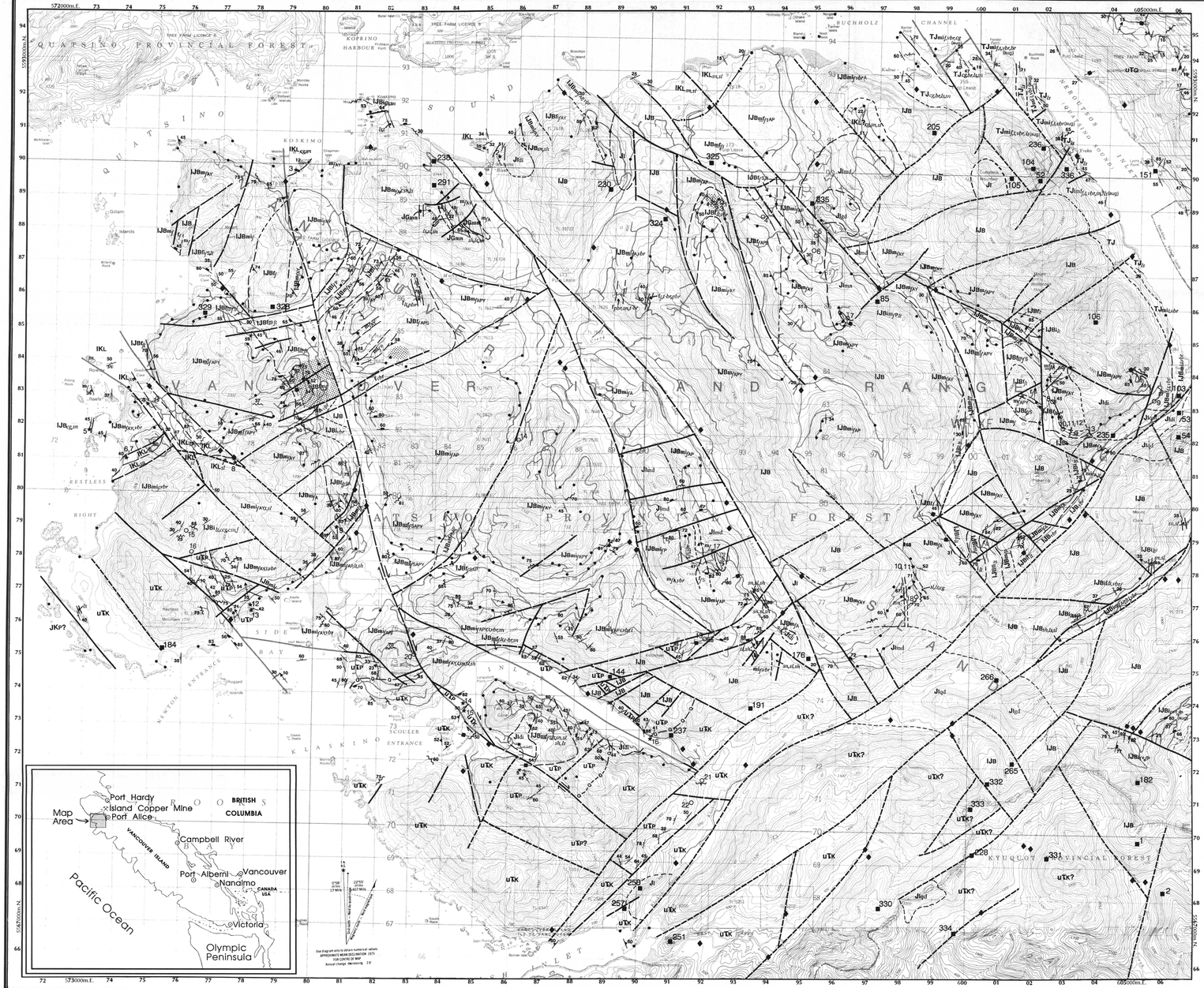

GEOLOGICAL SURVEY BRANCH

OPEN FILE 1993-10

PRELIMINARY GEOLOGY OF THE MAHATTA CREEK AREA, NORTHERN VANCOUVER ISLAND

NTS 92L/5

G. T. NIXON, J. L. HAMMACK, J. V. HAMILTON AND H. JENNINGS

(SHEET 1 OF 2)

SCALE 1:50 000

LAYERED ROCKS

LOWER CRETACEOUS

LONGARM FORMATION

IKL — *UNDIVIDED VOLCANIC PEBBLE TO COBBLE CONGLOMERATE, LITHIC WACKE, MEDIUM-BEDDED CALCAREOUS SANDSTONE AND SILTSTONE, MINOR, ORANGE WEATHERING, FISSILE BLACK SHALE. SANDSTONE AND CONGLOMERATE ARE COMMONLY FOSSILIFEROUS.*

