



WATER-RIGHT DOCKET

Lake Meredith National Recreation Area

Docket No: 1

BUGBEE NORTH CANYON WELL.

State Water Rights Documentation

08-24-1973: letter to regional director from principal engineer, data and technical review regarding received materials

TEXAS WATER DEVELOPMENT BOARD

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P.O. BOX 13087
CAPITOL STATION
AUSTIN, TEXAS 78711

August 24, 1973

HARRY P. BURLEIGH
EXECUTIVE DIRECTOR

AREA CODE 512
175-2201
RECEIVED
301 WEST 2ND STREET
N.W. SOUTHWEST REGIONAL OFFICE
AUG 31 1973

	How	Info	Initial	Date
D				
DBE=WB				
A				
O				
PS				
PA				
OE				
EA				
2 PS				
3 Water Resources				
(Downtown)				
File				

Mr. F. F. Koweski
Regional Director Southwest Region
National Park Service
P. O. Box 728
Santa Fe, New Mexico 87501

Dear Mr. Koweski:

Thank you for the well schedules (GW-1) with location maps and Chemical Water Analysis Reports (GW-2) and the two each attached laboratory analyses for the Bugbee-North Canyon and the McBride Canyon water wells. The Bugbee-North Canyon well has been assigned Texas State Well Number PJ 06-20-201 and the McBride Canyon well has been assigned Texas State Well Number UU 06-27-401.

We appreciate receiving this material as it will be useful in future groundwater studies.

Sincerely,

C. R. Baskin
Principal Engineer
Data and Technical Review

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GUM O

Southwest Region
P. O. Box 728
Santa Fe, New Mexico 87501

AUG 20 1973

L54-PSN
LAMR/Wtr. Dkt.

File
WR Dordick
Give #

Mr. James R. Wall
Ground Water Division
Texas Water Development Board
Post Office Box 12386
Austin, Texas 78711

Dear Mr. Wall:

Enclosed herewith are the Well Schedules (GW-1) with location maps and Chemical Water Analysis Reports (GW-2) with attached laboratory analyses for the Bugbee-North Canyon well and McBride Canyon well at Lake Meredith Recreation Area. Both wells were drilled in February 1973. You are requested to register and assign a state well number to the Bugbee-North Canyon well (TJ-06-20-2) and the McBride Canyon well (UU-06-27-4).

Your cooperation and assistance in this matter is appreciated. For further information please contact D. M. Aughenbaugh in this office at (505) 982-3801, extension 412.

Sincerely yours,

[Signature] **Donald E. Kowalski**
Regional Director
Southwest Region

Enclosures

cc:
PNW-WASO
Asst. to the Regional Director, Texas
Supt., LAMR, w/o enclosures
PSN-SWR \

DMAughenbaugh:ba 8/16/73

TEXAS WATER DEVELOPMENT BOARD

WELL SCHEDULE

Quartermaster
Aquifer Formation

Field No. _____ State Well No. _____
Owner's Well No. Bugbee-North Canyon County Hutchinson

1. Location: 1/4, 1/4 Sec., Block _____ Survey _____
See attached map
U.S. Government
2. Owner: National Park Service, SWR Address: P.O. Box 728, Santa Fe, NM
Tenant: _____ Address: _____
Driller: Delay & Bechtel Drilling Co. Address: Box 642, Boise City, OK 73933

3. Elevation of Well at ground level is 3114 ft. above msl, determined by D.M. Aughenbaugh

4. Drilled February 1, 19 73; Dug, Cable Tool, Rotary, Rotary
5. Depth: Rept. 212 ft. Meas. 212.0 ft. 20 to 180 Ft.

6. Completion: Open Hole, Straight Wall, Underreamed, Gravel Packed Gravel Packed

7. Pump: Mfr. Beda Pump Type 3 HP Submersible
No. Stages 6, Bore Diam. _____ in., Setting 188.2 ft.

- Column Diam. 2 in., Length Tailpipe 190.0 ft.

8. Motor: Fuel Electric Make & Model Katolight, Phase 3, 37 KW

9. Yield: Flow 27 gpm, Pump _____ gpm, Meas., Rept., Est. Measured

10. Performance Test: Date 3/16/73 Length of Test 24 hr Made by D.M.A.

Static Level 92.5 ft. Pumping Level 64.6 ft. Drawdown 72.1 ft.

Production 27.3 gpm Specific Capacity 0.379 gpm/ft.

11. Water Level: 98.5 ft. 2/7, 19 73 above Top of 6" Dia. Casing which is 1.5 ft. above surface.

94.0 ft. 3/15, 19 73 below Top of 6" Dia. Casing which is 1.5 ft. above surface.

_____ ft. 19 above _____ which is _____ ft. above surface.

_____ ft. 19 below _____ which is _____ ft. below surface.

12. Use: Dom., Stock, Public Supply, Ind., Irr., Waterflooding, Observation, Not Used, Not Used

13. Quality: (Remarks on taste, odor, color, etc.) Tasteless, odorless

Temp. 65 °F, Date sampled for analysis 3/15/73 Laboratory CEP

Temp. 65 °F, Date sampled for analysis 3/16/73 Laboratory CEP

Temp. _____ °F, Date sampled for analysis _____ Laboratory _____

14. Other data available as circled: (Driller's Log, Radioactivity Log, Electric Log)

(Formation Samples) (Pumping Test) (Resistance Log) (Caliper Log) (Fluid Cond. Log)

15. Record by: D. M. Aughenbaugh Date March 16, 19 73

Source of Data Field recorded and calculated

16. Remarks: Bottom portion of hole was sealed with grout (cemented) between bore and steel casing (end of casing was capped at 212 feet).

CASING & BLANK PIPE			
Cemented From <u>0</u> ft. to <u>20</u> ft.			
Diam. (in.)	Type	Setting, ft.	
		from	to
<u>6</u>	<u>Extra Hvy. Steel Welded</u>	<u>-1.5</u>	<u>+212.0</u>

WELL SCREEN			
Screen Openings <u>1/8 x 8-6 rows</u>			
Diam. (in.)	Type	Setting, ft.	
		from	to
<u>6</u>	<u>Slotted</u>	<u>110.0</u>	<u>130.0</u>
<u>6</u>	<u>Slotted</u>	<u>165.0</u>	<u>175.0</u>

CHEMICAL WATER ANALYSIS REPORT

Typewrite (Black ribbon) or Print Plainly
(soft pencil or black ink)
Do not use ball point pen

Texas State Department of Health Laboratories
1100 West 49th Street
Austin 5, Texas

Send report to:

Ground Water Division
Texas Water Development Board
P. O. Box 12386
Austin, Texas 78711

County Hutchinson

State Well No. - -

Well No.

Date Collected 3/16/73

By D. M. Aughenbaugh

Location Bugbee-North Canyon, Lake Meredith Recreation Area, Sanford, Texas

Source (type of well) 6" Dia.-Rotary Owner National Park Service

Date Drilled February 1, 1973 Depth 212.0 ft. WRF Quartermaster Formation

Producing intervals Water level 92.5 ft.

Sampled after pumping 24 hrs. Yield 27.2 GPM meas. Temperature 65 °F

Point of collection Discharge Orifice Appearance Clear

clear - turbid - colored

Use Domestic Remarks For future use as a public and domestic water supply. See attached copies of chemical lab report.

FOR LABORATORY USE ONLY

CHEMICAL ANALYSIS

Laboratory No. Date Received Date Reported

	PPM	EPM		PPM	EPM
Silica	<u> </u>		Carbonate	<u> </u>	<u> </u>
Calcium	<u> </u>	<u> </u>	Bicarbonate	<u> </u>	<u> </u>
Magnesium	<u> </u>	<u> </u>	Sulfate	<u> </u>	<u> </u>
Sodium	<u> </u>	<u> </u>	Chloride	<u> </u>	<u> </u>
	Total	<u> </u>	Fluoride	<u> </u>	<u> </u>
☐ Potassium	<u> </u>		Nitrate	<u> </u>	<u> </u>
☐ Manganese	<u> </u>	%Na <u> </u>	pH	<u> </u>	Total <u> </u>
☐ Boron	<u> </u>	SAR <u> </u>	1/ Dissolved Solids (sum)	<u> </u>	
☐ Total Iron	<u> </u>	RSC <u> </u>	Phenolphthalein Alkalinity as C NaCO_3	<u> </u>	
☐ (other)	<u> </u>		Total Alkalinity as C NaCO_3	<u> </u>	
Specific Conductance (micromhos/cm ³)	<u> </u>		Total Hardness as C NaCO_3	<u> </u>	
Diluted Conductance (micromhos/cm ³)	<u> </u>	x <u> </u>			

☐ " items will be analyzed if checked.

Analyst

Total Iron requires separate sample.

Checked by

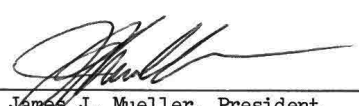
1/ The bicarbonate reported in this analysis is converted by computation (multiplying by 0.4917) to an equivalent amount of carbonate, and the carbonate figure is used in the computation of this sum.

Supporting Hydro Data

CUSTOMER **National Park Service**
 ATTENTION **D. Aughenbaugh**
 ADDRESS **P. O. Box 728**
 CITY **Santa Fe, New Mexico 87501**
 INVOICE NO. **303215**

APR 2 1973

REPORT OF ANALYSIS

SAMPLES RECEIVED 3/20/73		CUSTOMER ORDER NUMBER PX-7000-3-0049
TYPE OF ANALYSIS Water Quality Analysis - 1 sample		
<u>Sample Identification</u>	<u>Analysis</u>	<u>Report Units</u>
Lake Meredith RA	Calcium	214 mg/l
Water sample #4	Chloride	17.4 mg/l
<u>Bugbee North Canyon Well</u>	Color	10 Color Units
Time 4:55pm	Fluoride	2.34 mg/l
Date 3/16/73	Iron	0.15 mg/l
At end of pump test	Magnesium	44.7 mg/l
Water level 166.12	Manganese	0.007 mg/l
Discharge rate 27.3 GPM	Nitrate Nitrogen	1.55 mg/l
	pH	7.5 pH Units
	Phosphate (as Phosphorus)	0.54 mg/l
	Potassium	3.94 mg/l
	Silica (SiO ₂)	11.6 mg/l
	Sodium	67.0 mg/l
	Total Solids	1,284 mg/l
	Sulfate	691 mg/l
	Bicarbonate (CaCO ₃)	118 mg/l
	Carbonate (CaCO ₃)	0.0 mg/l
	Hardness (CaCO ₃)	726 mg/l
	Total Dissolved Solids	1,280 mg/l
APPROVED BY  James J. Mueller, President 3/30/73 PAGE 1 OF 1 PAGE		



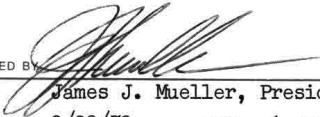
Controls for Environmental Pollution, Inc.

1925 Rosina • P. O. Box 5351 • Santa Fe, New Mexico 87501 • Telephone 505/982-9841

CUSTOMER National Park Service
 ATTENTION D. Aughenbaugh
 ADDRESS P. O. Box 728
 CITY Santa Fe, New Mexico 87501
 INVOICE NO. 303215

APR 2 1973

*Boheto***REPORT OF
ANALYSIS**

SAMPLES RECEIVED 3/20/73		CUSTOMER ORDER NUMBER PX-7000-3-0049	
TYPE OF ANALYSIS Water for Total Dissolved Solids and Sulfates - 1 sample			
<u>Sample Identification</u>	<u>Date Collected</u>	<u>Analysis</u>	<u>mg/l</u>
Lake Meredith RA	3/15/73	Total Dissolved Solids	992
Bugbee North Canyon	8:40 pm	Sulfates	497
Water level 164.0			
Discharge Rate 50 GPM			
3½ hr. in Pump Test			
 APPROVED BY _____ James J. Mueller, President 3/30/73			
PAGE 1 OF 1 PAGE			



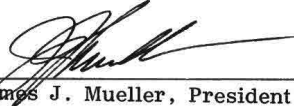
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CUSTOMER National Park Service
 ATTENTION D. Aughenbaugh
 ADDRESS P. O. Box 728
 CITY Santa Fe, New Mexico 87501
 INVOICE NO. 302130

FEB 21 1973

REPORT OF ANALYSIS

SAMPLES RECEIVED 2/16/73		CUSTOMER ORDER NUMBER	
TYPE OF ANALYSIS Water for Total Dissolved Solids and Sulfates - 1 Sample			
<u>Sample Identification</u>	<u>Date Collected</u>	<u>Analysis</u>	<u>mg/l</u>
Bugbee North Canyon	02/09/73	Total Dissolved Solids	380
		Sulfates	144
<u>Lake Meredith NRA</u> <u>well</u>			
<i>Carol</i> <i>File in</i> <i>control file</i> <i>on test well</i> <i>analysis</i> <i>+ 1 copy</i> <i>with report</i>			
APPROVED BY  James J. Mueller, President 2/19/73 PAGE 1 OF 1 PAGE			



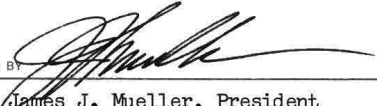
Controls for Environmental Pollution, Inc.

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CUSTOMER National Park Services
 ATTENTION D. Aughenbaugh
 ADDRESS P. O. Box 728
 CITY Santa Fe, New Mexico 87501
 INVOICE NO. 302066

FEB 13 1973

REPORT OF ANALYSIS

SAMPLES RECEIVED <u>2/6/73</u>		CUSTOMER ORDER NUMBER
TYPE OF ANALYSIS <u>Water for Total Dissolved Solids and Sulfate</u>		
<u>Sample Identification</u>	<u>Analysis</u>	<u>mg/l</u>
Bugbee #1 160' 2/2/73	Total Dissolved Solids	2072
	Sulfates	1162
Bugbee #1 195' 2/2/73	Total Dissolved Solids	3484
	Sulfates	1862
Telephoned in on 2/8/73.		
<u>Lake Meredith NRA</u> <u>Bugbee/North Canyon well</u>		
<i>last w/ h.3AR</i> <i>File</i> <i>contact file</i> <i>to wtr.</i> <i>to Duck Creek file</i>		
APPROVED BY  James J. Mueller, President 2/9/73		
PAGE 1 OF 1 PAGE		



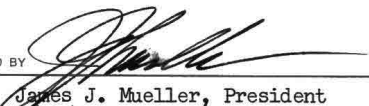
Controls for Environmental Pollution, Inc.

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CUSTOMER National Park Services
 ATTENTION D. Aughenbaugh
 ADDRESS P. O. Box 728
 CITY Santa Fe, New Mexico 87501
 INVOICE NO. 301174

FEB 2 1973

REPORT OF ANALYSIS

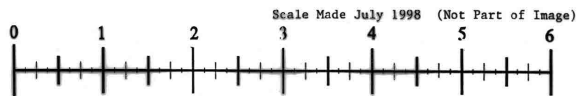
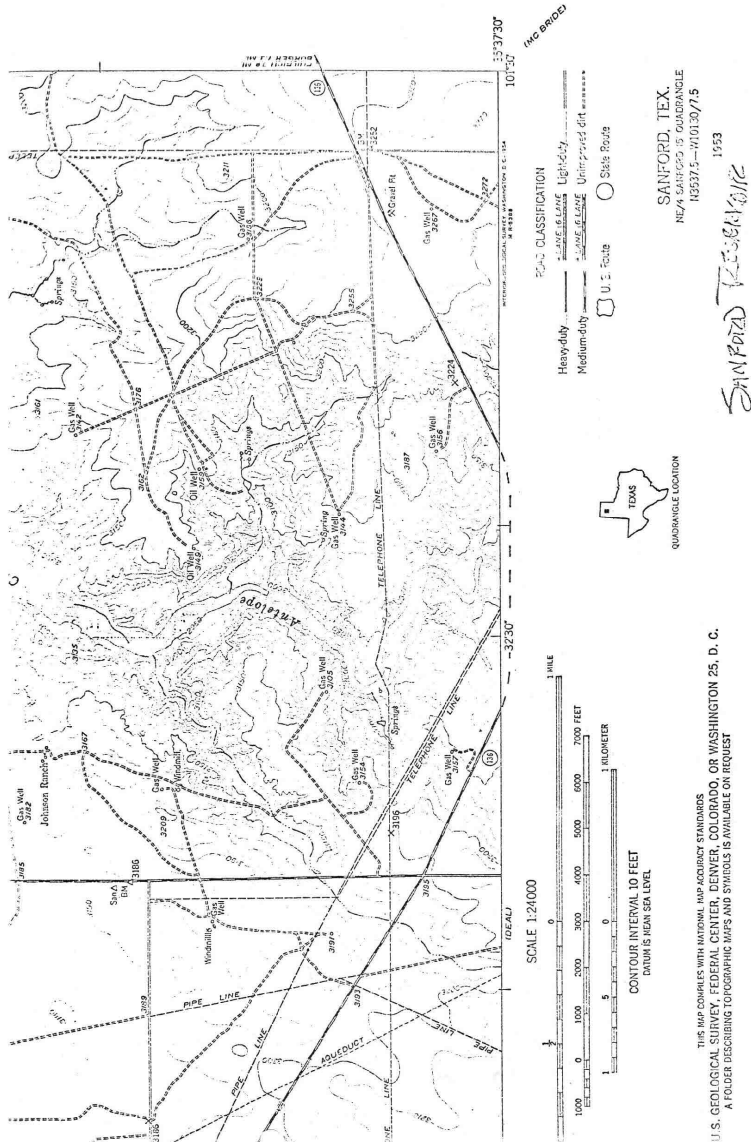
SAMPLES RECEIVED 1/29/73		CUSTOMER ORDER NUMBER
TYPE OF ANALYSIS Water Quality Analysis - 2 samples		
<u>Sample Identification</u>	<u>Analysis</u>	<u>mg/l</u>
January 25, 1973	Total Dissolved Solids	900
Lake Meredith NCA	Sulfate	232
— Bugbee/North Canyon	Chloride	247
Drelling water to bore	Hardness (as CaCO ₃)	214
	Conductivity	138 ⁰ uMHOS
January 25, 1973	Total Dissolved Solids	704
Lake Meredith NRC	Sulfate	248
— Bugbee/ North Canyon	Chloride	219
Sample at 64 feet	Hardness (as CaCO ₃)	120
	Conductivity	1350 uMHOS
APPROVED BY  James J. Mueller, President 1/31/73 PAGE 1 OF 1 PAGE		

