

UTAH DIVISION OF OIL, GAS AND MINING

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE X WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB. REPORT/ABD \_\_\_\_\_

DATE FILED 1-11-80

LAND: FEE & PATENTED \_\_\_\_\_ STATE LEASE NO. \_\_\_\_\_ PUBLIC LEASE NO. 18897A INDIAN \_\_\_\_\_

DRILLING APPROVED: 1-24-80

SPUDDED IN: \_\_\_\_\_

COMPLETED: \_\_\_\_\_ PUT TO PRODUCING: \_\_\_\_\_

INITIAL PRODUCTION: \_\_\_\_\_

GRAVITY A.P.I. \_\_\_\_\_

GOR: \_\_\_\_\_

PRODUCING ZONES: \_\_\_\_\_

TOTAL DEPTH: \_\_\_\_\_

WELL ELEVATION: 8484' 9"

DATE ABANDONED: Location abandoned 10-14-81

FIELD: Wildcat 3/86

UNIT: \_\_\_\_\_

COUNTY: Emery

WELL NO. Rock Canyon Rim #1

API NO: 43-015-30075

LOCATION 2600' FT. FROM (N) (~~XX~~) LINE. 1055' FT. FROM (E) (~~XW~~) LINE. SE NE  $\frac{1}{4}$ - $\frac{1}{4}$  SEC 1

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
<u>19S</u>	<u>6E</u>	<u>1-</u>	<u>TERRA RESOURCES INC,</u>				

TERRA RESOURCES, INC.

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

January 8, 1980

Re: Application for Permit  
to Drill  
Terra Resources, Inc.  
Rock Canyon Rim #1  
Sec. 1, T195, R6E  
Emery County, Utah

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

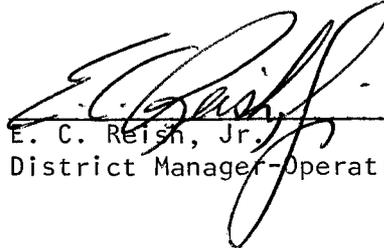
Gentlemen:

Enclosed please find two (2) copies of Form #9-331-C,  
"Application for Permit to Drill" for the above referenced well.

Your approval of this application at an early date  
will be greatly appreciated.

Yours very truly,

TERRA RESOURCES, INC.

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

ECR:CGF/gj  
Enclosures

RECEIVED

JAN 11 1980

DIVISION OF  
OIL, GAS & MINING

GENERAL OFFICES

SUITE 300 5416 SOUTH YALE AVENUE TULSA, OKLAHOMA (918) 492-2231

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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

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 2600' FNL & 1055' FEL  
 At proposed prod. zone same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 29.8 miles West-Southwest of Orangeville, Utah

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any) 1055'

16. NO. OF ACRES IN LEASE 6224.17

17. NO. OF ACRES ASSIGNED TO THIS WELL 640

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 2640'+

19. PROPOSED DEPTH 10,000 *Navyo*

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 8484 GR

22. APPROX. DATE WORK WILL START\*  
 April 15, 1980

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	24 1/2" new	K-55 ST&C	100'	150 sacks Class G
20"	13 3/8" new	54.5, 72	2650'	2500 sacks Class G
12 1/2"	9 5/8" new	K-55 N-80 ST&C	6400'	1500 sacks Class G
8 3/4"	5 1/2" new	17#K-55, N-80 ST&C LT&C	10,000'	1200 sacks Class G

1. Drill 26" hole and run 24 1/2" conductor pipe to 100'.
2. Drill 20" hole and set 13 3/8" surface casing to 2650' with good returns.
3. Drill 12 1/2" hole and run 9 5/8" intermediate pipe.
4. Log B.O.P. checks in daily drill reports and drill 8 3/4" hole to 10,000'.
5. Run tests if warranted and run 5 1/2" casing if productive.
6. Run logs as needed, and perforate and stimulate as needed.

EXHIBITS ATTACHED:

- "A" Location and Elevation Plat
- "B" The Ten-Point Compliance Program
- "C" The Blowout Preventer Diagram
- "D" The Multi-Point Requirements for A.P.D.
- "E" & "E<sub>1</sub>" Access Road Maps to Location
- "F" Radius Map of Field
- "G" & "G<sub>1</sub>" Drill Pad Layout, Production Facilities & Cut-Fill Cross-Section
- "H" Drill Rig Layout
- "K" Fracturing Program 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 *E.C. Reish, Jr.* TITLE District Manager-Operations DATE 1/24/80

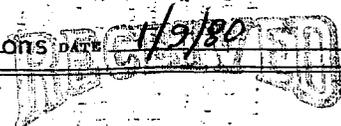
(This space for Federal or State office use)  
 PERMIT NO. 43-05-30075 APPROVAL DATE 1/24/80 JAN 11 1980

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

CONDITIONS OF APPROVAL, IF ANY: DIVISION OF OIL, GAS & MINING

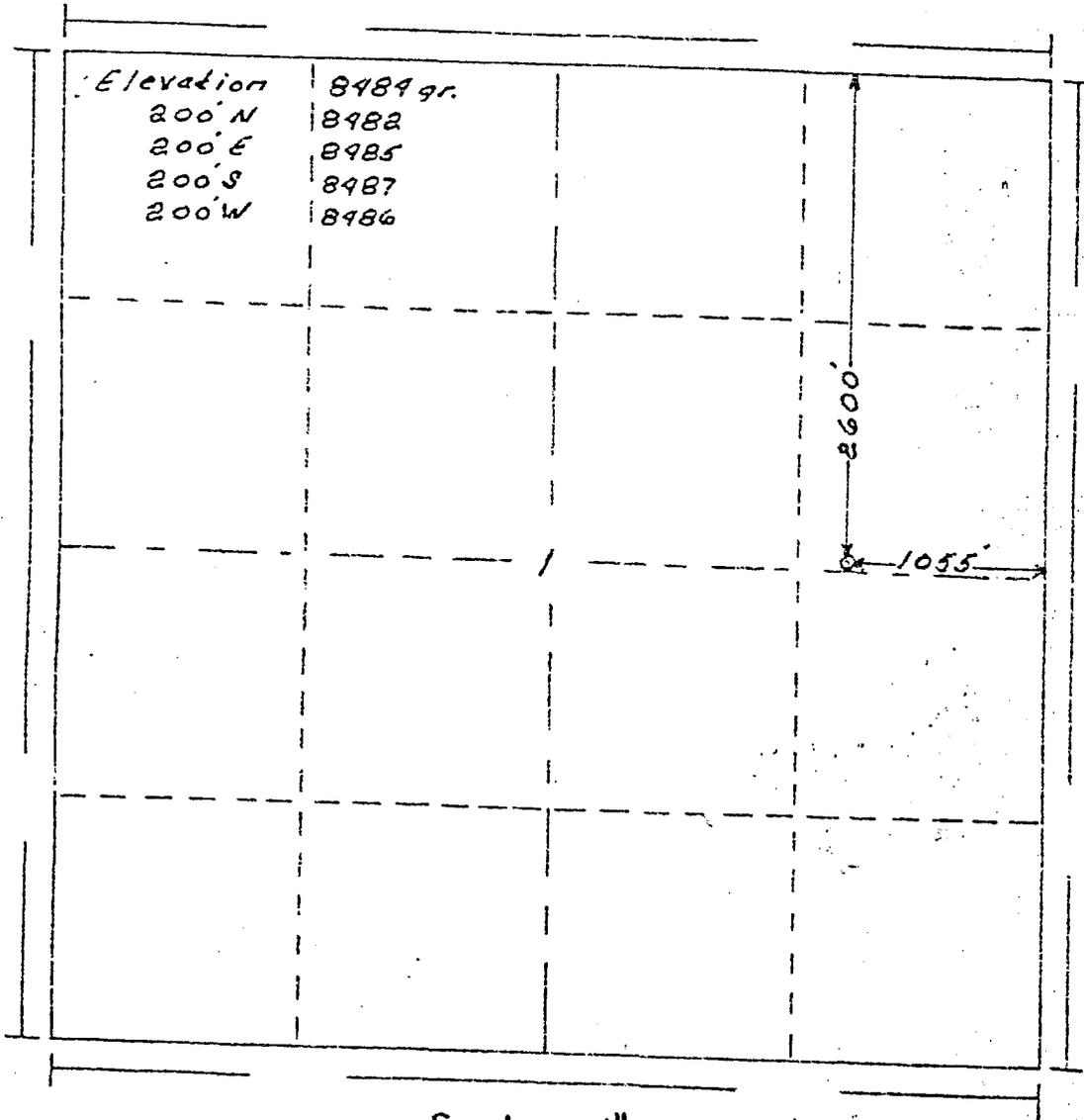
*SENE*

*Navyo*





R. 6 E



T.  
19  
S

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 Rock Canyon Rim to be 2600' F.N.L. & 1055' F.E.L. Section 1 Township 19<sup>S</sup> Range 6<sup>E</sup> Salt Lake Meridian Emery County, Utah

I hereby certify that this plat is an accurate representation of a correct survey showing the location of #1 Rock Canyon Rim

Date: 7-29-79

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

EXHIBIT "B"

TEN-POINT COMPLIANCE PROGRAM

OF NTL-6 APPROVAL OF OPERATIONS

Attached to Form 9-331C  
Terra Resources  
#1 Rock Canyon Rim  
SE NE Sec. 1 T19S R6E  
2600' FNL & 1055' FEL  
Emery County, Utah

1. The Geologic Surface Formation

The surface formation is the Price River Conglomerate.

