#4524

860238

PLACER DEVELOPMENT LIMITED

MEMORANDUM:

TO: File 93N6E DATE: August 24th, 1978

FROM: J.J. Hylands

RE: Burn Group, Luc Syndicate, Kwanika Creek

Introduction:

The Burn claim group was submitted to Placer Development by J.C. Stephen. The Luc Syndicate, holder of the ground, is apparently comprised of Dome, Bacon and Crowhurst, and J.C. Stephen. A large, high metal value molybdenum anomaly was found on this ground, but trenching and diamond drilling of the anomalous area failed to find the source. The data submitted was examined in May, 1978, and it was concluded that the molybdenum bearing till could have been derived by glacial movement from the cirque area 2,000 m. south of the center of the anomaly (Figure 1). This area was reportedly covered with boulders, mainly unmineralized. The cirque walls south and west of the anomaly had been prospected and mapped during earlier exploration ventures, and were found to be composed of unmineralized intrusive rocks.

Summary:

The source of the Burn Group molybdenum-copper anomaly has not yet been found. The results of the bedrock sampling program undertaken during July, 1978, indicate that the source does not underlie the southwest cirque area as postulated. It is perhaps possible that the mineralized alaskite supplied sufficient material to create the anomaly, but few indications of this have been found in the anomalous area.

The only area remaining, if the concept that the till was moved during the latest period of glacial movement is valid, is in the southeast, an area overlain by rounded, unmineralized granite boulders. It is known that the walls of the southeast cirque are composed of the same rock type.

It is puzzling that the only mineralized rock found, either in place or as boulders, has been alaskite or monzonite, while both diamond and bedrock drilling programs indicate that neither rock, where sampled, contains enough Mo or Cu to explain the anomaly.

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Location & Access:

The Burn claim group, comprising 61 full sized claims, is located in the headwater area of Burn Creek, a north flowing tributary to Kwanika Creek (see Location Maps). A good gravel, presently being widened and straightened, exists between Fort St. James and Manson Creek, approximately 120 miles to the north. Between Manson Creek and the Burn Creek turnoff is another 50 miles of gravel road. The eight miles of gravel road from the turnoff to the center of the property was not driven, but appears passable. For this program, a Northern Mountain Bell 206 was used to carry personnel and equipment into the campsite, about two miles beyond the end of the access road.

Topography:

The anomaly and test drilling areas are fairly heavily wooded. Underbrush does not present a problem when traversing except near tree line which approximates the 5,500 foot contour. Slopes in the test area are relatively gentle except on line 20S.

There is an increase in the number and size of boulders between the anomaly area and the south cirques. There is a marked increase in the quantity of boulders, and decrease in soil, beyond about 70E on any of the lines traversed.

Program:

It was proposed to sample the southern part of the Burn property using an overburden sampling tool. The contractor, Bema Industries Limited, supplied a two man crew and camp, and the portable, gasoline powered piston sampling tool. Samples were obtained from four lines (Figure 2) spaced 800 feet apart. The grid cut in 1976 was utilized, and it was found to need only minor cleaning. Samples were obtained from 25 of the 26 sample points; of the 25, 21 are considered to have returned a rock sample in the form of rock chips. Most samples also contained soil. In addition:

a) Line 12S was extended and resampled at 100 foot intervals as a check on previous work. Soil development was found to be very limited in the boulder field at the eastern end of the line.

b) Samples of visibly unaltered, unmineralized rock were collected, where possible, from the periphery of the area. Alaskite and monzonite were only exposed near the center. The results from these samples will provide reference values.

c) Two soil profiles were obtained, one from each trench. Each profile was started at the base of the "A" horizon, and extended to a depth of four feet (see Appendix).

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d) An attempt was made to find mineralized boulders in the trenches. They are very inconspicuous. A number were seen with a narrow quartz vein, but without molybdenite. An epidote zone in monzonite with minor MoS_2, was seen in the bottom of the south trench.

e) Various outcrops were examined. A rusty narrow quartz vein with MoS_2 was found in a large monzonite outcrop. In alaskite, molybdenite was found as scattered small rosettes and with irregular quartz masses. It had the appearance of an accessory mineral.

f) Cores from various diamond drill holes were examined. In almost all instances the various intrusive phases appeared unaltered, and unmineralized. Locally, minor potash feldspar or epidote was seen, not necessarily with sulphides. Nothing approximating a quartz vein stockwork was found.

Sections returning high Mo assays were examined, particularly in hole 72-10. Visually, the split core on the site did not contain enough MoS_2 to justify the assays. However, in hole 72-7 the .4% Mo result is possible - the section assayed is an altered shear zone with MoS_2 coating fragments of potash feldspar vein.

Previous core loggers have identified alaskite, diorite, syenite, granite, granodiorite, quartz monzonite, monzonite and monzodiorite in core. Specimens of each were obtained (see Appendix C for list).

Results and Discussion:

The logs of the 25 samples obtained with the piston coring tool are presented in Appendix A. In general, the rock types encountered correlated with those expected from J.W. Mustard's mapping. Figure 6 is a modified geology map, based on the sample results, Mustard's mapping and personal observations.

In most cases the samples were composed of soil and rock chips. Two fractions of each sample were analyzed, the -80 mesh soil and the rock chips. When more than one type of rock was present in a sample, the chips believed to represent bedrock were chosen by degree of angularity and absence of weathering. The analytical results are in Appendix B, where S designates soil samples and R, rock samples. The sample number is comprised of the line sampled (04N) and the position on the line (40E).

The elements with the greatest variation are Mo and Cu. With the exception of S4S76E, none of the Mo results are anomalous. The copper results show a greater range in values, particularly in the soil samples.

The results from the soil portion are plotted and contoured on Figure 2 (Mo) and Figure 3 (Cu); the rock results on Figure 4 (Mo) and Figure 5 (Cu).

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The molybdenum contours can be interpreted to indicate a correlation between Mo and alaskite, or between Mo and the granite-monzonite contact area. They do not appear to define a trend. The copper in rock results indicate a relationship between Cu and diorite, on the west. There is an apparent increase in copper in the granite, on the east. The copper in soil results correlate with those obtained in rock, with an apparent increase in copper to the east.

