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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STRATEGIC MINERALS INVESTIGATIONS
PRELIMINARY MAP PLATE 28

25,600 E | 25,800 E | 26,000 E | 26,200 E | 26,400 E

25,800 N | 25,600 N | 25,400 N | 25,200 N

RAISE SAMPLES

SAMPLE NO.	WIDTH FEET	ASSAY %Cu	oz Au	oz Ag	%WO3
1	5	2.90	0.100	0.70	
2	5	5.60	0.210	1.90	
3	5	5.79	0.085	2.05	
4	5	1.80	0.040	0.55	
5	5	1.41	0.030	0.50	
6	5	6.00	0.195	2.05	
7	5	4.15	0.145	1.20	
8	5	3.43	0.085	1.05	
9	5	2.50	0.060	0.80	
10	5	2.89	0.075	1.10	0.01
11	5	0.33	0.010	0.25	
12	5	1.36	0.040	0.25	
13	5	3.60	0.095	1.30	
14	5	3.78	0.100	1.35	
15	5	3.20	0.085	1.20	
16	5	1.84	0.060	0.95	
17	5	1.90	0.060	0.90	
18	5	4.43	0.185	1.60	
19	5	0.86	0.030	0.25	
20	5	2.82	0.085	1.15	0.01
21	5	2.37	0.060	0.85	
22	5	3.48	0.090	1.30	
23	5	4.56	0.100	1.25	

WINZE SAMPLES

SAMPLE NO.	WIDTH FEET	ASSAY %Cu	oz Au	oz Ag
133	5	5.24	0.020	2.95
134	5	2.72	0.010	1.50
135	5	2.61	0.010	1.55

Samples cut in winze are 14', 25' and 5' respectively below the sill.

DRIFT WALL SAMPLES

SAMPLE NO.	WIDTH FEET	ASSAY %Cu	oz Au	oz Ag
24	5	0.30	0.010	0.15
25	5	1.04	0.025	0.40
26	5	2.45	0.065	0.75
27	5	1.38	0.050	0.65
28	5	0.46	0.015	0.15
29	5	0.02	0.050	0.70
30	5	2.22	0.055	0.55
31	5	2.47	0.055	0.65
32	5	2.65	0.065	0.85
33	5	1.06	0.040	0.40
34	5	3.33	0.080	0.90
35	5	1.25	0.040	0.20
36	5	2.40	0.055	1.15
37	5	2.79	0.050	0.80
38	5	3.77	0.090	1.20
39	5	4.64	0.080	1.60
40	5	2.54	0.070	0.70
41	5	2.73	0.060	1.30
42	5	2.48	0.045	1.00
43	5	0.74	0.015	0.25
44	5	1.56	0.025	0.50
45	5	3.03	0.065	1.00
46	5	6.60	0.105	2.30
47	5	1.63	0.040	0.45
48	5	2.67	0.055	0.70
49	5	0.98	0.020	0.35
50	5	1.65	0.030	0.55
51	5	1.58	0.030	0.70
52	5	2.08	0.035	0.65
53	5	2.28	0.055	0.85
54	5	1.63	0.035	0.45
55	5	1.31	0.025	0.60
56	5	1.98	0.045	0.50
57	5	0.58	0.015	0.10
58	5	1.33	0.020	1.05
59	5	1.75	0.025	0.75
60	5	0.99	0.015	0.50
61	5	0.59	0.005	0.15
62	5	0.15	Tr.	0.05
63	5	1.00	0.010	1.40
64	5	1.99	0.015	2.65
65	5	0.82	0.010	0.55
66	5	1.05	0.010	1.05
67	5	2.18	0.070	1.30
68	5	0.60	0.005	0.25
69	5	0.68	0.005	0.20
70	5	0.77	0.005	0.10
71	5	1.30	0.010	0.40
72	5	1.65	0.015	0.40
73	5	1.62	0.020	0.35
74	5	1.10	0.005	0.40
75	5	0.59	0.005	0.20
76	5	0.50	Tr.	0.05
77	5	0.52	0.005	0.20
78	5	1.31	0.005	0.50
79	5	0.30	Tr	0.00
80	5	0.72	0.005	0.30
81	5	0.25	Tr	0.15
82	5	0.50	0.005	0.35
83	5	1.12	0.005	0.50
84	5	1.00	0.010	0.50
85	5	0.50	0.005	0.40
86	5	0.70	0.005	0.35
87	5	0.19	Tr.	0.20
88	5	0.02	Tr.	0.00
89	5	0.11	Tr.	0.05
90	5	0.07	Tr.	0.00
91	5	0.16	Tr.	0.15
92	5	1.20	0.005	0.65
93	5	0.21	Tr.	0.05
94	5	0.53	0.005	0.30
95	5	0.46	0.005	0.20
96	5	0.31	0.005	0.25
97	5	0.34	0.005	0.45
98	5	0.20	0.010	0.10
99	5	0.33	0.005	0.05
100	5	0.16	Tr.	0.00
101	5	0.22	Tr.	0.05
102	5	0.29	0.005	0.10
103	5	1.38	0.005	0.60
104	5	0.92	0.005	0.35
105	5	0.47	Tr.	0.20
106	5	1.21	0.005	0.40
109	5	0.08	Tr.	0.15
110	5	0.76	0.005	0.65
111	5	0.41	0.005	0.40
112	5	0.35	0.060	0.20
113	5	0.67	0.010	0.40
114	5	2.23	0.010	0.80
115	5	1.95	0.010	0.65
116	5	1.23	0.010	0.50
117	5	3.16	0.110	1.05
118	5	2.93	0.110	0.65
119	5	0.15	0.005	0.20
120	5	0.04	Tr	0.00
121	5	0.44	Tr	0.00
122	5	0.76	0.010	0.50
123	5	0.65	0.005	0.20
124	5	0.39	0.005	0.20
125	5	0.15	0.005	0.20
126	5	0.12	Tr	0.05
127	5	0.19	Tr	0.05
128	5	0.07	Tr	0.00
129	5	0.32	Tr	0.10
130	5	0.12	Tr	0.00
131	5	1.05	0.005	0.20
132	5	0.25	Tr	0.05
136	5	2.40	0.005	1.15
214	5	0.04	Tr	0.15
215	5	1.93	0.010	1.45
216	5	0.40	Tr.	0.20
217	5	3.74	0.015	2.15

DRILL HOLE SAMPLES

HOLE NO.	INTERVAL FEET	LENGTH FEET	CORE ASSAY %Cu	oz Au	oz Ag	%WO3	SLUDGE ASSAY %Cu	oz Au	oz Ag	%WO3	ADJUSTED ASSAY %Cu	oz Au	oz Ag	%WO3
1	100.5-103.2	2.4	0.05	Tr	0.25	Tr	0.08	Tr	0.00	Tr				
	103.2-106.5	5.3	0.07	Tr	0.20	Tr	0.11	Tr	0.05	Tr				
	143.5-148.3	4.8	0.11	Tr	0.25	Tr	0.22	Tr	0.10	Tr				
	148.3-158.2	9.9	0.10	Tr	0.05	Tr	0.19	0.005	0.25	Tr				
	158.2-162.5	4.3	0.03	Tr	0.10	Tr	0.05	Tr	0.10	Tr				
	162.5-169.5	7.0	0.16	Tr	0.10	Tr	0.15	Tr	0.15	Tr				
	169.5-174.5	5.0	0.42	Tr	0.10	Tr	0.20	Tr	0.00	Tr				
	137.5-144.0	6.5	0.03	Tr	0.20	Tr								
	144.0-148.6	4.6	3.40	0.040	0.70	Tr								
	148.6-158.0	9.4	2.18	0.030	0.55	0.06								
	158.0-163.0	5.0	0.44	Tr	0.05	0.09								
	163.0-170.2	7.2	0.44	0.010	0.20	Tr								
	170.2-175.2	5.0	0.07	Tr	0.10	Tr	0.38	0.010	0.10	Tr	0.26	0.006	0.10	Tr
	175.2-180.2	5.0	1.10	0.010	0.20	Tr	1.18	0.020	0.30	Tr	1.17	0.018	0.29	Tr
	180.2-184.0	3.8	0.30	0.005	0.25	Tr	0.70	0.010	0.35	Tr	0.58	0.007	0.33	Tr
2	184.0-186.8	2.8	0.04	Tr	0.05	Tr	0.25	0.005	0.15	Tr	0.18	0.003	0.12	Tr
	191.7-195.2	3.5	0.10	0.005	0.20	Tr								
	230.2-236.4	6.2	0.10	Tr	0.10	Tr	0.09	0.005	0.15	Tr	0.09	0.004	0.14	Tr
	236.4-242.0	5.6	0.10	Tr	0.20	Tr	0.09	0.005	0.15	Tr	0.09	0.003	0.17	Tr
	242.0-243.3	1.3	0.02	Tr	0.20	Tr	0.08	Tr	0.10	Tr	0.06	Tr	0.13	Tr
	243.3-246.6	3.3	0.30	Tr	0.25	Tr	0.20	Tr	0.10	Tr	0.24	Tr	0.15	Tr
	385.2-392.1	6.9	0.22	Tr	0.15	Tr	0.50	0.005	0.20	Tr	0.41	0.003	0.19	Tr
	401.9-411.9	10.0	0.33	Tr	0.20	Tr	0.30	Tr	0.05	Tr	0.30	Tr	0.10	Tr
	411.9-419.8	7.9	0.07	Tr	0.05	Tr								
10	0.0- 2.0	2.0	0.83	0.020	0.40									
	2.0- 3.9	1.9	1.52	0.035	0.35									
	3.9- 5.5	1.6	1.16	0.030	0.40									
	5.5- 6.8	1.3	0.78	0.025	0.40									
	6.8- 8.6	1.8	1.39	0.035	0.80									
	8.6- 8.9	0.3												
	8.9-20.9	12.0	2.30	0.045	0.75		2.29	0.050	0.75					
	20.9-25.9	5.0	1.35	0.040	0.40		1.56	0.060	0.45					
	25.9-30.9	5.0	3.58	0.115	1.25		4.61	0.140	1.30					
	30.9-35.9	5.0	3.06	0.090	1.00		3.56	0.115	1.05					
	35.9-40.9	5.0	4.86	0.160	1.45		5.04	0.145	1.50					
	40.9-43.1	2.2	2.93	0.070	1.10		3.34	0.105	1.20		3.23	0.096	1.18	
	43.1-48.7	5.6	3.99	0.145	1.40		4.26	0.150	1.55		4.24	0.148	1.51	
	48.7-50.5	1.8	5.93	0.135	1.35		4.10	0.130	1.00		4.43	0.131	1.24	
	50.5-52.3	1.8	3.10	0.150	1.05		1.37	0.070	2.05		1.44	0.070	2.01	
11	0.0- 2.2	2.2	4.40	0.100	1.40									
	2.2- 4.4	2.2	1.25	0.020	0.30									
	4.4- 6.6	2.2	1.55	0.035	0.40									
	6.6- 8.1	1.5	0.11	Tr	0.00									
	8.1- 8.8	0.7	2.86	0.015	0.70									
	8.8-10.9	2.1	5.32	0.140	1.60		6.60	0.140	2.10		6.25	0.140	1.96	
	10.9-12.2	1.3	6.03	0.095	2.35		6.69	0.110	2.30					
	12.2-15.9	3.7	0.38	0.010	0.05		0.80	0.030	0.30		0.70	0.026	0.24	
	15.9-20.9	5.0	1.63	0.030	0.60		1.77	0.040	0.55					
	20.9-30.4	9.5	1.47	0.050	0.55		1.85	0.040	0.70		1.74	0.043	0.65	
	30.4-36.0	5.6	0.29	0.005	0.10		0.55	0.025	0.15					
	36.0-39.5	3.5	0.19	0.005	0.00		0.27	Tr.	0.00					
12	0.0- 1.6	1.6	1.44	0.020	0.55									
	1.6- 3.1	1.5	3.05	0.045	0.85									
	3.1- 4.5	1.4	0.77	0.020	0.30									
	4.5- 5.9	1.4	1.97	0.050	0.55									
	5.9- 7.7	1.8	0.38	0.025	0.25									
	7.7- 8.7	1.0	2.17	0.060	0.75									
	8.7-14.1	5.4	3.44	0.070	1.45		3.42	0.065	1.35		3.43	0.066	1.38	
	14.1-18.0	3.9	2.41	0.055	0.75		2.86	0.065	0.95					
	18.0-22.0	4.0	0.76	0.020	0.10		1.03	0.035	0.25		0.98	0.032	0.22	
	22.0-28.3	6.3	0.05	Tr.	0.00		0.05	0.020	0.25					
13	0.0- 3.3	3.3	3.69	0.075	1.00									
	3.3- 5.0	1.7	2.97	0.055	1.25									
	5.0- 6.5	1.5	1.15	0.030	0.50									
	6.5- 7.4	0.9	1.16	0.025	0.45									
	7.4- 8.8	1.4	1.21	0.030	0.40									
	8.8-18.6	9.8	0.47	0.005	0.20		0.36	Tr.	0.05		0.39	0.005	0.06	
	18.6-20.3	1.7	0.15	0.005	0.10		0.15	Tr.	0.05					
16	0.0- 3.2	3.2	2.75	0.025	1.05									
	3.2- 7.4	4.2	0.05	Tr.	0.15									
	7.4-13.2	5.8	1.60	0.005	0.80		1.23	0.005	0.40					
	13.2-19.4	6.2	1.15	0.005	0.27		0.08	0.005	0.30		1.15	0.005	0.27	
	19.4-24.4	5.0	3.46	0.015	1.30		3.85	0.015	1.10		3.72	0.015	1.17	
	24.4-29.4	5.0	1.45	0.010	0.60		1.98	0.010	0.70		1.87	0.010	0.69	
	29.4-29.8	0.4	2.43	0.010	0.75		2.09	0.005	0.55		2.43	0.010	0.75	
	29.8-36.9	7.1	0.92	0.005	0.60		1.12	0.005	0.70		1.06	0.005	0.67	
	36.9-42.0	5.1	0.96	0.005	0.30		2.85	0.010	0.55		2.92	0.012	0.57	
	42.0-45.4	3.4	3.16	0.020	0.80		0.11	0.005	0.15					
17	0.0- 2.0	2.0	1.67	0.015	0.40									
	2.0- 5.0	3.0	2.09	0.015	0.45									
	5.0- 6.2	1.2	0.73	0.010	0.20									
	6.2- 7.0	0.8	1.14	0.015	0.40									
	7.0-11.8	4.8	1.90	0.010	0.45		1.80	0.010	0.90		1.83	0.010	0.60	
	11.8-16.8	5.0	2.44	0.020	0.60		2.46	0.010	0.70		2.44	0.020	0.60	
	16.8-21.9	5.1	4.16	0.020	1.65		2.74	0.015	1.60		4.16	0.020	1.65	
	21.9-27.0	5.1	2.87	0.015	1.20		4.35	0.010	0.80		3.69	0.011	0.95	
	27.0-31.8	4.8	0.03	Tr	0.15		0.40	0.005	0.15		0.28	0.005	0.15	
	31.8-37.0	5.2	1.93	0.010	0.40		1.76	0.010	0.40		1.80	0.010	0.40	
	37.0-42.0	5.0	1.63	0.005	0.75		1.75	0.005	0.80		1.71	0.005	0.79	
28	0.0- 1.7	1.7	2.00	0.055	0.75									
	1.7- 3.6	1.9	2.39	0.050	1.10									
	3.6- 4.3	0.7	6.03	0.105	2.25									
	4.3- 7.4	3.1									4.02	0.044	1.52	
	7.4-12.4	5.0									3.16	0.075	1.55	
	12.4-16.3	3.9									2.75	0.050	1.11	
	16.3-21.2	4.9									3.17	0.070	1.45	
	21.2-26.2	5.0									2.34	0.036	0.92	
	26.2-31.2	5.0									1.70	0.028	0.21	
	31.2-36.2	5.0									4.53	0.095	2.25	
	36.2-39.5	3.3									5.03	0.098	2.08	
	39.5-44.5	5.0									4.05	0.135	1.50	
	44.5-49.5	5.0									4.17	0.100	1.15	
	49.5-52.9	3.4									2.93	0.080	1.15	
	52.9-57.9	5.0									0.89	0.015	0.20	
	57.9-59.8	1.9									0.34	0.010	0.30	

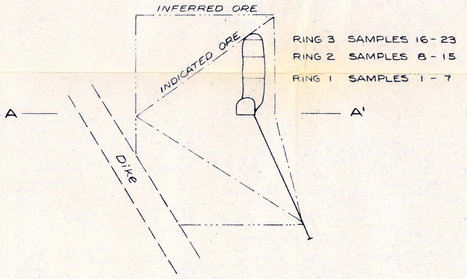
Sampling and assaying from
U. S. Bureau of Mines Project 1406

ORE RESERVE TONNAGE

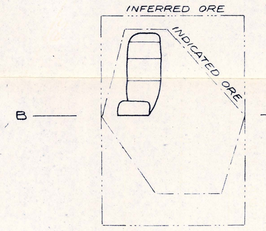
BLOCK	IND. ORE	INF. ORE	GRADE %Cu	oz Au	oz Ag
ABOVE LEVEL	2780		2.63	0.065	0.90
" "		7560	2.63	0.065	0.90
BELOW "	4250		2.70	0.066	0.98
" "		8360	2.70	0.066	0.98
TOTAL	7030		2.65	0.066	0.95
"		16340	2.67	0.066	0.94

Indicated ore figured from pyramidal shaped body.
Inferred ore figured from prismatic shaped body minus the pyramid of indicated ore.

SECTION A-A'



SECTION B-B'



1000 LEVEL ASSAY MAP, EMPIRE MINE, CUSTER COUNTY, IDAHO

SCALE 40 0 40 80 120 FEET