2. Estimated Tops of Important Geologic Markers

Castlegate	1500'
Mancos	2740'
Ferron	5515'
Dakota	6315'
Carmel	8500'
Lower Carmel	9000'
Navajo	9800'
Total Depth	10,000'

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

Ferron	5515'	Gas
Lower Carmel	9000'	Gas

4. The Proposed Casing Program

<u>CASING STRING</u>	<u>HOLE SIZE</u>	<u>INTERVAL</u>	<u>SECTION LENGTH</u>	<u>SIZE (OD)</u>	<u>WEIGHT, GRADE &amp; JOINT</u>	<u>NEW OR USED</u>
Conductor	26"	0-100'	100'	24-1/2"	H-40 ST&C	New
Surface	20"	0-2650'	2650'	13-3/8"		New
			2000'		54.5# K-55 ST&C	
			650'		72# N-80	
Parasite	20"	0-2300'	2300'	2"		
Intermediate	12-1/4"	2400-6400'	4000'	9-5/8"		New
			750'		36# K-55 ST&C	
			2050'		40# N-80 LT&C	
			1200'		43.5# N-80 LT&C	
Production	8-3/4"	6200-10,000	4800'	5-1/2"		New
			2250'		17# K-55 ST&C	
			1550'		17# N-80 LT&C	

Cement Program:

Conductor: 150 sacks Class G with 2% CaCl, circulate to surface  
 Surface: 2500 sacks Class G with 2% CaCl, circulate to surface  
 Intermediate: 1500 sacks Class G, with 2% CaCl, 10% salt, 1/4#/sack flake  
 Production: 1200 sacks Class G, with 2% CaCl, 10% salt, 1/4#/sack flake

5. The Operator's Minimum Specifications for Pressure Control

EXHIBIT "C" is a schematic diagram of the blowout preventer equipment. The BOP's will be hydraulically tested to the full working pressure after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24-hour period, as will blind rams and annular preventer each time pipe is pulled out of the hole. Such checks of BOP will be noted on daily drilling reports.

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

6. The Type and Characteristics of the Proposed Circulating Muds

Mud system will be gel-chemical with adequate stocks of sorptive agents on site to handle possible spills of fuel and oil on the surface. Heavier muds will be on location to be added if pressure requires.

<u>DEPTH</u>	<u>WEIGHT#/gal.</u>	<u>VISCOSITY-sec./qt.</u>	<u>FLUID LOSS cc</u>	<u>REMARKS</u>
0 -2650'	8.3 - 8.5	30 - 35	No Control	Spud with mud gel-lime slurry of sufficient viscosity to clean hole
2650'-6400'	8.3 - 8.7	30 - 40	10 - 20	Aerated low solids non-dispersed system, will lower water loss before reaching Mancos Formation

<u>DEPTH</u>	<u>WEIGHT#/gal.</u>	<u>VISCOSITY-sec/qt.</u>	<u>FLUID LOSS cc</u>	<u>REMARKS</u>
6400-T.D.	8.3 - 8.7	35 - 45	10 - 20	Aerated low solids non-dispersed system

COMMENTS: Lost circulation material will be maintained on location throughout drilling operation. Weight material will also be kept on location. A 2" parasite string will be run in along side the 13-3/8" pipe and used to aerate through.

7. The Auxiliary Equipment to be Used

- (a) A kelly cock will be kept in the string.
- (b) A float will be used at the bit.
- (c) A 2-man mud logging unit will be monitoring the system. Pits will be monitored visually.
- (d) A full opening Hydril or equivalent ball valve will be available on the floor to make up on the drill pipe when the kelly is not in the string.

8. The Testing, Logging and Coring Program to be Followed

- (a) DST's are expected in the Ferron and Lower Carmel Formations. Other zones will be tested as needed.
- (b) Well logging program will consist of the following:  
IES-SP from surface casing to total depth of 12-1/4" hole ; a Formation Density-Compensated Neutron with GR and Caliper from surface casing to total depth of 12-1/4" hole ; BHC Sonic, Caliper GR from surface casing to total depth of 12-1/4" hole ; The same program will be run from the bottom of the 9 5/8" csg. to the 8 3/4" hole TD.
- (c) No coring is anticipated.
- (d) If commercial production is found, casing will be run and cemented, a CBL-VDL with GR run, the casing perforated, and the zone tested and treated if necessary. Completion program will be to acid/sand frac with 1500 gallons 15% acid. Frac well with 200,000# sand, 150,000 gallons of water if structure requires. See EXHIBIT "K".

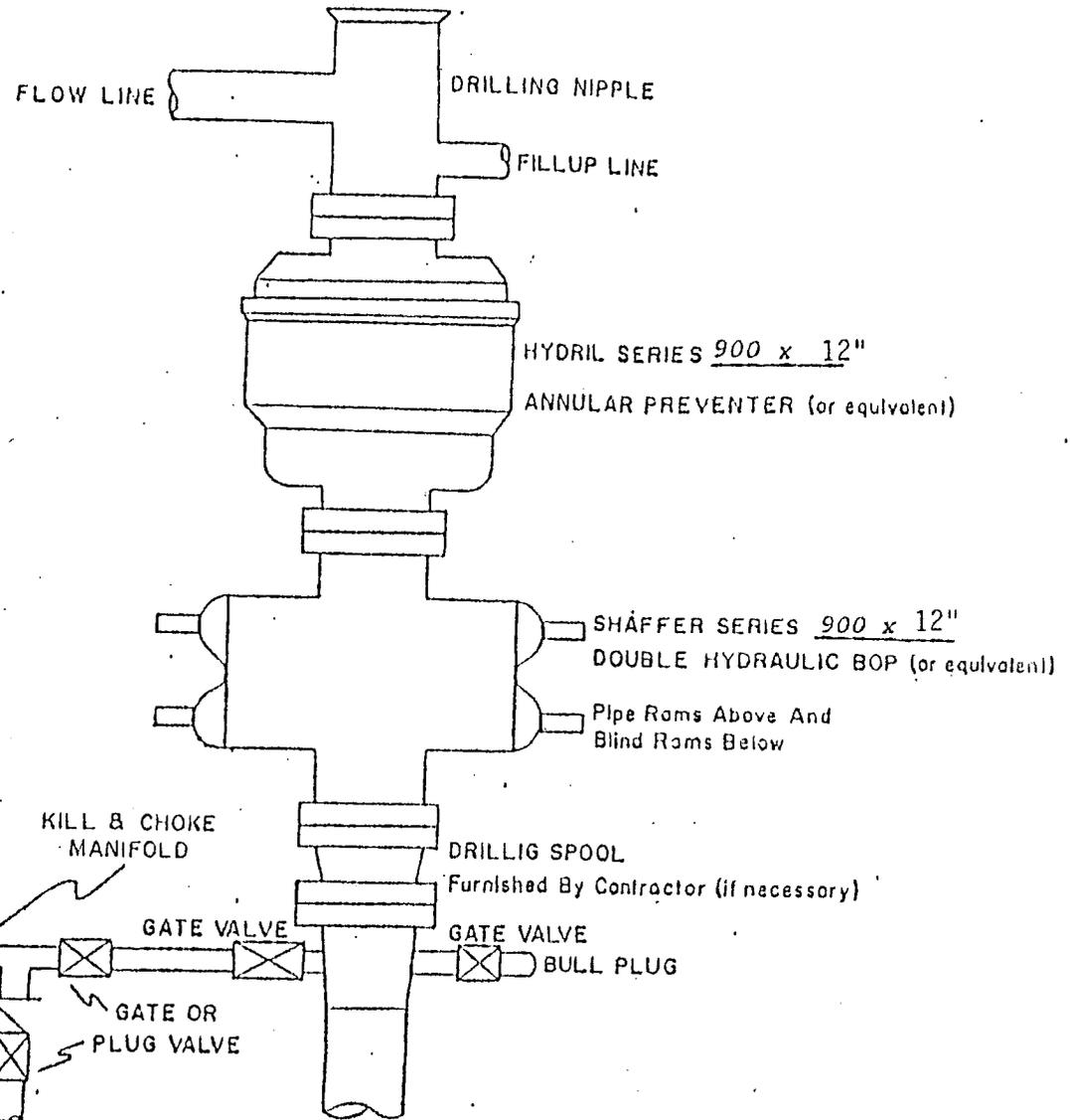
9. Any Anticipated Abnormal Pressures or Temperatures Expected

No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well.

