SUBMIT IN TIGPLICATE.

Form approved.

Form 3160-3 (November 1983)	ì	NITED STATES	(0	Ther Instruction		Budget Bureni Explres Augus	n No. 1004-0136		
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8 Point Dril	ling Plan								
13 Point Sur	face Use & O	peration Plan							
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· ·		Plat		н	#8	Production 1	Facility		
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APPHOVED AS AMENDED

SEP 27 1994

NMOCD

DISTRICT MANAGER

*See Instructions On Reverse Side

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

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EIGHT POINT DRILLING PLAN

Attached to Form 3160-3: Application for Permit to Drill: Bonneville Fuels Corporation Scott E. Federal No. 25-13
1500' FSL & 860' FEL Sec 25-T27N-R11W
San Juan County, New Mexico

1. ESTIMATED TOPS: IMPORTANT GEOLOGIC MARKERS:

Ojo Alamo: Surface
Fruitland Sand: 1,715'
Fruitland Coals: 1,780'
Pictured Cliffs: 1,985'

2. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Water: Ojo Alamo Fm.: Occ. Sands: Surface to 1,715'.

Oil: None anticipated.

Gas: Fruitland Sand: 1,715' to 1,780'.
Fruitland Coals: 1,780' to 1,985'.
Pictured Cliffs: 1,985 to 2,100'.

3. MINIMUM SPECS FOR PRESSURE CONTROL:

- a. A diagram of the Blowout Preventer Stack and Choke Manifold is presented in Exhibit 1.
- b. The BOP Equipment will be a class II system consisting of:
 - i. An 8" Nom. double gate hydraulic type ram preventer (2,000 psi Working Pressure min) with pipe rams over blind rams.
 - A 2"(min) x 2,000 psi WP(min) choke manifold and kill line ii. tied into opposite sides of an 8" x 2,000 psi WP (min) drilling spool OR the double-ram preventer below the lowest set of pipe rams. A 2"(min) x 2,000 psi WP(min) Full Opening gate valve will be in-board on both the choke and kill sides. A 2"(min) x 2,000 psi WP FO(min) check valve will be outboard on the kill side. The exterior kill line will be 2"(min) x 2,000 psi WP(min) line pipe out-board of the kill side check valve. An additional 2"(min) x 2,000 psi WP FO(min) gate valve will be up-stream of the choke manifold assembly. The choke manifold will consist of 2"(min) x 2,000 psi WP FO(min) gate valves and line pipe (on the pressure side of the manifold assembly) with a single 2"(min) x 2,000 psi WP FO(min) gate valve (minimum of 1 valve) between the 2"(min) x 2,000 psi WP FO(min) adjustable choke, the 2"(min) x 2,000 psi WP FO(min) positive choke, and the 2"(min) blooey line and the 2"(min) x 2,000 psi WP FO choke manifold line.

3. MINIMUM SFECS FOR PRESSURE CONTROL (CONTINUED):

- b. BOPE (continued):
- iii. A 2,000 psi WP(min) FO safety valve and a 2,000 psi WP(min) dart valve, with drill pipe threads and subs to meet other drill string threads, will be kept on the drill floor after surface casing is set. A 2,000 psi(min) WP Upper kelly valve will be kept on the kelly throughout drilling operations. All valves, and the wrenches to operate these valves, will be maintained on the floor in good order throughout drilling operations.
 - iv. An accumulator with sufficient capacity to operate the BOPE against a 2,000 psi well pressure(min) will be used to operate the BOP system. It shall contain double the fluid capacity calculated to open and close the pipe rams and the blind rams 1 time each, and then close the pipe rams 1 additional time(minimum) and retain accumulator pressure at 200 psig over the pre-charge pressure. The accumulator working pressure shall be 1,500 psi(minimum) with a pre-charge pressure between 700-800 psi. A Nitrogen/Air bottle system shall provide independent (reserve) power to operate the system in the event rig motors must be shut down.
- c. The testing procedures and frequency are as follows:

 ALL of the pressure side BOP Equipment specified in Part b. above will be mippled-up on the surface casing and each component will be hydraulically tested for ten(10) minutes(min) to 1000 psi and five(5) minutes(min) to 300 psi prior to drilling out cement, each 30 days after drill-out, and after any use under pressure. Pipe rams will be operationally checked each 24 hour period, and the blind rams operationally checked each time pipe is pulled from the hole. These pressure tests and function tests will be noted and described on the daily drilling report. After the float collar is drilled out of the surface casing (prior to drilling out the shoe) the surface casing will be pressure tested to 1,000 psi for thirty(30) minutes(min).

4. CASING AND CEMENTING PROGRAM:

Hole Size	Depth	Casing OD	Wgt/Gd/Jt Condition	Cement
12-1/4"	300' HCO/0	8-5/8"	24#, J-55, New/Used// (inspected)	225 sx Class B w/ 2% CaCl2. Circ. to Surface. / 4 3 2 x.
7-7/8"	2100' +70%	5-1/2"	15.5#, J-55 New/Used (inspected)	110 sx Class B Tail w/ Add./ 5x + 190 sx Lite B Lead w/ Add./ 84 x Circ. to Surface.

Mak

5. PROPOSED DRILLING FLUIDS:

A Freshwater Gel Mud System with a shale shaker will be run with mud properties as follows:

WATER MUD WEIGHT VISCOSITY LOSS lb/qal TYPE DEPTH 28-40 sec./qt No Control 8.5-9.5PPG 0-3001 Spud Mud 28-40 sec./qt. 8-20 cc/30 min 300-2100' FGM 8.5-9.3 PPG

6. LOGGING, TESTING, AND CORING PROGRAM:

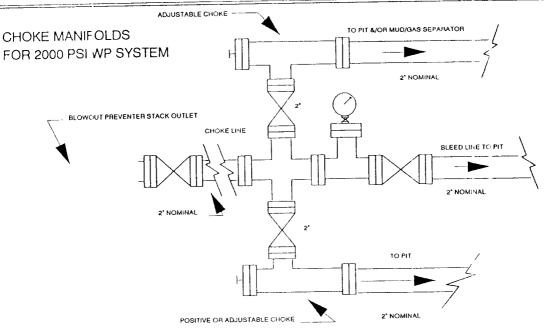
- a. The logging program will consist of:
 - i. DILL/SFL GR/SP (Induction Logs):
 T.D. to Surface Casing.
 - ii. LDT/CNL/ML GR/CAL (Density/Neutron Porosity Logs):
 T.D. to Minimum Footage (1,000' or Surface Casing).
- b. No cores are planned.
- c. No drill stem tests are planned.
- d. Samples will be analyzed on-site by a geologist in order to determine total depth (T.D.) of the well.

7. ABNORMAL CONDITIONS - PRESSURE - TEMPERATURE - POTENTIAL HAZARDS:

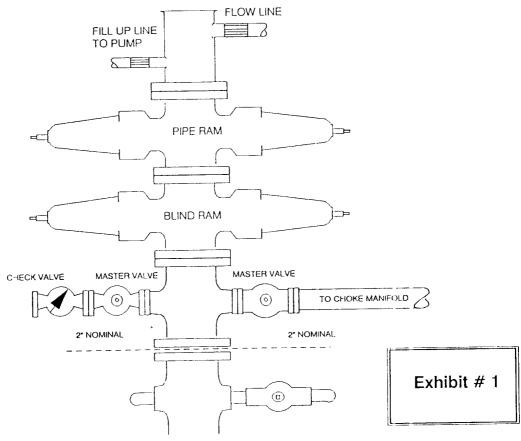
Normal pressures and temperatures are expected in the objective formation. A maximum Pictured Cliffs surface shut-in pressure of 300 psig is anticipated. A maximum bottom hole temperature of 90 degrees Fahrenheit is anticipated. Sour gas (H2S) is not anticipated.

8. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin as soon as APD approval has been granted by BLM. The anticipated spud date is for this well is currently October 1, 1994, subject to rig availability and construction progress. Once commenced, drilling operations should be finished within 4 to 5 days. If the well is productive, an additional 5 days will be required for completion.



MINIMUM BLOW-OUT PREVENTER REQUIREMENTS 8" NOM. STACK 2000 PSI WP



SURFACE USE AND OPERATING - 13 POINT PLAN

Attached to Form 3160-3
Bonneville Fuels Corporation
Scott E. Federal #25-13
1500' FSL & 860' FWL Sec 25 T27N R11W
San Juan County, New Mexico

1. EXISTING ROADS:

- A. The proposed well site elevation (Exhibit #2A) and topographic elevation (Exhibit #2B) plats are attached.
- B. To reach the wellsite, proceed from Bloomfield, New Mexico south on NM Highway #44 approximately 10 miles to GCNM West Kutz Compressor Station. Turn left and proceed 200 yards. Turn right(SE) approximately 1.9 miles. Turn left(NE) and proceed NE approximately 0.7 miles. Turn right and double back SW approximately 700'to the well center stake.
- C. All roads to the location are shown on Exhibit #4. The existing roads described above are adequate for travel during anticipated drilling, completion and production activities. Existing roads will be maintained in accordance with BLM standards for the area.
- D. Existing roads, within a one-mile radius of the well are shown on Exhibit #3.
- E. Existing highways and roads are under State of New Mexico or BLM jurisdiction.

2. PLANNED ACCESS ROADS:

For the drilling and completion of the well, approximately 700' of access road will be constructed as follows:

- A. The maximum width of the running surface of the proposed new access roads will be 14'. The road will be crowned and ditched. Ditches will be cut and back-sloped with a 3:1 slope and be 2 feet wide. Water will be diverted, where possible, to avoid ponding and maintain good drainage. A maximum clearing width of 26' may be required for construction.
- B. The average grade will be 3% or less. The existing access road grade NW of the location averages 8%. Care will be taken maintaining this access.
- C. No turnouts are planned except at the new acess turn and the location.
- D. The drainage design will be consistent with local drainage patterns to minimize erosion and maintain good drainage. Crown and ditching is specified in #2A.
- E. No low water crossing will be needed.

- F. Surfacing material will consist of native surface soil. If this is not sufficient, additional required material (gravel) will be purchased from the dirt contractor.
- G. Gates, cattle guards or fence cuts will be installed if appropriate. Currently, none are anticipated.
- H. The proposed access road as shown in Exhibit #3 has been centerline flagged by High Country Surveys of Farmington, New Mexico. Access road to be constructed is on BLM administered federal lands.

3. LOCATION OF EXISTING WELLS:

For the location of existing wells within a one-mile radius of this well, see Exhibit #3. The wells indicated on Exhibit #3 are all that BFC is aware of at this time.

- A. There is a water well/spring at the Hill Top Store (green x on Exhibit #3) in the W 1/2 of Sec 26-27N-11W.
- B. There are $\underline{\mathbf{3}}$ abandoned producing wells within a one-mile radius.
- C. There is 1 dry hole well within a one-mile radius.
- D. There are no wells proposed to be drilled by BFC within a one-mile radius.
- E. There are 14 producing wells within a one-mile radius.
- F. There are No injection wells within a one-mile radius.
- G. There are <u>No</u> monitoring or observation wells within a one-mile radius.
- H. There are No disposal wells within a one-mile radius.

4. <u>LOCATION OF EXISTING OR PROPOSED FACILITIES IF WELL IS PRODUCTIVE:</u>

- A. If the well is productive, contemplated facilities will be as follows:
 - (1) Production facilities will be located on solid ground of the cut area of drill pad. All BFC facilities will be contained on the well pad.
 - (2) Refer to Exhibit #8 for the proposed production facility schematic.
 - (3) Dependent upon flow test results, a gas separator, 210 bbl tanks and meter house will be required. All flow lines and piping will be installed according to API specifications. Construction material will consist of surface soil. Use of additional materials from outside sources is not anticipated at this time.
 - (4) At this time it is anticipated that the production pipeline will follow the road ROW to the nearest gathering system.
- B. Rehabilitation Plan:

The plan for rehabilitation of the disturbed area no longer needed for production operations after drilling and completion activities are finished is as follows:

- (1) The reserve pit will be backfilled after the contents of the pit are dry. Pit liner (if required) will be appropriately removed and disposed of or buried in place.
- (2) The area of the drill site not needed for production facilities will be recontoured to the natural contour as nearly as possible and revegetated/reseeded along contours. Seed specifications will be determined by BLM.
- D. In the event that production is established, plans for gas gathering lines will be submitted to appropriate governmental agencies for approval.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. Water will be purchased from the Hill Top Store on Hwy. #44 (Sec 26, T27N R11W).
- B. Water will be hauled by tank truck to the drilling site as needed. The access will conform to roads identified on Exhibit #4.
- C. No water well will be drilled on or near this well location.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. No construction materials are anticipated to be needed for drilling the wells or constructing the access roads into the locations. Compacted native soil will be utilized for the drilling sites and access roads.
- B. Native construction materials only may be taken from BLM administered lands.
- C. Native surface soil materials for construction of access roads are anticipated to be sufficient. If necessary, road surface materials (rock, gravel, etc.) will be purchased from the dirt contractor. An appropriate crush will be specified.
- D. Exhibit #4 identifies the access roads. BLM Land is involved.
- E. Exhibits #6A & 6B show proposed cut & fill cross-sections for the location.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Cuttings not retained for evaluation purposes will be discharged into the reserve pit (see Exhibit #5 & #7 for reserve pit location).
- B. Orilling fluids will be contained in steel mud tanks. The reserve pit will contain any excess flow from the well during drilling & cementing operations. The reserve pit will be an earthen pit, approximately 80' x 80' x 10' deep.

- C. Froduced water if any, will be disposed into tanks. Produced oil, although not anticipated, will be collected in tanks. If the volume of oil is sufficient during drilling, it will be trucked from the location. Produced water will be disposed of at an appropriate disposal facility.
- D. A portable chemical toilet will be provided on the location for human waste. This waste will be removed to an approved sewage disposal facility.
- E. Garbage and trash produced during drilling, completion and testing operations will be handled in a trash cage. This garbage will be hauled to an approved disposal site after drilling /completion operations are finished. Water and tailings will be disposed into the reserve pit. No toxic waste/chemicals will be produced by these proposed operations.
- F. After the rig moves out, all materials will be cleaned up and no adverse materials will be left on location. Any dangercus open pit will be fenced during drilling and kept closed until the pit has dried. All pits will be filled and the well site will be leveled and reseeded, this will occur when pits are dry enough to backfill as weather permits. Only that part of pad required for producing facilities will be kept in use. In the event of a dry hole, only an appropriately specified dry hole marker will remain.

8. ANCILLARY FACILITIES:

No air strip, campsite or other facilities will be built during drilling and completion operations at this wellsite.

9. WELL SITE LAYOUT:

- A. Refer to Exhibit #5 & #7 for the Drill Pad layout as staked. Cuts and fills have been indicated per Exhibits #6A & 6B to show the planned cut and fill across the proposed location. Topsoil will be stockpiled at the edge of the location for reclamation & revegetation.
- B. Refer to Exhibit #7 for a planned location diagram of the proposed rig and drilling equipment, reserve pit, and pipe racks. No permanent living facilities are planned. There may be a trailer on site.
- C. The rig orientation, turn-around area, parking area, and access roads are shown in Exhibit #7.
- D. The reserve pit will not be lined unless stipulated by the BLM.

10. PLANS FOR RESTORATION OF SURFACE:

A. Upon completion of the proposed operations, and if the well is to be abandoned, the pit will be backfilled, and the location will be recontoured to as near the original topography as is possible - as soon as the pits have dried enough to support earth moving equipment. The location will

te reseeded. All produced fluids, refuse and sewage will be hauled to an approved disposal site after the drilling and completion operations have concluded.

- B. Revegetation and rehabilitation will be achieved by reseeding after recontouring the site. A seed mixture of native grasses specified by the BLM will be used.
- C. Prior to rig release, the reserve pit will be fenced to prevent livestock or wildlife from being entrapped. The fencing will be maintained until reclamation recontouring commences at the site.
- D. If any oil is on the pits and cannot be immediately removed after operations cease, the pit containing the oil or other adverse substances will be overhead flagged and fenced. The entire location will be inspected for trash and other refuse, and additional clean-up will be done as deemed necessary.
- E. Time to complete rehabilitation depends upon the time necessary for pits to dry. Planting and revegetation should occur by Fall 1995.

11. SURFACE OWNERSHIP:

The surface ownership is Federal, administered by the Bureau of Land Management.

12. OTHER INFORMATION:

A cultural resources survey, CASA Report No. 94-56, has been completed for the proposed site & access road. No significant cultural resources were identified at this proposed site and access road.

13. LESSEE'S AND OPERATOR'S REPRESENTATIVE:

Bonneville Fuels Corporation 1660 Lincoln, Suite 1800 Denver, CO 80264

R. A. Schwering - Senior Engineer

phone: (303) 863-1555 office phone: (303) 278-8020 home

If no answer at above numbers, call
Norm Woods
310 No First St.
Bloomfield, NM 87401
(505) 632-9876

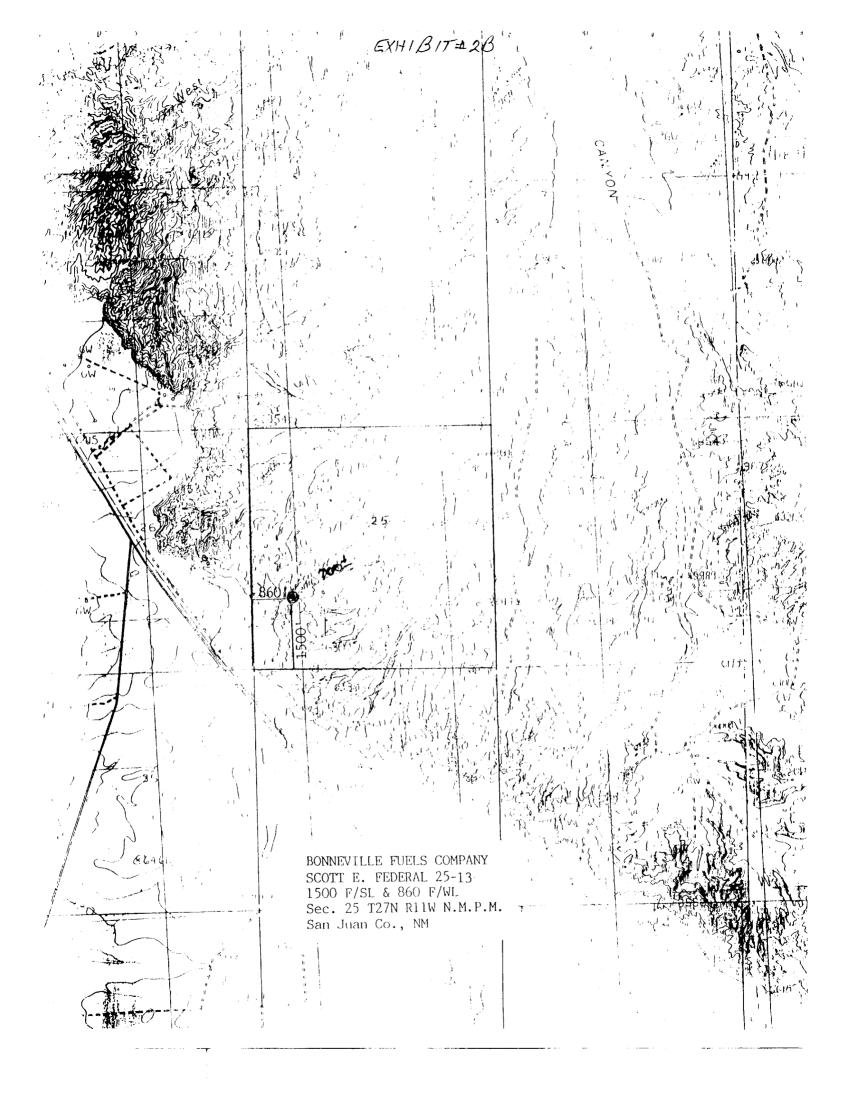
Norm Woods - Production Superintendent

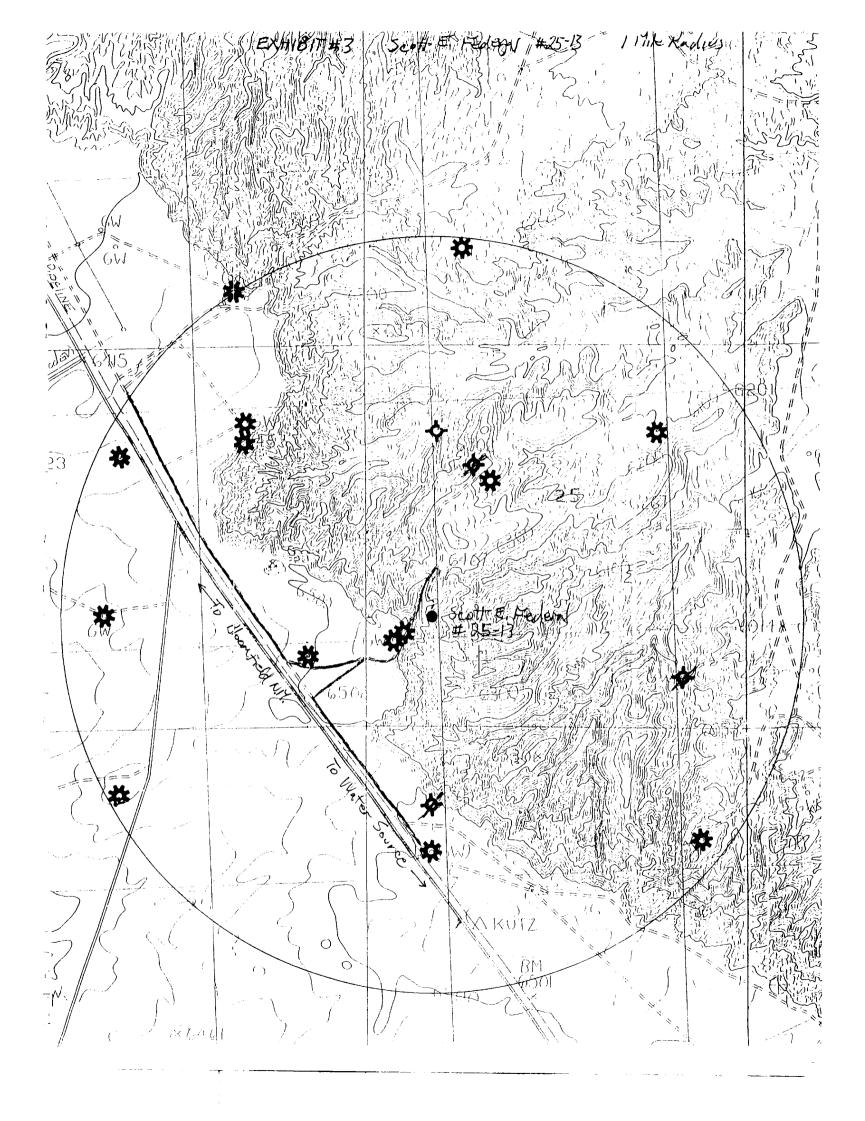
13. CERTIFICATION:

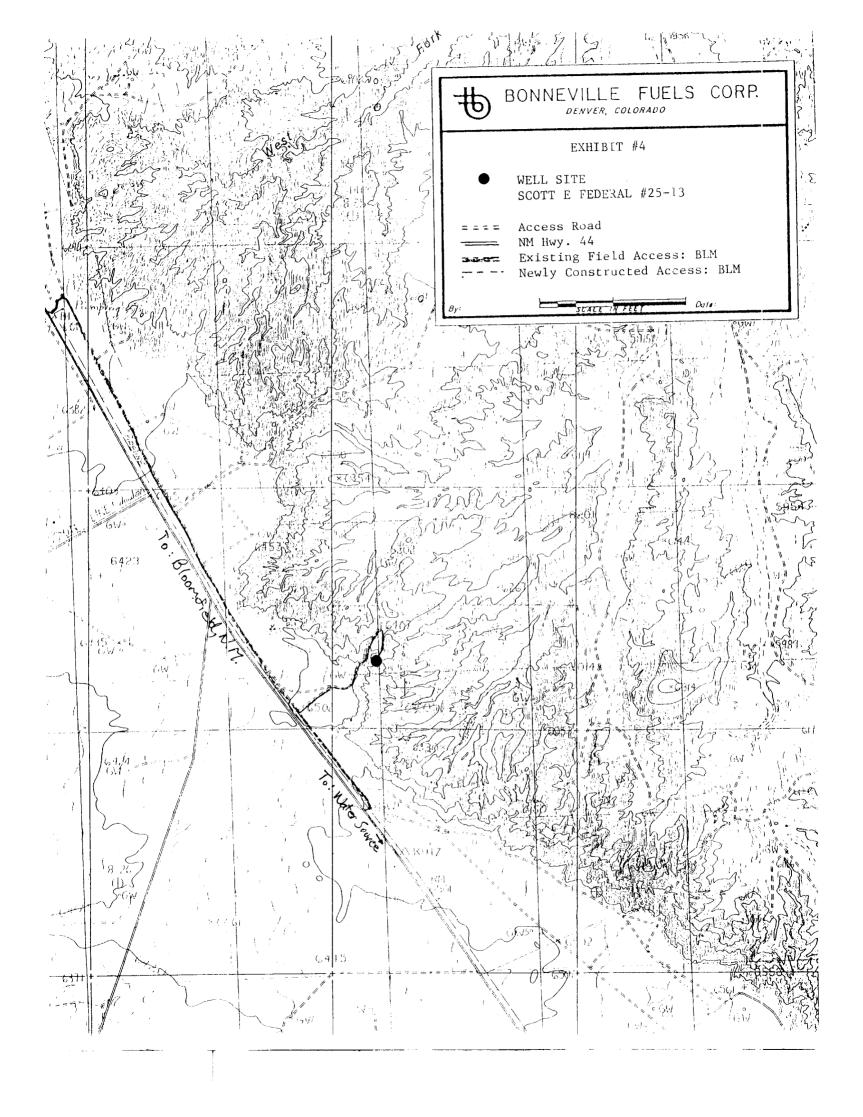
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access routes; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Bonneville Fuels Corporation and its contractors and subcontractors in conformity with this plan and the terms & conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C.1001 for the filing of a false statement.

