FORM APPROVED Form 3160-5 Budget Bureau No. 1004-0135 (December 1989) UNITED STATES DEPARTMENT OF THE INTERIOR Expires, September 30, 1990 BUREAU OF LAND MANAGEMENT 5. Lease Designation and Serial No. SUNDRY NOTICES AND REPORTS ON WELLS Fee Do not use this form for proposals to drill or to deepen or reentry to a different res |6. If Indian, Allottee or Tribe Name Use "APPLICATION FOR PERMIT-" for such proposals SUBMIT IN TRIPLICATE 7. If Unit or CA. Agreement Designatio 1. Type of Well Oil Well Gas Well Other Northeast Blanco Unit 8. Well Name and No. 2. Name of Operator Blackwood & Nichols Co., Ltd. **NEBU 469** 9. API Well No. 3. Address and Telephone No. P.O. Box 1237 Durango, CO 81302-1237 30-045-27285 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 10. Field and Pool, or Exploratory Area UNIT H, 1315' FNL, 645' FEL, Sec. 13, T.30 N., R.8 W. Basin Fruitland Coal 11. County or Parish, State Elev: San Juan, NM CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Abandonment Change of Plans New Construction Notice of Intent Recompletion Non-Routine Racturing Plugging Back Water Shut-Oé중 Subsequent Report Casing Repair Conversion to injection Altering Casing Final Abandonment Notice (Note: Report results of multiple completion or Well-Completion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent dates, including estimated date of starting any proposal well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinem to the Plans are to install a verticle cathodic ground bed on the West side of the NEBU 469 well location. The ground bed will be drilled within the previously disturbed area of the well pad, with a small truck mounted rig. This project is located on Bureau of Reclamation lands. ACCEPTED FOR RECORD FARMINGTON RESOURCE AREA For a more detailed description of the ground bed, see Attachment "A". MAY 1 - 1992 ECE! VE MAY 0 4 1992 FARMINGTON, REN MEXICO OIL CON. DIV. 14. I hereby certify that the foregoing is true and correct Title Operations Engineer Signed (This space for Federal or State office use) Approved by Title Conditions of aproval, if any: 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 Un States any false, fictious or fraudulent statements or representations as to any maner within its jurisdiction. BO111 See Instruction on Reverse Side P-3

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### Attachment A

#### GROUND BED INSTALLATION

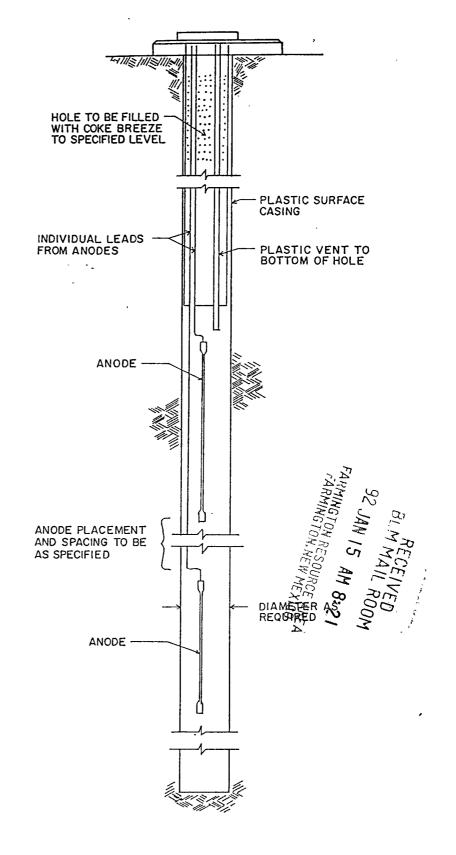
Cathodic ground bed installation will consist of a 7-7/8" diameter hole drilled to approximately 500' deep. Depending on hole conditions, drilling fluid type will be one of the following: air, water, foam or bentonite mud. The top 100' of the 7-7/8" hole will be reamed to approximately 10" to accept 8-5/8" OD schedule 40 PVC pipe. The annular space will be grouted with cement. On locations where steel casing is required to maintain surface bore, PVC casing will be installed through steel casing and annular space filled with cement. See attached diagram.

#### DOWN HOLE MATERIALS

One inch, "Posivent" vent pipe will be installed from bottom of hole to approximately six inches above casing cap. Vent pipe will be perforated from water level to bottom hole with both ends capped. Anode placement will be based on down hole rock type and fluid level. Back fill will be a carbonaceous type material. See diagram.

## **OPERATION**

The cathodic system is designed to prevent casing leaks from external corrosion. This is achieved by impressing a positive current down the ground bed anodes traveling through the rock formations and finally back to the adjacent well bore. A negative cable running from the casing to the rectifier completes the cathodic electrical circuit. After electrical service installation is complete, approximately 15 to 23 amps of +DC power will be impressed down each of the three ground beds. Except for maintenance or ground bed replacement, power will be supplied on a continuous basis throughout the economic life of each well.



# NOTE:

ALL ANODE TAIL WIRES WILL BE PERMANENTLY MARKED AT WELL HEAD

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DEEP ANODE BED
CATHODIC PROTECTION DESIGN
AND INSTALLATION FOR BLACKWOOD & NICHOLS

SCALE NONE DWG. CPS-STD-1

REV.