

TERRITORY OF ALASKA

DEPARTMENT OF MINES

*by Goetzky - Anderson
& Glover*Strategic Materials in Alaska

The following list of mineral occurrences was compiled in order to obtain information as to deposits of strategic materials in Alaska. Data were taken from assay records at the Territorial Assay Office at College, from field notes and from prospectors and miners.

Since it was necessary to examine over 35,000 assay and identification records, covering the period between 1917 and Nov. 1, 1941, only those mineral occurrences of possible economic or geologic importance ^{are} were listed here. For example, small amounts of antimony minerals that occur in a very large number of quartz veins are not listed, because they are in general not indicative of occurrences of high-grade stibnite. Unless they are of special interest, gold assays are also omitted because of their great number and because they would add little to present knowledge.

Occurrences of each metal or material are listed separately. For each occurrence the assay number is given to permit reference to the original records; also given are the name and address of the person who submitted the sample, as well as information concerning grade and location of prospect, when this is available.

Since the Territorial law that provides for free assay service stipulates only that those receiving this service be residents of Alaska, there is no way of knowing, from Assay Office records, ^{alone} the exact location of the mineral occurrences listed here.

note In addition, many samples have been submitted through intermediaries such as traders or consultants, so that the name and address of the prospector may not appear. For example, several deans of the School of Mines of the

TERRITORY OF ALASKA

DEPARTMENT OF MINES

Strategic Materials in Alaska (Contd.)

University of Alaska have submitted for assay, under their own names,
samples received from prospectors in all parts of the Territory.

To be of any considerable value, then, the information contained in this list must be supplemented by ~~the~~ first-hand knowledge of prospecting activity in Alaska, as well as by information appearing in U. S. Geological Survey publications. Concerning the last few years, much is known of prospecting activity; for more remote times information becomes increasingly scarce and relatively little is known of the comparatively active period of base metal prospecting during 1917-18.

At present, when the need for all metals is becoming increasingly acute, the need for precise information concerning prospects is apparent. Since Territorial law does not require that this information be supplied, an amendment ^{to the existing law} would be necessary. Required information should include the name and address of the prospector, the approximate location of the prospect and the result of the assay. To protect the prospector this information should be kept confidential for two or more years, during which period it could be used only with the prospector's permission.

TERRITORY OF ALASKA

DEPARTMENT OF MINES

College Assay Office

Numbers Starting 1917

<u>Custom Assays</u>		<u>Identifications</u>		<u>Official analyses</u> U. S. G. S.		<u>Prospector's Assays</u> Bureau of Mines	
1-12	1918	MS 1-214	1917	91-05	1920	G1-6325	1935
-244	'19	-657	'18	-052	'21	-6846	'36
-479	'20	-962	'19	-0159	'22	-G1084	'37
-742	'21	-1231	'20	-0220	'23		
-1268	'22	-1504	'21	-0361	'24		
-1866	'23	-1755	'22	-0599	'25		
-2266	'24	-2026	'23	-0865	'26		
-2935	'25	-2309	'24	-0944	'27		
-3703	'26	-2609	'25	-0958	'28		
-4336	'27	-2979	'26	-01047	'29		
-4959	'28	-3207	'27	-01162	'30		
-5605	'29	-3627	'28	-01911	'31		
-6269	'30	-3894	'29	-02018	'32		
-7078	'31	-4249	'30	-02161	'33		
-7926	'32	-4628	'31	-02249	'34		
-9151	'33	-4980	'32	-02350	'35		
-10253	'34	-5421	'33	-02350-68 in Jan. '37			
-11039	'35	-5908	'34				
-11976	'36	-6180	'35				
-13239	7-1-'37	-6420	'36				
T1-1495	7-1-'37	-6663	'37				
	to	-6780	'38				
	12-31-'37	-6955	'39				
-14956	'38	-17199	'40				
-17548	'39	-17465	11-1-'41				
-17889	2-29-'40						
-19783	12-31-40						
-111326	11-1-'41						

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals,

and Important Gold and Other Mineral Occurrences in Alaska.

Taken From College Assay Office Records, Starting 1917.

Assay No.	APPROXIMATE
	1917
MS 142	Fred Wackwitz -- high-grade stibnite (Fairbanks) <i>stream of Evidock Creek</i>
	1918
MS 511	Charles Spann -- stibnite (Nenana)
	1919
MS 835	Martin Strand, Nome -- stibnite
	1921
MS 1419	L. Berberian, Mile 315 o/o Alaska Eng. Commission -- stibnite
	1926
MS 3544-5	George Woods, Akiak -- stibnite
	1927
MS 3619	C. W. Hudson, Livengood -- Au, Ag \$12.50 (920 Au) in stibnite ore
MS 3832-49	H. A. Vertz, Ohulitna -- stibnite, valentinite, berthierite 1928 <i>Sb₂O</i> <i>FeSb₂S₄</i>
MS 3322	G. F. Dunbar, Fairbanks -- stibnite (67 $\frac{1}{2}$ % Sb)
	1929
MS 3670	F. T. Richfield, Wrangell -- stibnite
MS 4974-5	Ed McGann, Crooked Cr., Kuskokwim -- stibnite and cinnabar
	1931
MS 4089	Harry Johnson, Moose Pass -- mainly stibnite
	1937
T1022-3	Mike Lody, Ferry -- stibnite (Sb 66.8 & 65.0%)
T1040	Jim Dodson, Glen Airlines -- Sb 29.8% (Wiseman stibnite)
T1041	Harry Buhro, Fairbanks -- Sb 47.2% (Kuskokwim stibnite)

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Antimony (Cont'd)

1938

T3904-5 Leonard Newman, Fairbanks -- Sb 67.4 & 60.4%

1939

T6480 Jobe & Schutte, Fairbanks -- 42.8% Sb
 T6481 C. W. Holt, McKinley Park -- 68.6% Sb (also high Pb)
 T7280 Dave Joesting, Fairbanks -- Sb 62.8% (Cosgrove prop., No. limit of Happy Cr.)
 T7303 Egan Petrokov, Valdez -- Sb 15.4%
 T7440 Cliff Shearer, Fairbanks -- Sb 59.4%

1940

T8688-91 Chris Milligen, Eagle Cr. -- Sb 10 to 18% *trib. Treasure Cr.*
 T8709-11 W. E. Greene, Hoaly Forks, -- Sb 31.93%
 T8831 Niel Turner o/o A. Glover -- Sb 56% (picked sample)
 T9294 Paul Glasgow, Chickon -- Sb 31% *Head of Kechumaituk Cr.*

1941

T9835 Gene Erickson, Fairbanks -- Sb 49.26% *At Goodwin prospect, Eagle Cr., trib Treasure Cr.*
 T10974 H. C. Wilcox, College -- high-grade stibnite and gold. *R.L. Vault Cr. cf. Joesting notes*

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Antimony Occurrences *

The above list of antimony assays is not complete, ^{It} and represents most of the more important assays made at the College assay Office. Special effort was made to include at least one report of the presence of antimony in each region as a record of its occurrence there.

Other known antimony occurrences of particular interest at present follow:

Name	Location	Remarks
Sam Gamblin (cf. Doc Cripe)	3 miles S of Rapids	Old drift driven in 1916-18 in antimony ore.
Lou Gilbert & Howard Sparks	Antimony Cr., Broad Pass, head of Chulitna R.	150' tunnel driven in old days on large but low-grade (30-40%) deposit. <i>S. N. S. Dip 30°</i>
Sam Gamblin	Boulder Cr., trib. to Tok R.	Large stibnite deposit <i>cf. report</i>
Sam Gamblin	Eagle Cr., trib. Copper Cr., McCarthy Precinct	Deposit said to be 4 - 5' thick and high-grade
Al Goodwin	Treasure Cr., Fairbanks district	Stibnite deposit
H. G. Wilcox	Vault Cr.	Au bearing stibnite ore
Al Barlow	Cody Cr., Bonnifield	Sb ore, 47.14% Sb
Don Gustafson	Fairbanks Cr., near Hi Yu Mine	Old Grites & Feldman prospect, stibnite, 60% Sb, about 18" wide.
F. R. Joesting	U. Kansas Cr.	High Sb ₂ S ₃ float, close to lode
Gus Krutsch & Ross Cosgrove	Rt. limit Huppy Cr. 3/4 mi. above road	Large pieces of high-grade float in bulldozed cuts
Ryan Lode	Ester Dome	Stibnite kidneys in shear zone, also at limestone-aplite contact near Bigelow Cabin
Mike Kelly (Sam Godfrey) (Howard Sparks)	No. 16 Above, Livengood Cr. paystreak	Struck stibnite lode while drifting in old days
Otto Geist	Chatham Cr., E - 400' above mouth	<i>High-grade</i> Float brought up by dredge from lode on bedrock
U. S. S. R. & M. Co. Mallick & Halverson	McCarty Mine <i>Red Devil Mine, 8 mi. below Sleight on Kuskokwim R.</i>	High-grade stibnite lenses <i>Stibnite lenses assoc. with cinnabar</i>

*For further information on these occurrences of H. R. Joesting--Strategic Mineral Notes

TERMINATION OF ASBESTOS
DEPARTMENT OF MINES

Strategic Materials, Base Metals, etc.

ASBESTOS

1918

- MS 233 B. B. Shuff, Richardson -- chrysotile asbestos (233 & 236 Mn)
MS 434 G. A. Frank, Missoula -- serpentine asbestos

1921

- MS 1426 A. E. Burns, Kenana -- long, rather brittle asbestos fibers

1922

- MS 1620 Wm. O'Brien, Ruby -- amphibole asbestos

1923

- MS 1967 Harry Boland, Fairbanks -- serpentine asbestos
MS 1975 Arthur Graeger, Kenana Ferry -- serpentine asbestos, rather brittle

1924

- MS 2156 Paul Polson, Fairbanks -- amphibole asbestos (brittle and short-fibered);
-- serpentine containing small amounts of Si in
pyrrhotite *Augustine, Alaska*

1925

- MS 2427 G. Foster Jones, Tanana -- amphibole asbestos

1926

- MS 2742-3 O. C. Kerning, Wasilla -- brittle asbestos
MS 2823 Miss C. C. Reid, Kenana -- poor amphibole asbestos

1927

- MS 3018 Augustus De Roux, Douglas -- amphibole asbestos (poor quality)
MS 3202 L. P. Dawes, Juneau -- amphibole asbestos (short fibre) (high quality--seems
to possess good spinning qualities)

1931

- MS 4561 B. D. Stewart, Juneau -- serpentine asbestos (best yet received)
MS 4575-6 Lawrence Johnson, Big Delta -- amphibole asbestos (short fibre)

4
TERRITORY OF ALASKA
DEPARTMENT OF MINES

Asbestos (Cont'd)

1935

- MS 5025-6 Thos. Berryman, Kotzebue -- serpentine asbestos from Kotbuk (best yet seen
in Assay office, 1935)
MS 5107 Chas. Denison, Iliamna -- chrysotile asbestos (serpentine), specimen
resembles jade but softer

1937

- 16478 Ernest Kirberger, Mak~~o~~ -- poor specimen chrysotile asbestos
16606 C. B. Wells, Fairbanks -- chrysotile asbestos

4a
TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Asbestos Occurrences *

San Gamblin

Near Chitina

Good asbestos a/o San Gamblin

New York Alaska Gold Tuluksak R
Dredging @.

Asbestos and graphite reported dredged
from bedrock a/c A.E. Glover.

*For further information on these occurrences of H. R. Joesting--Strategic Mineral Notes

UNITED STATES OF AMERICA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

BISMUTH

Assay No.		
		1917
MS 200	Rbt. E. Steel, Eagle -- placer Bi	
		1918
MS 250	Emil Bergman, Rampart -- native bismuth containing considerable tellurium	
		1919
MS 664	Axel Johnson, Fairbanks -- native bismuth	
		1920
252	John Montan, Kenana -- high bismuth in concentrates (also in other samples)	
		1924
1904-5	S. H. Moore, Forry -- considerable bismuth in table concentrates	
		1926
MS 2636	Joe Sherwood, Modfra -- native Bi	
MS 2764	Neill McCall, Nealy -- Bi	
		1928
MS 3206	Wm. Hartwig, Fairbanks -- bismuthinite	
		1931
MS 4280	E. R. Pilgrim, Terr. Min. Eng., Fairbanks -- bismuthinite	
		1933
I6732	C. F. Shield, No Grub -- native Au & Bi	
I6745	Merle H. Guise, Takaetna -- native Bi	
		1940
I7159	Peter Anderson, Ophir -- bismuth	

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Bismuth Occurrences *

Name	Locations	Remarks
Ted Elkins	Discovery Pt., Grubstake Cr., Bonnifield	Native bismuth in placer concentrates
Howard Sparks	Amy Cr., Livengood	Native bismuth in placer concentrates
Albert Barlow	Moose Cr., near Ferry	Native bismuth in placer concentrates
Cook and Murphy	Eva Cr., trib. California Cr.	Native bismuth and bismuthinite in Liberty Bell mine and in placer concentrates
U. S. Geol. Surv. Bull. 592, pp. 325 + 321	Melba Cr., trib. Fish Cr.	Native bismuth and bismuthinite <i>Te also present</i>

*For further information on these occurrences of H. R. Joesting--Strategic Mineral Notes

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, etc.

