

**FILE NOTATIONS**

Entered in NID File .....  
Location Map Pinned .....  
Card Indexed .....

Checked by Chief .....  
Approval Letter .....  
Disapproval Letter .....

**COMPLETION DATA:**

State Well Completed 9/22/79.....  
.....  
GW..... OS..... PA.....

Location Inspected ..  
State or Fee Land .....

**LOGS FILED**

Driller's Log.....  
Electric Logs (No.) .....  
E..... I..... Dual I Lat..... GR-N..... Micro.....  
BHC Sonic GR..... Lat..... Mi-L..... Sonic  
Log..... CCLog..... Other.....

TERRA RESOURCES, INC.

ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE  
P.O. BOX 2500  
CASPER, WYOMING 82601  
(307) 237-8461

August 4, 1978

Re: Application for Permit to Drill  
Federal #1-33  
1520' FWL 1309' FNL Sec. 33  
T1N, R11W  
Wasatch County, Utah

Edgar W. Guynn, District Engineer  
U. S. Geological Survey  
8440 Federal Building  
125 South State Street  
Salt Lake City, Utah 84138

Dear Sir:

Enclosed please find three (3) copies of Form #9-331C,  
"Application for Permit to Drill".

Your approval of this Application to Drill at an early  
date will be appreciated. Conditions being what they are in the  
forest, an early storm could postpone operations until the Spring  
of 1979.

Yours very truly,

TERRA RESOURCES, INC.

W. A. McMahon  
District Manager

WAM/CGF:dat  
enclosure

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. U - 29376	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Terra Resources, Inc.			7. UNIT AGREEMENT NAME	
3. ADDRESS OF OPERATOR P. O. Box 2500, Casper, Wyoming 82602			8. FARM OR LEASE NAME Federal	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 1520 FWL                      1309 FNL At proposed prod. zone SAME			9. WELL NO. 1-33	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*			10. FIELD AND POOL, OR WILDCAT Wildcat	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 1309'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 33, T1N, R11W	
16. NO. OF ACRES IN LEASE 1755.56			12. COUNTY OR PARISH   13. STATE Wasatch   Utah	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 8918' GR			20. ROTARY OR CABLE TOOLS Rotary	
22. APPROX. DATE WORK WILL START* September 1, 1978 or as soon as permitted.				

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	32	300	165 sx Reg G w/2% CaCl <sub>2</sub>
7 7/8	5 1/2	17	2820	200 sx 50-50 Poz Mix

1. Drill 12 1/4" hole to 300' and set surface casing.
2. A BOP will be installed, tested and operational checks made on each trip for bit.
3. The hole will be drilled to approximately 2820 to test the basal Navajo zone.
4. The hole will be cored, tested, logged, and if commercial production is obtained, 5 1/2" casing will be run.

EXHIBITS ATTACHED

- |                                      |   |
|--------------------------------------|---|
| A. Location and Elevation Plat       | E. Access Road Map in location              |
| B. Ten-Point Compliance Program      | F. Topographic map of immediate area        |
| C. Blowout Preventer Diagram         | G. Drill Pad Layout, Cut-Fill, Contours     |
| D. Multipoint Requirement for A.P.D. | H. Drill Rig & production facilities layout |
|                                      | I. Acidizing-Fracturing Layout              |

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

24. SIGNED W. A. McMahon TITLE District Manager DATE August 1, 1978

(This space for Federal or State office use)

PERMIT NO. 43-051-30005 APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY:

TERRA RESOURCES, INC.

ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE  
P.O. BOX 2500  
CASPER, WYOMING 82601  
(307) 237-8461

August 25, 1978

Re: Spacing Exception  
Federal 1-33  
1520'FWL 1309'FNL  
Section 33, T1N, R11 W  
Wasatch County, Utah

Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Gentlemen:

Terra Resources, Inc. as operator of the proposed well, Federal 1-33, requests an exception to Rule C-3 concerning the spacing of the above mentioned well. The request is based on the fact that the location is in the Uinta National Forest and in order to meet the Rangers requirements and to optimize the location geologically, it was necessary to locate the site 1520'FWL and 1309'FNL. The proposed location is located between two stands of Aspen and on an existing road, therefore environmental disturbance should be minimized. ✓

Terra has the mineral lease on everything within a 660' radius of the proposed site, so the exception should cause no problem.

Enclosed please find a copy of the "Permit to Drill" sent to the U.S.G.S. Should you require any further information, please advise.

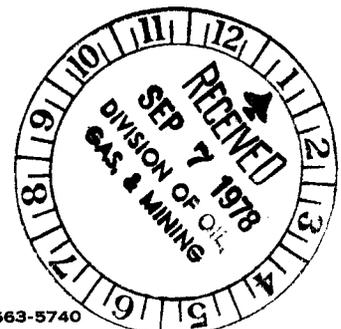
Yours very truly,

TERRA RESOURCES, INC.

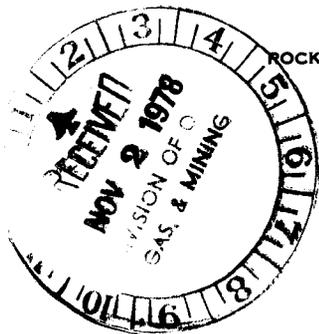


W. A. McMahon  
District Manager

WAM/CGF:dat  
Enclosure



TERRA RESOURCES, INC.



ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE

P.O. BOX 2500  
CASPER, WYOMING 82601  
(307) 237-8461

October 25, 1978

Re: Spacing Exception  
Federal #1-33  
1665'FWL 1337'FNL  
Section 33, T1N - R11W  
Wasatch County, Utah

Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

Gentlemen:

Terra Resources, Inc. as operator of the proposed well, Federal #1-33, requests an exception to Rule C-3 concerning the spacing of the above mentioned well. The request is based on the fact that the location is in the Uinta National Forest and in order to meet the Rangers requirements and to optimize the location geologically, it was necessary to locate the site 1665'FWL and 1337'FNL. The proposed location is located between two stands of Aspen and on an existing road, therefore environmental disturbance should be minimized.

Terra has the mineral lease on everything within a 660' radius of the proposed site, so the exception should cause no problem.

Enclosed please find a copy of the survey location plat for the above mentioned well. Should you require any further information, please advise.

Yours very truly,

TERRA RESOURCES, INC.

E. C. Reish, Jr.  
Manager of Operations

ECR/CGF:dat  
Enclosure

STATE OF UTAH  
DIVISION OF OIL, GAS, AND MINING

\*\* FILE NOTATIONS \*\*

Date: Nov. 13-  
Operator: Jerra Resources  
Well No: Prod. 1-53  
Location: Sec. 33 T. 1N R. 11W County: Wasatch

File Prepared:  Entered on N.I.D.:   
Card Indexed:  Completion Sheet:

API Number: 43-051-30005

CHECKED BY:

Administrative Assistant: [Signature]

Remarks: No other wells - Township

Petroleum Engineer: \_\_\_\_\_

Remarks:

Director: [Signature]

Remarks:

INCLUDE WITHIN APPROVAL LETTER:

Bond Required:  Survey Plat Required:

Order No. \_\_\_\_\_ Surface Casing Change   
to \_\_\_\_\_

Rule C-3(c), Topographic exception/company owns or controls acreage  
within a 660' radius of proposed site

O.K. Rule C-3  O.K. In \_\_\_\_\_ Unit

Other:

Letter Written/Approved

SCOTT M. MATHESON  
Governor



OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON  
Executive Director,  
NATURAL RESOURCES

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL, GAS, AND MINING

1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771  
November 13, 1978

I. DANIEL STEWART  
Chairman

CHARLES R. HENDERSON  
JOHN L. BELL  
THADIS W. BOX  
C. RAY JUVELIN

CLEON B. FEIGHT  
Director

Terra Resources Inc.  
P.O. Box 2500  
Casper, Wyoming 82601

Re: Well No. Federal 1-33  
Sec. 33, T. 1 N, R. 11 W,  
Wasatch County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PATRICK L. DRISCOLL - Chief Petroleum Engineer  
HOME: 582-7247  
OFFICE: 533-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-051-30005.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

CLEON B. FEIGHT  
Director

cc: U.S. Geological Survey

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

5. LEASE DESIGNATION AND SERIAL NO.  
U-29376

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
1-33

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 33, T11N, R11W

12. COUNTY OR PARISH  
Wasatch

13. STATE  
Utah

22. APPROX. DATE WORK WILL START\*  
August 10, 1979

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER   
SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
TERRA RESOURCES, INCORPORATED

3. ADDRESS OF OPERATOR  
P.O. Box 2500, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
At surface  
1825' FWL and 1240' FNL  
At proposed prod. zone  
1825' FWL and 1240' FNL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
15 SE of Heber, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)  
1240'

16. NO. OF ACRES IN LEASE  
1775.56

17. NO. OF ACRES ASSIGNED TO THIS WELL  
40

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

19. PROPOSED DEPTH  
2820'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, ET, GR, etc.)  
Approximate ground level is 8915'

23. PROPOSED CASING AND CEMENTING PROGRAM  
All new casing

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	32	300'	280 sx Reg G w/2% CaCl <sub>2</sub>
7 7/8	5 1/2	17	2820'	280 sx 50-50 Pozmix w/10% salt

1. Drill 12 1/4" hole to 300' and set surface casing.
2. A double ram BOP will be installed, tested and operational checks made daily and on each trip for bit.
3. The hole will be drilled to approximately 2820' to test the basal Navajo zone.
4. The hole will be cored, tested, logged, and if commercial production is obtained, 5 1/2" casing will be run.

