

SPECTROGRAPHIC ANALYSIS

LAB. NO.

43534

Source: Big Sur/^(Slates) Hot Springs (Men's bath)
 Location: S of Monterey
 21S/3E-9K1

County: Monterey
 Temp.: 116 °F
 pH: 9.-
 Coll. by: Berkstresser
 Agency: DWR-USGS Coop.
 Date: 5-10-63
 Inv: Springs of California
 W.O.:

Sample No.:
 Gk Disch: 40t, gpm
 DO:

Drain. Basin:
 Pt. of Coll: Disch. at spring

Geomorphic type:

Well data: Owner: Mrs. Vinnie Murphey

Appear: Clear
 Remarks:

Use: Resort

(Quantitative results in micrograms per liter except as indicated)

Aluminum (Al) <u>18</u>	Copper (Cu) <u>< 1.2</u>	Nickel (Ni) <u>1.2</u>
Antimony (Sb) _____	Gallium (Ga) <u>5.0</u>	Rubidium (Rb) _____
Barium (Ba) _____	Germanium (Ge) <u>5.0</u>	Silver (Ag) _____
Beryllium (Be) <u>< 0.50</u>	Iron (Fe) <u>6.5</u>	Strontium (Sr) _____
Bismuth (Bi) <u>< 0.25</u>	Lanthanum (La) _____	Thorium (Th) _____
Cadmium (Cd) <u>< 1.2</u>	Lead (Pb) <u>< 1.2</u>	Tin (Sn) _____
Cerium (Ce) _____	Lithium (Li) _____	Titanium (Ti) <u>< 0.50</u>
Cesium (Cs) _____	Manganese (Mn) <u>< 1.2</u>	Vanadium (V) <u>< 0.25</u>
Chromium (Cr) <u>< 1.2</u>	Molybdenum (Mo) <u>< 1.2</u>	Zinc (Zn) <u>< 5.0</u>
Cobalt (Co) <u>≤ 1.2</u>		

QUANTITATIVE ANALYSIS:

- > more than the amount indicated.
- < less than the amount indicated.
- ≈ equal to, but slightly more than the amount indicated.
- ≅ equal to, but slightly less than the amount indicated.

SEMI-QUANTITATIVE ANALYSIS:

- X = 1,000 to 9,000 micrograms per liter.
- .X = 100 to 900 micrograms per liter.
- .0X = 10 to 90 micrograms per liter.
- .00X = 1 to 9 micrograms per liter.

QUALITATIVE ANALYSIS:

- X present in sample
- O not present in sample

NOTES:

ANALYST Virgil H. Stone
 DATE Oct. 9, 1963

WATER

LAB. NO. 41338

Monterey Loc. No: 21S/3E-9KA
Region:
Springs of California
Big Sur (Slates) Hot Springs S. of Monterey

WELL DATA

Type : Spring
Depth : Ft.
Cased : Ft.
Gravel packed:
Use :
Owner : Mrs Winnie Murphy
Remarks : Mike
PH : 9.1

Ap. Pt. : Disch. into tub.

copy to Dennis Murphy, Big Sur Hot Spr., Big Sur, Ca

Time : (122°F)
Temp. : 50°C
Agency : DWR-USGS Coop.
Remarks : Clear
Disch. : 25-30 ppm est.
Coll. : Berkstresser
9/20/62 PST

CALCIUM 100 ml
10.25
9.50
0.75
MAGNESIUM
epm TH 0.16
epm Ca 0.15
epm Mg 0.01

F 4.00
Ca ppm 3.0
Mg ppm 0.1

ALKALINITY
HCO₃ 57 50 ml CO₃ 13
13.90 3.50 13.90 10.40
9.75 0.65 10.40 9.75
4.15 2.85 3.50 0.65

TOTAL ALKALINITY as CO₃ 4.1
as HCO₃ 8.3 as CaCO₃ 6.8

NITRATE 10 ml
ml Ag₂SO₄ 0.0
A 1.470 mg.30
Factor 2.041
A sample 0.035
BORON 5 ml
A 1.115 mg.01
Factor 1.794
A sample 0.220

NO₃ ppm 0.7
B ppm 0.4

PH 9.0
COLOR 0.00
TURB 0.01
% E 3.05
epm Ca 0.15
epm Mg 0.01
epm Sr 0.00
epm Na 2.87
epm K 0.01
epm Li 0.01
Sum 3.03

epm
0.43 CO₃
0.93 HCO₃
1.23 SO₄
0.23 Cl
0.15 F
0.01 NO₃
Sum 3.03

Δ 0.02
Σ 6.08
3.536 x 2.87
SAR = 10

SILICA 2 ml
A 0.700 mg.10
Factor 71.43
A sample 0.905
IRON(dis) 50 ml
A 2.06 mg.15
Factor 1.456
A sample 0.00
IRON(total) ml
A mg
Factor
A sample

SiO₂ ppm 65
Fe ppm 0.00
SODIUM 0 dil
Sample 81.5 %T
Curve 100
Na ppm 66
POTASSIUM 0 dil
Sample 8 %T
K ppm 0.4

SULFATE 10 ml
7.80
1.80
3.00
0.05
2.95
CHLORIDE 50 ml
1 ml = 0.5 mg Cl
2.65
1.53
1.15
0.10
1.05
FLUORIDE 10 ml
Distilled
0.0
Corr. ml 0.465
0.7-2 0.605
0.0.3 0.442
mg Std

SO₄ ppm 55
Cl ppm 10
F ppm 2.9

SUM 249
T/A 0.34
DISSOLVED SOLIDS ml
HARDNESS 50 ml
as CaCO₃
11.00
10.60
0.40
erd
Total 3
HCO₃ (0.82) 13
Non-Carb 0
% Na 94
SPECIFIC CONDUCTANCE
R (KCl) 331
R sample 1,077
Micromhos at 25°C 307

NH₄ Qual Negative
Lithium ml
Sample 15% T
Li ppm 0.06
Strontium ml
Sample 2.0% T
Sr ppm 0.2

UNPUBLISHED RECORDS SUBJECT TO REVISION

WATER

LAB. NO. 42234

Monterey

Loc. No: 21S/3E-9K3

WELL DATA

Region: Springs of California

Region:

Type :

Drilled:

Depth :

Ft.

Dia. :

In.

Cased :

Ft.

Perf. :

Gravel packed:

Use :

Resort

Owner :

Mrs. Winnie Murphy

Remarks :

S. of Monterey, California. Big Sur Hot Springs (Slates Hot Springs)

Water-bearing form: Pleist terrace depts.

Catchment trough. Upper Cret. Marine Seds.

Temperature :

Disch. : 40 gpm flow meter

Temp. : 116 °F.

Coll. : Berkstresser

Agency : DWR-USGS Coop.

1/18/63

Remarks : Clear, v. sl. yellow.

CALCIUM 100 ml
19.20
18.60
0.60

MAGNESIUM
epm TH 0.12
epm Ca 0.12
epm Mg 0.00

SILICA 2 ml
A 0.635 mg/10
Factor 72.99
A sample 0.835
SiO₂ ppm 61

IRON (dis) ml
A mg
Factor
A sample
Fe ppm

IRON (total) 50 ml
A 2.000 mg/15
Factor 1,500
A sample 0.055
Fe ppm 0.08

F 4.00 2.4
Ca ppm 2.4

Mg ppm 0.0

SODIUM 112 dil
Sample 54.0 %T
Curve 100 32.0 x 2
Na ppm 64

POTASSIUM 0 dil
Sample 13 %T
K ppm 0.9

ALKALINITY
HCO₃ 27 50 ml CO₃ 30
32.30 3.90 32.30 28.40
26.85 1.55 28.40 26.85
5.45 1.35 3.90 1.55

TOTAL ALKALINITY as CO₃ 54
as HCO₃ 109 as CaCO₃ 89

SULFATE 10 ml
12.20
10.00
2.20
0.95
2.15
SO₄ ppm 43

CHLORIDE 50 ml
1 ml = 0.5 mg Cl
15.30
14.00
1.30
0.10
1.20
Cl ppm 12

FLUORIDE 10 ml
A sample 0.355
0.025 std 0.475
0.03 std 0.330
Borr. ml
140
165
mg Std
F ppm 2.8

NITRATE 10 ml
ml Ag₂SO₄ 0.0
A 1.460 mg/30
Factor 20.55
A sample 0.015
NO₃ ppm 0.3

BORON ml
A 1.015 mg/01
Factor 6.970
A sample 0.170
B ppm 0.3

SUM 241
T/A H 0.33
DISSOLVED SOLIDS ml
D.S. ppm

HARDNESS 100 ml
as CaCO₃
0.60
0.00
0.60
Total 6
HCO₃ (0.82) 89
Non-Carb 0

% Na 95
SPECIFIC CONDUCTANCE
R (KCl) 325
R sample 1092
Micromhos at 25 °C 298

pH 9.4
COLOR
TURB
% E +1.6

epm
0.12 Ca
0.00 Mg
0.00 Sp
2.78 Na
0.02 K
0.00 Li
2.92
Sum

NHA qual. positive weak

Lithium ml
Sample 12.5%T
0-1
Li ppm 0.00

Strontium ml
Sample 0.0
Sr ppm 0.0

Δ +0.09
Σ 5.75
4.032 x 2.78
SAR = 11

UNPUBLISHED RECORDS SUBJECT TO DECLASSIFICATION

Monterey Bay Analytical Services
 121 Hitchcock Canyon Rd., Carmel Valley, CA 93924
 (831) 659-7538

