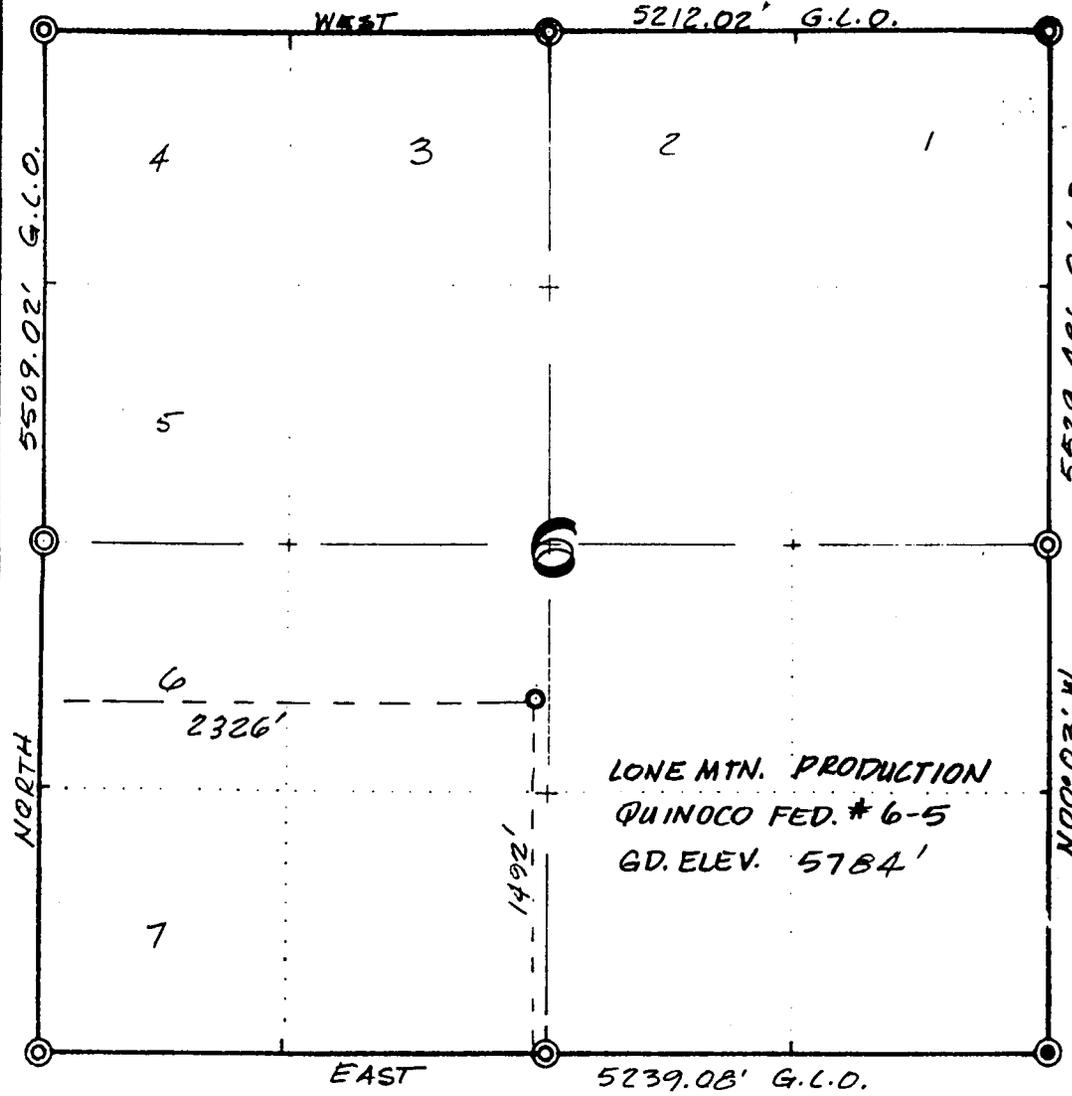
**CONDITIONS OF APPROVAL ATTACHED**

FLARING OR VENTING OF GAS IS SUBJECT TO NTL 4-A DATED 1/1/80

\*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

SEC. 6, T. 17S, R. 25E. OF THE S.L.M.



LONE MTN. PRODUCTION  
QUINOCO FED. # 6-5  
G.D. ELEV. 5784'

- LEGEND**
- ⊙ STANDARD LOCATION OF GLO SECTION CORNERS
  - ⊙ GLO CORNERS FOUND
  - ⊙ WELL LOCATION STAKED.
- REFERENCE DOCUMENTS**
- 1924 GLO PLAT
  - BRYSON CANYON, UT QUADRANGLE, USGS

THIS WELL LOCATION PLAT WAS PREPARED FOR LONE MOUNTAIN PRODUCTION CO.  
TO LOCATE THE QUINOCO FEDERAL # 6-5, 1492' F.S. L. &  
2326' F.W.L. IN THE NE 1/4 SW 1/4, OF SECTION 6, T. 17S., R. 25E.,  
OF THE S.L.M., GRAND COUNTY, UTAH



**SURVEYOR'S CERTIFICATE**

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR IN THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY

*Larry D. Becker*  
L.S. # 4189

SURVEYED	7-3-88	7-30	<b>ENERGY SURVEYS &amp; ENGINEERING CORP.</b> 715 HORIZON DRIVE, SUITE 220 GRAND JUNCTION, CO 81501 (303) 245-7221	SCALE 1" = 1000'
DRAWN	7-6-88	7-31		JOB NO
CHECKED	7-6-88	7-31		SHEET OF

Lone Mountain Production Company  
Well No. Federal 6-5  
SWNW Sec. 6, T. 17 S., R. 25 E., SLB&M  
Grand County, Utah  
Lease U-38842

CONDITIONS OF APPROVAL

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Be advised that Lone Mountain Production Company is considered to be the operator of the above well, and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands.

Bond coverage for this well is provided by Bond No. BLM UT0405 Personal Bond in lieu of Statewide Oil and Gas Bond in the amount of \$25,000 (Obligor - Lone Mountain Production Company, Inc.) via consent as provided for in 43 CFR 3104.1.

This office will hold the aforementioned operator and bond liable until the provisions of 43 CFR 3106.7-2 continuing responsibility are met.

A. DRILLING PROGRAM

Pressure control equipment will be pressure tested to 1000 psi or 70% of internal yield of casing. Pressure test will be conducted prior to drilling out from casing shoe.

An accumulator and choke manifold system will be installed and operational during drilling operations. This equipment will meet standards set forth in API RP 53. Any deviations must be approved in advance by an authorized officer.

All BOP and casing tests will be recorded in driller's log.

Cement for surface pipe will be circulated to the surface.

All lease operations will be conducted in full compliance with applicable regulations (43 CFR 3100), Onshore Oil and Gas Order 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions and the approved plan will be made available to the field representative to insure compliance.

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Office. If operations are to be suspended, prior approval of the District Office will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the District Office within a minimum of 24 hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within 24 hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.