The results from the soil samples collected at 100 foot intervals on line 12S are included in Appendix B. There is good correlation with previous results.

Analytical results and descriptions of the two soil profiles are given in Appendix D. There is a moderate increase in both Cu and Mo values with depth. The values are much lower than those obtained by Dome in the same areas.

The bedrock chip sample values are compared to the reference rock sample values in Table 1. In general, the chip samples are markedly lower in Mo, higher in Cu and lower in Ag than the reference samples. There are a few anomalous exceptions to this in Cu and Ag, particularly samples R04S 76E, R20S 50E and R20S 54E.

The reference samples were obtained from bedrock exposures, and a particular attempt was made to obtain unweathered samples. In most cases the bedrock chip samples showed evidence of weathering - bleaching or limonitic staining. It is possible that weathering could explain the general observation made above. It should be noted that for the three anomalous samples, although the fragments appeared weathered, very little to no soil was in the sample. The -80 mesh, pulverized rock fraction of only one of these, S04S 76E, was anomalously high in Mo. The significance of these differences is presently unknown.

Recommendations:

The source of the anomaly has not been conclusively determined. The remaining area to be tested is the southeast cirque. The extensive boulder cover mitigates against using the piston coring too 1.40 test this area. Building road access into the area, so that a larger, wheel mounted drill could be used, would be very difficult because of the boulders and swampy conditions. To test this area it is recommended that it first be surveyed with Induced Polarization and magnetometer, to be followed by a winter drilling program using a self propelled, track mounted drill.

J.J. Hylands
Senior Geologist

JJH/ct
Enclosures

TABLE #1

Sample No.		Rock Type	Mo ppm		Cu ppm		Ag ppm	
			1	2	1	2	1	2
RO4N	40E	Monzonite	12	1	19	55	0.12	0.05
	44E	Monzonite	12	2	19	25	0.12	0.04
	48E	Alaskite	6	7	13	31	0.12	0.03
	52E	Granite	6	4	6	40	0.11	0.10
RO4S	44E	Diorite	4	3	48	58	0.15	0.04
	48E	Monzonite	12	5	19	27	0.12	0.02
	52E	Monzonite	12	1	19	31	0.12	0.12
	60E	Granite	6	2	6	21	0.11	0.03
	68E	Granite	6	2	6	27	0.11	0.06
	76E	Granite	6	2	6	130	0.11	1.45
R12S	40E	Diorite	4	1	48	50	0.15	0.11
	44E	Diorite	4	1	48	72	0.15	0.10
	48E	Diorite	4	1	48	42	0.15	0.10
	52E	Monzonite	12	2	19	14	0.12	0.06
	76E	Granite	6	2	6	17	0.11	0.10
	84E	Granite	6	1	6	77	0.11	0.12
R20S	46E	Diorite	4	3	48	29	0.15	0.16
	50E	Alaskite	6	2	13	35	0.12	1.08
	54E	Granite	6	3	6	42	0.11	1.25
	62E	Alaskite	6	1	13	29	0.12	0.10
	70E	Alaskite	6	1	13	23	0.12	0.05

Note: 1 - Reference sample values
2 - Bedrock chip sample values

Appendix A - Log of Bedrock Samples

Hole Location	Depth (m)	Drillers Comments	Soil	Fragments	Bedrock
20S, 46E	2.25	Sample from 20' north of station	Tan silt to coarse sand, minor clay	Angular to subrounded fragments of rusty hornblende diorite, some with pink feldspar. No visible mineralization.	?
20S, 50E	1.0	Taken 10' east of station	Creamy brown pulverized rock, silt to very coarse sand, no clay.	Angular fragments of an equigranular quartz feldspar rock, mafics less than 1%? Rusty weathered. No visible alteration or mineralization.	Yes
20S, 54E	1.5		Light tan pulverized rock, minor clay or soil. Silt to very coarse sand.	Numerous angular fragments of weathered, medium grained, slightly pinkish hornblende granite. No visible mineralization or alteration.	Yes
20S, 62E	0.5	Taken 10' south of station. Numerous outcrops visible.	Brown sandy soil	30% subrounded, weathered hornblende diorite fragments, minor epidote. 70% angular alaskite(?),trace hornblende, very minor magnetite. No sulphides or alteration.	Yes
20S, 70E	4.5	Sample extracted with relative ease boulders absent (?)	Mixed brown clay or silt with light colored pulverized rock.	85% rounded hornblende diorite. unaltered unmineralized. 15% angular alaskite, unaltered, unmineralized.	?
20S, 78E	3.0	Sampler and sample lost in boulders.			
12S, 40E	1.0		Medium brown sandy soil with grey fragments of pulverized rock.	60% subangular, weathered hornblende diorite, unmineralized. 40% subrounded pinkish-orange alaskite; one fragment with speck MoS_2	?

Hole Location	Depth (m)	Drillers Comments	Soil	Fragments	Bedrock
12S, 44E	1.5	Largely bedrock sample, small amount soil.	Greyish brown fine sandy soil with grey pulverized rock sand.	Numerous angular fragments of hornblende diorite some with pink feldspar. No mineralization	Yes
12S, 48E	1.25	No clay	Brown sandy soil, 50% between 1/8"-1/4"	Mainly angular fragments of K-feldspathized hornblende diorite. Weathered? No visible mineralization. 3 fragments of weathered alaskite(?).	Yes
12S, 52E	3.0	Sample entirely bedrock chips	50% rock fragments greater than ¼". No clay or silt.	Numerous angular fragments of grey granite (monzonite?). No visible mineralization.	Yes
12S, 60E	5.25	Clay, last 3 cm. in bedrock	90% olive green clay with rounded fragments. 10% pulverized rock sand and fragments.	50% subrounded diorite fragments, 1/2 with K-spar (9 pieces total). Two subangular fragments of dacite(?). Four subrounded fragments of granite or alaskite. No mineralization.	No
12S, 68E	3.0	Clay, could not penetrate	Olive green clay with fragments of decomposed granite, rounded diorite.	1 rounded (1") hornblende diorite with epidote. 1 flat, angular hornblende diorite with K-spar. 1 subrounded dacite with fine pyrite. 2 angular alaskite. 1 angular medium grained granite.	No
12S, 76E	3.5		Mainly greyish green clay with sandy pulverized rock fragments	Angular coarse grained granite. Trace very fine grained pyrite or chalco. Trace biotite. Scattered small red & rusty spots.	Yes
12S, 84E	3.25	Managed to find open area between boulders.	Dark greyish brown, sandy soil. Some organic material, 20% clay.	Angular hornblende diorite (boulders?) Hornblende locally chloritized, altered to brown biotite; trace K-feldspar. One rusty angular fragment of granite(?).	Yes

