

STATE OF OREGON
STATE ENGINEER
WATER RESOURCES DEPARTMENT
SALEM

REFER TO
FILE NO. _____

June 15, 1960

Margaret L. Steere
Geologist
Portland State Office Building
Portland, Oregon

Dear Madam:

Following your telephone conversation with Jack Sceva of yesterday morning, June 14, 1960, Jack asked me to relate to you my latest observation of the Crump hot water well in Lake County, Oregon.

I visited the well site on May 19, 1960 and found that the well does not erupt in a continuous column of steam and water as it has in the past. I timed both the eruption and quiet phases of the well for about 40 minutes and found that the well erupted for approximately 20 seconds and reached a height of 60 feet. Upon reaching the maximum height the column quickly falls away and the well goes into an inactive period. A small amount of steam clouds the well at ground surface during this phase which lasts for about 2 minutes and 5 seconds. The steam rolls gently out of the well and does not appear to be under pressure.

Mr. Chris Wheeler of this office had visited the well a few days earlier on Monday, May 16. At that time the well was active for 35 seconds and reached about the same height, 50 to 60 feet. The active period was 1 minute and 30 seconds in duration. Mr. Wheeler reports that the water column fell rapidly to a height of about 10 feet at which point the decay rate was reduced and the column then declined more slowly.

Mr. Crump told me that he had first noticed the change in the wells behavior only one week prior to my visit. Mr. Petska of this office collected a water sample from the Crump well on April 4, 1960, and at that time the well was flowing at a constant rate; however, the quantity of water was diminished and the height of the eruption was again approximately 60 feet. This reduction in flow was thought to be caused by rocks which were reportedly thrown into the well by vandals. I estimate that the well is now producing about 100 gallons per minute.

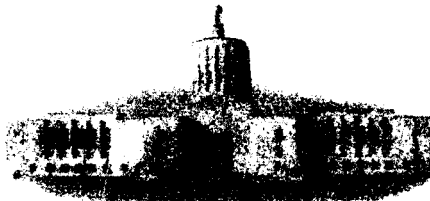
Please find enclosed a copy of Spies letter to Mr. Stanley and a laboratory report form describing the chemical content of the recent water sample. You will notice that the arsenic content of the water has raised from .5 PPM, August 1959, to 1.4 PPM, April 1960. The public health service standards set a limit of .05 PPM for arsenic content for drinking water. We would be pleased to furnish you with any additional information that may be collected in the future.

Very truly yours,

LEWIS A. STANLEY
State Engineer

By *Wm. S. Bartholomew*
Wm. S. Bartholomew
Geologist

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STATE OF OREGON
 OREGON STATE SANITARY AUTHORITY

A DIVISION OF THE OREGON STATE BOARD OF HEALTH
 STATE OFFICE BUILDING
 1400 S. W. 5TH AVENUE
 PORTLAND 1

May 6, 1960

MAILING ADDRESS:
 P. O. BOX 231
 PORTLAND 7, OREGON
 TELEPHONE:
 CA 6-2181

RECEIVED
 MAY 10 1960

STATE ENGINEER

Mr. Lewis A. Stanley
 State Engineer
 Room 251
 170 - 12th Street, S.E.
 Salem, Oregon

Re: Chemical Analysis
Crump Geyser, Warner Valley

Dear Mr. Stanley:

Results of the chemical analyses made by our laboratory of the sample which you submitted recently from the Crump Geyser located in Warner Valley of Lake County, Oregon, are as follows: (All results except for pH are expressed in parts per million or milligrams per liter.)

Arsenic	1.4	pH	8.81
Sulfate (SO ₄)	24.4	Total Alkalinity (CaCO ₃)	113.0
Chloride (Cl ⁻)	252.0	Hardness (CaCO ₃)	51.6
Phosphate (PO ₄)	1.37	Calcium	14.8
Ammonia Nitrogen (N)	.63	Iron	.05
Total solids	444	Magnesium	3.57
Suspended solids	29	Manganese	0.11
Turbidity	16	Nitrates	.24
Color	4	Nitrites	.072

Very truly yours,

Kenneth H. Spies

Kenneth H. Spies
 Deputy State Sanitary Engineer

KHS:cw

cc: T. M. Gerow