UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

CHEMICAL ANALYSES OF ROCK AND SOIL SAMPLES FROM THE CHANDALAR AND EASTERN WISEMAN QUADRANGLES, ALASKA

Compiled by

W. P. Brosgé and H. N. Reiser

Open-file report

1970

This report is preliminary
and has not been edited or
reviewed for conformity with
Geological Survey standards

Analyses of rock and soil samples, Chandalar and eastern Wiseman quadrangles, Alaska

compiled by W. P. Brosgé and H. N. Reiser

Analyses of samples collected in 1959, 1960 and 1967 are listed in Tables 1 and 2. Sample localities are shown on figures 1, 2 and 3, and are identified by map number of the samples. Field numbers in the tables are abbreviated. The prefix identifying the year is omitted from samples collected in 1967. The first and last letters are omitted from the symbols ARr, ABe and AKm, which identify the collectors.

Analyses for gold, silver and zinc are by atomic absorption methods. Analyses for arsenic and for antimony in concentrations less than 100 p.p.m are by colorimetric methods. All other analyses are semiquantitative spectrographic and are reported in the series 0.1, 0.15, 0.2, 0.3, 0.5, 0.7, 1.0, 1.5 and so on. Symbols are: N = not detected; L = detected but below limit of determination; B = blank, no data; > = greater than.

Limits of determination are:

Ag	As	Au	B	Ba	Be	Bi	Cd	Co	Cr	Cu	La	Mo	Mn	Nb	Ni	Pb	Sb	Sc	Sn	Sr	V	W	Y	Zn	Zr	Fe	Mg	Ca	Ti
parts per million																										percent			
.1	10	.02	10	100	1	50	20	10	10	5	200	2	10	20	2	10	.5	5	10	100	10	50	5	25	20	.05	.02	.05	.001

The analyses are by W. L. Campbell, A. Farley Jr., J. Frisken, Chris Heropoulos, E. E. Martinez, R. L. Miller, K. R. Murphy, S. Rickard, T. A. Roemer, Z. Stephenson and R. Vaughn in 1967 and 1968