In accordance with Onshore Order No. 1 this well will be reported on Form 3160-6, "Monthly Report of Operations", starting with the month in which operations commence and continued each month until the well is plugged and abandoned. This report will be sent to the District Office, P.O. Box 970, Moab, Utah 84532.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Area Office in accordance with requirements of NTL-3A.

If a replacement rig is needed for completion operations, a Sundry Notice (Form 3160-5) to that effect will be filed for prior approval from the District Office, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations, verbal approval to bring on a replacement rig will be approved through the District Office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, work-over, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Moab District Manager.

If the well is to be completed for production the Area Office is to be contacted in order to set up a pre-production conference. When the well is placed in a producing status the District Office is to be notified by telegram or other written communication within five working days.

Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.

No well abandonment operations will be commenced without the prior approval of the District Office. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Office. A Subsequent Report of Abandonment (Form 3160-5) will be sent to the District Office within 30 days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Office, or the appropriate surface managing agency. Upon completion of approved plugging, a dry hole marker will be erected in accordance with 43 CFR 3162.6. The top of the marker will be closed or capped. The following minimum information will be permanently placed on the marker; "Fed" or "Ind", as applicable, "Lease Number", "Well number", location of well by 1/41/4 section, township, and range.

B. SURFACE USE PROGRAM

The access road will be rehabilitated or brought to Resource (Class III) Road Standards within sixty (60) days of dismantling of the drilling rig. If this time frame cannot be met, the Area Manager will be notified so that temporary drainage control can be installed along the access road.

Immediately upon completion of drilling, the location, and surrounding areas will be cleared of all remaining debris, materials, trash, and junk not required for production.

If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to the appropriate rental, or other financial obligation determined by the authorized officer.

All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

Gas meter runs for each well will be located within five hundred (500) feet of the wellhead. The gas flowline will be buried from the wellhead to the meter along with any other sections occurring on the pad. Meter runs will be housed and/or fenced.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three (3) months on new meter installations and at least quarterly thereafter. The Area Manager will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration reports will be submitted to the Resource Area Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.

If productive, the side slopes will be seeded this fall with the following seed mixture:

- Western wheatgrass
- Streambank wheatgrass
- Indian ricegrass
- Shadscale
- Fourwing saltbush

NOTIFICATIONS

Notify the Grand Resource Area, at (801) 259-8193 for the following:

2 days prior to commencement of dirt work, construction or reclamation;

1 day prior to spudding;

1 day prior to pressure testing of BOPE and/or surface casing.

Your contact with the Grand Resource Area Office is:

Jeff Robbins

Office Phone (801) 259-8193

Home Phone (801) 259-7964

Grand Resource Area office address:

Grand Resource Area  
Sand Flats Road, P.O. Box M  
Moab, Utah 84532

Notify the Moab District Office, Branch of Fluid Minerals, at (801) 259-6111 for the following:

No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly drilled dry holes, and in emergency situations, verbal approval can be obtained by calling the following individuals, in the order listed.

Dale Manchester, Petroleum Engineer      Office Phone: (801) 259-6111  
Home Phone:

Lynn Jackson, Chief, Branch of Fluid Minerals  
Office Phone (801) 259-6111  
Home Phone (801) 259-7990

Paul Brown, I&E Coordinator      Office Phone (801) 259-6111  
Home Phone (801) 259-7018

24 hours advance notice is required for all abandonments.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API NO. 43-019-31267

NAME OF COMPANY: LONE MOUNTAIN PRODUCTION CO.

WELL NAME: QUINOCO FEDERAL 6-5

SECTION NESW 6 TOWNSHIP 17S RANGE 25E COUNTY GRAND

DRILLING CONTRACTOR VECO

RIG # 2

SPUDDED: DATE 9/12/88

TIME 1:00 a.m.

How ROTARY

DRILLING WILL COMMENCE 9/12/88

REPORTED BY LINDA

TELEPHONE # 406-245-5077

DATE 9/12/88 SIGNED TAS

**LONE MOUNTAIN PRODUCTION COMPANY**

P.O. BOX 3394  
408 PETROLEUM BUILDING  
BILLINGS, MONTANA 59103-3394  
(406) 245-5077

**RECEIVED**  
SEP 14 1988

September 12, 1988

DIVISION OF  
OIL, GAS & MINING

Mr. John R. Baza, Petroleum Engineer  
Utah Dept. of Natural Resources  
Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180-1203

Re: Federal No. 6-5  
SW NW Section 6, T17S-R25E  
Grand County, Utah

Dear John:

We are enclosing, in duplicate, the Report of Spud Sundry Notice and the Entity Action Form for the above captioned well.

Very truly yours,

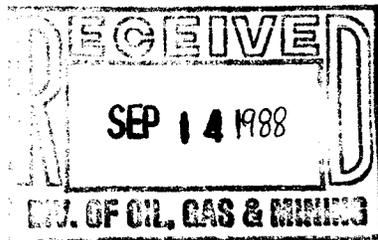
Lone Mountain Production Company

*James G. Routson (by law)*  
James G. Routson

JGR/lw

Enclosures

ENTITY ACTION FORM - DOGM FORM 6



OPERATOR Lone Mountain Production Company  
ADDRESS P. O. Box 3394  
408 Petroleum Building  
Billings, MT 59103

OPERATOR CODE N-7210  
PHONE NO. (406) 245-5077

OPERATORS MUST COMPLETE FORM UPON SPUDDING NEW WELL OR WHEN CHANGE IN OPERATIONS OR INTERESTS NECESSITATES CHANGE IN EXISTING ENTITY NUMBER ASSIGNMENT.

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
A	99999	10926	43-019-31267	Quinoco Federal No. 6-5	SWNW	6	17S	25E	Grand	9/12/88	9/12/88
COMMENTS: Federal - lease Proposed Zone - Morrison Not in a Unit (One other well in sec. 6 - Oper. Lone mtn - DK-mR. Assign new entity 10926-9-14-88) Field - Bar X LCR (											
COMMENTS:											
COMMENTS:											
COMMENTS:											
COMMENTS:											
COMMENTS:											

ACTION CODES: A - ESTABLISH NEW ENTITY FOR NEW WELL (SINGLE WELL ONLY)  
 B - ADD NEW WELL TO EXISTING ENTITY (GROUP OR UNIT WELL)  
 C - RE-ASSIGN WELL FROM ONE EXISTING ENTITY TO ANOTHER EXISTING ENTITY  
 D - RE-ASSIGN WELL FROM ONE EXISTING ENTITY TO A NEW ENTITY  
 E - OTHER (EXPLAIN IN COMMENTS SECTION)

(SEE INSTRUCTIONS ON BACK OF FORM)

*James D. Routson*  
 SIGNATURE James G. Routson  
 Petroleum Engineer 9/12/88  
 TITLE DATE

UNITED STATES DEPARTMENT OF THE INTERIOR (Other Instructions on reverse side)  
BUREAU OF LAND MANAGEMENT

DATE: SEP 14 1988  
5. LEASE DESIGNATION AND SERIAL NO  
U-38842  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS

(Do not use this form for proposals to drill or to deepen or plug a well to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED  
SEP 14 1988

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Lone Mountain Production Company

3. ADDRESS OF OPERATOR  
P. O. Box 3394, 408 Petroleum Bldg., Billings, MT 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface 1492' FSL, 2326' FWL (Section 6)

5. DIVISION OF OIL, GAS & MINING

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
6-5

10. FIELD AND POOL, OR WILDCAT  
Undesignated

11. SEC., T., B., M., OR BLK. AND SURVEY OR AREA  
SW NW Sec. 6: T17S-R25E

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. PERMIT NO.  
43-019-31267

15. ELEVATIONS (Show whether DF, RT, OR, etc.)  
5784' GL, 5795' KB

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Report of Spud</u>	<input checked="" type="checkbox"/>
(Other) <input type="checkbox"/>		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Spudded the Federal No. 6-5 well at 1:00 AM on September 12, 1988, Veco Rig No. 2. Verbal notification phoned to Jim Thompson, Utah Division Oil, Gas & Mining at 8:45 AM, September 12, 1988. Verbal notification phoned to Jeff Robbins, BLM, Moab, Utah at 8:52 AM, September 12, 1988.

18. I hereby certify that the foregoing is true and correct

SIGNED James R. Patton TITLE Petroleum Engineer DATE September 12, 1988

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

Quinoco Petroleum, Inc.  
P. O. Box 378111  
Stanford Place 3, Suite 1700  
4582 S. Ulster Street Parkway  
Denver, CO 80237

October 17, 1988

Attention: Ron Firth, Associate Director  
Utah Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

Re: Lone Mountain Production Co. Federal No. 6-5  
Section 6: T17S - R25E  
Grand County, Utah  
Lease U-38842

Dear Mr. Firth:

This is to advise you that Quinoco Petroleum, Inc. has no objections to Lone Mountain Production Company's exception location for the above referenced well. We have been furnished copies of the directional surveys and survey plats and understand the location of the Dakota formation to be 2768' FSL, 1420' FWL of Section 6.

Very truly yours,

QUINOCO PETROLEUM, INC.

By:



J. D. Webb  
Senior Vice President of Operations

Carson Water Company  
P. O. Box 15015  
5241 Spring Mountain Road  
Las Vegas, Nevada 89114

October 17, 1988

Attention: Ron Firth, Associate Director  
Utah Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180

Re: Lone Mountain Production Co. Federal No. 6-5  
Section 6: T17S - R25E  
Grand County, Utah  
Lease U-38842

Dear Mr. Firth:

This is to advise you that Carson Water Company has no objections to Lone Mountain Production Company's exception location for the above referenced well. We have been furnished copies of the directional surveys and survey plats and understand the location of the Dakota formation to be 2768' FSL, 1420' FWL of Section 6.

Very truly yours,

CARSON WATER COMPANY

By:

G. F. Kull

SCIENTIFIC DRILLING INTERNATIONAL  
6634 COAL RD., CASPER, WYOMING

MAGNETIC DIRECTIONAL SURVEY  
FOR

\*\*\*\*\*  
\*LONE MOUNTAIN PETROLEUM\*  
\*\*\*\*\*

JOB NUMBER: 41ER0988080  
WELL NAME: FEDERAL 6-5  
LOCATION: GRAND COUNTY, UTAH  
SURVEY DATE: 10/12/88  
SURVEY ENGINEER: D. URBAN  
METHOD OF CALCULATION: THE RADIUS OF CURVATURE  
VERTICAL SECTION: CALCULATED USING PROPOSAL OF N 37- 5 W  
COMMENTS:

\*\*\*\*\*  
\* THIS SURVEY IS CORRECT TO THE BEST OF MY \*  
\*KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA.\*  
\* \*  
\* \*  
\* \*\*\*\*\* \*  
\* COMPANY REPRESENTATIVE \*  
\*\*\*\*\*

SCIENTIFIC DRILLING INTERNATIONAL  
6634 COAL RD., CASPER, WYOMING

JOB NUMBER: 41ER0988080

DATE: 10/12/88

## INRUN SURVEY

BY

## THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES		D-LEG PER 100
						LATITUDE	DEPARTURE	
463.00	462.95	-5.24	6.06	1-30	S 7- 0 E	6.02	S .74 E	.32
494.00	493.94	-5.89	.81	1-30	S 6- 0 W	6.83	S .75 E	1.10
525.00	524.93	-6.33	.68	1- 0	S 19- 0 W	7.48	S .60 E	1.84
587.00	586.92	-6.41	1.22	1-15	S 79- 0 W	8.25	S .28 W	1.85
648.00	647.89	-5.41	1.73	2- 0	N 82- 0 W	8.29	S 2.00 W	1.50
710.00	709.83	-3.28	2.70	3- 0	N 68- 0 W	7.59	S 4.60 W	1.88
772.00	771.73	-.08	3.51	3-30	N 54- 0 W	5.89	S 7.67 W	1.51
834.00	833.58	4.13	4.32	4-30	N 47- 0 W	3.14	S 11.01 W	1.79
865.00	864.48	6.60	2.50	4-45	N 45- 0 W	1.41	S 12.80 W	.96
926.00	925.21	12.26	5.71	6- 0	N 45- 0 W	2.63	N 16.84 W	2.05
1018.00	1016.62	22.64	10.41	7- 0	N 37- 0 W	10.49	N 23.67 W	1.46
1079.00	1077.11	30.47	7.83	7-45	N 38- 0 W	16.70	N 28.44 W	1.25
1141.00	1138.45	39.50	9.03	9- 0	N 39- 0 W	23.76	N 34.06 W	2.03
1202.00	1198.64	49.43	9.94	9-45	N 35- 0 W	31.70	N 40.04 W	1.63
1231.00	1227.21	54.40	4.97	10- 0	N 34- 0 W	35.80	N 42.86 W	1.05

SCIENTIFIC DRILLING INTERNATIONAL  
6634 COAL RD., CASPER, WYOMING

JOB NUMBER: 41ER0988080

DATE: 10/12/88

## INRUN SURVEY

BY

## THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES		D-LEG PER 100
						LATITUDE	DEPARTURE	
1293.00	1288.17	65.69	11.30	11- 0	N 37- 0 W	45.00 N	49.42 W	1.84
1354.00	1347.91	77.98	12.29	12-15	N 37- 0 W	54.81 N	56.81 W	2.05
1415.00	1407.41	91.44	13.46	13-15	N 40- 0 W	65.35 N	65.19 W	1.97
1477.00	1467.57	106.38	15.00	14-45	N 44- 0 W	76.49 N	75.23 W	2.88
1536.00	1524.45	121.94	15.64	16- 0	N 42- 0 W	87.93 N	85.89 W	2.30
1566.00	1553.22	130.42	8.52	17- 0	N 44- 0 W	94.16 N	91.70 W	3.83
1628.00	1612.35	148.86	18.64	18- 0	N 47- 0 W	107.23 N	105.00 W	2.17
1690.00	1671.01	168.64	20.06	19-45	N 46- 0 W	121.03 N	119.55 W	2.87
1718.00	1697.40	177.91	9.35	19-15	N 43- 0 W	127.70 N	126.10 W	4.00
1760.00	1737.07	191.63	13.80	19- 6	N 43- 6 W	137.77 N	135.53 W	.37
1791.00	1766.44	201.53	9.94	18-18	N 41- 0 W	145.15 N	142.18 W	3.37
1853.00	1825.39	220.69	19.21	17-48	N 41-36 W	159.58 N	154.86 W	.86
1912.00	1881.35	239.35	18.67	19- 6	N 34- 0 W	174.33 N	166.30 W	4.63
1971.00	1936.40	260.50	21.19	23- 0	N 34- 0 W	191.89 N	178.14 W	6.61
2068.00	2024.30	301.40	40.99	27- 0	N 32-42 W	226.13 N	200.68 W	4.16