Hole Location	Depth (m)	Drillers Comments	Soil	Fragments	Bedrock
4S, 40E	0.75	Boulders & outcrop throughout sample area.	Mainly brown sandy soil with chips of pulverized diorite. Numerous rounded rusty brown coated fragments.	50% hornblende diorite with rusty weathered surfaces, 50% alaskite, ditto. One angular fragment of silicified monzonite, no sulphides.	Yes
4S, 44E	1.25	Sample from 25' S. of station; boulders on surface.	Predominantly grey pulverized rock, minor brown soil.	Numerous angular fragments of altered hornblende diorite. Hornblende very indistinct, altered to irregular, patchy biotite. Occassional large secondary (?) feldspars. Few rounded fragments of hornblende diorite. No mineralization.	Yes
4S, 48E	1.75	Almost entirely bedrock.	Brown sand, minor soil, fragments of pulverized rock	Mixed angular hornblende diorite and monzonite fragments, most with weathered surfaces.	Yes
4S, 52E	4.0	Unsure whether bedrock reached in boulders	Grey pulverized rock, no soil	Angular fragments of chloritized diorite or monzonite. Epidote, K-spar locally, occassional fine grained pyrite.	Yes
4S, 60E	3.75	Medium sampler. Could not penetrate beyond 3.75 m.	Light grey clay & pulverized rock.	Angular fragments of coarse grained chloritized granite with K-spar. No mineralization.	Yes
4S, 68E	3.0	Using medium sampler due to difficult drilling and jacking.	Predominantly pulverized crystalline rock with light to med. brown sand.	Angular fragments of medium grained biotite granite or quartz monzonite, No alteration or mineralization. Two rounded fragments diorite or dacite.	Yes
4S, 76E	5.5	Medium sampler used due to difficult drilling.	Small sample of med. brown sandy pulverized rock.	Angular fragments of orange med. grained biotite granite or quartz monzonite. Biotite is unaltered. No sulphides	Yes
4N, 40E	2.25	Sampled weathered bedrock, further depth impossible.	Light brown (dry) clayey sandy soil very few rock frag.	Two fragments of altered monzonite(?) Epidote, silica, hematite. Very fine grained MoS_2 in epidote?	?

Hole Location	Depth (m)	Drillers Comments	Soil	Fragments	Bedrock
4N, 44E	2.5	Area covered with boulders, four attempts.	Light brown(dry)sandy soil, numerous small rock chips.	Silicified monzonite with epidote, K-spar, magnetite. Fragments of quartz vein, unmineralized.	?
4N, 48E	1.0	Boulders and out-crop abundant	Light greyish tan pulverized rock.	Numerous subrounded to angular fragments of weathered, unmineralized alaskite. One fragment of diorite.	Yes
4N, 52E	2.5	Undoubtedly bed-rock.	Light brown to grey pulverized rock.	Angular fragments of unmineralized unaltered finegrained biotite granite	Yes
4N, 60E	4.25	Weathered bedrock not possible to go deeper.	Granular medium grey-brown granitic sand.	No large rock chips, few small fragments of coarse grained granite.	No

APPENDIX B

Analytical Results

Area: B.C.

Map S ɜt No.: 93-N-6E

Venture: General Expl. B.C.

PLACER DEVELOPMENT LIMITED

Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands

Date: July 27/78 Page 1 of 1

Card Type	SAMPLE No.	Lab. Proj.	PPM * denotes 40 mesh											
			Mo	Cu	Zn	Pb	Cd	Ni	Co	Ag	Au	U	#F	W
1	2 16	17 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80
A	S-20S- 46E	8072	3	87						0.34	0.02-		430	5-
	50E		2	9						0.11	0.02-		230	5-
	54E		2	58						0.14	0.02-		330	5-
	62E		1	20						0.16	0.02-		290	5-
	70E		1	36						0.17	0.02-		350	5-
	S-12S- 40E		3	107						0.13	0.02-		320	5-
	44E		5	164						0.15	0.02-		490	5-
	48E		4	129						0.14	0.02-		380	5-
	52E		1	22						0.13	0.02-		260*	5-*
	60E		1	152						0.18	0.02-		400*	5-*
	68E		1	78						0.21	0.02-		370*	5-*
	76E		1	21						0.15	0.02-		340	5-
	84E		1	200						0.16	0.02-		420	5-
	S-4S- 40E		1	54						0.47	0.02-		440	5-
	44E		2	100						0.27	0.02-		520	5-
	48E		3	69						0.10	0.02-		430	5-
	52E		1	93						0.18	0.02-		400	5-
	60E		6	88						0.24	0.02-		400*	5-*
	68E		3	61						0.23	0.02-		360*	5-*
	76E		15	114						0.24	0.02-		390*	5-*
	S-4N- 40E		3	86	Note:	* means -40 mesh				0.17	0.02-		560	5-
	44E		2	180		fraction used				0.15	0.02-		600	6
	48E		7	28						0.22	0.02-		260	5
	52E		1	45						0.20	0.02-		540*	5-*
	60E		1	18						0.14	0.02-		580*	5-*

Area: B.C.

Map Sheet No.: 93-N-6E

Venture: General Expl B.C.

