

DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

CONSERVATION WAREHOUSE

115 E STREET

SACRAMENTO, CALIFORNIA 95814



September 14, 1973

Mr. Frank Metcalfe
P. O. Box 637
Novato, CA 94947

Dear Frank:

Preliminary results from the sample I collected at Kelley Hot Springs are given below. I will give you the results from the laboratory analysis when they are available.

Kelley Hot Spring, Modoc County, California
NE $\frac{1}{4}$, NW $\frac{1}{4}$, sec. 29, T. 42N., R. 10E., M. D. B. & M.

Sample: #15MR73

Collected: July 23, 1973

Collector: M. Reed

Flow Rate: 1250 l/min

Temperature 91.5°C

pH: 8.08 @ 91.5°C

Specific Conductance 2.77 mmho/cm @ 91.5°C
(equivalent NaCl = 510 ppm.)

HCO $_3^-$ 45.4 ppm

CO $_3^{=}$.6 ppm

CO $_2$ (aq) .4 ppm

Sincerely,

Marshall Reed

Marshall Reed
Assistant Geothermal Officer

Chemical analysis Kelley Hot Springs

(results in ppm except pH and Spec. Conductance)

<u>Authority</u>	<u>California</u> <u>Water Resources Div.</u>	<u>U.S.G.S.</u>	<u>U.S.G.S.</u>
Date (collected)	8-21-57	10-30-57	10-11-60
Silica	106	127	111
Al	--	.20	<1.7*
Fe	--	.00	<1.1*
Mn	--	.00	<2*
Cu	--	.00	<2*
Pb	--	.00	<1.1*
As	--	.07	--
Ti	--	.01	< .6*
Ca	21	23	23
Mg	0.4	1.9	0
Na	232	231	244
K	6.8	6.4	6.2
Li	--	.0	--
NH ₄	--	.1	--
HCO ₃	49	28	50
CO ₃	0	18	0
SO ₄	297	294	290
Cl	161	161	182
F	4.4	2.5	3.6
Br	--	.2	--
I	--	.1	--
NO ₂	--	.00	--
NO ₃	1.8	.00	.9
PO ₄	--	.18	--
B	3.7	3.9	7.9
Sp. Cond.	1240	1300	1330
pH	7.4	8.6	7.9
TDS sum	--	883	--
TDS residue	858	914	--
Sr	--	.0	--

*spectrographic analysis