OF88-5 162

BC Ministry of Energy, Mines and Petroleum Resources
GEOLOGICAL SURVEY BRANCH
OPEN FILE MAP 1988–5 (SHEET 1 OF 2)

GEOLOGY OF THE TUTSHI LAKE AREA

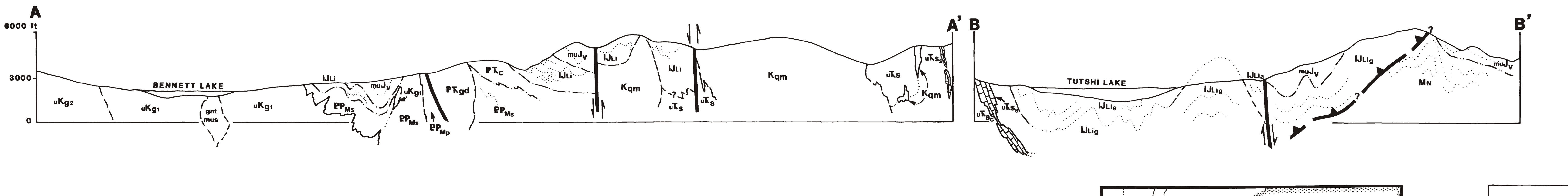
NTS 104M/15

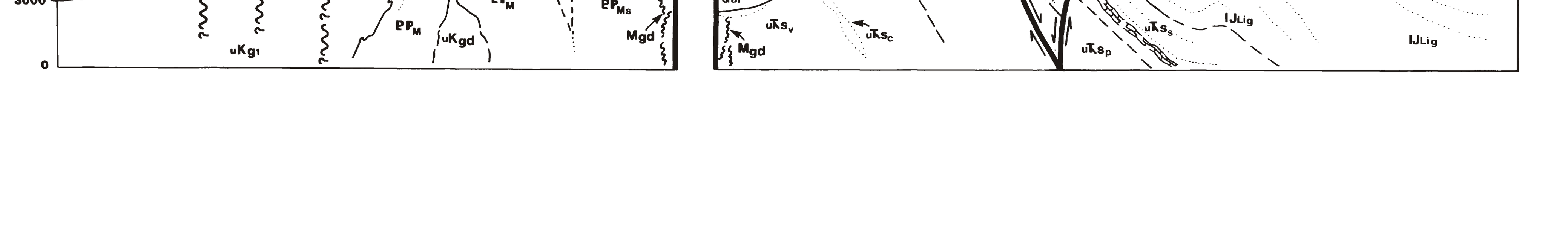
MITCHELL MIHALYNUK AND JONATHAN ROUSE

SCALE: 1:50 000

Scale 1:50 000 Échelle

SCHEMATIC CROSS SECTIONS





LEGEND

LAYERED ROCKS

QUATERNARY

Qal	*Unconsolidated glacial till and poorly sorted alluvium*

UPPER CRETACEOUS(?)

MONTANA MOUNTAIN VOLCANICS

uKMV	*Intermediate to felsic pyroclastics and flows; typically altered and orange weathering; crosscut by 64Ma* intrusive*

MIDDLE TO UPPER JURASSIC (?)

muJv	*Variegated pyroclastic lapilli tuffs; bladed feldspar porphyry flows*
muJc	*Clast-supported conglomerate derived primarily from Inklin Formation siltstones and argillites*

LOWER JURASSIC

LABERGE GROUP, INKLIN FORMATION (where undivided denoted as lJLi)

lJLig	*Siltstones, arenaceous wackes (greywackes); may contain macrofossils*
lJLia	*Argillites (may be silty)*
lJLic	*Conglomerates; rarely contain macrofossils*

UPPER TRIASSIC

STUHINI GROUP (where undivided denoted as uTs)

uTsv	*Variegated feldspar-phyric tuffs and lesser flows*
uTsp	*Green pyroxene-feldspar porphyry tuffs and breccias characteristic of this group*
uTsc	*Conglomerates and associated sediments*
uTsh	*Hornblende-phyric lapilli ash tuffs and tuffites (may include conglomerates)*
uTss	*Norian carbonates commonly displaying strong internal deformation enclosed within conglomerates and argillites*

PALEOZOIC (?) TO UPPERMOST TRIASSIC

PTc	*Conglomerates, mainly clast-supported, composed primarily of PPMs and PTgd*

PALEOZOIC TO PROTEROZOIC (?)

BOUNDARY RANGES METAMORPHICS (where undivided denoted as PPM)

PPM	*A polydeformed metamorphic terrane of uncertain origin; variably metamorphosed to upper greenschist grade within the map area, and reported up to amphibolite grade to the south.** Protoliths in approximate order of abundance are:*
PPMs	*Argillaceous siltstones, feldspathic wackes and lesser felsic pyroclasts and carbonates (carbonate bands diagonally hatched).*
PPMp	*Altered pyroxenites, foliated gabbros and mafic flow successions*

MISSISSIPPIAN

NAKINA FORMATION(?)

MN	*Massive, greenschist-altered basic flows and tuffaceous sediments*

INTRUSIVE ROCKS

UPPER CRETACEOUS

COAST INTRUSIONS (where undivided denoted as uKg)

uKg1	*Medium to coarse-grained hornblende and biotite granites are most characteristic of the Coast Intrusive rocks; with local gradations to potassium metasomatized alkaline granite (denoted "A") and lesser granodiorite (uKgd). Rare zones with diffuse boundaries contain medium grained garnet (gnt) ± muscovite (mus). Typically containing 2 to 5 centimetre, perthitic potassium feldspar megacrysts. Chilled contacts are quartz-eye feldspar porphyries. K-Ar dated at 89.5 ± 2.6 Ma and 77.9 ± 1.6 Ma***.*
uKg2	*Equigranular uKg1 – lacking megacrystalline potassium feldspar with minor localized exceptions*
uKgd, qm, d	*Granodiorite, quartz monzonite and diorite as compositional variants of uKg1,2*

CRETACEOUS

Kgd, qm g,d	*Granodiorite, quartz monzonite, granite and diorite. Medium to coarse grained and typically more altered than uKg; may rarely be crosscut by ?uKg1,2. Commonly grades rapidly from one phase to another*

MIDDLE TO UPPER JURASSIC

muJa	*Hypabyssal andesites; medium grained andesitic feldspar porphyries commonly containing hornblende. Grey to green, weakly to strongly altered; probably coeval with muJv*

TRIASSIC (?)