Table 1

A. Rocks, Nolan-Hammond River area (fig. 2)

Map No	Field No.	parts per million																									percent			
		Ag	As	Au	B	Ba	Be	Bi	Cd	Co	Cr	Cu	La	Mo	Mn	Nb	Ni	Pb	Sb	Se	Sn	Sr	V	W	Y	Zn	Zr	Fe	Mg	Ca	Ti
1	R82A	.15	120	<.02	100	1000	1	L	L	15	100	7	20	L	500	L	20	L	10	15	L	L	200	L	30	34	100	3	1	.1	.2
2	R82	L	L	L	B	B	B	B	B	B	B	B	B	B	B	B	B	L	6	B	B	B	B	B	B	L	B	B	B	B	B
3	R83A	.2	L	L	100	1500	1	L	L	15	100	10	50	L	500	L	15	L	10	15	L	L	150	L	20	34	100	3	1	.1	.3
4	B15G	.15	60	L	70	200	L	L	L	15	100	20	30	L	700	L	15	L	6	15	L	100	100	L	L	140	70	3	1	2	.3
5	59 BK129	1.0	80	L	70	200	L	N	N	30	70	100	N	N	>5000	N	70	30	70	15	N	L	200	N	20	57	100	7	1	.5	.2
6	59 K149C	L.2	L10	L	20	100	L	N	N	5	15	15	N	N	1000	N	30	10	20	7	N	N	70	N	10	35	70	3	.3	L	.1
7	59 K148B	L.2	N10	L	70	700	N	N	N	10	30	7	N	N	5000	N	30	N	5	15	N	N	100	N	L	61	70	5	.3	.5	.2
8	59 K146	1.5	40	L	50	150	N	N	N	150	70	500	50	5	>5000	N	70	200	3	10	N	500	100	N	150	49	50	15	1.5	10	.15
9	59 B306	L.2	N	9.2	15	100	N	N	N	L	10	50	N	N	150	N	10	150	>10000	L	N	200	10	N	N	L	20	.7	.07	.7	.05
10	R23	L	1200	L	70	200	L	L	L	10	L	10	20	L	300	L	7	L	5000	5	L	B	15	L	7	110	30	2	.15	L	.1
11	R23A	.1	1000	.08	15	L	L	L	L	L	10	50	300	L	200	L	7	500	>10000	L	L	B	15	L	L	25	L	.1	.03	.5	.02
12	R24	L	40	L	L	100	L	L	L	L	150	10	L	L	300	L	7	L	50	L	L	B	10	L	L	30	L	.2	L	L	.03
13	R25	.2	L	.02	70	500	L	L	L	10	L	15	20	L	500	L	15	L	50	L	L	B	50	L	20	140	70	2	.5	L	.15
14	R25A	L	80	L	L	L	L	L	L	L	20	5	L	L	300	L	5	L	50	L	L	B	10	L	L	25	L	.5	.02	L	.01
15	R25C	.15	60	.02	L	100	L	L	L	10	70	15	L	L	300	L	5	L	45	L	L	B	L	L	L	50	L	.5	.03	L	.015
16	R25D	.1	L	.02	70	300	L	L	L	L	L	10	20	L	>5000	L	15	L	20	15	L	B	70	L	50	130	70	3	.3	.3	.15
17	R25E	L	10	.04	L	L	L	L	L	10	20	5	20	L	300	L	2	L	45	L	L	B	10	L	L	33	L	L	.02	L	.01
18	R25G	L	30	.02	20	150	1	L	L	L	30	15	L	L	500	L	15	L	20	10	L	B	50	L	15	45	50	2	.7	.05	.15
19	R26A	L	40	L	10	100	L	L	L	L	50	10	20	L	200	L	10	L	20	L	L	B	15	L	L	L	L	.2	.03	L	.015
20	R26B	L	L	L	70	300	1.5	L	L	10	30	20	20	L	1000	L	10	L	6	15	L	L	100	L	20	85	70	2	.3	L	.15
21	R27B	.1	60	L	L	100	L	L	L	L	L	20	20	L	500	L	5	L	10	L	L	L	20	L	L	25	L	.5	.02	L	.02
22	R27D	.4	20	L	10	L	L	L	L	L	L	5	50	L	700	L	5	L	6	L	L	100	20	L	10	30	L	.7	.3	.3	.03
23	R27F	.4	60	.07	20	200	L	L	L	L	10	10	20	L	500	L	10	L	15	10	L	L	70	L	5	50	30	2	.3	L	.15
24	R27E	.5	10	L	10	L	L	L	L	L	L	30	20	L	300	L	10	L	40	L	L	L	20	L	5	35	L	.7	.3	.15	.015
25	R28	2.9	240	.06	L	L	L	L	L	L	L	100	20	L	300	L	5	L	300	L	L	L	20	L	L	110	L	.5	.03	L	.15
26	R29A	.25	20	L	70	150	1	L	L	10	20	15	L	L	500	L	15	L	35	10	L	L	30	L	10	43	50	1.5	.7	L	.2
27	R30A	L	10	L	L	L	L	L	L	L	L	5	30	L	30	L	L	L	3	L	L	L	15	L	L	25	L	L	.03	L	.005
28	R30	.1	60	L	20	L	1	L	L	L	15	20	L	L	500	L	15	L	15	5	L	L	50	L	10	40	50	1.5	.3	L	.15
29	B43C1	.15	100	.04	50	200	L	L	L	L	L	30	500	L	300	L	10	150	>10000	5	L	300	70	L	5	L	L	1	1	.15	.1
30	B43B1	.15	100	.04	15	L	L	L	L	L	L	30	700	L	200	L	L	500	>10000	L	L	L	30	L	L	L	L	L	L	.07	.02
31	B43B	L	80	.03	100	500	1	L	L	10	70	20	30	L	1000	L	15	L	7000	15	L	300	150	L	50	70	100	3	.3	.05	.2
32	B43A	.1	30	.05	100	500	L	L	L	10	15	15	30	L	1000	L	20	L	300	15	L	L	150	L	50	53	70	3	.3	.07	.15
33	B39A4	L	15	.04	15	150	L	L	L	L	L	10	50	5	1500	L	5	10	10	L	L	L	70	L	5	L	L	.7	.1	L	.1
34	B39A3	L	30	L	50	300	1	L	L	20	50	15	30	L	500	L	15	L	3	20	L	L	150	L	50	53	70	3	.3	L	.2
35	B39A2	.25	80	L	50	300	L	L	L	15	20	10	20	L	L	L	20	10	10	15	L	L	100	L	15	43	50	3	.7	.7	.15
36	B40B	.4	L	L	L	L	L	L	L	L	L	>5000	20	L	200	L	L	L	15	L	L	L	20	L	L	25	L	.7	.03	.15	.002
37	B40	L	40	L	10	L	L	L	L	L	L	5	L	L	300	L	10	L	5	L	L	L	30	L	L	L	L	.2	.03	L	.015
38	B41B	L	10	L	50	L	L	L	L	L	L	10	20	L	500	L	5	L	50	L	L	L	30	L	L	25	L	.3	.05	L	.01
39	B41A	.15	80	L	50	200	L	L	L	L	50	15	20	L	300	L	15	L	15	7	L	L	200	L	10	53	L	.5	.2	L	.15
40	B42A	.5	60	L	200	300	L	L	L	10	100	20	30	L	1500	L	15	L	150	15	L	200	200	L	10	45	70	3	1	3	.2

Table 1

A. (cont'd) Rocks, Nolan–Hammond River area (fig. 2)

Map No	Field No	Ag	As	Au	B	Ba	Be	Bi	Cd	Co	Cr	Cu	La	Mo	Mn	Nb	Ni	Pb	Sb	Sc	Sn	Sr	V	W	Y	Zn	Zr	Fe	Mg	Ca	Ti
		ppm																										percent			
41	B42	.65	80	<	100	300	<	1	<	15	50	50	50	<	300	<	15	<	20	10	<	<	200	<	30	30	30	2	.7	.07	.15
42	59 K95	1.2	160	<	10	70	N	N	N	150	15	50	N	N	5000	N	100	30	35	5	N	100	30	N	15	<	30	1.5	.3	1	.07
43	B38C	.1	80	.03	200	700	1	<	<	10	100	20	30	<	1000	<	15	<	150	30	<	200	150	<	30	70	100	3	1	2	.5
44	B38D	<	200	.05	<	<	<	5	<	1	<	20	50	<	200	<	<	50	>10000	<	<	<	20	<	<	<	<	.1	.1	.5	.03
45	B38E	.2	150	.06	<	<	<	<	<	<	<	10	70	<	1000	<	<	<	>10000	<	<	700	30	<	<	<	<	1.5	1	5	.002
46	B38G	.1	100	.04	<	<	<	<	<	<	<	10	50	<	300	<	2	<	>10000	1	<	150	30	<	<	65	<	.5	.3	.7	.003
47	B38H	.1	1200	.04	<	<	<	<	<	<	<	10	150	<	300	<	<	<	>10000	<	<	100	20	<	<	<	<	.15	.3	.7	.005
48	B38J	<	100	.02	70	100	<	<	<	<	15	20	100	<	700	<	5	100	>10000	5	<	700	70	<	5	70	<	3	1	2	.1
49	B38B	.15	40	.03	100	150	<	5	<	15	50	20	20	3	300	<	20	20	20	15	<	<	100	<	7	65	70	3	.3	.15	.2
50	B38A	.1	20	.03	10	<	<	<	<	10	70	7	20	3	2000	<	15	30	40	15	<	200	70	<	10	85	50	.7	1.5	5	.1
51	B34A2	.15	30	<	100	1000	<	<	<	15	15	5	<	200	300	<	15	700	10	1.5	<	<	100	<	20	50	50	2	.5	.1	.15
52	B34A1	<	240	<	10	500	<	<	<	10	20	30	20	<	5000	<	15	<	25	20	<	<	100	<	50	30	70	3	.7	.2	.15
53	B34B	.1	20	.02	20	700	<	<	<	<	<	10	<	<	500	<	7	<	8	5	<	<	70	<	5	25	<	.07	.3	.3	.07
54	B36A	.15	40	.05	70	200	<	<	<	<	50	10	<	<	150	<	10	<	20	10	<	<	100	<	10	50	50	1	.3	2	.1
55	B37D	<	60	.02	<	150	<	<	<	<	<	7	<	<	300	<	2	<	15	<	<	<	20	<	<	40	<	.7	.1	1	.005
56	B37C	.1	<	<	100	<	<	<	<	<	15	10	20	<	5000	<	15	150	40	7	<	500	50	<	20	130	<	3	5	10	.1
57	B37A	.1	20	<	50	100	<	<	<	15	<	10	<	<	>5000	<	10	<	25	7	<	300	30	<	<	75	<	.2	7	7	.03
58	R59	.1	20	.02	70	200	1	<	<	10	30	150	30	<	1000	<	70	<	100	15	<	<	100	<	30	95	70	2	1	5	.2

B. Rocks, Chandalar area (fig. 3)

Map No.	Field No.	Ag	As	Au	B	Ba	Be	Bi	Cd	Co	Cr	Cu	La	Mo	Mn	Nb	Ni	Pb	Sb	Sc	Sn	Sr	V	W	Y	Zn	Zr	Fe	Mg	Ca	Ti
		ppm																										percent			
59	B4A	.4	160	<	50	500	1.5	<	<	<	70	10	20	10	500	<	5	15	4	15	<	<	150	<	7	30	150	5	.7	1.5	.2
60	B4B	.1	10	<	<	<	<	<	<	<	<	3	<	<	200	<	5	<	2	<	<	100	10	<	<	<	<	.5	.15	.07	.05
61	R10D	.3	40	<	70	500	1	<	<	20	50	10	<	<	300	<	15	<	1	10	<	100	70	<	5	65	100	3	.7	.15	.3
62	R21B	.35	30	<	30	1000	<	<	<	30	50	15	70	<	300	<	30	<	2	10	<	<	100	<	20	85	50	2	.5	<	.15
63	B176	.2	1500	.4	<	<	N	N	N	N	<	3	N	<	10	<	N	15	1	N	N	N	<	N	N	<	N	.2	<	<	.002
64	B180	.5	400	1.7	N	20	N	N	N	N	<	5	N	<	<	<	N	20	15	N	N	N	<	N	N	N	N	1	<	<	.001
65	B24A	.15	<	<	30	500	<	<	<	<	70	30	30	<	300	<	15	<	4	15	<	<	70	<	15	70	70	2	.7	.15	.3
66	B48F	.25	20	<	70	1000	1	<	<	.10	100	20	<	<	300	<	15	20	8	<	<	<	150	<	20	46	70	1.5	1	.15	.2
67	B48C	.2	160	.06	70	200	1	<	<	<	20	15	50	<	300	<	20	30	6	<	<	150	30	<	15	25	<	1.5	.7	.7	.1
68	B48	.1	30	.06	15	500	3	<	<	15	20	20	20	<	500	<	15	15	6	10	<	500	30	<	7	25	<	2	.7	.2	.15
69	B47	.1	20	.3	30	300	<	<	<	<	<	10	<	<	200	<	<	<	6	<	<	<	50	<	7	<	100	1.5	.3	.1	.1
70	B46D	.15	2000	.18	15	200	<	<	<	<	<	10	20	<	20	<	<	<	15	<	<	<	30	<	5	25	<	1.5	.07	<	.05
71	B44J	6.0	2000	188	<	<	<	10	<	<	<	10	<	<	200	<	<	700	1000	<	<	<	15	<	<	2500	<	1	.07	.1	.015
72	B45C	.5	8000	20	<	<	<	<	<	15	<	5	<	<	300	<	50	<	20	<	<	<	20	<	50	90	<	1.5	.1	.1	.07
73	B44C	<	10	<	<	<	<	<	<	<	2	<	<	70	<	3	<	5	~	<	<	20	<	<	<	<	<	.05	.07	.003	
74	B11C	.2	20	<	15	1000	1	<	<	20	70	20	70	<	300	<	70	<	150	10	<	<	150	<	20	62	100	2	.7	.15	.2
75	B11B	.5	20	<	<	<	<	<	<	<	70	7	<	<	1000	<	15	<	2	5	<	<	50	<	20	<	50	1.5	.7	10	.15
76	B6A	.75	2000	3.9	2	20	<	<	<	<	<	<	10	<	<	30	<	<	30	10	<	<	<	10	<	20	25	<	.7	<	<	.03
77	B7A	<	600	.08	10	<	1	<	<	10	10	30	50	3	300	<	10	<	4	<	<	<	20	<	20	350	100	7	.03	<	.03
78	B7F	7.2	800	<	10	<	<	15	<	15	<	200	30	5	150	<	7	700	60	5	<	<	20	<	10	160	<	7	.1	<	.003
79	B3iB	.2	30	<	10	300	<	<	<	20	500	50	<	<	700	<	70	<	5	50	<	100	150	<	<	75	100	10	1.5	1.5	.7
80	B31	<	<	<	70	<	<	<	<	<	<	50	<	<	200	<	7	<	8	15	<	<	30	<	<	25	<	.02	.3	.5	.02
81	R54A	.15	20	<	10	100	<	<	<	<	<	7	30	<	50	<	10	<	6	<	<	<	30	<	7	40	30	.7	.2	.05	.05
82	R54C	.3	60	<	70	700	<	<	<	<	70	30	70	<	200	<	15	<	15	15	<	100	100	<	15	50	70	3	.7	<	.15
83	R51A	<	10	<	<	<	1	<	<	<	<	2	<	<	15	<	<	<	3	<	<	<	<	<	<	25	<	.07	.03	<	.015
84	B577	N	20	.06	N	30	N	N	N	N	N	<	N	N	50	N	<	N	1	N	N	N	<	N	N	N	N	.2	<	<	.001
85	R31C	.2	40	<	30	700	1.5	<	<	10	100	10	20	<	300	<	15	10	6	15	<	100	100	<	20	65	100	3	1	.15	.2
86	R34	<	20	<	30	2200	1	<	<	<	<	<	<	<	30	<	2	<	10	<	<	<	10	<	<	25	<	.5	.03	<	.015
87	R35	<	10	<	30	1500	<	<	<	<	<	5	30	<	20	<	<	<	6	<	<	<	15	<	N	25	<	.1	.03	<	.03
88	R43B	.15	20	<	30	300	<	<	<	<	30	15	20	<	200	<	15	<	4	15	<	<	70	<	5	65	50	3	1	.1	.2
89	R44B	.25	20	<	50	1000	1	<	<	<	50	20	20	<	200	<	15	15	4	20	<	<	150	<	5	60	150	5	1	.05	.5
90	B574	.3	20	.02	10	50	N	N	N	N	5	<	N	N	70	N	2	N	2	N	N	N	10	N	N	<	<	5	.1	.05	.15

C. Rocks, Wiseman–Chandalar region (fig. 1)

Map No	Field No.	Ag	As	Au	B	Ba	Be	Bi	Cd	Co	Cr	Cu	La	Mo	Mn	Nb	Ni	Pb	Sb	Sc	Sn	Sr	V	W	Y	Zn	Zr	Fe	Mg	Ca	Ti
		parts per million																										percent			
91	59 B353	B	B	B	20	1500	3	L	L	L	5	70	L	3	30	100	L	20	B	L	7	50	L	L	70	B	200	2	.03	.03	.03
92	60 R227	.5	40	L	20	3000	15	L	L	5	50	10	20	N	30	N	20	20	500	15	N	300	200	L	20	57	150	1	.1	.3	.3
93	R91B	.4	L	L	100	300	L	L	L	10	70	50	20	L	700	L	15	300	2	15	L	100	150	L	20	50	70	3	1	1	.2
94	R84	.25	L	L	15	100	L	L	L	L	15	5	70	L	300	L	7	L	15	L	L	L	30	L	20	L	L	1	.5	.3	.5
95	R65A	.35	10	L	L	200	L	L	L	L	L	7	20	L	300	L	5	L	1	L	L	150	50	L	20	L	L	1	.5	3	.015
96	59 B315	19.	40	.04	10	20	N	N	N	5	L	700	N	N	200	L	5	70	300	N	N	N	L	N	N	150	N	.7	1	2	L
97	59 B473	.4	10	.04	20	20	N	N	N	N	L	15	N	N	30	L	L	N	1	N	N	N	L	N	N	L	N	.02	L	L	
98	59 B472	.3	20	.06	N	20	N	N	N	N	N	3	N	N	50	L	L	70	L	N	N	N	L	N	N	L	N	L	L	L	.001
99	59 B465	.7	20	.02	3000	20	2	N	N	10	15	30	N	N	700	L	10	N	5	10	N	200	150	N	20	L	70	3	.1	5	.3
100	59 K191	L	160	L	L	N	N	N	N	L	10	50	N	7	150	15	10	N	4	5	N	N	30	N	N	L	N	3	.02	L	>1.
101	59 K192	1.4	60	L	L	20	L	N	N	L	30	L	N	N	3000	N	15	10	2	20	N	1500	100	N	30	42	50	10	5	15	.5
102	59 B523	.4	L	.04	N	50	L	N	N	7	5	150	N	N	50	N	10	L	3	N	N	N	20	N	N	54	N	.5	.5	.2	.01
103	59 B520	.8	300	.06	N	50	N	N	N	N	L	50	N	N	100	L	L	15	30	N	N	N	L	N	N	L	L	.15	.03	.3	.01
104	60 B79C	1.0	B	B	50	100	L	L	L	5	30	30	L	L	200	15	20	10	B	10	L	30	50	N	30	B	100	1.5	.2	7.	.3
105	60 R115	B	B	.03	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
106	60 B321	2.	30	.04	L	1000	N	N	N	7	30	30	N	15	1000	L	30	30	2	10	N	1000	50	N	15	L	100	3	1.5	5.	.2
107	60 B292	1.2	10	.08	20	300	L	N	N	20	100	500	N	N	700	10	30	200	4	20	N	N	100	N	15	L	200	5	.7	.15	.5
108	60 B292J	.8	10	.1	10	150	N	N	N	30	50	10	N	N	300	L	30	10	2	7	N	N	50	N	L	27	70	3	.5	1.	.15
109	R146A	1.1	200	L	L	L	L	L	L	L	L	B	L	L	100	L	L	700	4	L	L	L	15	L	N	1100	L	1	20	>20	L
110	60 B97G	N	B	0.8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	N	B	B	B	B	B	B	B	N	B	B	B	B
111	60 B97E	1.2	10	5.6	N	30	N	N	N	N	L	2	N	N	30	L	N	100	2	N	N	N	15	L	N	L	N	.2	.03	.2	.007
112	R158B	.37	160	L	30	200	L	L	L	L	20	15	L	L	500	L	10	L	5	L	L	200	70	L	7	L	L	3	7	20	.07
113	R158A	L	L	L	L	L	L	L	L	L	L	7	L	L	300	L	L	L	4	7	L	L	20	L	L	L	L	.1	.1	.5	.01
114	60 B211	.2	300	.08	N	L	N	N	N	N	L	3	N	N	L	L	N	L	3	N	N	N	L	N	N	L	N	.7	L	L	.002
115	59 R565	1.4	10	.04	30	70	N	N	N	15	100	5000	N	N	300	L	50	L	20	20	N	N	100	N	15	64	70	5.	1.5	5.	.5
116	59 B559	.8	40	.04	N	30	N	N	N	5	7	5	N	N	30	L	15	15	1	N	N	N	10	N	N	L	20	1	.1	L	.15
117	59 B556	.8	70	.02	N	20	2	N	N	7	10	15	N	N	300	N	30	20	2	N	N	300	20	N	N	78	L	2	.5	.2	.007
118	60 B510	1.3	3000	3.6	L	20	L	L	N	N	L	10	N	N	70	L	2	20	B	N	N	N	15	N	N	L	L	5	.03	.3	.02
119	R173A	L	L	L	100	300	1	L	L	15	70	20	30	L	200	L	15	20	5	L	L	L	100	L	20	60	150	2	.3	.1	.3
120	R173	.25	10	.1	50	300	L	L	L	L	30	20	L	L	200	L	150	10	10	L	L	200	70	L	20	L	100	1.5	.3	.7	.15
121	R170B	.1	20	.02	50	1000	1	L	L	L	50	15	L	L	300	L	50	L	10	15	L	L	200	L	15	50	150	3	.7	.15	.3
122	R171	L	10	.03	10	100	L	L	L	10	L	7	50	L	200	L	L	L	2	L	L	L	30	L	L	L	L	.2	.07	L	.015
123	R170	L	L	.1	L	L	L	L	L	L	L	10	20	L	30	L	L	L	2	L	L	L	20	L	L	L	L	.1	.02	L	.003
124	R168	L	80	L	L	L	L	L	L	L	500	7	20	L	70	L	L	L	1	L	L	L	30	L	L	104	L	.15	L	L	.007
125	R168A	.2	30	L	100	500	L	L	L	20	L	70	100	L	500	20	100	10	6	15	L	3000	200	L	20	L	200	3	.15	.07	10
126	R168D	L	160	L	50	700	L	L	L	L	50	15	20	L	300	L	15	L	6	7	L	L	150	L	15	25	70	1.5	.2	.05	.15
127	R166A	L	L	L	20	L	L	L	L	L	L	15	30	L	300	L	7	L	4	L	L	200	20	L	5	L	L	.2	.03	.15	.03
128	R166C	L	40	L	L	L	L	L	L	L	L	7	30	L	100	L	5	L	2	L	L	L	20	L	L	L	L	.1	.03	L	.005
129	R167B	L	15	.02	10	L	L	L	L	L	L	7	20	L	150	L	2	L	2	L	L	L	20	L	L	L	L	.2	.7	.07	.03
130	R167C	L	15	L	70	L	L	L	L	L	70	7	30	L	300	L	2	L	4	L	L	L	30	L	L	1	L	.7	.03	.05	.02
131	R167E	L	10	.02	L	L	L	L	L	L	L	7	20	L	70	L	L	L	2	L	L	L	30	L	5	L	L	.5	.02	L	.015
132	R167	L	10	L	L	L	L	L	L	L	150	20	30	L	150	L	5	L	3	L	L	300	20	L	1.	L	L	.3	.07	.15	.007

C. Soils, Wiseman-Chandalar region (fig. 1)

Map No	Field No.	Ag	As	Au	B	Ba	Be	Bi	Cd	Co	Cr	Cu	La	Mo	Mn	Nb	Ni	Pb	Sb	Sc	Sn	Sr	V	W	Y	Zn	Zr	Fe	Mg	Ca	Ti
		ppm																										percent			
69	59 B350	.4	60	<	50	700	2	<	<	<	1.5	7	50	15	50	30	<	30	300	<	10	<	15	<	100	<	500	7	.1	.05	.15
70	R84A	.3	10	<	150	500	1	<	<	15	70	15	30	<	700	<	15	20	3	15	<	200	150	<	30	95	100	3	1	1	.3
71	60 R259	.6	B	<	10	500	5	<	B	<	10	100	150	5	1000	B	10	100	B	<	<	70	30	<	20	B	300	1.5	.2	.1	.2
72	R158	<	40	<	50	500	1.5	<	<	<	20	15	<	<	300	<	15	<	5	30	<	100	70	<	50	30	150	2	.7	.7	.15
73	R173B	.4	8000	.26	30	300	1	<	<	<	70	15	50	<	300	<	20	<	8	15	<	<	70	<	10	80	150	2	.3	.3	.2
74	R167A	.15	20	<	100	1000	1	<	<	15	<	50	70	<	300	20	20	30	4	15	<	100	300	<	30	50	200	3	1	.15	.5
75	R167D	.4	40	.04	<	700	<	<	<	<	<	30	30	<	300	<	15	20	8	10	<	150	200	<	30	58	100	2	.7	.15	3

U.S. GEOLOGICAL SURVEY
OPEN FILE MAP

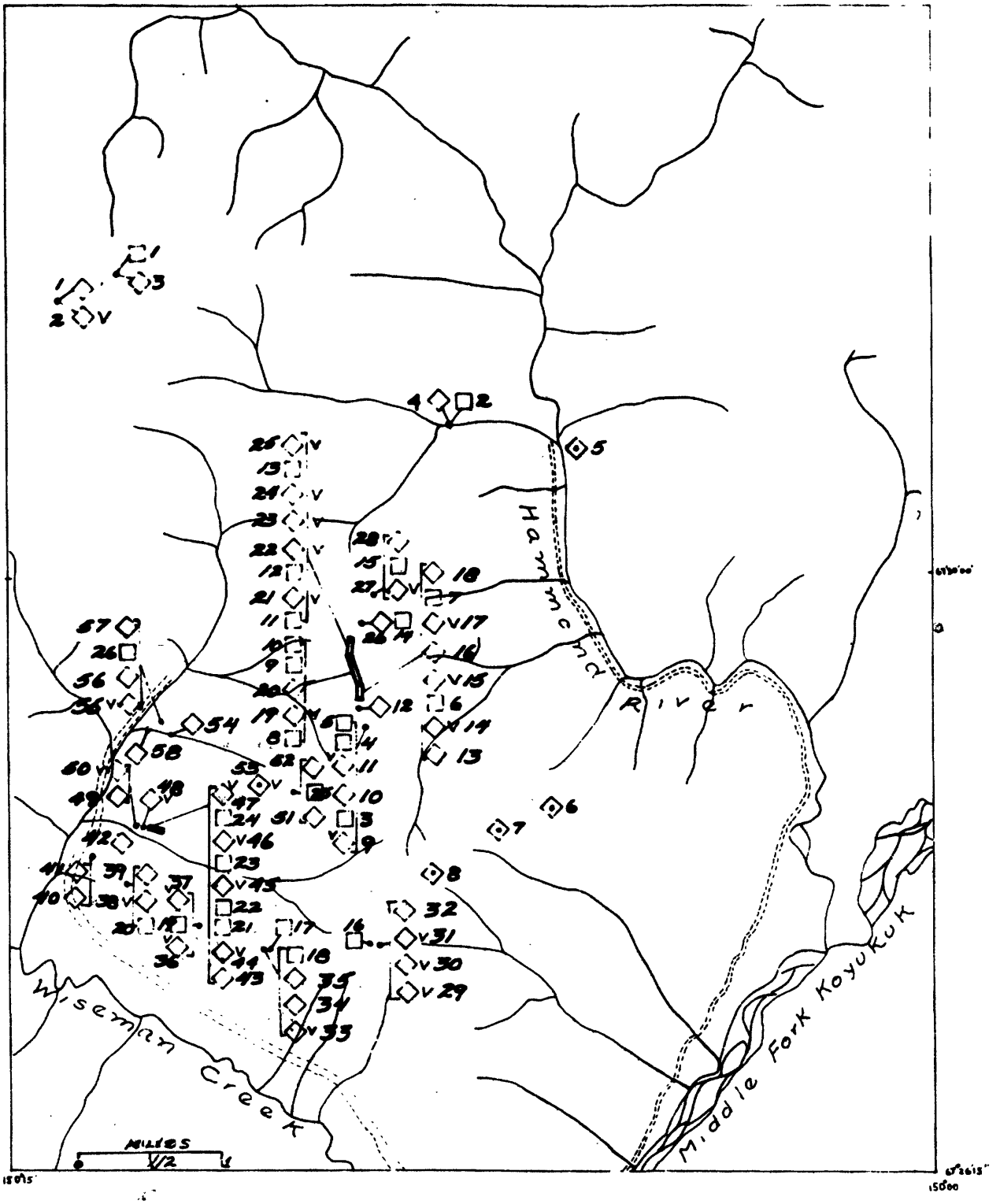

Fig 2 Rock and soil sample localities in Nolan-Hammond River area

◇ Rock sample; V indicates vein sample

□ Soil sample

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey standards and nomenclature.