IKL_{ms} — *THIN TO MEDIUM BEDDED PEBBLY SANDSTONE AND COARSE TO FINE SANDSTONE, LOCALLY FOSSILIFEROUS*

IKL_{sl} — *GREY-GREEN MEDIUM BEDDED SILTSTONE*

IKL_{sh} — *ORANGE-WEATHERING, FISSILE BLACK SHALE*

JURASSIC TO CRETACEOUS

JKP? — *THIN TO THICK BEDDED VOLCANIC PEBBLE CONGLOMERATE, CALCAREOUS SANDSTONE AND SILTSTONE, INTENSELY FRACTURED. TENTATIVELY ASSIGNED TO THE PACIFIC RIM COMPLEX.*

LOWER JURASSIC

BONANZA GROUP

IJB — *CONTINENTAL TO SUBMARINE INTERCALATED BASALTIC TO RHYOLITIC LAVAS, PYROCLASTIC AND EPICLASTIC ROCKS LOCALLY SUBDIVIDED ACCORDING TO COMPOSITION, LITHOLOGY AND TEXTURE (SEE TABLE OF ABBREVIATIONS AND NOMENCLATURE BELOW).*

UPPER TRIASSIC TO LOWER JURASSIC

TJ — *UNNAMED INTERBEDDED SEDIMENTARY, VOLCANIC AND VOLCANICLASTIC ROCKS LOCALLY SUBDIVIDED AS FOLLOWS: (a) - THIN BEDDED, FINE GRAINED CLASTIC ROCKS, INCLUDES THIN TO MEDIUM BEDDED CONGLOMERATE, SANDSTONE AND SILTSTONE (COMMONLY CALCAREOUS), MASSIVE TO THINLY BEDDED LIMESTONE, AND DISTINCTIVE AUGITE-PHYRIC LAVAS, BRECCIAS AND TUFFS*

UPPER TRIASSIC

PARSON BAY FORMATION

uTP — *THIN TO MEDIUM BEDDED CALCAREOUS SILTSTONE, SHALE AND SANDSTONE, MEDIUM TO THICKLY BEDDED MICRITIC LIMESTONE WITH INTERBEDDED FINE GRAINED CLASTICS, RARE GRANULAR DEBRIS FLOW MATERIAL WITH ROUNDED TO SUBANGULAR VOLCANIC AND/OR LIMESTONE CLASTS*

QUATSINO FORMATION

uTQ — *MASSIVE TO THINLY BEDDED REEFOIDAL TO MICRITIC LIMESTONE, LOCALLY FOSSILIFEROUS; "Q" SYMBOL INDICATES THE OCCURRENCE OF THIS UNIT AT THE BASE OF THE PARSON BAY FORMATION IN THE WEST WHERE IT IS TOO THIN TO OTHERWISE SHOW*

KARMUTSEN FORMATION

uTK — *APHANITIC TO COARSELY PLAGIOCLASE-PHYRIC, COMMONLY AMYGDALOIDAL BASALTIC LAVAS, LOCALIZED PILLOW BASALTS AND PILLOW BRECCIA. (b) - THIN BEDS OF INTERLAVA MICRITIC LIMESTONE NEAR THE TOP OF THIS UNIT.*

INTRUSIVE ROCKS

EARLY TO MIDDLE JURASSIC (OR LATER?)

ISLAND PLUTONIC SUITE

Ji — *MEDIUM GRAINED, EQUIGRANULAR GRANITOID ROCKS, INCLUDES DIORITE (di), QUARTZ DIORITE (qd), MONZODIORITE (md), MONZONITE (mz), QUARTZ MONZONITE (qm), GRANODIORITE (gd) AND RARE SYENITE, AND PLAGIOCLASE AND QUARTZ-FELDSPAR PORPHYRY.*

MAP SYMBOLS

- Geological contact (defined, approximate, assumed)
- Fault (defined, approximate, inferred; arrows indicate motion)
- Unconformity (defined, assumed)
- Strike and dip of bedding (facing known, unknown) — 66 / 66
- Strike and dip of flow contact — 28
- Primary flowage structures in volcanic rocks: flow lamination; welding — 36 / 36
- Strike and dip of dyke — 87
- Plunge and trend of minor fold axis — 9
- Minor fault — 64
- Field station
- MINFILE occurrence — 324
- Regional Geochemical Survey stream sediment sample site
- Macrofossil collection site — 10
- Lithogeochemical sample site — 3
- Extensive zone of intense alteration

Scale 1:50,000 Echelle

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Metres

Yards 1000 0 1000 2000 3000 4000 Yards

TABLE OF ABBREVIATIONS AND NOMENCLATURE† FOR THE BONANZA GROUP

$IJBx_{L,D}$		where *X* is composition, *L*, lithology, and D, other descriptors listed below
IJB		where undivided
Composition:	m	mafic (basaltic)
	i	intermediate (andesitic)
	f	felsic (rhyolitic-rhyodacitic-dacitic)