Tgd, qm	*Porphyritic granodiorite to quartz monzonite; foliated with potassium feldspar phenocrysts and hornblende up to 20 per cent. Minor secondary chlorite, epidote and quartz*

MESOZOIC

Mgd	*Granodiorite; altered, sheared and brecciated felsic intrusive rocks primarily confined to the Llewellyn fault zone. May in part include rocks of PTgd*

PALEOZOIC? TO TRIASSIC

PTgd	*Altered and deformed intrusives. Typically altered and/or deformed weakly to strongly. Composition variable to leucogranite and quartz-diorite; may be silicified.*

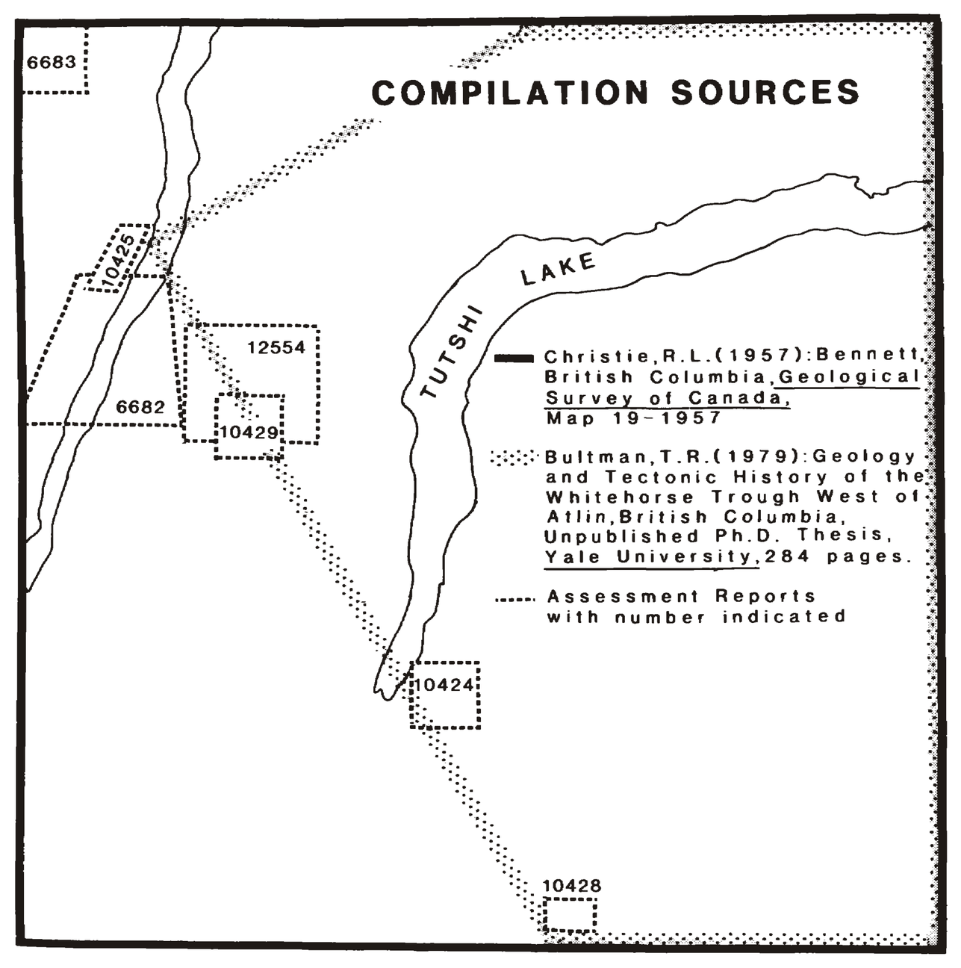
*Morrison, G.W., Godwin, C.T. and Armstrong, R.I. (1979): Interpretation of Isotopic Ages and Strontium Initial Ratios for the Whitehorse Map Area, Yukon, *Canadian Journal of Earth Sciences*, Volume 16, pages 1988–1997.

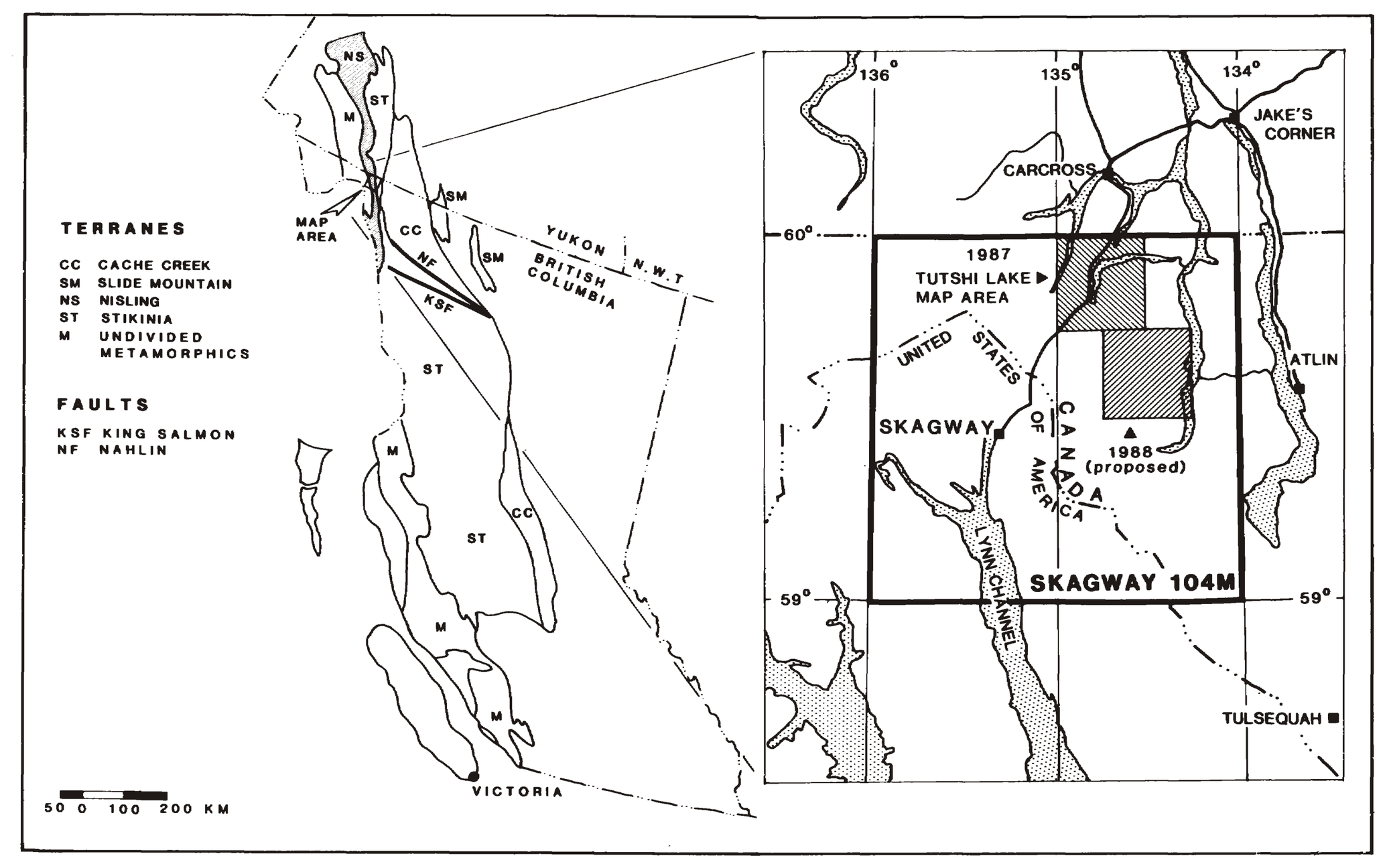
**Werner, L.J. (1978): Metamorphic Terrane, Northern Coast Mountains West of Atlin Lake, British Columbia, *in* Current Research, Part A, *Geological Survey of Canada*, Paper 78-1A, pages 69-70.

***Bultman, T.R. (1979): Geology and Tectonic History of the Whitehorse Trough West of Atlin, British Columbia, Unpublished Ph.D. Thesis, *Yale University*, 284 pages.

SYMBOLS

- Geological boundaries (known, approximate, assumed)
- Unconformity (defined, assumed)
- Bedding (inclined, vertical)
- Schistosity, foliation (inclined, vertical)
- Joint (inclined, vertical)
- Dyke (inclined, vertical)
- Anticline (defined, approximate, assumed)
- Syncline (defined, approximate, assumed)
- Minor fold hingeline
- High angle fault (defined, approximate, assumed)
- Thrust fault (defined, approximate, assumed)
- Shear zone
- Drumlinoid features (probable ice movement direction shown)
- Eskers (flow direction known, unknown)
- Lineament (from air photograph)
- Cross section line
- Fossil locality





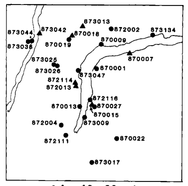
OF 88-5 2 of 2
CF 88-5

LITHOGEOCHEMICAL RESULTS

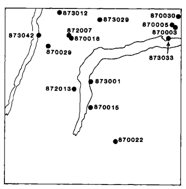
SAMPLE NO.	UTM E	UTM N	Au ppb	Ag ppm	As ppm	Sb ppm
87JR1.3	501540	6645600	45	2.4	18.8	4.2
87JR23.41	501800	6646200	<20	<0.5	4.0	<0.5
87JR23.42	501800	6646200	<20	<0.5	3.0	<0.5
87JR47.1	503500	6643650	3300	22	1.9%	150
87JR47.5	504450	6646800	40	<0.5	29	443
87MM0.1	516050	6646250	<20	<0.5	11.7	0.9
87MM6.2	511750	6637800	100	<0.5	11.2	3.3
87MM10.5	514950	6645300	30	<0.5	168	0.6
87MM11.9	509200	6639400	<20	0.5	8.8	0.6
87MM21.12	507175	6647875	<20	<0.5	11.7	<0.5
87MM23.5	507750	6646800	<20	<0.5	12.2	0.6
87MM24.5	502000	6650575	<20	15	2.3	<0.5
87MM24.6	501775	6650350	<20	<0.5	100	0.8
87MM24.7	501700	6650075	<20	<0.5	6.9	4.1
87MM25.1	502450	6647450	<20	<0.5	100	5.8
87MM25.4	502200	6646850	<20	<0.5	2.3	<0.5
87MM26.7	522200	6627875	<20	<0.5	11.9	1.0
87MM28.7	517350	6629725	<20	8	3.5	3.8
87MM32.3	515250	6631600	20	<0.5	72	20
87MM33.5	515600	6627200	<20	<0.5	2	0.9
87MM36.4	517500	6625750	40	0.7	54	4
87MM37.4	519800	6640450	<20	<0.5	4	12
87MM38.7	526100	6629950	190	<0.5	517	10
87MM40.5	505300	6639450	120	<0.5	1.3%	42
87MM41.1	506900	6641200	20	1	109	26
87MM41.4	506650	6641500	70	170	0.68%	2.0%
87MM41.8	506300	6643200	7300	120	10.0%	1.89%
87MM42.1	505600	6643800	7500	105	4.3%	0.99%
87MM42.3	505350	6643100	340	2	0.11%	57
87MM42.4	505250	6643200	1600	13	4.1%	135
87MM42.6	505875	6643800	220	110	71	<10
87MM43.1	507200	6641400	<20	230	725	555
87MM43.3	517350	6629600	20	<0.5	8	6
87MM44.3	516850	6633250		<0.5	88	10
87MM44.6	514750	6634750	<20	<0.5	11	2
87MM48.2	506700	6645100	40	<0.5	138	15
87MMF1.6	517300	6644900	630	43	130	51
87MMF2.4	514350	6641050	<30	1	12.2	<0.5
87MMF8.2	514500	6645250	240	29	16.4	3.0
87MMF15.6	513125	6629950		<0.5	148	2
87MMF22.7	510350	6649050	<20	<0.5	115	2.8
87MMF23.7	501600	6648650	<20	<0.5	36.9	5.4
87MMF24.3	502450	6647500	<20	<0.5	24.8	<0.5
87MMF31.4	514700	6631700		48	169	848
87MMF32.2	514825	6627700	<20	<0.5	44	15
87MMF33.3	518375	6627120	<20	<0.5	4	4
87MMF35.1	517800	6626550	50	<0.5	2	2
87MMF38.5	507900	6634050	<20	<0.5	10	1
87MMF39.5	505250	6639350	100	<0.5	0.37%	12
87MMF45.4	507100	6649225	20	<0.5	34	5
87MMF46.2	505150	6649500	20	<0.5	34	2
87MMF46.3	505000	6649200	<20	<0.5	88	4
87MMF48.3	522600	6640300	<20	<0.5	4	26
87MMM2.7	503945	6614375	<20	<0.5	7.8	<0.5
87MMM3.2	501945	6650500	310	0.5	48	0.7
87MMM5.2	501215	6655000	<30	<0.5	8.3	<0.5
87MMM6.3	501100	6655000	<30	<0.5	11.2	0.6
87MMM8.4	523650	6642200	<30	<0.5	8.6	1.0
87MMM12.1	501175	6635500	40	0.5	31	26
87MMM24.3	502375	6648875	<20	<0.5	4.5	0.9
87MMM27.2	520700	6629600	30	1	6.9	0.8
87MMM27.5	520400	6629800	40	<0.5	<1.0	<0.5
87MMM32.2	520375	6627300	30	<0.5	3	60
87MMM36.3	508875	6636300	50	8	6	975
87MMM39.1	508700	6640500	<20	<0.5	636	99
87MMM48.3	503500	6645400	20	0.5	42	15
DETECTION LIMIT			20	0.5	1	0.5

Analyses performed at the B.C. Ministry of Energy, Mines and Petroleum Resources Analytical Laboratory. See Analytical Sciences Laboratory information booklet for analytical procedures (available from Analytical Sciences, 541 Superior Street, Parliament Buildings, Victoria, B.C., V8V 1X4).

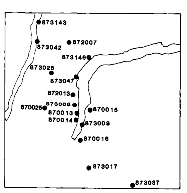
ANOMALOUS Au, Hg, and As DISTRIBUTION



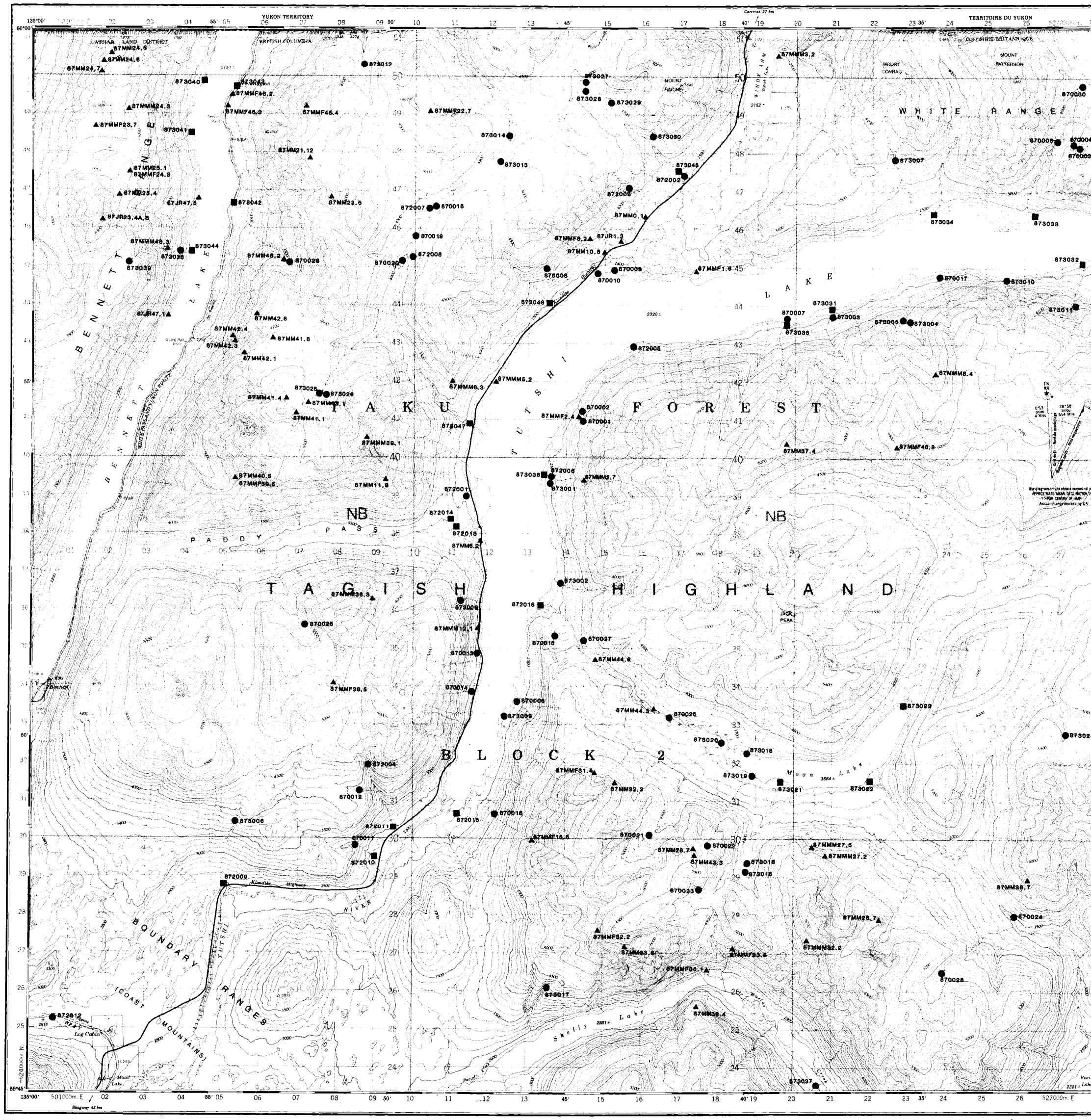
• Au>19<80 ppb
▲ Au>80 ppb



Hg>40 ppb



As>117ppm



OPEN FILE MAP 1988-5 (SHEET 2 OF 2)

BC Ministry of Energy, Mines and Petroleum Resources
GEOLOGICAL SURVEY BRANCH

1987 STREAM SEDIMENT AND LITHOGEOCHEMICAL SURVEY RESULTS FOR THE TUTSHI LAKE MAP AREA

NTS 104M/15

J.N. Rouse, M.G. Mihalynuk, D. Moore and P. Friz

SCALE: 1:50 000

LEGEND

Rock Sample Site	▲	87MMF1.6
Standard Sediment Sample Site	●	873033
Standard and Bulk Sediment Sample Site	■	873133

NOTE: Bulk sample results available in the near future

STREAM SEDIMENT GEOCHEMICAL RESULTS

SAMPLE NO.	UTM E	UTM N	ROCK	REP	C	B	COMP	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	U ppm	Th ppm	Sr ppm	V ppm	Au ppb	Hg ppb	As ppm	Sb ppm	Bi ppm	Se ppm	Te ppm	LOI %	WT grams
870001	514400	6641200	GRNT	00	0	1	121	6	48	47	128	0.5	29	18	979	4.06	5	13	95	34	30	10	76.4	2.1	0.6	0.4	0.2	5.00	13.00
870002	514350	6641200	GRNT	00	0	1	221	8	40	28	95	0.4	28	15	680	3.31	15	18	89	32	8	5	70.3	2.4	0.3	1.0	0.3	6.60	24.15
870003	527280	6648180	IEXV	00	0	6	122	1	19	10	74	0.2	14	7	509	2.51	5	4	50	34	2	40	9.4	1.3	0.4	0.2	0.4	7.10	33.76
870004	527220	6648220	IEXV	00	0	5	211	1	24	11	85	0.2	12	8	538	3.10	5	4	47	37	6	70	14.1	1.2	0.3	0.5	0.5	7.30	8.31
870005	526810	6648380	IEXV	00	0	1	211	3	35	13	107	0.1	27	12	556	3.85	5	4	56	54	2	110	15.5	1.0	0.4	1.3	0.5	8.60	14.60
870006	512600	6633600	GRNT	00	0	1	121	1	14	14	56	0.1	9	5	293	2.61	5	12	35	43	7	20	25.3	1.1	0.3	1.1	0.4	7.10	22.67
870007	519700	6643550	LMSN	00	0	1	310	10	42	67	129	0.7	17	9	930	3.33	5	16	77	44	107	10	35.3	2.0	3.1	1.4	0.6	8.10	11.10
870008	513400	6644590	GRNT	00	0	7	131	4	29	10	52	0.4	7	4	264	1.35	9	4	89	25	15	20	50.3	1.6	0.2	2.8	0.5	13.40	23.34
870009	515150	6644900	GRCK	00	1	7	121	2	58	25	123	0.2	25	11	747	2.88	5	4	139	36	25	10	30.2	1.5	0.4	1.4	0.5	11.10	24.86
870010	514750	6644800	GRNT	00	1	0	211	2	15	21	80	0.1	8	5	450	1.76	5	5	85	27	7	30	21.8	0.9	0.3	0.5	0.4	6.00	54.74
870011	508450	6629800	GRNT	00	0	1	310	3	9	17	55	0.1	4	4	386	2.40	6	39	27	30	5	5	36.6	0.9	0.7	0.2	0.3	3.00	7.46
870012	508550	6631250	GRNT	00	0	7	211	4	4	21	73	0.5	2	3	375	1.66	69	17	26	13	6	20	7.2	0.4	0.4	0.2	0.2	8.90	14.12
870013	511700	6634900	BGRN	00	1	4	211	2	30	13	73	0.2	26	15	688	3.64	5	14	60	43	24	5	140.0	3.0	0.4	0.2	0.3	4.30	33.28
870014	511500	6633850	BGRN	00	0	4	211	4	56	21	135	0.1	16	22	1710	5.81	5	10	134	62	9	20	177.5	2.9	0.7	0.3	0.2	9.10	17.69
870015	513700	6635350	GRNT	00	0	7	311	3	32	16	101	0.2	16	8	662	2.42	10	2	84	43	1080	40	158.6	4.1	0.1	2.5	0.4	21.90	7.10
870016	512100	6630650	MSDM	00	0	1	311	9	95	30	271	0.3	80	22	745	6.57	5	4	169	88	11	5	155.0	7.9	0.1	2.4	0.3	12.60	32.27
870017	523700	6644800	ARGL	00	0	1	221	2	106	22	126	0.4	60	18	526	4.42	6	4	211	105	9	5	34.3	2.5	0.1	1.1	0.7	6.00	16.29
870018	510500	6646500	BEXV	00	0	3	311	2	30	18	99	0.1	18	12	706	4.09	5	4	57	82	180	70	48.4	4.4	0.2	0.5	0.3	6.80	7.50
870019	510100	6645800	IEXV	00	0	7	112	2	22	13	66	0.2	14	9	548	2.64	5	5	53	38	60	30	32.8	2.1	0.3	0.2	0.2	8.10	22.21
870020	509700	6645100	IEXV	00	0	1	311	3	38	21	141	0.4	21	12	649	3.30	9	5	69	51	12	20	42.6	2.7	0.7	2.0	0.4	12.30	6.78
870021	516200	6630100	MSDM	00	0	2	311	10	60	21	202	0.1	62	15	726	4.91	5	6	127	90	13	10	49.5	5.5	0.3	1.9	0.4	5.70	25.05
870022	517600	6629800	TUFF	00	0	2	311	3	75	37	153	1.1	49	19	1001	4.96	5	3	43	63	20	90	63.7	5.2	0.4	1.9	0.3	13.00	8.49
870023	517500	6628800	BEXV	00	0	3	211	3	52	26	105	0.1	27	18	859	4.39	5	4	55	52	6	20	33.7	3.2	0.5	0.2	0.2	6.20	26.30
870024	525700	6628000	GRCK	00	0	7	121	3	37	13	88	0.1	38	13	614	3.42	5	3	64	71	4	10	38.0	1.6	0.4	1.1	0.5	9.00	12.71
870025	507100	6635650	GRNT	00	0	2	211	6	33	33	152	0.6	15	11	785	3.56	8	31	73	48	31	20	164.5	2.8	1.7	0.7	0.5	7.00	16.82
870026	516650	6633200	ARGL	00	0	1	211	3	33	18	78	0.2	22	11	482	3.43	5	7	73	63	85	5	54.0	5.7	0.1	0.2	0.2	3.40	27.00
870027	514300	6635200	GRDR	00	0	2	211	1	21	12	47	0.1	19	7	395	2.98	5	16	28	47	29	5	6.9	1.2	0.2	0.4	0.2	3.90	8.91
870028	523900	6626500	ARGL	00	0	3	211	2	57	17	114	0.1	34	13	559	3.70	5	2	65	48	14	30	24.9	1.7	0.1	1.1	0.3	18.10	13.57
870029	506700	6645100	ARGL	00	0	5	220	11	51	20	216	0.4	49	16	702	3.92	5	5	147	26	3	90	198.0	5.5	0.1	2.5	0.3	6.00	25.24
870030	527850	6649800	ANDS	00	0	2	311	3	29	14	106	0.3	30	13	589	4.03	5	6	65	53	12	80	27.1	1.4	0.1	0.2	0.2	7.30	5.89
872001	511300	6639000	IEXV	00	0	7	211	4	14	10	51	0.1	6	4	324	1.40	5	20	24	17	2	5	63.8	1.7	0.7	0.2	0.2	2.40	59.95
872002	516850	6647500	GRCK	00	0	7	211	1	34	14	82	0.1	19	9	508	2.95	5	5	45	43	33	10	33.2	2.4	0.1	0.5	0.2	4.90	28.09
872003	515500	6647150	TUFF	00	0	7	211	2	60	29	119	0.2	21	11	772	3.04	5	4	79	47	5	10	76.8	3.5	0.5	0.6	0.2	11.00	14.09
872004	508750	6631900	GRNT	00	0	0	220	3	16	37	110	0.9	10	10	670	2.79	6	12	35	22	59	5	34.3	2.0	2.0	0.3	0.2	3.00	10.92
872005	515600	6643000	GRNT	00	0	7	121	9	39	10	42	0.1	12	5	337	1.82	21	4	72	32	1	10	9.8	1.9	0.5	0.3	0.2	8.50	31.30
872006	513400	6639550	DORT	00	0	1	220	9	45	40	78	0.1	11	9	614	3.24	6	23	32	34	12	5	11.1	1.0	0.6	1.0	0.3	3.20	12.77
872007	510325	6646550	IEXV	00	0	7	211	4	44	27	124	0.1	28	15	879	4.05	5	5	57	36	2	380	120.6	14.0	0.5	1.4	0.4	6.70	20.60
872008	509800	6645250	IEXV	00	0	7	121	2	31	13	80	0.1	17	12	668	3.94	5	5	73	58	1	20	23.9	2.7	0.5	1.3	0.4	9.90	8.33
872009	505100	6628850	GRNT	10	0	2	211	2	2	9	41	0.1	2	2	291	1.18	12	28	15	12	1	5	3.1	0.2	0.3	0.2	0.2	3.60	20.19
872109	505100	6628850	GRNT	20	0	2	211	2	2	4	44	0.1	2	3	286	1.33	9	30	16	14	1	5	3.4	0.2	0.2	0.2	0.2	4.10	16.51
872010	509000	6629500	GRNT	10	0	2	211	2	10	8	59	0.1	6	6	476	4.25	19	87	24	54	1	5	37.8	1.1	1.7	0.2	0.2	3.10	6.88
872110	509000	6629500	GRNT	20	0	2	211	2	10	8	59	0.1	6	6	472	4.09	19	87	24	54	1	5	34.1	0.9	0.8	0.2	0.2	3.10	6.88
872011	509500	6630300	GRNT	10	0	2	211	2	17	32	101	0.2	10	8	766	2.72	6	20	57	28	17	5	40.4	1.7	0.7	0.3	0.2	3.90	33.60
872111	509500	6630300	GRNT	20	0	2	211	3	16	36	102	0.4	8	8	804	2.70	5	21	62	27	49	20	42.0	1.7	0.9	0.3	0.3	4.30	26.93
872012	500550	6625200	GRNT	00	0	7	211	2	3	6	39	0.2	3	3	304	1.62	8	7	24	24	1	5	2.8	0.4	0.2	0.2	0.5	5.60	41.51
872013	511050	6638100	MSDM	10	0	2	211	1	31	28	69	0.1	16	10	514	3.07	5	9	68	49	240	40	275.4	5.8	0.2	0.4	0.2	5.40	20.39
872113	511050	6638100	MSDM	20	0	2	211	2	29	19	62	0.1	15	9	457	2.93	5	11	56	46	30	10	244.8	6.5	0.4	0.3	0.3	5.10	29.88
872014	510950	6638250	MSDM	10	0	2	211	4	15	10	56	0.1	7	3	422	1.57	13	21	26	18	2	5	76.0	1.9	1.1	0.3	0.4	3.70	29.72
872114	510950	6638550	MSDM	20	0	2	211	4	14	13	56	0.1	6	4	442	1.62	11	26	25	19	1040	20	72.7	2.1	1.1	0.2	0.3	3.70	25.32
872015	511800	6631500	GRNT	10	0	2	211	4	27	14	76	0.1	14	7	383	3.13	9	20	33	51	3	10	78.5	2.1	0.6	0.4	0.4	5.70	21.13
872115	511800	6631500	GRNT	20	0	2	211	4	31	22	88	0.2	18	9	436	3.44	15	15	39	57	9	10	94.2	2.5	0.6	0.5	0.4	7.00	21.07
872016	813200	6636050	TUFF	10	0	2	211	2	38	18	76	0.1	23	11	631	3.49	5	8	70	61	3	5	39.7	3.6	0.1	0.4	0.2	3.80	13.19
872116	513200	6636050	TUFF	20	0	2	211	3	33	9	80	0.1	26	11	742	3.31	5	11	71	57	19	10	43.9	3.7	0.1	0.6	0.5	4.50	32.98
873001	513550	6639375	ARGL	00	0	1	211	2	97	30	227	0.2	17	5	416	2.09	5	4	94	27	10	40	53.2	1.7	0.4	1.7	0.3	19.80	13.06
873002	513850	6636700	IMIV	00	1	4	221	7	42	42	82	0.1	61	12	503	3.55	5	9	73	60	2	5	11.1	2.1	0.5	1.3	0.2	9.20	9.03
873003	520900	6643725	GRCK	00	1	4	211	1	51	44	132	0.3	34	12	544	3.90	5	10	80	70	1	10	86.8	4.1	0.9	1.5	0.4	8.80	12.00
873004	522950	6643575	GRCK	00	1	6	211	2	60	16	109	0.2	33	12	486	3.49	5	9	87	75	1	5	25.3	1.3	0.2	0.5	0.4	4.70	33.53
873005	522800	6643625	GRCK	00	1	6	221	1	91	13	109	0.3	59	17	722	4.35	5	9	169	85	2	5	23.4	1.9	0.1	0.7	0.2	6.00	26.47
873006	505350	6630475	BGRN	00	0	1	311	1	6	21	102	0.1	5	5	927	2.59	14	40	20	25	1	5	2.6	0.2	0.5	0.2	0.3	3.40	5.01
873007	522500	6647850	IFXV	00	0	1	211	2	52	5	81	0.2	30	10	492	2.95	5	3	66	46	3	20	23.5	2.4	0.7	0.4	0.2	10.00	40.53
873008	511200	6636225	SCST	00	0	2	212	2	71	39	194	0.5	30	18	1158	4.82	7	5	85	61	4	30	248.5	10.7	0.3	1.6	0.4	14.80	14.14
873009	512350	6633225	ARGL	00	0	1	113	7	51	18	254	0.4	51	13	665	3.92	5	5	93	66	38	20	273.2	5.3	0.3	2.3	0.2	16.40	15.29
873010	525450	6644675	IMIV	00	0	1	221	3	41	38	152	0.1	16	8	583	3.03	11	41	52	58	2	5	58.7	1.0	0.7	0.5	0.4	5.70	22.33
873011	527250	6643950	GRDR	00	0	0	221	2	28	14	101	0.1	13	10	587	3.75	5	28	54	101	1	5	21.5	0.6	0.7	0.2	0.2	4.00	15.55
873012	508600	6650350	IMIV	00	0	3	211	4	28	19	112	0.1	21	11	761	3.73	5	6	56	53	1	120	61.4	7.1	0.6	0.6	0.2	3.80	40.77
873013	512150	6647875	GRNT	00	0	2	211	3	32	33	110	0.1	19	9	588	3.05	5	3	58	44	640	20	50.4	9.7	1.2	0.6	0.3	8.70	19.60
873014	512400	6648450	GRNT	00	1	2	121	3	28	20	94	0.1	17	12	1146	3.75	5	3	63	56	2	30	45.5	3.8	0.6	0.4	0.3	9.50	24.06
873015	518700	6629125	TUFF	00	0	3	311	2	76	15	102	0.1	45	21	855	5.09	5	4	47	71	2	20	26.6	4.0	0.1	0.4	0.2	6.00	32.64
873016	518700	6629300	TUFF	00	0	3	311	2	77	17	106	0.1	46	22	879	5.77	5	3	51	82	1	30	30.1	4.5	0.3	0.5	0.4	6.30	4.19
873017	513500	6626100	BGRN	00	0	3	311	2	68	25	129	0.3	33	17	825	4.27	6	13	67	75	21	10	375.1	12.4	0.4	0.5	0.2	7.10	28.64
873018	518750	6632225	BGRN	00	0	2	211	14	13	10	54	0.1	21	7	358	2.93	12	10	26	51	1	5	19.2	0.9	0.3	0.2	0.2	5.40	5.08
873019	518850	6631725	IEXV	00	0	2	211	5	34	9	137	0.1	20	12	3040	5.99	5	4	64	50	1	20	52.8	6.1	0.4	0.4	0.3	12.10	3.12
873020	518125	6632575	MSDM	00	0	2	211	8	54	15	134	0.1	29	13	713	8.47	5	6	68	60	10	10	83.6	7.6	0.3	1.5	0.4	8.60	13.79
873021	519625	6631600	IEXV	00	0	2	211	2	58	18	98	0.1	41	18	619	4.53	5	3	57	72	1	20	25.7	4.2	0.1	0.7	0.2	8.70	24.95
873022	521875	6631525	IEXV	00	0	2	211	1	50	11	76	0.1	27	13	469	3.44	5	4	55	91	7	10	36.9	2.6	0.1	0.3	0.2	5.70	33.40
873023	522750	6633500	BGRN	00	0	2	211	4	11	3	41	0.1	15	6	237	2.69	8	16	18	45	3	5	28.0	2.7	0.1	0.2	0.2	2.80	20.14
873024	527050	6632750	BGRN	00	0	4	211	2	94	43	202	0.4	38	21	1113	4.89	5	5	71	67	10	20	68.0	4.6	0.5	1.4	0.2	12.70	15.90
873025	507550	6641650	SCST	00	0	3	211	7	95	46	186	0.3	33	20	973	6.14	5	8	320	75	35	30	725.0	51.2	0.4	0.6	0.7	7.80	3.86
873026	507600	6641650	SCST	00	0	3	211	2	136	46	194	0.5	65	26	1116	5.81	5	6	120	99	45	20	500.9	20.6	1.9	0.6	0.6	9.20	43.65
873027	514400	6649650	GRCK	00	0	4	211	1	36	12	145	0.1	17	10	656	3.32	5	3	62	46	1	30	46.2	2.5	0.4	0.5	0.2	7.50	5.82
873028	514450	6649650	GRCK	00	0	4	211	1	46	26	105	0.1	22	12	778	3.89	5	6	42	57	1	10	52.6	3.6	0.3	0.2	0.4	4.40	4.45
873029	515075	6649300	GRCK	00	0	4	211	3	66	24	186	0.1	28	13	682	3.90	5	3	72	42	2	40	19.4	3.0	0.5	1.7	0.5	9.80	3.00
873030	516150	6648400	GRCK	00	0	4	121	1	35	23	92	0.2	18	9	554	2.78	5	4	51	39	7	10	31.7	2.2	0.2	0.6	0.2	6.70	29.82
873031	520900	6643975	GRCK	10	0	2	211	1	48	49	136	0.2	29	11	528	4.17	5	9	75	73	1	20	80.7	4.5	0.5	0.9	0.4	6.40	7.45
873131	520900	6643975	GRCK	20	0	2	211	1	51	77	128	0.4	29	11	495	3.59	5	8	79	62	9	10	76.7	5.1	0.4	0.9	0.5	5.40	13.12
873032	527500	6645175	BGRN	10	0	2	211	2	28	15	86	0.1	13	8	366	3.39	5	23	34	100	10	5	40.3	1.0	0.4	0.2	0.3	2.30	19.01
873132	527500	6645175	BGRN	20	0	2	211	1	28	15	72	0.1	13	6	311	2.85	5	18	33	78	1	5	38.9	1.0	0.7	0.2	0.2	2.40	13.96
873033	526250	6646300	TUFF	10	0	2	211	2	28	12	110	0.1	20	10	605	3.70	5	6	51	54	1	50	14.8	1.5	0.2	0.6	0.2	7.60	3.72
873133	526250	6646300	TUFF	20	0	2	211	1	33	17	90	0.3	19	9	554	3.52	5	6	51	48	4	50	14.7	1.2	0.3	0.7	0.3	7.70	7.08
873034	523525	6646400	GRCK	10	0	2	211	1	43	12	96	0.1	25	10	559	3.30	5	5	76	54	2	20	26.3	2.9	0.4	1.9	0.4	11.50	12.24
873134	523525	6646400	GRCK	20	0	2	211	1	39	9	70	0.1	21	9	434	3.03	5	4	65	49	58	20	25.0	1.8	0.5	0.6	0.4	7.50	22.08
873035	519750	6643575	LMST	10	0	2	211	4	46	46	138	0.6	19	9	984	3.68	5	17	81	48	2	5	32.9	2.1	4.1	0.7	0.5	5.90	4.43
873135	519750	6643575	LMST	20	0	2	211	3	51	50	119	0.7	18	8	896	3.27	5	13	77	42	10	5	34.5	1.9	2.9	0.8	0.5	6.40	5.52
873036	513375	6639600	IEXV	00	0	2	211	7	43	65	91	0.1	13	10	854	3.40	5	17	40	34	18	10	10.2	0.9	0.7	0.6	0.2	6.50	17.21
873037	520500	6623400	SCST	00	0	2	211	3	82	36	110	0.9	25	11	531	3.45	5	5	39	61	13	5	149.9	4.6	1.4	0.6	0.2	5.00	28.15
873038	503800	6645375	SCST	00	0	2	211	1	69	20	76	0.3	19	11	566	3.17	5	5	122	61	72	5	44.7	1.6	12.5	0.3	0.2	7.60	18.40
873039	502400	6645100	GRNT	00	0	2	211	14	25	15	131	0.2	9	6	699	2.28	27	12	43	36	14	30	11.4	1.4	2.5	0.8	0.2	8.10	4.45
873040	504400	6649800	IMIV	10	0	2	211	1	60	12	68	0.2	54	28	524	7.97	5	2	46	231	6	10	26.6	3.4	0.1	0.3	0.3	4.70	18.61
873140	504400	6649800	IMIV	20	0	2	211	1	64	13	66	0.1	50	25	504	7.46	5	2	46	215	1	5	28.3	2.6	0.3	0.3	0.4	5.20	26.93
873041	504125	6648500	IMIV	10	0	2	211	1	40	15	56	0.1	52	25	496	8.79	5	3	33	203	1	10	16.8	2.0	1.8	0.2	0.3	2.50	5.50
873141	504125	6648500	IMIV	20	0	2	211	1	42	18	47	0.3	50	24	483	8.57	5	3	34	202	1	5	23.1	1.5	0.5	0.2	0.4	3.00	4.48
873042	505175	6646675	IEXV	10	0	2	211	6	47	23	174	0.1	36	13	627	3.90	5	8	115	38	84	80	131.2	9.0	0.4	1.8	0.2	5.80	11.27
873142	505175	6646675	IEXV	20	0	2	211	6	50	22	163	0.1	38	14	741	4.26	5	8	135	40	280	60	151.7	7.2	0.5	1.7	0.3	6.10	19.23
873043	505300	6649725	GRNT	10	0	1	211	4	27	41	149	0.3	12	9	935	3.69	5	13	67	37	1	5	30.2	1.8	1.4	0.6	0.2	4.00	8.96
873143	505300	6649725	GRNT	20	0	1	211	3	26	43	140	0.6	9	8	892	3.75	5	15	66	36	1	5	290.0	1.7	1.6	0.7	0.3	4.20	7.43
873044	504100	6645400	SCST	10	3	1	211	2	80	31	108	0.4	29	15	732	3.76	5	7	140	75	19	10	38.3	3.2	5.8	0.5	0.2	8.20	25.22
873144	504100	6645400	SCST	20	3	1	211	1	82	24	96	0.6	26	16	714	3.77	5	8	137	76	1	10	51.1	2.0	3.0	0.7	0.4	9.00	18.78
873045	516950	6647450	GRCK	10	0	2	211	1	40	27	96	0.1	20	10	561	3.02	5	4	53	43	6	20	32.1	3.1	0.6	0.7	0.3	6.30	9.28
873145	516950	6647450	GRCK	20	0	2	211	1	41	18	97	0.1	18	9	545	3.07	5	5	50	42	4	5	36.0	2.0	0.5	0.5	0.2	6.30	10.05
873046	513560	6644000	IEXV	10	0	2	211	5	44	37	207	0.2	23	13	792	5.09	5	10	65	55	2	10	203.5	6.0	1.1	0.6	0.4	7.20	2.44
873146	513560	6644000	IEXV	20	0	2	211	8	42	47	175	0.4	35	15	765	4.37	5	9	65	48	1	10	234.7	4.5	1.5	0.6	0.2	7.40	1.79
873047	511500	6640850	IEXV	10	0	1	211	2	61	26	106	0.1	25	14	670	4.37	5	7	141	64	28	30	227.2	9.7	0.8	0.5	0.5	6.20	6.86
873147	511500	6640850	IEXV	20	0	1	211	3	60	44	143	0.7	24	14	677	4.49	6	6	133	69	1	30	210.7	9.1	1.3	0.6	0.5	7.70	3.16
DETECTION LIMITS								1	1	2	1	0.1	1	1	5	0.01	5	2	1	2	1	5	0.1	0.1	0.1	0.2	0.3		

ANALYTICAL PROCEDURES

Analyses performed by ACME Analytical Laboratories Ltd., 852 E. Hastings St., Vancouver, B.C., V6A 1R6

1. Elements Mo through V
Inductively Coupled Plasma Emission Spectroscopy (ICPES) A 0.500 gram sample is digested with 3ml 3-1-2 $HCl-HNO_3-H_2O$ at 95 degrees C for one hour and is diluted to 10 ml with water. This leach is almost total for base metals, but partial for Fe and Mn.

2. Gold (Au)
Graphite Furnace Atomic Absorption A 10 gram sample (or the sample material remaining after Analytical procedure 1 (above) was completed, which, due to sampling difficulties, may have totalled less than 10 grams- see WT column) was ignited at 600 degrees C, digested with hot aqua regia, extracted with MIBK, and analysed by graphite furnace atomic absorption.

3. Mercury (Hg)
Same digestion as in Analytical Procedure 1 above. An aliquot of the extract is added to a $SnCl_2$-HCl solution. The reduced Hg is measured by cold vapour AA.

4. Elements As through Te
Hydride Generation of volatile elements and determination by ICPES. Digestion as in Analytical Procedure 1 above.

5. Loss on Ignition (LOI)
A 0.5gram sample was placed in a furnace and heated to 500 degrees C over 2 to 3 hours and held at this temperature for an additional 4 hours. After cooling to room temperature the sample was reweighed.

6. Weight (Wt.) is that of the minus eighty mesh sample split measured in grams.

EXPLANATION OF COLUMN HEADINGS

Sample No. Sample number is a six digit identification code. The first two digits represent the year of collection. The third digit is the collector identifier. Fourth to sixth digits are sequential sample identifiers.

UTM E and UTM N Universal Transverse Mercator coordinates for Zone 08 as easting and northing respectively. Normally accurate to within 50 m.

ROCK Bedrock type mnemonic code as listed in alphabetical order below:
ALRZ = alteration, ANDS = andesite, ARGL = argillite, BEXV = basic extrusive, BGRN = biotite granodiorite, DORT = diorite, GRCK = greywacke, GRDR = granodiorite, GRNT = granite, IEXV = intermediate extrusive, IMIV = intermediate intrusive, LMSN = limestone, MSDM = metasediment, SCST = schist, TUFF = tuff

REP Replicate status: 00 = routine sample site, 10 = first of duplicate pair, 20 = second of duplicate pair. Samples sites denoted as having been sampled in duplicate are also sites where 10 kg bulk samples and pan concentrates were taken -this data will be available in the near future.

C Contamination code: 0 = none, 1 = possible, 2 = probable, 3 = definite, 4 = mining activity

B Bank type: 0 = undefined, 1 = alluvial, 2 = colluvial, 3 = glacial till, 4 = glacial outwash, 5 = bare rock, 6 = talus, scree, 7 = organic

COMP Sediment composition as a three digit code representing abundance of sand (first digit, particles >0.125mm); fines (second digit, particles <0.125mm), and organics (third column) as follows: 0 = absent, 1 = minor (<33%), 2 = medium (33-67%), 3 = major (>67%).