SCIENTIFIC DRILLING INTERNATIONAL  
6634 COAL RD., CASPER, WYOMING

JOB NUMBER: 41ER0988080

DATE: 10/12/88

## INRUN SURVEY

BY

## THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES		D-LEG PER 100
						LATITUDE	DEPARTURE	
2152.00	2099.14	339.27	38.14	27- 0	N 28- 6 W	259.01 N	219.97 W	2.49
2190.00	2132.69	356.90	17.84	29- 0	N 28-48 W	274.70 N	228.47 W	5.33
2249.00	2184.15	385.57	28.87	29-36	N 31-36 W	299.65 N	242.99 W	2.54
2366.00	2286.42	442.18	56.81	28-30	N 33- 0 W	347.67 N	273.35 W	1.11
2491.00	2397.04	500.34	58.20	27- 0	N 40- 0 W	394.42 N	307.94 W	2.87
2519.00	2421.99	513.02	12.71	27- 0	N 42- 0 W	404.02 N	316.28 W	3.24
2549.00	2448.84	526.35	13.39	26- 0	N 43- 0 W	413.88 N	325.32 W	3.65
2578.00	2474.93	538.96	12.66	25-45	N 40- 0 W	423.36 N	333.71 W	4.60
2610.00	2503.72	552.92	13.97	26- 0	N 37- 0 W	434.29 N	342.40 W	4.16
2670.00	2557.24	580.05	27.12	27-45	N 37- 0 W	455.95 N	358.73 W	2.92
2702.00	2585.56	594.94	14.90	27-45	N 38- 0 W	467.77 N	367.80 W	1.46
2760.00	2636.83	622.06	27.12	28- 0	N 37- 0 W	489.28 N	384.30 W	.91
2793.00	2666.00	637.49	15.43	27-45	N 38- 0 W	501.52 N	393.69 W	1.61
2856.00	2721.17	667.91	30.42	30- 0	N 38- 0 W	525.50 N	412.42 W	3.57
2887.00	2747.94	683.52	15.62	30-30	N 39- 0 W	537.72 N	422.15 W	2.29

SCIENTIFIC DRILLING INTERNATIONAL  
6634 COAL RD., CASPER, WYOMING

JOB NUMBER: 41ER0988080

DATE: 10/12/88

## INRUN SURVEY

BY

## THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES		D-LEG PER 100
						LATITUDE	DEPARTURE	
2948.00	2800.16	715.04	31.53	31-45	N 36- 0 W	562.73 N	441.34 W	3.26
3007.00	2850.13	746.35	31.37	32-30	N 31- 0 W	588.88 N	458.65 W	4.68
3068.00	2901.29	779.38	33.22	33-30	N 31- 0 W	617.36 N	475.76 W	1.64
3129.00	2952.30	812.61	33.45	33- 0	N 30- 0 W	646.18 N	492.73 W	1.22
3160.00	2978.48	829.12	16.60	31-45	N 33- 0 W	660.33 N	501.41 W	6.56
3213.00	3023.97	856.30	27.20	30- 0	N 40- 6 W	682.16 N	517.59 W	7.62
3246.00	3052.83	872.29	16.00	28- 0	N 38-12 W	694.57 N	527.69 W	6.67
3303.00	3102.99	899.34	27.07	28-42	N 33- 6 W	716.56 N	543.46 W	4.42
3366.00	3157.77	930.36	31.12	30-30	N 32- 6 W	742.77 N	560.23 W	2.96
3397.00	3184.28	946.34	16.06	31-54	N 30-36 W	756.48 N	568.58 W	5.16
3510.00	3278.69	1007.83	62.07	34-45	N 28- 0 W	810.61 N	598.96 W	2.82
3601.00	3354.02	1058.43	51.05	33-30	N 31- 0 W	855.04 N	624.09 W	2.30
3765.00	3492.71	1145.44	87.51	31- 0	N 31- 0 W	930.05 N	669.16 W	1.52
3895.00	3605.29	1210.18	65.00	29- 0	N 33- 0 W	985.16 N	703.60 W	1.72
4016.00	3712.24	1266.64	56.57	26-45	N 34- 0 W	1032.34 N	734.83 W	1.90

SCIENTIFIC DRILLING INTERNATIONAL  
6634 COAL RD., CASPER, WYOMING

JOB NUMBER: 41ER0988080

DATE: 10/12/88

## INRUN SURVEY

BY

## THE RADIUS OF CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	COURSE DEV.	INC D M	BEARING D M	COORDINATES		D-LEG PER 100	
						LATITUDE	DEPARTURE		
4295.00	3966.30	1381.69	115.11	22- 0	N 37- 0 W	1126.04	N 801.66 W	1.76	
4603.00	4255.44	1487.60	105.95	18-15	N 34- 0 W	1212.29	N 863.18 W	1.26	
4727.00	4373.21	1526.37	38.83	18-15	N 34- 0 W	1244.48	N 884.90 W	.00	Dakota Silt
4849.00	4489.07	1564.52	38.21	18-15	N 34- 0 W	1276.16	N 906.26 W	.00	Dakota Sand
5016.00	4647.67	1616.75	52.30	18-15	N 34- 0 W	1319.52	N 935.51 W	.00	Morrison
5511.00	5117.77	1771.54	155.02	18-15	N 34- 0 W	1448.03	N 1022.19 W	.00	

\*\*\*\*\*  
THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF  
\*\*\*\*\*  
5511.00 FEET EQUALS 1772.48 FEET AT N 35-13 W.  
\*\*\*\*\*