ELAP Certification Number: 2385

Esalen Institute
 Hwy 1
 Big Sur, CA 93920
 Attn: Dave Nelson

Reporting Date 4/20/02
 Laboratory # 6714
 Sample ID Lower Hot Spring (Old)
 Sample Collector: T. Weidner-Holland
 Date/Time Sampled 4/9/02 1055
 Date/Time Received 4/9/02 1055

Report of Analytical Results

<u>Analyte</u>	<u>Units</u>	<u>Result</u>	<u>PQL</u>	<u>Method</u>	<u>Analyzed</u>	<u>MCL</u>
Alkalinity	mg/L	83	10	SM 2320 B	4/10/02	
Calcium	mg/L	1.8	0.5	SM 3111 B	4/16/02	
Chloride	mg/L	12	5	EPA 300	4/9/02	250**
Conductivity	umhos/cm	306	1	SM 2510 B	4/10/02	900**
Corrosivity		0.25		SM 2330 B	4/20/02	
Fluoride	mg/L	3.1	0.1	EPA 300	4/9/02	2*
Hardness	mg CaCO ₃ /L	4	10	SM 2340 C	4/20/02	
Magnesium	mg/L	ND	0.1	SM 3111 B	4/16/02	
Nitrate	mg/L	6.7	1	EPA 300	4/9/02	45*
Nitrite-Nitrogen	mg/L	ND	0.05	EPA 300	4/9/02	1*
pH	pH Units	9.5		SM 4500-H+ B	4/9/02	
Potassium	mg/L	0.6	0.5	SM 3111 B	4/16/02	
Sodium	mg/L	63	0.1	SM 3111 B	4/16/02	
Sulfate	mg/L	27	10	EPA 300	4/9/02	250**
Total Dissolved Solids	mg/L	207	10	SM 2540 C	4/13/02	500**

mg/L = Milligrams per liter (=ppm)
 PQL = Practical Quantification Limit
 ND = Not Detected; less than PQL
 SM = Standard Methods, 18th Edition, 1992.
 EPA = Environmental Protection Agency
 MCL = Maximum Contamination Level
 * = Primary Standards
 ** = Secondary Standards

S. Weidner-Holland

Sigrid Weidner-Holland
 Laboratory Director

Monterey Bay Analytical Services
 121 Hitchcock Canyon Rd., Carmel Valley, CA 93924
 (831) 659-7538
 ELAP Certification Number: 2385

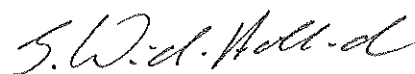
Esalen Institute
 Hwy 1
 Big Sur, CA 93920
 Attn: Dave Nelson

Reporting Date 4/20/02
 Laboratory # 6715
 Sample ID Upper Hot Spring (New)
 Sample Collector: T. Weidner-Holland
 Date/Time Sampled 4/9/02 1055
 Date/Time Received 4/9/02 1055

Report of Analytical Results

<u>Analyte</u>	<u>Units</u>	<u>Result</u>	<u>PQL</u>	<u>Method</u>	<u>Analyzed</u>	<u>MCL</u>
Alkalinity	mg/L	87	10	SM 2320 B	4/10/02	
Calcium	mg/L	1.7	0.5	SM 3111 B	4/16/02	
Chloride	mg/L	10	5	EPA 300	4/9/02	250**
Conductivity	umhos/cm	299	1	SM 2510 B	4/10/02	900**
Corrosivity		0.34		SM 2330 B	4/20/02	
Fluoride	mg/L	2.6	0.1	EPA 300	4/9/02	2*
Hardness	mg CaCO ₃ /L	4	10	SM 2340 C	4/20/02	
Magnesium	mg/L	ND	0.1	SM 3111 B	4/16/02	
Nitrate	mg/L	5.6	1	EPA 300	4/9/02	45*
Nitrite-Nitrogen	mg/L	ND	0.05	EPA 300	4/9/02	1*
pH	pH Units	9.6		SM 4500-H+ B	4/9/02	
Potassium	mg/L	0.7	0.5	SM 3111 B	4/16/02	
Sodium	mg/L	61	0.1	SM 3111 B	4/16/02	
Sulfate	mg/L	23	10	EPA 300	4/9/02	250**
Total Dissolved Solids	mg/L	202	10	SM 2540 C	4/13/02	500**

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Sigrid Weidner-Holland
 Laboratory Director