EXHIBITS ATTACHED

- |                                      |   |
|--------------------------------------|---|
| A. Location and Elevation Plat       | F. Radius Map of Area                       |
| B. Ten-Point Compliance Program      | G. Drill Pad Layout                         |
| C. Blowout Preventer Diagram         | H. Drill Rig & production facilities layout |
| D. Multipoint Requirement for A.P.D. | I. Acidizing-Fracturing Layout              |
| E. Access Road Map onto location     |   |

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 E.C. Reish TITLE District Manager - Operations DATE July 26, 1979

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY [Signature] TITLE ACTING DISTRICT ENGINEER DATE AUG 06 1979  
CONDITIONS OF APPROVAL, IF ANY:

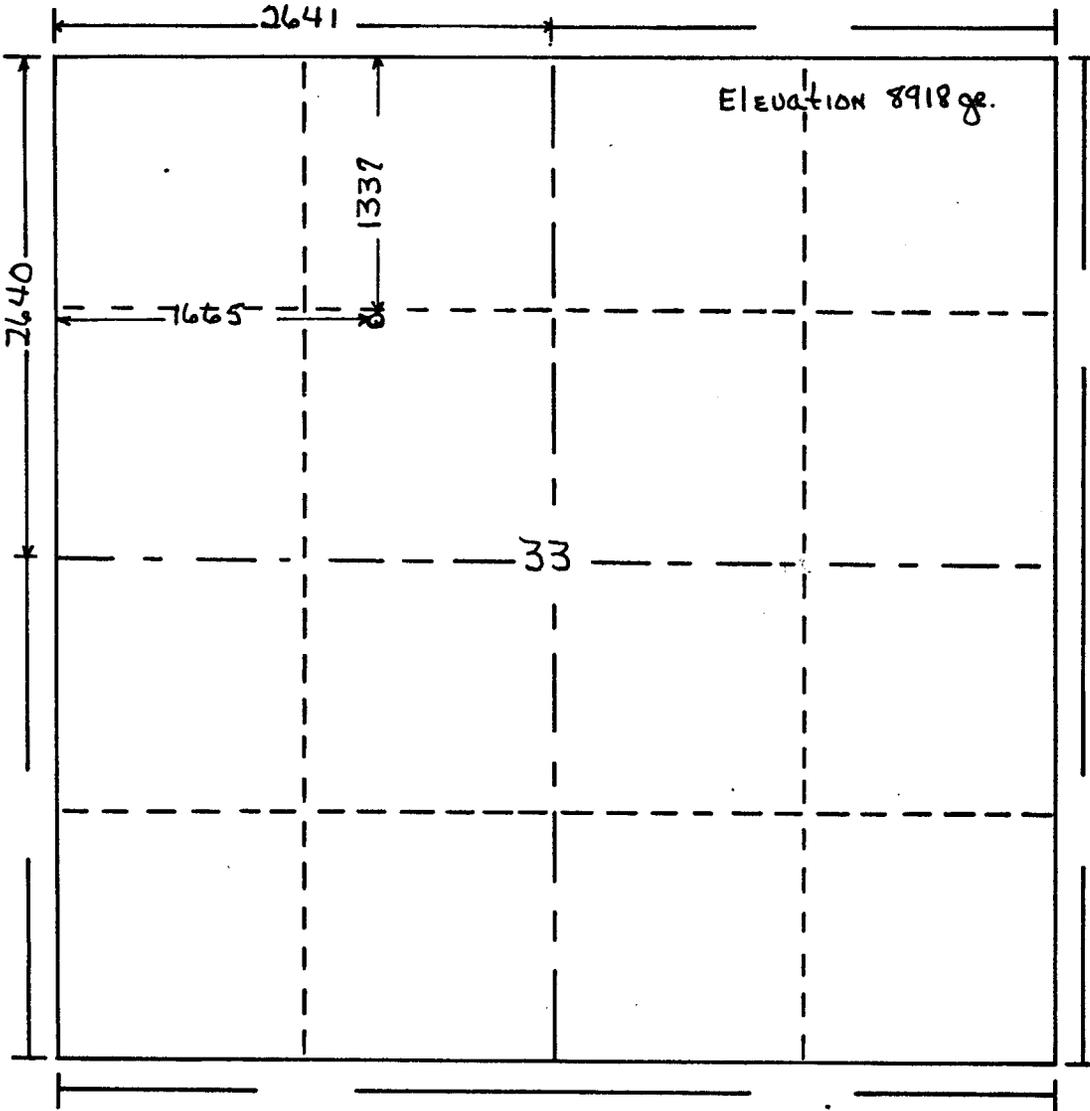
NOTICE OF APPROVAL  
Ut - OEG

\*See Instructions On Reverse Side

NECESSARY FLARING OF GAS DURING  
DRILLING OPERATIONS IS PROHIBITED  
(See Section 10 of the Act)



R. 11 W.



T. 1 N.

Scale... 1" = 1000'

Powers Elevation Company, Inc. of Denver, Colorado  
 has in accordance with a request from Cecil Foote  
 for Terra Resources  
 determined the location of # 1-33 Federal  
 to be 1337' FNL 1665' FWL Section 33 Township 1 N  
 Range 11 W Uintah Special Meridian  
 Washatch County, Utah

I hereby certify that this plot is an  
 accurate representation of a correct  
 survey showing the location of