\* DEPTHS BELOW 4603.00' ARE ASSUMED \*

SCIENTIFIC DRILLING INTERNATIONAL

6634 COAL RD., CASPER, WYOMING  
JOB NO. 41ER098B080 DATE 10/12/88

INRUN SURVEY

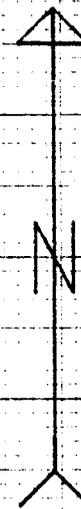
BY

RADIUS OF CURVATURE



HORIZONTAL DISPLACEMENT AT 5511 FEET

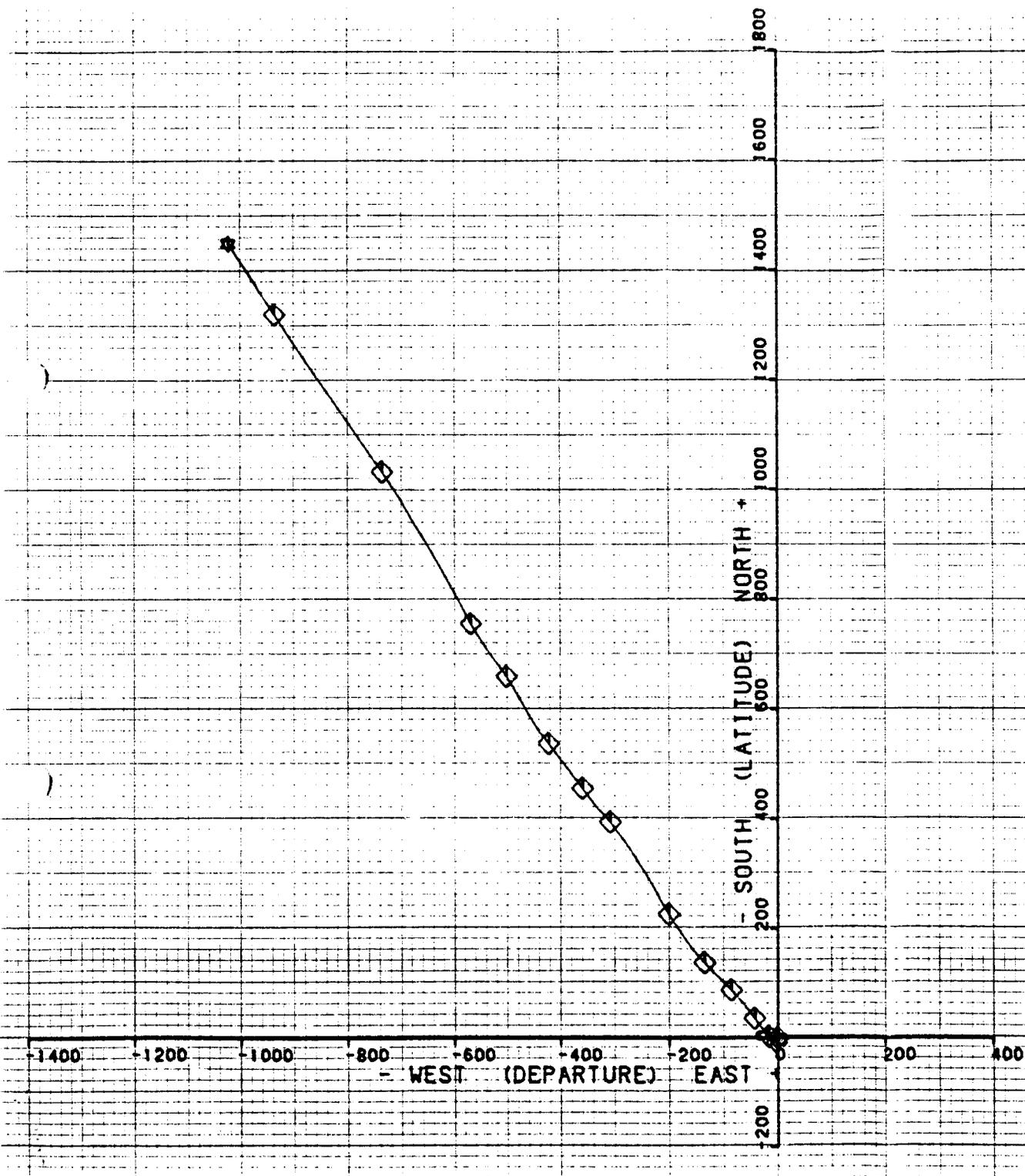
EQUALS 1772.47 FEET AT N 35° - 13 W



PLAN VIEW

SCALE = 200.00 FEET/INCH

◇ DENOTES EVERY 5TH. STATION



-4000 -3000 -2000 LEFT DISPLACEMENT RIGHT 1000 2000 3000 4000 5000

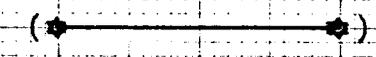
# SCIENTIFIC DRILLING INTERNATIONAL

6634 COAL RD., CASPER, WYOMING  
JOB NO. 41ER0988080 DATE 10/12/88

INRUN SURVEY

BY

RADIUS OF CURVATURE



VERTICAL PROJECTION AT 5117.77 FEET

EQUALS 5415.71 FEET AT 19° - 6

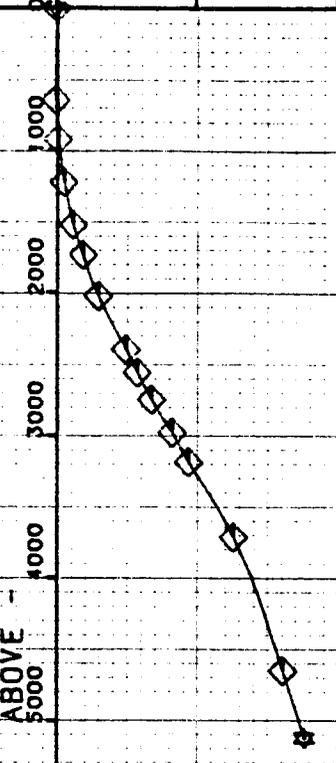
SCALE = 1000 FEET/INCH

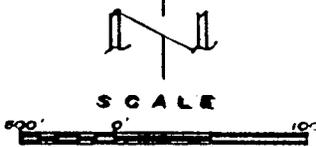
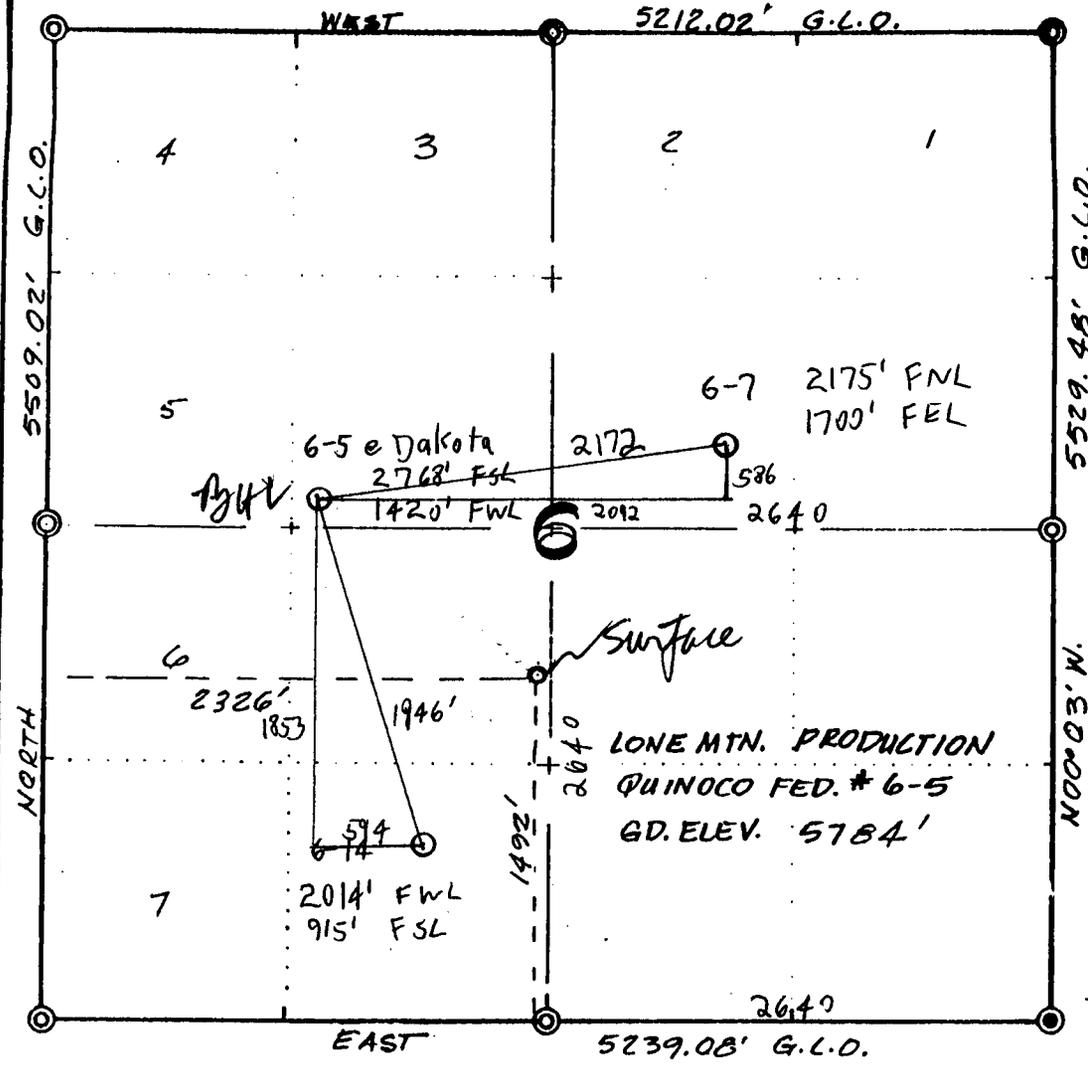
## VERTICAL SECTION

PERPENDICULAR TO PROPOSAL

◇ DENOTES EVERY 5TH. STATION

ABOVE  
5000  
(TVD)  
6000  
BELOW  
7000  
8000  
9000  
10000





- LEGEND**
- ⊙ STANDARD LOCATION OF OLD SECTION CORNERS
  - OLD CORNERS FOUND
  - WELL LOCATION STAKED.
- REFERENCE DOCUMENTS**
- 1924 GLO PLAT
  - BRYSON CANYON, UT. QUADRANGLE, USGS

THIS WELL LOCATION PLAT WAS PREPARED FOR LONE MOUNTAIN PRODUCTION CO TO LOCATE THE QUINOCO FEDERAL # 6-5, 1472' F.S. L. & 2326' F.W.L. IN THE NE 1/4 SW 1/4, OF SECTION 6, T. 17S., R. 25E. OF THE S.L.M. GRAND COUNTY, UTAH



**SURVEYOR'S CERTIFICATE**

I, LARRY D. BECKER A REGISTERED LAND SURVEYOR IN THE STATE OF UTAH DO HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY DIRECT SUPERVISION AND THAT THIS PLAT REPRESENTS SAID SURVEY

*Larry D. Becker*  
L.S. # 4189

SURVEYED	7-2-88	7-30	<b>ENERGY SURVEYS &amp; ENGINEERING CORP.</b> 715 INKIZON DRIVE, SUITE 200 GRAND JUNCTION, CO 81501 (303) 245-7221	SCALE 1" = 1000'
DRAWN	7-6-88	7-31		JOB NO
CHECKED	7-6-88	7-31		SHEET OF

**RECEIVED**  
OCT 17 1988

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING  
3 TRIAD CENTER, SUITE 350  
SALT LAKE CITY, UT 84180-1203

DIVISION OF  
OIL, GAS & MINING

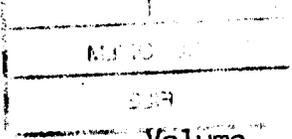
*Orl.*

REPORT OF WATER ENCOUNTERED DURING DRILLING

43-019-31267

Well Name & Number Lone Mountain Production No. 6-5 Federal  
 Operator Lone Mountain Production Co. Address P. O. Box 3394, Billings, MT 59103  
 Contractor VECO DRILLING, INC. Address P. O. Box 1705, Grand Junction, CO 81502  
 Location SW 1/4 NW 1/4 Sec. 6 T. 17S R. 25E County Grand

Water Sands



	<u>Depth</u>		<u>Volume</u>	<u>Quality</u>
	<u>From</u>	<u>To</u>		
1.	- NO MEASURABLE WATER ENCOUNTERED -			
2.				
3.				
4.				
5.				

(Continue on reverse side if necessary)

<u>Formation Tops</u>	<u>MD</u>	<u>TVD</u>	<u>LOCATION</u>
Castlegate	778'	777'	1486' FSL, 2334' FWL
Dakota Silt	4727'	4373'	2736' FSL, 1441' FWL
Dakota Sand	4849'	4489'	2768' FSL, 1420' FWL
Morrison	5016'	4648'	2811' FSL, 1391' FWL
TD	5511'	5118'	2940' FSL, 1304' FWL

- NOTE: (a) Report on this form as provided for in Rule 806, Oil and Gas Conservation General Rules.
- (b) If a water analysis has been made of the above reported zone, please forward a copy along with this form.

DEPARTMENT OF THE INTERIOR  
BUREAU LAND MANAGEMENT

(Other instructions on reverse side)

SUNDRY NOTICES AND REPORTS

(Do not use this form for proposals to drill or to deepen or plug a well. Use "APPLICATION FOR PERMIT" for such proposals.)

**RECEIVED**  
OCT 17 1988

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
**Lone Mountain Production Company**

3. ADDRESS OF OPERATOR  
**P. O. Box 3394, 408 Petroleum Bldg., Billings, MT 59103**

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)  
At surface **1492' FSL, 2326' FWL (Section 6)**

5. LEASE DESIGNATION AND SERIAL NO.  
**U-38842**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
**Federal**

9. WELL NO.  
**6-5**

10. FIELD AND POOL, OR WILDCAT  
**Undesignated**

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
**SW NW Sec. 6: T17S-R25E**

12. COUNTY OR PARISH  
**Grand**

13. STATE  
**Utah**

14. PERMIT NO.  
**43-019-31267**

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
**5784' GL, 5795' KB**

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANE <input type="checkbox"/>	(Other) <input type="checkbox"/>	<b>Status Report <input checked="" type="checkbox"/></b>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Drilled 8-3/4" hole to 2286' MD. Ran 7", 23#, J-55 casing to 2268'. Cemented with 100 sacks Class "G" + 3% CaCl<sub>2</sub>.

Drilled 6-1/4" hole to 5511' MD (5118' TVD). Ran 4-1/2", 11.6#, J-55 casing to 5475' MD, cemented with 175 sacks 10-0 thixotropic cement. Plug down at 8:00 PM, October 7, 1988. Rig released at 12:00 Midnight, October 7, 1988.