A compositional range is indicated by compound abbreviations where the predominant composition, if known, is in bold type:

e.g. **mi** mafic to intermediate, mafic volcanic rocks more abundant
e.g. **mf** mafic to felsic volcanic rocks, equally abundant

Predominantly bimodal intermixed sequences are underscored:

e.g. **mf** mafic and felsic volcanic rocks in subequal proportions

Epiclastic*		Pyroclastic		Other**	
Lithology:					
br	breccia	*pbr*	pyroclastic breccia	*f*	lavas (includes flow breccias)
cg	conglomerate	*t-br*	tuff-breccia	*pi*	pillows
sm	sandstone	*lt*	lapilli tuff	*pibr*	pillow breccia
sl	siltstone	*t*	tuff		
sh	shale				
ls	limestone				

Descriptors:

Prefixes:

v	volcanic[1]	w	welded
t	tuffaceous[2]		
l	laharic		

Suffixes:

v	vitric	C	carbonized wood
x	crystal	F	fossiliferous
l	lithic	A	aphanitic/fine-grained
		P	porphyritic (<5 mm)[3]
		Y	amygdaloidal
		S	laminar flowage structures[4]
		(aug)	coarse augite-phyric rocks

† usage of Cas and Wright (1988) * volcanic and/or nonvolcanic constituents
** includes autoclastic and quench-fragmented products
[1] pyroclastic or epiclastic (non-genetic) [2] mixed epiclastic/pyroclastic (tuffites)
[3] maximum phenocryst size [4] includes flow folds