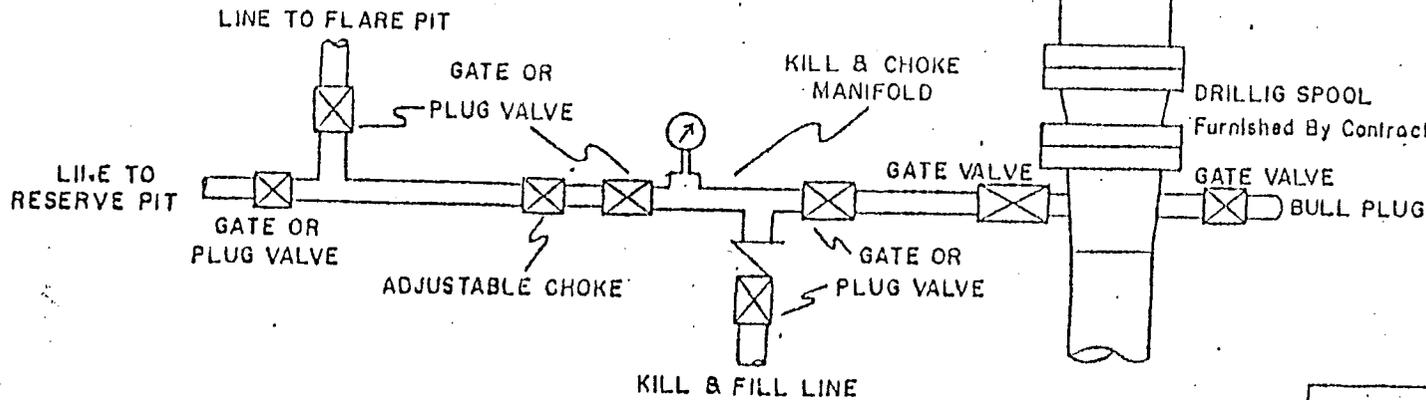
No hydrogen sulfide or other hazardous fluids or gases have been found, reported or known to exist at these depths in the area.

10. Anticipated Starting Date and Duration of the Operations

The anticipated starting date is set for April 15, 1980, or as soon as possible after examination and approval of drilling requirements. Operations should be completed within 90 days after spudding the well and drilling to casing point.



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



**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.

<b>BLOWOUT PREVENTOR ARRANGEMENT</b>
TERRA RESOURCES, INC.
Well Number #1 Rock Canyon Rim

EXHIBIT "D"

MULTI-POINT REQUIREMENTS TO ACCOMPANY A.P.D.

Attached to Form 9-331C  
Terra Resources  
#1 Rock Canyon Rim  
SE NE Sec. 1 T19S R6E  
2600' FNL & 1055 FEL  
Emery County, Utah

1. Existing Roads

- A. The proposed well site and elevation plat is shown as EXHIBIT "A".
- B. The distance from Orangeville, Utah to the location is 29.8 miles. From Orangeville, proceed West on Highway #29 a distance of 16.9 miles; thence Southeast, continuing on paved road a distance of 0.4 mile; thence Southwest on paved road a distance of 0.3 mile; thence Southerly on the North Dragon Creek Road which is gravel a distance of 6.9 miles to a junction; thence Southeasterly on a gravel road a distance of 2.5 miles to a junction; thence Northeast on a gravel road a distance of 1.0 mile to a junction; thence East on a gravel road a distance of 1.2 miles to a trail which is to be upgraded; thence Southeast a distance of 0.6 mile to the location, as shown on EXHIBIT "E" & "E<sub>1</sub>".
- C. All roads to location are color-coded on EXHIBITS "E" & "E<sub>1</sub>". A trail, 0.6 mile in length, from the existing gravel Forest Service Road will be upgraded, as shown on EXHIBITS "E" & "E<sub>1</sub>".
- D. This is an exploratory well. All existing roads within a three-mile radius are shown on EXHIBIT "E<sub>1</sub>".
- E. N/A
- F. The existing roads need some improvement. The 0.6 mile of existing trail will require some upgrading.

2. Planned Access Roads

No new access road will be constructed. An existing trail 0.6 mile in length, goes directly to the location.

- (1) The maximum width of the running surface of the 0.6 mile of trail to be upgraded as you leave the existing Forest Service Road will be 18'.
- (2) The grade will be 8% (eight percent) or less.

- (3) No turn outs are planned.
- (4) Appropriate water bars will be constructed to assure drainage off location to conform with the natural drainage pattern.
- (5) No major cuts or fills are anticipated along access road during drilling operation. One culvert will be required, 0.4 mile from the location, as shown on EXHIBIT "E".
- (6) Surfacing materials will be native soil.
- (7) No gates, cattle guards, or fence cuts are needed.
- (8) The new access road to be constructed was staked and centerline flagged, as shown on EXHIBIT "E".

### 3. Location of Existing Wells

For all existing wells within a two mile radius of exploratory well, see EXHIBIT "F".

- (1) There are no water wells within a two-mile radius of this location.
- (2) There are no abandoned wells in this two-mile radius.
- (3) There are no temporarily abandoned wells.
- (4) There are no disposal wells.
- (5) There are no wells presently being drilled.
- (6) There are no producing wells within this two-mile radius.
- (7) There are no shut-in wells.
- (8) There are no injection wells.
- (9) There are no monitoring or observation wells for other uses.

### 4. Location of Existing and/or Proposed Facilities

- A. Within a one-mile radius of location the following existing facilities are owned or controlled by lessee/operator:
  - (1) Tank Batteries: None
  - (2) Production Facilities: None
  - (3) Oil Gathering Lines: None
  - (4) Gas Gathering Lines: None

(5) Injection Lines: None

(6) Disposal Lines: None

B. If the well is productive, new facilities will be as follows:

- (1) Production facilities will be located on solid ground of cut area of drill pad, as shown on EXHIBIT "G".
- (2) All well flow lines will be buried and will be on the well site and battery site.
- (3) Facilities will be 330 feet long and 275 feet wide.
- (4) All construction materials for battery site and pad will be obtained from site. No additional material from outside sources is anticipated.
- (5) Any necessary pits will be fenced and flagged to protect livestock and wildlife.

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

5. Location and Type of Water Supply

- A. The source of water is Joe's Valley Reservoir located in Sec. 8 T18S R6E, 10.5 miles Northwest of the location over existing roadways, as shown on EXHIBIT "E<sub>1</sub>".
- B. Water will be transported by truck over existing roadways.
- C. No water well is to be drilled on this lease.

6. Construction Materials

- A. No construction materials are needed for drilling and access roads into the drilling location unless well is productive. The surface soil materials will be sufficient or will be purchased from Dirt Contractor as needed.
- B. No construction materials will be taken off Federal land.
- C. All surface soil materials for construction of access roads are sufficient.
- D. All major access roads presently exist as shown on EXHIBIT "E".

7. Handling of Waste Materials and Disposal

- (1) Drill cuttings will be buried in the reserve pit and covered.
- (2) Drilling fluids will be handled in the reserve pit.
- (3) Any fluids produced during drilling test or while making production test will be collected in a test tank. If a test tank is not available during drilling, fluids will be handled in reserve pit. Any spills of oil, gas, salt water or other noxious fluids will be cleaned up and removed.
- (4) Chemical facilities will be provided for human waste.
- (5) Garbage and non-flammable waste and salts and other chemicals produced during drilling or testing will be handled in trash pit. Flammable waste will be disposed of in burn pit. Drill fluids, water, drilling mud and tailings will be kept in reserve pit, as shown on EXHIBIT "H". The trash and/or burn pit will be totally enclosed with small mesh wire to prevent wind scattering trash before being burned or buried. Reserve pit will be fenced on three sides and the fourth side fenced upon removal of the rig.
- (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 during drilling and kept closed until such time as the pit is leveled.

8. Ancillary Facilities

No air strip, camp or other facilities will be built during drilling of this well.

9. Well Site Layout

- (1) EXHIBIT "G" is the Drill Pad Layout as staked, with elevations, by Powers Elevation of Green River, Wyoming. Cuts and fills have been drafted to visualize the planned cut across the location spot and the deepest part of the pad. Topsoil will be stockpiled per USFS specifications determined at time of pre-drill inspection.
- (2) EXHIBIT "H" is a plan diagram of the proposed rig and equipment, reserve pit, burn and trash pit, pipe racks and mud tanks. No permanent living facilities are planned. There will be a trailer on site.
- (3) EXHIBIT "G" includes a diagram showing the proposed production facilities layout.
- (4) The reserve pits will not be lined. Steel mud tanks may be used during drilling operations.

10. Plans for Restoration

- (1) Backfilling, leveling and contouring are planned as soon as all pits have dried. Waste disposal and spoils materials will be buried or hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
- (2) The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the USFS. Revegetation is recommended for road area, as well as around drill pad.
- (3) Three sides of the reserve pit will be fenced during drilling operations. Prior to rig release, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from becoming entrapped; and the fencing will be maintained until leveling and cleanup are accomplished.
- (4) If any oil is on the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with wire mesh.
- (5) The rehabilitation operations will begin immediately after the drilling rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation is considered best in Fall, 1980, unless requested otherwise.

11. Other Information

- (1) The soil is a clay loam. No distinguishing geological features are present. The area is covered with cactus, sagebrush, cheat grass, and native grass. There are livestock, rabbits and deer in the area. The location is situated in a large flat area, with pine trees on the South and East sides. There is a large cedar covered ridge rising to the West.
- (2) The primary surface use is for grazing. The surface is owned by the U.S. Government.
- (3) The closest live water is Rock Canyon in Sec. 12 T19S R6E, 1 mile South of the location, as shown on EXHIBIT "E".

The closest occupied dwellings are farms located in Orangeville, Utah, 7 miles Northeast of the location, as shown on EXHIBIT "E<sub>1</sub>".

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

- (4) There are no reported restrictions or reservations noted on the oil and gas lease.

- (5) Drilling is planned for on or about April 15, 1980. It is anticipated that the casing point will be reached within 90 days after commencement of drilling.

12. Lessee's or Operator's Representative

George Lapaseotes  
Agent Consultant for  
Terra Resources  
600 South Cherry Street  
Suite 1201  
Denver, Colorado 80222  
Phone (303) 321-2217

Cecil Foote  
Terra Resources  
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 and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date

10-24-79

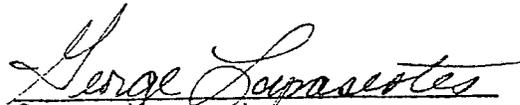
  
George Lapaseotes  
Agent Consultant for  
Terra Resources

EXHIBIT "E"  
Access Road onto Location

Terra Resources  
#1 Rock Canyon Rim  
SE NE Sec. 1 T19S R6E  
2600' FNL & 1055' FEL  
Emery County, Utah

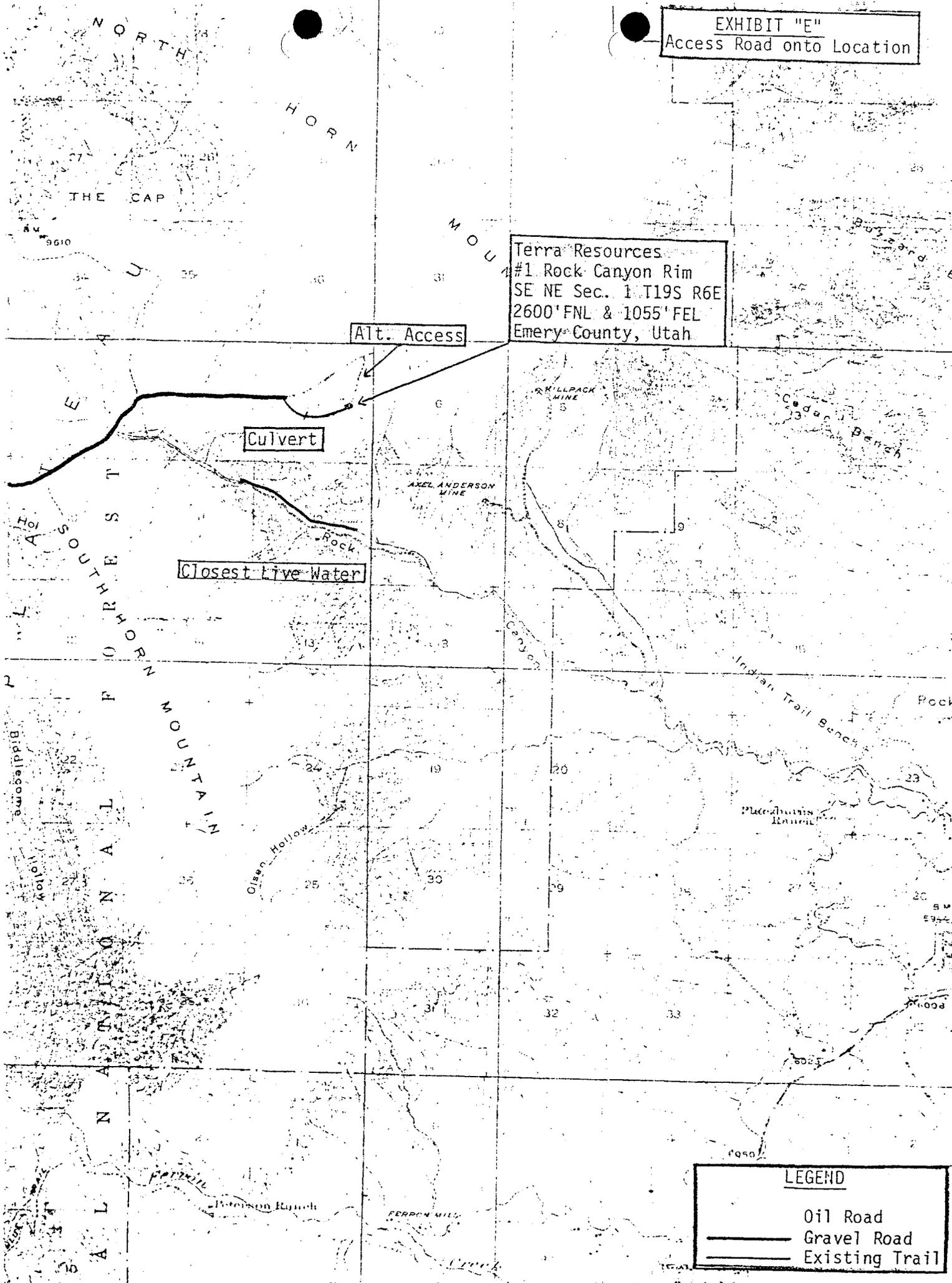
Alt. Access

Culvert

Closest Live Water

LEGEND

- Oil Road
- Gravel Road
- Existing Trail



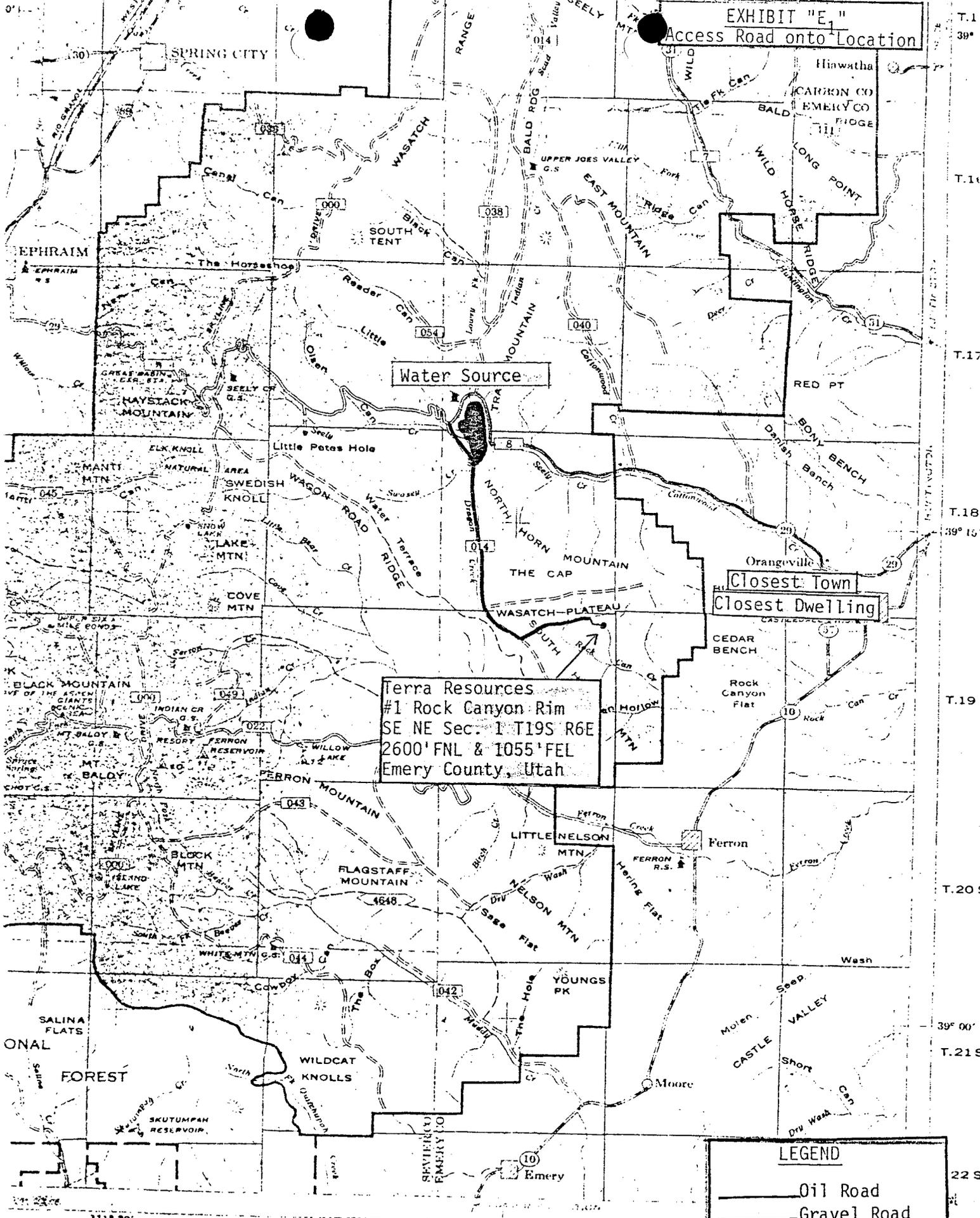


EXHIBIT "E"  
Access Road onto Location

Water Source

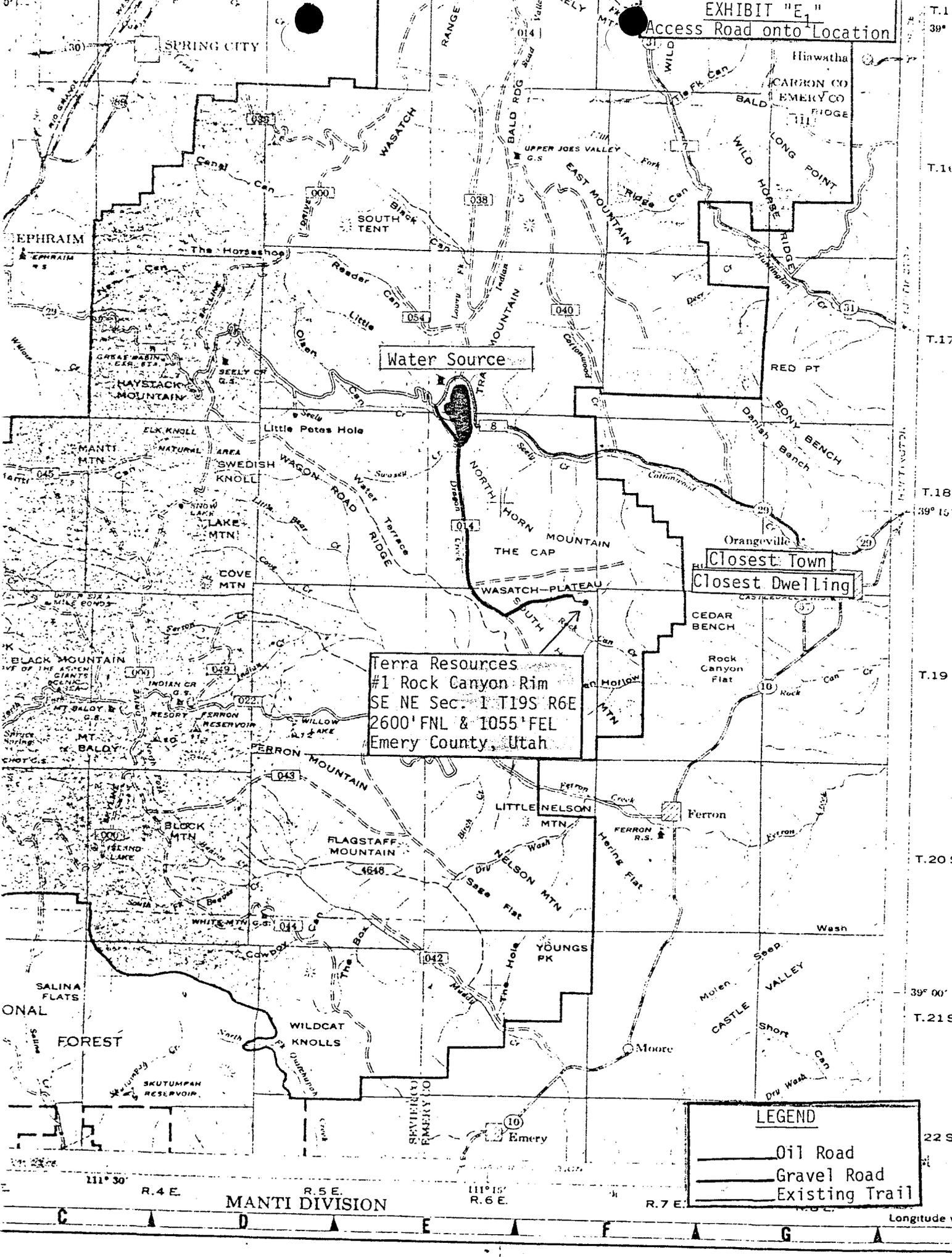
Closest Town  
Closest Dwelling

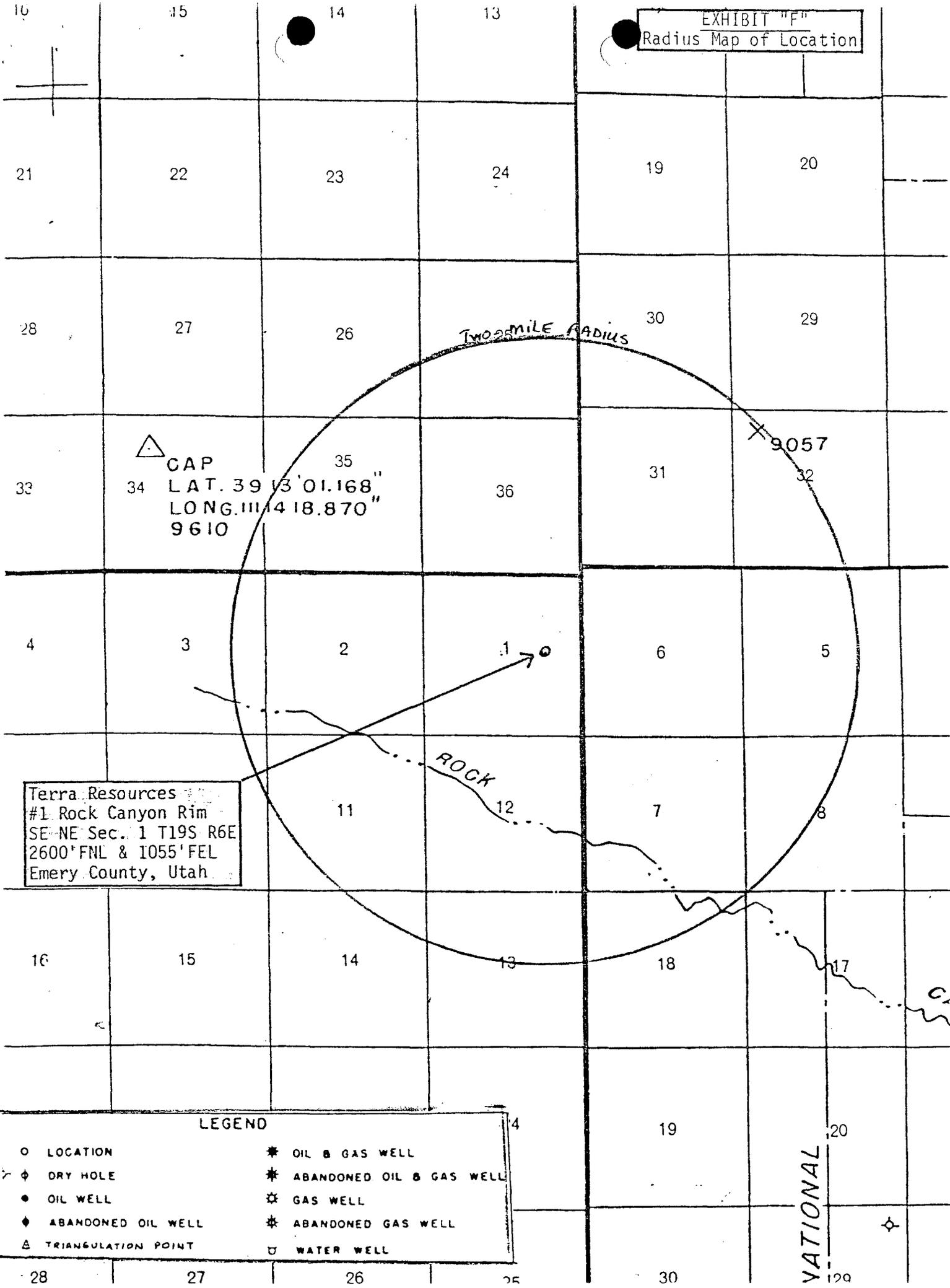
Terra Resources  
#1 Rock Canyon Rim  
SE NE Sec. 1 T19S R6E  
2600' FNL & 1055' FEL  
Emery County, Utah

LEGEND  
 — Oil Road  
 — Gravel Road  
 — Existing Trail

MANTI DIVISION

Longitude w





△ CAP  
LAT. 39° 13' 01.168"  
LONG. 111° 41' 18.870"  
9610

Terra Resources  
#1 Rock Canyon Rim  
SE-NE Sec. 1 T19S R6E  
2600' FNL & 1055' FEL  
Emery County, Utah

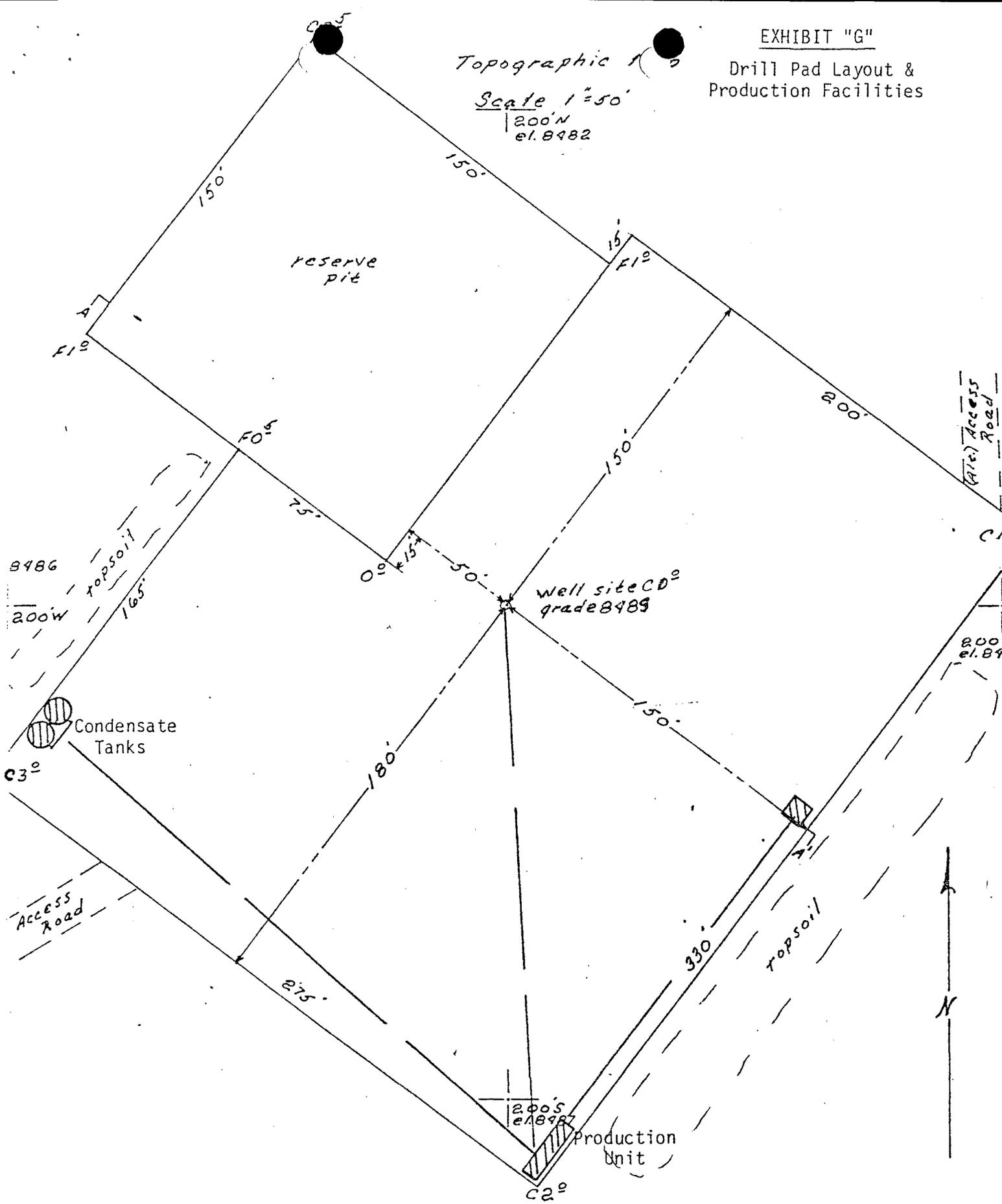
LEGEND

- |                       |                            |
|-----------------------|----------------------------|
| ○ LOCATION            | * OIL & GAS WELL           |
| ⊕ DRY HOLE            | * ABANDONED OIL & GAS WELL |
| ● OIL WELL            | ⊗ GAS WELL                 |
| ◆ ABANDONED OIL WELL  | ⊗ ABANDONED GAS WELL       |
| △ TRIANGULATION POINT | □ WATER WELL               |

NATIONAL

EXHIBIT "G"

Drill Pad Layout & Production Facilities



Terra Resources  
 #1 Rock Canyon Rim  
 2600' F.N.L. & 1055' F.E.L.  
 Sec. 1 T19S R6E  
 Emery Co., Utah

by: Bill Powers 7-29-79  
 Powers Elevation

Cross Section

EXHIBIT "G<sub>1</sub>"

Cut-Fill Cross Section

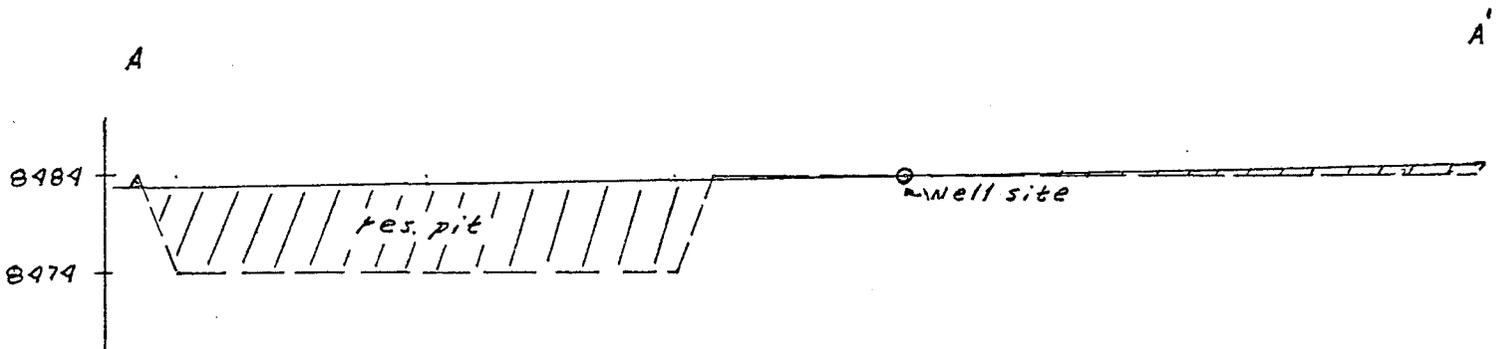
Legend

- orig. surface
- grade
- ||||| cut
- Fill

Scale

Horiz. 1"=50'

Vert. 1"=20'



Terra Resources  
 #1 Rock Canyon Rim  
 2600' F.N.L. & 1055' F.E.L.  
 Sec. 1 T19<sup>S</sup> R6<sup>E</sup>  
 Emery Co., Utah

by: Bill Swan 7-29-79  
 Powers Elevation

Terra Resources  
#1 Rock Canyon Rim  
2600' FNL & 1055' FEL  
Sec. 1 T19S R6E  
Emery County, Utah

EXHIBIT "H"  
Drill Rig Layout

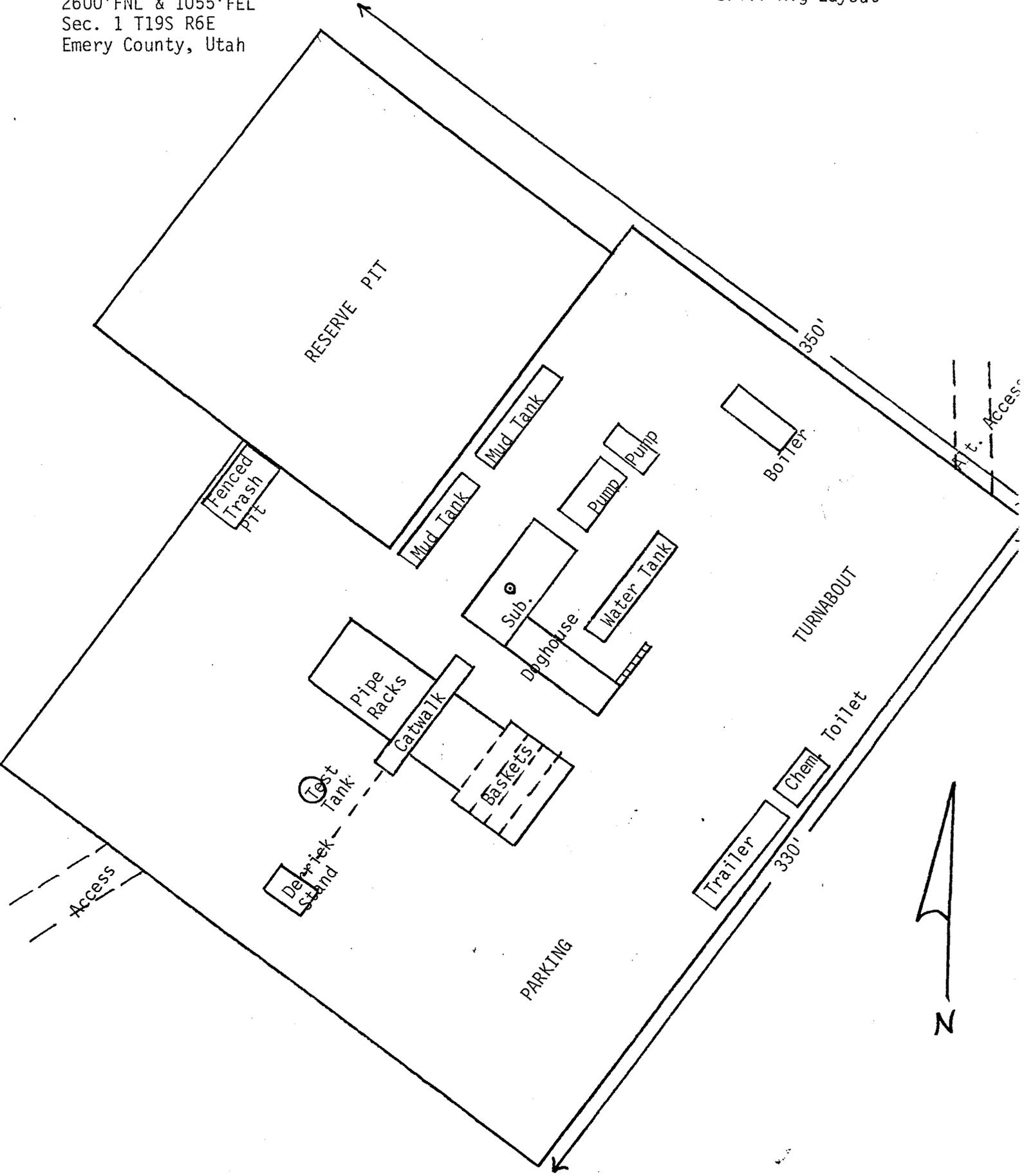
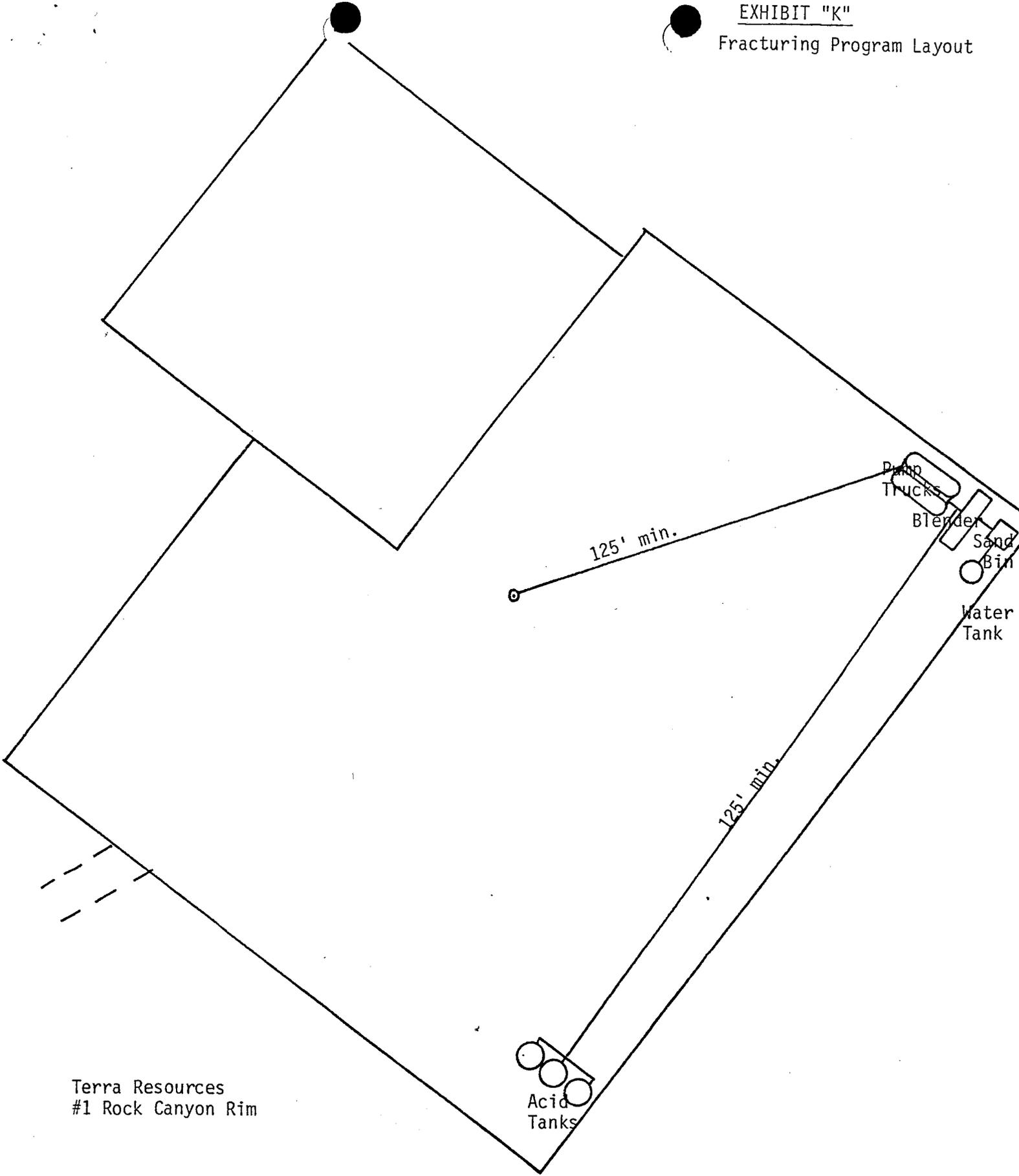