LOG TOPS	MD	TVD	LOCATION
Castlegate	778'	777'	1486' FSL, 2334' FWL
Dakota Silt	4727'	4373'	2736' FSL, 1441' FWL
Dakota Sand	4849'	4489'	2768' FSL, 1420' FWL
Morrison	5016'	4648'	2811' FSL, 1391' FWL
TOTAL DEPTH	5511'	5118'	2940' FSL, 1304' FWL

Completion operations should commence within three weeks.

18. I hereby certify that the foregoing is true and correct

SIGNED James G. Routson TITLE Petroleum Engineer DATE October 10, 1988

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

\*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**LONE MOUNTAIN PRODUCTION COMPANY**

P.O. BOX 3394  
408 PETROLEUM BUILDING  
BILLINGS, MONTANA 59103-3394  
(406) 245-5077

**RECEIVED**  
OCT 19 1988

October 17, 1988

DIVISION OF  
OIL, GAS & MINING

Ron Firth  
Division Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

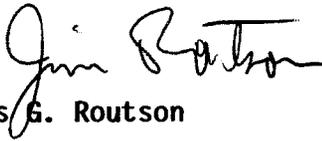
Re: Quinoco Federal No. 6-5  
SE NW Sec. 6: T17S-R25E  
Grand County, Utah

Dear Ron:

Enclosed for your information (in duplicate) are copies of the directional survey and survey plats showing the calculated distance of the No. 6-5 Federal from the offset wells.

Yours very truly,

LONE MOUNTAIN PRODUCTION COMPANY



James G. Routson

JGR:lw

Enclosures

**LONE MOUNTAIN PRODUCTION COMPANY**

P.O. BOX 3394  
408 PETROLEUM BUILDING  
BILLINGS, MONTANA 59103-3394  
(406) 245-5077

November 1, 1988

**RECEIVED**  
NOV 03 1988

DIVISION OF  
OIL, GAS & MINING

Utah Division of Oil, Gas, and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

Attention: Ron Firth

Re: Federal No. 6-5  
Section 6-T17S-R25E  
Grand County, Utah

*obligation  
as signed to RFF  
11-3-88*

\* Dear Ron,

Enclosed in duplicate is a completion report for the above referenced well. Logs and the directional survey have been sent previously. As you can see from the survey plat which was sent with the directional survey, we ended up more than the legal distance from the offset wells, but less than 300' from the spacing unit boundary, being only 128' inside the NW $\frac{1}{4}$  of Section 6.

\* We are hereby requesting the Division's approval of this bottom hole location as an exception location. The royalty and overriding royalty interest owners under the SW $\frac{1}{4}$  and NW $\frac{1}{4}$  of Section 6 are the same. We drilled the well under farmout agreements with the same working interest owners as are in the SW $\frac{1}{4}$  of Section 6, Quinoco Petroleum, Inc. and Carson Water Company. Attached to this letter, in duplicate, are letters we have obtained from these companies indicating they have no objection to the exception location of our Federal No. 6-5 well.

We plan to have the well on production in several weeks. If further information is needed, please advise.

Very truly yours,

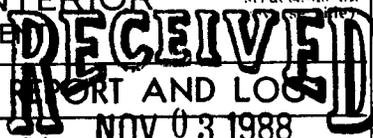
LONE MOUNTAIN PRODUCTION COMPANY

*Jim Routson*  
James G. Routson

JGR:hg  
Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985



WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other

2. NAME OF OPERATOR: Lone Mountain Production Company

3. ADDRESS OF OPERATOR: 408 Petroleum Building, P. O. Box 3394, Billings, Montana 59103

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1492' FSL, 2326' FWL, Sec. 6  
At top prod. interval reported below 2768' FSL, 1420' FWL, Sec. 6  
At total depth 2940' FSL, 1304' FWL, Sec. 6

14. PERMIT NO. 43-019-31267 DATE ISSUED 8-18-88

15. DATE SPUDDED 9-12-88 16. DATE T.D. REACHED 10-6-88 17. DATE COMPL. (Ready to prod.) 10-29-88

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5784' GL, 5795' KB

20. TOTAL DEPTH, MD & TVD 5511 MD, 5118 TVD 21. PLUG, BACK T.D., MD & TVD 5425 MD, 5036 TVD

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
Dakota 4849-5016 MD (4489-4648 TVD)

26. TYPE ELECTRIC AND OTHER LOGS RUN GR-FDC-CNL, DIL, GR-CBL-VDL

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36# J-55	287'	12 1/2"	200 sx (to surface)	None
7"	23# J-55	2268'	8 3/4"	100 sx	None
4 1/2"	11.6# J-55	5475'	6 1/4"	175 sx (top at 3555 MD)	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
None				

31. PERFORATION RECORD (Interval, size and number)  
1 shot each, .31" diameter, as follows:  
4868, 4871, 4881, 4913, 4922, 4929, 4947, 4951, 4953, 4959, 4987; 11 holes total

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4868-4987	600 gallons 15% HCl acid
4868-4987	Foam fract with 485 bbls. 5% HCl
	1.90 MMSCF Nitrogen; 20,000#
	100 mesh sand, 80,000# 16-30 sand

33.\* PRODUCTION  
DATE FIRST PRODUCTION 10-29-88  
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing  
WELL STATUS (Producing or shut-in) Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-30-88	5	.625"	→		79	0	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
210	480	→	0	1893	0		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented

35. LIST OF ATTACHMENTS None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED James G. Routson TITLE Petroleum Engineer DATE 11-1-88

5. LEASE DESIGNATION AND SERIAL NO. U-38842  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME Federal

9. WELL NO. No. 6-5

10. FIELD AND POOL, OR WILDCAT Undesignated

11. SEC. T. R., M., OR BLOCK AND SURVEY OR AREA SW 1/4 NW 1/4 Section 6 T17S-R25E SLBM

12. COUNTY OR PARISH Grand 13. STATE Utah

19. ELEV. CASINGHEAD 5797'

23. INTERVALS DRILLED BY → ROTARY TOOLS 0-TD CABLE TOOLS --

25. WAS DIRECTIONAL SURVEY MADE Yes

27. WAS WELL CORDED No

\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Castlegate	778	792	Tight - water	Mesaverde	Surface	777 (+5018)
Dakota	4854	4883	Tight - gas	Castlegate	778	986 (+4809)
Dakota	4910	4930	Tight - gas	Mancos	987	4373 (+1422)
Dakota	4938	4962	Tight - gas	Dakota Silt	4727	4489 (+1306)
Dakota	4982	4992	Tight - gas	Dakota Sand	4849	4648 (+77)
				Morrison	5016	

**LONE MOUNTAIN PRODUCTION COMPANY**

P.O. BOX 3394  
408 PETROLEUM BUILDING  
BILLINGS, MONTANA 59103-3394  
(406) 245-5077

November 1, 1988

**RECEIVED**  
NOV 03 1988

DIVISION OF  
OIL, GAS & MINING

Utah Division of Oil, Gas, and Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180

Attention: Ron Firth

Re: Federal No. 6-5  
Section 6-T17S-R25E  
Grand County, Utah

Dear Ron,

Enclosed in duplicate is a completion report for the above referenced well. Logs and the directional survey have been sent previously. As you can see from the survey plat which was sent with the directional survey, we ended up more than the legal distance from the offset wells, but less than 300' from the spacing unit boundary, being only 128' inside the NW $\frac{1}{4}$  of Section 6.