Assay No.

CHROMIUM

1917

MS 114 C. E. Long, Livengood -- chromite

1918

MS 324 B. Pola, Circle -- small amount of chromite in serpentine

MS 403 Fred Howard, Tofty -- chromite and cassiterite

MS 558-60 1st ~~at~~ Connor, Livengood -- chromite and nickel

1919

55 Kbt. Beggs, Eagle -- very small amount of Cr_2O_3 (0.18% in sample)

MS 697-8 W. J. Lynn, Hot Springs -- chromite

MS 753-6 Kbt. Beggs, Eagle -- Cr and Mn

MS 768-770 S. S. Swanson, Miller House -- Cr in serpentine; fluorite specimen.

1921

670 H. C. Co., Fairbanks -- 52% Cr_2O_3

MS 1489 H. C. Co., " -- chromite (from Ruby)

1923

MS 1903 J. J. Barrett, Venema -- chromite

1924

1922 Whitney & Bass, Juneau -- 10% Cr_2O_3

MS 2186 John Kelly, Miller House -- placer concentrate containing chromite, cassiterite and scheelite *Prob. Miller Cr.*

MS 2442 Fred Hanson, Tofty -- chromite

1926

MS 2663 Ed Quinn, Fairbanks -- Cr_2O_3

MS 2887 Sylvanus Sansonay, Nome -- chromite and scheelite

1927

3704 Whitney & Bass, Spool N. -- 25% Cr_2O_3

MS 2999-3000 Charles Thorsen, Bethel -- Cr & Pt

MS 3177 E. E. Norman, Fairbanks -- high-grade chromite

1928

4659 Fred Johansen, Valdez (by Patty) -- considerable chromite. Pt & Ni - Tr.

TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Assay No.	CHROMIUM (Contd.)
1929	
MS 3896	J. F. Woessner, Eldred Rock Light Sta. via Juneau -- chromite (low grade specimen)
1931	
6825	Whitney & Lass, Juneau -- 45% Cr ₂ O ₃
1932	
MS 4754-6	Frank Bauers, Livengood -- dolomite containing greenish Cr mineral (miloschite)
MS 4777	Mrs. O. W. Hudson " -- " " " "
MS 4836	K. L. Johansen, Wrangell -- chromite
1933	
MS 5140	B. D. Stewart, Juneau -- chromite, some Ni
MS 5173	R. E. Deardorf, Anchorage -- Cr, Pt
02079-81	B. D. Stewart, Juneau -- Cr ₂ O ₃ 40 to 57%
1934	
9949-50	Patty, Fairbanks -- Cr ₂ O ₃ 30 to 39%
MS 5638	Harry Leonard, Fairbanks -- chromite
1936	
11146	Logan W. Varnell, Kotzebue -- chrome ore
11803	B. D. Stewart, Juneau -- Cr 37%
MS 6279-81	Logan Varnell, Kotzebue -- chromite (worth \$16/T as ore)
1937	
MS 6622-4	Gaylord R. Skinner, Anchorage -- 40% Cr ₂ O ₃
1938	
T1536	Pat O'Neill, College -- Cr 22.1%
T3624-6	Dept. of Mines, Juneau -- Cr 7.0, 25.8, & 17.4%
T3985-6	Orval Holmes, Fairbanks -- Cr ₂ O ₃ 28.1 and 26.1%; Pt 0.22 oz./T
T3984	" " " " 41.9%; Pt 0.28 oz./T
MS 6715-18	B. D. Stewart, Juneau -- chromiferous magnetite
1939	
MS 6838	J. G. Hillard, Eagle -- chromite

School number of Flat, (1911-47)

TERRITORY OF ALASKA

DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Assay No.

Chromium (Contd.)

1940

T8461-95 Dorothy Moroney, Seldovia -- Cr_2O_3 40% average

1941

MS 7281-90 Milo C. Caughrean, Flat -- chromite, schoenherite, cobalt Black Cr.

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Chromium Occurrences *

Name	Location	Remarks
Bull. 872, U. S. G. S. p. 250; * Bull 662, P 264	Spur W of Ruth Cr.	Small body of chromite
Sellick & Ricks	Nickel Cr. intrusives, Upper Seldovia R.	Low-grade chromite & Ni
Cooper, Dawson & Kern	Seldovia	Large body of low-grade chromite 5 - 12%, approx., a/c samples sent to A. Glover
H. R. Joesting	Ruth, Lucille, Good Luck & Livengood Creeks	Considerable chromite and chrome spinel in placer concentrates

*For further information on these occurrences of H. R. Joesting--Strategic Mineral Notes

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

COBALT

Assay No.	1918
MS 567	J. J. Barrett, Hot Springs -- Co 0.15% <i>Died, 1940</i>
	1924
MS 2121	C. P. Snyder, Tofty -- small amounts of Co & Fe (probably associated with other Co occurrences in that area)
	1927
MS 3108	Eli Larson, Valdez -- Tr. Ni & Co (see H. S. Patten, Fairbanks)
	1928
4732	John J. Barrett, Nenana -- Co 0.79% (pyrolusite)
MS 3423	J. J. Barrett, Nenana -- " " occurring as erythrite
	1931
6500	J. E. Harrington, Juneau -- Co 0.55% (erythrite)
MS 4274	J. E. Harrington, Juneau -- Co 0.55% (erythrite)
	1933
8112	J. J. Barrett, Hot Springs -- Co 0.35%
	1934
9202	Melvin N. Chase, Chitina -- high-grade Au, Ag containing Co-Ni compound (smaltite)
9935	J. J. Barrett, Hot Springs -- Co 0.15%
	1941
17281-90	Milo C. Congdon, Flat -- cobalt, schoelite, chromite <i>Black Creek</i>

TERMINOLOGY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

GRAPHITE

Assay No.	1921
MS 1425	R. E. Burns, Kenana -- small graphite flakes
	1920
5772	J. H. Johnson, Seaman's Home, Ketchikan -- graphite 14 to 25%
	1922
MS 4700	Thos. Swenson, Uyak Bay -- graphite in large flakes
MS 4805	B. D. Stewart, Juneau -- graphite in large flakes (also El assay)
	1932
8094	Harry Brink, Bear Cr., Adiak -- graphite of good quality
MS 5046	" " " " " " " "
	1940
I 7101	Joe Nasenius, Kuntishna -- graphite float (high-grade)
I 7147	Ambrose William, Venetie (Chandalar) Graphite + Cu.

Additional Graphite Occurrences

1941

Louis Biddings, College -- high-grade graphite artifacts from Eskimo excavations several hundred years old, at several sites between Shungnak and Kiana on Kobuk R. Used for blackening objects and possibly as a lubricant for thongs, etc. ~~St~~ No graphite found in sites occupied in recent times. Asbestos and nephrite jade were also found.

F. G. Rainey, College -- high-grade graphite found in excavations at Tigara, ancient Eskimo site at Pt. Hope. Native iron of terrestrial origin also found at Tigara. cf. W. Greenland nr. Disko

N. Y. Alaska Dredging Co., Tuluksak R. -- graphite and asbestos reported dredged from bedrock, aft Glover.

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MANGANESE

Assay No.

1917

MS 202 E. R. Babcock, Fairbanks -- specimen containing considerable Mn

1918

MS 235-8 B. E. Shuff, Richardson -- Mn

MS 568-71 J. A. McIntyre, Hot Springs -- considerable Mn

MS 584 J. E. Owens, Ft. Yukon -- considerable Mn

1919

MS 695-700 B. E. Shuff, Richardson -- Mn as carbonate and silicate

MS 733-6 Rbt. Beggs, Eagle -- Mn & Cr

MS 819-23 J. E. Owens, Ft. Yukon -- Mn

MS 838 Jay P. Kelly, Miller House -- Mn

1922

MS 1548 S. Swanson, Fairbanks -- Mn

1923

1798(MS) J. J. Barrett, Hot Springs -- Mn: pyromorphite *Died winter 1940*

MS 1992 D. W. Fitzgerald, Eagle -- Mn

MS 1914 L. A. Powless, McKinley Park -- franklinite(?); Mn oxides

1925

MS 2376 L. D. Colbert, Fairbanks -- manganese oxides

1928

MS 3405 J. J. Barrett, Kenana -- pyrolusite

1930

5771 A. A. Fink, Hot Springs -- high Mn, both oxides and carbonates

MS 4147 E. B. Polson, Juneau -- rhodochrosite

MS 4171-5 Vincent Knorr, Bettles -- rhodonite, braunite

MS 4186 Joe Egler, Rampart -- Mn

1931

MS 4587 G. A. Waring, U. S. G. S., Anchorage -- rhodochrosite from mouth of Jack River near Cantwell

TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MANGANESE (Contd.)

Assay No.	1932
MS 4947	Alex Karalan, Kiana via Kotzebue -- Mn, Cu
	1934
9662	M. A. Treppe, Susitna -- braunite, schoolite
9663	Wm. A Sorenson, Menana -- MnO; Tr Ni & Co
10189-90	E. S. Hungerford -- Mn oxides and carbonates (Petersburgh) <i>Kuiu Island</i>
	1935
I6069	B. D. Stewart, Juneau -- Mn
	1936
G362-3	R. Tuck, Fairbanks -- 20 to 40% Mn in rhodonite and oxides; found $\frac{1}{2}$ mi. SE of Cantwell
	1940
T9188-33	B. D. Stewart -- Juneau -- Mn 10 to 38%
T9715	Joseph Williams, Akiaak -- high grade Mn sample
I7071	Jim Priest, Fairbanks -- Mn
	1941
T9932	Gold placers, Inc. c/o E. Thomas -- Mn 33.47%

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Manganese Occurrences

Name	Location	Remarks
Sam Gamblin (Elton Buzby)	Near Valdez	Said to be large deposit accessible to highway. <i>Probably very</i>
Frank Miller	Lower Koyukuk	Said to be large Mn deposit.
H. R. Joesting	Livengood district	Pyrolusite in placer concentrates

*For further information on these occurrences cf. H. R. Joesting--Strategic Mineral Notes

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Mercury

Assay No.		1917
MS 140	G. M. Keyes, Fairbanks -- placer concentrate containing HgS	
		1922
872	Ed McCann, Akiak -- Hg 0.45%	<i>Crooked Cr.</i>
MS 1531	Ed McCann, Akiak -- cinnabar	
		1923
MS 1959	L. N. Wilson, Takotna -- HgS	
		1925
2408	Harry Brink, Talkeetna (Crooked Cr.?) -- cinnabar: Hg 39.31%	
		1926
MS 2925	Frank Holzheimer, U. S. G. S., Juneau -- placer cinnabar	
MS 2959-61	Frank Holzheimer, U. S. G. S., Juneau -- Hg assays (Park's prospect)	
		1927
0857-8	B. D. Stewart, Juneau -- Hg 67.8 & 28.7%	
		1928
4702	J. B. Hudson, Fairbanks -- Hg 1.34%	<i>olive cr.</i>
MS 3422	J. B. Hudson, Fairbanks -- Hg 1.34%	
		1929
5309-10	C. W. Hudson, Livengood -- Hg 58% plus \$35 Au/T	<i>olive cr.</i>
5334-41	F. E. Co., Fairbanks -- Hg, scheelite (Swede Cr.)	
5529	Mrs. C. W. Hudson, Livengood -- Hg 1.42% as cinnabar, Au \$2.00/T. Altered igneous rock, probably rhyolite containing the cinnabar (see MS 3812)	<i>Hudson Terr. 1, Olive Cr.</i>
01027-29	E. R. Pilgrim, Terr. Eng. Eng., Fairbanks -- Hg 0.02 to 0.20%	
		1930
5634	J. J. Keenan c/o A. Polet, Nome -- Hg 16.1%	
5657	C. W. Hudson, Livengood -- 11.56% Hg in cinnabar (see MS 3944)	<i>identification of Hg - is same sample</i>
MS 3958	Nick Mandich, Livengood -- cinnabar in igneous rock composed mostly of feldspars	
		1931
6586	W. J. Shannon, Honolulu Station -- 0.24% Hg	

TERMINARY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MERCURY (Contd.)

Assay No.	1932
7760-71 MS 4974-5	F. W. Co., Fairbanks -- 0.015 to 1.5% Hg Ed McOann, Crooked Cr., Kuskokwim -- cinnabar and stibnite
	1933
8009-10 8118 MS 5400	Ed McOann, Akiak -- Hg. 0.58 to 0.25% (Crooked Cr., Kuskokwim) James A. Davidson, Fairbanks -- Hg 1.13% S. A. Tucker, Bluff -- Hg, Au, Ag, Pb, W
	1934
9707-8	E. A. Julian, Goldfield Consolidated Min. Expl. Co., San Francisco -- Hg 0.39 & olive Creek, (?) Livingston 1.74%
	1935
MS 5994	John C. Smith, Fairbanks -- cinnabar, 40% Hg
	1937
MS 6429	Al O'Shea, Boundary Dredging Co., Canyon Cr. -- HgS
	1938
T1623 T1600 T3054 I6669 I6685 I6741-2	Al Jones, Rainy Cr. (via Anchorage) -- black sand, 10% HgS - <i>Trail 7 Eck River</i> Nick Mellick, Sleitmute -- Hg assays Neal Alexander, Fairbanks -- Hg 27.4% (Kuskokwim) Oscar Samuelson, Bethel -- HgS Don H. Miller, Fairbanks -- HgS Al Jones, Bethel -- HgS - <i>Rainy Cr - Trail 7 Eck River</i>
	1940
T7820 T8250 & 54 T9073 I7183	A. S. Tucker, Bluff -- Hg 15.95% E. Francis, Mile 456 (c/o F. Crane) -- Hg 0.63 to 0.44% Hortense Landru, Sleitmute -- 5.76% Hg (metacinnabarite) Hortense Landru, Sleitmute -- HgS (Landru Cr.)
	1941
T10570 T10750 T10815	Bob Lyman, Flat -- Hg 0.17 to 14% <i>Bob's Property</i> Chas. Brown, Box 1527, Fairbanks -- 4.71% Cora Mitchell, Fairbanks -- Hg 0.62% (some free)

*1005 Oughman St, Fairbanks, AK
(1911)*

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Mercury Occurrences

Alstad (Fairbanks)	Canyon Cr. (70 Mi. R.) just below 'Falls'	HgS float said to be plentiful
Alstad	Trib. to Mogul Cr. that heads against Canyon Cr. (6 - 8 mi. up Mogul Cr.)	HgS float
Ray Mathews	Lower Deadwood	Hg coating Au
H. R. Joesting	Flat Cr., trib. Stuyahok R.	HgS in placer concentrates
H. R. Joesting	Goodluck, Lillian, Ruth, Olive & Livengood Cr.	HgS in placer concentrate
H. R. Joesting	Moose Creek near Ferry and California Creek and tributaries (Bonnifield)	HgS in placer concentrates
Mellick + Halverson	Kuskokwim R., 8 mi below Slettnut; Red Devil Mine	high-grade cinnabar with stibnite see Metal Mining + Prospect Report 10/26/41

*For further information on these occurrences of H. R. Joesting--Strategic Mineral Notes

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MOLYBDENUM

Assay No.	1917
MS 32-44	A. Roth, Fairbanks -- small amount of Mo present
	1918
MS 511	Charles Spann, Mezana -- MoS ₂
	1919
MS 831	Ernest McLeod, Hughes -- MoS ₂ <i>Adm. Bureau Mission, Yukon R. (1911-1912)</i>
	1922
MS 1581	E. Long, Wasilla -- molybdenite
	1924
MS 2236	H. A. Hansen, 5022 17th Ave, Seattle, Wash., considerable Mo
MS 2240	Alaska Examiner, Ketchikan -- considerable Mo
MS 2308	Ed McCann, Akiak -- MoS ₂
	1925
MS 2326	1st National Bank of Cordova -- molybdenite
	1926
MS 2637	Ronald Campbell, Ferry -- MoS ₂
MS 2611	L. A. Powless, Valdez Cr. via Cantwell -- MoS ₂
MS 2627-8	Arthur Moose Johnson, Chulitna -- MoS ₂ and molybdenite
MS 2649	H. A. Wertz, Chulitna -- MoS ₂
	1927
MS 3014	B. H. Polley, Dillingham, -- MoS ₂
MS 3137	John Polwarzny, Ketchikan -- MoS ₂
	1928
0966	B. D. Stewart, Juneau -- Mo 2.1%
	1930
5653-4	F. E. Co., Fairbanks -- Mo 16% & 2.5%

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MOLYBDENUM (Contd.)

Assay No.

1931

6335 J. D. Barrett, McCarthy -- 5 to 10% MoS_2
 MS 4269 J. L. Jean, Good News Bay -- 0.5% Mo
 MS 4702 John R. Barrett, McCarthy -- 5 to 10% molybdenite
 MS 4394-5 P. A. Turner, Wrangell -- Mo & Ni
 MS 4622 Harry Brink, Plat -- Mo
 01774 Charles Park, U. S. G. S. -- Mo 0.26%

1932

7084 Harry Brink, Crooked Cr. -- Mo less than 1%
 MS 4768 H. Banderfield, Hope -- small amount molybdenite
 MS 4806 H. L. Bahrt, Juneau -- Mo
 MS 4810-16 C. Clausen, Petersburg -- small amounts Mo & trace of Ni
 MS 4973 O. W. Geist, College -- MoS_2 from St. Lawrence Island

1933

8923-4 A. Muller, Kaltag -- samples containing considerable MoS_2
 MS 5125 J. E. Barrett, McCarthy -- 1 to 2% MoS_2
 MS 5207-19 A. Muller, Kaltag -- 1% aver. MoS_2
 MS 5419 B. D. Stewart, Juneau -- MoS_2
 02161 B. D. Stewart, Juneau -- 1.44% Mo

1934

02249 B. D. Stewart, Juneau -- 4.57% Mo

1937

13150-1 John Rajdukovich, Tetlin -- Mo 1.8 & 1.7% *Other samples from Tetlin, Alaska*
 1988 Con Miller, McCarthy -- Mo 1.5%
 T990-1 Dept. of Mines, Juneau -- Mo 1.5% & 9.5%
 T992-5 George Rapuzzi, Box 355, Skagway Mo 3.9, 1.45, 0.75
 T1181 James Kerdan, Chulitna -- Mo 9.2% (Treasure Cr.)
 16410 James Kerdan, Chulitna -- MoS_2
 16415 Rbt. Neath, Fairbanks -- MoS_2
 16460-5 H. R. Hall, Gustavus -- MoS_2
 16477 John Rajdukovich, Tetlin -- MoS_2
 16542 Cy McCahan, Fairbanks -- MoS_2 , small amount native Cu *Assay done?*
 16609 George Rapuzzi, Skagway -- MoS_2

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MOLYBDENUM (Contd.)

Assay No.

1938

T3705 John E. Barrett, McCarthy -- Mo 0.57%; 0.52%
 T3899 Dept. Of Mines, Juneau -- MoS₂
 T3906 L. J. Johnson, Big Delta -- Mo 0.74% *Corrected*
 T3990 Moose Johnson, Chulitna -- 0.76 Mo. T3993 -- 25% Zn
 I6738-40 Shell Simons, Juneau -- MoS₂

1939

T6146 Arnold Koblu, Flat -- Mo 1.4% (specimen)
 T7275 R. D. Baird, Anchorage Mo 1.01%; Cu 13.4%
 T7277 " " Mo 0.25%; Cu 3.1%

1940

T8688 Jas. Verdman, Chulitna -- Mo 1.2% (est.)
 T8799 H. I. O'Neill, Anchorage -- Cu 7.23%; Mo 1-2% (est.)
 I7192 F. G. Daugherty, Gambell, St. Lawrence Island -- MoS₂

1941

T11041 B. D. Stewart, Juneau -- MoS₂ 1.10%
 I7465 Joe Thompson, Iliamna -- MoS₂
 I7474 F. C. Edgington, Platinna -- MoS₂

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Occurrences of Molybdenum

Name	Location	Remarks
Gus Conradt	Ptarmigan Cr., Mt. Hayes District	Low-grade molybdenite prospect
Sam Gamblin	McCarthy District	Molybdenite
Hajdukovich & Colbert, Lou	Goodpaster & head of Healy R.	Molybdenite
H. R. Joesting	Tungsten Hill, Fairbanks District	Traces of molybdenite in contact rock
Wm. Fram & Co.	Rock Creek, Mile 84, Nabesna Highway	Molybdenite prospect of Jack Roehm report, 1936

*For further information on these occurrences of H. R. Joesting--Strategic Mineral Notes

TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

NICKEL

Assay No.

1917

- MS 111-119 C. E. Lang, Livengood -- specimen containing chromite & Ni in considerable quantities *see G. E. Lang's Journal, 1917, p. 10.*
- MS 158 E. R. Babcock, Fairbanks -- small amount of Ni

1918

- MS 299-300 C. A. Bryant, Eagle -- trace of Ni
- MS 301-18 C. E. Lang, Livengood -- Ni present in small but probably workable amounts in 12 samples. Minerals gersdorffite, pentlandite, garnierite and chromite *see G. E. Lang's Journal, 1918, p. 10. - Paul Hopkins & Lang.*
- MS 485 E. L. Anderson, Ex 960, Fairbanks -- Tr Ni
- MS 496 L. J. McCarty, Fairbanks -- small amount of Ni
- MS 501 J. J. Barrett, Hot Springs -- nickeliferous pyrrhotite *see G. E. Lang's Journal, 1918, p. 10.*
- MS 558-60 Pat O'Connor, Livengood -- Ni, chromite
- MS 617-18 A. L. Markan, Nome -- Fe, Ni, Cu -- native of meteoric
- MS 650 Chas. Glascock, Chatanika -- Ni in pentlandite

1919

- MS 809 John Lake, Fairbanks -- Ni

1920

- 303 John E. Carlson, Jack R. Roadhouse via Nenana -- Ni 0.08% (Pentlandite MS722-4)

1921

- 526-31 Cook & Murphy, Nenana -- 5.1 Ni, rich Au-Ag *see G. E. Lang's Journal, 1921, p. 10.*
- MS 1400 R. E. Burns, Nenana -- serpentine with small amounts of Cu, Ni, Cr
- MS 1414 E. W. Maher, Skagway -- Ni (garnierite) ; possibility of commercial value
- 034-058 H. Townsend, B. of Mines, Seattle -- Ni Tr to 0.97%

1922

- 1112-14 Ed Smith, Akiak -- small amount of Ni
- MS 1524 Ed Smith, Akiak -- small amount of Ni in pentlandite

1924

- MS 2261-6 H. Townsend, Fairbanks -- Tr to considerable Ni (515 Pioneer Bldg., Seattle)
- MS 2274 F. B. Jiles, Roosevelt -- considerable Ni in garnierite (see assay 2500)

1925

- 2674-77 E. Stiegelmeier, Tanana -- 0.08 to 0.13% Ni
- MS 2394 E. Stiegelmeier, Tanana -- Ni
- MS 2454 N. L. Wimpler, U. S. B. of M., Fairbanks -- specimen containing small amounts of Ni & Cr.

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

NICKEL (Contd.)

Assay No.

1925

MS 2711 F. B. Jiles, Roosevelt -- considerable Ni in garnierite
serpentine containing Ni in millerite or
pentlandite (Cu Mt., McKinley Park)
(Mt. Eielson)

1927

3924 Louis Brigel, Fairbanks -- 0.2% Ni
MS 3028 L. E. Banzer, Valdez -- Cu & Ni in pyrrhotite
MS 3108 Eli Larson, Valdez -- by Patty -- Ni & Co

1928

4659 Fred Johansen, Valdez (E. H. Patty) Ni & Pt; Tr Cr₂O₃; Tr Ni & Pt
MS 3392 Fred Johansen, Valdez -- chromite, Tr Ni & Pt

1929

5167 Mrs. C. W. Hudson, Livenood -- Ni 0.31 (green stain said to be nickel
mineral is altered serpentine)
5406 W. J. Shannon, Honolulu Sta. -- contact metamorphosed limestone containing
very small amount of Ni Cu Mt.
MS 3664 Mrs. C. W. Hudson, Livenood -- Ni 0.31%
MS 3740 W. J. Shannon, Honolulu Sta. -- Ni
MS 3757 H. L. Winkler -- (see MS 301-13)

1930

6020 H. J. Leonard, Ex423, Juneau -- Ni - 0.38%
MS 4122 " " " "

1931

MS4394-5 F. E. Turner, Wrangell -- Ni, Mo
01496 B. D. Stewart, Juneau -- 1.14%

1932

MS 4805 B. D. Stewart, Juneau -- graphite in large flakes; Ni

1934

9711-18 Evanson, Alex, Fairbanks -- 8 samples containing garnierite, 1 in large amount
9929-34 Alex Evanson, Fairbanks -- Ni 0.15 to 0.65% *Goose Island, property of Alaska Co.,*
MS 5607 Alex Evanson, Fairbanks -- (same as 9711-18) *Goose Island, Alaska*

TERMINITY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

NICKEL (Contd.)

Assay No.	1935
10715	O. A. Braafleedt, Fairbanks -- Ni 0.30%
16047	O. A. Braafleedt, Fairbanks -- dolomite containing considerable Ni as garnierite
16149	Frank Blasher, Hyder -- small amount of Ni
	1936
11116	Kernick Smith, Frank R. Short Mine -- Ni less than 0.5%
	1937
11985	George H. Coshaw, Bishmarek -- pyrite specimen containing small amount of Ni
02268	John G. Reed, U. S. G. S., -- Ni 2.5%
	1938
24500	F. E. Co., Tuck -- Ni 0.67% Crawford -- Ni 2.27%
24525	F. E. Co., Tuck -- Ni 0.67%
	1939
77414	C. Foster Jones -- Ni 0.07% (Old Harbor)
	1940
28084	B. D. Stewart, Juneau -- Ni 4.06%
28473	Dean Ricks, Fairbanks -- Ni-Tr. <i>Little Nickel in, sample data of location, etc.</i>
28475	Anaconda Cu. (Harry Townsend) -- Salcha Ni 0.31%
	1941
17434	Fred Rich, College -- Ni

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Nickel Occurrences*

Name	Location	Remarks
Sam Gamblin & Charlie Smelzer (Trader at Indian R., Nabesna Road)	Near Mi. 123, C. R. & N. W. R. R.	Nickel
J. B. Mertie, Jr. & Fred Rich	Porcupine R. opp. mouth of Salmontrout R.	Seepage liquid containing Ni-alum
Selleck, Ed & Ricks, Dean	Little Ni. Cr., Salcha	Low-grade in serpentine and in dolomite contact zone also low-grade Chromite.

*For further information on these occurrences of. H. R. Joesting--Strategic Mineral Notes

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

PETROLEUM - COAL

Assay No.

1920

MS 1054 Edmond Moore(a/o J. H. Miles), Nenana -- petroleum
M 51059 R. R. Robinson, North Nenana -- petroleum (asphaltic?)

1921

MS 1242-4 C. A. Frank -- anthracite (Broad Pass via Nenana)
MS 1301 Vance McDonald, Fairbanks -- cannel coal or rich oil shale
-- specimen containing Na, KCO_3 , NaCl, C, $MgCO_3$
MS 1304 R. R. Robinson, North Nenana -- oil sand containing crude S

1923

MS 1826 Chief Jonas, Ft. Yukon -- oil shale and a high-ash, anthracite coal
MS 1860 Lee Pate, Ft. Yukon -- bony anthracite or carbonaceous shale

1924

MS 2182 Bartley Howard, Anchorage -- oil sample

1926

MS 2863 M. J. Conroy, Anchorage -- paraffine (ozocerite) ? artificial
MS 2937-41 Frank Holzholmer, Juneau -- oil shale to bony coal

1928

MS 3273-4-5 P. R. McGuire, Box 1448, Ketchikan -- oil shale

1930

MS 3912 M. L. Sharp, Anchorage -- St. Lawrence Island lignite(pitchy) (O.Geist)

1931

MS 4508 Harry Anthony, Ft. Yukon -- high grade bituminous coal(see file 733 for analysis)

1932

MS 4678 Stephen Ribstein, Eagle -- oil shale, 3 gals./ $\frac{1}{2}$
MS 4650 " " " " " " , low grade
MS4794 Wm. Meldrum, Fairbanks -- asphalt or petroleum pitch (gilsonite?) 40 Mi. area

1933

MS 5192 Stephen Ribstein, Eagle -- bituminous coal

DEPARTMENT OF MINES
TERRITORY OF ALASKA

Strategic Materials, Base Metals, etc.

PETROLEUM - COAL (COND.)

Assay No.

1937

MS 8470 Louis Giddings -- oil shale from Norvik (50% oil)

1935

16138 Otto Gelsb, College -- asphaltic lignite (?) from St. Lawrence Island

1941

Sgt. Stanley Morgan, Signal Corps, Ft. Barrow -- "Kiviks of numerous seeps forming oil lakes" S and E of Barrow, many of which are not described in U.S.G. Bull. 815. Oil-soaked moss is used for fuel by natives.

Coal seems not hitherto described - see 1941 field notes

H.R. Jostling

TERITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

1918

Assay No. 1918
MS 277 Edgar Brooker, Nenana -- Tr of Pt
MS 282-3 Fred J. Howard, Tofty -- Tr of Pt

1923

MS 1512 Ernest McLeod, Hog R., Koyukuk Sta. -- ^{placer and concentrates (Lambert Mission, Yukon R.)} placer concentrates Pt 2.6oz/T

1924

1943 Frederick Zorn, Anchorage -- Pt 0.02 oz./T

1926

MS 2925 Frank Holzheimer, Juneau -- placer Pt

1927

MS 2999-3000 Charles Thorsen, Bethel -- Pt & Cr
MS 3045 George Lingo, College -- placer Pt
0930 H. G. Ilderton, Anchorage -- small amount of Pt in black sand (Kenai Penin.)

1928

4659 Fred Johansen, Valdez (Patty) -- Pt & Ni-Tr; chromite

1930

01060 H. G. Fohn-Hanson -- placer; Pt & Ir 10.6% ; Pt & Pa 4.14% ; Pt & Rh 30.6% ^{did ca 1937}

1931

6774 D. E. Browne, Flat -- small amounts of Pt
6826 Ed Mahle, Box 1171, Anchorage -- Pt in black sand

1932

7381 Fred Gitchell, Box 1743, Anchorage -- Pt in black sand
7861 Rbt. W. Bender, Juneau -- Pt 0.02 oz. ; Au, Ag 12/T
MS 4655 W. L. Gross, Wrangell -- native Pt

1933

8223-8 Wendell Dawson, Box 1764, Ketchikan -- Tr to 0.04 Pa
8817 J. B. Hudson, Livengood -- Pt 0.01 oz (black sand)
MS 5173 R. E. Deardorf, Anchorage -- Pt, Cr
02021 G. H. Miller, U. S. B. M., black sand (Bear Cr.) 0.08 Pt; Ir, HgS, Cr₂O₃

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

PLATINUM (Contd.)

Assay No.

1933 (Contd.)

02033 M. L. Sharpe, U. S. B. M., Anchorage -- Pt (Kenai Peninsula)
02214 B. D. Stewart -- Pt 0.14 oz/T

1934

MS 5616 Frank L. Panting, Gulkana -- small grain of native Pt
MS 5804 Gus Dahlgren, Yakataga via Cordova -- Pt, Cr(Y)

1936

G642 R. E. Krautter, Old Harbor -- Pt concentrate

1937

G914-20 W. W. Spencer, Goodnews -- placer Pt

1938

T3984-3986 Orval Holmes, Fairbanks cf. under Chromium *Selen. content = Pt (1938-42)*
I6725 Paul Glasgow, Chitken -- Pt
I6775 Ed Borders, Ferry -- Pt *cf. above 1938-42*

1939

T6288 Bob Bowman, Gold Placers Inc, Coal Cr. -- High Pt content in concentrates
T7256-7 Bob Bowman, Alluvial Gold -- Pt 4.84 oz (7257 Ir, Rh 0.24 oz)
T7341 H. G. Wilcox, College -- float near Ketchikan (similar to Saltchuk ore) Pt. 1.4 oz.

1940

I7044 E. W. Pringle, Ferry -- Pt *cf. above 1938-42*

1941

T10451 Bartholomae Oil -- Pt 1.02 oz, ^{Au 2.2 oz} (concentrate from California Cr. dump)
T10827 W. W. Spencer, Platina -- Pt in dike rock from near Egegik - apparently salted
T11004 Wendell Lyons, Au & Pt (Fairbanks)

TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Occurrences of Platinum*

Name	Location	Remarks
H. R. Joesting	Moose Cr., near Ferry	Pt - Ir in black sands
Alstad, <i>Fairbanks</i>	Lucky Gulch (70 Mi. R.)	Traces of Pt in concentrate
Ed Selleck & Dean Hicks, Fairbanks	Little Nickel Cr., Saloha	Traces of Pt in ultrabasic rocks

*For further information on these occurrences cf. H. R. Joesting-- Strategic Mineral Notes

TERITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

TELLURIUM

Assay No.	1918
MS 250	Earl Bergman, Rampart -- native Bi containing considerable Te
	1922
MS 1602	A. O. Wells, Colorado Sta. -- bismuth plus sulphur plus tellurium (probably native Bi with bismuthinite and tetradyomite)
	1923
MS 1858	Frank Kelly, Anchorage -- Bi and bismuth tellurides
MS 1872	Frank Kelly, Anchorage -- metallic Bi containing Te and other impurities
MS 1900	Justus Johnson, Plat -- tetradyomite and metallic Bi <i>likely with some Bi₂Te₃(?)</i> <i>Present address (1911): Fairbanks</i>
	1925
MS 2576	Earl R. Pilgrim, Fairbanks -- placer concentrates containing hessite (Valdez Cr.)
MS 2520-6	N. L. Winkler, Anchorage -- hessite (Valdez Cr., Powless & Goodell Prospect) -- native Bi, native As
	1926
MS 2862	H. Townsend, Fairbanks -- hessite (Ag ₂ Te) (Valdez Cr.)
	1929
MS 3709	Norman L. Whittier, Fairbanks -- Au, Ag, Te compounds (sylvanite to calaverite); sample taken from single piece of float weighing about 20g found on Yukon above Circle, portion of sample assayed 1580 oz/t in Au & 190 oz/t in Ag
MS 3848	L. S. Wickersham, Windy -- hessite (placer pebble), Valdez Cr. region
	1930
MS 3901-8	Willow Cr. Mines, Wasilla -- Te in sylvanite
MS 3912	M. L. Sharpe, U. S. G. M., Anchorage -- Te in ore from Willow Cr. Mines (sylvanite)
	1931
MS 4567-8	L. S. Wickersham, Cantwell -- placer pebbles of hessite
MS 4925	L. S. Wickersham, Cantwell -- " " " (Origin-qtz ledge on White Cr.)
	1932
7797	L. S. Wickersham, Cantwell -- hessite in placer cleanup
MS 4925	See 1931

TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

TELLURIDES (CONTD.)

Assay No.	1924
MS 5678	Verne Robinson, c/o Nabesna Min. Co., Chitina -- tetradymite (small pellet)
	1936
MS 6166	Tom Stevens, Kasaan -- petzite; sylvanite?
	1937
MS 6533	Hawley Sterling, Fairbanks -- tetradymite (from Bennifield) <i>from Sam Kautskova (?)</i>
	1938
MS 6761-2	W. H. Roissel, Ketchikan -- Te
	1939
MS 6822	Joe Haley, Hughes (L. Koyokuk) -- tetradymite

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Occurrences of Tellurium

Name	Location	Remarks
<i>Theodore Chapin</i> J. B. Mertie, Jr.	Melba Cr., trib. Upper Fish Cr., Fairbanks District	cf. Bull. 592, p. 325, also found Bi & Bi ₂ S ₃

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

TIN

Assay No.	1918
MS 403	Fred Howard, Tofty -- cassiterite and chromite
MS 541-2	Dorothy Barnett, Fairbanks -- stream tin
	1919
MS 570-2	Chas. L. Grundy, Kantishna -- stream tin
	1920
MS 1048	John O. Walgren, Henana -- stream tin
	1921
603	Albert Verhónik, Ruby -- Sn 44.8%
MS 1424	H. E. Burns, Henana -- stream tin
	1922
753-4	Joe Konechny, Flat -- Sn 1.40 and 1.22%
MS 1369	E. V. Brown, Ben Cr. via Woodchopper-- stream Sn
	1924
1891	Fred Carlson, Ruby -- Sn 68% in placer concentrates
MS 2093	Tom Armstrong, Henana -- placer Sn
MS 2150	Fred Carlson, Ruby -- stream Sn
MS 2186	John Kelly, Miller House -- placer concentrate with cassiterite and chromite
MS 2232	H. I. Miller, Fairbanks -- stream tin
	1927
4014	Fred C. Lickwolff, Tanana (by L. H. Webster) -- Sn 69.75% in concentrates
4178	J. C. Inder, Fairbanks -- 60.9% Sn
MS 3011	Chas. Polky, Fairbanks -- cassiterite
MS 2052	Alex Craven, Fairbanks -- stream Sn
MS 5221	Arthur W. Lilledalo, Kantishna -- Stream Sn from Glen Cr.
MS 3278	S. L. Godfrey, Fairbanks -- Sn from Kome Cr. Dredge
	1928
4368	H. R. Farrell, Fairbanks -- placer Sn-25 to 65%
4379	Chas. G. Lewis, Fairbanks -- stream Sn-60%
4389	S. L. Godfrey, Fairbanks -- placer Sn-20.5%
4442	Ed Vogt, Fairbanks -- Sn 20.5%

TERMINOLOGY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

TIN (Contd.)

Assay No.	1930
34059	Albert Littlewood, Fairbanks -- cassiterite pebbles in sand from Homestake Cr., trib. to Faith Cr.
	1931
34418-20	Mr. Henry, Healy Forks -- wash Sn
	1932
7522	F. G. Co., Fairbanks -- black sand, Sn 7.5, W 16.5
34418	U. A. Jurva, Fairbanks -- stream Sn especially light-colored as is Kantishna Sn
	1934
345640	Mrs. Parke A. Todd, Eagle Summit Mill Box -- stream Sn <i>Barrow Dist. (?)</i>
345719	Joe Hill c/o Mr. Plyth, Fairbanks -- stream Sn
	1937
4425	Mt. Heath, Fairbanks -- black sand 54.5% Sn
	1938
71537	Pat O'Neill, College Sn 38%
42765	Ed Mathes, L.A. Cr. Drudging -- Sn 10.1% <i>Barrow Dist.</i>
73623	Dept. of Mines, Juneau -- Sn 24.5%
16735	J. M. Sielenthaler, Fairbanks -- cassiterite and wolframite
	1940
47608	Leo Saarola, Cleary Hill -- 6 samples, Sn 24 to 44% <i>Circle Springs Dist.</i>
48869	H. G. Wilcox, College -- Sn <i>near Healy Forks, Tolly Cr. Cr.</i>
48871	I. W. Purkayppilo, Peoraman -- Sn 55.75% (picked sample)
49222-50	L. Dohony, Fairbanks -- Sn <i>Barrow Dist.</i>
	1941
413024	Glen Martin, Circle Springs, -- cassiterite <i>Barrow Dist.</i>

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Tin Occurrences *

Name	Location	Remarks
Pat Barkley & Eddy Marschall	Crevice Cr., trib. to John R.	Much Sn in concentrates
Brinker-Johnson Co.	Caribou Cr., trib. Salcha R.	Stream Sn in concentrates
Charlie Fowler	Beaver Cr. & Pyne Cr., trib. S. Frk. Chena	Small amount in placer concentrates on several creeks in vicinity
Sam Godfrey	Henry Cr., trib. Kougarok	Cassiterite fairly abundant in stream concentrates
Verne Horn	Tok R., near Boulder Cr., on bar	Bipyramidal SnO ₂ crystal
Cyrus St. Amand	Koyukutuk R.	Said to be lode tin
Jess Lander	S. of Salmontrout R. and in Rat R. drainage	Said to be cassiterite in many streams
Alstad(Fairbanks)	Fox Cr. (70 Mi. R.)	Cassiterite in placer concentrates
H. R. Joesting	Flat Cr., trib. Stuyahok ; Moose Cr., (Menana Precinct); Deadwood, Harrison, Portage Creeks(Circle Precinct); Bedrock, Cleary, Chatham, Cripple, Dome, Eldorado, Fairbanks, Fish, Nome, Pedro, Sourdough, Twin Creeks(Fairbanks Prec.); Long, Spruce and Poorman Creeks,(Nulato Prec.).	Cassiterite " " "

*For further information on these occurrences cf. H. R. Joesting-- Strategic Mineral Notes

TERMINAL REPORT
 TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

TUNGSTEN

Assay No.

1918

MS 337 Bleeker & Collins, Fox -- W
 MS 366 Ronald Campbell, Nome -- W
 MS 426 Dan Gillis, Fox -- scheelite
 MS 430 J. H. Russell, Fairbanks -- scheelite
 MS 435-7 J. F. Zimmerman, Fairbanks -- scheelite, titanite
 MS 469-95 M. Stepovich, Fairbanks -- *Fish Cr.*

1921

MS 1416 Tom Phillips c/o U. S. Marshall, Fairbanks -- wolframite and scheelite pebbles

1923

MS 1849 B. E. Shuff, Richardson -- W

1924

MS 2186 John Kelly, Miller House -- placer concentrate containing scheelite, chromite,
 and cassiterite *prob. Miller Cr.*

1925

MS 2370 Wm. Eisenmenger, Fairbanks -- scheelite
 MS 2438 Frank Smith, Kettles -- scheelite

1926

MS 2650 W. E. C. Griger, Seward -- small amount scheelite
 MS 2887 Sylvanus Sansoney, Nome -- scheelite, chromite

1929

5334-51 F. E. Co., Fairbanks -- scheelite, cinnabar (Swede Cr.)
 01037 E. K. Pilgrina, Terr. Min. Eng. -- w_{O_2} 0.45%

1934

9662 M. A. Trepte, Kusitna -- scheelite, braunite
 MS 5656 Don H. Miller, Fairbanks -- wolframite from Kobuk

1935

MS 5517 R. Heath, Fairbanks -- scheelite *Swede Cr.*

DEPARTMENT OF MINES
 DIVISION OF MINES

Strategic Materials, Base Metals, Etc.

TABLE 12. (Contd.)

Assay No.	1956
16407	L. W. Gates, Livengood -- wolframite
6718-23	R. Heath, Fairbanks -- WO_3 , up to 2.81%
	1947
T1060-65	Bartolomae Oil Corp., Fairbanks, Calif., Tr. to 5.75% WO_3
1527	Cyrus St. Asand, Fairbanks -- about 4.0% scheelite Elliot Cr. (1)
1981-5	Rbt. Heath, Fairbanks -- WO_3 1.24%, 6.1%
1965	Chas. P. Herbert, Fairbanks -- WO_3 3.26%, 4.99%, 17.3% (pearl Cr. concentrate)
1906-7	Cyrus St. Asand, Fairbanks -- WO_3 2.26%, 4.90%
16576	L. C. Hess, Livengood -- scheelite
16625	H. W. Miller, Fairbanks -- scheelite
16657	J. D. Crawford, " -- wolframite
	1938
16735	J. H. Siebenhaler, Fairbanks -- cassiterite and wolframite
	1939
T7270	R. H. Eyer, Cleary Hill -- WO_3 5.71%
T7271	L. D. Colborn, Fairbanks -- WO_3 7.44%
	1940
16960	Sigurd Wigg, Ruby -- scheelite Cripple District - Paulsen ground
	1941
T9962	R. Heath, Fairbanks -- WO_3 42.24%
T10904	D. H. White, U. S. G. S. -- WO_3 0.50 to 0.62% Fairbanks Tungsten prospects.
17158-9	Pete Anderson, Ophir -- scheelite No 6 Prop, trib. Little Cr., Ophir Distr. of MacFarland, P30A
17281-90	Milo C. Campbell, Plat -- scheelite, chromite, cobalt

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Additional Tungsten Occurrences *

Name	Location	Remarks
Mike Stepovich	Pearl Cr., Fairbanks	Scheelite ore
Walter Culver & H. G. Wilcox	Broad Pass	Gold ore containing scheelite
Mike Lody	Caribou Cr., Bonfield	Small specimen containing hubnerite
Cook & Murphy	Eva Cr., Bonfield	Scheelite in placer concentrates
Bill Billion	Bird Cr., Talkeetna District	High scheelite content in placer concentrates
Doug Colp	Caribou Cr. (Salcha)	Small amount of scheelite in concentrates
George Gilson	Independence Mine, Willow Creek District	Scheelite in Au ore
H. R. Joesting	Moore and Eva Creeks (Mena- na Precinct); Bedrock, Chatham, Dome, Fairbanks, Goldstream, Pearl and Palmer Creeks (Fairbanks Precinct); Lillian and Ruth Creeks (Tolovana Precinct)	Scheelite in placer concentrates
H. R. Joesting	Switch Creek (Circle Precinct) Pearl Creek (Fairbanks Precinct)	Wolframite in placer concentrates
C. Mc Farland, Ophir	No 6 Pup, trib. Little Cr., Ophir Distr.	^{High-grade} Scheelite and gold in placer.

*For further information on these occurrences of H. R. Joesting-- Strategic Mineral Notes

UNIVERSITY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, etc.

INDEX

Assay No.	1918
MS 806-19	Chas. Spohn, Nenana -- Epsom salts, aka. $MgSO_4$
MS 529-32	Valentine Lesoure, Nenana -- fluorite
	1919
92	Joe Taylor, Nenana -- high lb. Ag ore
MS 669	Ma. McCarty, Mile 43, Nenana -- barite and witherite
	1920
221-5	Mr. Grant, Ketchikan -- Au, Ag, Pb, Zn, Cu ores (also G. M. Grant)
	1921
549-52	J. C. Price, McGrath (Ruby) -- high Ag, Pb assays
MS 1266	M. Moon, Unalakleet -- stibnite, chalcopyrite
MS 1282	A. Muller, Kaltag -- lapis lazuli
MS 1299	G. A. Frank, Fairbanks -- tripoli
MS 1355	James Ward, Ft. Yukon -- brine from salt lake, Na & K Cl , Na_2SO_4 , $CaCO_3$
	1922
781-2	E. Roland & Alfred Hendrickson, Ruby -- rich Au, Ag, Pb ore
1254	Charles Rose, Unalaska -- Au 0.12 oz., Ag 0.50 oz., Cu 0.86%, Zn 30.88%
	1923
1293	Rowley Sterling, Fairbanks -- rich Au, Ag, Pb, and Zn ore
MS 1949	Logan Stipp, Nenana -- gibbsite $Al(OH)_3$
	1924
2095	F. F. Jiles, Lake Minchumina -- Au 0.98 oz., Ag 207.5 oz., Pb 61.5%, Cu 1.8%
MS 2038	I. H. Forstad, Doyhof -- native Ag
MS 2144	G. L. Frank, c/o I. C. Nagley, Tazewell -- wollastonite
MS 2227	G. A. Frank, Chaditna -- pyrrhotite and Cu <i>present address (1941) Missoula, Mont.</i>
	1925
MS 2272	A. L. Tolstovain, Unalaska -- specular hematite -- also Pb, Cu, Zn
MS 2360	A. G. Legendet c/o E. Phillips, Fairbanks -- fluorite coated with Zn oxides
MS 2400	A. Muller, Kaltag -- obsidian
MS 2453	E. L. Wheeler, Fairbanks -- epsomite with melanterite and alunogen
MS 2595	John Wittich, Bettles -- clay similar to bentonite

TERMINUS OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MISCELLANEOUS (Contd.)

Assay No.	1926
MS 2636	Joe Sherwood, Medfra -- native Bi
MS 2764	Neill McCall, Healy -- Bi
	1927
MS 2142-7	Noel MacGregor, Petersburg -- obsidian
	1928
MS 2218	E. McLeod, Iliamna -- obsidian <i>Sample from company in Alaska</i>
MS 2254	J. L. Jean, Good News Bay -- high Ag galena
MS 2270	Ir. Smith, Kotzebue -- stony meteorite (?) 1/2 of Fe
MS 2375	Joe Konechnoy, Eskimote -- Au, Ag 37, Cu 4.1%
MS 2519	Harry Russell, Port Hobson, Kodiak -- SnS, FeS ₂
	1929
5359	A. B. Stephenson, Iliamna -- 36.50 in Au, Ag and considerable Zn, Pb & Cu
5422	F. E. Co., Fairbanks -- 40.5% Fe, 0.05% Sn
5494	J. W. Southward, Kotzebue -- high Pb-Ag ore
5522	A. G. Singletary, Valdez -- 11% Sn
5603	E. F. Patty, Fairbanks -- 17% Sn (sample named Unalaska)
MS 2696	W. K. Ireland, Monakee Springs -- Au, Ag, Cu, Pb
	1930
5607	Peter Jorgenson, Petersburg -- high Pb, Zn ores (15% of each) and Au, Ag
5612	Pawkins & Hansen, Dome Cr. -- rich Au, Ag specimens containing Cu minerals
5630	Leo H. Rodrigue, Medfra -- Au, Ag 171, Cu 19.7%
5676	Bill Hammorsloy, Iliamna -- high Ag galena ore
5693-4	J. O. Warren, Fairbanks -- Au, Ag 23, Pb 22%, Zn 13%
5736	F. E. Co., Fairbanks -- Au, Ag, 11% Cu, 24% Zn
5766	I. W. Turkeypille, Poorman -- low Au, Ag, Pb 6%: from Selawik (other Pb assays from there)
5927	W. B. Rodman, Ft. Yukon -- galena, low in Ag
6039	Reinken Bros., Unalaska c/o W. W. Taylor, Cordova -- Cu, Pb ore
6047	Frank G. Manley, Fairbanks -- Cu 12%
6158-60	W. G. Shannon, Honolulu Sta. -- 17% Cu, high Ag; rich tetrahedrite
6176	Alex Karalan, Kiana -- Cu 7 to 8% in various samples submitted
6177	J. E. Strand, Medfra -- Au, Ag 115, Cu 48%
6182	Andrew Draglich, Healy Fork -- Pb, Zn ore
6269	H. Stroussner, Fairbanks -- Au, Ag 30, Pb 27%, Zn 7%
MS 4106	John K. Dryer, Dewara -- obsidian
MS 4203	Rlt. Heath, Fairbanks -- obsidian
01160-2	W. D. Stewart, Juneau -- Fe 20 to 25%

14
MINERALOGICAL
5 PARTS OF 1933

Strategic Materials, Base Metals, Etc.

MISCELLANEOUS (Contd.)

Assay No.

1931

- 6801 Durrell Finch, Chulitna -- Cu 7%
MS 4320 E. J. Howe, Nome -- obsidian
MS 4250 Fred A. Henton, Kodiak -- fossil resin
MS 4622 Lon French, Plat -- realgar

1932

- 7193-4 Hawley Sterling, Yakona -- Au, Ag 20/2, Cu 25 and 40%
7248 Bill Hammersley, Illiamna -- Cu 11%
7256 James A. Stewart, Miller House -- specular hematite, 54.47% Fe; 0.001 Phosphorus
7754 Chas. Derison, Illiamna -- small amount of Ni

1933

- MS 4994 Earl L. Dyer, Petersburg -- dike dior
MS 5025 Sam Kope, Kotzebue (S.A. Geist) -- chlorite gabbro containing free Au (est. \$1000/T)
MS 5056 Phos. Perryman, Kotzebue -- Jade of nephrite variety, orange end of poor color
MS 5102 E. D. Stewart, Juneau -- novaculite
MS 5103 Ralph Reed, Seward -- punch mice
MS 5224 C. Clausen, Chukchiak, -- quartz crystals

1934

- 9197 A. Crane, Fairbanks -- galena from Brenner region, Au, Ag 120, mostly silver, Pb 81%
MS 5434 Melvin H. Gase, Chitina -- Au, Ag 1100; arsenopyrite containing Ni & Co
MS 5801 Brown Carlson, Illiamna -- obsidian

1935

- 10709 A. L. Gillis, Cordule -- galena rich in Ag
10741 W. R. Paasankari, Igrook -- Pb, Zn
10904 Fred P. Johnston, Inalik -- Au, Ag 24.76; Cu 4.4%; Pb 11.7%; Ni 34.0%
16052 R. H. Krantler, Old Harbor -- pyrrhotite, Cu, Ni
688 A. H. McCard, Fairbanks -- quartz vein 6' wide, head of Starbuck Cr on Porcupine Dome; great samples from various points along 400' of vein average \$10.36
G276-8 Brenner, Birdwood (Greenback Hill; 20) -- consistently high Au, Ag values

1936

- 16233 Fred P. Darocher, Council -- iron meteorite and Ni, C
6810 John Olsen, Humphrey's Pt. via Barrow -- vein 20' x 700' 20.25 in Ag, Gordon Cr. trib. to Skpeluk R.

TERRITORY OF ALASKA
 DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

MISCELLANEOUS (Contd.)

Assay No.

1937

13173-5 B. D. Stewart, Juneau -- Au, Ag, 25, 5.5% Cu (average)
 17435 B. D. Stewart, Juneau -- amethyst crystals
 61047 R. Heath, Fairbanks -- high Au ore from head of Pearl Cr.; contains arsenopyrite and pyrrhotite
 16670 Bill Hammersley, Igluigig -- Native Ag; in black sand (1938)

1940

79001 J. J. Matuska, Hollis -- Zn 24%
 17147 Ambrose William, Venotie -- Cu and graphite

1941

T10726 F. E. Co., Fairbanks -- Pb 25%, Zn 27% *Shelburne Cr.,*
 T11063 F. R. Bonnell, c/o Follack, Fairbanks -- high Au, Ag, Pb and Cu *Nantishua*
 I7236 F. G. Klorokoper, Pt. Barrow -- amber
 I7312 Duane Hall, Fairbanks -- fluorite (see Young Colp)
H.R. Joesting -- fluorite from Monument Cr., Chena Springs Distr.

TERRITORY OF ALASKA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

Other Reports of Interesting Prospects*

Name	Location	Remarks
Sam Gamblin	Bettles R. Near Big Lake, Koyukuk	Large qtz crystals-- samples submitted unsatisfactory a/c L. Doheny
Sam Gamblin	Wild Lake, Koyukuk	" " "
Sam Gamblin	Back of Jack L., near Slana	Mica -- Indian reports
Sam Gamblin	25 mi. from Gulkana	" "
Sam Gamblin	Michigan Cr., <i>Koyukuk R</i>	Said to be large high-grade Pb-Ag deposit, considerably faulted
Otto Geist	Upper Alatna R.	Large high-grade Ag-Pb deposit
Fred Crane	Near Nulato	Galena ore containing 10-30 oz Ag & 1% Cu
Cyrus St. Amant	Elliott Cr.	Rutilated quartz

*For further information on these occurrences cf. H. R. Joesting--Strategic Mineral Notes

GEORGETOWN OF CANADA
DEPARTMENT OF MINES

Strategic Materials, Base Metals, Etc.

URANIUM - VANADIUM - RADIUM

Assay No.

1918

MS 473-8 Geo. Gatto, Kenama -- specimen contains considerable Va, Ur and probably Ra--
mineral appears to be carnotite (July, 1918)

Additional Reported Occurrences

Name	Location	Remarks
Ted Elkins	Discovery Pup, Grubstake Cr., Bonnifield	Radioactive black sands of H. R. Joesting

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES

<u>District</u>	<u>Creek</u>	<u>Location</u>	<u>Mineral</u>	<u>Relative Abundance</u> (1)
<u>Bonnifield</u>	Eva Cr.	Cook & Murphy out	Bismuthinite	3/16
			Scheelite	15/16
			Chromite	8/16
			Ferberite	10/16
	Gold King	Ted Mathews - drill hole - concentrate	Scheelite	13/15
	Grubstake	Discovery Pup - Ted Elkins	Chromite	15/18
			Scheelite	16/18
		No. 1 Above - Adolf Nelson ground	Scheelite	16/17
		Disc. Pup - concentrate from 4 pans	Scheelite	14/16
	Moose	2 mi. above mouth of Cody Cr.	Scheelite	8/26
Cassiterite			10/26	
Cinnabar			13/26	
Pt-Iridium			24/26	
<u>Chena</u>	Palmer	5 above Discovery - 2 $\frac{1}{2}$ mi. above mouth	Scheelite	13/14
		2 mi. above mouth - Parker & Raymond out	Scheelite	1/12
<u>Fairbanks</u>	Bedrock	Trib. of Cleary Cr., $\frac{1}{2}$ mi. above mouth	Cassiterite	11/17
			Scheelite	15/17
	Chatham	Discovery Cl.	Cassiterite	4/19
			Scheelite	11/19
		Dredge concentrates	Cassiterite	4/6
		Scheelite	5/6	

(1) Numerator indicates order of abundance of the mineral; denominator indicates total number of mineral species identified. Thus 3/6 means the mineral is 3rd in abundance in a total of 16 minerals identified

<u>District</u>	<u>Creek</u>	<u>Location</u>	<u>Mineral</u>	<u>Relative Abundance</u>
<u>Fairbanks</u> (Cont'd)	Chatham (Cont'd)	Johnson prop. above Bedrock Cr.	Cassiterite Scheelite	Common (2)
	Cleary	Mouth of Willow Cr. 6 above, Bench Claim 5 above, Bench Claim 2 above, Bench 4 below Discovery	Cassiterite Cassiterite Cassiterite Stibnite Cassiterite	15/15 8/13 5/5 8/15 5/5
	Cripple	7 below Discovery	Cassiterite	10/10
	Dome	No.16, Shakespeare Group	Cassiterite Scheelite	6/16 16/16
		Mallory Lay, Shakespeare Group	Scheelite	10/12
	Lower Dome	Niggerhead Assoc.- from drift mine	Scheelite	18/18
	Eldorado	Eldorado	Cassiterite	4/?
	Fairbanks	Concentrates from upper dredge	Scheelite	6/6
		No. 12 Bench, Left Limit	Scheelite	7/9
		6 above Discovery	Stibnite Scheelite	8/13 12/13
		1 below Discovery	Cassiterite Scheelite	14/15 15/15
		1 below Discovery	Scheelite Cassiterite Wolframite	5/16 7/16 14/16
		Just above mouth of Deep Cr.	Antimony (Sb ₂ S ₃)	11/13
	First Chance	¼ mi. above mouth	Scheelite Cassiterite ?	1/15
	Fish	Upper part of 10 above Disc.	Stibnite	6/8
		Lower part of 10 above	Stibnite Cassiterite ?	8/15

(2) Terms abundant, common, scarce, rate indicate relative abundance when mineralogical examination is incomplete.

<u>District</u>	<u>Creek</u>	<u>Location</u>	<u>Mineral</u>	<u>Relative Abundance</u>	
<u>Fairbanks</u> (Cont'd)	Goldstream	Mouth of Gilmore Cr.	Scheelite	17/21	
		21 below Discovery	Scheelite	11/18	
	Nome	Dredge concentrates	Cassiterite	9/13	
	Pearl Cr.	Just below Yellow Pup	Scheelite, wolframite & bismuth		
		Rbt. Heath Property	Scheelite	1/12	
	Pedro	Upper part of 5 Below	Cassiterite	13/16	
	Sourdough	4 mi. from Chatanika	Stibnite Cassiterite	5/18 15/18	
	Twin		Cassiterite ?		
	<u>Flat</u>	Black	Trib. Otter Cr. - 2 mi. above Flat	Scheelite	1/19
				Chromite Cassiterite ?	10/19
<u>Circle</u>	Bonanza	4 mi. above mouth	Pyrolusite	Scarce	
	Deadwood	Just below Discovery	Cassiterite	5/7	
		1/8 mi. below Discovery Pup	Cassiterite	18/18	
	Switch	Trib. Deadwood	Wolframite	Common	
	N. Fork of Harrison	5 mi. above mouth	Cassiterite	5/5	
	Portage	Trib. Medicine Lake, just below drill line 19½	Cassiterite	7/15	
<u>Hot Springs</u>	Sullivan Cr.	Near Tofty Gulch	Cassiterite	5/11	
<u>Livengood</u>	Amy		Stibnite	Scarce	
	Good Luck		Chromite	1/5	
			Cinnabar	5/5	
	Lillian	1 above Discovery	Cinnabar Scheelite Stibnite	5/11 6/11 9/11	

<u>District</u>	<u>Creek</u>	<u>Location</u>	<u>Mineral</u>	<u>Relative Abundance</u>
<u>Livengood</u> (Cont'd)	Livengood	Above Amy Cr.	Cinnabar	
		Gold Dollar Cl., opposite 8 Above	Chromite	3/7
		Eldorado Bench Cl., opposite 5 Above	Chromite	5/15
		5 Above	Chromite	1/8
			Cinnabar	6/8
		Alabam Claim	Chromite	1/7
			Cinnabar	6/7
		5 Above	Cassiterite ?	
			Chromite	1/17
			Scheelite	10/17
	Cassiterite ?			
	Lucile	Chromite	3/27	
	Olive ?	Cinnabar	2/7	
		Pyrolusite	7/7	
	Olive	1/2 mi. above road	Cinnabar	2/16
		Chromite	7/16	
		Scheelite	14/16	
	Ruth		Chromite	2/8
			Scheelite	3/8
			Cinnabar	6/8
<u>Ophir</u>	Little Cr.	MacFarland prop. No. 6 Pup, trib. Little Cr.	Scheelite	1/16
<u>Salcha</u>	Caribou	Upper end No. 7B - 1500' below Pearl Cr.	Cassiterite	12/19
			Scheelite	18/19
<u>Poorman</u>	Spruce	4 mi. above mouth	Cassiterite	9/13

<u>District</u>	<u>Creek</u>	<u>Location</u>	<u>Mineral</u>	<u>Relative Abundance</u>
<u>Seward Peninsula</u> or <u>Port Clarence Precinct</u>	Anakovik R.	Head of Wallace Workings Bench, $1\frac{1}{2}$ mi. above mouth	Cassiterite	3/x Scarce
	Buck Cr., Potato Mtn.	1st creek on L.Limit of Buck Cr., $\frac{1}{2}$ mi. Ab. Left Frk, which is right limit fork	Scheelite	Rare
	Camp	Trib. Lost River, 100' above mouth	Scheelite Cassiterite	2/14 9/14
	Cape Cr.	Nr. Tin City, 1400' from mouth	Cassiterite Scheelite	9/17 17/17
	Cassiterite	Nr. Lost R., L.L. on cassiterite dike at mine	Cassiterite Wolframite Scheelite	1/10 9/10 10/10
	Monument	Snake R. region Dredge concentrate	Scheelite	10/15
	Eldorado (Ear Mtn.)	Vatney Gulch, head of Eldorado	Cassiterite Scheelite	5/7 7/7
		Head of creek	Cassiterite Scheelite	11/13 9/13
	Goodwin Gulch	Tin City region	Cassiterite Scheelite	2/x Scarce 3/x Scarce
	Henry Cr.	Kougarok region	Cassiterite Scheelite	6/13 12/13
	Krouger	Ear Mtn. region	Cassiterite Scheelite	3/11 11/11
	Rocky Mtn. Cr.	Nome R. region near mouth	Scheelite Cassiterite	1/x Common 4/x Scarce
	Sutter Cr.	Potato Mtn.	Cassiterite	1/5
	Tuttle	Ear Mtn. region; #4 below	Cassiterite Scheelite	2/8 6/8
		#4 below	Cassiterite Scheelite	3/9 8/9

<u>District</u>	<u>Creek</u>	<u>Location</u>	<u>Mineral</u>	<u>Relative Abundance</u>
<u>Seward Peninsula</u> (Cont'd)	Twin Cr.	Snake R. region, L.L. bench below Forks	Scheelite	2/16
	York Cr.		Cinnabar ?	Rare
<u>Sleetmute</u>	Holitna R.	Shaeffer & Winchell prospect, upper river	Cinnabar	5/9
	Kuskokwim R.	Landru prospect; $\frac{1}{4}$ mi. below Sleetmute in Cinnabar Gulch	Cinnabar	1/10
<u>Talkeetna</u>	Bird Creek		Scheelite	1/10
<u>Wade-Hampton</u>	Bobtail		Cinnabar Chromite	9/10 10/10
	Buster	Drill samples	Chromite	16/18
	Elephant	Wilson Min. Co.	Scheelite	14/15
	Flat	Trib. Stuyahok R., 6 below Discovery	Cinnabar	5/21

H. R. J.

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES

Cassiterite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Bonnifield</u>	Moose	10/26 (1)
<u>Circle</u>	Deadwood	5/7
	N. Frk of Harrison Cr.	5/5
	Portage	7/15
<u>Fairbanks</u>	Bedrock	11/17
	Chatham	4/19
	Cleary	15/15
	Upper Cleary	Common (2)
	Cripple	10/10
	Dome	6/16
	Eldorado	Rare
	Fairbanks	7/16 14/15
	First Chance ?	
	Fish ?	
	Nome	9/13
	Pedro	13/16
	Sourdough	15/18
	Twin ?	

- (1) Numerator indicates order of abundance of the mineral; denominator indicates total number of mineral species identified. Thus 9/13 means the mineral is 9th in abundance in a total of 13 minerals identified.
- (2) The terms abundant, common, scarce, rare indicate relative abundance when the mineralogical examination is incomplete.

Cassiterite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Flat</u>	Black ?	
<u>Livengood</u>	Livengood ?	
<u>Hot Springs</u>	Sullivan	5/11
<u>Poorman</u>	Spruce	9/13
	Long - considerable SnO ₂	
<u>Salcha</u>	Caribou	12/19
<u>Seward Peninsula</u> or Port Clarence Precinct	Anakovik	Scarce
	Camp Cr.	9/14
	Cape	9/17
	Cassiterite	1/10
	Eldorado	5/7 11/13
	Goodwin Gulch Ear Mtn.	Scarce
	Henry	6/13
	Krouger	3/11
	Rocky Mtn.	Scarce
	Sutter	1/5
	Tuttle	2/8 3/9

H. R. J.

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES

Chromite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Bonnifield</u>	Eva	8/16
	Grubstake	15/18
<u>Flat</u>	Black	10/19
<u>Livengood</u>	Good Luck	1/5
	Livengood	3/7
		5/15
		1/8
		1/7
	1/17	
	Lucille	3/27
Olive	7/16	
Ruth	2/8	
<u>Wade-Hampton</u>	Bobtail	10/10
	Buster	16/18

H. R. J.

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES

Cinnabar Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Bonnifield</u>	Moose	13/26
<u>Livengood</u>	Ester ?	
	Good Luck	5/5
	Lillian	5/11
	Livengood	6/8 6/17
	Olive	2/7 2/16
<u>Sleetmüte</u>	Holitna R.	5/9
	Cinnabar Gulch, Kuskokwim	1/10
<u>Wade-Hampton</u>	Bobtail	9/10

H. R. J.

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES

Scheelite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>	
<u>Bonnifield</u>	Eva	15/16	
	Gold King	13/15	
	Grubstake	16/18 16/17 14/16	
	Moose	8/26	
	<u>Chena</u>	Palmer	13/14 1/12
<u>Circle</u>	Deadwood	Scarce	
<u>Fairbanks</u>	Bedrock	15/17	
	Chatham	11/19 5/6	
	Upper Cleary	Common	
	Dome	16/16 10/12 18/18	
	Fairbanks	6/6, 7/9 12/13, 15/15, 5/16	
	First Chance	1/15	
	Goldstream	17/21 11/18	
	Pearl	Abundant	
	<u>Flat</u>	Black	1/19

Scheelite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Livengood</u>	Lillian	6/11
	Livengood.	10/17
	Olive	14/16
	Ruth	3/8
<u>Ophir</u>	Little	1/16
<u>Salcha</u>	Caribou	18/19
<u>Seward Peninsula</u> or Port Clarence Precinct	Buck	Rare
	Camp	2/14
	Cape	17/17
	Cassiterite	10/10
	Monument	10/15
	Eldorado	7/7 9/13
	Goodwin Gulch	Rare
	Henry	12/13
	Krouger	11/11
	Rocky Mtn.	Abundant
	Tuttle	6/8 8/9
	Twin	2/16
	<u>Talkeetna</u>	Bird
<u>Wade-Hampton</u>	Elephant	14/15

H. R. J.

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES

Wolframite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Circle</u>	Deadwood ?	
	Switch, Trib. to Deadwood	Scarce
<u>Fairbanks</u>	Fairbanks	14/16
	Pearl	Scarce
<u>Seward Peninsula</u>	Cassiterite	9/10

Ferberite Occurrences

<u>Bonnifield</u>	Eva	10/16
-------------------	-----	-------

Platinum-Iridium Occurrences

<u>Bonnifield</u>	Moose	24/26
-------------------	-------	-------

Pyrolusite Occurrences

<u>Circle</u>	Bonanza	Scarce
<u>Livengood</u>	Olive	Rare

H. R. J.

TERRITORIAL DEPARTMENT OF MINES
STRATEGIC MINERALS FOUND IN ALASKAN PLACER
CONCENTRATES.

Stibnite Occurrences

<u>District</u>	<u>Creek</u>	<u>Relative Abundance</u>
<u>Fairbanks</u>	Cleary	8/15
	Fairbanks	8/13
	Fish	6/8 8/15
	Sourdough	5/18
<u>Livengood</u>	Amy	Scarce
	Lillian	9/11

Bismuthinite Occurrences

<u>Bonnifield</u>	Eva	3/16
<u>Fairbanks</u>	Pearl (bismuth)	Scarce

MR Misc
1942

TERRITORY OF ALASKA

DEPARTMENT OF MINES

REPORT ON MINING ON THE SEWARD PENINSULA DURING 1942 AND ON THE POSSIBILITIES OF MINING STRATEGIC MINERALS

By H.R. Jorling

Introduction

The period Nov. 15-19, 1942, was spent in Nome for the purpose of obtaining information on (1) mining operations on the Seward Peninsula during 1942, (2) the probable extent of 1943 operations, (3) the possibilities of producing strategic minerals and the manner in which the Department of Mines could aid production, (4) the physical condition of the Nome Assay Office and (5) the desirability of offering a mining short course, given by an engineer of the Department of Mines stationed at Nome, under the jurisdiction of the University of Alaska.

Mining Operations during 1942

Lists of lode and placer mining operations during 1942 in the various precincts of the Seward Peninsula were prepared and have been submitted in advance of this general discussion. At the time the lists were prepared most of the mining operations had shut down for the season, consequently it was necessary to obtain information from those operators and other individuals who happened to be in Nome at the time. Although every effort was made to check this information, it is likely that the lists contain a few inaccuracies, since at many operations there were frequent changes during the season in the number of men employed.

As in other parts of Alaska, placer mining was seriously curtailed during 1942, chiefly because of a shortage of labor. Practically all of the active mines worked with smaller than normal crews, and many of them shut down altogether. Other reasons for curtailment were increased costs of labor and equipment, and difficulties in obtaining fuel, equipment and supplies. These increased

MINING ON SEWARD PENNINSULA

operating costs and shortages of material are, of course, the result of war-time conditions in general and the program of military construction on the Seward Peninsula in particular.

No gold lode mines were active in 1942. In previous years several lodes were in the process of intermittent, small-scale development. Considerably less placer tin was mined than in previous years; the only production was a small amount sniped by Eskimos in the York district. Most of the concentrates thus produced, amounting to 1,000 pounds, were purchased in small lots by Tom Christensen of Teller. Small amounts of scheelite were recovered from several gold placer mines.

Mining Operations in 1943

Because of the WPB order closing down all but the smallest gold mines there will be practically no gold placer or lode mining on the Seward Peninsula in 1943. Even before the order was issued, however, most of the miners did not plan to resume operations in 1943. A few intended to continue mining with reduced crews, apparently because their ground is sufficiently rich to be worked profitably in spite of greatly increased mining costs.

It is hoped that cessation of gold mining, combined with the urgent need for other metals, will result in at least a small increase in prospecting and mining for strategic materials. Most placer operators, of course, are not equipped to change over to lode mining, but some of them may find it feasible to mine tungsten from placers. A few miners and prospectors in the vicinity of Nome have already directed their attention to deposits of antimony and tungsten.

Possibilities of Strategic Mineral Production

Among the strategic materials found in significant amounts on the Seward Peninsula are tin, tungsten, antimony and graphite. All of these materials

MINING ON STEWARD PENINSULA

have been mined and shipped at various times, but with the exception of insignificant amounts of tin and tungsten, none are now being produced. Prospecting and development was resumed on a small scale in 1942, however, and it is likely that some antimony will be produced in 1943, as well as larger amounts of tin and tungsten.

During the past season examinations of both lode and placer tin deposits in the York district were made by H. E. Heide of the U.S. Bureau of Mines. As a result of these examinations, operations will probably be resumed in 1943 on several placer tin deposits. Presumably a longer time will be required to start production from the lodes, which are reported to be relatively low-grade.

Listed in the following table are occurrences of placer cassiterite as determined by examination by the Department of Mines of samples of concentrates furnished by Tom Christensen. Additional occurrences are reported in U.S. Geological Survey publications, but available data are far from complete.

<u>Location and description of sample</u>	<u>Relative abundance of cassiterite</u>
Anakovik R.; bench $1\frac{1}{2}$ mi. above mouth. Upper part of Wallace workings	Scarce
Beach concentrates, 3 mi. E of Lost R.	Rare
Cape Cr., nr. Tin City. #1 claim, 600' from mouth	Scarce
Cape Cr., #4 claim, left limit	Abundant
Camp Cr., trib. Lost R. 100' from mouth	Scarce
Cassiterite Cr., trib. Lost R. Left limit, on cassiterite dike	Abundant
Eldorado Cr., Bar Mt. area. Head of creek	Scarce
Vatney Gulch, trib. Eldorado Cr.	Scarce
Goodwin Gulch, near Tin City. Last hutch of cleaner jig	Scarce

MINING ON SEWARD PENINSULA

Henry Cr., Kougarok district	Common
Kreuger Cr., Ear Mt. area	Common
Monument Cr., near Nome. Dredge concentrates	Rare
Quartz Cr., Ear Mt. area	Scarce
Rocky Mt. Cr., near Nome. Close to mouth of Creek	Common
Sutter Cr., Potato Mt. area	Abundant
Tuttle Cr., Ear Mt. area. Claim #4 below	Common

Intermittent small-scale development was done in 1942 on antimony lodes near Nome; on the Hed and Strand property on Dahl Creek, and on the McDuffee property on Steep Creek. A total of about 6 tons of high-grade stibnite is reported to have been taken out during the development work. Other known antimony prospects in the Cape Nome precinct include the Sliscovitch mine on Manila Creek and an open cut on Grouse Creek, from which a small shipment of stibnite was made in 1941. A number of additional occurrences are listed in "Preliminary Economic Survey of the Seward Peninsula", published in 1940 by the Alaska Planning Council.

Placer scheelite occurs in significant amounts in a number of tributaries of the Snake River, and also in a few tributaries of the Nome River. It has been mined as a byproduct from some of the gold placers, but apparently no attempts have been made to effect maximum possible recovery. Scheelite has also been recovered from dredge concentrates by the U.S. S. R. & M. Co., and during the past season some attention was paid to producing a satisfactory concentrate. On Rock Creek, prospect cuts were bulldozed by the U. S. S. R. & M. Co., in what is apparently a residual scheelite deposit. Samples were taken by H. E. Heide of the U. S. Bureau of Mines.

MINING ON SEWARD PENINSULA DURING 1942

Following is a summary of information concerning mining ground on tributaries of the Snake River, on which placer scheelite has been found. This information was collected by H. E. Heide, from miners in the district and from U.S. Geological Survey publications.

Anvil Creek: upper $\frac{3}{4}$ mi. could possibly be worked. Dredged for width of ~~250~~' water all season.

Snow Gulch: 3000' could possibly be worked. 150' width has been mined. Depth about 6'.

Glacier Creek: 1 mi. dredged 300' wide. Was hydraulicked $\frac{1}{2}$ mi. below dredge. Depth 12'. Water all season.

Monument Creek: Worked by Don Stewart.

Rock Creek: (Sophie Gulch): $1\frac{1}{2}$ mi. long, 200-300' wide, 12' deep; part hydraulicked water all season. Bulldozer cuts made by U. S. S. R. & M. Co.; sampled by H. E. Heide. May work in 1943 if values justify.

Between Rock and Prospect Creeks: 2 gulches, $\frac{1}{2}$ mi. long, 25' wide; generally dry.

Prospect Creek: $\frac{1}{2}$ mi. long, 25' wide, shallow. Possibly water all season.

Sledge Creek: $\frac{1}{2}$ mi. long, 50' wide, shallow. Water all season

Boulder Creek: 4 claims hydraulicked near mouth of Twin Creek. Water all season.

Mountain Creek: trib. of Boulder Cr., may be same as Twin Cr. 3 claims hydraulicked. 100-300' wide; depth 10' in upper part, 25' in lower part. Water all season.

Bangor Creek: dredged $1\frac{1}{2}$ mi. by 200' in 1921. Good pay. Depth 10-18'. Upper creek also mined by Butterfield Co.

Divining Creek: $\frac{3}{4}$ mi. long, 125' wide. Not worked.

Blatchford Creek: $\frac{3}{4}$ mi. long, 50' wide.

Scheelite was also found in a number of samples of placer concentrates, collected by Tom Christensen and examined by the Department of Mines, as shown in the following list.