PLACER DEVELOPMENT LIMITED

Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands

Date: Aug 3/78 Page 1 of 1

Card Type 1	SAMPLE No. 2–16	Lab. Proj. 17–20	PPM Mo 21–25	Cu 26–30	Zn 31–35	Pb 36–40	Cd 41–45	Ni 46–50	Co 51–55	Ag 56–60	Au 61–65	U 66–70	₹F 71–75	W 76–80
A	R04N 40E	8072	1	55						0.05	0.02-		340	20
	44E		2	25						0.04	0.02-		320	7
	48E		7	31						0.03	0.02-		180	5
	52E		4	40						0.10	0.02-		280	5-
	R04S 44E		3	58						0.04	0.02-		440	5-
	48E		5	27						0.02	0.02-		360	5-
	52E		1	31						0.12	0.02-		520	5
	60E		2	21						0.03	0.02-		360	5-
	68E		2	27						0.06	0.02-		320	5
	76E		2	130						1.45	0.02-		250	5-
	R12S 40E		1	50						0.11	0.02-		420	5
	44E		1	72						0.10	0.02-		500	7
	48E		1	42						0.10	0.02-		540	5-
	52E		2	14						0.06	0.02-		340	7
	76E		2	17						0.10	0.02-		300	5-
	84E		1	77						0.12	0.02-		520	5
	R20S 46E		3	29						0.16	0.02-		540	5-
	50E		2	35						1.08	0.02-		300	5-
	54E		3	42						1,25	0.02-		460	9
	62E		1	20						0.10	0.02-		220	5-
	70E		1	23						0.05	0.02-		420	5

Area: B.C.

Map Sheet No.: 93-N-6E

Venture: General Expl. B.C. 'Burn'

PLACER DEVELOPMENT LIMITED

Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands

Date: July 27/78 Page 1 of 3

Card Type 1	SAMPLE No. 2–16	Lab. Proj. 17–20	PPM Mo 21–25	Cu 26–30	Zn 31–35	Pb 36–40	Cd 41–45	Ni 46–50	Co 51–55	Ag 56–60	Au 61–65	U 66–70	V 71–75	W 76–80
A	L12S-30E	8072	77	109						1.53	0.02-			
	31E		5	45						0.36	0.02-			
	32E		3	23						0.63	0.02-			
	33E		32	56						0.83	0.02-			
	34E		9	26						0.20	0.02-			
	35E		5	43						0.42	0.02-			
	36E		3	33						0.40	0.02-			
	37E		3	43						0.52	0.02-			
	38E		2	43						0.49	0.02-			
	39E		3	28						0.20	0.02-			
	40E		9	45						0.37	0.02-			
	41E		5	24						0.32	0.02-			
	42E		118	103						0.44	0.02-			
	43E		11	42						0.21	0.02-			
	44E		7	21						0.26	0.02-			
	45E		8	26						0.31	0.02-			
	46E		22	81						0.34	0.02-			
	47E		20	66						0.18	0.02-			
	48E		13	44						0.30	0.02-			
	49E		28	37						0.20	0.02-			
	50E		12	50						0.40	0.02-			
	51E		5	28						0.42	0.02-			
	52E		8	41						0.30	0.02-			
	53E		2	15						0.07	0.02-			
	54E		3	17						0.23	0.02-			

Area: B.C.

Map Sheet No.: 93-N-6E

Venture: General Expl. B.C. 'Burn'

PLACER DEVELOPMENT LIMITED

Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands

Date: July 27/78 Page 2 of 3

Card Type 1	SAMPLE No. 2–16	Lab. Proj. 17–20	PPM Mo 21–25	Cu 26–30	Zn 31–35	Pb 36–40	Cd 41–45	Ni 46–50	Co 51–55	Ag 56–60	Au 61–65	U 66–70	V 71–75	W 76–80
A	L12S-55E	8072	2	15						0.16	0.02-			
	56E		3	22						0.25	0.02			
	57E		6	24						0.26	0.02-			
	58E		10	51						0.22	0.02-			
	59E		8	29						0.30	0.02-			
	60E		5	24						0.10	0.02-			
	61E		16	68						0.40	0.02-			
	62E		16	121						0.31	0.02-			
	63E		9	82						0.24	0.02-			
	64E		12	25						0.15	0.02-			
	65E		10	41						0.20	0.02-			
	66E		9	55						0.17	0.02-			
	67E		10	84						0.37	0.02-			
	68E		6	40						0.38	0.02-			
	69E		10	41						0.23	0.02-			
	70E		2	41						0.50	0.02-			
	71E		9	83						1.32	0.02-			
	72E		5	21						0.17	0.02-			
	73E		3	26						0.36	0.02-			
	74E		1-	8						0.15	0.02-			
	75E		1	6						0.19	0.02-			
	76E		3	28						0.31	0.02-			
	77E		3	24						0.25	0.02-			
	78E		5	20						0.10	0.02-			
	79E		4	34						0.13	0.02-			

Area: B.C.

Map Sheet No.: 93-N-6E

Venture: General Exploration B.C. "Burn"

PLACER DEVELOPMENT LIMITED

Geochemistry Analysis Sheet No. 1.

Geologist: J. Hylands

Date: July 27/78 Page 3 of 3

Card Type 1	SAMPLE No. 2–16	Lab. Proj. 17–20	PPM Mo 21–25	Cu 26–30	Zn 31–35	Pb 36–40	Cd 41–45	Ni 46–50	Co 51–55	Ag 56–60	Au 61–65	U 66–70	V 71–75	W 76–80
A	L12S- 80E	8072	6	17						0.11	0.02-			
	81E		5	26						0.18	0.02-			
	82E		3	26						0.17	0.02-			
	83E		2	10						0.38	0.02-			
	84E		1	10						0.33	0.02-			
	P-1 0-1'		14	32						0.25	0.02-			
	1-2'		16	70						0.30	0.02-			
	2-3'		15	80						0.13	0.02-			
	3-4'		26	106						0.10	0.02-			
	P-2 0-1'		9	26						0.10	0.02-			
	1-1½'		9	24						0.15	0.02-			
	1½-3'		10	117						0.14	0.02			
	3-4'		12	66						0.13	0.02-			

Appendix C

Rock Specimens Obtained

Burn Core

DDH#	Depth Ft.	Rock type from drill logs
3	80	Monzodiorite
4	310	Quartz Monzonite
5	161, 162	Alaskite
7	405	Monzodiorite
	481	Monzonite
9	43	Quartz Monzonite or Syenite
	139	Alaskite
	291	Granodiorite or Quartz Monzonite
	781	Granite
10	179	Diorite
	430, 431	Alaskite
12	96	Syenite

Appendix D

Burn Soil Profiles

P-1, from north trench at 30E baseline

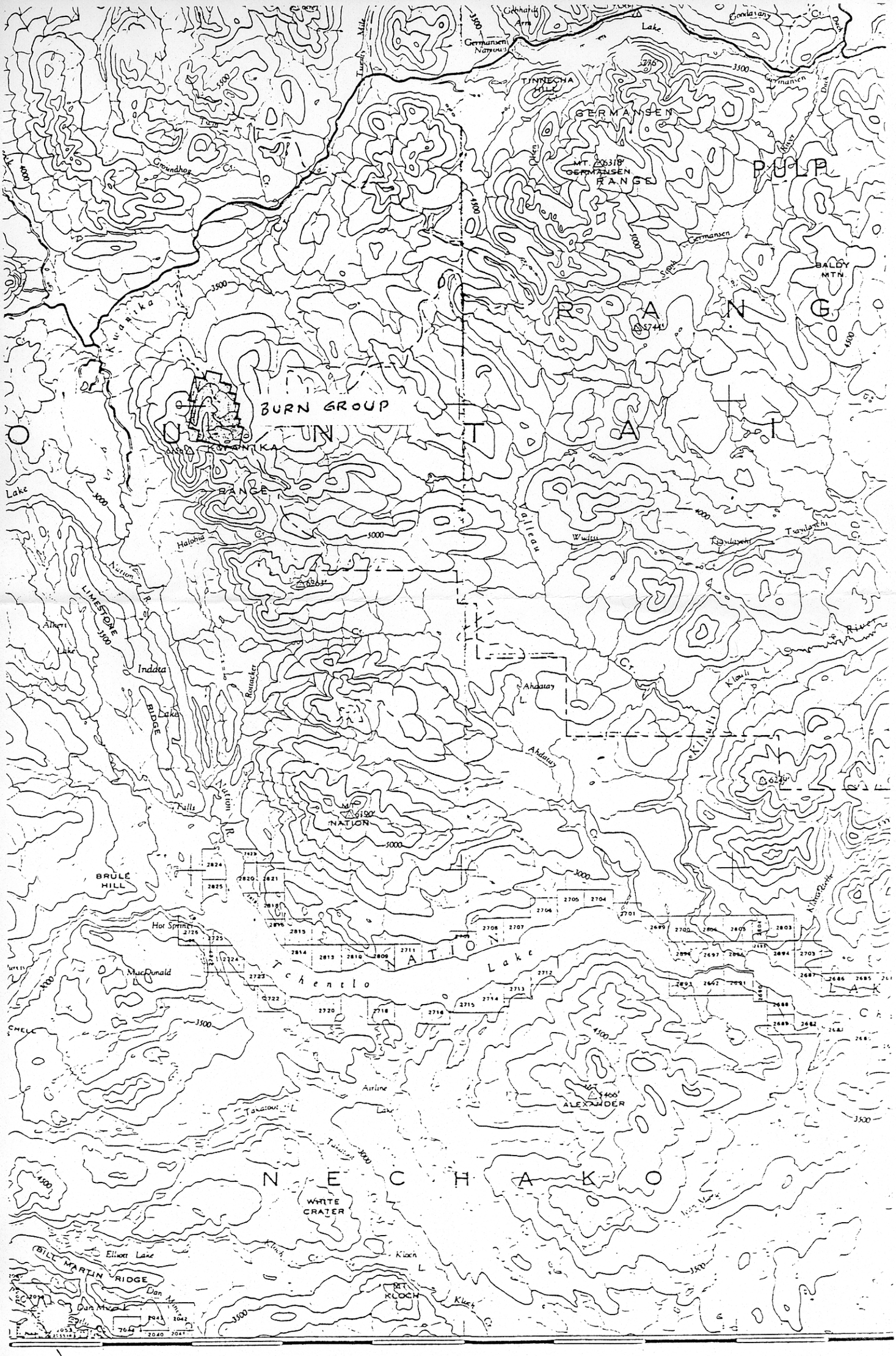
		Mo ppm	Cu ppm	Au ppm	Ag ppm
0-1'	Sandy soil, some clay and gravel	14	32	0.02⁻	0.25
1-2'	Rusty zone, sandy, rusty coated rock fragments	16	70	0.02⁻	0.30
2-3'	Slightly rusty sandy gravel	15	80	0.02⁻	0.13
3-4'	Medium brown sandy gravel	26	106	0.02⁻	0.10

Rounded to subrounded monzonite to monzodiorite boulders predominate in the north trench. Some contain epidote in narrow fractures and patches possibly with fine MoS_2. Scattered boulders with ¼" biotite clots, up to two per square inch.

P-2 from south trench, approximately 32E

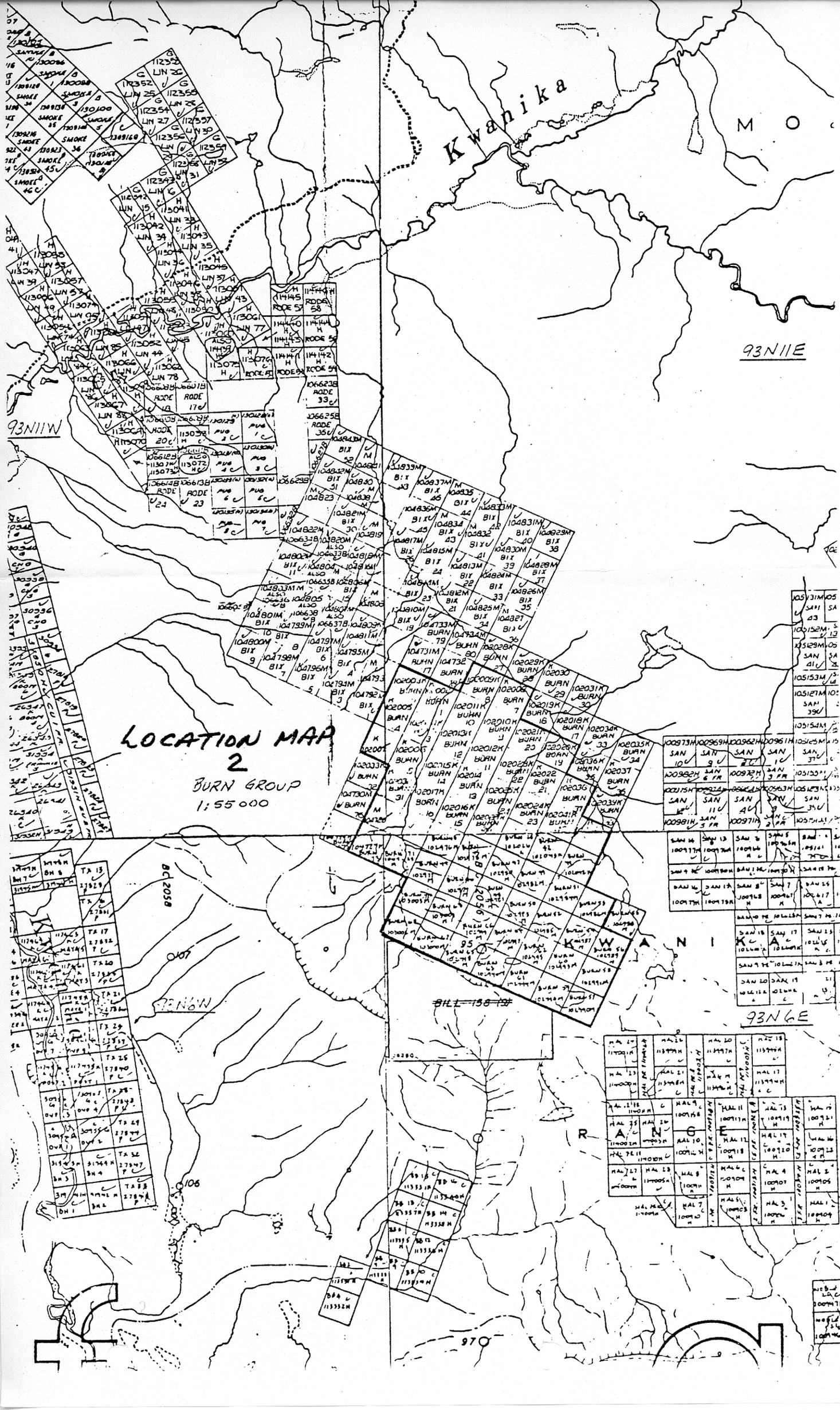
		Mo ppm	Cu ppm	Au ppm	Ag ppm
0-1'	Light brown sandy soil, some rounded pebbles.	9	26	0.02⁻	0.10
1-1.5'	Rusty brown gravel, rusty clay at 1.5'	9	24	0.02⁻	0.15
1.5-3'	Grey clayey gravel. Clay decreases between 1.5' and 2'.	10	117	0.02⁻	0.14
3-4'	Medium brown sandy gravel	12	66	0.02⁻	0.13

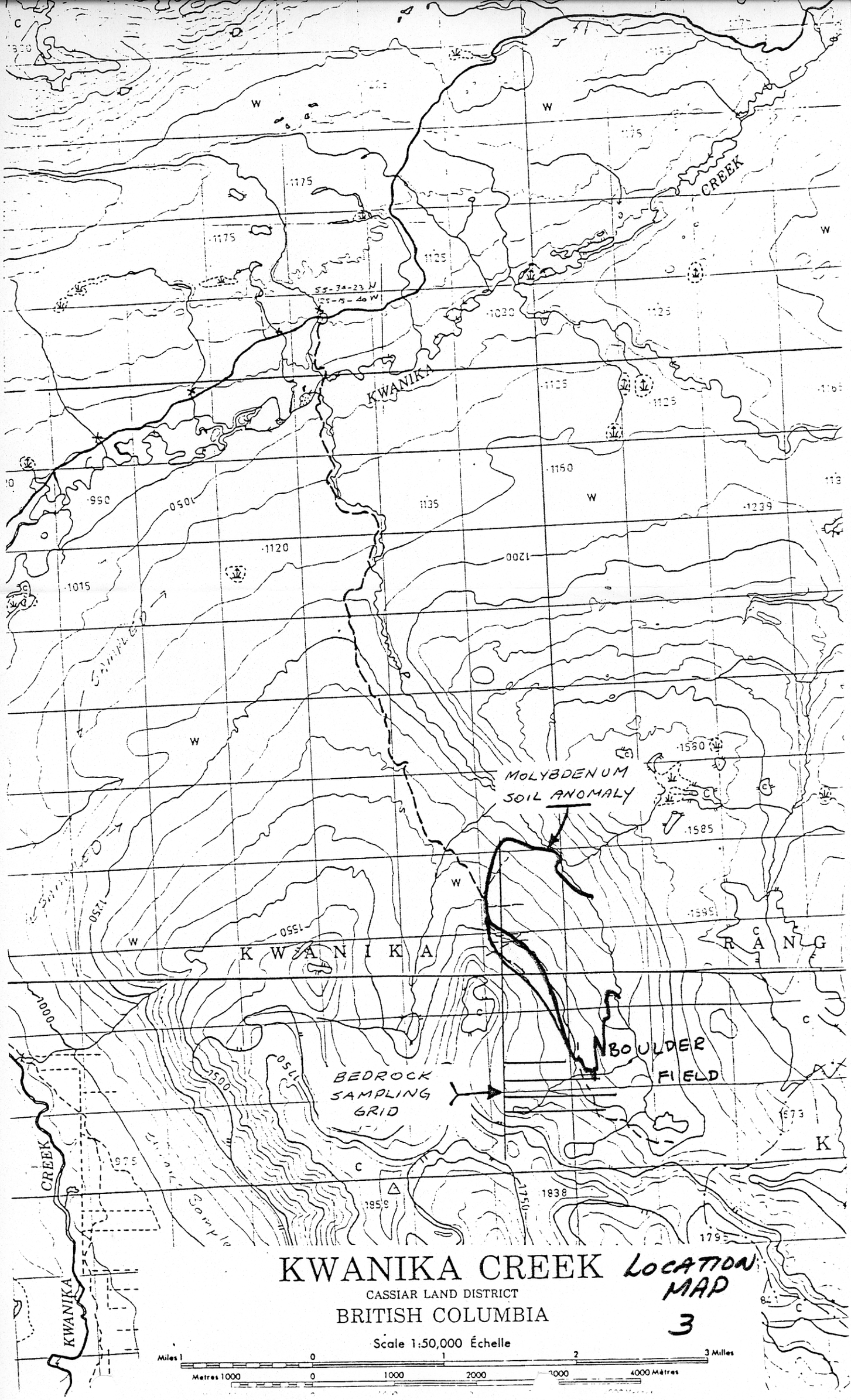
Monzonite is exposed in bottom of the south trench. Epidote in narrow veins, occassionally patches to one foot across. Trace MoS_2 in epidote. No quartz veining.



LOCATION MAP 1

MANSON RIVER


Kwanika
93N11E
93N11W
93N10W
93N6E
LOCATION MAP
2
BURN GROUP
1:55000



KWANIKA CREEK

CASSIAR LAND DISTRICT

BRITISH COLUMBIA

LOCATION MAP 3

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Mètres

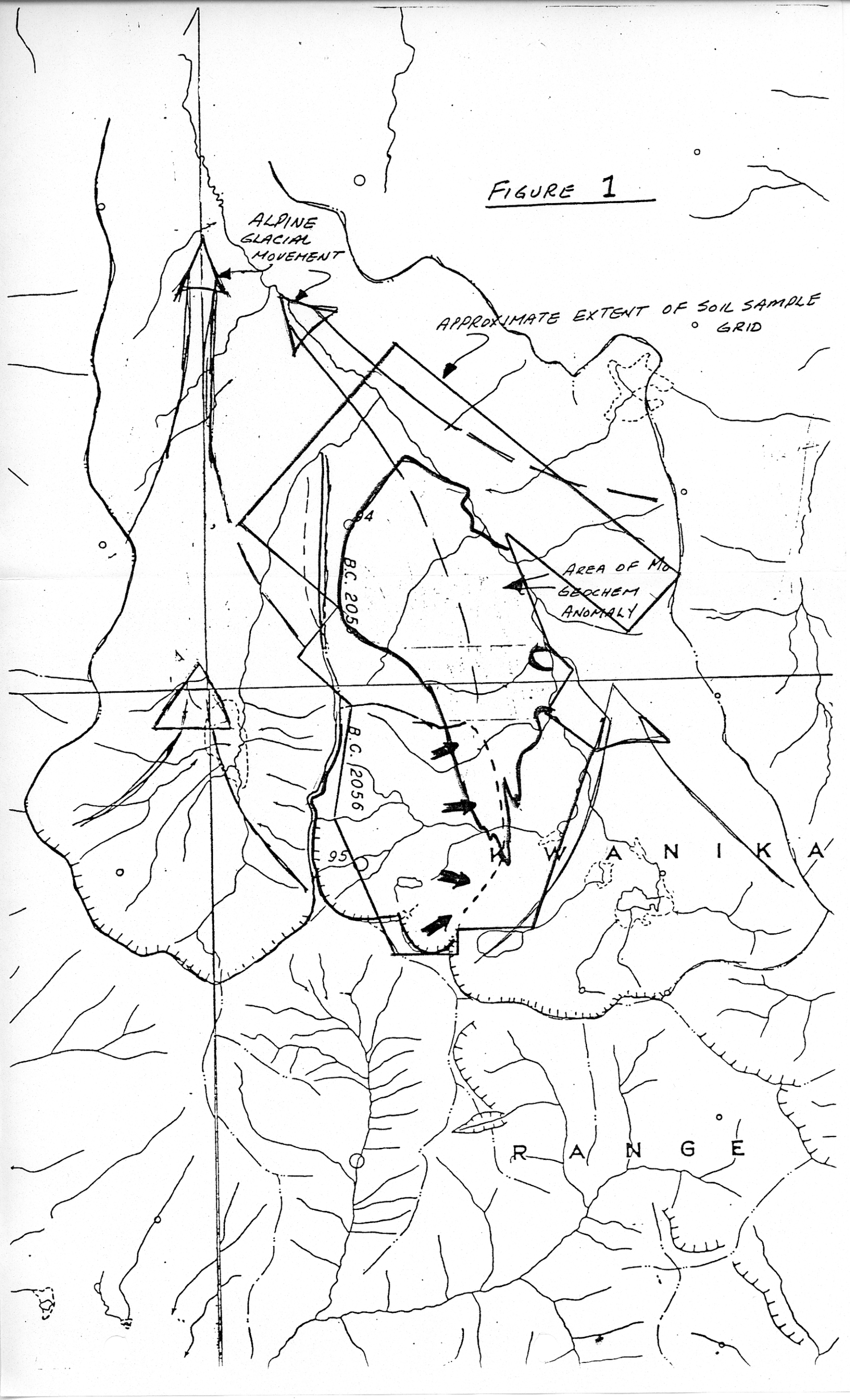
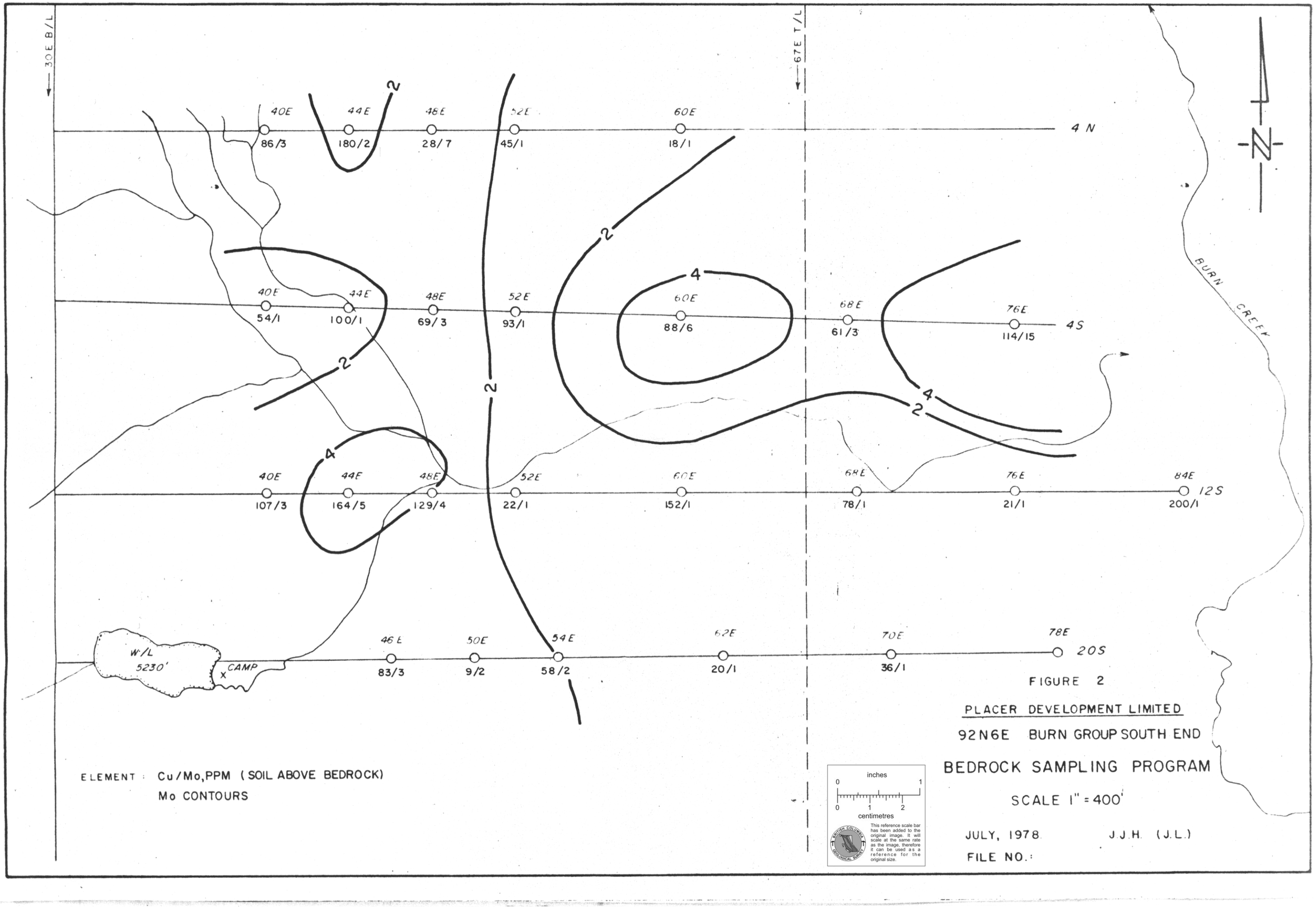