Date: Oct. 3, 1978

T. Talbot  
 Licensed Land Surveyor No. 2711  
 State of Utah

EXHIBIT 'E'  
ASHLEY NATIONAL

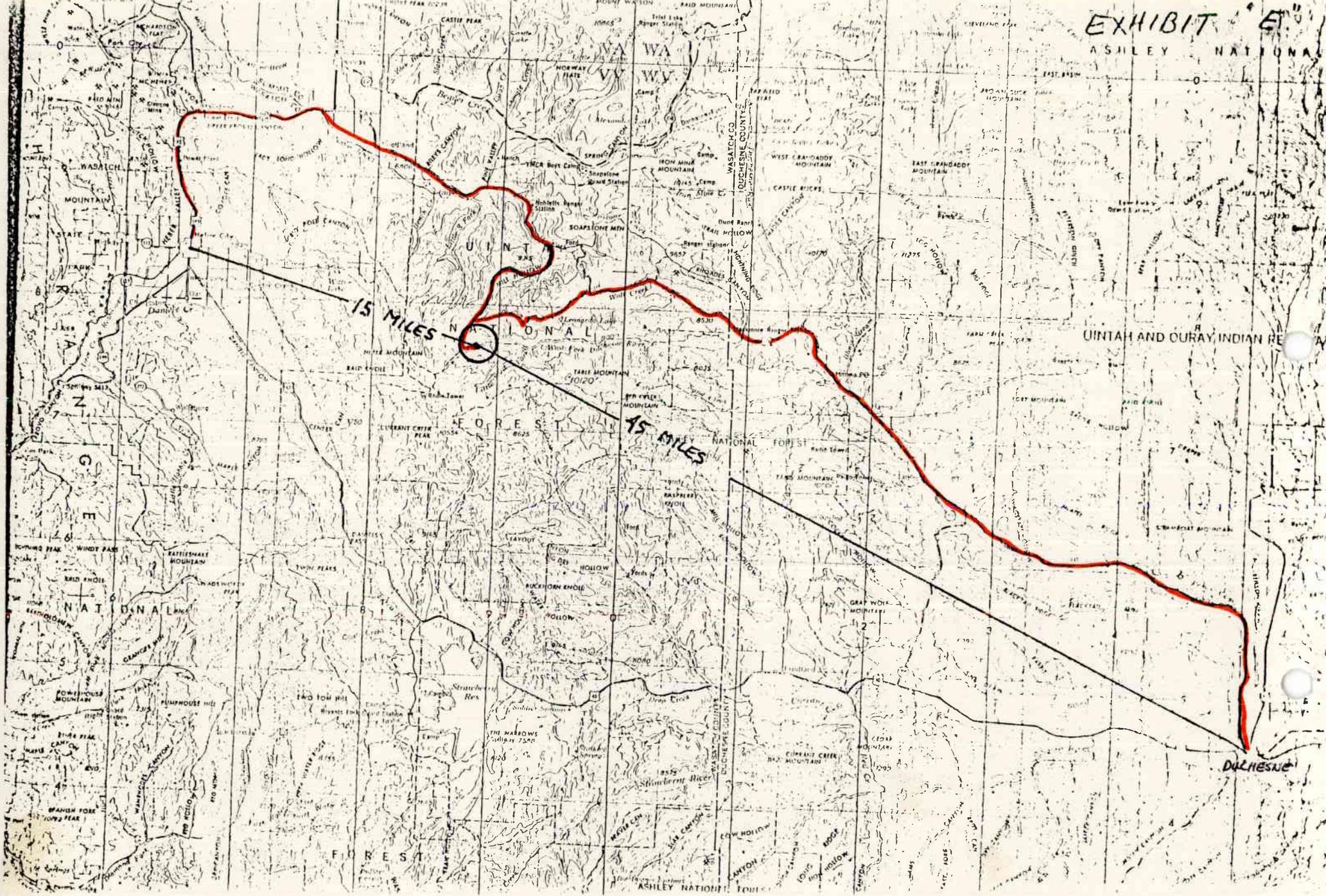
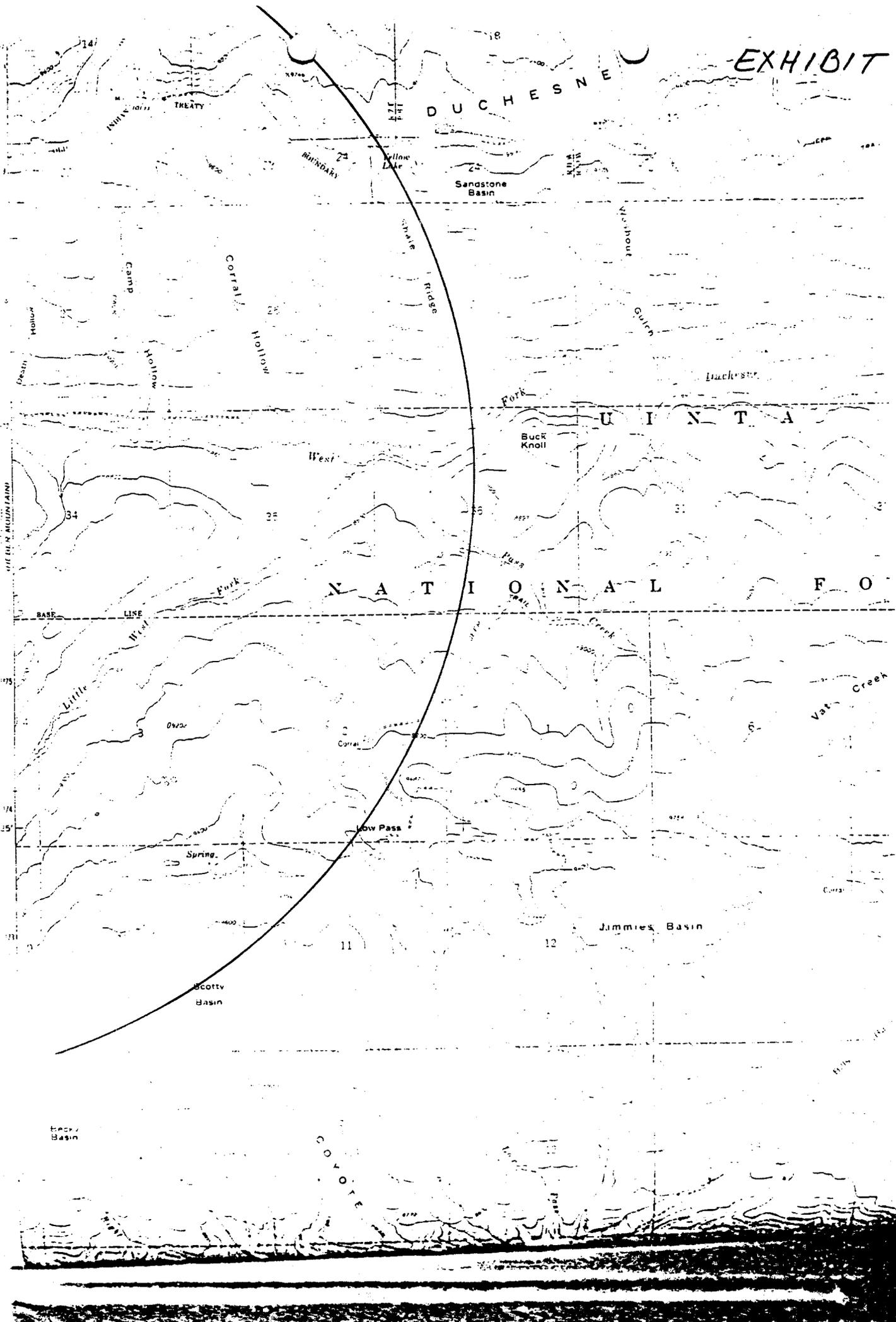




EXHIBIT "F"



108° 18'

108° 20'

108° 22'

108° 24'

37° 10'

37° 20'

37° 30'

37° 40'

DUCHESNE

U I N T A

N A T I O N A L F O

C O L O R A D O

THEATY

BOUNDARY

Yellow Lake

Sandstone Basin

Whale

Guinn

Duchesne

Fork

Buck Knoll

West

Fork

Creek

Valley Creek

Corral

Low Pass

Spring

Jimmie's Basin

Scotty Basin

Corral

Hills

Beck's Basin

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM OF NTL-6

APPROVAL OF OPERATIONS

Attached to Form 9-331C  
Company: Terra Resources, Inc.  
Well: Federal 1-33  
Well Location: 1520' FWL 1309 FNL  
Sec. 33, T 1N., R 11W.  
County: Wasatch State: Utah

1. Geological Surface Formation

Morrison

2. Estimated Important Geologic Markers

<u>Formation</u>	<u>Depth</u>
Twin Creek	1450'
Navajo	2400'

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

<u>Formation</u>	<u>Depth</u>	<u>Remarks</u>
Navajo	2400'	DST for Oil or Water

4. The Proposed Casing Program

- (a) Set new 8 5/8", 32#, K-55 casing, in 12 1/4" hole at 3,000'  
and cement with 165 sx Reg G w/2% CaCl<sub>2</sub>.
- (b) Set new 5 1/2", 17#, K-55 casing in 7 7/8" hole at 2820'  
and cement if productive with 200 sx 50-50 Poz Mix

5. The Operator's Minimum Specifications For Pressure Control

Exhibit "C" is a schematic diagram of the glowout preventer equipment. The BOP's will be hydraulically tested to the full working pressure after nipping up and after any use under pressure. The BOP's will be operationally checked each 24-hour period and each time pipe is pulled out of the hole.

6. The Type and Characteristics of the Proposed Circulating Muds

- 0-300' - Native mud with gel.
- 300-TD - Gel-Lime Slurry to the required viscosity to insure adequate hole cleaning.

Weight of mud: 8.5-9.7#/gal.  
Viscosity: 30-45 sec./qt.  
Water Loss: 10-40 cc.

Comments: Lost circulation material will be maintained on location throughout drilling operation. Weight material will also be kept on location.

7. The Auxiliary Equipment to be Used

- A) Kelly cock
- B) Near bit float when necessary and when it will not cause problems while tripping
- C) Pits will be monitored visually
- D) A full opening Hydril or equivalent ball valve will be available to make up on the drill pipe.

8. The testing, Logging, and Coring Programs to be Followed

(a) A test is expected in the Navajo horizon, the primary objective. Other zones will be tested, as needed.

(b) Well logging as follows:

IES - SP Surface Casing - TD  
Density, Comp. Neutron  
with GR and Caliper. Surface Casing - TD.  
Sonic, Caliper - GR Surface Casing - TD.

(c) One core is expected in the Navajo zone.

(d) If the zone is productive, casing will be run, and cemented, a CBL-VDL with GR run, the casing perforated, the zone tested and treated if necessary.

(e) Acid and/or Fracturing is planned. See Exhibit "I".

Acidize with 1500 gallons 15% acid. Frac well with 100,000# sand, 75,000 gallons of condensate and/or water if structure requires.

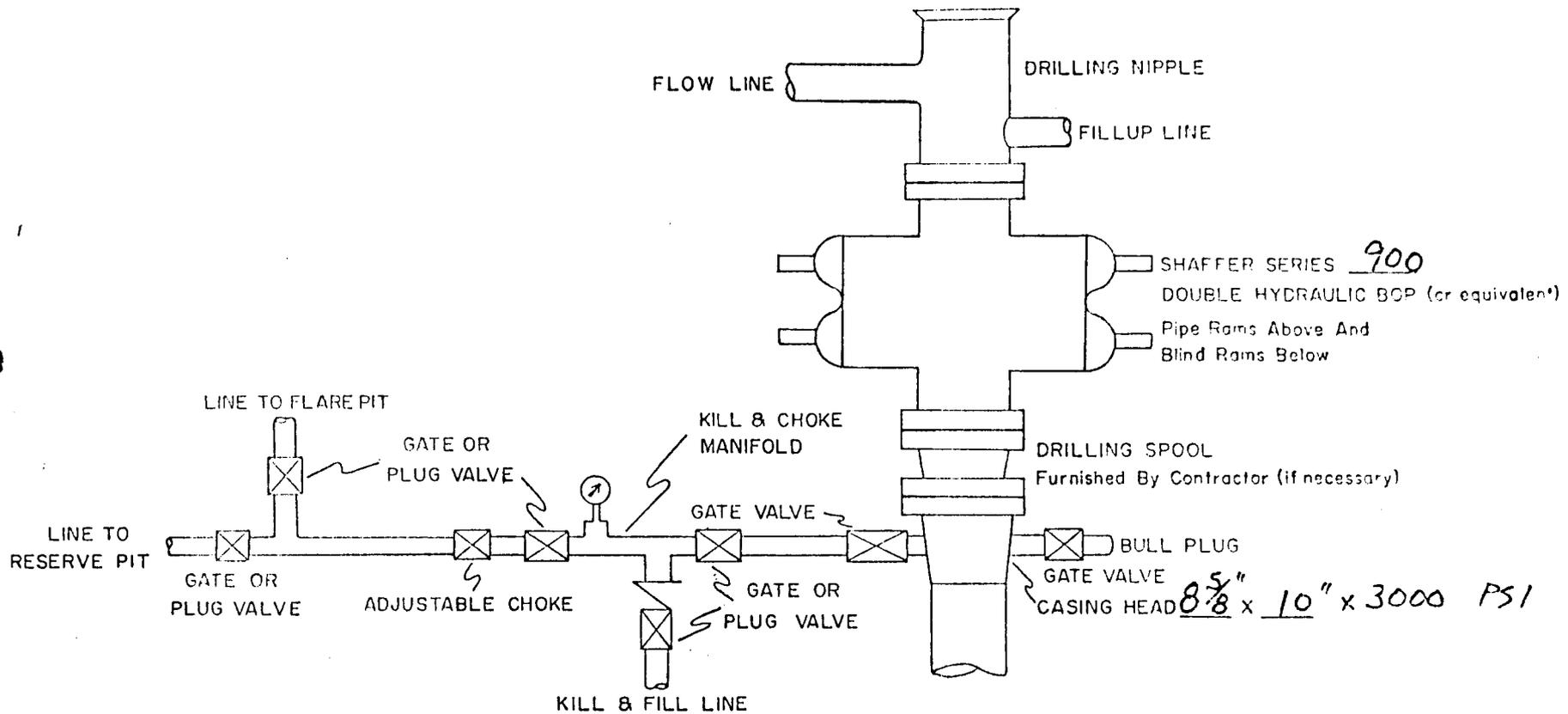
9. Any Anticipated Abnormal Pressures or Temperatures Expected