MINFILE OCCURRENCES

MAP NO.	MINFILE NO.	NAME	UTM ZONE 9		DESCRIPTION	REFERENCES
1	092L 001	HEART	605109E 5569874N	IJB	Pyrite and chalcopyrite and magnetite veinlets adjacent to granodiorite to diorite intrusion.	AR 12913
2	092L 002	POWER	605898E 5568036N	IJB	Magnetite lenses within fault zones.	AR 1962-98
52	092L 052	YREKA MINE	601707E 5590199N	uTP	Pyrrhotite, chalcopyrite, pyrite, magnetite , specular hematite, sphalerite and galena within epidote-garnet skarn altered limy tuffs. Mine production between 1902 and 1967 yielded 49,890 g Au, 4,537,119 g Ag, and 3,935,873 g Cu.	AR 3164, 3165, 4425, 7981
53	092L 053	PAYSTREAK	606414E 5583711N	IJB	Pyrrhotite, sphalerite, pyrite and minor chalcopyrite in a 25 cm wide quartz vein. Up to 0.34 g/t Au, 34.29 g/t Ag, and 10.9% Cu (grab).	AR 5567, 5997, 8629, 9451, AR 12773, 16552
54	092L 054	QUATSINO KING	606342E 5582412N	IJB	Pyrite, chalcopyrite and sphalerite within quartz and calcite veins near a quartz diorite intrusion. Composite sample yielded 2.64 g/t Au, 13.72 g/t Ag and 1.5% Cu.	AR 5567, 5997, 8629, 9451, AR 12773, 16552
85	092L 085	IRON QUEEN	596790E 5586245N	IJB	Two zones contain from 50% to 90% magnetite.	AR 2731
86	092L 086	BLUE BIRD INGERSOL	594807E 5592233N	IJB	Massive magnetite skarn, 12 m wide, contains chalcopyrite, pyrite and minor gold. Up to 13.7 g/t Au and 58% Fe. One sample from an unspecified location assayed 58% Fe and 13.7 g/t Au.	AR 1903-4, 1906-199, 1968-97
103	092L 103	RED ROCK	606310E 5583987N	IJB	Three metre wide massive pyrrhotite band containing traces of Au, Ag, Cu and Zn.	AR 5567, 5997, 8629, 9451, AR 12773, 16552
104	092L 104	EDISON (L.244)	601484E 5590504N	uTP	Lenses of chalcopyrite and pyrrhotite associated with garnet-epidote skarn. Up to 7.75% Cu and 126.9 g/t Ag (chip).	AR 3164, 3165, 4425, 7981
105	092L 105	CLIMAX	600961E 5590030N	uTP	Chalcopyrite in skarn.	AR 3164, 3165, 4425, 7981
106	092L 106	ROSSLAND	603412E 5585752N	IJB	Galena and chalcopyrite with unknown deposit character.	AR 1906-200
144	092L 144	SINKER	588897E 5574304N	uTP	Disseminated chalcopyrite and fracture fillings of chalcopyrite and pyrrhotite in skarn.	AR 961, 2407, 4730, 11226
151	092L 151	JEUNE LANDING QUARRY	605133E 5590514N	uTQ	Massive limestone.	
176	092L 176	BRAD	595112E 5575247N	uTP	Chalcopyrite and pyrite in pods and quartz veins within skarn.	AR 2652, 3792
182	092L 182	RH 1-24	605171E 5571729N	IJB	Copper and molybdenum mineralization occurs as fracture fillings.	AR 5128, 5129, 5335, 12913
184	092L 184	ACORN	575426E 5575702N	uTK	Gold values between 11.3 to 26.4 g/t over 0.9 to 2.4 metres in drill core.	GCNL #11
191	092L 191	JARR	592961E 5573818N	uTP	Disseminated chalcopyrite, pyrite, pyrrhotite and magnetite in skarn near an east trending fault.	AR 3166, 11226
205	092L 205	R	598572E 5591221N	IJB	Minor disseminated chalcopyrite and pyrite.	AR 3023, 3164, 3165, 3652, AR 4355
228	092L 228	IRON COP	599969E 5569404N	IJB	Chalcopyrite and pyrite stringers occur in lenses within shears associated with regional northeast trending faults within a 120 x 330 m zone. Up to 3.25% Cu, 0.82 g/t Au, and 14.8 g/t Ag (chip).	AR 3034, 18124, 18125, 18184, AR 12913
230	092L 230	LES	588545E 5589437N	IJB	150 x 30 m zone of disseminated chalcopyrite, magnetite, hematite and pyrite near diorite stock. Up to 0.6% Cu (chip).	
235	092L 235	STAR 24	605351E 5584555N	IJB	Chalcopyrite, molybdenite and pyrite adjacent to quartz diorite intrusion.	AR 5567, 5997, 8629, 9451, AR 12773, 16552
236	092L 236	TUSCARORA	601833E 5590820N	IJB	Pyrite, sphalerite, galena and bornite in a 3 x 27 m zone of skarn altered calcareous tuffs and silicified volcanics. Up to 2 % Zn (chip).	AR 3164, 3165, 4425, 7981
237	092L 237	RUF 41	590703E 5572852N	uTP	Pyrite , pyrrhotite and minor chalcopyrite and molybdenite in thin discontinuous lenses within a 600 x 900 m zone. Up to 0.7% Cu (grab).	AR 96, 2407, 4730, 11226
238	092L 238	WM	583205E 5590338N	IJB	Chalcopyrite within quartz veins.	AR 8018
257	092L 257	PABLO 22	589604E 5567582N	uTK	Disseminated chalcopyrite,pyrrhotite, magnetite and sphalerite adjacent to intrusive contact. Up to 0.37% Cu, 9.9 g/t Ag, 13.6% Fe and 1.9% Zn (chip).	AR 4598
258	092L 258	PABLO 24-2	589892E 5568112N	uTK	Minor disseminated chalcopyrite and bornite adjacent to intrusive contact. Up to 0.42% Cu, 5.6 g/t Ag (chip).	AR 4598
265	092L 265	FANG	601066E 5572113N	IJB	33 m wide zone of pyrite, chalcopyrite and quartz in zone fractured zone which parallels a northwest trending pluton. Up to 0.7% Cu (chip).	AR 5128, 5129, 5335, 12913
266	092L 266	TENT	600561E 5574760N	IJB	Pyrite, molybdenite and chalcopyrite occur as disseminations and fracture fillings in volcanic and adjacent intrusive rocks.	AR 2457, 2739, *4989, 5334
291	092L 291	KIMO	583217E 5589566N	IJB	Pyrite, chalcopyrite and sphalerite in quartz-calcite veinlets.	AR 8018, 18038
324	092L 324	CLEAGH	590537E 5588296N	IJB	Copper-molybdenum-sphalerite in quartz veins.	EMPR PF (Leighton, D.G., (1974): Explorations in the Mahata River Area Stokes Expl. Mgnt, Brinco Expl. Ltd.
325	092L 325	KEW	592159E 5590333N	IJB	Disseminated chalcopyrite and bornite in basic dykes.	EMPR PF (Leighton, D.G., (1974): Explorations in the Mahata River Area Stokes Expl. Mgnt, Brinco Expl. Ltd.
328	092L 328	LEMARE 1	578305E 5585629N	IJB	Chalcopyrite, pyrite, sphalerite, malachite and azurite associated with fractures. Up to 1.4% Cu (grab).	AR 8593
329	092L 329	LEMARE 2	576431E 5585540N	IJB	Disseminated pyrite with minor chalcopyrite, bornite and malachite as fracture fillings. Up to 0.49% Cu (grab).	AR 8593
330	092L 330	LOIS 1-36	597519E 5568030N	uTK	Chalcopyrite, molybdenite, sphalerite, galena and unspecified cobalt mineralization. Visible gold reported in drill core.	AR 2384, 3034, 3035, 5873, AR 6024, 12913
331	092L 331	LONDON 1	602249E 5569293N	uTK	Pyrite veined magnetite with minor malachite, disseminated pyrite, sphalerite and native sulphur and disseminated chalcopyrite.	AR 12913
332	092L 332	PATCH	600343E 5571636N	uTK	Patches of pyrite veined magnetite with minor malachite staining.	AR 12913
333	092L 333	BOZO 2	599942E 5570856N	uTK	Pyrite and sphalerite in veins	AR 12913
334	092L 334	NASPARTI LAKE	599793E 5567176N	uTK	Quartz-pyrite-chalcopyrite-malachite vein and disseminated chalcopyrite.	AR 12913
335	092L 335	KLOOTCH	594856E 5589485N	IJB	Disseminated pyrite and chalcopyrite in diorite dike.	EMPR PF (Leighton, D.G., (1974): Explorations in the Mahata River Area Stokes Expl. Mgnt, Brinco Expl. Ltd.
336	092L 336	BLUEGROUSE (YREKA)	602440E 5590059N	IJB	Pyrrhotite, chalcopyrite, pyrite, magnetite and specular hematite within epidote-garnet skarn.	AR 3164, 3165, 4425, 7981

Abbreviation: AR - BC Ministry of Energy, Mines and Petroleum Resources Assessment Report;
EMPR PF - BC Ministry of Energy, Mines and Petroleum Resources Property File; GCNL - George Cross Newsletter.

MACROFOSSIL COLLECTIONS

MAP NO.	FIELD NO.	GSC NO.	UTM ZONE 9 EASTING	NORTHING	FAUNA	UNIT	AGE ASSIGNMENT
1	HJE92-26-8	C-208118	584670	5590570	inoceramid bivalve prisms	IJB	Possibly Bajocian to Maastrichtian (1)
2	HJE92-26-4	C-208117	585360	5590300	ammonite	IJB	Possibly Sinemurian (1)
3	JHA92-15-8-4	C-208110	579230	5589750	shell fragments, possibly Buchia.	IKL	Indeterminate possibly Late Jurassic to Early Cretaceous (1)
4	JHA92-1-8	C-208107	574800	5582675	corbula? sp., bivalves, scaphopod? coral	IKL	Post-Paleozoic (1)
5	JHM92-30-1-2	C-208119	573120	5581750	Weyla sp.	IJB	Sinemurian to Toarcian (1)
6	JHM92-30-2-2	C-208114	574100	5581000	plant frond, shell fragments	IJB	Indeterminate (1)
7	JHM92-30-2-4	C-208115	574100	5581000	bivalve, gastropod	IJB	Indeterminate (1)
8	JHA92-2-14	C-208108	577570	5581100	Inoceramid bivalve prisms	IKL	Possibly Bajocian to Maastrichtian (1)
9	JHA92-19-2-3	C-208111	580600	5579000	bivalves, gastropods	IJB	Mesozoic (1)
10	HJE92-6-3-11	C-208116	598350	5578100	trigoniid bivalves, gastropod	IJB	Possibly Sinemurian? (1)
11	HJE92-6-3-5	C-208126	598350	5578100	bivalve	IJB	Indeterminate (1)
12	JHA92-30-1-4	C-208105	578050	5576550	Monotis subcircularis	uTP	Upper Norian (2)
13	JHA92-12-8-1	C-208109	578100	5576400	Monotis	uTP	Upper Norian (2)
14	GNX92-20-6-2	C-208101	584600	5573670	Monotis subcircularis	uTP	Upper Norian (2)
15	GNX92-20-6-5	C-208102	584650	5573500	gastropod	uTP	Indeterminate (2)
16	GNX92-24-2-2	C-208120	590350	5572700	ammonoids, belemnoids	uTQ	Carnian? (2)

References: (1) J.W. Haggart, Geological Survey of Canada, Vancouver;
(2) E.T. Tozer, Geological Survey of Canada, Vancouver

British Columbia
Mineral Development Agreement
Canada

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(SHEET 2 OF 2)

STREAM SEDIMENT GEOCHEMISTRY*: a subset of the entire 92L/102I database
MAHATTA CREEK MAP AREA (92L/5)