We are hereby requesting the Division's approval of this bottom hole location as an exception location. The royalty and overriding royalty interest owners under the SW $\frac{1}{4}$  and NW $\frac{1}{4}$  of Section 6 are the same. We drilled the well under farmout agreements with the same working interest owners as are in the SW $\frac{1}{4}$  of Section 6, Quinoco Petroleum, Inc. and Carson Water Company. Attached to this letter, in duplicate, are letters we have obtained from these companies indicating they have no objection to the exception location of our Federal No. 6-5 well.

We plan to have the well on production in several weeks. If further information is needed, please advise.

Very truly yours,

LONE MOUNTAIN PRODUCTION COMPANY

*Jim Routson*  
James G. Routson

JGR:hg  
Enclosures

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 11-8-88  
BY: John R. Day

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See instructions on reverse side)

Form approved,  
Budget Bureau No. 1004-0137  
Expires August 31, 1985



WELL COMPLETION OR RECOMPLETION REPORT

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY   
 b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR: Lone Mountain Production Company  
 3. ADDRESS OF OPERATOR: 408 Petroleum Building, P. O. Box 3394, Billings, Montana 59103  
 DIVISION OF OIL, GAS & MINING

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
 At surface 1492' FSL, 2326' FWL, Sec. 6  
 At top prod. interval reported below 2768' FSL, 1420' FWL, Sec. 6  
 At total depth 2940' FSL, 1304' FWL, Sec. 6

14. PERMIT NO. 43-019-31267  
 DATE ISSUED 8-18-88

5. LEASE DESIGNATION AND SERIAL NO. U-38842  
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME \_\_\_\_\_  
 7. UNIT AGREEMENT NAME \_\_\_\_\_  
 8. FARM OR LEASE NAME Federal  
 9. WELL NO. No. 6-5  
 10. FIELD AND POOL, OR WILDCAT Undesignated  
 11. SEC. T. R. M., OR BLOCK AND SURVEY OR AREA SW 1/4 NW 1/4 Section 6 T17S-R25E SLBM

15. DATE SPUDDED 9-12-88  
 16. DATE T.D. REACHED 10-6-88  
 17. DATE COMPL. (Ready to prod.) 10-29-88  
 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5784' GL, 5795' KB  
 19. ELEV. CASINGHEAD 5797'

20. TOTAL DEPTH, MD & TVD 5511 MD, 5118 TVD  
 21. PLUG, BACK T.D., MD & TVD 5425 MD, 5036 TVD  
 22. IF MULTIPLE COMPL., HOW MANY\* --  
 23. INTERVALS DRILLED BY --  
 ROTARY TOOLS 0-TD  
 CABLE TOOLS --

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
 Dakota 4849-5016 MD (4489-4648 TVD)  
 25. WAS DIRECTIONAL SURVEY MADE Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN GR-FDC-CNL, DTL, GR-CBL-VDL  
 27. WAS WELL CORRED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9 5/8"	36# J-55	287'	12 1/2"	200 sx (to surface)	None
7"	23# J-55	2268'	8 3/4"	100 sx	None
4 1/2"	11.6# J-55	5475'	6 1/4"	175 sx (top at 3555 MD)	None

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
None				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	5038'	None

31. PERFORATION RECORD (Interval, size and number)  
 1 shot each, .31" diameter, as follows:  
 4868, 4871, 4881, 4913, 4922, 4929, 4947, 4951, 4953, 4959, 4987; 11 holes total

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4868-4987	600 gallons 15% HCl acid
4868-4987	Foam fract with 485 bbls. 5% HCl
	1.90 MMSCF Nitrogen; 20,000#
	100 mesh sand, 80,000# 16-30 sand

33.\* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
10-29-88	Flowing	Shut-in

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10-30-88	5	.625"	→		79	0	

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
210	480	→	0	1893	0	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented  
 TEST WITNESSED BY Jim Routson

35. LIST OF ATTACHMENTS  
 None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
 SIGNED James G. Routson TITLE Petroleum Engineer DATE 11-1-88

\*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Castlegate	778	792	Tight - water	Mesaverde	Surface	777 (+5018)
Dakota	4854	4883	Tight - gas	Castlegate	778	986 (+4809)
Dakota	4910	4930	Tight - gas	Mancos	987	4373 (+1422)
Dakota	4938	4962	Tight - gas	Dakota Silt	4727	4489 (+1206)
Dakota	4982	4992	Tight - gas	Dakota Sand	4849	4648 (+177)
				Morrison	5016	

**LONE MOUNTAIN PRODUCTION COMPANY**

P.O. BOX 3394  
408 PETROLEUM BUILDING  
BILLINGS, MONTANA 59103-3394  
(406) 245-5077

November 14, 1988

**RECEIVED**  
NOV 17 1988

Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, UT 84180

DIVISION OF  
OIL, GAS & MINING

Re: Federal No. 6-5  
SW NW Section 6: T17S-R25E  
Grand County, Utah

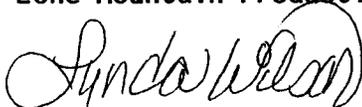
Gentlemen:

Enclosed in duplicate is the Sundry Notice "Report of First Production" for the above-captioned well.

Should you have any questions, please feel free to call.

Very truly yours,

Lone Mountain Production Company



Lynda Wilson

/lw

enclosures (2)

Form 3160-5  
(November 1983)  
(Formerly 9-331)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO  
U-38842

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
6-5

10. FIELD AND POOL, OR WILDCAT  
Undesignated

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

SW NW Sec. 6: T17S-R25E

SUNDRY NOTICES AND REPORTS ON WELLS  
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT" for such proposals.)

RECEIVED  
NOV 17 1988

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Lone Mountain Production Company

3. ADDRESS OF OPERATOR  
P. O. Box 3394, 408 Petroleum Bldg., Billings, WY 82003

4. LOCATION OF WELL (Report location clearly and in accordance with any State or Federal regulations.)  
See also space 17 below.)  
At surface 1492' FSL, 2326' FWL (Section 6)

14. PERMIT NO.  
43-019-31267

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5784' GL, 5795' KB

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF   
FRACTURE TREAT   
SHOOT OR ACIDIZE   
REPAIR WELL   
(Other)   
PULL OR ALTER CASING   
MULTIPLE COMPLETE   
ABANDON\*   
CHANGE PLANS

WATER SHUT-OFF   
FRACTURE TREATMENT   
SHOOTING OR ACIDIZING   
(Other)  **REPORT OF 1ST PRODUCTION**  
REPAIRING WELL   
ALTERING CASING   
ABANDONMENT\*

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Well was placed in production at 8:30 AM, November 12, 1988.

18. I hereby certify that the foregoing is true and correct  
SIGNED James G. Routson TITLE James G. Routson, Petroleum Engineer DATE November 14, 1988

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY: