

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO
(Submit 3 Copies to OCD Aztec Office)

P-9

4262

Operator: BLACKWOOD & NICHOLS CO. Location: Unit E, Sec. 7, Twp 30N, Rng 7W.

Name of Well/Wells or Pipeline Serviced NEBU 31A

30-045-24449

Elevation 6160' Completion Date 11-23-93 Total Depth 445' Land Type* Surface: F Mineral: SF-079042

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

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. Water at 100'

Depths gas encountered: N/A

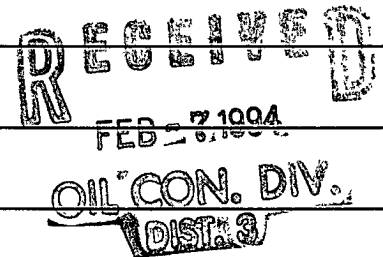
Type & amount of coke breeze used: 115 sx Asbury Flo Coke

Depths anodes placed: 150' - 355'

Depths vent pipes placed: 445' to 4' Above Ground Level

Vent pipe perforations: 125' - 445'

Remarks: Groundbed located 150' N 92° E of NEBU #31A.

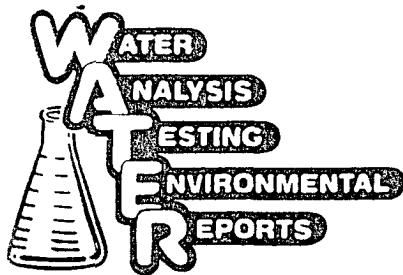


If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*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: 2/3/94



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

Lab Number:

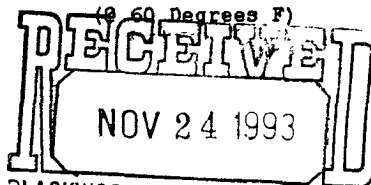
W93-490

Standard A.P.I. Water Analysis Report

Company: BLACKWOOD & NICHOLS CO., LTD. Date Collected: 11/21/93
Well Name: P-9; NEBU #31A Date Received: 11/22/93
Formation: Surface Date Analyzed: 11/23/93
Location: unit E, Sec. 7-T30N-R7W County: San Juan State: New Mexico
Collected By: J. Evans Analyst: Sheila Feltman *Sheila*
Remarks: Groundbed while drilling

PARAMETER	as ION	Comment	PARAMETER	as ION	Comment
Sodium, Na	45	mg/l	Chloride, Cl	14	mg/l
Potassium, K	5	mg/l	Sulfate, SO ₄	930	mg/l
Calcium, Ca	365	mg/l	Hydroxide, OH	0	mg/l
Magnesium, Mg	25	mg/l	Carbonate, CO ₃	0	mg/l
Iron, Fe (Total)	0	mg/l NOT RUN	Bicarbonate, HCO ₃	170	mg/l
Hydrogen Sulfide	0	mg/l <0.1 mg/L	Resistivity	5.495	ohm-m
pH	8.0	units	(@25 Degrees C)		
Total Dissolved Solids:	1,650	mg/l	Conductivity	1,820	us
			Specific Gravity	1.0038	
			(@ 60 Degrees F)		