EXHIBIT "K"  
Fracturing Program Layout



Terra Resources  
#1 Rock Canyon Rim

Acid  
Tanks

Pump  
Trucks  
Blender  
Sand  
Bin  
Water  
Tank

125' min.

125' min.

Powers Elevation  
Suite 1201 Cherry Creek Plaza  
600 So. Cherry Street  
Denver, Colorado 80222

RE: Filing NTL-6 and A.P.D. Form 9-331C  
Terra Resources  
#1 Rock Canyon Rim  
SE NE Sec. 1 T19S R6E  
2600' FNL & 1055' FEL  
Emery County, Utah

Gentlemen:

This is to confirm our understanding with you that Powers Elevation is authorized to act as our agent in the following capacities:

- A. In surveying, staking, and preparing and filing necessary Applications, Permits and compliance programs, including complete NTL-6 reports.
- B. In accepting on our behalf any changes to location, proposed facilities and/or surface use plan and compliance program requested at on-site inspections, when we are unable to have a Company representative present. Such changes will then be binding upon us or designated Operator.
- C. In performing the following rehabilitation work: None

Powers' responsibilities do not include supervision of drilling, completion or rehabilitation operations, except as specifically noted in "C" above.

Terra Resources, Incorporated  
Company

by:

*DR Flack*  
Doug R. Flack  
Title District Operations Engineer

Date September 15, 1979

\*\* FILE NOTATIONS \*\*

DATE: January 16, 1980

Operator: Terna Resources

Well No: Lock Canyon Rim #1

Location: Sec. 1 T. 19S R. 6E County: Emery

File Prepared:

Entered on N.I.D.:

Card Indexed:

Completion Sheet:

API Number 43-015-30075

CHECKED BY:

Geological Engineer: M.S. Minder 1-21-80  
Archaeological problems

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

Director: \_\_\_\_\_

APPROVAL LETTER:

No close to quarter-quarter section line - OK

Bond Required:

Survey Plat Required:

Order No. \_\_\_\_\_

O.K. Rule C-3

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

Lease Designation 3d

Plotted on Map

Approval Letter Written

lctm

#2

hl  
PI

TERRA RESOURCES, INC.

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

*M*  
RECEIVED

JAN 21 1980

DIVISION OF  
OIL, GAS & MINING

January 14, 1980

Re: Spacing Exception  
Rock Canyon Rim #1  
2600 FNL & 1055 FEL  
Sec. 1, T19S, R6E  
Emery 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, Rock Canyon Rim #1, requests an exception to Rule C-3 concerning the spacing of the above referenced well.

The request is based on the fact that the archaeologist found lithic scatter to the north and east of the staked location. In order to meet Rule C-3 requirements, it would be necessary to move the location to the northeast; thus affecting the cultural resources. Also, moving the location north and east would interfere with the present road.

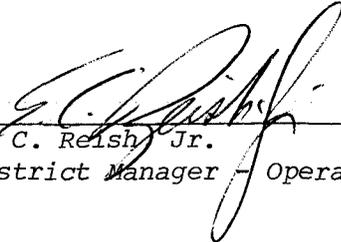
Terra has the mineral lease on everything within a 660' radius of the proposed site, so the exception should cause no problem. This acreage is a farmout from Gas Producing Enterprises, Inc.

Division of Oil, Gas & Mining  
Page Two of Two

Enclosed please find a copy of the survey location plat for the above mentioned well; and an ownership map of the area. Should you require any further information, please advise.

Yours very truly,

TERRA RESOURCES, INC.

