

D. Warner

### Introduction and Conclusion

On July 30, 1984 mineralization on Canyon Creek, located in the northwestern portion of the Healy A-6 Quadrangle (fig. 1) was investigated for the presence of tin. Because of extreme time limitations, the investigation was limited to a rapid grab of several samples within an area (fig. 2) reported by Hawley (\_\_\_) to contain high values of tin. The 1984 sample results show only a few slightly elevated values of tin associated with samples of a chalcopyrite- and arsenopyrite-bearing siliceous rock. The better mineralized material was probably not sampled. More detailed investigations in the Canyon Creek area are needed to substantiate and delineate the extent of mineralization.

### Investigation

Very little geologic data was recorded. However, in contrast to mapping by Hawley (\_\_\_), no clearly defined veins were observed. Rather, mineralization appeared poddy and consisted largely of silicified rock. Additionally, on inspection, rhyolite appears to be more prevalent than mapped by Hawley (\_\_\_), and the rhyolite appeared to be contemporaneous with the mineralization.

Results of trace-element analyses are given in tables 1 and 2. Elevated values of tin are generally associated with elevated values of As, Sb, and Ag and also with some higher values of Cu and Zn. In contrast to this, Hawley's (\_\_\_) sampling shows a clear association of

high Sn with high Pb and Zn values. No galena or sphalerite was observed during Bureau sampling suggesting the better-mineralized material was probably not sampled in 1984.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

150°00' 350000m E R 13 W R 12 W 50' R 12 W (HEAL)

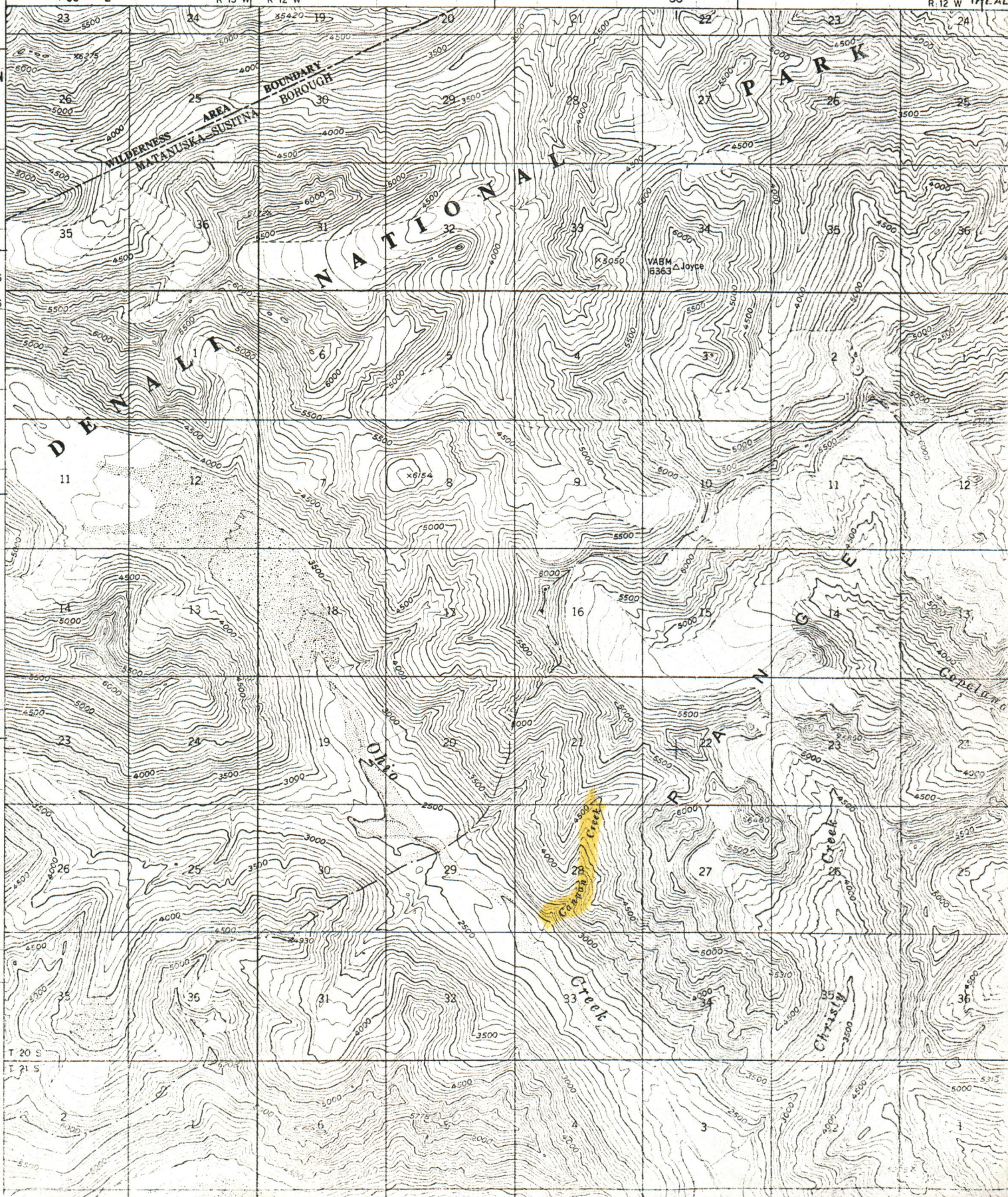
7016000m N

T 19 S

T 20 S

10'

1MT. MCKINLEY A-11  
T 20 S  
T 21 S





# RENO RESEARCH CENTER SPECTROGRAPHIC LABORATORY REPORT

SUBMITTED BY-ALASKA  
DATE SUBMITTED-10/10/84

DATE COMPLETED-11/02/84  
OPERATOR-DFH RUN NO.-41-#867

*Toffy*

*Ready Cash*

SAMPLE NUMBERS

CI21290BAS21417 AS21423 AS21427 AS21907 AS21908 AS21429 AS21690

*2047*

## ELEMENTS

## CONCENTRATION, PERCENT

AG	<.005	.02	<.001	.03	.009	<.002	.02	.01
AL	>5.	.3	>6.	>4.	>5.	>6.	1.	>4.
AS	<.01	<.04	<u>.04</u>	<.01	<u>.4</u>	<.02	<.03	<.03
AU	<.002	<.004	<.002	<.002	<.002	<.002	<.002	<.003
B	<.007	.01	.02	.01	.05	.01	.01	.01
BA	.1	.02	.3	.2	.2	<u>2.</u>	.04	.02
BE	.0006	.0004	.001	.0008	.0006	.0008	.0003	.0005
BI	<.01	<.04	<.01	<.01	<.02	<.01	<.01	<.02
CA	2.	<.05	8.	4.	.3	2.	>10.	1.
CD	<.0005	<.0005	<.0005	<.0005	<.02	<.0005	<.0005	<.0005
CO	<.001	<.001	<.001	<.001	<.001	<.001	<.001	.008
CR	.02	.01	.005	.003	.006	.005	.003	.006
CU	.005	<u>.3</u>	<u>.05</u>	<u>1.</u>	<u>.09</u>	<u>.07</u>	<u>.4</u>	<u>.4</u>
FE	9.	8.	2.	7.	6.	8.	9.	8.
GA	<.0002	.002	<.0004	<.0002	<.001	<.002	<.0002	.004
K	>10.	8.	>10.	10.	10.	>10.	5.	8.
LA	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.02
LI	<.002	<.002	<.002	<u>.02</u>	.01	.01	<.002	.01
MG	1.	.2	.2	1.	.6	1.	.5	.8
MN	>2.	.03	.08	.2	.05	.09	.1	.2
MO	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
NA	<.3	<.3	<.3	<.3	<.3	2.	<.3	<.3
NB	<.01	<.007	<.02	<.01	<.01	<.03	<.007	<.02
NI	.04	.005	.002	.004	.004	.005	.006	.007
P	<.7	<.7	<.7	<1.	<.7	<.7	<u>5.</u>	<.7
PB	<.002	.01	<.004	<.005	.01	<.005	.01	.008
PD	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001
PT	<.003	<.002	<.0006	<.0006	<.0006	<.002	<.0006	<.002
SB	<.06	<.06	<.06	<u>.1</u>	<.06	<.06	<.06	<.06
SC	<.0004	<.0004	<.0004	<.0004	<.0004	<.0004	<.0004	<.0007
SI	>10.	>10.	>10.	>10.	>10.	>10.	>10.	>10.
SN	<.01	<u>.03</u>	<.006	<.02	<.02	<.01	<u>.03</u>	<.02
SR	.006	<.0001	.007	.002	.0005	.009	.06	.0005
TA	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02
TE	<.04	<.09	<.07	<.07	<.07	<.07	<.06	<u>.1</u>
TI	.6	.1	<.03	.4	.4	.9	<.07	.2
V	.01	.02	<.005	<.009	.02	.03	<.005	.04
Y	<.0009	<.0009	<.0009	<.0009	<.0009	<.0009	<.0009	<.0009
ZN	.008	.0008	.001	.04	.01	.002	.02	.01
ZR	<.003	.004	<.003	<.003	.005	<.003	<.003	.02

REMARKS

RENO RESEARCH CENTER  
SPECTROGRAPHIC LABORATORY REPORT

SUBMITTED BY-ALASKA  
DATE SUBMITTED-10/10/84

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OPERATOR-DFH RUN NO.-41-#867

SAMPLE NUMBERS

AS21691 AS21692

ELEMENTS

CONCENTRATION, PERCENT

AG	<.002	<.004
AL	>6.	>6.
AS	<.02	.03
AU	<.002	<.003
B	<.008	.02
BA	.02	.2
BE	.0004	.001
BI	<.01	<.01
CA	8.	4.
CD	<.0005	<.0005
CO	<.003	<.001
CR	.008	.003
CU	.05	.02
FE	10.	1.
GA	.002	<.0009
K	9.	>10.
LA	<.01	<.01
LI	.008	<.002
MG	2.	.1
MN	.6	.04
MO	<.0001	<.0001
NA	4.	4.
NB	<.05	<.02
NI	.01	.002
P	<.7	<1.
PB	<.004	<.008
PD	<.0001	<.0001
PT	<.003	<.0006
SB	<.06	<.06
SC	<.0004	<.0004
SI	>10.	>10.
SN	<.02	<.005
SR	.02	.01
TA	<.02	<.02
TE	<.04	<.1
TI	1.	<.03
V	.04	<.005
Y	<.0009	<.0009
ZN	.006	.006
ZR	<.003	<.003

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REMARKS

Table 1. - Results of trace-element analyses<sup>1</sup> of samples collected from the Ready Cash prospect.

Sample	Au	Ag	Sn	Cu	Pb	Zn	As	Sb
AS20417	0.076	15.82	<5	1700	<80	<2	27.7	2
AS20428	<0.007	1.207	<5	260	<80	<2	110	2
AS20427	0.008	23.56	86	11000	<80	330	100	67
AS20907	<0.007	13.24	22.0	620	80	140	2600	26.2
AS20908	<0.007	1.529	<5	480	<80	<2	38	3
AS20429	0.297	24.97	49	3600	<80	590	100	10.5
AS21690	0.051	15.93	<5	6100	<80	250	17.5	2
AS21691	<0.007	0.540	<5	370	<80	140	<2	2
AS21692	<0.007	0.948	<5	150	<80	<2	48	3

<sup>1</sup>Au, Ag, Cu, Pb, Zn, As, and Sb by I.C.P. Sn by A.A. Analyses by Reno Research Laboratory, Reno, Nevada.

Sample	Descriptions
AS20417	Gossan with Cu-carbonate and boxworks.
AS20428	Rhyolite. Chip of float.
AS20427	6-ft chip across siliceous outcrop with stockworks, limonite, vugs, and disseminated and veinlet chalcopyrite and arsenopyrite.
AS20907	Chip of material similar to 20427.
AS20908	Vuggy siliceous rock with weathered pockets of sulfides.
AS20429	Chip of material similar to 20427.
AS21690	Siliceous rock with stockworks and vugs of quartz, arsenopyrite, goethite, malachite, azurite, chalcopyrite, and pyrolusite.
AS21691	Amygdaloidal and vesicular basalt.
AS21692	Rhyolite with accessory chalcopyrite.