

#771 30-039-2123
#421 30-039-24345 SW-11
#421R 30-039-24641
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 P, Sec. 4, Twp 30N, Rng 7W.

Name of Well/Wells or Pipeline Serviced NEBU 421R, 421, 44A

Elevation 6200' Completion Date 7-6-93 Total Depth 317' Land Type* F, Lease No. SF-079043

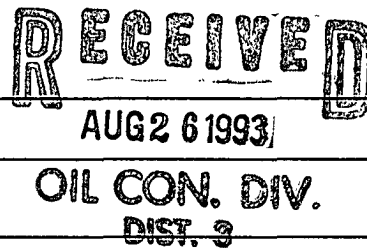
Casing, Sizes, Types & Depths 8-5/8" SCH 40 P.V.C. - 100', 7 7/8" OPEN HOLE

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 155' - 160'



Depths gas encountered: _____

Type & amount of coke breeze used: Asbury, Flo-coke & Loresco SW (80 sks)

Depths anodes placed: 166' - 308'

Depths vent pipes placed: 317' to 4' above ground level

Vent pipe perforations: 112' - 317'

Remarks: Groundbed S 31° East - 701' from NEBU 421R

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.: W93-209

Standard A.P.I. Water Analysis Report

Collected By: J. Evans

Company: Blackwood and Nichols Co.

Collection Date: 6-Jul-93

Well Name: SN - 11

Collection Time: unknown

Formation: Wellbore

County: Unknown State: Unknown

Location: Unknown

Analyst: S. Spencer

Remarks: Depth - 160 feet

Analysis Date: 7/10/93

S. Spencer

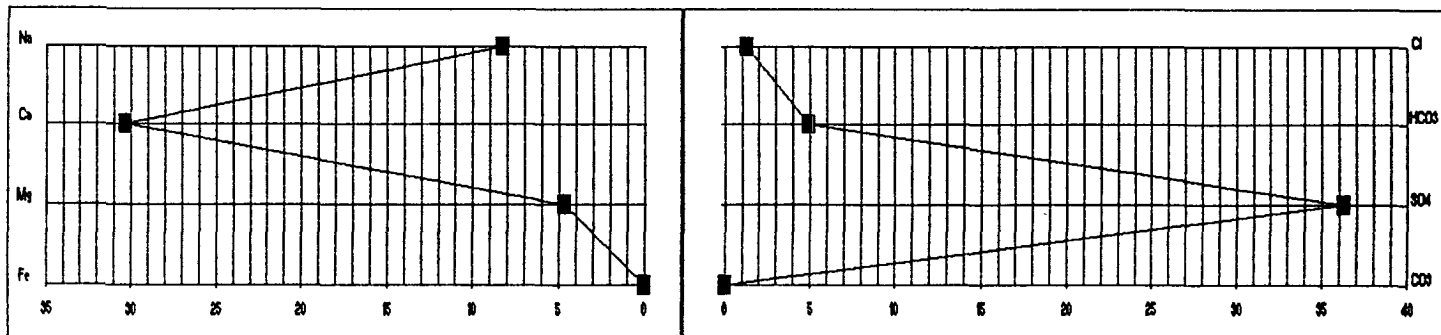
PARAMETER	as ION	Comment	PARAMETER	as ION	Comment
Sodium, Na	<u>190</u> mg/l		Chloride, Cl	<u>45</u> mg/l	
Potassium, K	<u>7</u> mg/l		Sulfate, SO ₄	<u>1744</u> mg/l	
Calcium, Ca	<u>608</u> mg/l		Hydroxide, OH	<u>0</u> mg/l	
Magnesium, Mg	<u>57</u> mg/l		Carbonate, CO ₃	<u>0</u> mg/l	
Iron, Fe (Total)	<u>0.0</u> mg/l	NR	Bicarbonate, HCO ₃	<u>300</u> mg/l	
Hydrogen Sulfide	<u>0</u> mg/l	<1	Resistivity	<u>3.289</u> ohm-m	
pH	<u>7.30</u> Units		(@ 25 Degrees C)		
TDS	<u>2,030</u> mg/l		Conductivity	<u>3,040</u> uS	
			Specific Gravity	<u>1.001</u> Units	
			(@ 60 Degrees F)		

Remarks: None.

NR = Test Not Run

Anion/Cation: 97.7%

Stiff Diagram



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BLACKWOOD & NICHOLS CO., LTD.



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

Lab Sample No.: W93-208

Standard A.P.I. Water Analysis Report

Collected By: J. Evans

Company: Blackwood and Nichols Co.

Collection Date: 6-Jul-93

Well Name: SN - 11

Collection Time: unknown

Formation: Groundbed Wellbore

County: Unknown

State: Unknown

Location: Unknown

Analyst: S. Spencer

Remarks: Depth - 155 feet

Analysis Date: 7/10/93

S. Spencer

PARAMETER	as ION	Comment	PARAMETER	as ION	Comment
Sodium, Na	100	mg/l	Chloride, Cl	11	mg/l
Potassium, K	5	mg/l	Sulfate, SO ₄	752	mg/l
Calcium, Ca	301	mg/l	Hydroxide, OH	0	mg/l
Magnesium, Mg	17	mg/l	Carbonate, CO ₃	0	mg/l
Iron, Fe (Total)	0.0	mg/l NR	Bicarbonate, HCO ₃	240	mg/l
Hydrogen Sulfide	0	mg/l <1	Resistivity	6.215	ohm-m
pH	7.39	Units	(@25 Degrees C)		
TDS	1,074	mg/l	Conductivity	1,609	uS
			Specific Gravity	1.000	Units
			(@ 60 Degrees F)		

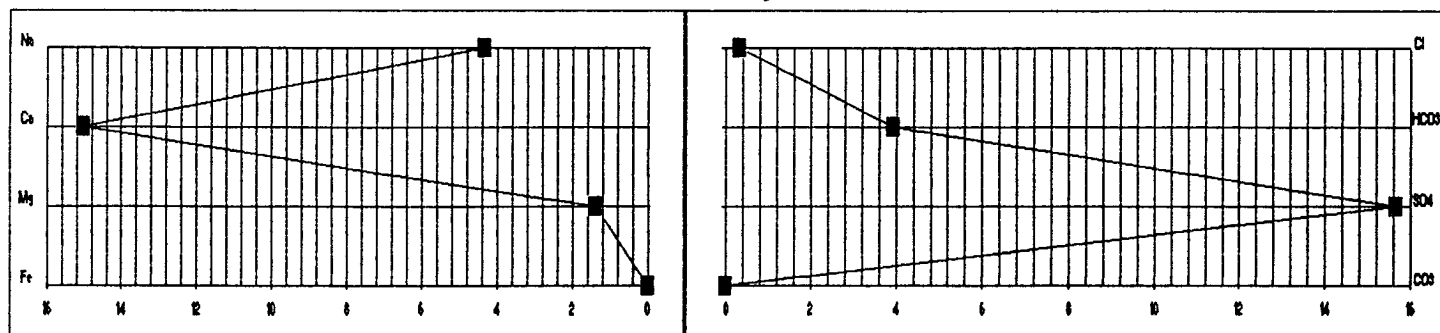
Remarks: None.

NR = Test Not Run

Anion/Cation:

95.2%

Stiff Diagram



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BLACKWOOD & NICHOLS CO., LTD.

BLACKWOOD & NICHOLS CATHODIC GROUND BED DRILLERS REPORT

P# SN-11 WELL# Noby #421, 421R, 448

S 4 T 30 R 07.

[illegible]

RILLER 

INSPECTOR JOHN WONG