FIGURE 1
ALPINE GLACIAL MOVEMENT
APPROXIMATE EXTENT OF SOIL SAMPLE GRID
AREA OF Mo GEOCHEM ANOMALY
B.C. 2055
B.C. 2056
94
95
K W A N I K A
R A N G E



ELEMENT : Cu/Mo,PPM (SOIL ABOVE BEDROCK)
Mo CONTOURS

inches
0 1
0 1 2
centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

FIGURE 2

PLACER DEVELOPMENT LIMITED

92N6E BURN GROUP SOUTH END

BEDROCK SAMPLING PROGRAM

SCALE 1" = 400'

JULY, 1978 J.J.H. (J.L.)

FILE NO.:

30E B/L

67E T/L

40E 44E 48E 52E 60E

4 N

86/3 180/2 28/7 45/1 18/1

100

100

40E 44E 48E 52E 60E 68E 76E

4S

54/1 100/1 69/3 93/1 88/6 61/3 114/15

BURN CREEK

100

40E 44E 48E 52E 60E 68E 76E 84E

12S

107/3 164/5 129/4 22/1 152/1 78/1 21/1 200/1

50

50

46E 50E 54E 62E 70E 78E

20S

83/3 9/2 58/2 20/1 36/1

W/L 5230'

CAMP

ELEMENT : Cu/Mo,PPM (SOIL ABOVE BEDROCK)

Cu CONTOURS

FIGURE 3

PLACER DEVELOPMENT LIMITED

92N6E BURN GROUP SOUTH END

BEDROCK SAMPLING PROGRAM

SCALE 1" = 400'

JULY, 1978. J.J.H. (J.L.)

FILE NO.:

inches 0 1

0 1 2 centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

BRITISH COLUMBIA GEOLOGICAL SURVEY

30E B/L

67E T/L

BURN CREEK

40E 44E 48E 52E 60E — 4 N

55/1 25/2 31/7 40/4 NS

40E 44E 48E 52E 60E 68E 76E — 4S

NS 58/3 27/5 31/1 21/2 27/2 130/2

40E 44E 48E 52E 60E 68E 76E 84E — 12S

50/1 72/1. 42/1 14/2 NS NS 17/2 77/1

46E 50E 54E 62E 70E 78E — 20S

29/3 35/2 42/3 20/1 23/1 NS

5 3 2 2 2

W/L 5230'

CAMP

ELEMENT : Cu / Mo (PPM BEDROCK CHIPS)

Mo CONTOURS

inches 0 1 0 1 2 centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

FIGURE 4

PLACER DEVELOPMENT LIMITED

92N6E BURN GROUP SOUTH END

BEDROCK SAMPLING PROGRAM

SCALE 1" = 400'

JULY, 1978. J.J.H. (J.L.)

FILE NO.:

30E B/L

67E T/L

BURN CREEK

40E 44E 48E 52E 60E 4 N

40E 44E 48E 52E 60E 68E 76E 4S

40E 44E 48E 52E 60E 68E 76E 84E 12S

46E 50E 54E 62E 70E 78E 20S

W/L 5230'

CAMP

4	ALASKITE
3	GRANITE
2	MONZONITE
1	HORNBLENDE DIORITE

inches 0 1 0 1 2 centimetres

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

FIGURE 6

PLACER DEVELOPMENT LIMITED

92N6E BURN GROUP SOUTH END

BEDROCK SAMPLING PROGRAM

GEOLOGY MODIFIED FROM J.W. MUSTARD

SCALE 1" = 400'

JULY, 1978. J.J.H. (J.L.)

FILE NO.: