Mining Incentive Application 93-142

Target Evaluation
2001 Yukon Ltd.

Britannia Creek

Placer Lease To Prospect 8977
62 51'N; 138 43'W

Whitehorse Mining District - Map 115J-15P

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Britannia Creek
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62 51'N; 138 43'W (Map 1)
Whitehorse Mining District - Map 115J-15P (Map 2)

Project Summary

Six lines were drilled, one on the right limit, and five on the left limit, on Britannia Creek. Lines ran at right angles to the run of the creek valley. Each line had between three and twelve holes drilled along the line, at approximately 50 foot intervals. Drilling attempted to reach and drill into bedrock. Drilling was undertaken with a B-31 Mobile auger drill powered by a 4 cylinder Lombardini diesel engine. The drill assembly was mounted to the deck of a FN110 Nodwell transport vehicle. Six inch hex core auger with fishtail (for overburden) or Westquip gravel bits were utilized. A D6 widepad Cat was utilized to provide access to the valley, off the road, and to otherwise support the Nodwell where required. Gravel and bedrock samples were collected from the auger onto a metal tray. From here they were shoveled into 5 gallon plastic pails and transported in a small trailer by a Honda 4-wheel ATV, to a water source where they were sluiced out in a longtom, by a sampler. Long tom samples were panned out and recovered gold retained. Gold samples were brought to Whitehorse and weighed by an assaying company or professional engineer. Drill lines are well marked, and individual holes were marked by metal tagged wooden posts and were flagged with fluorescent flagging. The work was carried out in August, October, and November, 1993.

Claims

Whithorse Mining District

Located on Britannia Creek, tributary to the Yukon River, approximately 50 miles downstream from Fort Selkirk.

Prospect Lease 8977
Staked by Lokey Mining Services Ltd. in June 1992
Staked to Claims in Fall 1993 (Sam Group)

Access

Britannia Creek is located approximately 80 miles from Minto and 120 Miles from Dawson City, off the Yukon River. There is a barge landing at the mouth of Britannia where it enters the Yukon River. A tote road runs the length of the Creek to the Casino hardrock property. This road is in fair condition and has seen recent upgrading as a result of the drilling activity at the Casino property. There is a functional air strip at the Casino property. Equipment, fuel and supplies were transported to Britannia Creek landing from Minto by Jacob Industries barge. Crew and supplies were transported by a 26 ft aluminum jetboat. Trips for supplies and repairs were by boat to Minto and from there by pickup to Whitehorse. Also, air transport to the Casino strip by Pacific Sentinel (Archer, Cathero) occurred on a very regular basis. They generously assisted us in transporting men and supplies, on occasion, when space was available, to/from either Minto or Whitehorse. 4 - Wheel Honda ATV's were utilized to transport men and supplies from either the river landing, or airstrip, to camp and from camp to work sites.

GEOLOGY AND DEPOSIT

Britannia Creek is located in a unglaciated area. The geology of the area is described as Proterozoic/Paleozoic defined as Shist Gneiss (Map 3). Rocks in the area include muscovite, biotite-quartzite, quartz feldspar, mica shist, calcite, biotite granodiorite, magnetite. The gold occurs in alluvial gravels of prior stream beds at or near bedrock. A typical cross section is comprised of: 1) Five feet of overburden which is made up of any combination of soil, silt, and sand; 2) Gravels (4-18 feet) which vary from large boulders, to sandy gravels to clay gravels. Some sections contain very hard compact (hardpan) sand and small gravels. Boulders, where they occurred, seem to be concentrated in the mid gravels; 3) Bedrock (at 18' but in some sections appears to begin much deeper) was difficult to define and seemed to be decomposed shist clay, with some chunky, blocky shist pieces, in some locations, and very compact hard sands in other locations. Gold appears to be concentrated in the lower gravel layer, near bedrock contact or in bedrock.

The valley contains intermittent permafrost which seems determined by depth of soil dominant overburden and amount of ground water. That is, the less soil the less likelihood of the ground being frozen; and the more ground water the less likelihood of the ground being frozen. It is estimated from the holes drilled, from vegetation, and gravel presence that from 2/3 to 3/4 of the valley is frozen.

HISTORY

Record of staking on Britannia Creek dates back to at least 1911 with interest in the pre World War I period. Bostock Memoir 284 p.442 notes: "between 1911 and 1914 some prospecting and a small amount of mining were done on Britannia Creek" and p446 comment on work during this period: "It is claimed that the results of the work there performed indicates that the portion of the Creek below the mouth of Canadian Creek, about 5 miles in length would pay well for dredging. The physical condition, amount of water ect., are at least adaptable to dredging, and the bedrock in most places along the central part of the valley is only from 18 - 20 feet deep." These same conditions present a favorable mining environment should gold reserves in payable quantities be established. Table 6, page 7 of the Yukon Mineral Industry 1941 - 1959 indicates there were leases in good standing on Britannia Creek 1938 - 1944. This indicates an interest in the Britannia area, during this period, equal to or greater than that of many other creeks that have since proven to be producers (Ballarat, Kirkman, Thistle, Rude). Leases and claims have been staked intermittently in more recent times. Personal examination of the area indicates historical shafting sites particularly at the lower end of Britannia. Further the Geological Survey of Canada Map 1513A (Mineral Deposits of the Canadian Cordillera) (Map 4) identifies a major tributary to Britannia (Canadian Creek) as a placer producer. There is only one other creek between Canadian/Britannia and the Klondike identified to be significant on this map. Again of creeks in the area which have become proven producers none were noted as being significant. Examination of the Creek valley provided evidence of prior workings (shafts, cabin sites, possible ditches.) Assessment work was carried out in the Spring of 1993. This consisted of panning and doing selected bulk samples of material from rims of historical shafts. The majority of this work was carried out about one mile from the mouth of Britannia, close to where the road crosses the Creek, though additional testing was done upstream from there. Small quantities of gold were recovered from these tests, and was generally fine, flat, with some small chunky flakes. Given the assessment of the property by Bostock, the fact that old timers worked the property, and that prospecting provided some evidence of gold presence the property merited further testing. A drill program was undertaken to achieve this end.

DRILLING PROGRAM

Six lines were drilled on Britannia Creek, one at the top end near the junction with Canadian Creek, and five lines drilled claims 9 and 17. This part of the Creek was selected because the valley was relatively narrow and the Creek tended to be tight to the right side of the valley thus it was thought that it would be a good area to test the full valley width for both gold presence and to establish if a pay channel exists. A line was started close to the mouth of Canadian Creek in an

attempt to intersect any enrichment that might be resulting from that watershed. However this part of the valley was generally thawed and recovery from the three holes started was unsatisfactory. The drill lines ran at right angles to the direction of the valley (across the valley) in an attempt to intersect a pay streak in old stream channels. The number of holes on each line varied from six to fourteen, with the distance between holes approximately 50 ft. The only exception to this was on Line 17, where the first three holes were spaced at 100 and 150 ft. as these holes failed to intersect gravels and the spacing was increased until gravels were intersected on Hole 17-4. From this hole on spacing resumed at 50 ft between holes. (Map 5). A summary of the drill holes is attached to this report.

RESULTS

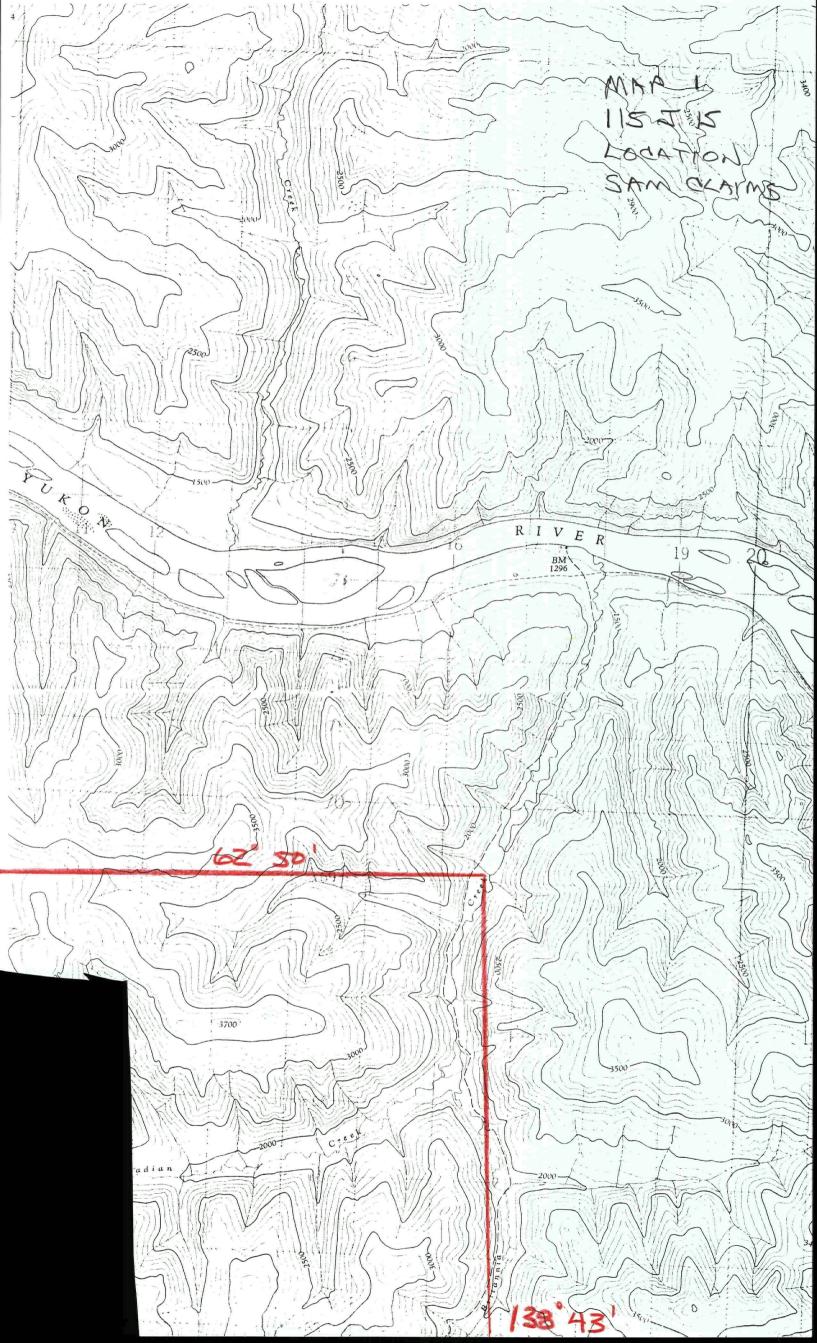
It should be noted that cold weather conditions limited the processing of the material from a number of holes. Holes S14-7, S14-8A, S14-8B, S14-9, S14-10A, S14-10B were not processed at all due to severe freezing weather which made sluicing impossible. Material from ten other holes were only partially processed. From these holes material from the bedrock contact level were hand panned at camp as it was felt that material at that strata would have the most likelihood of containing gold. The balance of the material will be processed in the spring. Material from the balance of the holes were fully process by sluicing through a long tom. The results presented here are a preliminary indication and will be revised following processing of the remaining material in the spring of 1994. Material not processed was bagged and indexed and stored at camp. A total of 49 holes were started of which 33 were classified as having reached bedrock. Of the 33 holes that reached bedrock 30 had material processed. Of these 30 holes 26 had some presence of gold. The number of pieces of gold in each drill hole varied from 1 to a high of 15. The weight of recovered gold varied from less than one milligram (mg) to a high of 28 mg. Generally speaking holes that were terminated in gravels above bedrock level contained no gold. There appears to be presence of gold across the valley however there were only two holes that provided promising kicks.

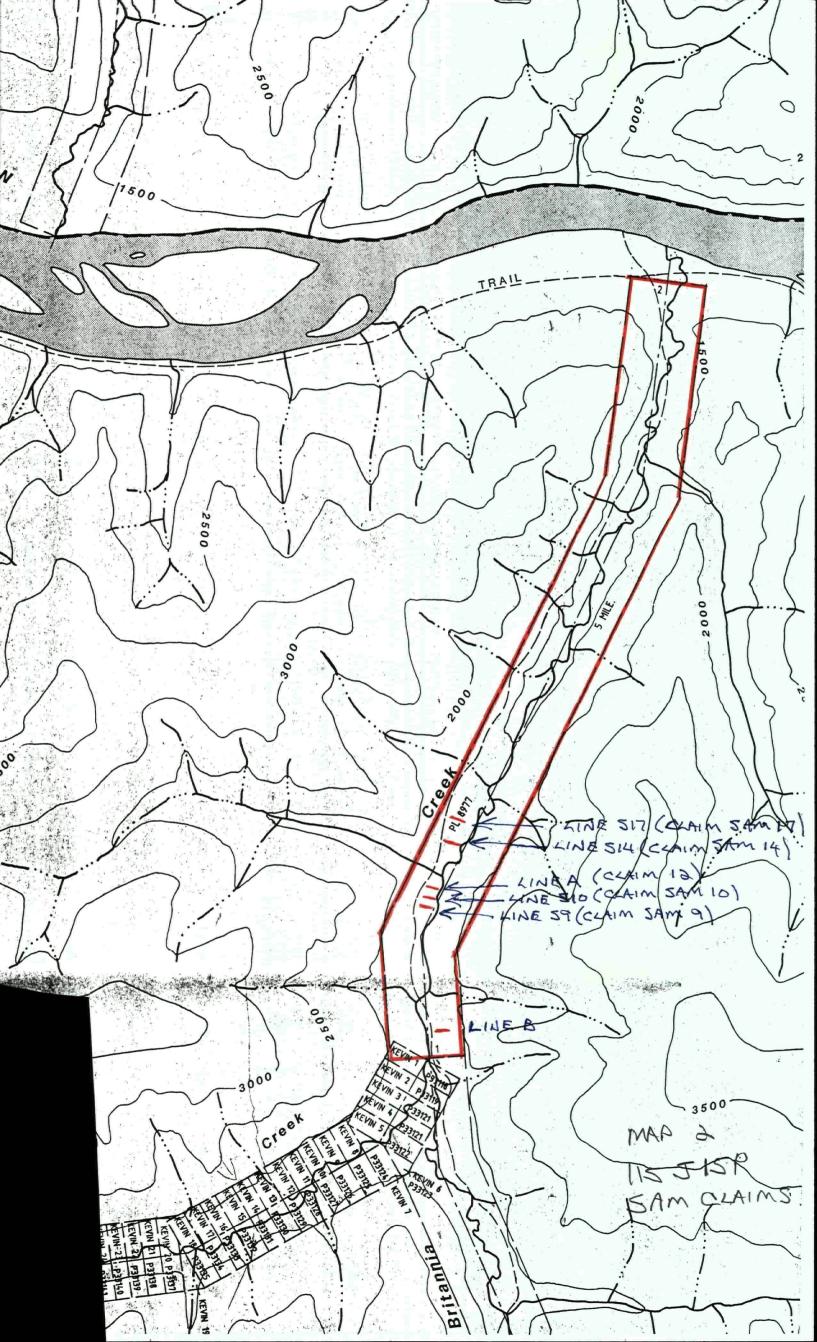
CONCLUSION

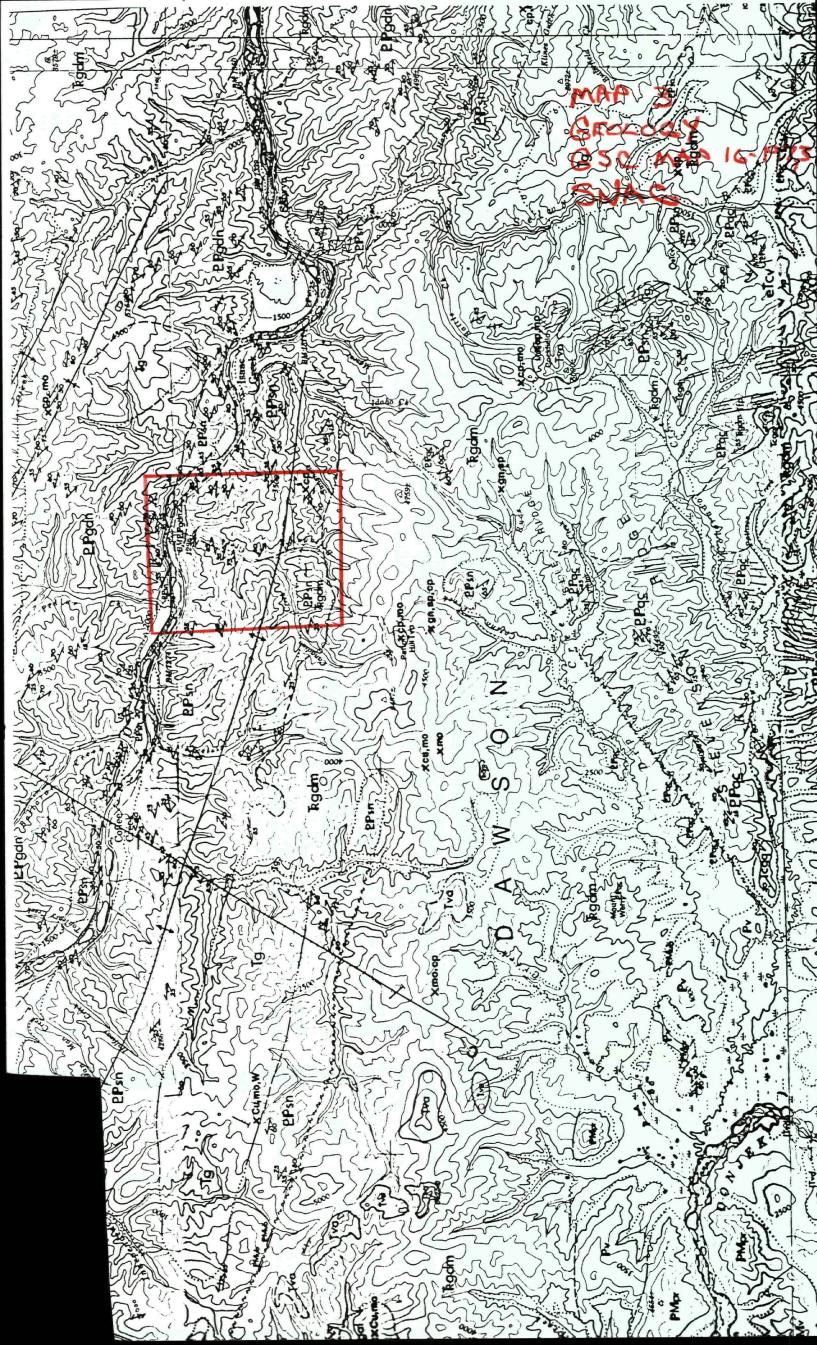
While this conclusion is limited by the difficulty in completing material processing, it appears that drilling to date, while demonstrating gold presence, has not, at this point, identified gold in paying quantities or a potential pay channel. Lines 9, 10, and A saw bedrock as a very defined decomposed shist at between 15 and 20 ft. On lines 14 and 17 however a hardpan (very compacted sand/small gravel) layer exists at various levels to approximately 30 ft., where a more typical bedrock commences. It is unclear as to whether or not this hard pan layer represents the commencement of bedrock or whether bedrock commences at the greater (30') depth. Additional examination of material profiles needs to be undertaken to establish true bedrock on these lines.

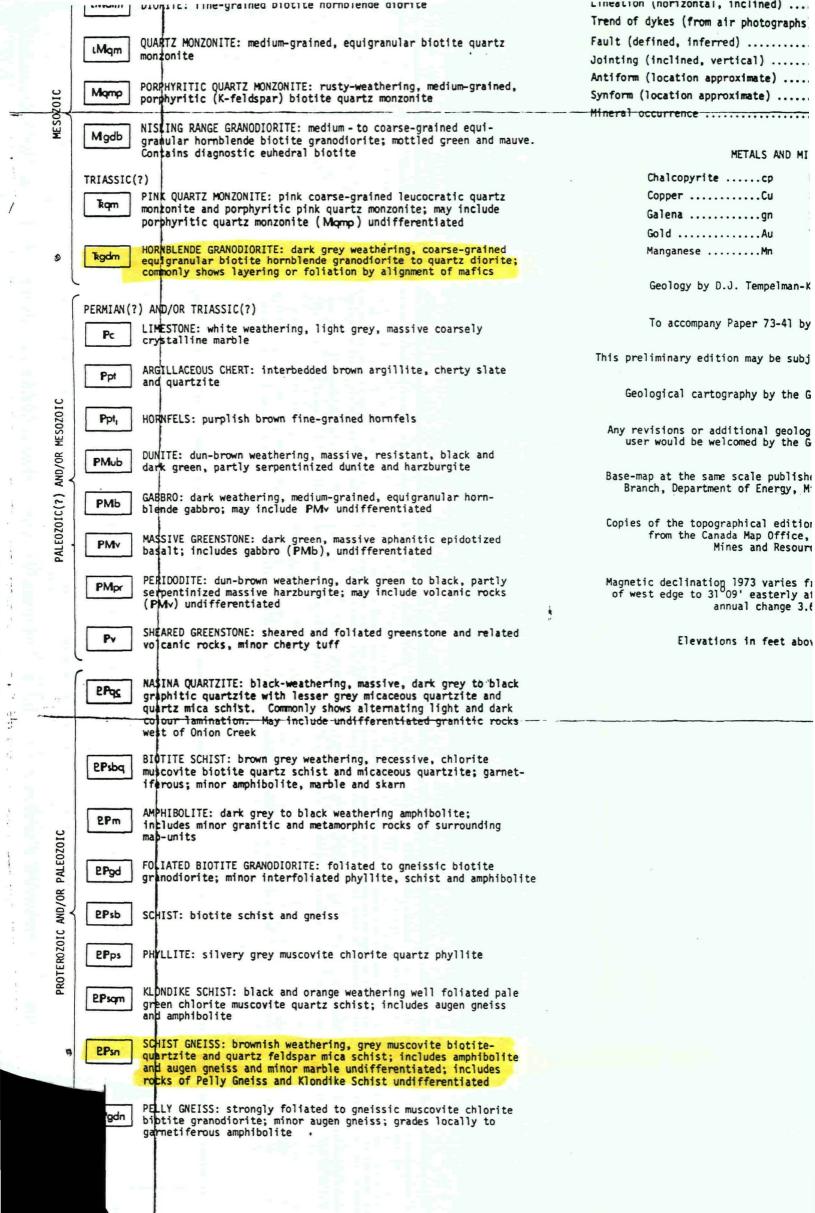
Remaining samples should be processed by 5 ft section to establish strata where gold is present. This would help determine and define bedrock (Hardpan or typical decomposed shist).

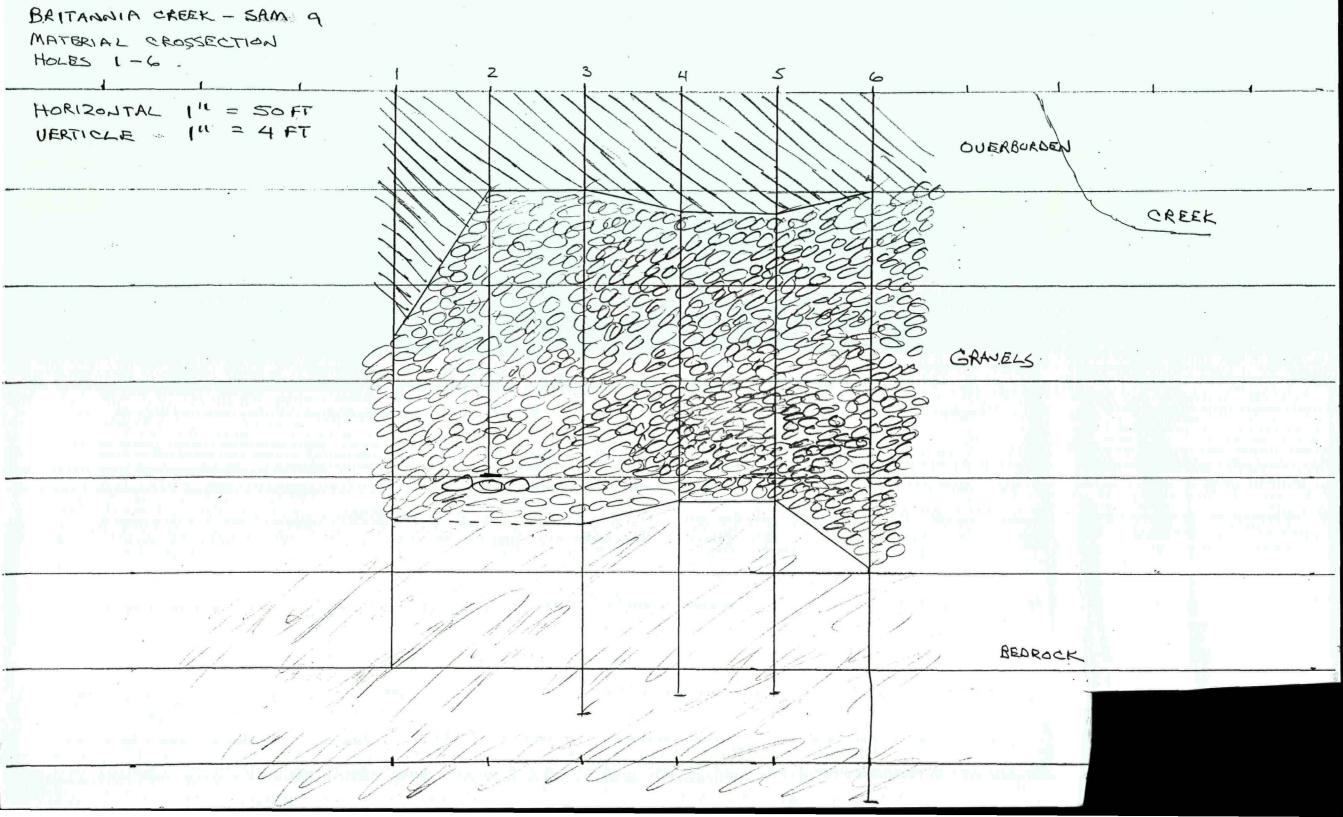
While drilling provides a good indication of gold presence the type of deposit will determine the correlation of drill results to mining grade. If the deposit has small highly concentrated pockets of gold, rather than gold evenly dispersed through the deposit, then mining grade could be significantly more than that indicated by drilling. This fact is exemplified by one property that reportedly mined at 13 times drilled grade. The property should not therefor be discounted because drilling has not established mining grade. The fact of gold presence should lead to further testing by shafting and/or bulk sampling by bakhoe pit where thawed. Additional drilling should be undertaken in other sections of the valley to determine gold presence and potential pay channels. Where bedrock is difficult to determine materials should be processed by interval (5 ft?) to define bedrock by gold presence.

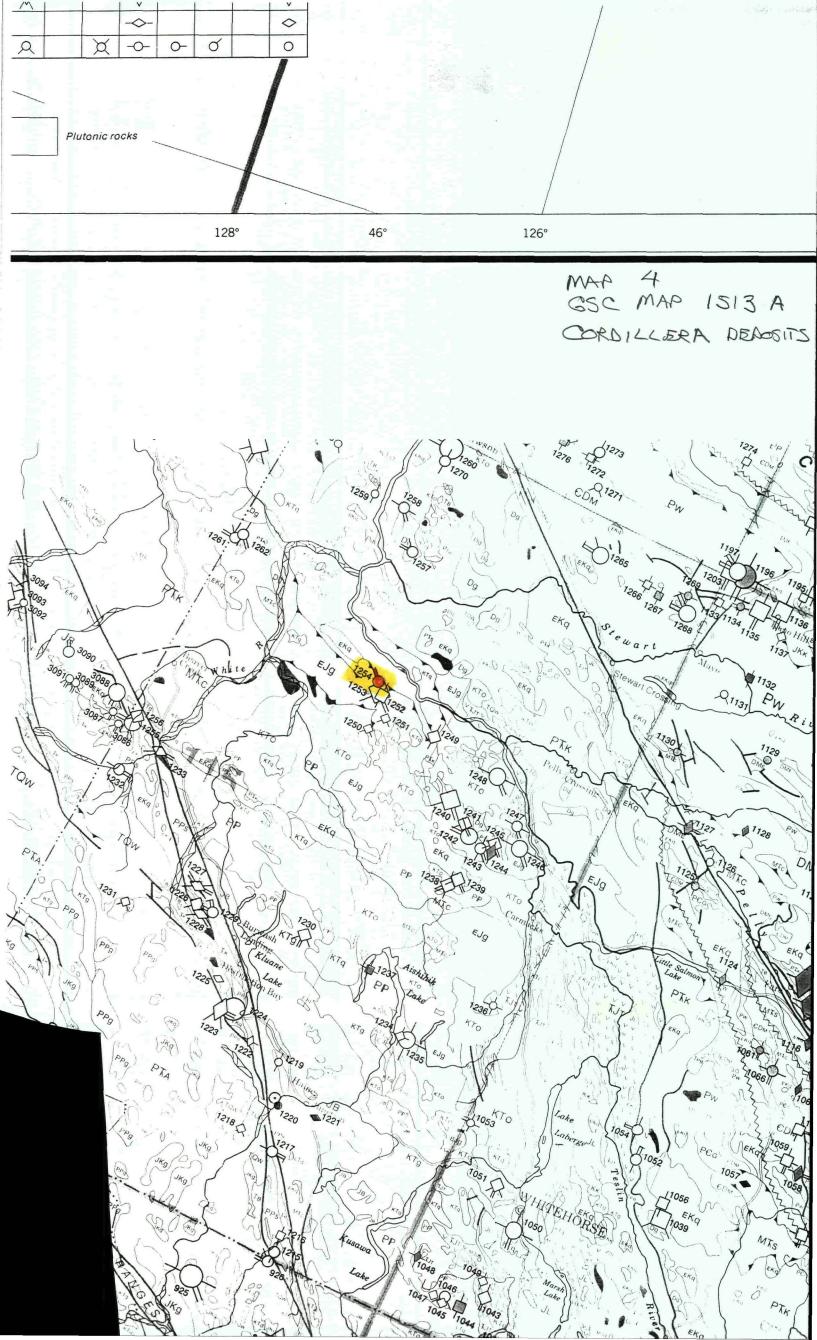












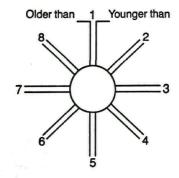
aton (Tally-Ho) Au, Ag, Pb 1044 Cartson Hill (Becker-Cochran, Goddell) Sb

SIZE CATEGORIES

LARGE	MEDIUM	SMALL	UNKNOWN, GENERALLY VERY SMALL
\bigcirc		0	O
\Diamond	\Diamond	\Diamond	♦
\Diamond	\Diamond	\Diamond	\Q
\Diamond	\Diamond	\Diamond	\Diamond

COMMODITY	LARGE >	MEDIUM >	SMALL
(in metric tonnes of metal or mineral	contained)		
Asbestos	10 000 000	100 000	
Barite (BaSO ₄), Fluorite (CaF ₂)	5 000 000	50 000	
Copper	1 000 000	50 000	
Gold	500	25	
Gypsum-Anhydrite	100 000 000	5 000 000	
Iron (ore)	100 000 000	5 000 000	
Lead, Zinc	1 000 000	50 000	
Magnesite (MgCO ₃)	10 000 000	100 000	
Mercury (flasks)	500 000	10 000	
Molybdenum	200 000	5 000	
Nickel	500 000	25 000	
Niobium-Tantalum (R₂O₅)	100 000	1 000	
Silver	10 000	500	
Tungsten	10.000	500	
Uranium	10 000	100	

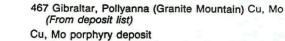
AGE OF MINERALIZATION



- **PRECAMBRIAN**
- 2 CAMBRIAN-MIDDLE DEVONIAN
- 3 LATE DEVONIAN-EARLY TRIASSIC
- MIDDLE TRIASSIC-JURASSIC 4
- 5 CRETACEOUS (EXCEPT LATE)
- 6 LATE CRETACEOUS EOCENE
- 7 OLIGOCENE-PLIOCENE
- 8 POST TERTIARY

EXAMPLE

Trout



Cu, Mo porphyry deposit (From deposit symbol legend and symbol colour)

Large > 1 000 000 tonnes of Cu (From "Size Categories" and corresponding table)

Middle Triassic — Jurassic or younger (From "Age of Mineralization")

Telluride Creek (Cub) Cu, Zn, (Ag, Pb, Ni, Au, Pt, Pd) 1223 Bullion Creek (Cub) Cu, Zn, (Ag, P 1224 Bullion Creek Gypsum 1225 Dickson Ni, Cu, (Co, Pt) 1226 Cork Cu, Mo 1227 Wellgreen (Quill Creek) Ni, Cu 1228 Tatamagouche Creek (Glen) Ni, Cu 1229 Burwash Creek Au 1230 Alaskite Creek (Raft) Mo. Cu 1231 Sharpe, Mineral Ridge Mo, Cu 1232 White River Copper (Canyon City) Cu, Ag 1233 White River Nickel (Canalask) Ni, Cu, (Co, Zn) Janisiw Cu, Mo, (Au, Ag, W) Hopkins, Giltana Cu, (Mo, Ag, Au, W, U) 1234 1236 Macks Copper Cu, Ag, Au, Fe 1237 Sekulmun Zn, (Cu, Ag, W, Pb) 1238 Mount Nansen-Brown McDade Au, Ag, (Zn, Pb, Sb) Mount Nansen-Cyprus Cu, Mo 1240 Cash, Klazan Cu, Mo Revenue Cu, Mo 1242 Seymour Creek Au 1243 Laforma (Freegold) Au, Ag 1244 Tinta Hill Zn, Pb, Au, Ag 1245 Granite Mountain Cu, Mo 1246 Williams Creek Cu, (Ag, Au) 1247 Stu (Bay) Cu
1248 Minto Copper (Def) Cu, (Au, Ag)
1249 Sonora Gulch (Hayes) Au, Ag, Bi, (Cu, Mo)
1250 Pattison (Patt) Cu, Mo
1251 Mount Cockfield, CO Cu, Mo
1252 Bomber, Helicopter Ag, Pb, Zn, Au
1253 Casino (Patton Hill) Cu, Mo, (W, Au) 1254 Canadian Creek Au 1255 Frying Pan Creek (Hidden Creek) Au 1256 Trudi Cu, Mo Hawk Creek (Albion) Au
Lucky Joe Creek (Burmeister) Cu, (Mo)

1258 1259 Tenmile Au 1260 Klondike Gold Camp (Bonanza Creek, Hunker Creek, etc.) Au

Claymore Creek-Discovery Creek Au Moosehorn Range (Dea, Lori) Au, (Ag, Pb, Zn)

Jove (Son) U

Mosquito Creek, Connaught, Butler Ag, Pb, Au

1265 Clear Creek Au, (Sn)

East Ridge, Barney Ridge Sn, W, (Cu, Pb, Zn) EPD Sn, W, Ag 1266 1267

1268 Johnson Creek (Minto Lake) Au 1269 Scheelite Dome W. (Sn. Au, Cu) 1270 Lone Star, Eldorado Dome, Buckland Au, Ag

116

1271 Ida Au, (As, Hg, Sb)
1272 Fish Creek (Philp) Cu, Au, Ag
1273 Hammon (Mike) Au, Cu, Ag, Si
1274 Blende Ag, Pb, Zn
1275 Hart River Cu, Zn, Ag, (Au, Pb)
1276 Index (Antimony Mountain) Sb, (U)
1277 Marn Cu, (Au, Ag, As)

1278 Tombstone Mountain (Ting, Teta) U

1279 Rein Ba 1280 Sixty Mile River Au 1281 Pluto Mo, (W)

Caley (Cassiar Creek) Asbestos 1283 Clinton Creek Asbestos

1283 Clinton Creek Asbestos
1284 Shell Creek Fe
1285 Coal Creek Dome Area Zn, Pb
1286 Burgoyne (Kept) Zn, (Pb)
1287 Cathedral Creek Fe
1288 Lasznicka, PL (Tin) Pb, Zn, (U)
1289 Dyke (Blackstone River) Cu, Asbestos
1290 Nuclear Pb, Zn, Ag, Cu
1291 Bilbo Pb, Ba
1292 Coet Pb

1292 1293

Coot Pb Cung Zn, Cu, Pb Llod Zn, Pb 1294

1295

Yum, Toad, Wart Pb, Zn Fishing Branch Pb, Zn, (Ag, Cu) Bern Creek Cu, Zn 1296

1297

Rusty Springs (Termuende) Pb, Zn, Ag Alto Fe Old Crow Range W Lord, Salaken Zn, (Pb) 1298

117

1302 Lin U 1303 Bonnet (Bon) U

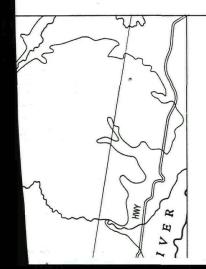
Fish River (Straddle) Fe, P, Mn, Gems

Mount Davies Gilbert (Rapid) Fe, P, Mn, Gems 1304

Mam U, Mo, W

Hoidahl (Mount Fitton) W. Au, Mo 1307

Mount Sedgewick W AJ, Obrien Au, Ag, As

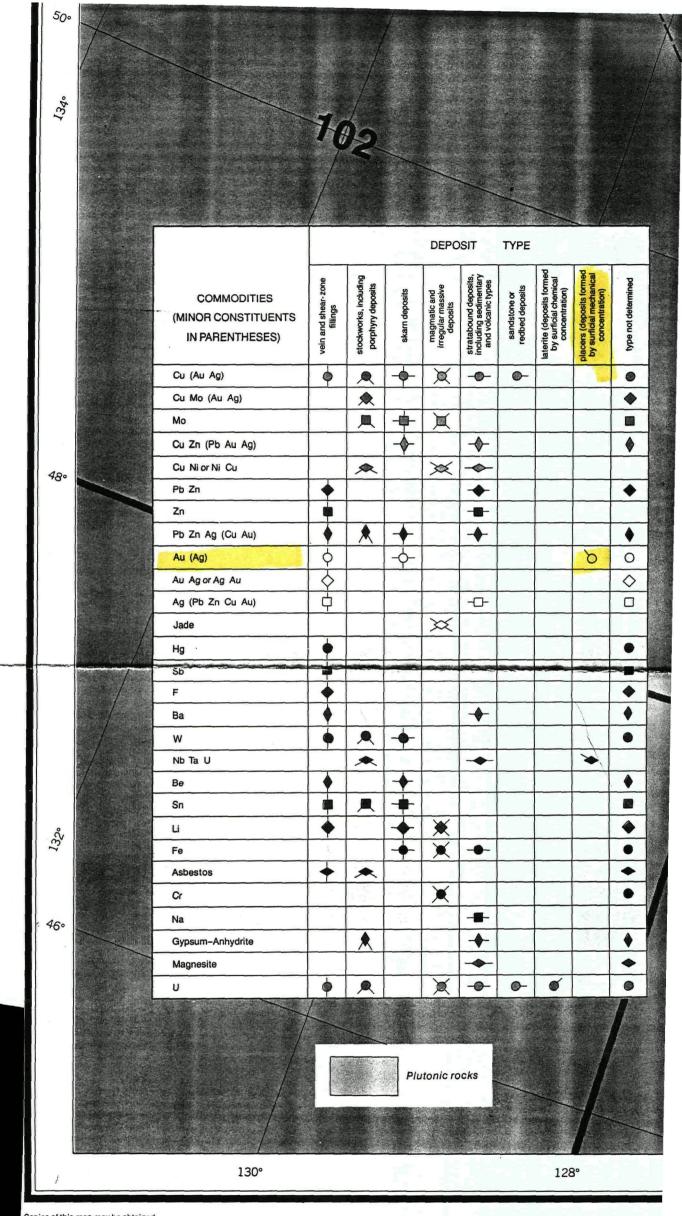


GEOLOGICAL SURVEY OF CANADA



COMMIS

MINISTÈRE DE L'ÉNERGIE, DES MINES ET DES RESSOU



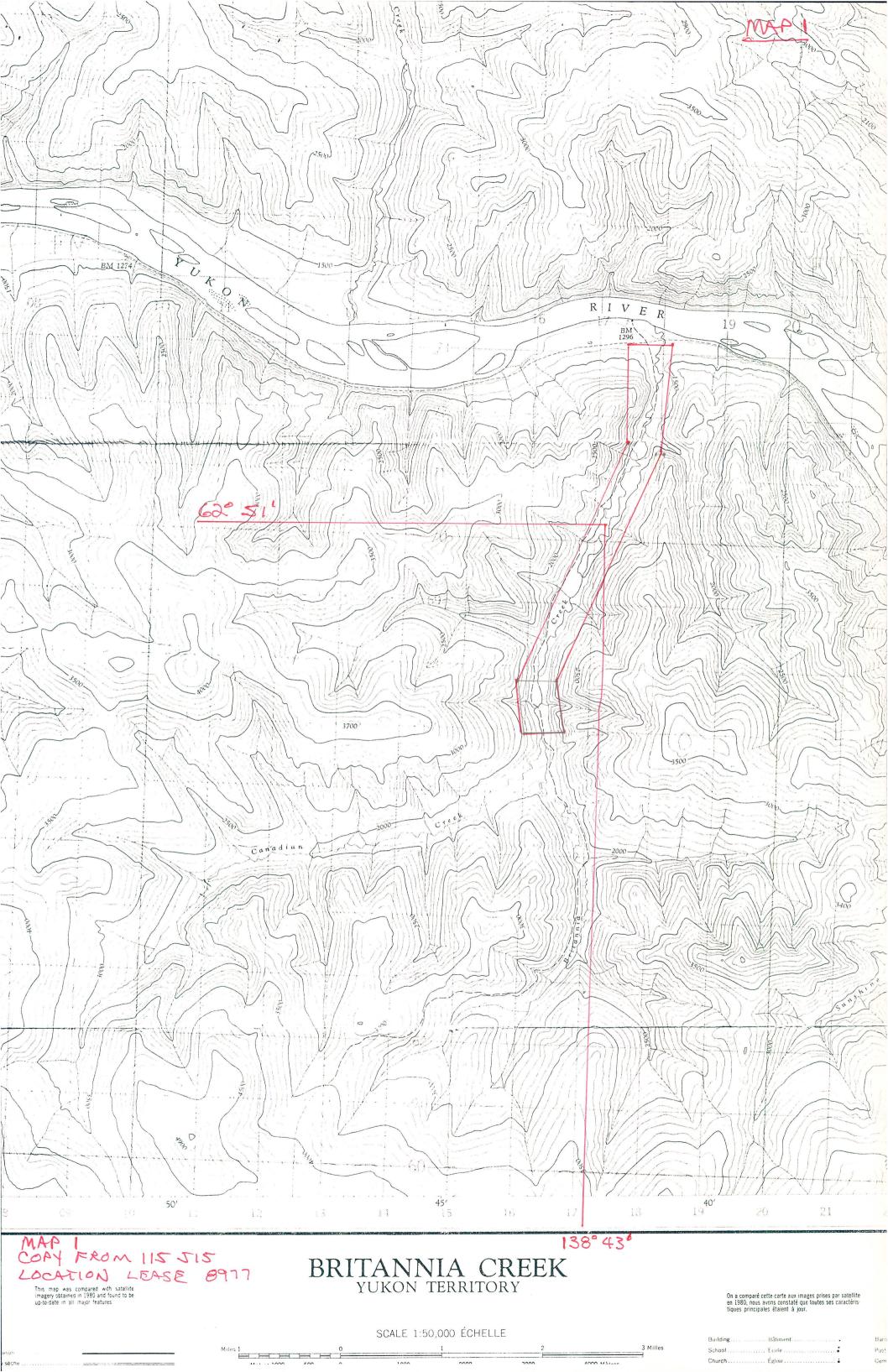
Copies of this map may be obtained from the Geological Survey of Canada:: 601 Booth Street, Ottawa, Ontario K1A 0E8 3303-33rd Street, N.W., Calgary, Alberta T2L 2A7 100 West Pender Street, Vancouver, B.C. V6B 1R8

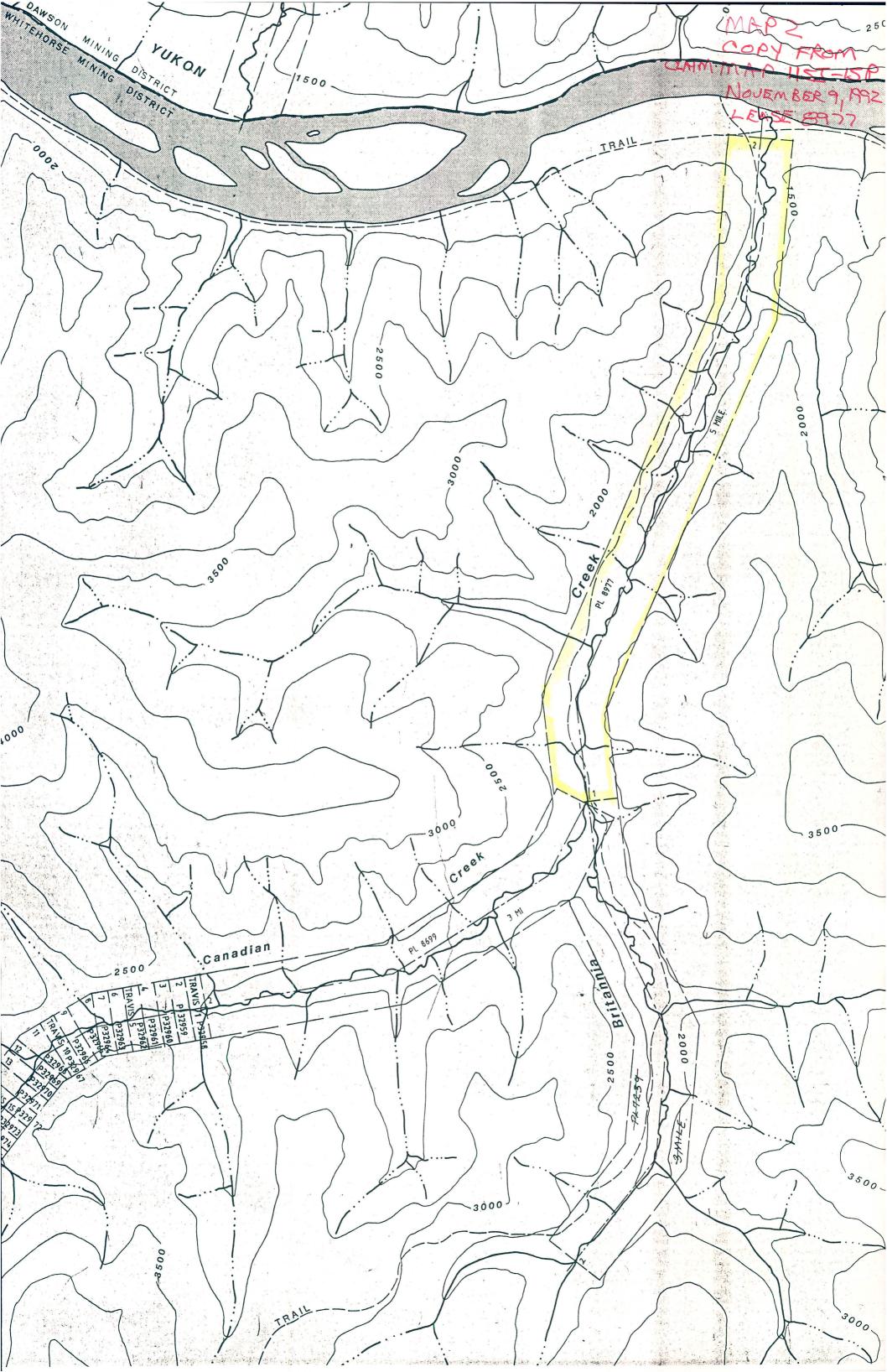


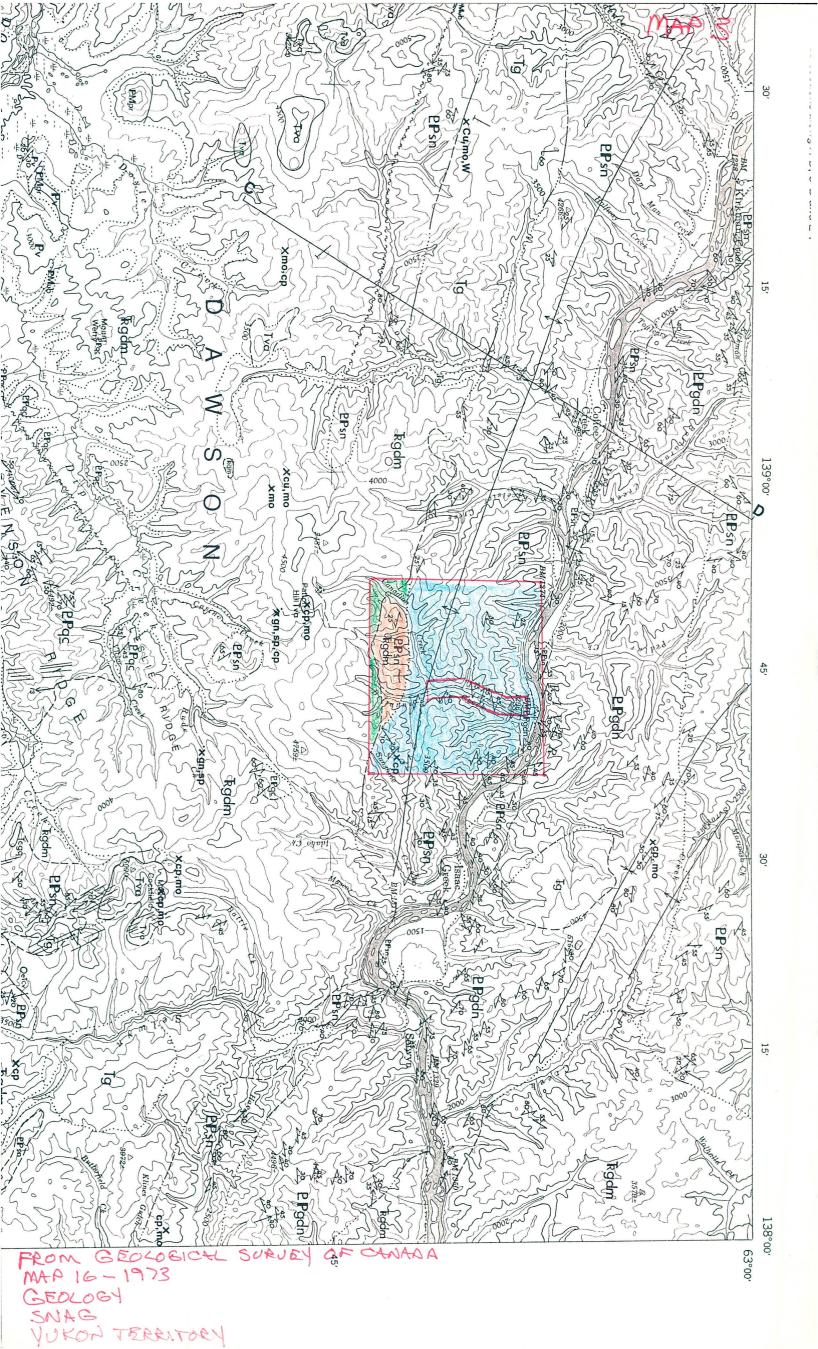
TARGET EVALUATION APPLICATION 93-142 BRITANNIA CREEK AUGER DRILLING PROGRAM DRILL SUMMARY

HOLE#	OVER	GRAVELS	BEDROC	MATERIAL	RECOVRY	GOLD#	GOLD	COMMENTS
	BURDEN			RECOVRE	RATIO	OF PCS	(MG)	
B-1 ⁻		0-19	19-30	6	0.36	1	<1	THAWED / AUGER WANDERED / POOR RCVRY
B-2	0-6	6-15	an de		0	44	***	THAWED / WET / NO RCVRY
B-3	0-5	5-16	16-20	6	0.75	7	<1	THAWED / FAIR RCVRY
S9-1	0-10	10-18	18-24	6(3)	0.78	to-m	***	FRZN / FAIR RCVRY PNCDTW
S9-2A	0-4	4-12		4(1)	0.91	e pa	at-us	FRZN / VGOOD RCVRY / PNCDTW
S9-2B	0-4	4-12	81-85	4(1)	0.91	60116	1	FRZN / VGOOD RCVRY / HARD @ 12' / PNCDTW
S9-3	0-4	4-18	18-26	11(3)	0.91	4	<1	FRZN / VGOOD RCVRY / PNCDTW
S9-4	0-5	5-17	17-25	8(3)	0.72	3	<1	FRZN / FAIR RCVRY / PNCDTW
S9-5A	0-5	5-12	ne.	3	0.78			FRZN / FAIR RCVRT PNCDTW HARD @ 12
S9-5B	0-5	5-17	17-25	13(3)	1++	2	<1	FRZN / VGOOD RCVRY / PNCDTW
S9-6	0-4	4-20	20-30	13(3)	0.91	•		FRZN / VGOOD RCVRY / B/R VSOUPY / PNCDTW
S10-1	0-9	9-17	17-24	10	1+	6	<1	FRZN / VGOOD RCVRY / HARD @ 24 /
S10-2	0-8	8-19	**	4	0.72	5	<1	FRZN / FAIR RCVRY WET @ 11/ HARD @ 19 B/R??
S10-3	0-8	8-18	18-24	12	1+	5	<1	FRZN / VGOOD RCVRY /HARD @ 24
S10-4	0-5	5-17	17-25	15	1+	15	28	FRZN / VGOOD RCVRY
S10-5	0-5	5-17	17-25	14	1+	2	<1	FRZN / VGOOD RCVRY
S10-6	0-8	8-17	17-25	12(3)	1+	7	<1	FRZN / VGOOD RCVRY / PNCDTW
S10-7	0-5	5-17	17-26	12(3)	1	2	<	FRZN / VGOOD RCVRY /PNCDTW
S10-8	0-6	6-15	15-25	14(3)	1+	10	5	FRZN / VGOOD RCVRY / PNCDTW
A-1	0-3	3-12		2	0.4	2	<1	FRZN / WET HOLE / POOR RCVRY / HARD @ 12'
A-2	0-6	6-14		NOMINAL	Analia.	-	===	FRZN / VWET / NO RECVRY / HARD @ 14 B/R??
A-3	0-5	5-18	==	10	1+	3	2	FRZN / VGOOD RCVRY / HARD @ 18 GRVLS
A-4	0-7	7-18	80	6	1	5	1	FRZN / VGOOD RCVRY / WET / HARD @ 18 B/R??
A-5	0-5	5-15	15-18	9	1+	8	11	FRZN / VGOOD RCVRY / HARD @ 18' B/R
A-6	0-4	4-17		3	0.39	1	<1	THAWED / LOOSE /WET VPOOR RCVRY
A-7		0-5		NOMINAL		2	<1	THAWED / UNSTABLE /3 ATTEMPTS TO DRILL
S14-1	0-8	8-20	20-25	9	0.96	6	<1	FRZN / VGOOD RCVRY / HARD @ 25
S14-2	0-1	1-20	20-30	13	0.82	3	<1	FRZN / GOOD RCVRY
S14-3	0-6	6-18	18?-25	10	0.96	10	<1	FRZN / VGOOD RCVRY
\$14-4	0-5	5-18	187-25	11	1	3	<1	FRZN /VGOOD RCVRY / B/R @ 18?
S14-5	0-4	4-20	20?-25	11	0.95	4	<1	FRZN / VGOOD RCVRY / WET @ 10' / HARD @ 25'
S14-6	0-7	7-27??	277-31	13	0.98	5	<1	FRZN / B/R?? / HARD @ 31 / VGOOD RCVRY

814-7	0-5	5-18?/28?	28-37	NOT PRO	CESSED D	UE TO VC	OLD TEMP	FRZN/ HARDPAN @ 18 / TYPICAL B/R @ 32 HARD @ 37		
S14-8A	0-6	6-10	82	NOT PRO	CESSED D	UE TO VC	OLD TEMP	FRZN/ HARD @ 10 - BOULDER		
S14-8B	0-2	2-27??	??	NOT PRO	CESSED D	UE TO VC	OLD TEMP	FRZN / HARDPAN LAYERS / B/R HARD TO DEFINE		
S14-9	0-2	2-18?27?	18-27??	NOT PRO	CESSED D	UE TO VC	OLD TEMP	FRZN / HARD TO DEFINE B/R ??		
S14-10A	0-3	3-11		NOT PRO	CESSED D	UE TO VC	OLD TEMP	FRZN / HARD @ 11 - BOULDER		
S14-10B	0-3	3-14	and a	NOT PRO	CESSED D	UE TO VC	OLD TEMP	FRZN / HARD @ 14' SANDY (HARDPAN) GRVLS		
S14-11	0-6	6-??	??-31	3	0.22	8	<1	THAWED/ WET / VPOOR RCVRY / B/R VDIFFICULT TO D	EFINE	
S14-12	0-3	3-18??	to 32	8	0.5	7	<1	THAWED / WET / HARD COMPACT SANDS / B/R @ ???		
S14-13	0-2	2-18??	to 39	4	0.2	4	<1	THAWED / WET / VPOOR RCVRY / B/R???		
S14-14	**	0-22	??	2	0.16	4	<1	THAWED / VPOOR RECVRY / VHARDPAN		
S17-1	0-20		20-30					ON RIM NO GRVLS		
S17-2	0-20		Na.		***			ON RIM NO GRVLS		
S17-3	0-18		18-20					ON RIM NO GRVLS		
S17-4	0-12	12-14		2	1			FRZN / HARD @ 20' B/R?		
817-5	0-5	5-14??	14??-18	5	0.7	5	<1	FRZN / FAIR RCVRY / B/R?? / HARD @ 18		
S17-6	0-5	5-15	15-22	9	0.96	3	<1	FRZN / VGOOD RCVRY		
S17-7	0-4	4-18	18-29	14	1	6	<1	FRZN / VGOOD RCVRY /		
							_			
NOTES:	1)	MATERIAL	RECOVE	RED IS ME	ASURED II	N NUMBER	OF 1/2 FL	JLL 5 GALLON PAILS		
	2)	MATERIAL	TERIAL RECOVERED INDICATED AS 12(3) MEANS 12 1/2 BUCKETS WERE RECOVERED BUT ONLY 3 WERE SL							
		COLD WE	ATHER CO	NDITIONS	. THE REM	VAINDER V	VILL BE PF	ROCESSED IN THE SPRING		
		PNCDTW -	- INDICATI	S PROCE	SSING NO	T COMPLE	TE DUE TO	D WEATHER		
	3)	RECOVER	Y RATIO I	S: # OF 1/2	BUCKETS	RECOVER	RED / # OF	FEET OF GRAVELS AND BEDROCK / .55		
		WHERE .5	5 REPRES	ENTS THE	# OF 1/2 E	BUCKETS /	FT OF MA	ATERIAL EXPECTED FROM A COMPETENT HOLE		
	_	WITH VGC	OOD RECO	VERY						
		THIS RATI	O IS TO P	ROVIDE A	N INDEX O	F RELATIV	E MATERIA	AL RECOVERY AND IS NOT NECESSARILY A PERFECT M	EASURE	







,	ιMdim	DIORITE: fine-grained biotite hornblende diorite
	ιMqm	QUARTZ MONZONITE: medium-grained, equigranular biotite quartz monzonite
MESOZ01C	Mqmp	PORPHYRITIC QUARTZ MONZONITE: rusty-weathering, medium-grained, porphyritic (K-feldspar) biotite quartz monzonite
MESO	Mgdb	NISLING RANGE GRANODIORITE: medium - to coarse-grained equi- granular hornblende biotite granodiorite; mottled green and mauve. Contains diagnostic euhedral biotite
	TRIASSIC(?)
	Tkqm	PINK QUARTZ MONZONITE: pink coarse-grained leucocratic quartz monzonite and porphyritic pink quartz monzonite; may include porphyritic quartz monzonite (Miqmp) undifferentiated
	/kgdm	HORNBLENDE GRANODIORITE: dark grey weathering, coarse-grained equigranular biotite hornblende granodiorite to quartz diorite; commonly shows layering or foliation by alignment of mafics
(
	PERMIAN (?) AND/OR TRIASSIC(?) LIMESTONE: white weathering, light grey, massive coarsely crystalline marble
()	Ppt	ARGILLACEOUS CHERT: interbedded brown argillite, cherty slate and quartzite
ESOZOI(Ppt	HORNFELS: purplish brown fine-grained hornfels
PALEOZOIC(?) AND/OR MESOZOIC	PMub	DUNITE: dun-brown weathering, massive, resistant, black and dark green, partly serpentinized dunite and harzburgite
	PMb	GABBRO: dark weathering, medium-grained, equigranular horn-blende gabbro; may include PMIv undifferentiated
PALE020	PMv	MASSIVE GREENSTONE: dark green, massive aphanitic epidotized basalt; includes gabbro (${f PMb}$), undifferentiated
	PMpr	PERIDODITE: dun-brown weathering, dark green to black, partly serpentinized massive harzburgite; may include volcanic rocks (PMIv) undifferentiated
	Pv	SHEARED GREENSTONE: sheared and foliated greenstone and related volcanic rocks, minor cherty tuff
	PPqc	NASINA QUARTZITE: black-weathering, massive, dark grey to black graphitic quartzite with lesser grey micaceous quartzite and quartz mica schist. Commonly shows alternating light and dark colour lamination. May include undifferentiated granitic rocks west of Onion Creek
	P Psbq	BIOTITE SCHIST: brown grey weathering, recessive, chlorite muscovite biotite quartz schist and micaceous quartzite; garnetiferous; minor amphibolite, marble and skarn
010	₽₽m	AMPHIBOLITE: dark grey to black weathering amphibolite; includes minor granitic and metamorphic rocks of surrounding map-units
PROTEROZOIC AND/OR PALEOZOIC	P.Pgd	FOLIATED BIOTITE GRANODIORITE: foliated to gneissic biotite granodiorite; minor interfoliated phyllite, schist and amphibolite
C AND/OF	PPsb Psb	SCHIST: biotite schist and gneiss
TEROZOI	PPps	PHYLLITE: silvery grey muscovite chlorite quartz phyllite
PRO	P.Psqm	KLONDIKE SCHIST: black and orange weathering well foliated pale green chlorite muscovite quartz schist; includes augen gneiss and amphibolite
	PPsn 1	SCHIST GNEISS: brownish weathering, grey muscovite biotite- quartzite and quartz feldspar mica schist; includes amphibolite and augen gneiss and minor marble undifferentiated; includes rocks of Pelly Gneiss and Klondike Schist undifferentiated
	Pgdn Pgdn	PELLY GNEISS: strongly foliated to gneissic muscovite chlorite biotite granodiorite; minor augen gneiss; grades locally to garnetiferous amphibolite

Lineation (horizontal, inclined)
Trend of dykes (from air photographs)
Fault (defined, inferred)
Jointing (inclined, vertical)
Antiform (location approximate)
Synform (location approximate)
Mineral occurrence

METALS AND MII

Chalcopyritecp
Coppergn
Galenagn
GoldAu
ManganeseMn

Geology by D.J. Tempelman-K

To accompany Paper 73-41 by

This preliminary edition may be subj

Geological cartography by the G

Any revisions or additional geolog user would be welcomed by the G

Base-map at the same scale publish Branch, Department of Energy, M

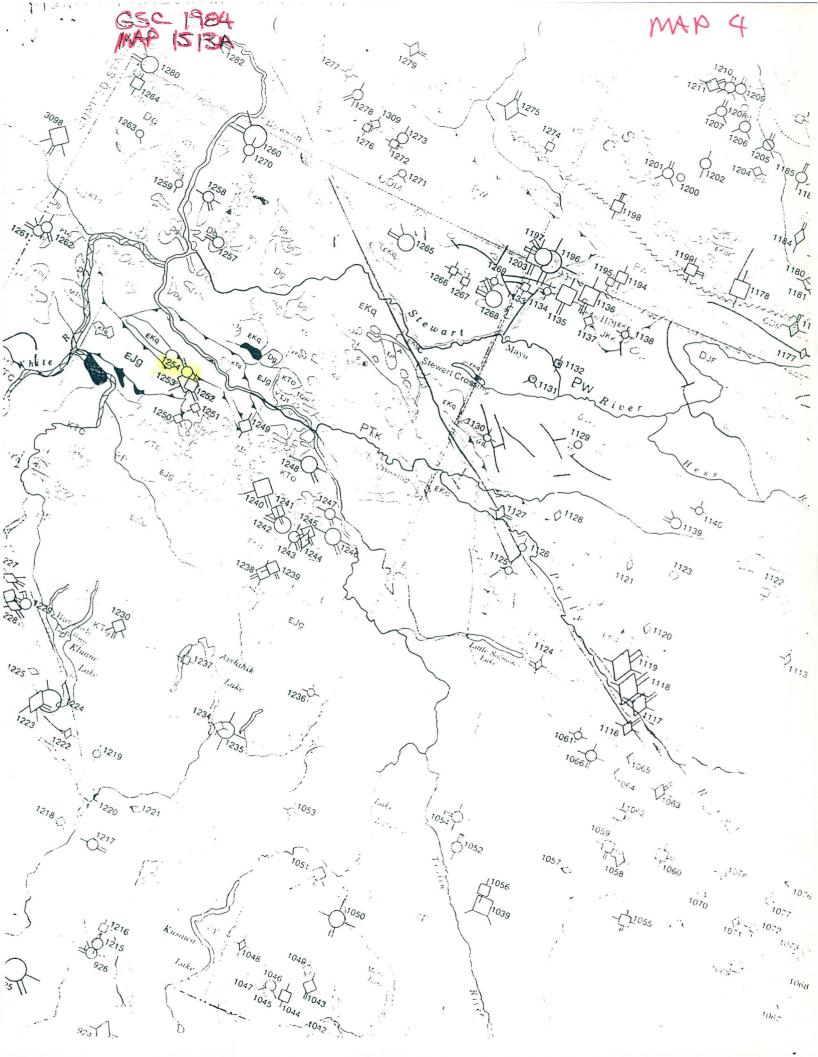
Copies of the topographical editio from the Canada Map Office, Mines and Resour

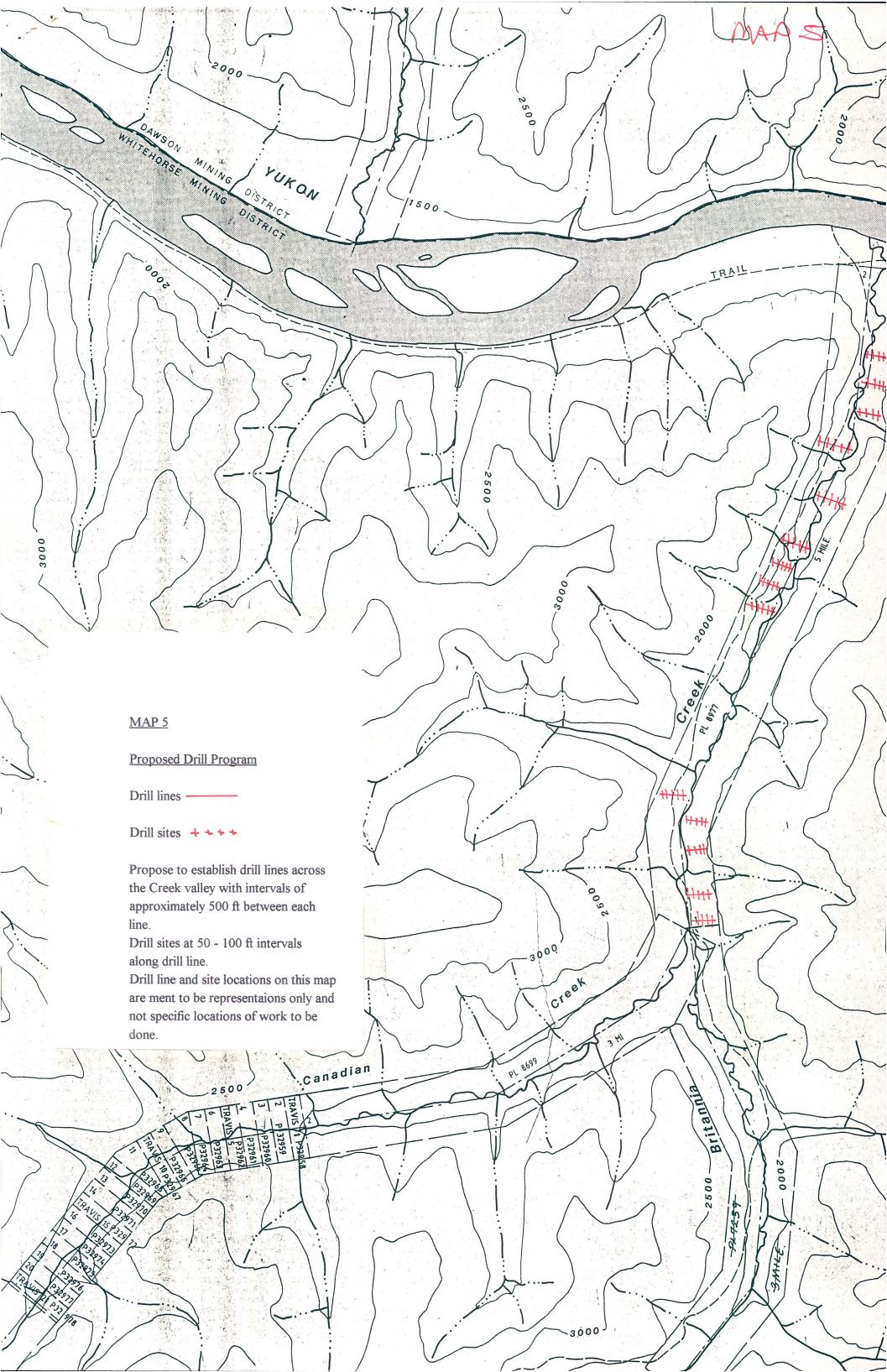
Magnetic declination 1973 varies f of west edge to 31 09' easterly a annual change 3.

Elevations in feet abo



HORNBERNDE GRANDDIDRITE + SCHIST GENEISS





, • , ;	growth the decrease from Area Silvin	2.5	Bonus=Jey ∰ -
761	Quarge Silver Ad Pt. 25 A. 27		Joyce Ma Ca
.762	Mayo Creek Area (An. Ad. ad. 2000)		Owl Mo
763	Cedar Creek (Hope, Silver) A., Co. Pt. Zn.	, ,	Gnat Lake Area C
764	Big Joe **r-		Wheaton Creek A
765	Fiddler, Patmore, Ast Ast Pt. 25, Ct.		Eaglehead (Eagle) Ca Management
766	Carpenter Creek (Lynda, Dug) 💛		Kutcho Creek (Letain): Asberdos
767	Seven Sisters-Caledonia, Ac. Pb. Zn, Car.		Wolf, Kid W
768	Star F		Herb Pb. Zn. Ag
769	Jitney, Etta. Cu. Zu, Au, Au		Pyrrhotite (Turn) Cu 'ai
770	Surf Point (Edye Pass) Au Ad the		Pat, OH. Cu. Au. Ag
771	Skeena River Area, Au. Ad. ed. Un. Ste.		Kaketsa Mountain-Copper Creek, Cu
772	Mount Priestley Mo		Pet (Mineral Hill) Cu
773	Lucky Cr. Mo		Tanzilla River (HU) Co. Mo. W
774	Snafu Mo		Mack Cu. W
	Valley Ridge, Mo		Dease Lake Area Au (Pt)
	Kay 🌃	863	Slough Mountain (Jim, Deak, Shield) 155
	Anyox Area Co. Ad. Au. 35		Samotua River Area (Bing, Fae, Norm)
	Saddle, Elk Horn, Au, Au		LC-1 Peter, Karen, Mo. Ag
	Maple Bay, Outsider Ca. A. A.	866	Mount Ogden (Nan) Mo
	Golkeish A. A.:		Sutlahine River Area (Thorn, Kay) Co. 11
781	Granby Point And :	868	King Salmon Lake Cu. Ag
	Molly May 136	869	Erickson-Ashby Ag. Pb. Zn
	Tidewater Mo	870	Tulsequah Chief, Polaris-Taku, Zn. Cu. A.
	Illiance River Area, Ag. Pb. Zh. Ta: Au. Sb.	871	Laverdiere Cu. Fe
	Bell Moly (Alice Arm) Mr. **	872	Willison Bay (Molly) Mo. Cu
	Roundy Creek (Alice Arm) 1/2	873	Happy Sullivan Au. Ag
	BC Moly (Alice Arm) Mo	874	Engineer Au
	Basin, Verona, Silver Bow, Ag Pb. Zn	875	Sweepstake Au. Ag
	Penny Creek Mo	876	Rupert, White Moose Au. Ag
	Kit Mo	877	Ben-My-Chree Au. Ag
791	Illiance Mountain Area (Belivue, Grey Goose, Silver	878	Gold Cup, Big Horn, Au. (Ag)
	Star) Ag. Pb. Zn	879	Gridiron-Silver Queen Area Cu. Au. Ag
792	Ajax Mo	880	McKee Creek, Au
	Kitsault River Area (Esperanza etc.) Ag. Pb. Zn. Au	881	Slate Creek A.
	North Star Pb. Zn. Ag. Cu	882	Dixie Creek Au
	Alice Arm Silver (Dolly Varden) Ag. Pb	883	Ni-Fire Cu. Mc
	Bear River-Barney Creek (Porter-Idaho), Aq. Zn., Pb.	884	Mir U
	' (Au	885	Snowbird U Pc
	, , ,	000	~ 110-7 .

SIZE CATEGORIES

797 BC Verde Au. Ag

886 Zen U. Pb. Zn Ag

LARGE	MEDIUM	SMALL	UNKNOWN. GENERALLY VERY SMALL
\bigcirc	\bigcirc	0	C
			Ξ
\Diamond	\Diamond	\Diamond	\Diamond
\Diamond	\Diamond	\Diamond	Ç.
\Diamond	\Diamond	\Diamond	\Diamond

COMMODITY	LARGE	>	MEDIUM	> '	SMALL
(in metric tonnes of metal or minera	I contained)				
Asbestos	10	000 00	00 10	000 000	
Barite (BaSO ₂), Fluorite (CaF ₂)	5	000 00	00 :	50 000	
Copper	1	000 00	00	50 000	
Gold		50	00	25	
Gypsum-Anhydrite	100	000 00	00 5 00	000 000	
Iron (ore)	100	000 00	00 5 00	000 000	
Lead. Zinc	1	000 00	00	50 000	
Magnesite (MgCOs)	10	000 00	00 1	000 000	
Mercury (flasks)		500 00	00	10 000	
Molybdenum		200 00	00	5 000	
15 48		500.00	าด	00رد ج	

1033			Little
1034	JC (Viola) Sn. (Zn. Cu. As)		Tumn
	DU, MC Sn	1126	
1036	Nite W. Mo. Zn	1127	
1037		1128	
	Bar (Smeg) Pb. Zn. Ag. Ba	1129	
	Red Mountain (Bug) Mo. (Ag. W. Cu)	1130	
	Lime Mo	1131	
	Venus Au, Ag, Pb, Zn, Cd	1132	
	Big Thing-Montana Au. Ag	1133 1134	
	Mount Wheaton (Tally-Ho) Au. Ag. Pb Cartson Hill (Becker-Cochran, Goddell) Sb	1135	Wayr
	Canadi Timi (accide accidati, accacin) de		ou.c.
	Telluride Creek (Cub) Cu. Zn. (Ag. Pt. Nr. Au. Pt. Pd)		
	Bullion Creek Gypsum	3000	Duke
	Bullion-Sheep Creeks Au		Nelsc
	Dickson Nr. Cu. (Co. Pt)	3002	
1226 1227		3003	-
	3 (3004	
	Tatamagouche Creek (Glen) Nr. Cu	3005	
	Burwash Creek Au	3006	
	Alaskite Creek (Raft) Mo. Cu	3007	
1231	• • • • • • • • •	3008	
	White River Copper (Canyon City) Cu Ag	3009	
	White River Nickel (Canalask) Nr. Cu. (Co. Zn)	3010	
1234	y .	3011	Bake
	Hopkins, Giltana Cu. (Mo. Ag. Au. W. U)	3012	Noy€.
1236	3	3013	
1237		3014	
	Mount Nansen-Brown McDade Au. Ag. (Zn. Pb. Sb)	3015	
1239		3016	
1240	Cash, Klazan Cu. Mo	3017	
	Revenue Cu, Mo	3018	
1242	Seymour Creek Au	3019	Kasa
1243	Laforma (Freegold) Au. Ag		
	Tinta Hill Zn, Pb. Au. Ag	3020	
1245	Granite Mountain, Cu, Mo	3021 3022	
1246 1247	The state of the s	3022	
		3024	
1249	Minto Copper (Def) Cu. (Au. Ag. Sonora Gulch (Hayes) Au. Ag. Bir (Cu. Mos.)	3025	
1250	Pattison (Patt) Cu. Mo	3026	
1251	Mount Cockfield, CO Cu, Mo	3027	
	Bomber, Helicopter, Ag. Pb. Zn. Au	3028	
1253	Casino (Patton Hill) Cu, Mo, (W Aus	3029	Helm
1254	Canadian Creek Au	3030	
255	Frying Pan Creek (Hidden Creek) Au		
1256	Trudi Cu. Mo		
1257	The state of the s	3031	
1258	Lucky Joe Creek (Burmeister) Ca.: Mc:	3032	Texa
1259	Tenmile Au	3033	
1260	Klondike Gold Camp (Bonanza Creek, Hunker Creek,	3034	
1261		3035	
1262	Moosehorn Range (Dea, Lori) Au. (Ag. Pt. Zn)	3036	Shak
1263	Jove (Son) U	3037 3038	
1264	Mosquito Creek, Connaught, Butler, Act Ptv. Act	3039	-
1265	Clear Creek Au. Sm		Maid
12€6	East Ridge, Barney Ridge, Sn. W. (Cu. Pb. Zm.	3041	
1267	EPD Sh W.Ag	3042	
1268	Johnson Creek (Minto Lake) Au-	3043	Snip
269	Scheelite Dome, Wil-Sti, Art, Cur.	3044	

1270 Long Star Florrado Dome, Buckland A. S.

1008 Roy 15 Zo 42 46 1009 sster W 1010 ne Creek (Cadillac) Ptr Zo 4 :

1012 Ram-Hy (Liard River) Cu 1013 Sorokowsky-McBean Pb Zn Act

1015 Mawer Zn: 1016 Coates Lake (Redstone) Cu. Ag

1017 Kvale (Extension) Cu. Ag 1018 Hidden Valley (Mac, Dean) Cu. Ag 1019 Jasper Valley (WK) Cu. Ag

1014 Snobird (Butrenchuk) Zn. Pb

1011 Nahanni Butte, Cu

1021 Hayhook Lake Cu. Ag

1024 Fry Group Zr. Pb. Ag 1025 Cap Mountain Cu

1023 June Creek (Shell) Cu. Ac

1026 MacKenzie Basin Na. (Saiti

1029 Bailey (Pat) W. Cu 1030 Findler W. Cu. Sc., Pb. Zn. Ag 1031 Atom, Bar, Bom Zn. Pb. Ag

1032 STQ. Partridge Sn

105

1033 Logtung (Logjam Creek) W. Mo. (Zn. F. Bel Cu)

1027 Nazo palitPb. Zh. Agi 1028 Mount Hundere (Ritco) | Pb. Zh. Ag. Cd

1020 Per Cu

1022 Jay Co.

1098 Pab (i 1099 Nar 2 1100 Howa

1101 Grand

1102 Lenec 1103 Nanc:

1104 Dircks

1105 Anniv 1106 Oro (£

1107 Clea (1108 Arrow 1109 Sand.

1110 Vulca

1111 Golde

1112 Pike 1

1113 PDR (

1114 Trider

1115 Fuller 1116 Sunse

1117 Swim

1118 Vange 1119 Faro (

1120 Dana 1121 Owl F 1122 Lad (5 1123 Lady

1124 Little

3044 Red

3045 Chic

	Τ						<u> </u>		· · · · · · · · · · · · · · · · · · ·	7
				DEPC	SIT	TYPE			1	
COMMODITIES (MINOR CONSTITUENTS IN PARENTHESES)	vein and shear . Zone filings	stockworks, including porphyry doposiis	skarn deposits	magmatic and irregular massive deposits	stratabound deposits, including sedimentary and volcanic types	sandstone or redued deposits	laterite (deposits formed by surficial chemical concentration)	placers (deposits formed by surficial mechanical concentration)	type not determined	
Cu (Au Ag)	\docume{\documents}	A	-0-	X	- 0-	0-			0	1
Cu Mo (Au Ag)		\Diamond			_				\Diamond	1
Мо		Д	-0-	Д						1
Cu Zn (Pb Au Ag)			→	•					\Diamond	1
Cu Ni or Ni Cu		Q		×	-					1
Pb Zn	\(\(\)			-	-◊-				\Diamond	1
Zn	þ				-0-					1
Pb Zn Ag (Cu Au)	♦	A	-<>-		-\$-				, ◊	1
Au (Ag)	þ		-C-					ि	0	1
Au Ag or Ag Au	\(\rightarrow\)						L		\Diamond	1
Ag (Pb Zn Cu Au)	Q.				-0-					1
Jade				×						1
Hg	0								0	1
Sb	⇒									1
F	\$								♦	
Ва	♦		-						♦	
W	\rightarrow	A	- 0-						0	1
Nb Ta U		Q			- ◇-			⋄	-	1
Be	\Q		-\$-						\Diamond	
Sn	ф	Д	-0-							1
Li	\Q		-\$-	X				,	\Q	1
Fe			-	×					•	
Aspestos	③	, \$					-		<₽	1
Cr				(a)					•	1
Na			·		📆	,		,		Ŋ
Gypsum-Anhydrite		À			-♦-				\Diamond	4
Magnesite					~>-					1
U	þ	ρ.		Ø	-0-	O-	ď	<u>-</u>	0	1

VANCOL