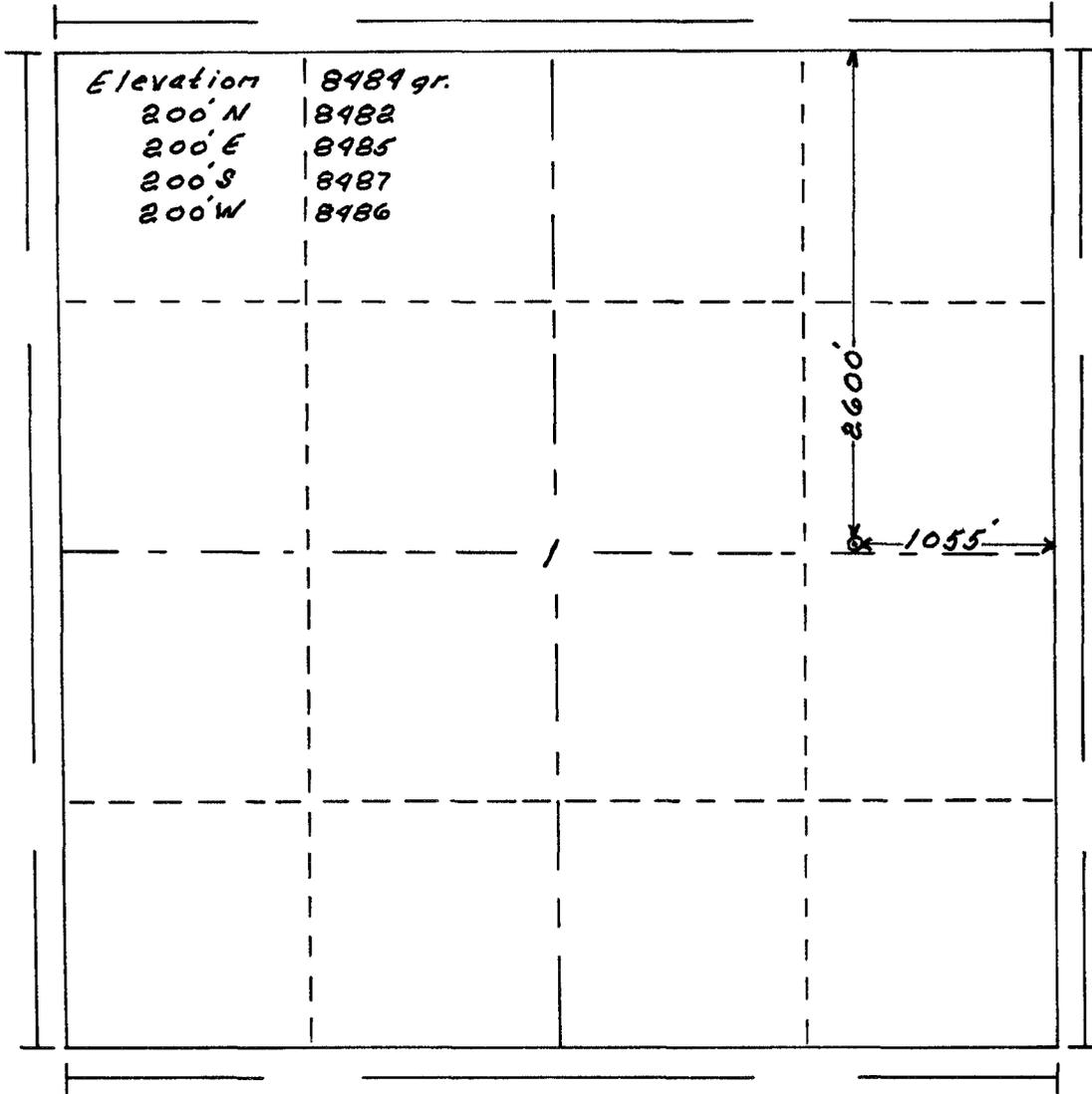


\_\_\_\_\_  
E. C. Reish Jr.  
District Manager - Operations

ECR:CGF/gj  
Enclosures



R. 6 E



T.  
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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 Rock Canyon Rim  
 to be 2600' F.N.L. & 1055' F.E.L. Section 1 Township 19<sup>S</sup>  
 Range 6<sup>E</sup> Salt Lake Meridian  
 Emery County, Utah

I hereby certify that this plat is an  
 accurate representation of a correct  
 survey showing the location of  
 #1 Rock Canyon Rim

Date: 7-29-79

  
 Licensed Land Surveyor No. 2711  
 State of Utah

15193 (21)	EM Davis 18901 3.1.83 2 1/2 % ORR J. Oakason 23	18901 (23)	21657 (18)	John Oakason 3% ORR 18901 3.1.83 M. Davis	18897	18863 (27)
22		24	19	20		21
15191 (28)	Odessa Nat. Gas et. al. 18901A 3 1 83	EM Davis 22146 12.1.83	18899 (29)	Terra Res 18899 2.1.83 23414-00 100%	18897A (33)	18863 (27)
27	22146A (35)	25	30	29		28
15191 (28)	So. Royalty et al 1/2 22146A 12.1.83 El Paso Products Co. et al 1/4 Enterprise Gas Co. 1/4 1/2 % ORR J. Oakason 1160 ACS.	22146A (35)	18899 (29)	18899 (29)	Terra Res. 18897A 2.1.83 23415-00 100%	18863 (27)
34		36	31	32		33
15189 (9)		ROCK CANYON RIM #1	16946 (18)	Terra Res. 18889A 1.1.83 23415-00 100%	18889A (5)	18897A (3)
3		1	Utah Power & Light			4
15189 (9)	Colorado Oil Co. 16943 11.1.82 aka Gas Producing Ent., Inc. (Sub. of Coastal States Gas)	16943 (11)		31268 (16)		Terra Res 18887A 1.1.83 23416-00 100%
10	11 1/2 % ORR Cumming & Flemming	12	7	E.M. Davis 18889 1.1.83	8	9
15187 (22)		R.K. O'Connell 19248 12.1.82	Colorado Oil Co. 16946 11.1.82	EM Davis 18887		Hawthorn Oil 31268 11.25.79
15		14	18	17		16
15187 (22)	Odessa, et al 15187 9.1.81	Colorado Oil Co. 16944 11.1.82 2560 ACS 1 1/2 % ORR 23 Cumming & Flemming	19248 (13)	16946 (18)	EM Davis 18888 1.1.83 5% ORR J. Oakason 20 10% ORR Altex	18887 (17)
22		24	19			21
15187 (22)	EM Davis 19149 2.1.83	16944 (23)	16945 (31)	18888 (20)		Amaco 10840 7.1.80
27		25	30	29		28
15187 (22)	19149 (26)	16945 (11.1.82)	16495	Fossil Petro. Corp. 30431 4.16.84		B.T. Bradshaw

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EMERY COUNTY, UTAH

R6E

R7E

January 24, 1980

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

Re: Well No. Rock Canyon Rim #1  
Sec. 1, T. 19S, R. 6E.,  
Emery County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well on said unorthodox location 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:

MICHAEL T. MINDER  
Geological Engineer  
Office: 533-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

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 43-015-30075.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Geological Engineer

/b:tm

cc: USGS



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

CHARLES R. HENDERSON  
*Chairman*

CLEON B. FEIGHT  
*Director*

JOHN L. BELL  
C. RAY JUVELIN  
THADIS W. BOX  
MAXILIAN A. FARBMAN  
EDWARD T. BECK  
E. STEELE McINTYRE

February 20, 1981

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

RE: Spudding Notice  
See Attached Sheet

Gentlemen:

In reference to the mentioned wells, considerable time has gone by since approval was obtained from this office.

This office has not received any notification of spudding. If you do not intend to drill these wells, please notify this Division. If spudding or any other activity has taken place, please send necessary forms. If we do not hear from your company within fifteen (15) days, we will assume you do not intend to drill these wells, and action will be taken to terminate the application. If you plan on drilling these locations at a later date, please notify as such.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL, GAS AND MINING

*Barbara Hill*

BARBARA HILL  
WELL RECORDS

/bjh

- (1). Well No. Bar X Unit #18  
Sec. 12, T. 17S, R. 25E.,  
Grand County, Utah
- (2). Well No. BAR X Unit #17  
Sec. 11, T. 17S, R. 25E.,  
Grand County, Utah
- (3). Well No. Bar X Unit #13  
Sec. 7, T. 17S, R. 26E.,  
Grand County, Utah
- (4). Well No. Bar X Unit #12  
Sec. 8, T. 17S, R. 26E.,  
Grand County, Utah
- (5). Well No. Bar X Unit #11  
Sec. 18, T. 17S, R. 26E.,  
Grand County, Utah
- (6). Well No. Bar X Unit #10  
Sec. 1, T. 17S, R. 25E.,  
Grand County, Utah
- (7). Well No. Rock Canyon Rim #1  
Sec. 1, T. 19S, R. 6E.,  
Emery County, Utah

TERRA RESOURCES, INC.

7

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

March 3, 1981

Spudding Notice  
See Attached Sheet

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

Gentlemen:

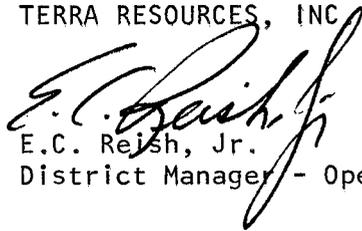
Please be advised that Terra Resources, Inc., still plans to drill the six (6) Bar X Wells. If a rig can be located Unit #10, #11, #12, and #13 will probably be drilled this spring.

Rock Canyon Rim #1 has been postponed indefinitely,

If we can be of any further assistance in this matter, please advise.

Yours very truly,

TERRA RESOURCES, INC



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

ECR/CGF:ek  
Attach.

RECEIVED

MAR 09 1981

DIVISION OF  
OIL, GAS & MINING

GENERAL OFFICES

SUITE 300 5416 SOUTH YALE AVENUE TULSA, OKLAHOMA (918) 492-2231

- (1). Well No. Bar X Unit #18  
Sec. 12, T. 17S, R. 25E.,  
Grand County, Utah
- (2). Well No. BAR X Unit #17  
Sec. 11, T. 17S, R. 25E.,  
Grand County, Utah
- (3). Well No. Bar X Unit #13  
Sec. 7, T. 17S, R. 26E.,  
Grand County, Utah
- (4). Well No. Bar X Unit #12  
Sec. 8, T. 17S, R. 26E.,  
Grand County, Utah
- (5). Well No. Bar X Unit #11  
Sec. 18, T. 17S, R. 26E.,  
Grand County, Utah
- (6). Well No. Bar X Unit #10  
Sec. 1, T. 17S, R. 25E.,  
Grand County, Utah
- (7). Well No. Rock Canyon Rim #1  
Sec. 1, T. 19S, R. 6E.,  
Emery County, Utah

RECEIVED

MAR 31

DIVISION OF  
OIL, GAS & MINING

October 14, 1981

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

Re: Well No. Rock Canyon Rim #1  
Sec. 1, T. 19S, R. 6E  
Emery County, Utah

Gentlemen:

Please be advised that the above mentioned well has been location abandoned. If you decide to drill this well at a later date, a request to reinstate the well application must be submitted to this office.

I

Please contact this Division if further information is needed.

Sincerely,

DIVISION OF OIL, GAS, AND MINING

TERRI REID  
CLERK TYPIST