Wildcat area, all precautions will be taken against abnormal pressures or temperatures. Hydrogen sulfide is a definite possibility. The necessary equipment will be kept on location.

10. The Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for September 1, 1978 or immediately as possible after examination and approval of all drilling requirements.

The operations should be completed within 25 days after spudding the well.



**NOTE:**

1. 2" Flare line will be laid to pit located at least 150' from the Rig-Line will be staked down.
2. The Kill and Choke Manifold will be rigged so that it can be used for a flare line during any DST.
3. All lines and controls to BOP must be connected and tested before drilling out of surface pipe.

All Manifold And Lines Will Have At Least The Same Pressure Rating As The BOP Stack.

BLOWOUT PREVENTOR  
ARRANGEMENT

FEDERAL

Well Number 1-33

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY APD

Attached to Form 9-331C

Company: Terra Resources, Inc.

Well: Federal 1-33

Well Location: 1520 FWL 1309 FNL

Sec. 11, T1N., R11W.

County: Wasatch State: Utah

1. Existing Roads

- A. The proposed well site and elevation plat is shown as Exhibit "A"
- B. Location is 15 miles SE of Heber, Utah as shown in Exhibit "E".
- C. An access road of about - 0 miles - will be needed to reach the location. The Location is beside an existing forest road.
- D. Exploratory well: yes. All existing known roads with the 3-mile radius are shown on Exhibit "F".
- E.
- F. The existing roads are forest maintained and will be maintained in an orderly fashion.

2. Planned Access Roads: None Needed

- 1. Width:
- 2. Maximum grade:
- 3. Turnouts:
- 4. Drainage design:
- 5. Culverts:
- 6. Surfacing materials:
- 7. Gates, cattleguards, fence cuts:

3. Location of Existing Wells

All existing wells known in the area are shown directly on Exhibit "F" within the three-mile radius. None

1. Water wells: None
2. Abandoned wells: None
3. Temporarily abandoned wells: None
4. Disposal wells: None
5. Drilling wells: None
6. Producing wells: None
7. Shut-in wells: None
8. Injection wells: None
9. Monitoring or observation wells: None

4. Location of Existing and/or Proposed Facilities

- A. The location of existing and/or proposed facilities, if any, owned or controlled by lessee/operator within the 3-mile radius will be shown on Exhibit "H".
  1. Tank batteries: Yes
  2. Production facilities: Yes
  3. Oil gathering lines: Yes, all production lines will be buried.
  4. Gas gathering lines: None
  5. Injection lines: None
  6. Disposal lines: None

- B. It is contemplated that, in the event of production, all new facilities will be easily accommodated on the drill pad on the solid base of cut and not placed on the fill areas.
1. No flagging then will be needed.
  2. The dimensions of the production facilities and the location of facilities is drafted on Exhibit "H". If production is obtained, then the unused areas will be restored as later described.
  3. Concrete as needed and any gravels needed will be purchased from private sources.
  4. All pits will be fenced to minimize any hazard to sheep, cattle, deer and other animals that graze the area. Wire mesh covering will be used as needed, if water or other fluid is produced.
- C. Rehabilitation, whether the well is productive or dry, will be accomplished as soon as possible in those areas already described, and in accordance with Item 10 following.

#### 5. Water Supply

- A. Water, as needed, will be pumped out of the west fork of the Duchesne River pending approval by the Central Utah Conservancy District.
- B. Approximately 400' of 2" line will be layed from the river up to the water tank at the rig.
- C. No water well is anticipated to be drilled.

#### 6. Source of Construction Materials

- A. No construction material, insofar as drilling, will be needed.
- B. Construction materials obtained from Fed. or Ind. land: None
- C. Sands and gravels needed for road improvement will be obtained from private sources, unless applications are made and amended otherwise.
- D. Access roads crossing Federal or Indian lands, if any, are shown under item 2.

#### 7. Handling Waste Disposals

1. Drill cutting will be buried in the reserve pit when dry.

2. Drilling fluids will be handled in the reserve pit.
3. Any produced fluids during drilling tests or while making production tests will be collected in test tank. Any unavoidable spills will be cleaned up and removed. See Exhibit "H".
4. Any sewage will be covered or removed.
5. Garbage, wastes and non-flammable wastes, salts and other chemicals produced or used during drilling or testing will be handled in the reserve pit or kept in the trash burn pit.
6. After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. Any dangerous open pit will be fenced or covered. The trash-burn pit will be covered with small wire mesh to prevent scattering and remain until removed or covered.

#### 8. Ancillary Facilities

No proposed airstrip, camp, or other facility will be built during the drilling or completion of this well.

#### 9. Well Site Layout

1. Exhibit "G" is the drill pad layout on a scale of 1" = 50' and shows contours and cut-fills.
2. & 3. Exhibit "H" is a layout of the drilling rig, pits, and burn pits. Parking and trailers will be along the northwest side of the area as shown. The existing road will enter the location from the west and exit to the east. Soil stockpiles are also shown on Exhibit "H".
4. The reserve pit will be lined. Steel mud pits may be used, at lease in part, during drilling operations.

#### 10. Plans for Restoration

1. Backfilling, leveling and gentle sloping is planned and will be necessary as soon as possible after plugging or setting of production casing. Waste disposal and spoils materials will be buried or hauled away immediately after operations cease from drilling and/or completion.
2. The soil banked materials will be spread over the area and gentle sloping or contouring to meet the existing terrain. Revegetation will be by planting of native vegetation to the area or some other combination as recommended by the forest service.

Any damage to present existing roads will be repaired as needed.

3. Prior to rig release, the pits will be fenced on the fourth side and so maintained until cleanup is accomplished. The reserve pit will have fencing on three sides during drilling.
4. If any oil is on the pits, and is not immediately removed after operations cease, then the pit will be flagged overhead to keep birds and fowl out.
5. The commencement of rehabilitation operations will begin as soon as possible after drilling ceases. Planting will be planned for Spring, 1979.

11. Other Information:

1. Topography: Mountainous conditions. Location is situated just north of the West Fork of Duchesne River between two stands of Aspen Trees on a sagebrush plateau sloping gently towards the river.

Soil Characteristics and Geologic features: Weathered ground mass with assorted sizes of well rounded rocks.

Flora: 55% sage brush, 30% native grass, 15% wildflowers.