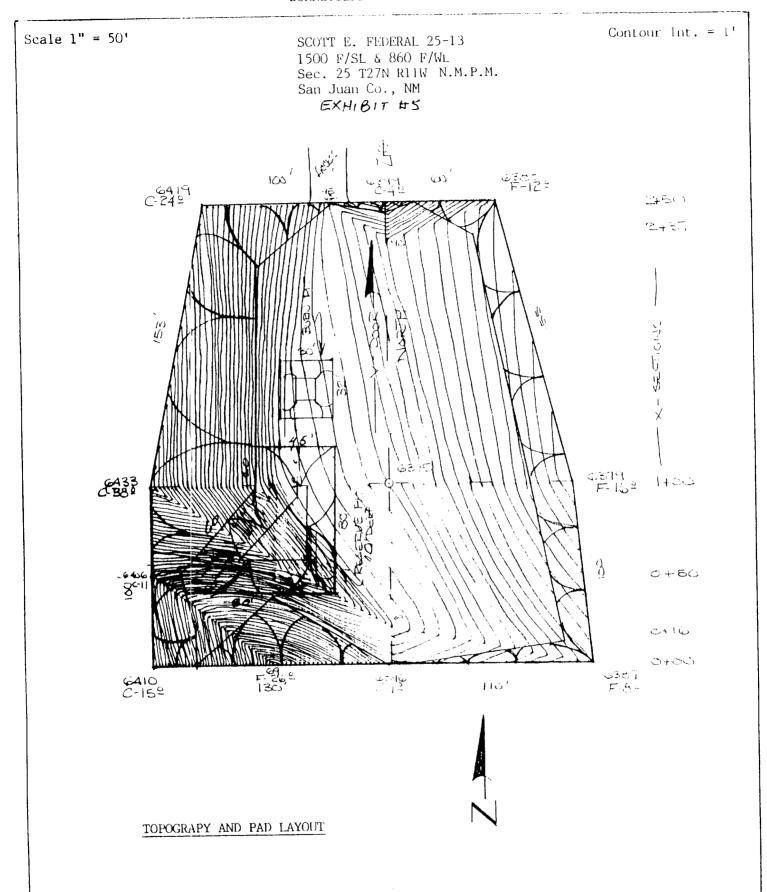
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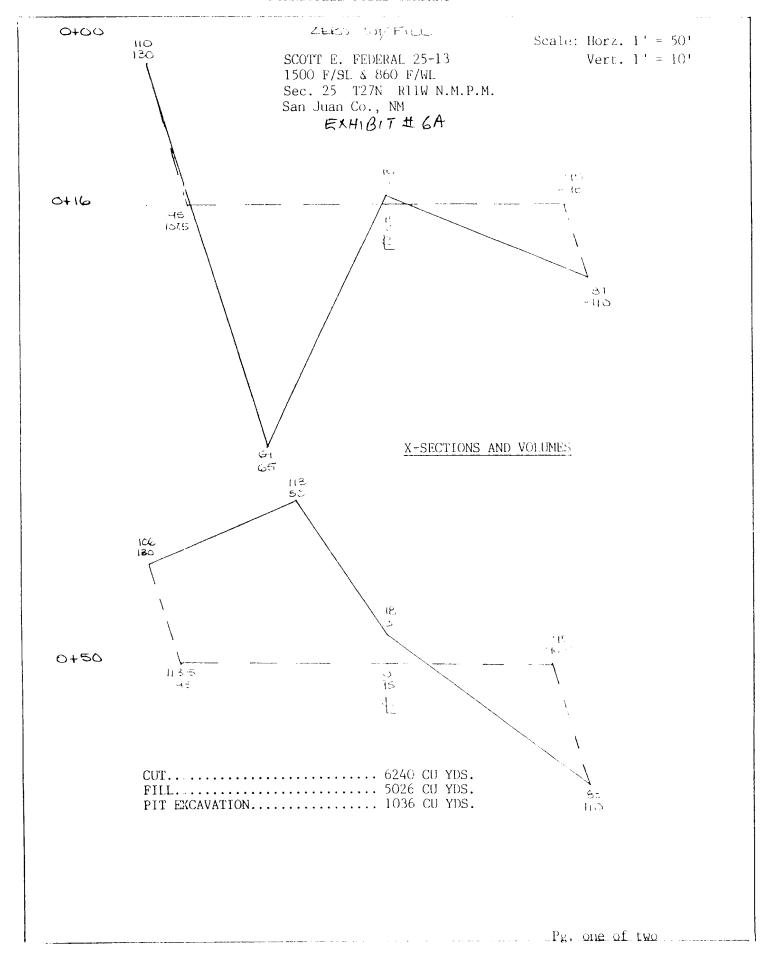
Senior Engineer