RGS NO.	UTM ZONE 9 Easting	Northing	AU1 ppb	AU2 ppb	AG ppm	CU ppm	PB ppm	ZN ppm	NI ppm	CO ppm	MO ppm	SN pp	AS ppm	SB ppm	HG ppm	MN ppm	FE %	V ppm	CD ppm	BI ppm	CR ppm	W ppm	F ppm	U ppm	BA ppm
Detection Limits:			1	1	<0.1	<2	<2	<2	<2	<2	<1	<2	<1	<0.2	<5	<5	<0.02	<5	<0.1	<0.2	<5	<2	<40	<0.5	<20
Analytical Technique:			NAA		AAS																	COLM	SIE	DNA	XRF
BONANZA GROUP:																									
90th percentile values:			**38**	**38**	**0.1**	**70**	**8**	**145**	**83**	**28**	**2**	**1**	**22**	**0.8**	**700**	**1800**	**7.20**	**390**	**0.2**	**0.1**	**288**	**2**	**270**	**1.9**	**440**
881150	606293	5577852	2	0	0.1	48	1	110	28	25	1	1	6	0.4	150	1500	6.50	320	0.1	0.1	88	1	170	1.2	290
881152	606040	5578036	3	0	0.1	58	1	170	35	28	1	1	12	1.2	160	1500	7.20	310	0.2	0.1	104	1	220	1.4	270
881153	606040	5578036	2	0	0.1	45	1	150	32	25	1	1	12	1.4	250	1300	6.50	310	0.1	0.1	108	2	130	1.4	290
881154	605176	5573161	30	0	0.1	37	1	72	24	21	1	1	9	0.3	110	1000	6.80	290	0.1	0.1	100	2	150	1.1	290
881155	599479	5573047	30	12	0.1	59	42	400	35	34	3	1	79	1.6	110	1800	6.10	240	0.6	0.4	104	2	220	1.0	340
881160	597121	5569355	17	26	0.1	91	2	142	43	36	1	1	170	3.6	420	1000	7.10	300	0.3	0.3	104	3	270	1.4	330
881162	596983	5569510	80	26	0.1	66	1	140	48	42	1	1	38	2.0	170	1300	6.60	300	0.1	0.2	144	1	190	0.9	270
881184	605216	5568650	3	14	0.1	87	1	398	52	57	2	1	36	0.2	260	1200	7.60	290	0.7	0.4	120	1	100	1.0	280
881185	605216	5568650	8	3	0.1	83	2	400	52	55	2	1	36	0.2	260	1200	7.50	270	0.7	0.1	120	1	80	1.0	270
881186	605443	5568691	8	5	0.1	81	1	110	25	43	2	1	83	0.8	130	600	13.40	210	0.1	0.3	76	1	180	1.3	300
881202	604983	5573340	2	0	0.1	60	1	61	29	27	1	1	9	0.2	130	930	5.50	330	0.1	0.1	112	1	150	0.9	280
881203	604983	5573340	1	0	0.1	54	1	63	28	26	1	1	7	0.1	70	930	5.40	310	0.1	0.1	104	1	170	0.9	280
881207	594636	5567294	9	0	0.1	116	1	72	45	45	1	1	14	1.0	270	1100	6.40	410	0.1	0.1	132	1	170	0.6	190
881266	573572	5594350	1	1	0.1	30	1	101	19	14	1	1	11	1.2	810	1300	4.40	160	0.1	0.1	64	2	160	1.2	370
883053	578940	5589328	1	0	0.1	38	1	82	38	22	1	1	7	0.1	140	1800	5.50	295	0.1	0.1	136	1	220	0.7	240
883056	589746	5578516	4	0	0.1	46	1	60	30	42	1	1	20	0.4	110	810	6.00	250	0.1	0.1	88	1	220	1.1	220
883057	589633	5578801	1	0	0.1	27	1	74	23	22	1	1	7	0.1	100	950	4.90	175	0.1	0.1	60	1	250	2.0	210
883082	581813	5580189	1	0	0.1	41	13	240	32	19	1	1	10	0.2	160	1500	4.70	210	0.1	0.1	100	1	160	1.1	620
883083	584886	5578158	1	0	0.1	62	7	230	41	24	1	1	6	0.1	130	1600	5.80	275	0.2	0.1	120	1	200	0.8	430
883090	575888	5593383	2	0	0.1	31	6	142	40	26	1	1	6	0.1	130	1400	5.40	295	0.1	0.1	120	1	150	0.8	270
883093	582694	5576265	1	0	0.1	46	9	130	30	23	1	1	11	0.4	2000	1100	5.90	300	0.1	0.1	116	1	200	0.6	320
883094	582694	5576265	1	1	0.1	44	9	129	29	24	1	1	9	0.5	7300	1100	6.00	290	0.1	0.1	116	1	200	0.8	330
883098	587273	5592386	1	0	0.1	17	2	60	9	16	1	1	6	0.1	350	1500	5.00	170	0.1	0.1	52	1	180	1.9	260
883118	599010	5586178	2	0	0.1	39	6	125	20	25	1	1	11	0.3	90	1300	7.60	360	0.1	0.1	60	1	140	0.7	220