Fauna: Domestic - cattle, sheep  
Wildlife - deer, elk, moose

2. Type of Surface use activity: Grazing

Surface ownership of all involved lands: U.S. Forest Service

Occupied dwellings (if any, shown on Exhibit "F"): None

Archeological or historical sites (if any, shown of Exhibit "F"):  
None

12. Lessee's or Operator's Representative

C. G. Foote  
P. O. Box 2500  
Casper, Wyoming 82602

Phone: (307) 237-8461

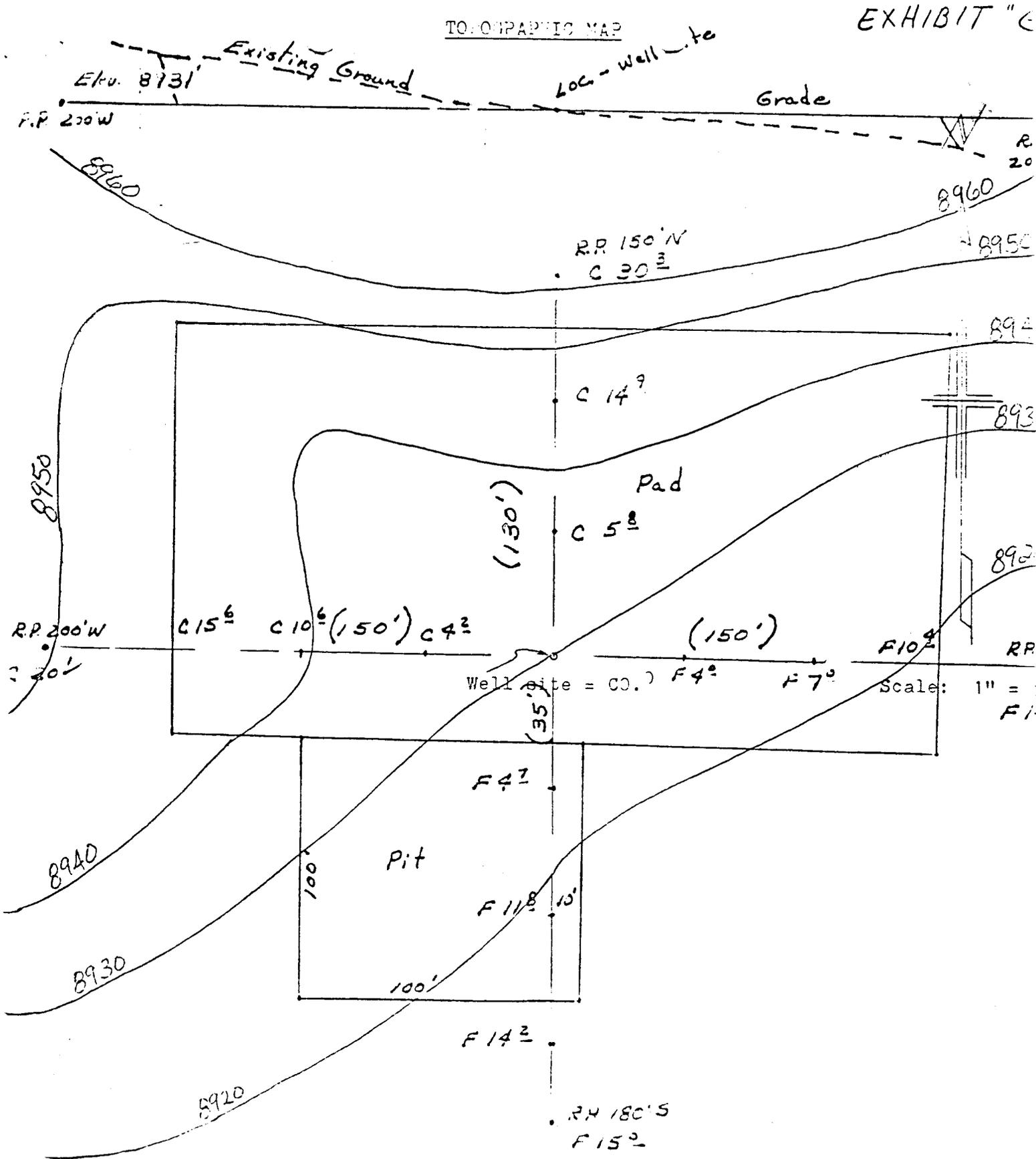
13. Certification

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

8-4-76  
Date:

C. G. Foote  
Name: C. G. Foote

Title: Petroleum Engineer  
Terra Resources, Inc.



Terra Resources  
 #1-33 Federal  
 1309' FNL 1520 FWL  
 Sec. 33 T-1-N R-11-W  
 Washatch Co., Utah

by: T.C. Edwards  
 Powers Elevation Company, Inc.

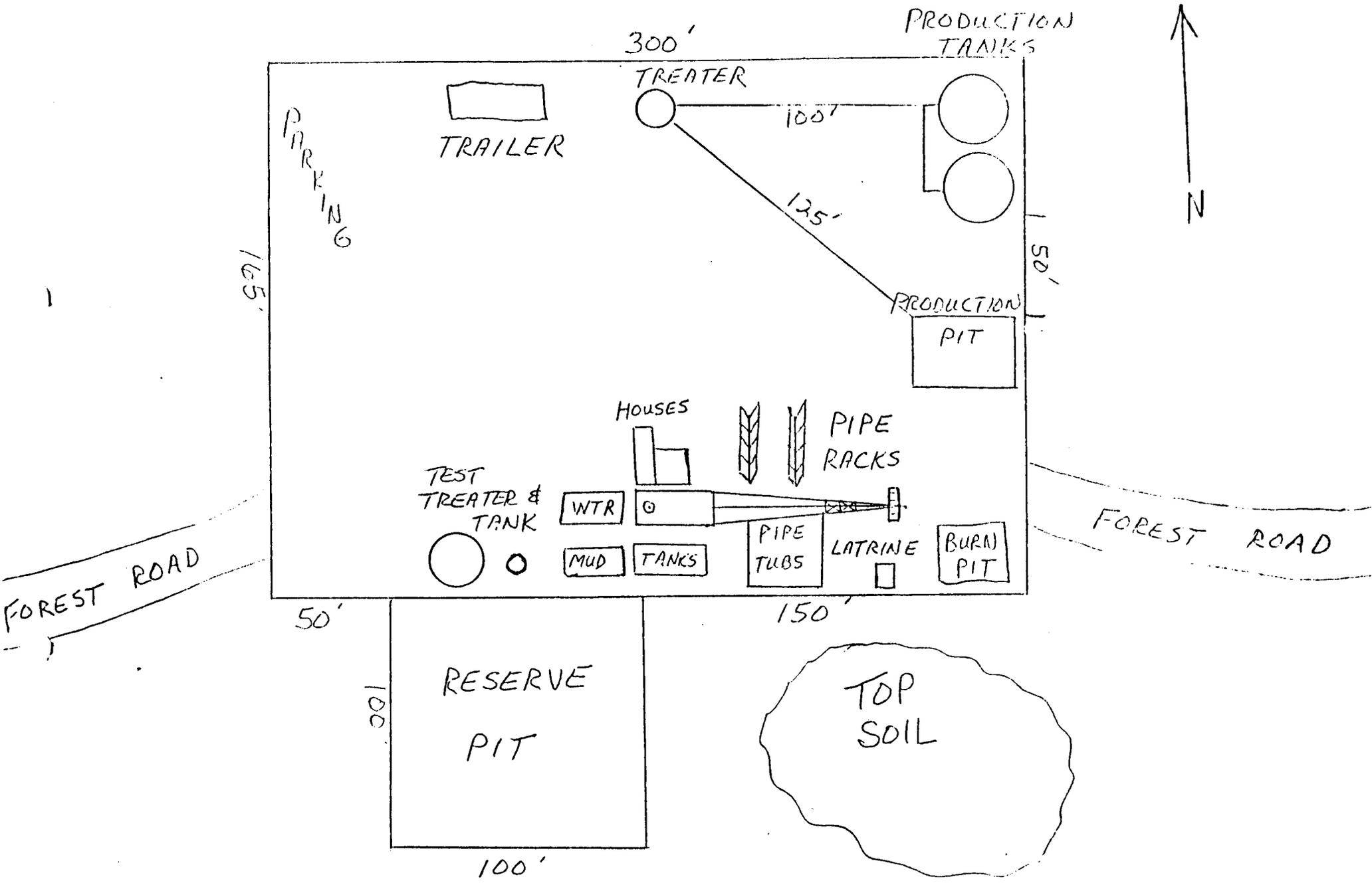
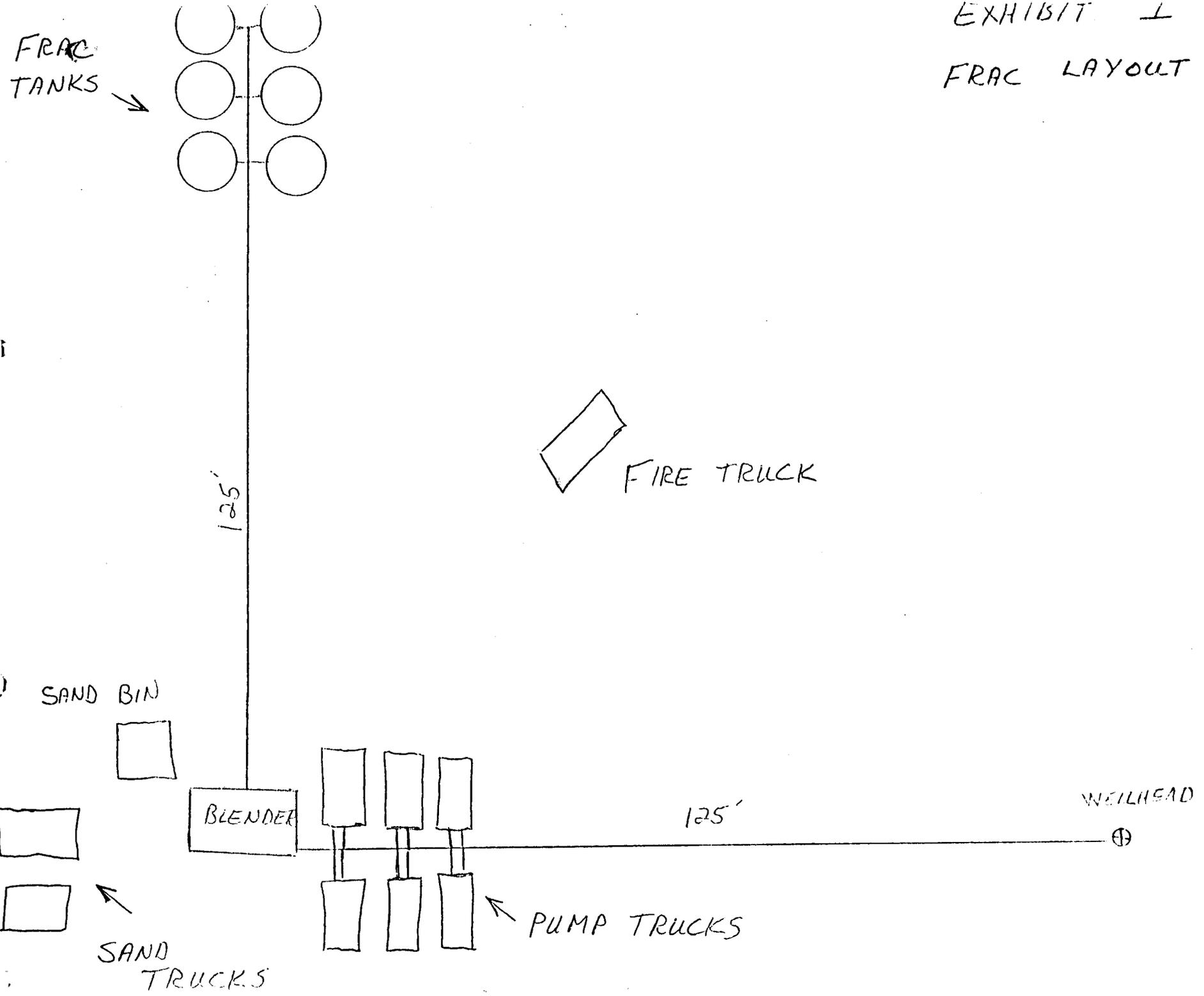