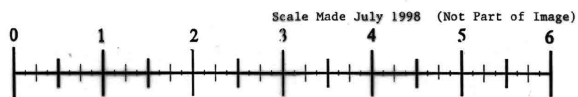
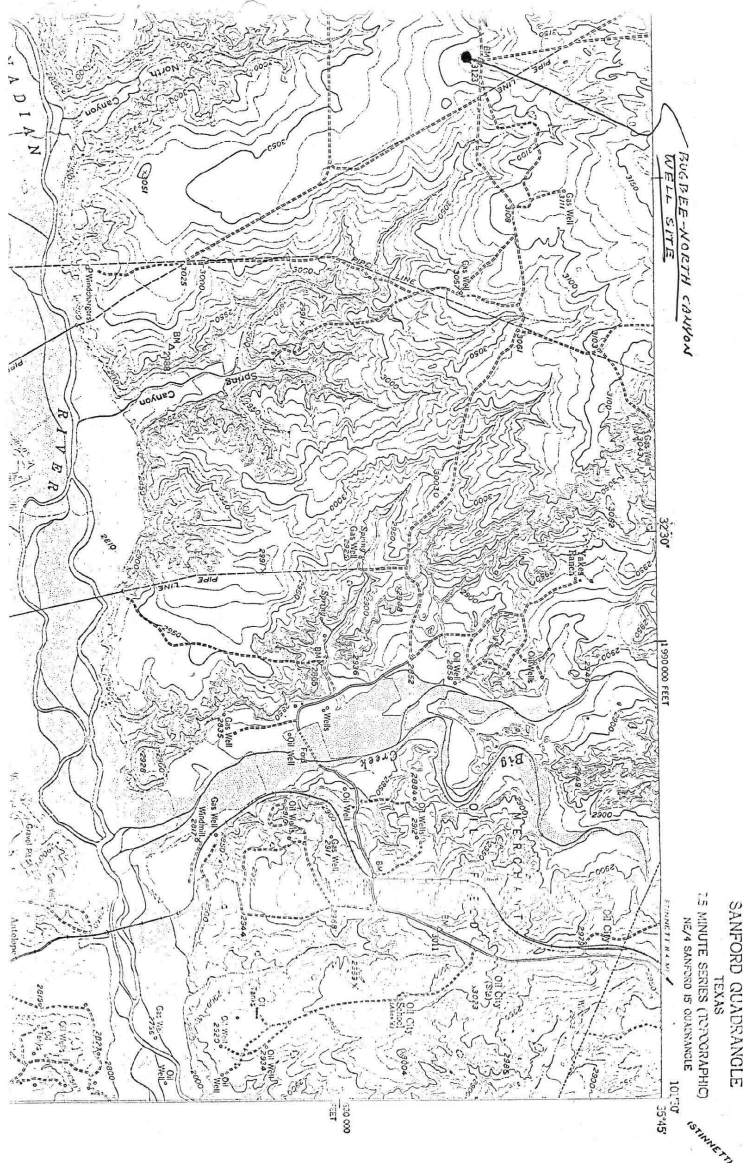


Controls for Environmental Pollution, Inc.

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Maps and Miscellaneous Information





Docket Information

Number of Documents in Docket 11

Documents Dated from 2/2/1973 to 8/24/1973

Docket Compiled: 4/21/2011