<u>Location and description of Sample</u>		<u>Relative abundance of scheelite</u>
Buck Cr., Potato Mt. area.	First creek on left limit Buck Cr.	Rare
Camp Cr.,	trib. Lost R., 100' above mouth	Common
Cape Cr.,	Near Tin City. 1400' above mouth	Rare
Cassiterite Cr.	Trib. Lost R. On left limit on cassiterite dike. Also contains small amount of wolframite	Rare
Eldorado Cr.,	Ear Mt. area. Head of creek	Scarce
Vatney Gulch,	trib. upper Eldorado Cr.	Rare
Goodwin Gulch,	near Tin City. Lost hutch of cleaner jig	Scarce
Henry Cr.,	Ear Mt. area	Rare
Kreuger Cr.,	Ear Mt. area	Rare
Monument Cr.,	near Nome. Dredge concentrates	Scarce
Pinguk R.,	west head	Scarce
Rocky Mt. Cr.,	near Nome, close to mouth of creek	Abundant
Quartz Cr.,	Ear Mt. area	Rare
Tuttle Cr.,	Ear Mt. area. Claim #4 below	Scarce
Twin Cr.,	Snake R. area. Left limit bench below forks	Common
York Cr.,	York district	Scarce

Little definite information could be obtained concerning the lode sources of the scheelite. It was reported, however, that lode scheelite has been found, apparently both in quartz veins and in replaced limestone, in the Snake River area, but that no systematic prospecting has been done.

Occurrences of other minerals are mentioned in U.S. Geological Survey publications and are tabulated in "Preliminary Economic Survey of the Seward Peninsula". Worthy of special mention are deposits of graphite at the head of the Grand Central River, from which shipments were made in 1912 and 1916. No record was found in the Nome Assay Office to indicate that they had been examined by the Department of Mines, consequently a preliminary examination at an early date is recommended.

It is evident that the Seward Peninsula is a potential producer of several

strategic minerals. Whether any significant production can be ^{or} affected within the next two years, however, depends not only on the existence of deposits sufficiently high-grade or extensive so that the effort expended in developing and working them will not be disproportionate to their yield, but also on the availability of equipment and men. Placer tin and tungsten could be mined with little delay, since equipment and experienced men are available. Early lode production on any but the smallest scale would be more difficult to effect, because little equipment and few experienced lode miners are available in the region.

Placer tin production could doubtless be increased by increasing the price paid for tin concentrates, or by arbitrarily widening the mining limits of some of the larger deposits and compensating the operators for their losses. Placer scheelite apparently offers the best opportunity of producing tungsten quickly and with equipment already available. During the last war, scheelite was mined from gold placers, but its value was less than that of the gold. At present, when gold is of minor importance, most of the tungsten-bearing placers will lie idle unless special provisions are made. Investigations should be made to determine if any of them contain sufficient scheelite to warrant working.

Examinations of antimony and tungsten lodes should be made to determine if rapid development for at least moderate-scale production is feasible. Small-scale production of antimony is apparently possible under existing conditions.

The Role of the Department of Mines in aiding Strategic Mineral Production.

While in Nome the writer discussed with various people the question of the advisability of reopening the Nome office of the Department of Mines. The consensus was that this would be essential if strategic minerals are to be produced by individuals of limited means, ~~although~~ it alone would not assure their production in substantial quantities. The services of an engineer-assayer are more essential now, however, than when most prospecting was for gold, since few of the prospectors are familiar with strategic minerals or their modes of occurrence. Probably one of

MINING ON SEWARD PENINSULA

his chief functions would be to stimulate the interest of individuals in prospecting and developing strategic mineral deposits. This could be done largely by examining deposits, identifying and assaying minerals, and acting in an advisory capacity.

A second function of an engineer-assayer would be to aid and cooperate with the Bureau of Mines in their work on the Seward Peninsula. This could be done by carrying out surface investigations of strategic mineral deposits, preliminary to detailed examinations by the Bureau of Mines, and by analyzing ore samples taken during the detailed examinations. Mr. E. Heide, in charge of the Bureau of Mines work on the Seward Peninsula in 1942, expressed himself as favoring this cooperation. He mentioned specifically the need for surface examinations of antimony and tungsten deposits preliminary to possible examinations by the Bureau of Mines.

A third function would be to act as deputy agent for the Metals Reserve Company for the purchase of strategic minerals. At present only inconsequential amounts of strategic minerals are available for purchase, but if a program for developing known deposits is carried out, provision should be made for receiving shipments of concentrates and ore.

Inquiries were made as to the availability of facilities for handling, sampling and storing strategic minerals purchased for the Metal Reserve Company. Most of the necessary heavy equipment, such as a crusher and suitable scales, is already in Nome, and according to verbal assurances, will be made available if needed. Mr. A. Polet has promised to procure a suitable structure for the plant, and also lumber for ore storage bins.

Nome Assay Office

A sketch showing the plan of the Nome Assay Office accompanies this report. The building is amply large for any likely uses, but it is poorly insulated and a disproportionate amount of fuel would be needed if it is occupied during cold

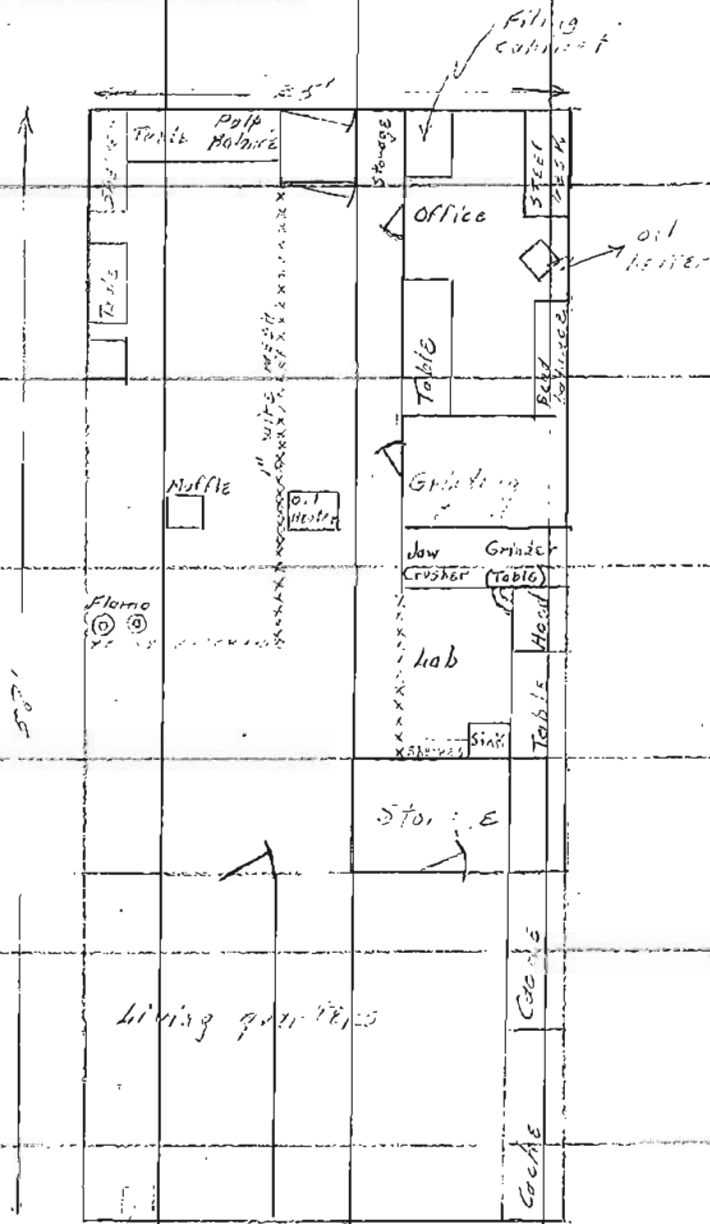
weather. It is not likely, however, that there will be sufficient analytical work during the winter to justify keeping the office open. If it is used only during the warmer part of the year, insulation will probably be unnecessary, especially in view of the present scarcities of material and labor.

A list of the contents of the files of the Nome office appears on pages 10 and 11. An inventory of equipment was also made. It was substantially in agreement with an inventory dated March 20, 1941, which was the latest one found in the files. No books on analytical procedure, or U.S. Geological Survey bulletins were in the office.

If any considerable amount of quantitative analytical work is to be done, the laboratory space should be enlarged to permit the installation of a larger hood as well as more shelf and table space. This could be done by removing a partition between the present laboratory and the storage room. Grinding equipment was in good condition and well arranged. Arrangements are inadequate, however, for drying more than a few samples at a time. A suitable and inexpensive drying rack could be constructed over the oil heater just outside the grinding room, from 1 1/2" pipe and heavy galvanized wire netting.

Supplies and equipment on hand are inadequate for analytical work. Appended is a list, prepared by Eskil Anderson and A. E. Glover, of material needed for quantitative analysis of ores of antimony, tin and tungsten. Many of the items may be difficult to purchase at present through usual channels, but in some cases, second hand equipment may be obtainable. For example, at the University of Alaska are several surplus chemical balances; one of these would be suitable for use at Nome. Considerable assay equipment is said to be stored at an old tin mine on the Lost River, but nothing specific could be learned of its condition or of what it consists.

PLAN OF HOME ASSAY OFFICE



0 10

Scale - 1" = 10'

Prepared by [signature]

MINING ON SEWARD PENINSULA

List showing contents of files in Nome, Assay Office, October 18, 1942

Filing Cabinet

Top Drawer - front to back

Statistics on Candle & Deering. Dated Aug. 10-11, 1939.

Data on population, prices and mining.

Inventory as of March 20, 1941.

Letters to operators about safety inspection.

Assay certificates, 1937-1940.

Placer mining data on forms for:

Port Clarence, Cape Nome districts.

Summary reports from Shallit co Comm. of Mines for periods:

Jan. 1-Dec. 31, 1941 (dated Jan 1, 1942)

Apr. 5-Nov. 1, 1940 (dated Oct. 27, 1940)

Aug. 24, 1937 - Nov. 14, 1938 (dated Jan. 10, 1939)

List of mining operations on Seward Penn. during 1937

List of known prospectors, not listed elsewhere in 1937 report

List of individual " " " " " " " "

who have recorded proof of labor for year ending 6/30/37.

Same for those recording claims from Jan. 1, '37 to Dec. 10, '37

-- notes those located under power of attorney

List of mining operators on Seward Penn. during 1938 together

with summary of mining conditions.

Summary report dated Jan. 11, 1939 comparing 1936 and 1938 lode and placer operations.

Summary report from April 14, 1939-Nov. 9, 1939 submitted 11/10/39

Monthly work reports

Prospector's correspondence

Monthly assay and identification records for Juneau file

Identifications 1937-38 #1-128

Assays " " #1-585

- 1 - filing folder of miscellaneous forms, mainly placer and lode mining plus old R. F. C. application blanks for government mining loans
- 1 - folder labeled Territorial and Federal Acts & Forms containing a few miscellaneous Territorial regulations
- 1 - folder containing vouchers 1939-1942
- 3 - folders of Dept. of Mines correspondence with Juneau and Colleze, 1937 to 1942.

Second drawer - front to back

Miscellaneous correspondence

"Placer Deposits in the Upper Kougarok" by A. Ben Shallit, U. of A. thesis

- 1 - copy, application for development loan by McDuffee Mines, Inc., Nome, Ala. to R. F. C. Dated March 15, 1941.
- 1 - original of report on Iron deposits in the vicinity of Sinuk River, dated Jan., 1942.

Mining Extension correspondence.

Four field books with field notes.

Miscellaneous Plane table maps, untitled.

Four 16" x 16" cloth-mounted P. T. sheets, unused.

MINING ON SEWARD PENINSULA

Third Drawer

1 - Lietz alidade in leather case

Bottom Drawer

Identification book

Assay book

Miscellaneous

Maps - on top of filing cabinet

Plane table map of Hed & Strand Mine

Brunton map of R. W. Silver Prop., Solomon River

" " " McDuffee Mines, Inc.

MINING ON SEWARD PENNINSULA

Mining Short Course

Inquiries were made in Nome concerning the desirability of a mining short course in the spring of 1943, to be given by a representative of the Department of Mines, under the jurisdiction of the University of Alaska Extension Service. Considerable interest in such a course was expressed by many of the soldiers stationed near Nome, but it would be difficult to estimate how many would be interested to the extent of actually attending classes. Mr. A. Polet of Nome believed that attendance might reach 500. His estimate is probably somewhat high; a more likely one may be 50-100. Some of the army officers are willing to cooperate because they feel that the course would improve the morale of the men. If a large number of men attend, the cooperation of the Army and of the citizens of Nome will be required in order to make sufficient facilities available.

H. G. Wilcox, Dean of the School of Mines at the University of Alaska, has been informed of the situation in Nome, and has expressed his desire to offer a short course if the services of an instructor can be secured. It is suggested, therefore, that Eskil Anderson of the Department of Mines be authorized to act as instructor for a period of a month to six weeks, beginning in early March. His presence in Nome at that time would also permit him to prepare laboratory and field equipment for the next field season, and to become acquainted with the people and conditions of the Seward Peninsula.

Acknowledgments

Information used here was furnished by many individuals; among them Mr. Hartford of the U. S. S. R. & M. Co. and Mr. Polet were especially helpful. The cooperation of H. E. Heide and Tor Christensen of the U.S. Bureau of Mines is also gratefully acknowledged.

Henry R. Joesting
Assoc. Mining Engineer
Dec. 24, 1942