EXHIBIT 1  
FRAC LAYOUT



U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

FROM : DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. 4-29376

OPERATOR: Terra Resources, Inc.

WELL NO. 1-33

LOCATION: ½ NE ½ NW ½ sec. 33, T. 1N, R. 11W, 4SH

Wasatch County, Utah

1. Stratigraphy: State geologic map indicates surface formation is tertiary gravel. Other stratigraphic tops are alright.

2. Fresh Water: May occur in surface gravels & in Morrison.

3. Leasable Minerals: None anticipated

4. Additional Logs Needed: None

5. Potential Geologic Hazards: None anticipated

6. References and Remarks: State geologic map, AAPG Bull. v. 36, p. 575-634

Signature: Candace C. Clark

Date: 7-13-79



Introduction:

The following participated in a field inspection of the revised location on July 23, 1979:

George Diwachak  
Regis Terney

U.S. Geological Survey, Salt Lake City  
U.S. Forest Service, Heber City

Proposed Action:

On August 1, 1979, Terra Resources, Incorporated filed an Application for Permit to Drill the No. 1-33 exploratory well, a 2820 foot oil test of the Navajo Formation; located at an elevation of 8915 ft, in the NE $\frac{1}{4}$  NW $\frac{1}{4}$  Section 33, T. 1N., R. 11W. on Federal mineral lands and public surface; lease No. U-29376. Since an objection was raised to the well-site by the US Forest Service, it was moved to 1825' FWL and 1240' FNL. This did not change the  $\frac{1}{4}$   $\frac{1}{4}$  coordinates. There was no objection raised to the access road.

A rotary rig would be used for the drilling. An adequate casing and cementing program is proposed. Fresh-water sands and other mineral-bearing formations would be protected. A blowout Preventor would be used during the drilling of the well. The proposed pressure rating should be adequate. Details of the operator's NTL-6 10-Point Subsurface Plan are on file in the USGS District Office in Salt Lake City, Utah and the USGS Northern Rocky Mountain Area Office in Casper, Wyoming. The 13-Point Surface Protection Plan is on file in the District Office in Salt Lake City.

A working agreement has been reached with the U.S. Forest Service, the controlling surface agency. Rehabilitation plans have been decided upon by the operator and conditionally approved by the U.S. Forest Service with additional requirements provided.

The operator proposes to construct a drill pad 110 ft. wide by 225 ft. long and a reserve pit 50 ft. by 50 ft. No new access road would be constructed as an existing road runs to the location. The operator proposes to construct production facilities on disturbed area of the proposed drill pad. The anticipated starting date is upon approval and duration of drilling activities would be about 25 days.

Location and Natural Setting:

The proposed drillsite is approximately 15 miles southeast of Heber, Utah, the nearest town. A fair road runs to the location. This well is a wildcat. The area is relatively remote.

Topography:

The location is within the southwest flank of the Uinta Mountains, and

terrain consists of mountains and wide valleys. The drill pad is staked near the base of the north side of the canyon formed by the West Fork Duchesne River and slopes to the south, southeast at 10% to 20%.

### Geology:

The surface geology is tertiary gravel. The soil is weathered cobbly loam. The potential for mass wasting of the hillside exists to a moderate degree. No other geologic hazards are known near the drillsite. Seismic risk for the area is moderate. Anticipated geologic tops are filed with the 10-Point Subsurface Protection Plan. ←

Approval of the proposed action would be conditioned that adequate and sufficient electric/radioactive/density logging surveys would be made to locate and identify any potential mineral resources. Production casing and cementing would be adjusted to assure no influence of the hydrocarbon zones through the well bore on these minerals. In the event the well is abandoned, cement plugs would be placed with drilling fluid in the hole to assure protection of any mineral resources.

The potential for loss of circulation would exist. Loss of circulation may result in the lowering of the mud levels, which might permit exposed upper formations to blow out or to cause formations to slough and stick to drill pipe. A loss of circulation would result in contamination due to the introduction of drilling muds, mud chemicals, filler materials, and water deep in to the permeable zone, fissures, fractures, and caverns within the formation in which fluid loss is occurring. The use of special drilling techniques, drilling muds, and lost circulation materials may be effective in controlling lost circulation.

A geologic review of the proposed action has been furnished by the Area Geologist, U.S. Geological Survey, Salt Lake City, Utah.

The operator's drilling, cementing, casing and blowout prevention programs have been reviewed by the Geological Survey engineers and determined to be adequate.

### Soils:

No detailed soil survey has been made of the project area. The top soils in the area range from a cobbly loam to a silt loam type soil. The soil is somewhat subject to runoff from rainfall and has a medium runoff potential and sediment production would be moderately low. The soils are mildly alkaline and support a subalpine ecosystem.

Top soil would be removed from the surface and stockpiled. The soil would be spread over the surface of disturbed area when abandoned to aid in rehabilitation of the surface. Rehabilitation is necessary to pre-

vent erosion and encroachment of undesired species on the disturbed areas. The operator proposes to rehabilitate the location and access road per the recommendations of the U. S. Forest Service.

Approximately 0.6 acres of land would be stripped of vegetation. This would increase the erosional potential. Proper construction practice, construction of water bars, reseeding of slope-cut area would minimize this impact.

#### Air:

No specific data on air quality is available at the proposed location; however, considering the remoteness of the area, air quality is good. There would be a minor increase in air pollution due to emissions from rig and support traffic engines. Particulate matter would increase due to dust from travel over unpaved dirt roads. The potential for increased air pollution due to leaks, spills, and fire would be possible.

Relatively heavy traffic would be anticipated during the drilling-operations phase, increasing dust levels and exhaust pollutants in the area. If the well was to be completed for production, traffic would be reduced substantially to a maintenance schedule with a corresponding decrease of dust levels and exhaust pollutants to minor levels. If the project results in a dry hole, all operations and impact from vehicular traffic would cease after abandonment. Due to the limited number of service vehicles and limited time span of their operation, the air quality would not be substantially reduced.

- Toxic or noxious gases would not be anticipated. See attached Memorandum from the District Geologist, Salt Lake City, Utah.

#### Climate:

Annual rainfall should range from about 20 to 25 inches at the proposed location.

Winds are medium and gusty, occurring predominately from southwest to northeast. Air mass inversions are rare. The climate is semi-arid with abundant sunshine, hot summers and cold winters with temperature variations on a daily and seasonal basis.

#### Surface Water Hydrology:

Drainage from the location would be toward the south to the West Fork Duchesne River, a tributary of the Duchesne River which flows into the Green River.

The location is situated approximately 250 feet north of the West Fork Duchesne River. The U.S. Forest Service has requested that the pad be

constructed so that all runoff be directed into the reserve pit; and that a berm be constructed on the north edge of the pad to prevent overland flow from entering the pad.

Some additional erosion would be expected in the area since surface vegetation would be removed. If erosion became serious, drainage systems such as water bars and dikes would be installed to minimize the problem. The proposed project should have minor impact on the surface water systems. The potential for pollution would be present from leaks or spills. The operator is required to report and clean-up all spills or leaks.

#### Ground Water Hydrology:

Some minor pollution of ground water systems would occur with the introduction of drilling fluids (filtrate) into the aquifer. This is normal and unavoidable during rotary drilling operations. The potential for communication, contamination and comingling of formations via the well bore would be possible. The drilling program is designed to prevent this. There is need for more data on hydrologic systems in the area and the drilling of this well may provide some basic information as all shows of fresh water would be reported. Water production with the gas would require disposal of produced water per the requirements of NTL-2B. The depths of fresh water formations are listed in the 10-Point Sub-surface Protection Plan. The pits would be lined with bentonite. If fresh water should be available from the well, the owner or surface agency may request completion as a water well if given approval.

#### Vegetation:

Vegetation at the location consists of few subalpine fir and quaking aspen trees, sagebrush, wildflowers and grasses.

Plants in the area are of a subalpine community.

Proposed action would remove about 0.6 acres of vegetation. Removal of vegetation would increase the erosional potential and there would be a minor decrease in the amount of vegetation available for grazing.

The operator proposes to rehabilitate the surface upon completion of operations.

#### Wildlife:

The fauna of the area consists predominately of elk, mule deer, coyotes, rabbits, foxes, and varieties of small ground squirrels and other types of rodents and various types of reptiles. The area is used by man for grazing domestic livestock and sheep. The birds of the area are raptors, finches, ground sparrows, magpies, crows, and jays.

The U.S. Forest Service has provided endangered plant and animal clearances. The only endangered species known to inhabit the area is the American Bald Eagle, which is migratory through the area.

Social-Economic Effect:

An on the ground surface archaeological reconnaissance has been performed by the USFS, and appropriate clearances have been obtained. If a historic artifact, an archaeological feature or site is discovered during construction operations; activity would cease until the extent, the scientific importance and the method of mitigating the adverse effects could be determined by a qualified cultural resource specialist.

There are no occupied dwellings or other facilities of this nature in the general area. Distractions from aesthetics would occur over the lifetime of the project and is judged to be moderate. All permanent facilities placed on the location would be painted a color to blend in with the natural environment. Present use of the area is grazing and recreation.

Noise from the drilling operation may temporarily disturb wildlife and people in the area. Noise levels would be moderately high during drilling and completion operations. Upon completion, noise levels would be infrequent and significantly less. If the area is abandoned, noise levels should return to pre-drilling levels.

The site is not visible from any major roads. After drilling operations, completion equipment would be visible to passersby of the area but should not present a major intrusion.

The economic effect of one well would be difficult to determine. The overall effect of oil and gas drilling and production are significant in Wasatch County.

But should this well discover a significant new hydrocarbon source, local, state and possibly national economics might be improved. In this instance, other development wells would be anticipated, with substantially greater environmental and economic impacts.

Should the wellsite be abandoned, surface rehabilitation would be done according to the surface agency's requirements and to USGS's satisfaction. This would involve leveling, contouring, reseeding, etc., of the location and possibly the access road. If the well should produce hydrocarbons, measures would be undertaken to protect wildlife and domestic stock from the production equipment.

The proposed location is within the Uinta National Forest. The area in question is somewhat remote and receives moderate recreational pressures.

Other than the National Forest, there are no national, state, or local parks, forests, wildlife refuges or ranges, grasslands, monuments, trails or other formally designated recreational facilities near the proposed location.

Waste Disposal:

The mud and reserves pits would contain all fluids used during the drilling operations. A trash pit would be utilized for any solid wastes generated at the site and would be removed at the completion of the operations. Sewage would be handled according to State sanitary codes. For further information, see the 13-Point Surface Plan.

Alternative to the Proposed Action:

(1) Not approving the proposed permit--The oil and gas lease grants the lessee exclusive right to drill for, mine, extract, remove and dispose of all oil and gas deposits. Under leasing provisions, the Geological Survey has an obligation to allow mineral development if the environmental consequences are not too severe or irreversible. Upon rehabilitation of the site, the environmental effects of this action would be substantially mitigated, if not totally annulled. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and other controlling agencies supervision with rehabilitation planning reversing almost all effects. Additionally, the growing scarcity of oil and gas should be taken into consideration. Therefore, the alternative of not proceeding with the proposed action at this time is rejected.

(2) Minor relocation of the wellsite and access road or any special, restrictive stipulations or modifications to the proposed program would not significantly reduce the environmental impact. There are no severe vegetative, animal or archaeological-historical-cultural conflicts at the site. Since only a minor impact on the environment would be expected, the alternative of moving the location is rejected. At abandonment, normal rehabilitation of the area such as contouring, reseeding, etc., would be undertaken with an eventual return to the present status as outlined in the 13-Point Surface Plan.

(3) Drilling should be allowed provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator. ←

(a) The entire location should be situated north of the existing road. No rerouting of the road would be authorized. ←

(b) To protect the area drainages from siltation due to runoff, a berm should be constructed on the north edge of the pad to divert any overland flow and the pad itself should be constructed so that all runoff would drain into the reserve pit. ←

over  
c

(c) Any stipulations provided by the U.S. Forest Service.

Adverse Environmental Effects Which Cannot Be Avoided:

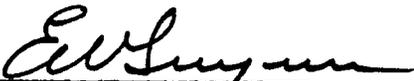
Surface disturbance and removal of vegetation from approximately 0.6 acres of land surface for the lifetime of the project which would result in increased and accelerated erosional potential. Grazing would be eliminated in the disturbed areas and there would be a minor and temporary disturbance of wildlife and livestock. Minor induced air pollution due to exhaust emissions from rig engines of support traffic engines would occur. Minor increase in dust pollution would occur due to vehicular traffic associated with the operation. The potential for fires, gas leaks, and spills of oil and water would exist. During the construction and drilling phases of the project, noise levels would increase. Potential for sub-surface damage to fresh water aquifers and other geologic formations exists. Minor distractions from aesthetics during the lifetime of the project would exist. If the well is a producer, an irreplaceable and irretrievable commitment of resources would be made. Erosion from the site would eventually be carried as sediment in the Duchesne River. The potential for pollution to the West Fork Duchesne River would exist through leaks and spills.

Determination:

This requested action does not constitute a major Federal action significantly affecting the environment in the sense of NEPA, Section 102(2)(C).

Date

8/3/79

  
District Engineer  
U.S. Geological Survey  
Conservation Division  
Oil and Gas Operations  
Salt Lake City District

TERRA RESOURCES, INC.



ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE  
P.O. BOX 2500  
CASPER, WYOMING 82601  
(307) 237-8461



August 21, 1979

Re: Federal 1-33  
Sec.33, T1N-R11W  
Wasatch County, Utah  
API #43-051-30005

Division of Oil, Gas & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116  
Attn: Mr. Cleon B. Feight

Dear Sir:

Please be advised that the above referenced well was  
spudded 8-18-79, using Utah Gas & Oil Corporation Rig #3.

Yours very truly,

TERRA RESOURCES, INC.

E.C. Reish, Jr.  
District Manager - Operations

ECR/CGF:erv

DIVISION OF OIL, GAS AND MINING

PLUGGING PROGRAM

NAME OF COMPANY: Terra Resources, Inc.

WELL NAME: Federal 1-33

SECTION 33 NE NW TOWNSHIP 1N RANGE 11W COUNTY Wasatch

VERBAL APPROVAL GIVEN TO PLUG THE ABOVE REFERRED TO WELL IN THE FOLLOWING MANNER:

TOTAL DEPTH: 2719'

CASING PROGRAM:

*8 5/8" @ 331'*

*cemented to surface*

FORMATION TOPS:

*Navajo 2600'*

PLUGS SET AS FOLLOWS:

*2560' - 2360' 200'*

*1050' - 850' 200'*

*380' - 280' 100'*

*10 sx to surface*

DATE September 20, 1979

SIGNED *Frank M. Hamner*

*Frank M. Hamner*

cc: USGS

To J. P. Stout

From Don Newman

Date 9/27/79

Subject Geologic and Operations Report  
Terra Resources Federal 1-33  
(Southeast Harvey Meadow)

Well: Terra Resources Federal 1-33 (S.E. Harvey Meadow)  
NE NW 33-1N-11W  
Wasatch County, Utah

Objective Formation and TD: Jurassic Nugget - 2,820'

Spud Date: August 18, 1979

Completion Date: September 22, 1979

Completion Status: Plugged and abandoned - no shows or tests

T.D. Formation: Jurassic Nugget

Tops: Quaternary Boulder beds - Surface  
Jurassic Entrada - 355'  
Jurassic Twin Creek - 1,185'  
Jurassic Nugget - 2,660' (log top)  
- 2,717' (sample top)

Geologic Summary:

The well was spudded in Quaternary glacial beds composed of boulders and silt and are extremely hard to drill. There are 276' of boulder beds after which drilling assumed a more normal pattern. Surface casing was set at 331' in what was probably the Jurassic Morrison Formation.

The Jurassic Entrada Formation was encountered at 355' and consisted of interbedded red to reddish brown siltstones, shales and sandstones with occasional anhydrite or gypsum beds. The clastics in this section are generally very fine grained, calcareous, and well cemented. Little visible porosity and permeability were seen in any of the sandstones and no shows or staining were noted.

The boundary of the Entrada and the Jurassic Twin Creek Formation is gradational and was noted over a 30' interval with the red siltstones and shales grading into grey to dark grey shales and siltstones. The top of the Twin Creek was picked at 1,185' from both logs and samples.

The Twin Creek in this area is composed of interbedded grey to dark grey siltstones, shales and limestones with the limestones becoming more prevalent in the lower part of the section. The siltstones and shales are calcareous, fissile and poorly sorted. Small sandstone stringers are also encountered and consist of light grey, very fine grained, calcareous sandstone. The limestone in the section is grey to light grey, micritic, with occasional oolitic beds. These are of very low porosity but fractured (calcite filled) and the oolitic beds were tightly cemented and more numerous in the lower part of the section. Anhydrite beds are encountered at 2,135' and 2,150' in the well.

J. P. Stout  
9/27/79  
Page 2

The Jurassic Nugget Formation consists of a light tan to brown, very fine grained, calcareous sandstone with little to no visible porosity and permeability. Only one sample of the Nugget was obtained before the well was at TD.

A fault zone was encountered at 1,524' to 1,565'. Circulation was lost (350 bbls of mud) and possible slickenslides noted in the samples. A second possible fault zone was noted at 2,719' where circulation was again lost (400 bbls of mud) and the well was TD'd. There is a possibility that losing circulation could be a characteristic of the Nugget in this area and happens quite often.

No shows were encountered in the well in the way of stain, fluorescence, or cutting of the samples and the logs indicate no sign of hydrocarbons in the well. The well was plugged with cement over the following intervals: Twin Creek 2,360-2,560' (100 sx); Entrada 850-1,050' (100 sx); surface casing 280-380' (66 sx); and 3-10' (10 sx). The rig was released at 5 PM on September 22, 1979.

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R355.5.

3

**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. RESRV.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
Terra Resources, Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 2500, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1825' FWL & 1240' FNL  
At top prod. interval reported below  
At total depth Same

14. PERMIT NO. API#43-051-3006 DATE ISSUED 8-6-79

5. LEASE DESIGNATION AND SERIAL NO.  
U-29376

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Federal

9. WELL NO.  
1-33

10. FIELD AND POOL, OR WILDCAT  
Wildcat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec. 33, T1N, T11W

12. COUNTY OR PARISH  
Wasatch

13. STATE  
Utah

15. DATE SPUNDED 8-18-79 16. DATE TOP REACHED 9-20-79 17. DATE COMPL. (Ready to prod.) 9-22-79 18. ELEVATIONS (DF, REB, RT, GR, ETC.)\* 8915 G.L. 8925'KB 19. ELEV. CASINGHEAD 8915'

20. TOTAL DEPTH, MD & TVD 2719' 21. PLUG-BACK T.D., MD & TVD Surface 22. IF MULTIPLE COMPL., HOW MANY\* \_\_\_\_\_ 23. INTERVALS DRILLED BY ALL ROTARY TOOLS \_\_\_\_\_ CABLE TOOLS \_\_\_\_\_

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
NONE.

25. WAS DIRECTIONAL SURVEY MADE  
NO

26. TYPE ELECTRIC AND OTHER LOGS RUN  
DIL-SFL, BHC-Sonic, FDC-CNL

27. WAS WELL CORED  
NO

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

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
<u>8 5/8"</u>	<u>24</u>	<u>331</u>	<u>12 1/4</u>	<u>250 sx Class G w/2% CaCl</u>	<u>0</u>

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)					
		<u>P&amp;A</u>					
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) \_\_\_\_\_ TEST WITNESSED BY \_\_\_\_\_

35. LIST OF ATTACHMENTS  
Logs have been forwarded by Schlumberger.

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

SIGNED E.C. Reith, Jr. TITLE District Manager-Operations DATE 10-22-79

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

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUBMIT IN TRIPLICATE\***  
(Other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

11-29376

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

**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.)

<p>1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>2. NAME OF OPERATOR <u>Terra Resources, Inc.</u></p> <p>3. ADDRESS OF OPERATOR <u>P.O. Box 2500, Casper, Wyoming 82602</u></p> <p>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  <u>1825' FWL &amp; 1240' FNL</u></p> <p>14. PERMIT NO. <u>API #43-051-30005</u></p>	<p>7. UNIT AGREEMENT NAME</p> <p>8. FARM OR LEASE NAME <u>Federal</u></p> <p>9. WELL NO. <u>1-33</u></p> <p>10. FIELD AND POOL, OR WILDCAT <u>Wildcat</u></p> <p>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <u>Sec. 33, T1N, R11W</u></p> <p>12. COUNTY OR PARISH <u>Wasatch</u></p> <p>13. STATE <u>Utah</u></p>
<p>15. ELEVATIONS (Show whether DF, RT, GR, etc.) <u>8915' G.L. 8925' KB</u></p>	

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 checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input 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.)\*

As per telephone conversation with Mr. Ed Guynn-District Engr.-U.S.G.S. on 9-21-79. The following plugs were set 9-22-79 on the above referenced well.

FM TOP	CMT PLUG	SX	TYPE CMT
Nugget-2660'	2360'-2560'	100	50-50 Pozmix w/.4% R5
Twin Creek-1185'	850'-1050'	100	50-50 Pozmix w/.4% R5
8 5/8" to 331'	280'-380'	66	50-50 Pozmix w/.4% R5
Surface	0'-30'	10	50-50 Pozmix w/.4% R5

Heavy mud between the plugs. A Colorado Plow-in marker was set. The location has been filled and cleaned. Re-seeding and fencing have begun and should be ready for inspection in approximately one month.

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

SIGNED E.C. Reish, Jr. TITLE District Manager-Operations DATE 10-22-79

(This space for Federal or State office use)

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

CONDITIONS OF APPROVAL, IF ANY:



SCOTT M. MATHESON  
Governor

GORDON E. HARMSTON  
*Executive Director,*  
NATURAL RESOURCES

CLEON B. FEIGHT  
*Director*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING  
1588 West North Temple  
Salt Lake City, Utah 84116  
(801) 533-5771

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON  
*Chairman*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
CONSTANCE K. LUNDBERG  
EDWARD T. BECK  
E. STEELE McINTYRE

December 21, 1979

Terra Resources, Inc.  
P. O. Box 2500  
Casper, Wyoming 82602

RE: Well No. Federal 1-33  
Sec. 33, T. 1N, R. 11W,  
Wasatch County, Utah

Gentlemen:

This letter is to advise you that the Well Completion or Recompletion Report and Log for the above referred to well is due and has not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible.

Thank you for your cooperation relative to the above.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

*Debbie Beauregard*  
DEBBIE BEAUREGARD  
CLERK-TYPIST

TERRA RESOURCES, INC.

ROCKY MOUNTAIN PRODUCTION DISTRICT OFFICE  
P.O. BOX 2500  
CASPER, WYOMING 82601  
(307) 237-8461

October 19, 1979

Re: Abandonment Report  
Terra Resources, Inc.  
Federal 1-33  
Sec. 33, T1N, R11W  
Wasatch County, Utah

Edgar W. Guynn  
U.S. Geological Survey  
2000 Administration Bldg.  
1745 West 1700 South  
Salt Lake City, Utah 84104

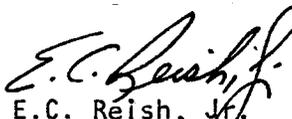
Dear Sir:

Enclosed please find three (3) copies of U.S.G.S. Form 9-331, "Sundry Notices and Reports on Wells" - Intent to Abandon. Also find three (3) copies of U.S.G.S. Form 9-331, "Sundry Notices and Reports on Wells" - Subsequent Report of Abandonment.

The "Well Completion and Recompletion Report and Log", Form 9-330, is also included in this packet.

Yours very truly,

TERRA RESOURCES, INC.

  
E.C. Reish, Jr.

District Manager - Operations

ECR/CGF:erv  
Enclosures

cc: Regis Terney  
U.S. Forest Service  
Box 190  
Heber, Utah 84032

Division of Oil, Gas, & Mining  
1588 West North Temple  
Salt Lake City, Utah 84116

**RECEIVED**

DEC 31 1979

DIVISION OF  
OIL, GAS & MINING

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved.  
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

U-29376

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Federal

9. WELL NO.

1-33

10. FIELD AND POOL, OR WILDCAT

Wildcat

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

Sec. 33, T1N, R11W

12. COUNTY OR PARISH

Wasatch

13. STATE

Utah

**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.)

1. OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR  
Terra Resources, Inc.

3. ADDRESS OF OPERATOR  
P.O. Box 2500, Casper, Wyoming 82602

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

1825' FWL & 1240' FNL

14. PERMIT NO.  
API #43-051-30005

15. ELEVATIONS (Show whether DF, RT, GR, etc.)  
8915' G.L. 8925' KB

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON\*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

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.)\*

Terra plans to plug the above referenced well having reached a TD of 2719' KB, logging, and finding no commercial hydrocarbons. Plan to set a 100 sx plug above the Nugget formation (2360'-2560'KB). Then another 100 sx plug above the Twin Creek (850'-1050'KB). A 66 sx plug will be set half in and half out of the bottom of the 8 5/8" surf. csg. (280'-380'KB). Finally a 10 sx plug will be set in the top of the surface pipe and a Colorado plow-in marker set. The location will then be filled in and cleaned up. All plugs and depths as per telephone conversation with Mr. Ed Guynn, District Eng.-U.S.G.S. on 9-21-79.

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DEC 31 1979

DIVISION OF  
OIL, GAS & MINING

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

SIGNED

*E.C. Reish, Jr.*  
E.C. Reish, Jr.

TITLE District Manager-Operations DATE 10-22-79

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

January 21, 1980

Terra Resources, Inc.  
P. O. Box 2500  
Casper, Wyoming 82602

Re: Well No. Federal 1-33  
Sec. 33, T. 1N, R. 11W  
Wasatch County, Utah

Gentlemen:

According to our records, a "Well Completion Report" filed with this office December 31, 1979, from above referred to well, indicates the following electric logs were run: *DIL-SFL, BHC-Sonic, FDC-CNL.*

Rule C-5, General Rules and Regulations and Rules of Practice and Procedure, requires that a well log shall be filed with the Commission with a copy of the electric and radioactivity logs,

Your prompt attention to the above will be greatly appreciated.

Sincerely,

DIVISION OF OIL, GAS, AND MINING



KATHY AVILA  
RECORDS CLERK