883120	591754	5582231	1	0	0.1	33	6	86	19	19	2	1	11	0.1	160	1900	5.10	165	0.1	0.1	44	1	160	0.8	240
883128	587610	5583883	1	0	0.1	32	1	76	26	22	1	1	6	0.1	100	970	6.20	270	0.1	0.1	80	1	240	1.1	160
883129	587145	5584111	1	0	0.1	44	1	86	41	22	1	1	6	0.1	130	1100	6.20	300	0.1	0.1	104	1	200	0.7	260
883130	586269	5586261	1	0	0.1	18	3	86	22	27	1	1	5	0.1	100	1600	4.40	175	0.1	0.1	68	1	160	1.0	320
883131	583852	5586390	1	0	0.1	33	2	75	28	18	1	1	4	0.1	120	1300	5.20	230	0.1	0.1	84	1	150	1.0	310
883140	581509	5590538	1	0	0.1	21	8	146	13	23	2	1	11	0.1	190	1900	4.90	190	0.2	0.1	48	1	350	1.4	290
883229	599940	5581951	1	0	0.1	43	1	118	24	25	2	1	9	0.2	140	1600	5.70	250	0.1	0.1	56	1	200	1.7	210
883230	595842	5588169	1	0	0.1	40	4	162	29	25	4	1	16	0.1	70	1100	7.40	450	0.1	0.1	72	1	360	1.2	260
883231	595842	5588169	2	0	0.1	38	6	166	29	25	4	1	15	0.1	80	1000	7.40	475	0.1	0.1	68	1	350	1.2	260
883232	595120	5590259	1	0	0.1	34	1	67	26	31	2	1	7	0.1	90	1000	8.50	490	0.1	0.1	80	1	340	1.4	300
883234	591802	5591858	1	0	0.1	12	1	42	13	15	2	1	4	0.1	70	760	3.30	250	0.1	0.1	60	1	130	1.4	250
883235	581433	5578617	5	0	0.1	57	4	112	43	23	2	1	11	0.6	270	1000	5.20	240	0.1	0.1	104	1	160	0.9	340
883236	577473	5576393	2	0	0.1	43	2	117	26	17	2	1	11	0.6	480	600	5.40	325	0.1	0.1	112	1	190	1.5	430
883237	581201	5581401	107	56	0.1	34	3	87	12	18	1	1	12	1.6	450	2100	4.40	200	0.1	0.1	56	3	160	1.0	250
883238	584880	5589758	1	0	0.1	19	1	68	14	11	1	1	7	0.2	160	660	3.70	190	0.1	0.1	68	1	170	1.5	250
883239	603701	5581458	2	0	0.2	32	8	114	12	17	2	1	9	1.6	150	2800	4.20	170	0.1	0.1	36	1	160	1.3	220
883240	603115	5579847	2	0	0.1	54	1	122	18	23	2	1	9	0.8	110	1500	6.50	310	0.1	0.1	48	1	110	1.4	260
883262	577323	5586425	2	0	0.1	34	9	230	23	18	1	1	14	0.2	180	2100	5.10	240	0.1	0.1	72	1	180	1.2	740
883265	576512	5580729	2	1	0.1	41	1	102	28	20	2	1	11	0.8	4800	880	5.20	250	0.1	0.1	100	2	160	1.1	360
883266	576595	5580964	1	1	0.1	43	3	135	55	23	1	1	11	0.8	4100	920	5.10	220	0.1	0.1	152	1	150	1.2	420
883267	579868	5584635	4	0	0.1	44	1	87	16	15	3	1	7	0.8	230	1000	3.70	150	0.1	0.4	56	1	260	1.4	430
883270	594753	5583527	1	0	0.1	50	1	100	35	25	1	1	6	0.1	80	1300	6.00	445	0.1	0.1	112	1	90	0.5	280
883271	603377	5579861	2	0	0.1	42	1	120	25	23	3	1	9	0.2	120	1700	5.50	350	0.1	0.1	64	1	190	1.0	260
883272	595584	5583703	1	0	0.1	48	1	135	33	26	1	1	10	0.1	100	1500	6.00	300	0.1	0.1	88	1	200	1.2	240
883273	590771	5588594	2	0	0.1	26	1	90	17	15	2	1	7	0.8	230	1100	5.30	180	0.1	0.1	48	1	200	1.6	330
883274	588522	5587543	1	0	0.1	20	1	135	8	11	2	1	10	0.2	140	1300	6.60	160	0.1	0.1	40	1	220	2.0	450
KARMUTSEN FORMATION																									
90th percentile values:			**34**	**34**	**0.1**	**149**	**4**	**103**	**83**	**40**	**2**	**1**	**15**	**0.2**	**240**	**2000**	**7.00**	**550**	**0.1**	**0.1**	**288**	**1**	**180**	**1.6**	**340**
881091	601760	5569679	292	4	0.1	50	1	370	45	40	2	1	27	1.4	3600	1700	7.20	240	0.3	0.2	112	1	220	1.2	290
881092	602088	5569873	2	4	0.1	77	2	156	30	26	2	1	16	0.1	2600	1300	6.20	220	0.1	0.1	88	1	200	2.0	220
881093	602088	5569873	1	478	0.1	72	1	155	31	27	2	1	15	0.1	6500	1200	6.30	210	0.1	0.1	88	3	220	2.3	220
881157	593244	5572011	6	5	0.1	92	1	96	42	33	2	1	130	1.6	720	840	6.40	250	0.1	0.2	112	2	180	1.6	380
881159	584540	5571826	44	134	0.1	90	1	95	53	31	4	1	24	1.2	320	740	6.00	480	0.1	0.1	176	1	160	0.6	220
881204	597626	5573562	5	5	0.1	36	7	163	19	20	1	1	43	0.5	100	1900	5.20	170	0.5	0.1	56	1	240	1.8	230
881205	591232	5568944	8	3	0.1	80	3	220	38	34	1	1	120	1.2	190	1300	6.60	280	0.4	0.1	88	1	80	1.2	360
881206	585339	5572675	2	4	0.1	48	2	160	32	24	1	1	53	1.6	200	1000	5.40	300	0.2	0.1	116	1	170	1.1	310
881220	600885	5567780	3	4	0.1	45	1	178	33	23	1	1	29	0.2	1500	850	4.60	260	0.1	0.1	96	1	180	1.5	270
883058	591549	5572066	4	0	0.1	80	1	95	37	37	1	1	33	1.6	250	1200	6.30	360	0.1	0.1	88	1	200	0.8	160
883059	591264	5572448	3	3	0.1	100	1	90	45	35	2	1	110	1.8	210	1000	6.60	240	0.1	0.1	76	1	210	1.5	320
PARSON BAY FORMATION																									
90th percentile values:			**32**	**32**	**0.1**	**80**	**6**	**242**	**44**	**30**	**4**	**1**	**65**	**1.6**	**520**	**1700**	**7.60**	**360**	**0.6**	**0.2**	**160**	**2**	**310**	**3.0**	**420**
883060	588336	5574245	15	9	0.1	167	2	204	53	47	4	1	104	1.8	380	1100	7.80	190	0.1	0.1	64	1	260	2.6	400
883125	594260	5576669	14	15	0.1	118	2	54	34	21	1	1	63	0.8	2600	1000	6.00	220	0.1	0.1	96	1	270	2.0	300
883144	597908	5592684	1	0	0.1	61	1	103	13	27	1	1	12	0.2	70	1300	8.00	340	0.1	0.1	44	1	180	0.6	220
883145	600559	5592621	1	0	0.1	28	3	110	26	36	2	1	9	0.1	170	4100	3.10	125	0.1	0.1	36	1	100	5.4	100
883146	602825	5590628	984	814	7.9	2960	3	303	28	23	2	1	83	0.1	60	830	7.80	200	1.0	4.2	96	2	180	1.9	220
883147	602825	5590628	1262	286	11.3	3000	4	296	24	22	2	1	77	0.2	60	770	7.50	220	0.8	4.2	104	12	180	1.6	230
QUATSINO FORMATION																									
90th percentile values:			**34**	**34**	**0.1**	**118**	**7**	**146**	**64**	**32**	**3**	**1**	**27**	**0.8**	**270**	**1300**	**7.30**	**430**	**0.6**	**0.1**	**238**	**1**	**400**	**3.6**	**560**
883152	604029	5588888	40	76	0.2	41	7	192	26	25	1	1	20	0.2	60	1300	7.00	320	0.2	0.1	76	1	180	1.1	230
883153	604559	5587590	3	0	0.1	44	1	93	22	24	1	1	7	0.1	70	1200	6.90	340	0.1	0.1	64	1	190	1.0	220
883154	606009	5585120	3	0	0.1	44	1	90	20	27	1	1	6	0.1	120	1900	6.80	290	0.1	0.1	44	1	200	0.7	200
883155	604306	5592240	2	2	0.1	34	1	59	34	25	2	1	75	6.8	3600	740	6.80	280	0.1	0.1	124	1	390	2.4	270
LONGARM FORMATION																									
Summary statistics not calculated																									
883263	574832	5583158	2	1	0.1	39	3	152	34	18	2	1	11	0.8	1900	1200	4.90	245	0.1	0.1	116	1	160	1.2	730
883264	574832	5583158	18	0	0.1	42	5	155	36	18	1	1	11	1.0	2300	1200	5.10	235	0.1	0.1	108	1	160	1.4	720
883097	586397	5594606	2	0	0.1	19	3	78	13	18	1	1	7	0.1	90	2200	4.10	155	0.1	0.1	52	1	160	1.3	410
883099	590300	5596426	18	4	0.1	21	3	56	14	12	1	1	7	0.1	90	700	3.80	165	0.1	0.1	60	1	150	1.4	420
883100	589876	5596335	1	0	0.1	17	3	50	9	9	2	1	10	0.2	90	530	3.40	160	0.1	0.1	52	1	150	1.3	410
ISLAND INTRUSIVE SUITE	