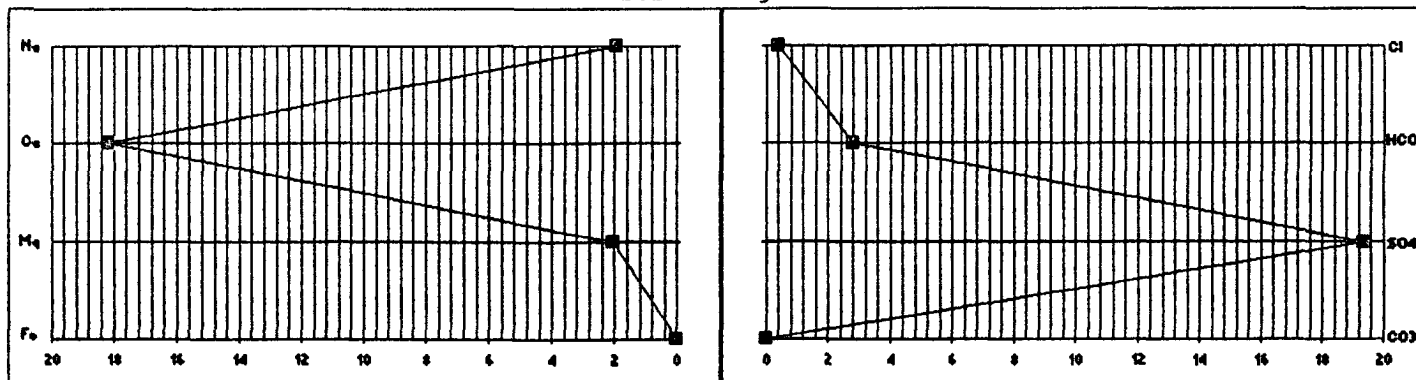
Remarks:



BLACKWOOD & NICHOLS CO. Anion/Cation:

101%

Stiff Diagram



DRILLERS REPORT
CATHODIC GROUND BED

P-74

S 07 T 30 N

29 WELL#NEB4#31A

TH	STRATA	NOTES	DEPTH	STRATA	NOTES
0'	↑				
5'	✓	TOP SOIL			
10'	✓				
15'	✓	BAULDER 10 FT.			
20'					
25'					
30'					
35'					
40'	✓				
45'					
50'		SP			
55'	✓				
60'		S			
65'	✓				
70'					
75'					
80'					
85'					
90'					
95'					
100'	↓				

LER PS

INSPECTOR Joe Matlock

BLACKWOOD & NICHOLS CATHODIC GROUND BED DRILLERS REPORT

WELL# NEBU#31A

S 7 T 30-07

TH	STRATA	NOTES	DEPTH	STRATA	NOTES
9-	Grain				
10-	Sandstone				
11-	Shale				
12-	Shale				
13-	Sandstone				
14-	Shale				
15-	Shale				
16-	Sandstone				
17-	Shale				
18-	Sandstone				
19-	Shale				
20-	Sandstone				
21-	Shale				
22-	Sandstone				
23-	Shale				
24-	Sandstone				
25-	Shale				
26-	Sandstone				
27-	Shale				
28-	Sandstone				
29-	Shale				
30-	Sandstone				
31-	Shale				
32-	Sandstone				
33-	Shale				
34-	Sandstone				
35-	Shale				
36-	Sandstone				
37-	Shale				
38-	Sandstone				
39-	Shale				
40-	Sandstone				
41-	Shale				
42-	Sandstone				
43-	Shale				
44-	Sandstone				
45-	Shale				
46-	Sandstone				
47-	Shale				
48-	Sandstone				
49-	Shale				
50-	Sandstone				
51-	Shale				
52-	Sandstone				
53-	Shale				
54-	Sandstone				
55-	Shale				
56-	Sandstone				
57-	Shale				
58-	Sandstone				
59-	Shale				
60-	Sandstone				
61-	Shale				
62-	Sandstone				
63-	Shale				
64-	Sandstone				
65-	Shale				
66-	Sandstone				
67-	Shale				
68-	Sandstone				
69-	Shale				
70-	Sandstone				
71-	Shale				
72-	Sandstone				
73-	Shale				
74-	Sandstone				
75-	Shale				
76-	Sandstone				
77-	Shale				
78-	Sandstone				
79-	Shale				
80-	Sandstone				
81-	Shale				
82-	Sandstone				
83-	Shale				
84-	Sandstone				
85-	Shale				
86-	Sandstone				
87-	Shale				
88-	Sandstone				
89-	Shale				
90-	Sandstone				
91-	Shale				
92-	Sandstone				
93-	Shale				
94-	Sandstone				
95-	Shale				
96-	Sandstone				
97-	Shale				
98-	Sandstone				
99-	Shale				
100-	Sandstone				

LER PL

INSPECTOR J. E.