

#9/30-045-09598

#437/30-045-77169 P-4

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS

NORTHWESTERN NEW MEXICO

(Submit 3 Copies to OCD Aztec Office)

Operator: BLACKWOOD & NICHOLS CO. Location: Unit N, Sec. 12, Twp 30N, Rng 8W.

Name of Well/Wells or Pipeline Served NEBU 437, 9

Elevation 6100' Completion Date 7-2-93 Total Depth 378' Land Type* Surface: F Mineral: SF-078581A

Casing, Sizes, Types & Depths 8-5/8" SCH 40 P.V.C. - 100', 7 7/8" OPEN HOLE

If Casing is cemented, show amounts & types used 20 sks Portland Zia I-II

If Cement or Bentonite Plugs have been placed, show depths & amounts used N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. Fresh water at 170'

Depths gas encountered: N/A

Type & amount of coke breeze used: Asbury recarburized - 107 sx

Depths anodes placed: 185' to 355'

Depths vent pipes placed: 378' to 4' above ground level

Vent pipe perforations: 378' to 98'

Remarks: Groundbed located 221' N 50° W of NEBU 437.

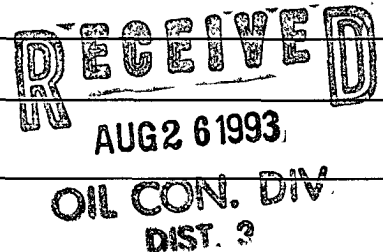
If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.

Signed by: James K. Allen

Title: Operations Engineer

Date: 8/11/93





1115 Farmington Avenue - Farmington , NM 87401
(505) 325-1085

Lab Sample No.: W93-246

Standard A.P.I. Water Analysis Report

Collected By: J. Evans

Company: Blackwood and Nichols Co.

Collection Date: 24-Jul-93

Well Name: P-4

Collection Time: Unknown

Formation: Surface

County: San Juan State: NM

Location: (N) Sec.12-T30-R08

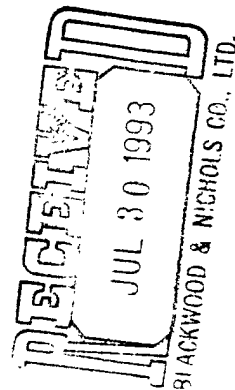
Analyst: K. Lambdin

Karen Lambdin

Remarks: From groundbed at 170 feet.

Analysis Date: 7/28/93

PARAMETER	as ION	Comment	PARAMETER	as ION	Comment
Sodium , Na	<u>300</u> mg/l	calculated	Chloride , Cl	<u>12</u> mg/l	
Potassium, K	<u>10</u> mg/l		Sulfate, SO ₄	<u>2030</u> mg/l	
Calcium , Ca	<u>590</u> mg/l		Hydroxide, OH	<u>0</u> mg/l	
Magnesium , Mg	<u>28</u> mg/l		Carbonate, CO ₃	<u>0</u> mg/l	
Iron, Fe (Total)	<u>0.0</u> mg/l	NR	Bicarbonate, HCO ₃	<u>147</u> mg/l	
Hydrogen Sulfide	<u>0</u> mg/l	<5	Resistivity	<u>3.559</u> ohm-m	
pH	<u>7.22</u> Units		(@25 Degrees C)		
TDS	<u>1,883</u> mg/l		Conductivity	<u>2,810</u> µS	
			Specific Gravity	<u>1.000</u> Units	
			(@ 60 Degrees F)		

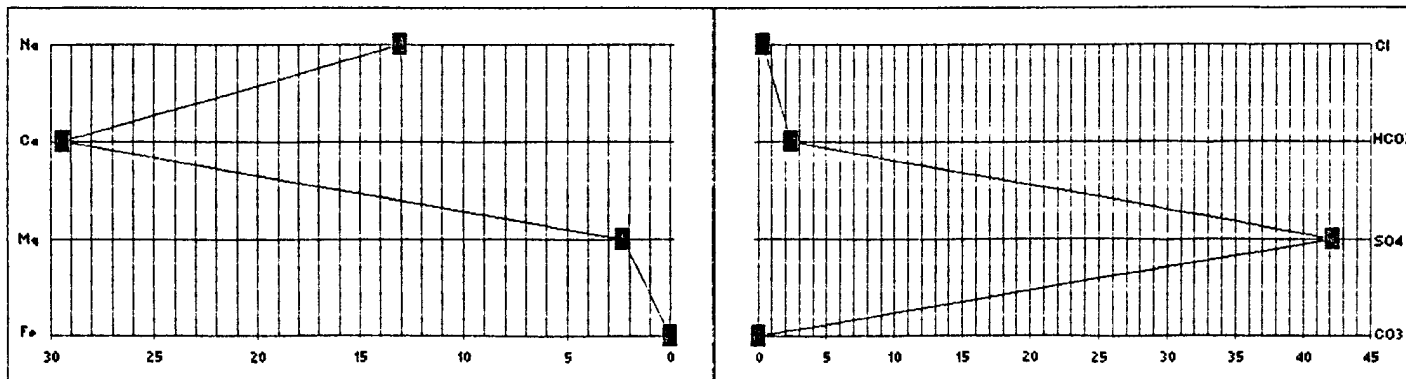


Remarks: None.

NR = Test Not Run

Anion/Cation: 99.8%

Stiff Diagram



Scale: meq/L

BLACKWOOD & NICHOLS CATHODIC GROUND BED DRILLERS REPORT

CP# P4 WELL# NER 43749

S 12 T 5.1 R 21

DEPTH	STRATA	NOTES	DEPTH	STRATA	NOTES
5'					
10'					
15'					
20'					
25'					
30'					
35'					
40'					
45'					
50'					
55'					
60'					
65'					
70'					
75'					
80'					
90'					
95'					
100'					

DRILLER James M. M. M. M.

INSPECTOR J. Mitnick

BLACKWOOD & NICHOLS CATHODIC GROUND BED DRILLERS REPORT

P-4 WELL# NEBU # 437 + #9

S 12 T 30N R86

[illegible]

MILLER

INSPECTOR