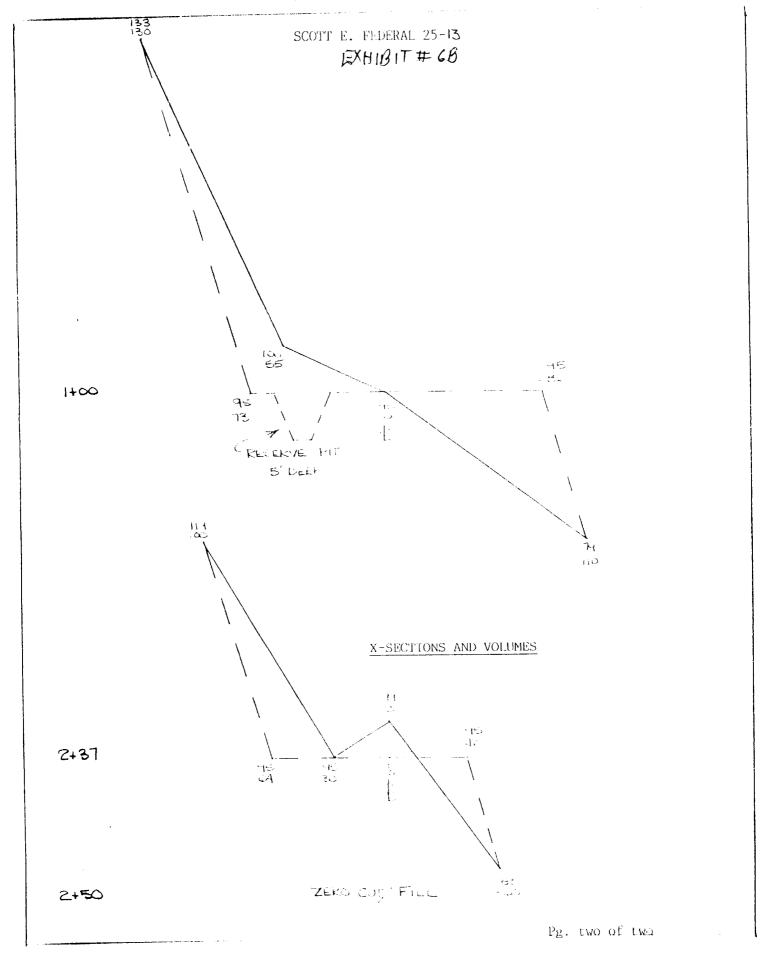












Rig Layout Scott E. Federal 25-13 Road 240' Trailer Ν Cat Walk 45' 253 Dog House/WT Mud tank 80 Reserve Pit Rig Floor 80' Mud Pumps Parking Area Mud Pumps

